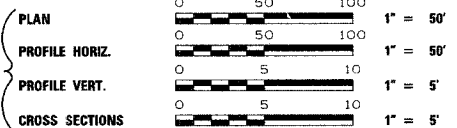


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR110	80-03108-00-BR	SCHUYLER	20	1
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
• BROS-169(35)				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PLANS FOR**

**PROPOSED LOCAL AGENCY IMPROVEMENTS  
BRIDGE REPLACEMENT & REHABILITATION PROGRAM**



**T.R. ROUTE 110  
SECTION 80-03108-00-BR  
SCHUYLER COUNTY  
BROOKLYN TOWNSHIP  
PROJECT BROS-169(35)  
JOB NUMBER C-96-222-06**



LOCATION OF SECTION INDICATED THIS: —

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES, DETAILS & TYPICAL SECTIONS
3	SCHEDULE OF QUANTITIES
4	PLAN AND PROFILE
5	EROSION CONTROL PLAN
6	RIGHT OF WAY PLAN
7 THRU 11	BRIDGE PLANS
12 THRU 20	CROSS SECTIONS

**STANDARDS**

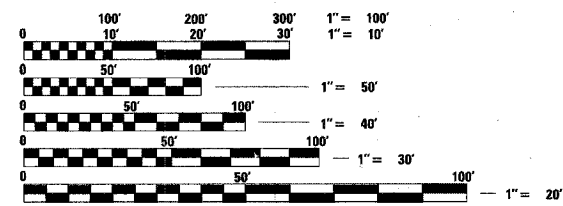
000001-04	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-02	TEMPORARY EROSION CONTROL SYSTEMS
515001-02	NAME PLATE FOR BRIDGES
542401	METAL END SECTION FOR PIPE CULVERTS
630001-06	STEEL PLATE BEAM GUARDRAIL
630301-03	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631026-C2	TRAFFIC BARRIER TERMINAL TYPE 5 & 5A
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
702001-06	TRAFFIC CONTROL DEVICES
B.L.R. 21-6	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

**GENERAL NOTES**

- WHEN SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER OR AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- SEE SPECIAL PROVISIONS FOR SEEDING RATES.

**UTILITIES**

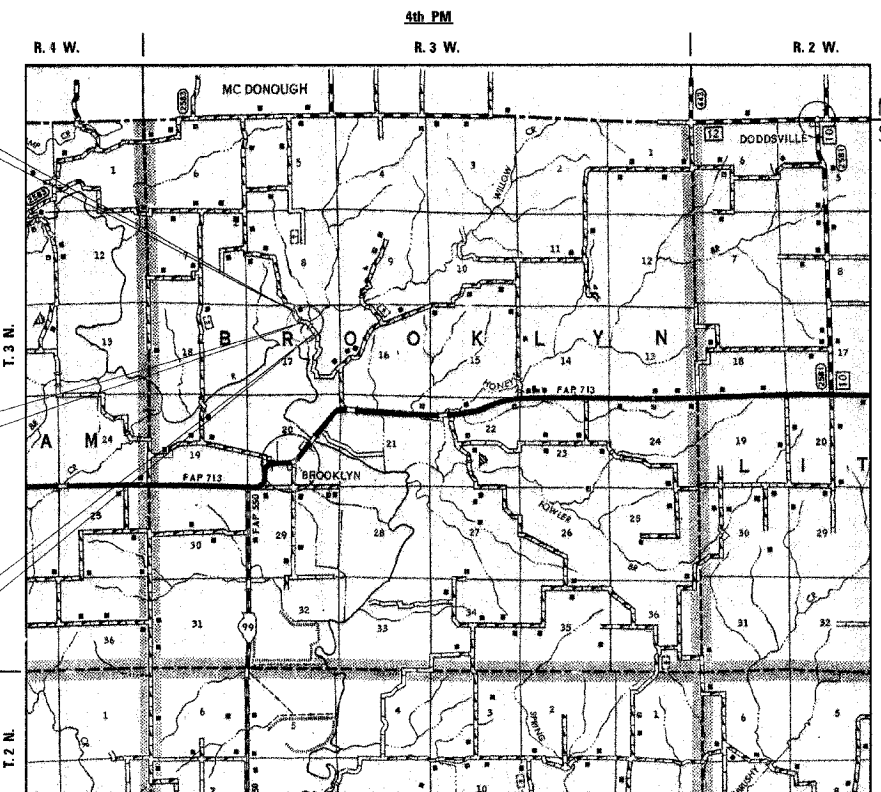
(NONE PRESENT)



**EXISTING STRUCTURE**  
SN: 085-4303  
SINGLE SPAN TIMBER PLANKS ON STEEL STRINGERS WITH CLOSED REINFORCED CONCRETE ABUTMENTS. (30'-0" LENGTH x 14'-0" WIDE) TO BE REMOVED

**PROPOSED STRUCTURE**  
SN: 085-4307  
SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM (33" DEPTH) WITH REINFORCED CONCRETE SPILL THRU ABUTMENTS. (78'-10 1/4" LENGTH x 24'-0" WIDE)

STA. 11+80.00  
END IMPROVEMENTS  
SECTION 80-03108-00-BR



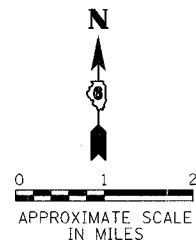
**LOCATION MAP**

NET LENGTH OF PROJECT = 866.26 FEET = 0.164 MILES

**DESIGN DESIGNATION**

LOCAL ROAD: ADT < 150  
DESIGN SPEED: 30 MPH

"PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS"



SIGNATURE: *William C. Bortz*

EXPIRES: 11/30/07

APPROVED	6-9	2006
	<i>David L. Schneider</i>	COUNTY ENGINEER
APPROVED	6-9	2006
	<i>James H. Hoffman</i>	ROAD COMMISSIONER
PASSED	8-21	20 06
	<i>John F. ...</i>	DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS
PASSED	8-22	20 06
	<i>John ...</i>	DISTRICT SEVEN ENGINEER OF CONSTRUCTION
Releasing For Bid Based on Limited Review	8-21	20 06
	<i>Christine M. Reed</i>	DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		

**PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS**

**PLANS PREPARED BY:**

REVISION	DATE	BY	COMPUTER FILE NO.
			0234ICOVER
			PROJECT: 02341
			03/03/06 - HEB

**GREENE & BRADFORD, INC.**  
OF SPRINGFIELD

CONSULTING ENGINEERS  
REGISTERED PROFESSIONAL ENGINEERS  
OF ILLINOIS  
CORPORATION  
1000 W. ...  
CHICAGO, ILLINOIS 60607  
TEL: 312-344-1000 FAX: 312-344-1001  
WWW.GREENE-AND-BRADFORD.COM

DESIGN	INT.	DATE	REASON

PLOTS & CHECKS	INT.	DATE	NO.	REASON

FILE NAME = J:\0234\DRAWINGS\0234ICOVER.dgn  
PLOT SCALE = 1:50  
PLOT DATE = 03/03/06  
PLOT TIME = 2:16:20 PM  
OPERATOR = daveh

CHECKS	INT.	DATE	REASON

CONTRACT NO. 93424



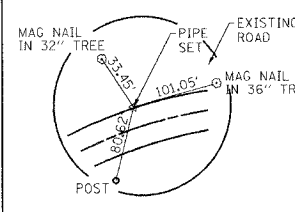


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 110	80-03108-00-BR	SCHUYLER	20	4
STA.	3+00	TO STA.	12+00	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT * BROS-169(35)				

DESIGN	INT. DATE	REASON

MICHAEL WISIENWSKI, et al.

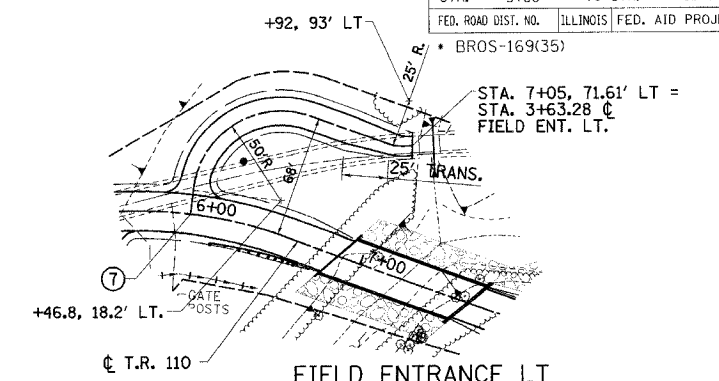
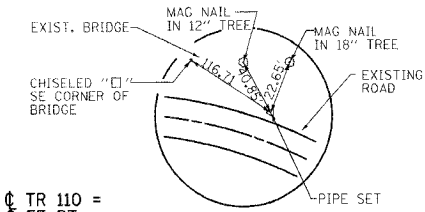
SEC. 17, T. 3 N., R. 3 W., 4TH P.M.



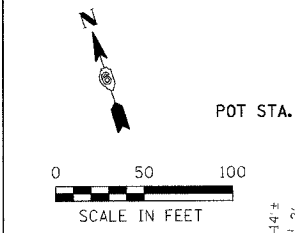
⑧ STA 7+17, 75' LT. TWIN PIPE CULVERTS, CLASS D, TYPE 1 72" (CMP) = 2x26 FOOT END SECTIONS 72" = 4 EACH USFL = 482.91 DSFL = 482.55  
 WATERWAY INFORMATION AREA = 0.87 SQ. MI. PROVIDED OPENING = 56.52 SQ. FT. EXISTING OPENING = 57.8 SQ. FT. Q<sub>30</sub> = 660 CFS DHWE<sub>30</sub> = 488.35 FT. Q<sub>100</sub> = 914 CFS DHWE<sub>100</sub> = 489.41 FT. OVERTOPPING 15 YEAR Q<sub>15</sub> = 523 CFS DHWE<sub>15</sub> = 487.74 FT.

CURVE DATA C-3  
 PI STA. = 9+80.58  
 Δ = 40° 00' 01.7" (RT)  
 D = 23° 00' 00.7"  
 R = 249.11'  
 T = 90.67'  
 L = 173.91'  
 E = 15.99'  
 P.C. STA. = 8+89.91  
 P.T. STA. = 10+63.82  
 NORMAL CROWN

BM: CHISELED "C" IN S.E. CORNER OF EXISTING BRIDGE ABUTMENT ELEV. = 489.78



PI STA. 5+80.94

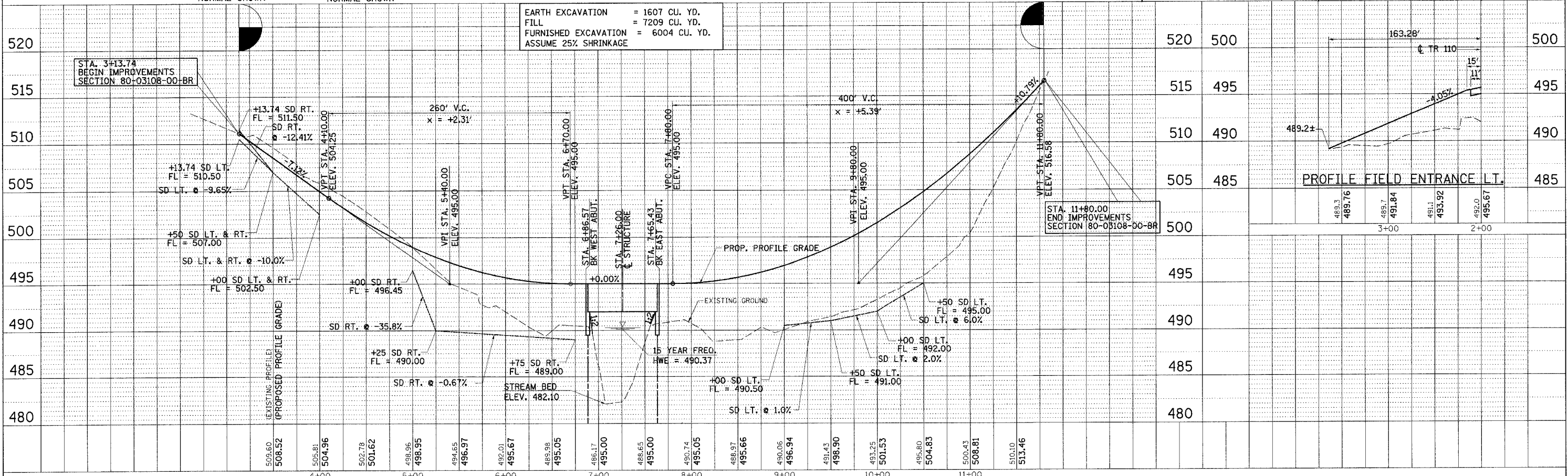


- ⑤ STA. 5+50 C TR 110 = STA. 1+00 C FE RT.
- ⑥ STA 5+50, 36' RT. PIPE CULVERTS, CLASS D, TYPE 1 36" (CMP) = 29 FOOT END SECTIONS 36" = 2 EACH USFL = 489.93 DSFL = 489.74
- ⑦ STA. 6+00 C TR 110 = STA. 2+00 C FE LT.

CURVE DATA C-2  
 PI STA. = 5+80.94  
 Δ = 35° 59' 59.4" (RT)  
 D = 23° 00' 00.6"  
 R = 249.11'  
 T = 80.94'  
 L = 156.52'  
 E = 12.82'  
 P.C. STA. = 5+00.00  
 P.T. STA. = 6+56.52  
 NORMAL CROWN

CURVE DATA C-1  
 PI STA. = 4+48.74  
 Δ = 30° 17' 41.6" (LT)  
 D = 44° 18' 56.2"  
 R = 129.29'  
 T = 35.00'  
 L = 68.36'  
 E = 4.65'  
 P.C. STA. = 4+13.74  
 P.T. STA. = 4+82.10  
 NORMAL CROWN

EARTH EXCAVATION = 1607 CU. YD.  
 FILL = 7209 CU. YD.  
 FURNISHED EXCAVATION = 6004 CU. YD.  
 ASSUME 25% SHRINKAGE



NOTES

- SEE RIGHT-OF-WAY SHEET FOR ADDITIONAL DETAILS.
- DEGRADING OF EXISTING ROADWAY WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CU.YD. FOR EARTH EXCAVATION.

REVISION	DATE	BY

GREENE & BRADFORD, INC. OF SPRINGFIELD  
 REGISTERED PROFESSIONAL ENGINEERS  
 LICENSE NO. 12577  
 PROJECT: 02341  
 3/3/06 - MML

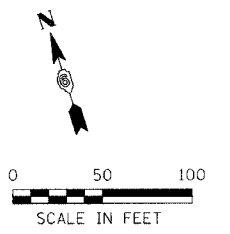
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PLOT TIME	DATE
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OPERATOR	DATE
PROF. FILE	DATE
NOTE BOOK	DATE
STRUCTURE	DATE

CHECKS	INT. DATE	REASON

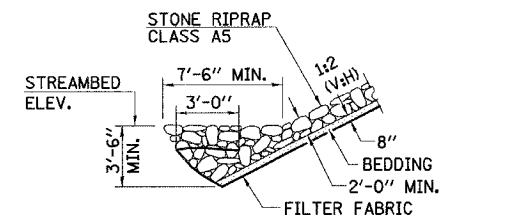
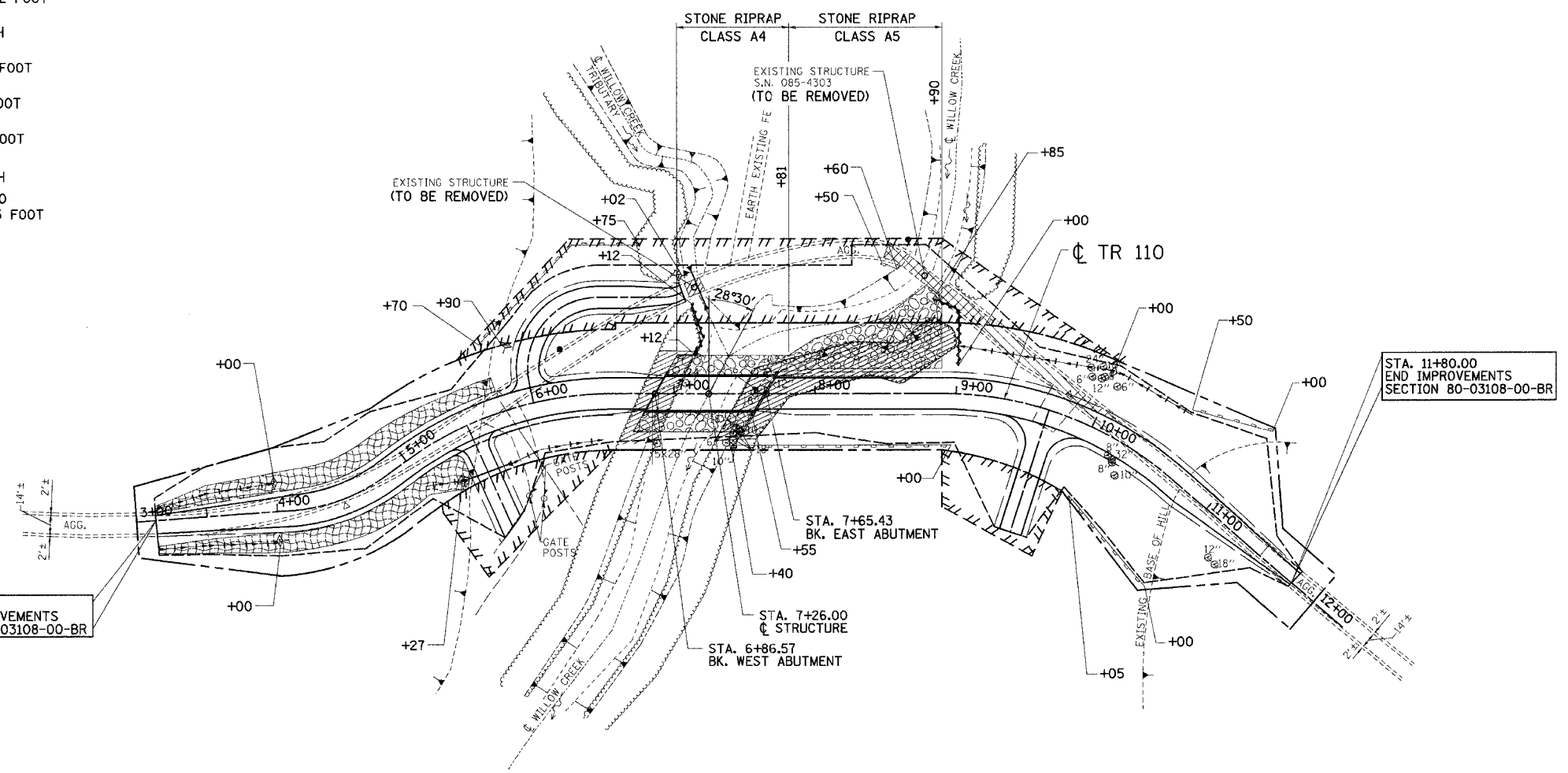
SEC. 17, T. 3 N., R. 3 W., 4TH P.M.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 110	80-03108-00-BR	SCHUYLER	20	5
STA.	3+00	TO STA.	12+00	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	*	

\* BR05-169(35)



- LT. STA. 3+13.74 TO LT. STA. 5+70  
EROSION CONTROL BLANKET = 334 SQ. YD.
- LT. STA. 4+00  
TEMPORARY DITCH CHECK = 1 EACH
- LT. STA. 5+90  
TEMPORARY DITCH CHECK = 1 EACH
- LT. STA. 5+70 TO RT. STA. 6+75  
PERIMETER EROSION BARRIER = 142 FOOT
- LT. STA. 7+02  
TEMPORARY DITCH CHECK = 1 EACH
- LT. STA. 7+12 TO LT. STA. 7+12  
FENCE (EROSION CONTROL) = 40 FOOT
- LT. STA. 8+50 TO LT. STA. 8+60  
FENCE (EROSION CONTROL) = 12 FOOT
- LT. STA. 8+85 TO LT. STA. 9+00  
FENCE (EROSION CONTROL) = 60 FOOT
- LT. STA. 10+00  
TEMPORARY DITCH CHECK = 1 EACH
- LT. STA. 10+50 TO LT. STA. 11+00  
PERIMETER EROSION BARRIER = 55 FOOT



TYPICAL STONE RIPRAP, CLASS A5

LEGEND

- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK
- EROSION CONTROL BLANKET
- FENCE (EROSION CONTROL)

- RT. STA. 3+3.74 TO RT. STA. 5+38  
EROSION CONTROL BLANKET = 343 SQ. YD.
- RT. STA. 4+00  
TEMPORARY DITCH CHECK = 1 EACH
- RT. STA. 5+27  
INLET AND PIPE PROTECTION = 1 EACH
- RT. STA. 7+40 TO RT. STA. 7+55  
FENCE (EROSION CONTROL) = 30 FOOT
- RT. STA. 7+40 TO RT. STA. 9+00  
PERIMETER EROSION BARRIER = 160 FOOT
- RT. STA. 10+05 TO RT. STA. 11+00  
PERIMETER EROSION BARRIER = 83 FOOT

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**EROSION CONTROL PLAN**  
 T.R. ROUTE 110  
 SECTION 80-03108-00-BR  
 BROOKLYN TOWNSHIP  
 SCHUYLER COUNTY

REVISIONS	
NAME	DATE

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE 04/22/03 - PAM

DRAWN BY: MABUS  
 DESIGNED BY: KUNTZMAN  
 CHECKED BY: COLBROOK

GREENE & BRADFORD, INC.  
 OF SHERIDAN

COMPUTER FILE NO. 2341EC  
 PROJECT 02341  
 04/20/04 - MML

DESIGN		
INT.	DATE	REASON

PLOTS & CHECKS		
INT.	DATE	REASON

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 PLOT DATE = 6/30/2006  
 PLOT BY = MICHAEL  
 OPERATOR = MICHAEL

CHECKS		
INT.	DATE	REASON

RIGHT OF WAY PLAT  
NE 1/4, SECTION 17, T. 3 N., R. 3 W., 4th P.M.

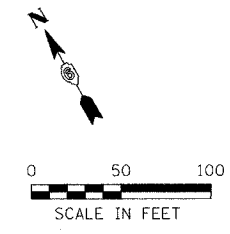
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 110	80-03108-00-BR	SCHUYLER	20	6
STA.	3+13.74	TO STA.	12+00	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		*	

\* BROS-169(35)

MICHAEL J. AND BRED A M. WISNIEWSKI  
AND JEANETTE A. WISNIEWSKI

NET R.O.W. AREA: 1.859 AC (80,971 SQ. FT.)  
 AREA IN TEMP. CONST. EASEMENT E-1: 0.088 AC (3812 SQ. FT.)  
 AREA IN TEMP. CONST. EASEMENT E-2: 0.105 AC (4574 SQ. FT.)  
 AREA IN TEMP. CONST. EASEMENT E-3: 0.502 AC (21,885 SQ. FT.)

IRON PIPE FOUND  
NE COR. W 1/2 NE 1/4  
SEC 17, T3N, R3W, 4TH P.M.



**CURVE DATA C-1**  
 PI STA. = 4+48.74  
 $\Delta = 30^\circ 17' 41.6''$  (LT)  
 D = 44' 18" 56.2"  
 R = 129.29'  
 T = 35.00'  
 L = 68.36'  
 E = 4.65'  
 P.C. STA. = 4+13.74  
 P.T. STA. = 4+82.10

**CURVE DATA C-2**  
 PI STA. = 5+80.94  
 $\Delta = 35^\circ 59' 59.4''$  (RT)  
 D = 23' 00" 01"  
 R = 249.11'  
 T = 80.94'  
 L = 156.52'  
 E = 12.82'  
 P.C. STA. = 5+00.00  
 P.T. STA. = 6+56.52

**CURVE DATA E-4**  
 $\Delta = 22^\circ 11' 59''$   
 R = 294.11'  
 T = 57.70'  
 L = 113.96'  
 CH = 113.24'  
 CH BEARING = N 70°22'32" W

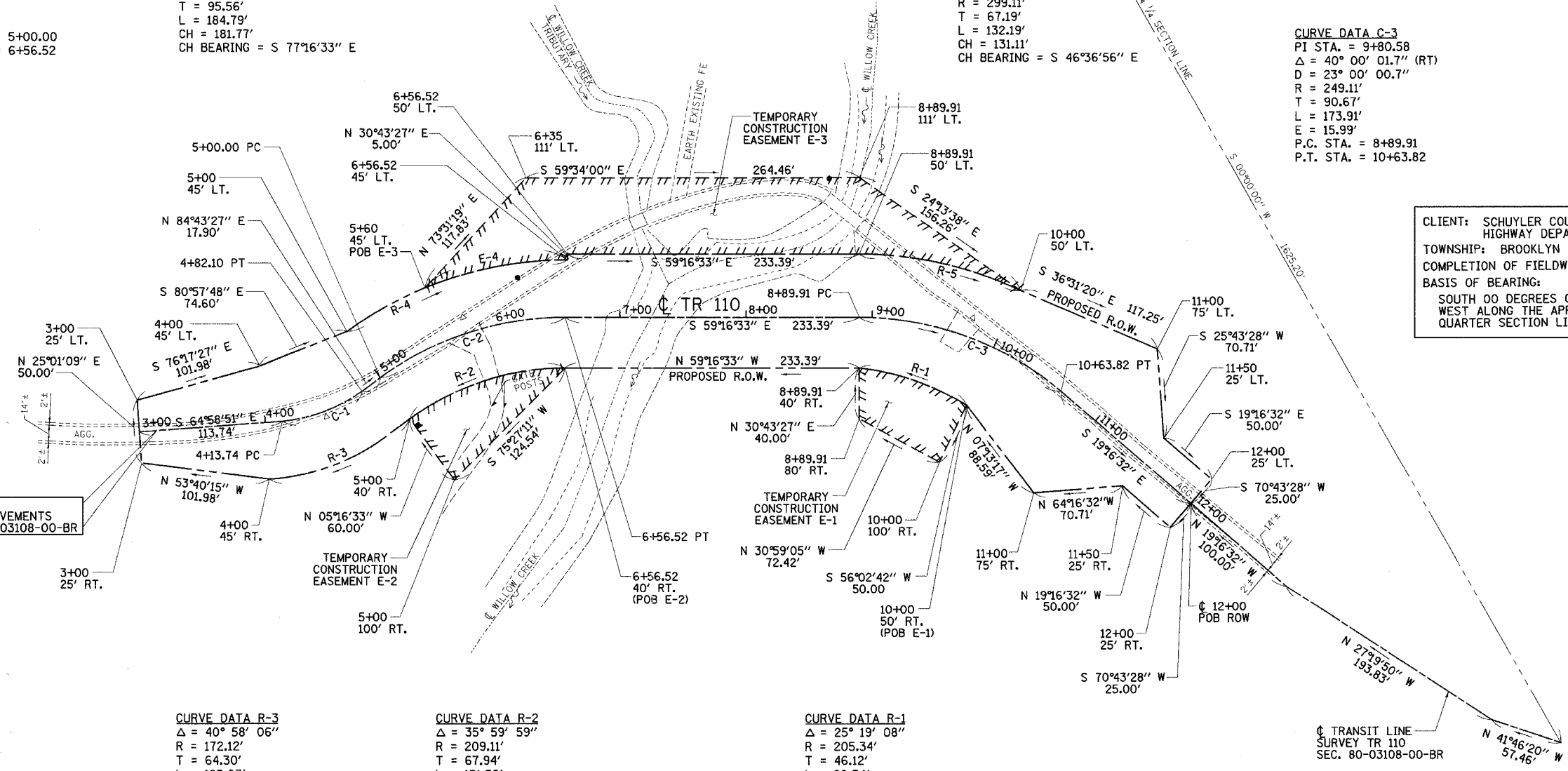
**CURVE DATA R-4**  
 $\Delta = 35^\circ 59' 59''$   
 R = 294.11'  
 T = 95.56'  
 L = 184.79'  
 CH = 181.77'  
 CH BEARING = S 77°16'33" E

**CURVE DATA R-5**  
 $\Delta = 25^\circ 19' 15''$   
 R = 299.11'  
 T = 67.19'  
 L = 132.19'  
 CH = 131.11'  
 CH BEARING = S 46°36'56" E

**CURVE DATA C-3**  
 PI STA. = 9+80.58  
 $\Delta = 40^\circ 00' 01.7''$  (RT)  
 D = 23' 00" 00.7"  
 R = 249.11'  
 T = 90.67'  
 L = 173.91'  
 E = 15.99'  
 P.C. STA. = 8+89.91  
 P.T. STA. = 10+63.82

CLIENT: SCHUYLER COUNTY  
HIGHWAY DEPARTMENT  
TOWNSHIP: BROOKLYN  
COMPLETION OF FIELDWORK: 3/1/2004  
BASIS OF BEARING:  
SOUTH 00 DEGREES 00 MINUTES 00 SECONDS  
WEST ALONG THE APPARENT QUARTER,  
QUARTER SECTION LINE.

STA. 3+13.74  
BEGIN IMPROVEMENTS  
SECTION 80-03108-00-BR



**CURVE DATA R-3**  
 $\Delta = 40^\circ 58' 06''$   
 R = 172.12'  
 T = 64.30'  
 L = 123.07'  
 CH = 120.46'  
 CH BEARING = N 82°56'31" W

**CURVE DATA R-2**  
 $\Delta = 35^\circ 59' 59''$   
 R = 209.11'  
 T = 67.94'  
 L = 131.39'  
 CH = 129.24'  
 CH BEARING = N 77°16'33" W

**CURVE DATA R-1**  
 $\Delta = 25^\circ 19' 08''$   
 R = 205.34'  
 T = 46.12'  
 L = 90.74'  
 CH = 90.00'  
 CH BEARING = N 40°23'31" W

**LEGEND**

	CENTERLINE
	EXISTING R.O.W. LINE
	PROPOSED R.O.W. LINE
	SECTION LINE

\*\* FOR INFORMATION ONLY

REVISIONS	
DATE	DESCRIPTION

ILLINOIS DEPT. OF TRANSPORTATION  
RIGHT OF WAY PLANS

ROUTE TOWNSHIP ROAD 110  
 SECTION 80-03108-00-BR  
 COUNTY SCHUYLER  
 JOB#                      PROJECT#                       
 SEC 17 T 3 N, R 3 W OF 4th P.M.  
 STA 3+13.74 TO STA 12+00  
 DRAWN MABUS CHECKED KUNTZMAN/COLEBROOK  
 SCALE: 1" = 50' SHEET NO. 1 OF 2

GREENE & BRADFORD, INC.  
OF SPRINGFIELD  
REGISTERED PROFESSIONAL ENGINEERS  
ILLINOIS LICENSE NO. 021-0078  
PROFESSIONAL DESIGN FIRM NO. 021-0078  
PROFESSIONAL SURVEYING CORPORATION  
021-195-884, 021-735-227, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

COMPUTER FILE NO. 2341F10-50  
PROJECT 02341  
1/11/06-MML

APPROVED BY \_\_\_\_\_ DISTRICT ENGINEER  
DATE \_\_\_\_\_

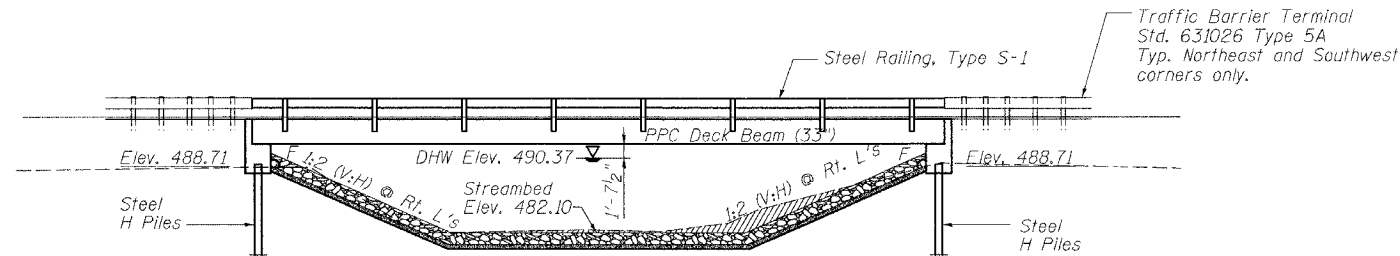
DRAWN BY \_\_\_\_\_  
WRITTEN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
INSPECTED BY \_\_\_\_\_

Bench Mark: Chiseled square in SE corner of Existing Bridge, Elev. 489.78.

Existing Structure: Single Span (14' Wide x 30' Long) Timber Plank Superstructure on I-Beam Stringers with Reinforced Concrete Abutments. Built as SN 085-4303. To Be Removed. No Salvage.

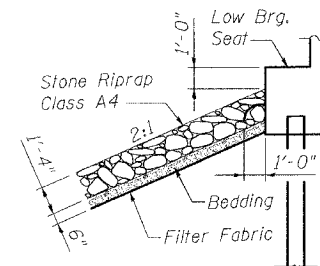
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	ESTIM. SHEETS	SHEET NO.	SHEET NO. 1
TR 110	*	SCHUYLER	20	7	5 SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	**		
		** 80-03108-00-BR			
		** BR05-169(35)			



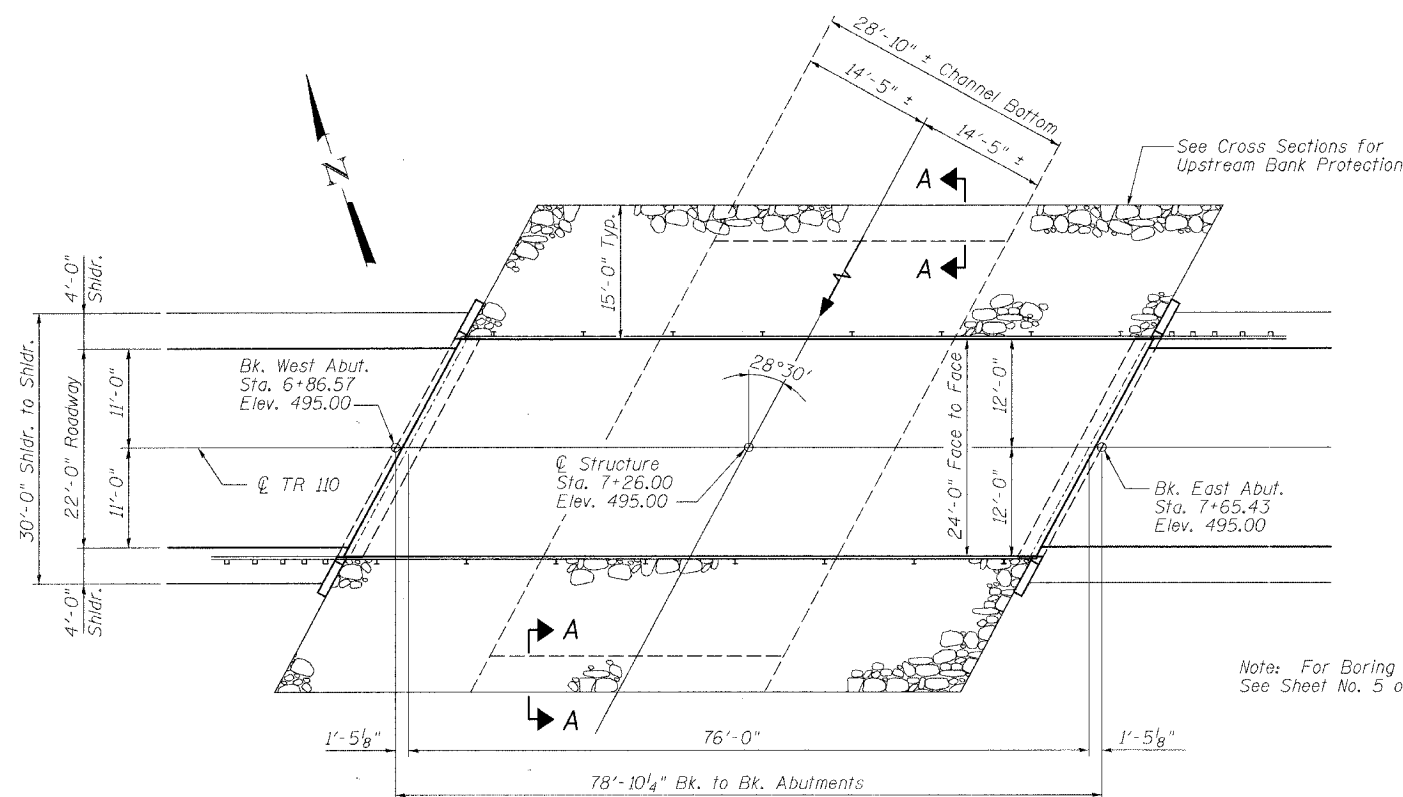
ELEVATION

Note: Hatched area denotes Channel Excavation. See Roadway Plans for quantity.



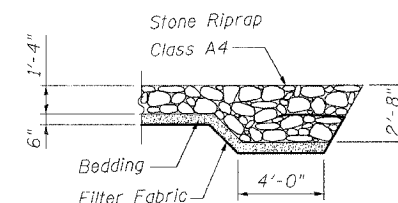
STONE RIPRAP DETAIL

- GENERAL NOTES**
- Reinforcement bars shall conform to the requirements of AASHTO M 31, M322 Grade 60.
  - Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
  - The contractor shall drive one steel HP10x42 test pile in a permanent location at the East Abutment as directed by the Engineer before ordering the remainder of piles.
  - See Bridge Sheet No. 5 for Boring Logs.



PLAN

Note: For Boring Location See Sheet No. 5 of 5.



SECTION A-A



PROPOSED PROFILE GRADE

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Ton		265	265
Filter Fabric	Sq. Yd.		543	543
Removal of Existing Structures No. 1	Each			1
Concrete Structures	Cu. Yd.		25.0	25.0
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	1856		1856
Reinforcement Bars, Epoxy Coated	Pound		3910	3910
Steel Railing, Type S-1	Foot	155		155
Furnishing Steel Piles HP 10x42	Foot		225	225
Driving Steel Piles	Foot		225	225
Test Pile Steel HP 10x42	Each		1	1
Name Plates	Each		1	1



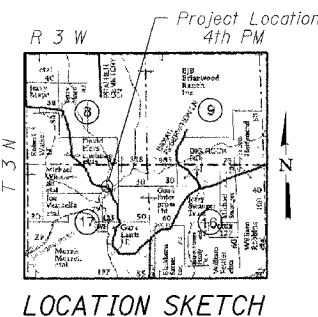
Expires: 11/30/06

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 requirements of the current A.A.S.H.T.O. Standard Specifications for Highway Bridges.

Signed: *Michael J. Trello*  
Dated: 7/12/06

**LOADING HS20-44**  
Allow 50#/sq. ft. for future wearing surface.  
**DESIGN SPECIFICATIONS**  
2002 AASHTO Standard Specifications

**DESIGN STRESSES**  
FIELD UNITS  
 $f_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)  
**PRECAST PRESTRESSED UNITS**  
 $f_c = 5,000$  psi  
 $f_{ci} = 4,000$  psi  
 $f_s = 270,000$  psi ( $1/2"$   $\phi$  low lax strands)  
 $f_{si} = 201,960$  psi ( $1/2"$   $\phi$  low lax strands)



WILLOW CREEK  
BUILT BY  
SCHUYLER COUNTY  
SECTION 80-03108-00 BR  
T.R. 110 STA. 7+26  
STR. NO. 085-4307  
LOADING HS20

**NAME PLATE**  
See Standard 515001  
and Abut Detail (Sht. 4 of 5)

WATERWAY INFORMATION

Drainage Area = 10.50 Sq. Mi. Low Grade Elev. 495.00 @ Sta. 7+26.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	15	1830	599	344	490.37	0.16	0.02	490.53	490.39
Base	100	3060	850	463	492.15	0.16	0.98	492.31	493.13
Overtopping	2	675	259	-	488.60	0.19	-	488.79	-
Max. Calc.	500	4120	-	463	492.69	-	1.82	-	494.51

Construction Permits: The requirements of the IDNR-Office of Water Resources have been fulfilled in accordance with Statewide Permit No. 2.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
GENERAL PLAN AND ELEVATION

TR 110 OVER WILLOW CREEK  
STA. 7+26.00  
SCHUYLER COUNTY  
S.N. 085-4307

SCALE: VERT. 1"=10'  
HORIZ. 1"=40'  
DATE: 9/8/04  
DRAWN BY: LANDREY  
DESIGNED BY: MATHUR  
CHECKED BY: TRELLO  
COMPUTER FILE NO. SN0854307.GPE  
PROJECT 02341  
5/12/06-MML

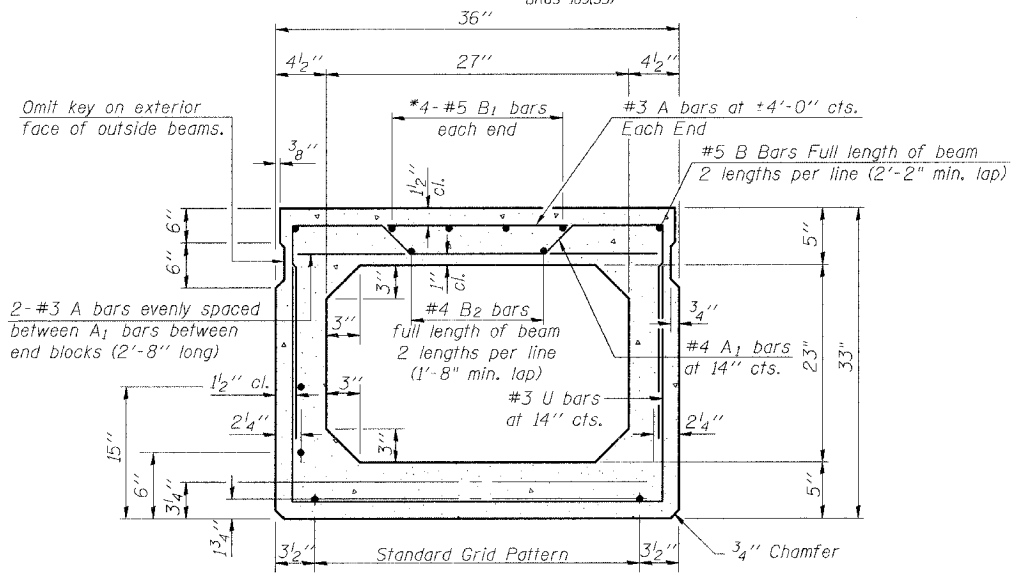
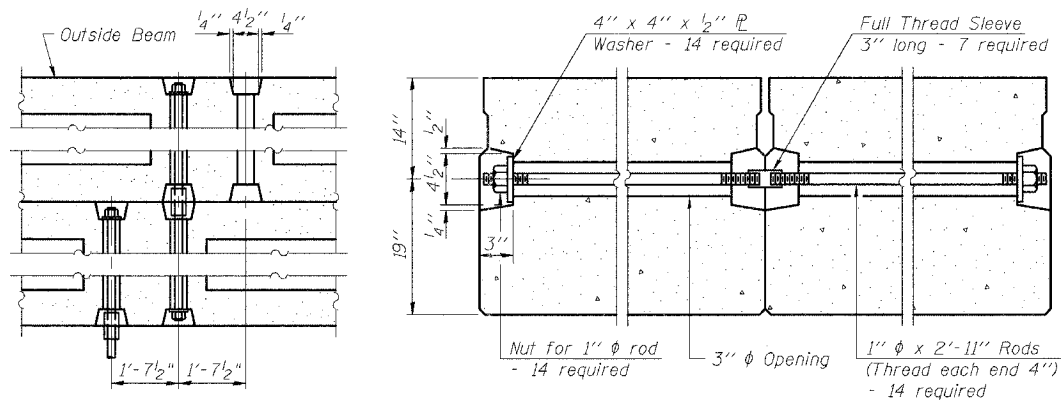
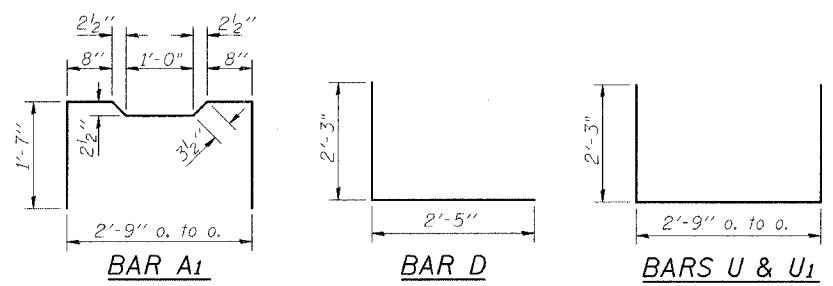
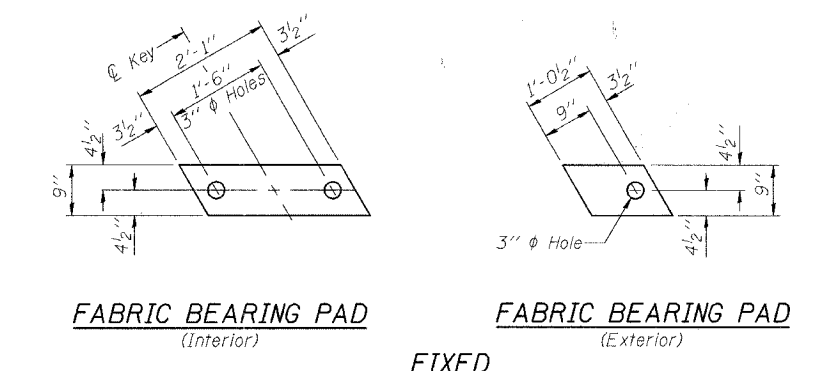
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PLOT TIME = 3:56:45 PM  
OPERATOR = mtrelo

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
TR 110		SCHUYLER	20	8
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	##	
		80-03108-00-BP		
		BR05-169(35)		

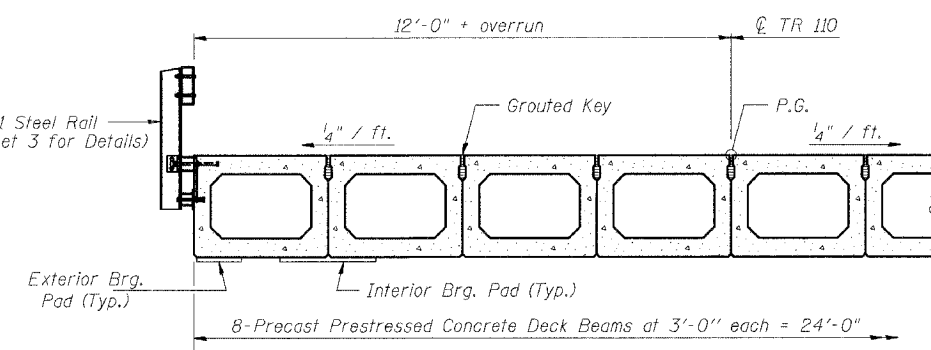
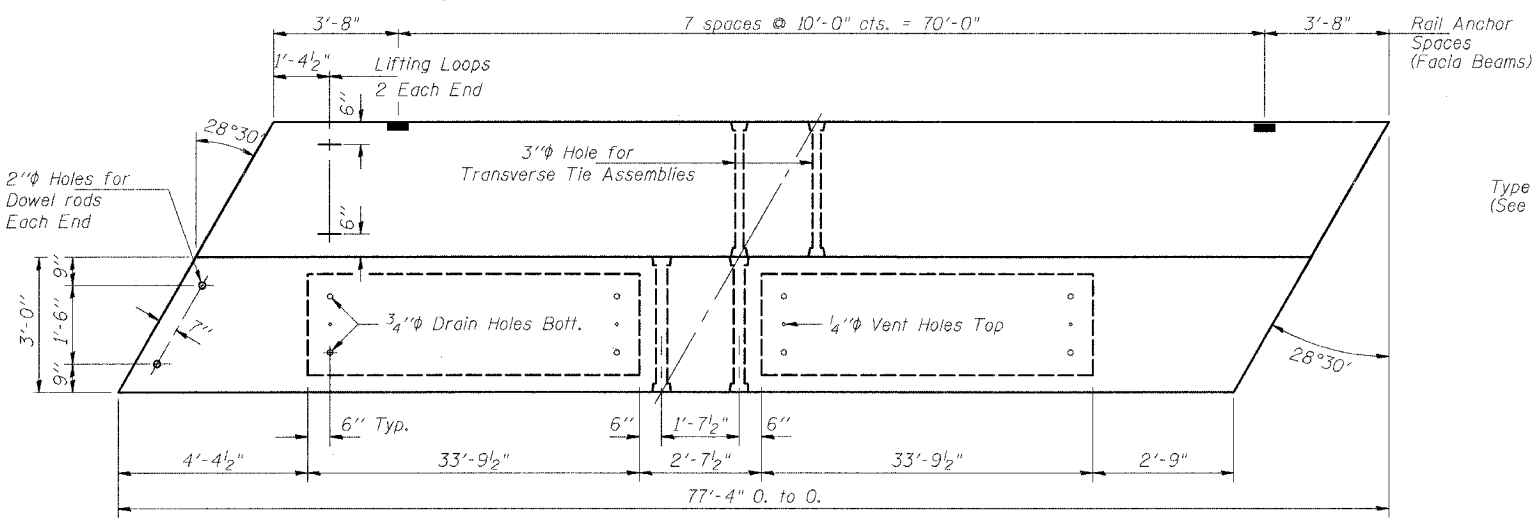
SHEET NO. 2  
5 SHEETS

\*0.2 x Length of beam  
(15'-6")



18 - 1/2"  $\phi$  Strands, Each Strand Stressed to 30,900 Lbs.  
10-Strands 1 3/4" up, 6-Strands 3 1/4" up, 2-Strands 15" up

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



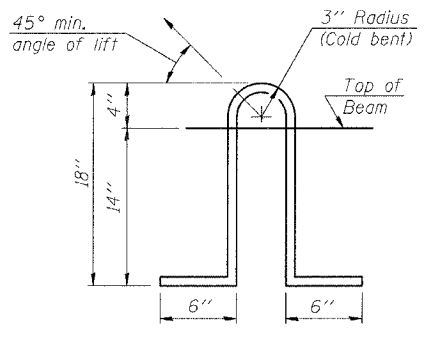
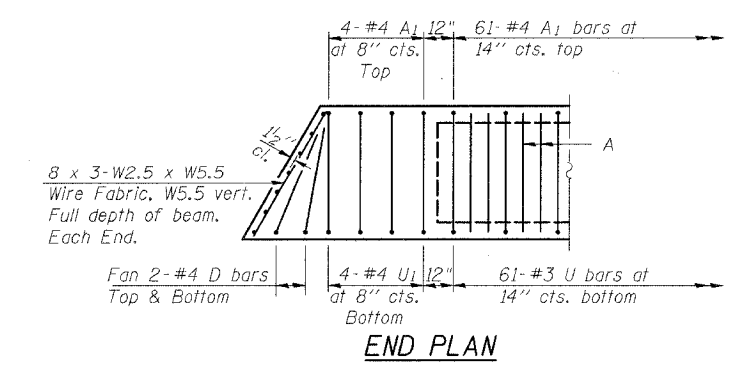
**\*BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
A	130	#3	2'-8"	—
A1	69	#4	6'-1"	U
B	4	#5	39'-6"	—
B1	8	#5	15'-6"	—
B2	4	#4	39'-4"	—
D	8	#4	4'-8"	L
U	61	#3	7'-3"	U
U1	8	#4	7'-3"	U
Precast Prestressed Conc. Deck Bms.				Sq. Ft. 1856

\* Bar quantity is for 1 beam and is for information only

**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 3-1/2"  $\phi$  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, M-42 or M-53 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. Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUPERSTRUCTURE DETAILS**

TR 110 OVER WILLOW CREEK  
STA. 7+26.00  
SCHUYLER COUNTY  
S.N. 085-4307

SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_  
DATE: 9/8/04

DRAWN BY: LANDREY  
DESIGNED BY: MATHUR  
CHECKED BY: TRELLO

COMPUTER FILE NO.  
SN0854307.SS  
PROJECT 02341  
4/7/06-MML

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PLOT TIME = 9/8/04 10:22:04  
OPERATOR = michaell

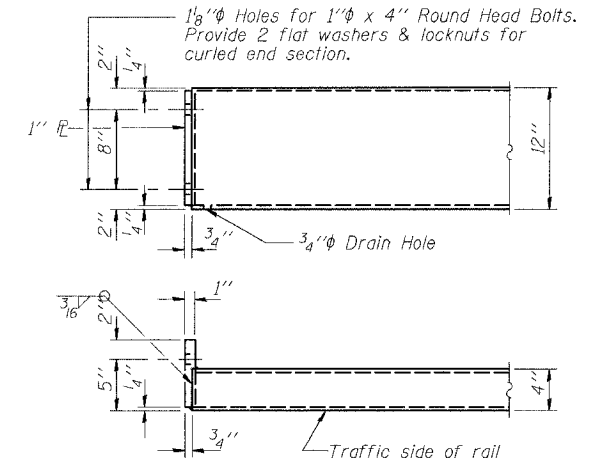
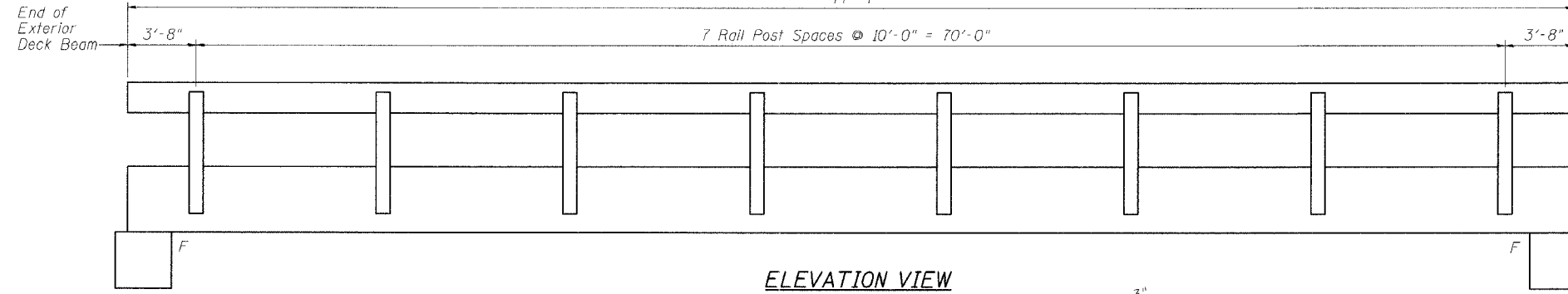
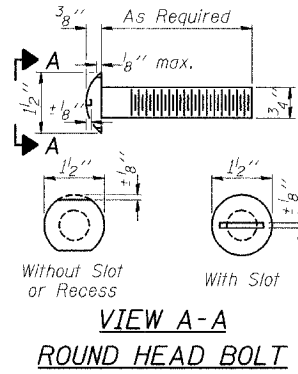


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
TR 110	*	SCHUYLER	20	9
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-	##	

\* 80-03108-00-BR  
\*\* BR05-169(35)

5 SHEETS



END OF RAIL DETAILS

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, end sections 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 RAILING, TYPE S-1. All field drilled holes shall be coated with an approved zinc rich paint before erection. The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8 inch fabric bearing pad between the post 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 Railing Type S-1	Foot	155

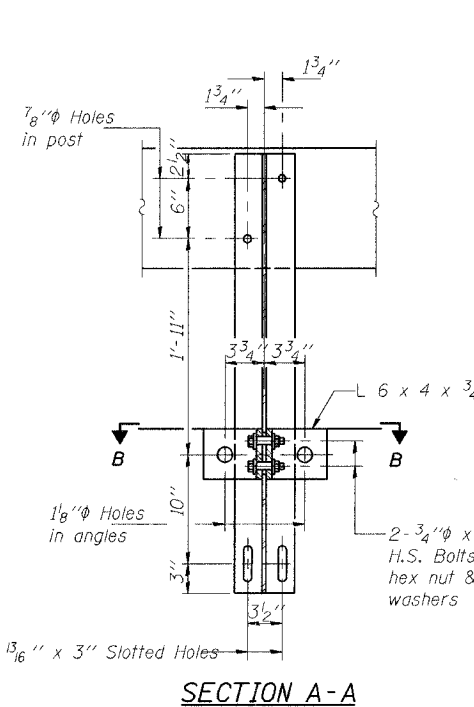
ILLINOIS DEPARTMENT OF TRANSPORTATION  
TYPE S-1 STEEL RAILING

TR 110 OVER WILLOW CREEK  
STA. 7+26.00  
SCHUYLER COUNTY  
S.N. 085-4307

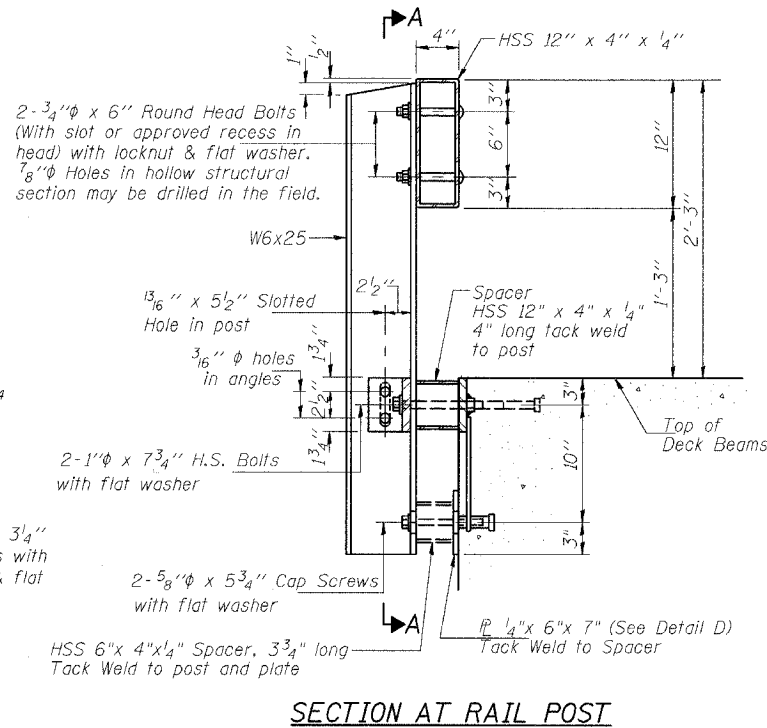
SCALE: VERT. HORIZ. DATE: 9/8/04  
DRAWN BY: LANDREY  
DESIGNED BY: MATHUR  
CHECKED BY: TRELLO

GREENE & BRADFORD, INC. OF SPRINGFIELD  
COMPUTER FILE NO. SN0854307\_RL  
PROJECT 02341  
4/7/06-MML

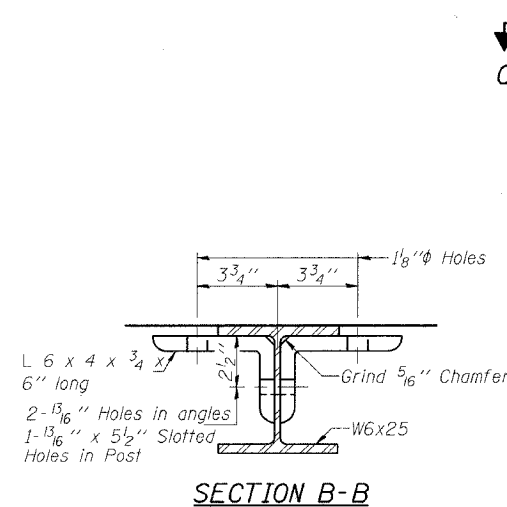
REVISIONS	
NAME	DATE



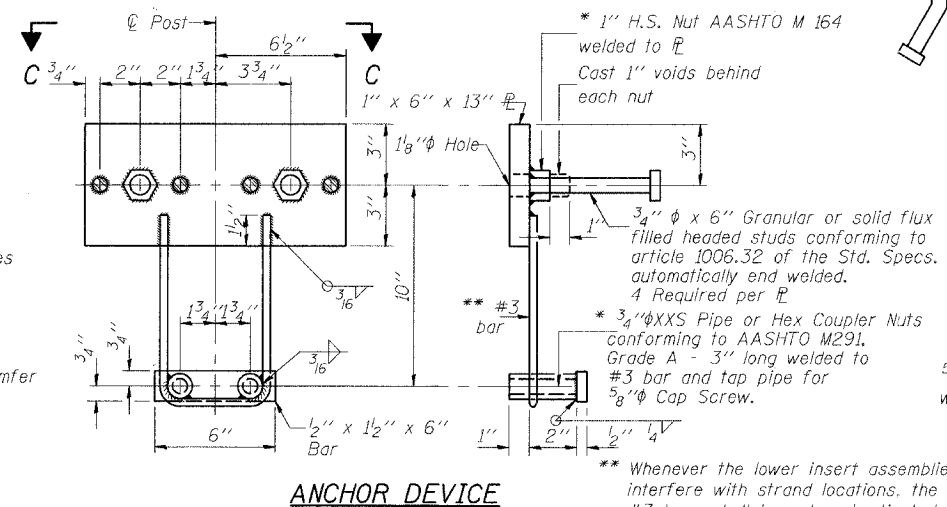
SECTION A-A



SECTION AT RAIL POST



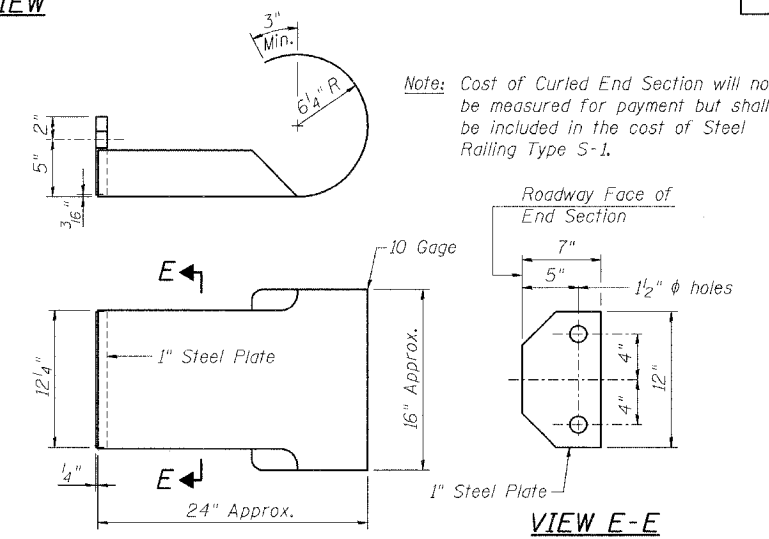
SECTION B-B



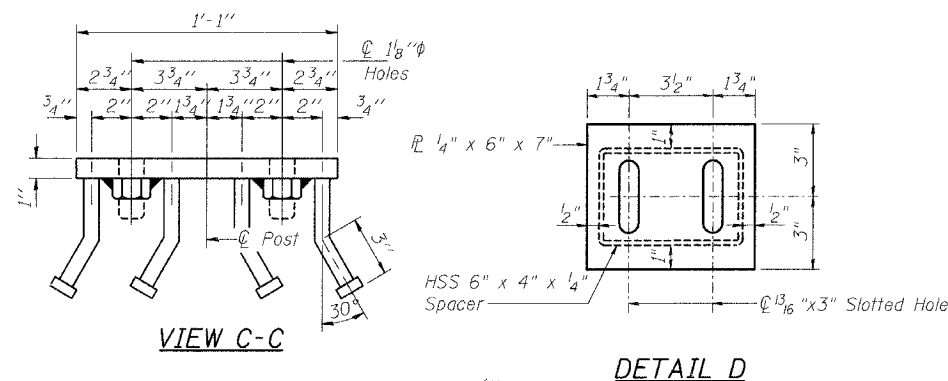
ANCHOR DEVICE

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

\*\* 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.

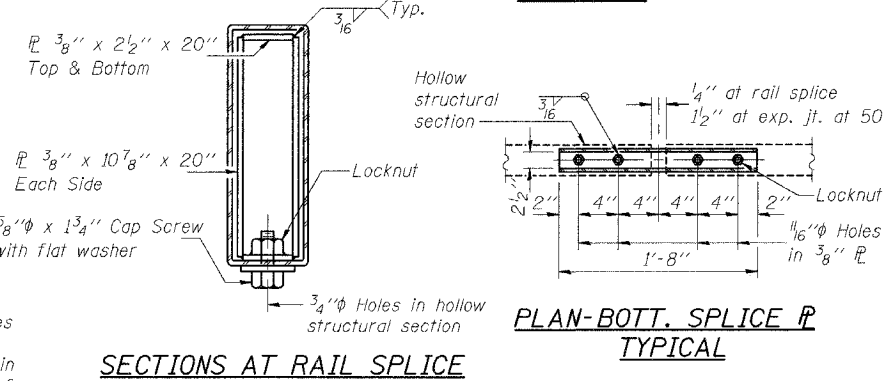


CURLED END SECTION DETAILS



VIEW C-C

DETAIL D



SECTIONS AT RAIL SPLICE

PLAN-BOTT. SPLICE TYPICAL

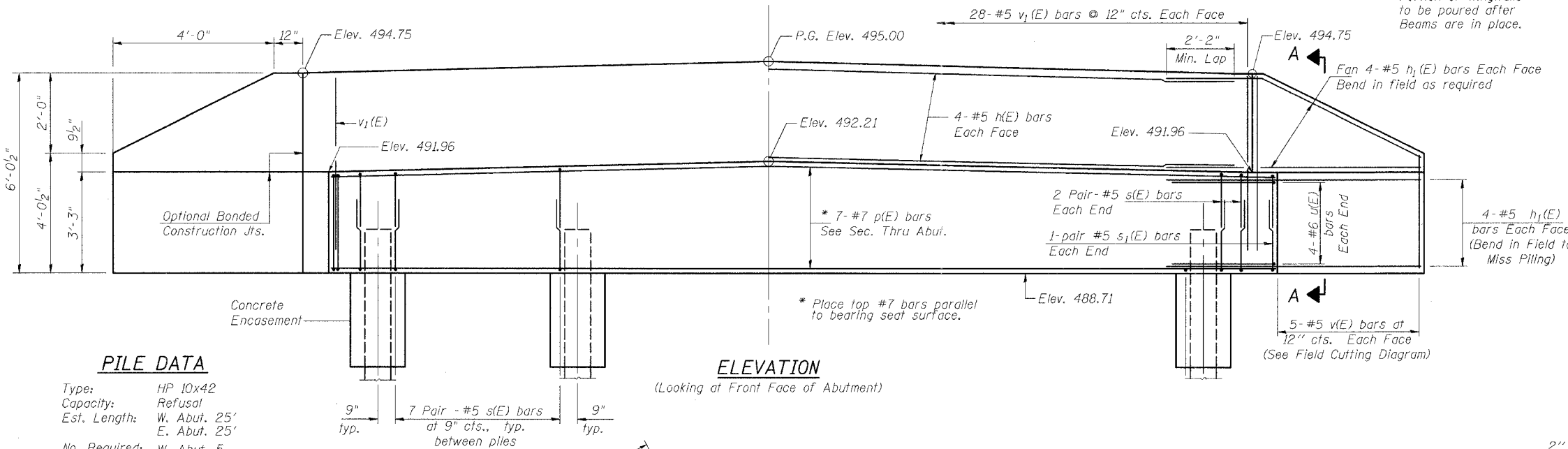
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PLOT DATE: 6/30/2006  
PLOT TIME: 10:05:17 AM  
OPERATOR: michellel

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Note: Backwall and Upper Portion of Wingwalls to be poured after Beams are in place.

ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.
TR 110	*	SCHUYLER	20	10
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	**	
* 80-03108-00-BR				
** BR05-169(35)				

SHEET NO. 4  
5 SHEETS

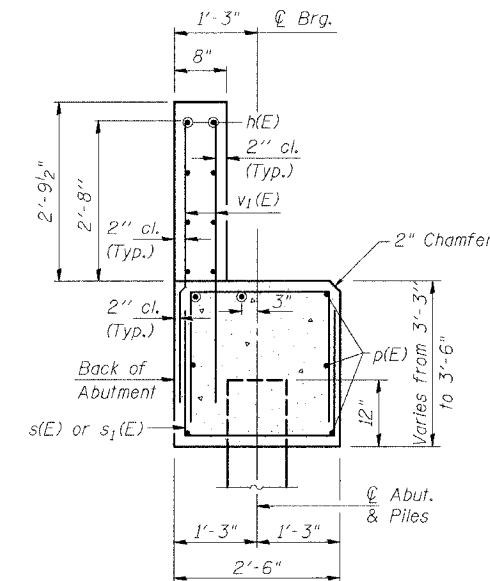


**PILE DATA**

Type: HP 10x42  
Capacity: Refusal  
Est. Length: W. Abut. 25'  
E. Abut. 25'  
No. Required: W. Abut. 5  
E. Abut. 4  
Test Pile: 1 @ E. Abut.)

**ELEVATION**

(Looking at Front Face of Abutment)



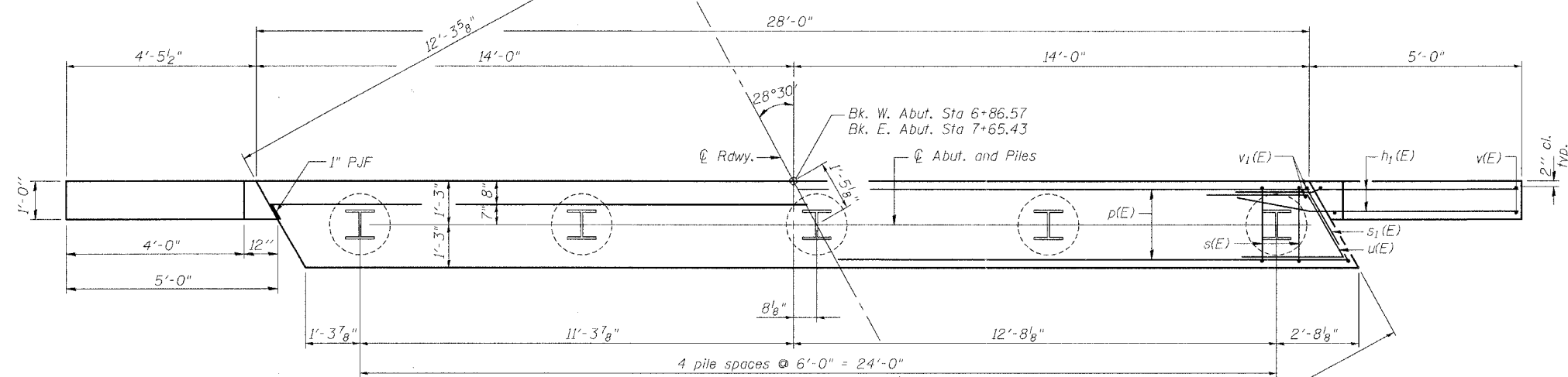
**SEC. THRU ABUT.**

**SEC. A-A**

**TWO ABUTMENTS  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
v(E)	16	#5	27'-8"	—
h1(E)	64	#5	7'-7"	—
p(E)	14	#7	27'-8"	—
s(E)	128	#5	7'-8"	U
s1(E)	8	#5	8'-0"	U
u(E)	16	#6	12'-3"	—
v(E)	20	#5	9'-3"	—
v1(E)	112	#5	4'-10"	—
Concrete Structures	Cu. Yd.	25.0		
Reinforcement Bars	Pound	3910		
Epoxy Coated				
Furnishing Steel Piles	Foot	225		
HP 10x42				
Driving Steel Piles	Foot	225		
Test Pile Steel				
HP 10x42	Each	1		

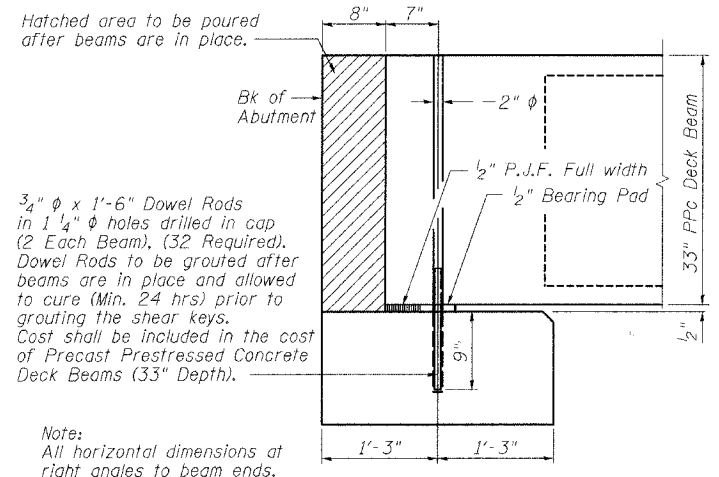
Note: Reinforcement bars designated (E) shall be epoxy coated.



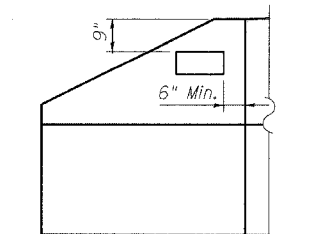
**PLAN**

**PILE ENCASUREMENT DETAIL**

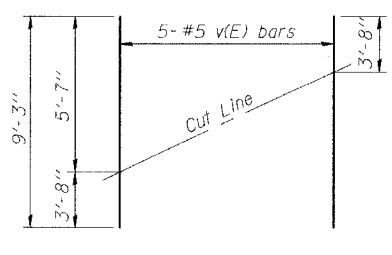
Welded wire fabric 6x6 - W4.0xW4.0 weighing 58#/100 sq. ft. The cost of Excavation, Class SI Concrete Encasement and Reinforcement is included with furnishing piles. Form for encasement may be omitted when soil conditions will permit.



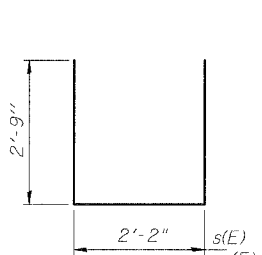
**TYP. SEC. AT BEARINGS**



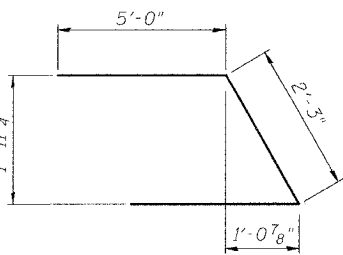
**NAME PLATE LOCATION**



**FIELD CUTTING DIAGRAM**



**BARS s(E) & s1(E)**



**BAR u(E)**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ABUTMENTS**  
TR 110 OVER WILLOW CREEK  
STA. 7+26.00  
SCHUYLER COUNTY  
S.N. 085-4307

SCALE: VERT. DATE: 9/8/04  
DRAWN BY: LANDREY  
DESIGNED BY: MATHUR  
CHECKED BY: TRELLO

GREENE & BRADFORD, INC.  
CONSULTING ENGINEERS  
1100 N. WILLOW CREEK  
ST. LOUIS, MO 63107  
PH: 314.444.1300 FAX: 314.444.1301

COMPUTER FILE NO. 02341ABUT.dgn  
PROJECT 02341  
4/7/06-MML

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PLOT SCALE = 500  
PLOT DATE = 6/25/2006  
PLOT TIME = 11:05 AM  
OPERATOR = michaell

AI-L 4-30-99



F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 110	80-03108-00-BR	SCHUYLER	20	12
STA. 3+12.00		TO STA. 3+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	*	
BROS-169(35)				

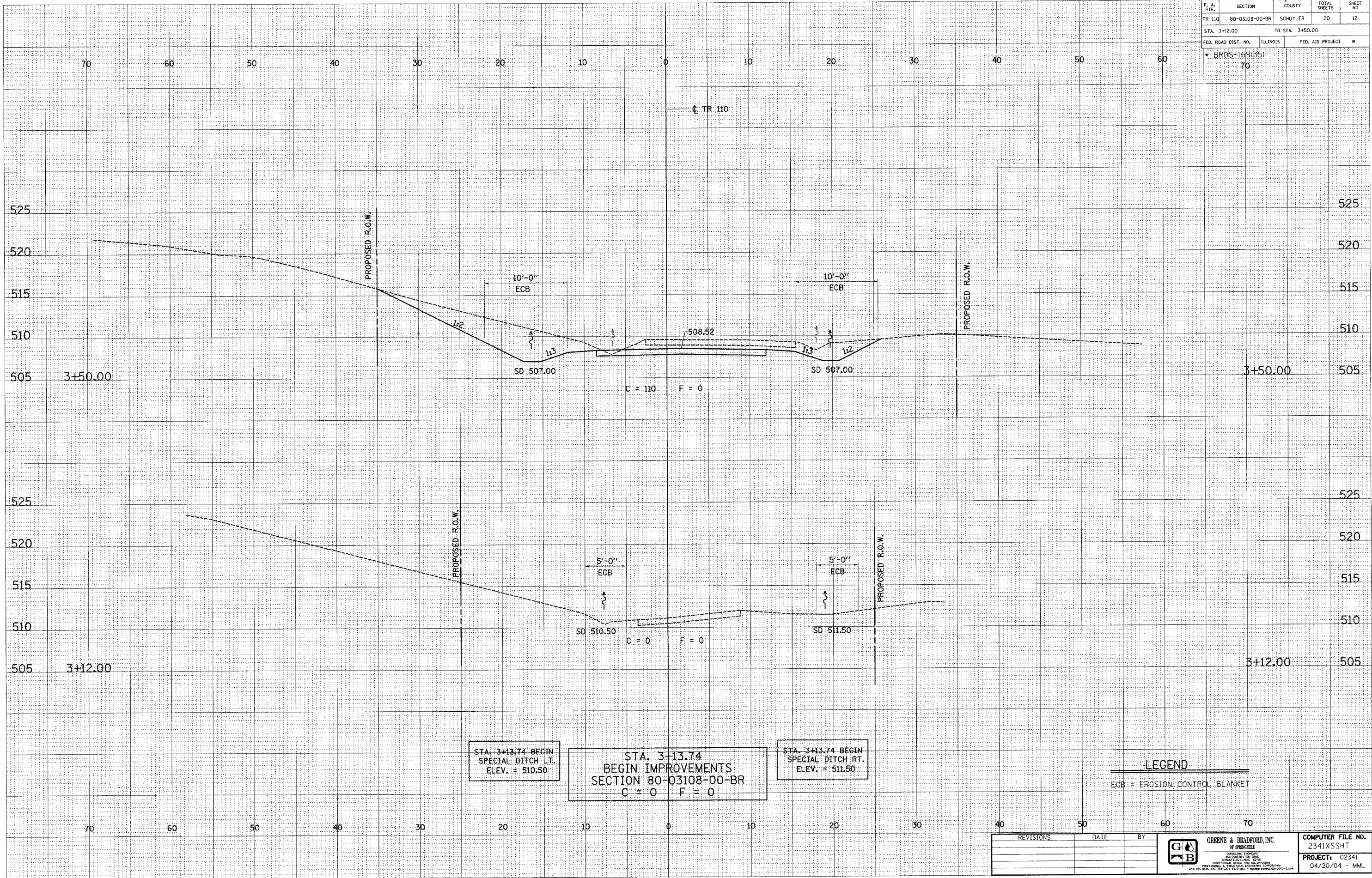
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DATE	BY	REASON

PLOTS & CHECKS			
INT.	DATE	NO.	REASON

DATE	BY	REASON

CHECKS		
INT.	DATE	REASON



E-XSEC 1:1 8/25/98

REVISIONS	DATE	BY



GREENE & BRADFORD, INC.  
OF SPRINGFIELD  
REGISTERED PROFESSIONAL ENGINEERS  
PROFESSIONAL DESIGN FIRM NO. 04-0278  
200 S. OLIVE ST., SPRINGFIELD, ILLINOIS 62760  
TEL: 217-524-1111 FAX: 217-524-1112

COMPUTER FILE NO.  
2341XSSHT  
PROJECT: 02341  
04/20/04 - MML

DESIGN		
INT.	DATE	REASON

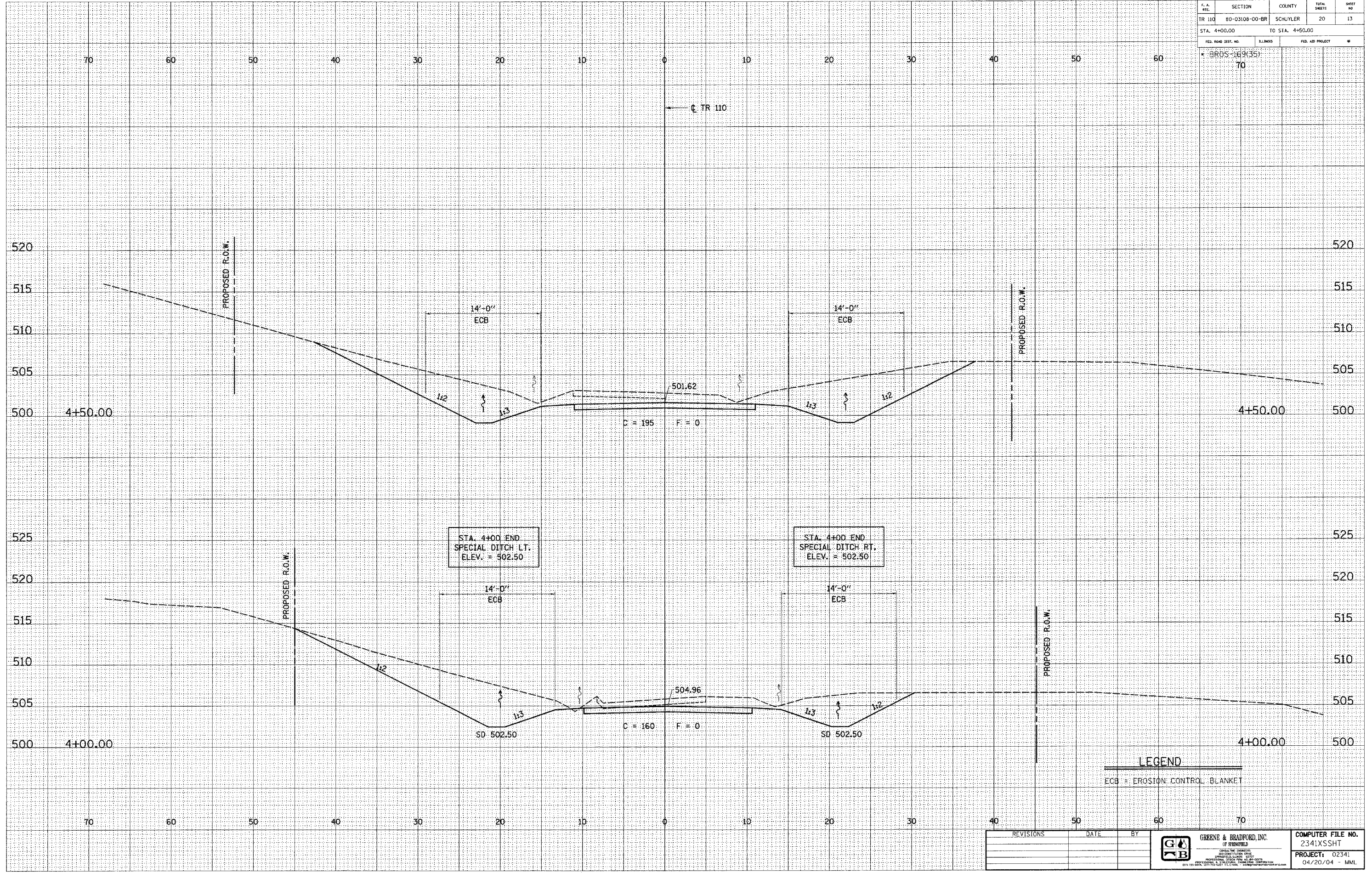
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PLOTS & CHECKS			
INT.	DATE	NO.	REASON

DATE	BY	ORIGINAL SURVEY	SURVEYED	PLOTTED	DATE	REASON

CHECKS		
INT.	DATE	REASON

F.A. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 110	80-03108-00-BR	SCHUYLER	20	13
STA. 4+00.00		TO STA. 4+50.00		
FED. ROAD DIST. NO.	R.LINKS	FED. AID PROJECT	*	
* BR05-169(35)		70		



STA. 4+00 END  
SPECIAL DITCH LT.  
ELEV. = 502.50

STA. 4+00 END  
SPECIAL DITCH RT.  
ELEV. = 502.50

**LEGEND**  
ECB = EROSION CONTROL BLANKET

REVISIONS	DATE	BY



COMPUTER FILE NO.  
2341XSSHT  
PROJECT: 02341  
04/20/04 - MML



F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
TR 110	80-03108-00-BR	SCHUYLER	20	15
STA. 6+00.00 TO STA. 6+50.00				
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT #	
• BR05-189(35)			70	

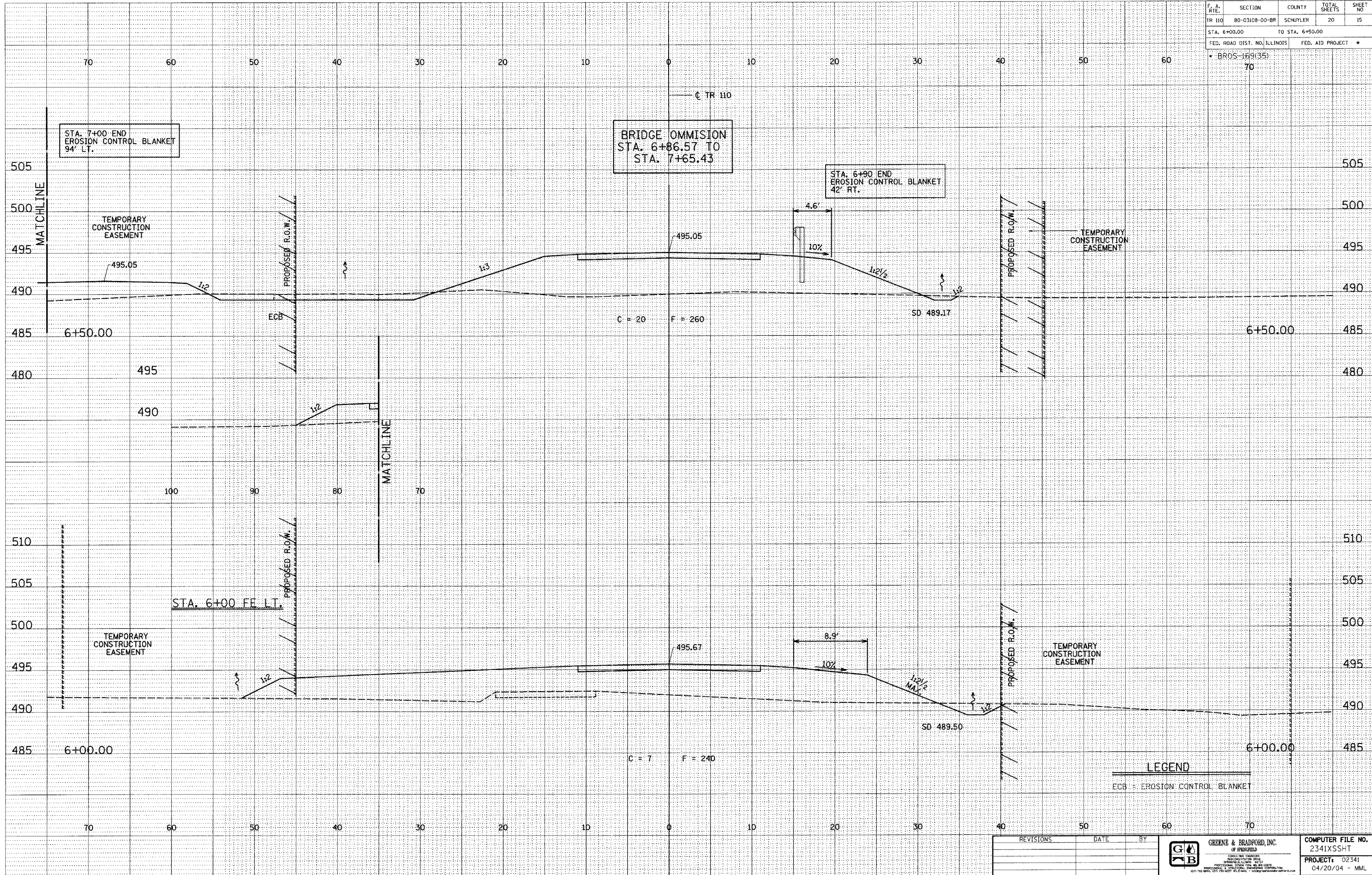
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DATE	BY	DESCRIPTION

PLOTS & CHECKS			
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DATE	BY	DESCRIPTION

CHECKS		
INT.	DATE	REASON



E-XSEC 1:1 8/25/98

REVISIONS	DATE	BY



GREENE & BRADFORD, INC. OF SPRINGFIELD CONSULTING ENGINEERS REGISTERED PROFESSIONAL ENGINEERS PROFESSIONAL SEAL AND LICENSE NO. 042-000001 4201 783 84th, C-110 10th St., E. Lisle, IL 60130	COMPUTER FILE NO. 2341XSSHT PROJECT: 02341 04/20/04 - MML
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T.R. ROUTE 110 (BROOKLYN TOWNSHIP) SCHUYLER COUNTY

F. A. RYE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
TR 110	80-03108-00-BR	SCHUYLER	20	16
STA. 8+00.00		TO STA. 8+50.00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT *		
* BR05-169(35)		70		

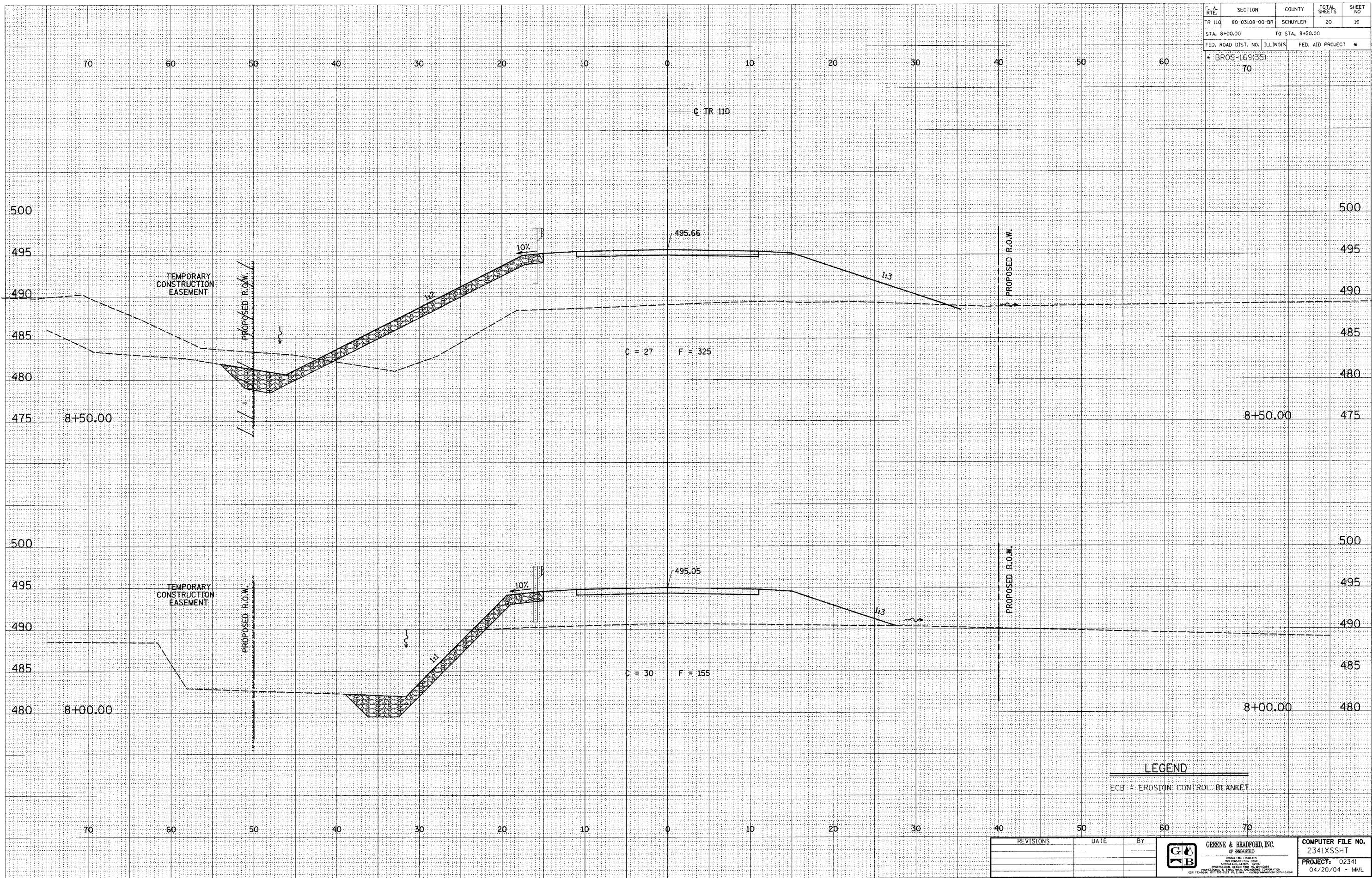
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INT.	DATE	REASON

DATE	BY	DESCRIPTION

PLOTS & CHECKS			
INT.	DATE	NO.	REASON

DATE	BY	DESCRIPTION

CHECKS		
INT.	DATE	REASON



E-XSEC 1:1 8/25/98

REVISIONS	DATE	BY

**GREENE & BRADFORD, INC.**  
INCORPORATED  
REGISTERED PROFESSIONAL ENGINEERS  
ILLINOIS LICENSE NO. 02341  
OFFICE: 100 N. LAUREL ST., SUITE 200, CHICAGO, IL 60610  
PHONE: (312) 467-1000 FAX: (312) 467-1001  
WWW.GREENEANDBRADFORD.COM

COMPUTER FILE NO.	2341XSSHT
PROJECT:	02341
	04/20/04 - MML



DESIGN		
INT.	DATE	REASON

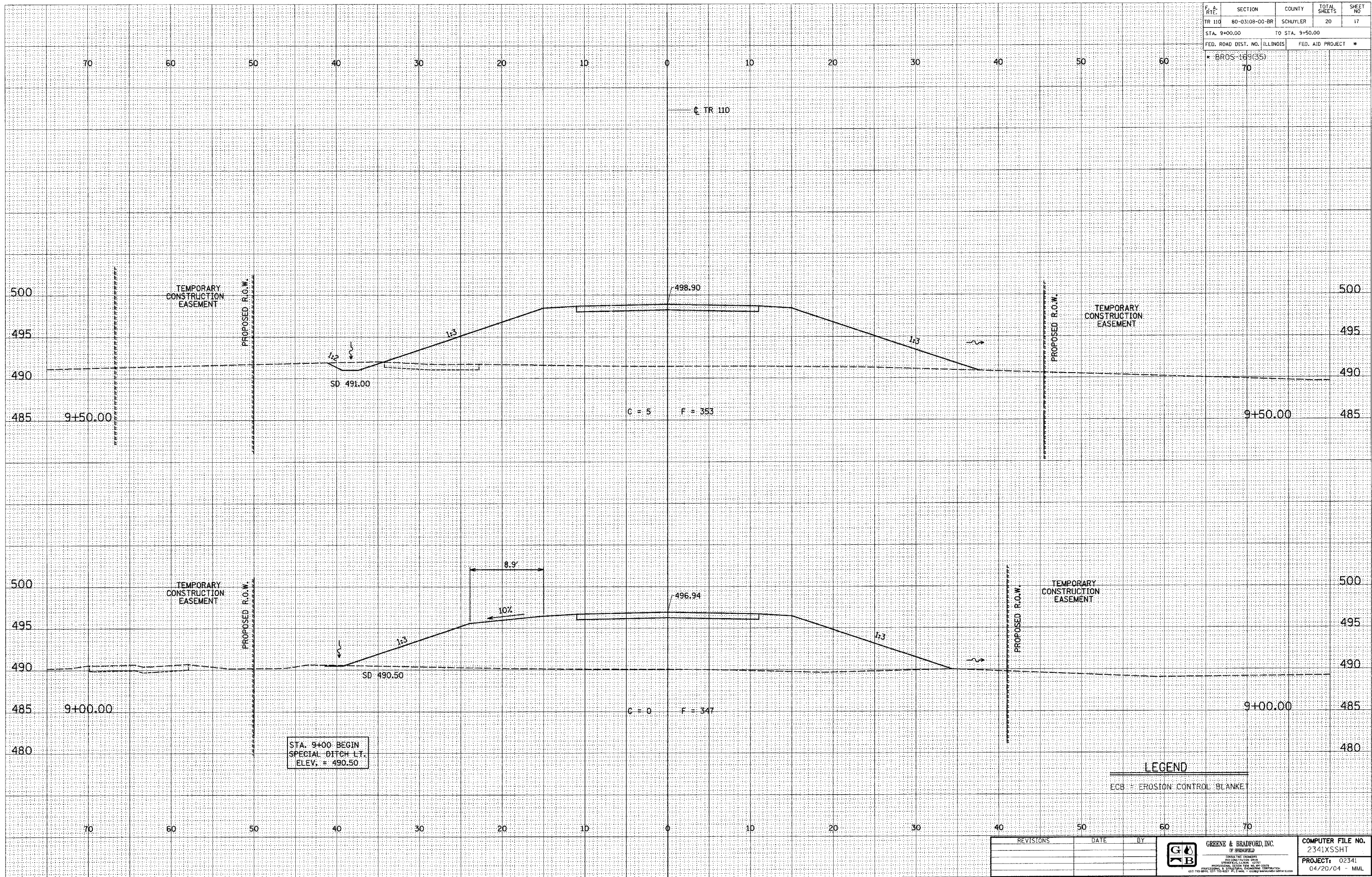
DATE	BY	FINAL SURVEY	SURVEYED	PLOTTED	AREAS CHECKED

PLOTS & CHECKS			
INT.	DATE	NO.	REASON

DATE	BY	ORIGINAL SURVEY	SURVEYED	PLOTTED	AREAS CHECKED

CHECKS		
INT.	DATE	REASON

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 110	80-03108-00-BR	SCHUYLER	20	17
STA. 9+00.00		TO STA. 9+50.00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT *		
• BR05-169(35)		70		



E-XSEC 1:1 8/25/98

**LEGEND**  
 ECB = EROSION CONTROL BLANKET

REVISIONS	DATE	BY



COMPUTER FILE NO. 2341XSHT
PROJECT: 02341 04/20/04 - MML

T.R. ROUTE 110 (BROOKLYN TOWNSHIP) SCHUYLER COUNTY

F. A. R.T.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 110	80-03108-00-BR	SCHUYLER	20	18
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FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT #		
* BRGS-169(35)		70		

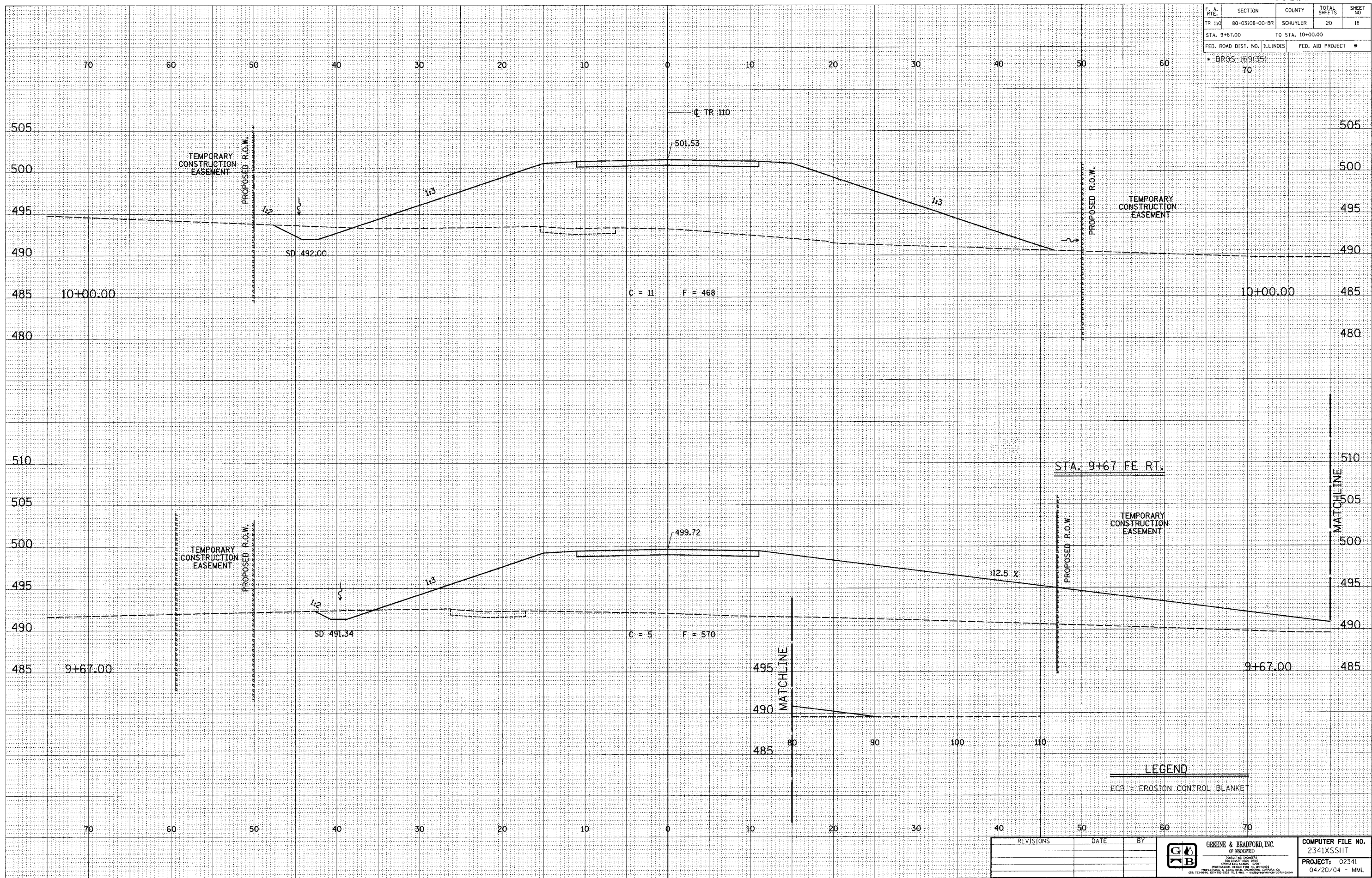
DESIGN		
INT.	DATE	REASON

DATE	BY

PLOTS & CHECKS			
INT.	DATE	NO.	REASON

DATE	BY

CHECKS		
INT.	DATE	REASON



LEGEND  
ECB = EROSION CONTROL BLANKET

REVISIONS	DATE	BY



COMPUTER FILE NO.  
2341XSSHT  
PROJECT: 02341  
04/20/04 - MML

F.A. SITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
TR 110	80-03108-00-BR	SCHUYLER	20	19
STA. 10+50.00		TO STA. 11+00.00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		*
* BR05-169(35)		70		

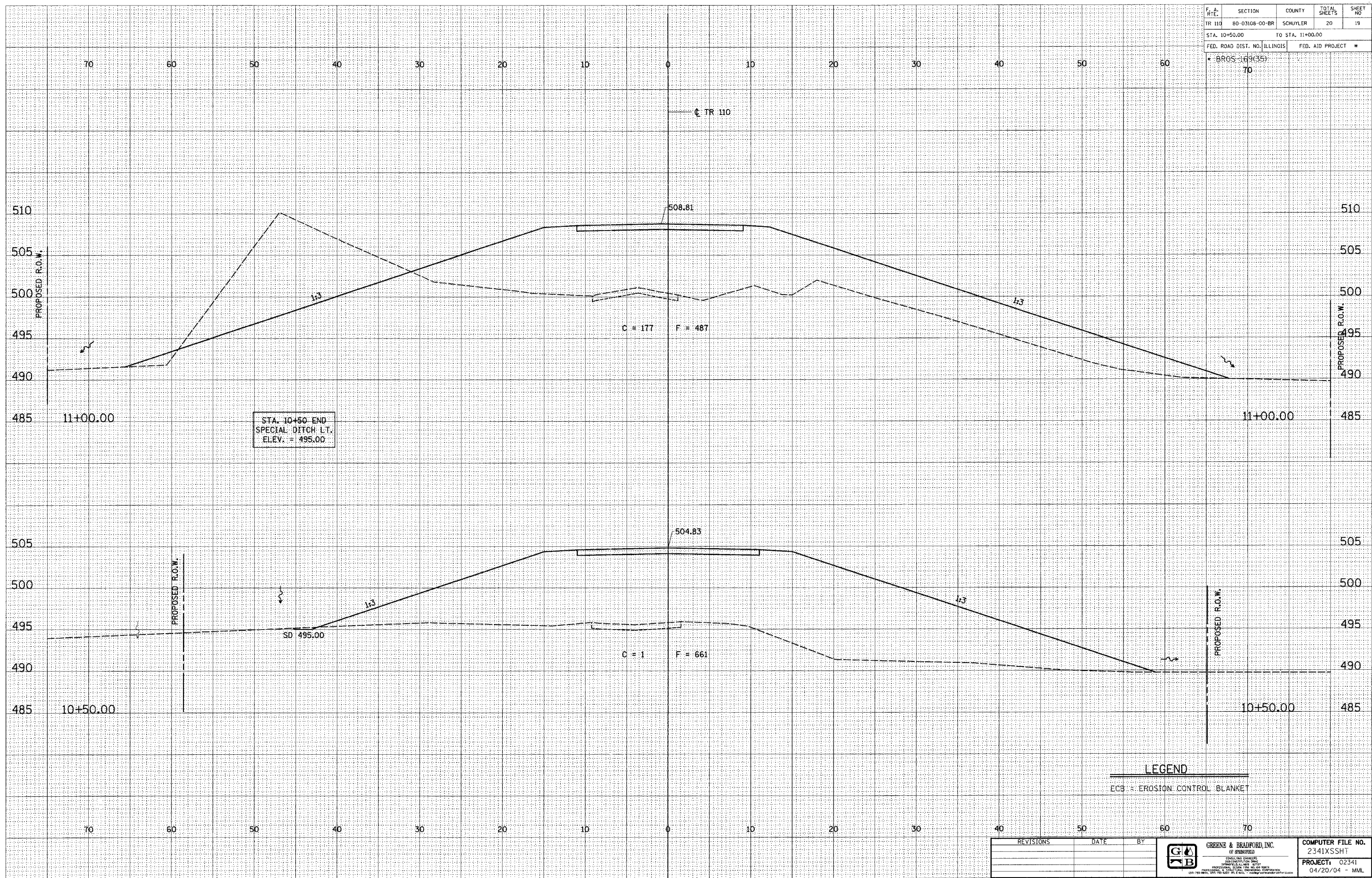
DESIGN		
INT.	DATE	REASON

DATE	BY	FINAL SURVEY	SURVEYED	PLOTTED	DATE	AREAS CHECKED

PLOTS & CHECKS			
INT.	DATE	NO.	REASON

DATE	BY	ORIGINAL SURVEY	SURVEYED	PLOTTED	DATE	AREAS CHECKED

CHECKS		
INT.	DATE	REASON



STA. 10+50 END  
SPECIAL DITCH LT.  
ELEV. = 495.00

SD 495.00

LEGEND

ECB = EROSION CONTROL BLANKET

REVISIONS	DATE	BY



COMPUTER FILE NO. 2341XSSHT
PROJECT: 02341 04/20/04 - MML

F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 110	80-03108-00-BR	SCHUYLER	20	20
STA. 11+00.00		TO STA. 11+50.00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT *		
• BR05-169(35)		70		

DESIGN		
INT. DATE	REASON	

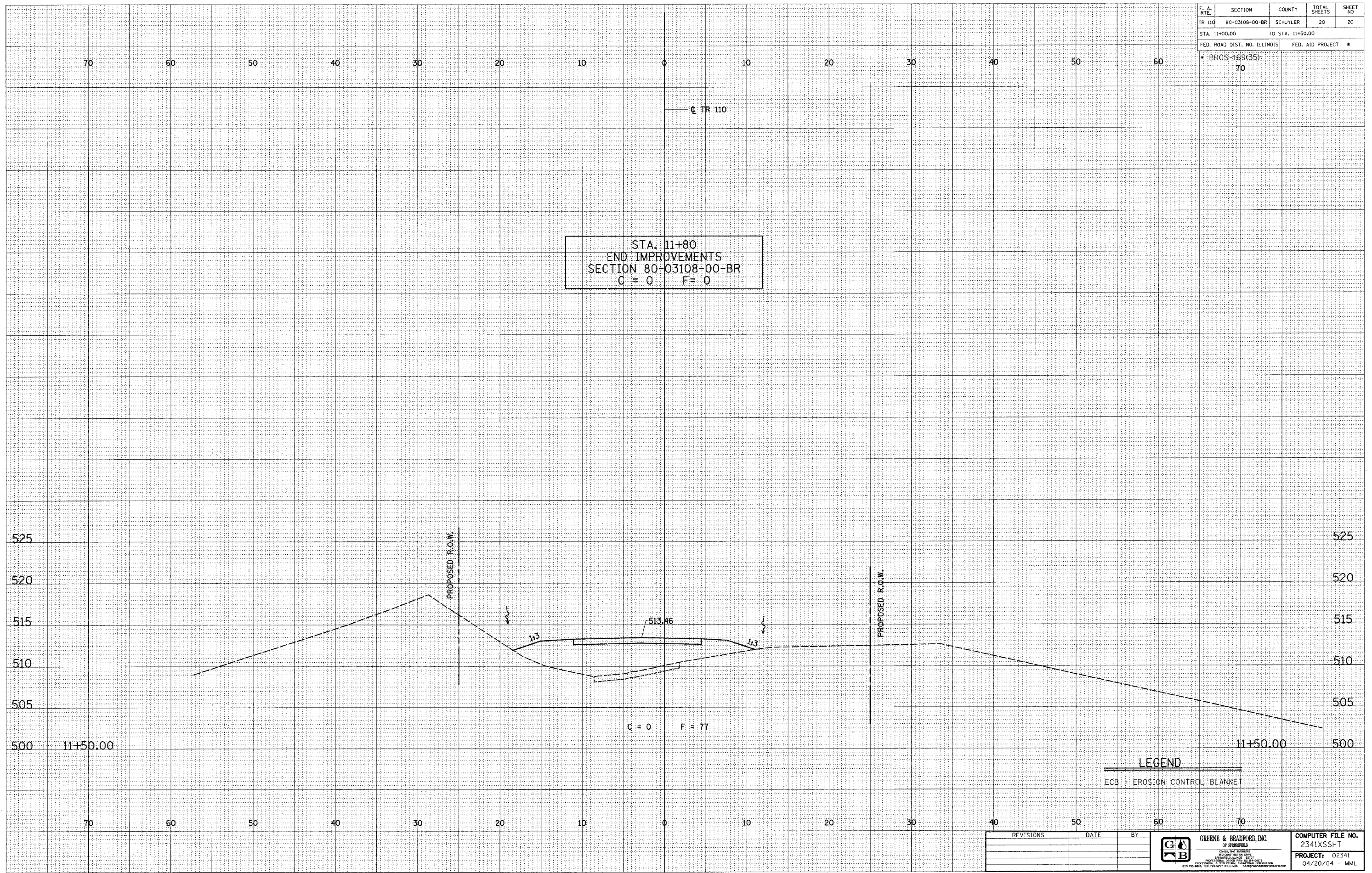
DATE	BY

PLOTS & CHECKS		
INT. DATE/NO.	REASON	

DATE	BY

CHECKS		
INT. DATE	REASON	

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 PLOT SCALE = 50.0000 / DWG = YES.8850.ENG.dif  
 PLOT DATE = 6/30/2006  
 PLOT TIME = 10:43:48 AM  
 OPERATOR = michaell



STA. 11+80  
 END IMPROVEMENTS  
 SECTION 80-03108-00-BR  
 C = 0 F = 0

**LEGEND**  
 ECB = EROSION CONTROL BLANKET

REVISIONS	DATE	BY



GREENE & BRADFORD, INC.  
 2341XSSHT  
 PROJECT: 02341  
 04/20/04 - MML