

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178	03-00287-00-BR	LEE	19	11
STA. 11+75		TO STA. 21+60		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

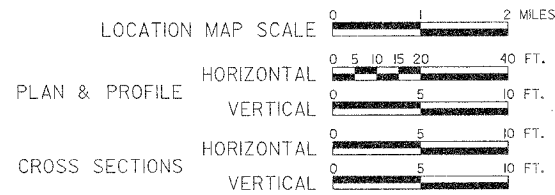
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR  
PROPOSED LOCAL AGENCY IMPROVEMENT  
FEDERAL-AID STR PROJECT**

**SUMMARY OF QUANTITIES**

CODE NO.	QUANTITY	UNIT	PAY ITEM
20100110	42	UNIT	TREE REMOVAL (6 TO 15 UNITS DIA.)
*20200410	758	CU YD	EARTH EXCAVATION (SPECIAL)
*20201200	100	CU YD	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL
*20700220	126	CU YD	POROUS GRANULAR EMBANKMENT
21101615	3,872	SQ YD	TOP SOIL FURNISH AND PLACE, 4"
*25000350	0.80	ACRE	SEEDING, CLASS 7
*25001000	0.80	ACRE	SEEDING, CLASS 2 (SPECIAL)
25100630	138	SQ YD	EROSION CONTROL BLANKET
*28000400	1754	FOOT	PERIMETER EROSION BARRIER
28100703	12	SQ YD	STONE DUMPED RIPRAP, CLASS A2
*35101400	395	TON	AGGREGATE BASE COURSE, TYPE B
*40600100	1258	GALLON	BITUMINOUS MATERIALS (PRIME COAT)
*40600300	4	TON	AGGREGATE (PRIME COAT)
40603080	754	TON	HOT-MIX ASPHALT BINDER COURSE, IL-9.0, N50
40603310	350	TON	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50
42300200	541	SQ YD	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6"
42400200	4613	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5"
42400800	79	SQ FT	DETECTABLE WARNINGS
44000500	1861	FOOT	COMBINATION CURB AND GUTTER REMOVAL
50100100	1	EACH	REMOVAL OF EXISTING STRUCTURES
50800105	20950	POUND	REINFORCEMENT BARS
50901720	88	FOOT	BICYCLE RAILING
51500100	1	EACH	NAME PLATES
54003000	125.2	CU YD	CONCRETE BOX CULVERTS
550A0430	20	FOOT	STORM SEWERS, CLASS A, TYPE 2 30"
55100400	10	FOOT	STORM SEWER REMOVAL 10"
55100700	67	FOOT	STORM SEWER REMOVAL 15"
55101400	20	FOOT	STORM SEWER REMOVAL 30"
*60240400	4	EACH	INLETS, TYPE B, SPECIAL, WITH FRAME AND GRATE
*60242400	2	EACH	INLETS, SPECIAL
60255500	6	EACH	MANHOLES TO BE ADJUSTED
60266600	3	EACH	VALVE BOXES TO BE ADJUSTED
60600095	5.2	CU YD	CLASS SI CONCRETE (OUTLET)
*60604400	1919	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.16
67100100	1	L SUM	MOBILIZATION
*70103700	1	L SUM	TRAFFIC CONTROL COMPLETE
*X6028300	10	EACH	INLETS TO BE REMOVED, SPECIAL
*20005400	205	TON	BREAKER-RUN CRUSHED STONE
*20013798	1	L SUM	CONSTRUCTION LAYOUT

**INDEX OF SHEETS**

- 1 = COVER SHEET
- 2 = GENERAL NOTES, TYPICAL SECTIONS, AND STANDARD DRAWINGS
- 3 = SCHEDULES
- 4-5 = EROSION CONTROL PLAN
- 6-7 = PLAN AND PROFILE
- 8 = CULVERT DETAILS
- 9 = INLETS DETAILS
- 10 = BICYCLE RAILING DETAILS
- 11-8 = CROSS SECTIONS



**SURFACE TRANSPORTATION  
RURAL**

**FAS RTE 178 (PERU STREET)  
SECTION 03-00287-00-BR  
LEE COUNTY  
PROJECT NO. RS-178(103)  
2007**

NET LENGTH 985 FEET = 0.19 MILES

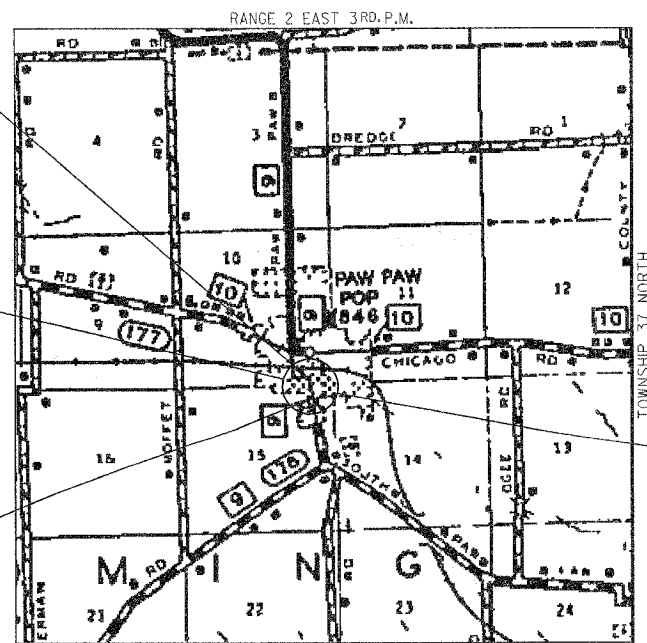
**STANDARDS**

- 000001-04 STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS
- 280001-03 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-02 DETAIL OF NAME PLATE FOR BRIDGES
- 606001-03 COMBINATION CONCRETE CURB & CUTTER
- 606006-01 OUTLETS FOR CONC. CURB & GUTTER
- 702001-06 TRAFFIC CONTROL DEVICES
- 780001-01 TYPICAL PAVEMENT MARKINGS
- BLR-21-6 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- BLR-22-4 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

SECTION ENDS  
STA. 21+60

EXISTING STRUCTURE:  
A SINGLE SPAN (1 @ 18' ±) CUT STONE  
ARCH STRUCTURE AT STA. 20+00.

SECTION BEGINS  
STA. 11+75



LOCATION MAP

PROPOSED STRUCTURE: S.N. 052-6200  
A DOUBLE BARREL (10'-6" x 6'-0") REINFORCED  
CONCRETE BOX CULVERT AT STA. 19+46, SKEWED  
10° RIGHT AHEAD.

CONSTRUCTION TYPE CODE - X028-2A  
\*SEE SPECIAL PROVISIONS

**ATTENTION CONTRACTORS**

THE ILLINOIS DEPARTMENT OF TRANSPORTATION  
BUREAU OF MATERIALS AND PHYSICAL RESEARCH,  
'PROJECT PROCEDURES GUIDE'  
IS APPLICABLE TO THIS PROJECT.

JOB NO. C-92-066-05  
CONTRACT NO. 85376  
ROAD CLASSIFICATION: COLLECTOR RURAL  
ADT 1200 (2005), 1660 (2016)  
DESIGN SPEED: 30 MPH  
RURAL 3R



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



APPROVED 1/9 20 07  
David M. Hansen  
LOCAL AGENCY OFFICIAL

PASSED JAN. 10 20 07  
Jason T. Melan  
DISTRICT ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR BIDDING  
BASED ON LIMITED REVIEW JAN. 10 20 07  
Joseph E. Grues  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FAB. FILE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178	03-00287-00-BR	LEE	15	2
STA. 11+75		TO STA. 21+60		
FED. ROAD DIST. NO.	BLMOS	FED. AID PROJECT		

**GENERAL NOTES**

Existing Structures (Including Foundations, Walls, Cisterns, Wells Or Other Underground Structures) Within The Right Of Way Shall Be Removed In Accordance With Article 501.02 And 501.03 Of The Standard Specifications, Without Additional Compensation, Unless Otherwise Noted In The Plans Or Special Provisions.

The Contractor Shall Seed All Disturbed Areas Within The Project Limits.

No Overhaul Has Been Computed And None Shall Be Paid For From Any Source.

The Final Top Four Inches Of Soil In Any Right-Of-Way Area Disturbed By The Contractor Must Be A Cohesive Soil Capable Of Supporting Vegetation.

The New Number For This Structure Will Be S.N. 052-6200.

The Contractor Shall Be Responsible For Protecting Utility Property During Construction Operations As Outlined In Article 107.31 Of The Standard Specifications.

The Utilities Located Within The Project Limits Or Immediately Adjacent To The Project Construction Limits Include:

Camed  
123 Energy Ave.  
Rockford, IL. 61109  
Attn: CDC Dept.  
(815) 490-2320 or 490-3929

Water & Sanitary Sewer  
Village of Paw Paw  
362 Chicago Road  
P.O. Box 426  
Paw Paw, IL. 61353  
Attn: Larry Thompson

NICOR Gas  
4651 Linden Road  
Rockford, IL. 61109  
(815) 965-5416

Verizon  
112 West Elm  
Sycamore, IL. 60178  
Attn: Engineering Group

Heartland Cable, Inc.  
167 West 5th  
Mfonk, IL. 61760  
(309) 432-2075

A Minimum Of 48 Hours Advance Notice Is Required For Non-Emergency Work.

A Nationwide 404 Permit Has Been Issued For This Project And The Conditions Of That Permit Must Be Adhered To.

When Mulch With Emulsified Asphalt Is Applied, It Will Be The Contractor's Responsibility To Cover Or Protect All Traffic Signs, Guardrail And Curbs. Any Signs, Guardrail Or Curbs Which Become Covered With Asphaltic Material Shall Be Cleaned By The Contractor At His Own Expense.

Where Section Or Subsection Monuments Are Encountered, The Engineer Shall Be Notified Before Such Monuments Are Removed. The Contractor Shall Protect And Carefully Preserve All Property Markers, Monuments And Right-Of-Way Pins Until The Owner, An Authorized Surveyor, Or Agent Has Witnessed Or Otherwise Referenced Their Location.

Existing Mail Boxes, Street Signs And Traffic Signs That Are Within The Construction Limits Shall Be Removed And Reset By The Contractor. Cost Of Removing And Resetting To Be Included In The Contract Unit Price Bid Per Cubic Yard For Earth Excavation (Special).

Bituminous Concrete Removal Not On A Rigid Pavement Shall Be Incidental To Earth Excavation (Special).

**PAVEMENT STRUCTURAL DESIGN - PERU STREET**

STRUCTURAL DESIGN TRAFFIC (S.D.T.) = YEAR 2016  
CLASS III STREET  
80,000\* TRUCK DESIGN  
E<sub>RI</sub> : (ASSUMED) 2 ksi  
TF = 0.32

P.V. 1494  
S.U. 116  
M.U. 50  
1660 ADT

HMA MIX TEMP. 78.2°F  
HMA E<sub>ac</sub> = 590 ksi  
HMA DESIGN STRAIN 203 microstrain

**USE**  
STA. 19+00 TO 21+00  
2" - HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50  
4 1/2" - HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50  
12" AGGREGATE BASE, TYPE B

STA. 11+75 TO 19+00 & 21+00 TO 21+60  
2" - HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50  
4 1/2" - HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50  
11 1/2" ± EXISTING AGGREGATE BASE

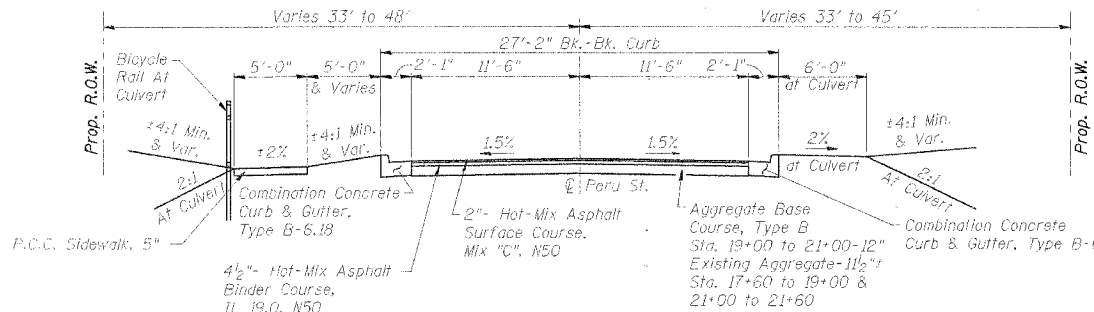
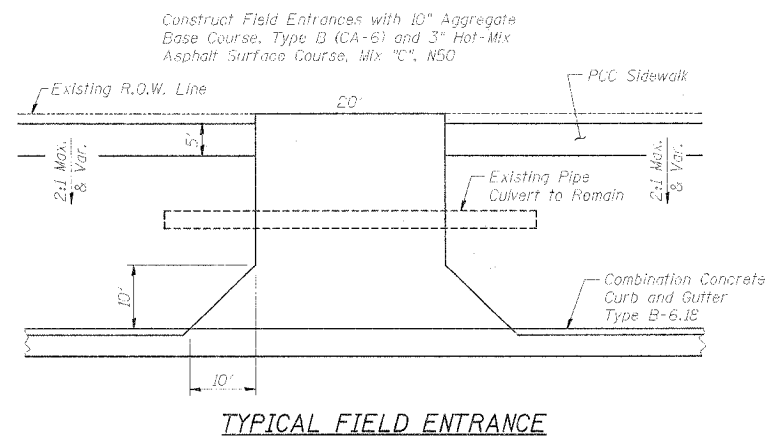
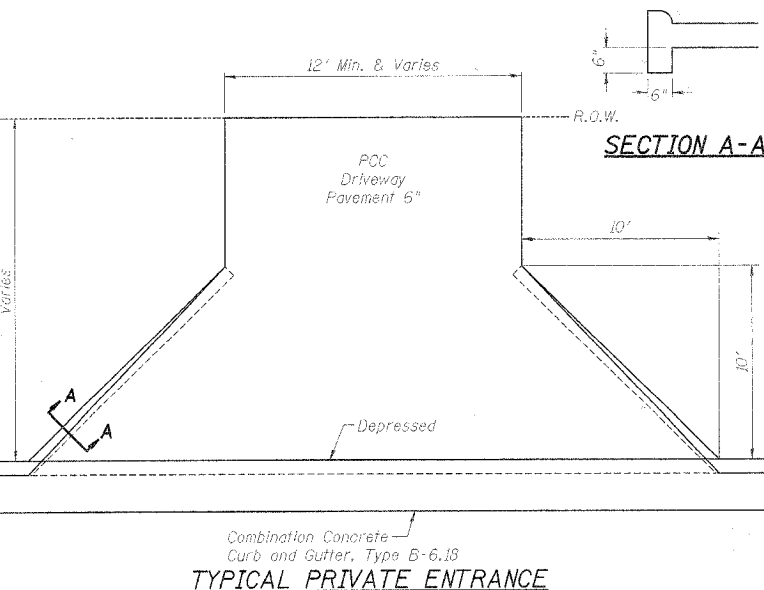
**PAVEMENT MIXTURE REQUIREMENTS**

	CONSTRUCTION	
	BINDER	SURFACE
PG:	PG 64-28	PG 64-28
RAP % (MAX)	15	15
DESIGN AIR VOIDS	3.0 @ N50	3.0 @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 19.0	IL 12.5 or 9.5
FRICITION AGGREGATE	N/A	C

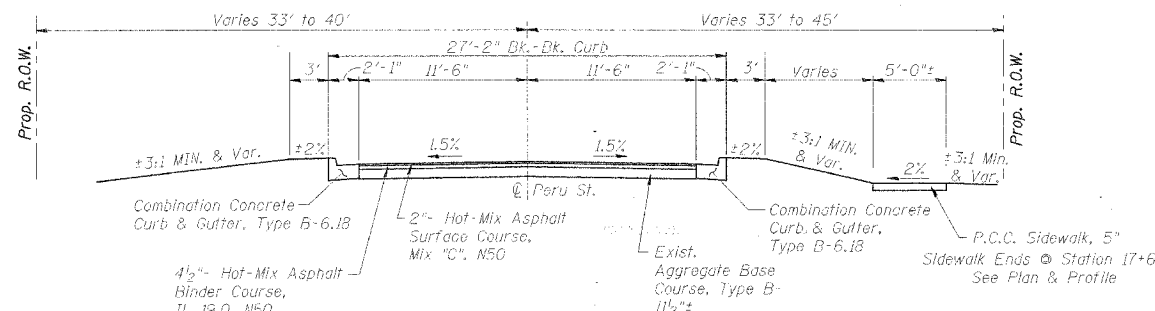
PAW PAW - PERU STREET HORIZONTAL CONTROL POINTS						
POINT #	STATION	O/S	ROAD	NORTH	EAST	DESCRIPTION
100	17+14.58	18.61' R	PERU ST.	1,829,493.44	2,620,504.05	PK IN INTERSECTION
101	21+84.86	17.88' L	PERU ST.	1,829,852.94	2,620,409.72	IRON PIN
102	24+46.85	20.24' L	PERU ST.	1,830,215.98	2,620,379.91	PK IN INTERSECTION

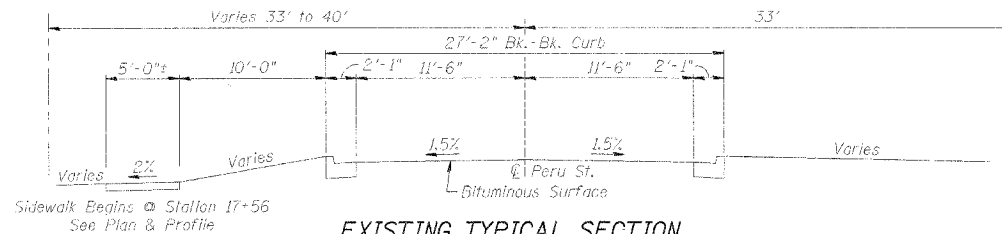
PAW PAW - PERU STREET VERTICAL BENCH MARKS						
STATION	O/S	ROAD	ELEV	DESCRIPTION		
16+96	26.36' L	PERU ST.	922.76	"M" IN MUELLER ON FIRE HYDRANT		
19+69	34.39' L	PERU ST.	909.17	CHIS. SQUARE ON SW WINGWALL OF EX. BRIDGE		
22+32	18.14' L	PERU ST.	919.32	RR SPIKE IN 3RD PP NORTH OF EX. BRIDGE		



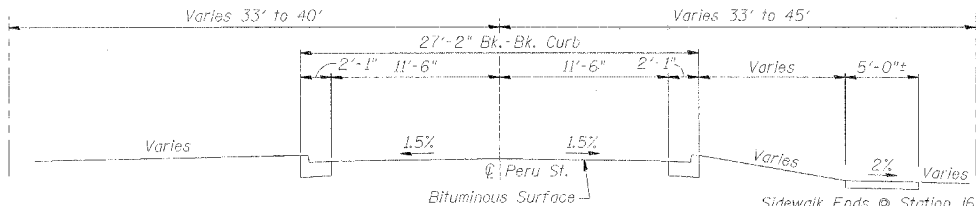
**NOTE:**  
Binder shall be Placed in Two Lifts and Surface shall be Placed in One Lift.



**NOTE:**  
Binder shall be Placed in Two Lifts and Surface shall be Placed in One Lift.



**EXISTING TYPICAL SECTION**  
(Looking Upstation)  
Sta. 17+00 to Sta. 21+60



**EXISTING TYPICAL SECTION**  
(Looking Upstation)  
Sta. 11+75 to Sta. 17+00

GENERAL NOTES, TYPICAL SECTIONS,  
AND STANDARD DRAWINGS  
PERU STREET OVER BR. OF PAW PAW RUN  
SECTION 03-00287-00-BR  
STA. 19+96 (S.N. 052-6200)  
LEE COUNTY  
WHA # 1231003

SCHEDULE OF QUANTITIES

P&E NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178	03-00287-00-BR	LEE	18	3
STA. 11+75		TO STA. 21+60		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK SCHEDULE\*

LOCATION	EARTH EXCAVATION (SPECIAL) 20200-410	EXCAVATION ADJUSTED FOR SHRINKAGE 25%	21100-005 TOPSOIL EXCAVATION AND PLACEMENT (4" DEPTH) (Proposed Seeding Area) 3,872 SQ YD	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR Shortage (-) (CU YD)
	CU YD	CU YD	CU YD	CU YD	CU YD
PERU ST. STA. 11+75 TO 21+60	758	568	301	287	281
PROJECT TOTALS	758	568	301	287	281

\*NOTE: INCLUDES TOPSOIL EXCAVATION AND PLACEMENT

TREE REMOVAL (6 TO 15 UNITS DIAMETER)		
STATION	UNIT	REMARKS
37' R 19+63	14	2 @ 7"
38' R 19+70	12	
39' R 19+73	9	
45' R 19+76	7	
PROJECT TOTAL	42	

20100110

REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL		
STATION	CU YD	REMARKS
CONTINGENCY ITEM	100	AS DIRECTED BY THE ENGINEER
PROJECT TOTAL	100	

20201200

SEEDING, CLASS 7		
STATION	ACRE	REMARKS
ENTIRE PROJECT	0.8	DISTURBED AREAS ONLY - SEE XSECTIONS
PROJECT TOTAL	0.80	

25000350

SEEDING, CLASS 2 (SPECIAL)		
STATION	ACRE	REMARKS
ENTIRE PROJECT	0.8	DISTURBED AREAS ONLY - SEE XSECTIONS
PROJECT TOTAL	0.80	

25001000

EROSION CONTROL BLANKET		
STATION	SQ YD	REMARKS
L 19+70 - 19+86	23	SOUTH SIDE OF CULVERT
R 19+82 - 19+97	32	SOUTH SIDE OF CULVERT
L 19+95 - 20+09	38	NORTH SIDE OF CULVERT
R 20+09 - 20+22	39	NORTH SIDE OF CULVERT
PROJECT TOTAL	138	

25100630

STONE DUMPED RIPRAP, CLASS A2		
STATION	SQ YD	REMARKS
R 11+70	6	
L 11+70	6	
PROJECT TOTAL	12	

28100703

AGGREGATE BASE COURSE, TYPE B		
STATION	TON	REMARKS
R 12+45	46	10" (CA6)
L 19+00 - 21+00	349	12" (CA6)
PROJECT TOTAL	395	

35101400

BITUMINOUS MATERIALS (PRIME COAT)		
STATION	GALLON	REMARKS
L 14+75 - 21+60	881	0.35 GAL. / S.Y. OVER AGG.
R 14+75 - 21+60	252	.1 GAL. / S.Y. OVER BIT.
ROSENKRANS DRIVE	60	0.35 GAL. / S.Y. OVER AGG.
ROSENKRANS DRIVE	17	.1 GAL. / S.Y. OVER BIT.
BROOKSIDE DRIVE	37	0.35 GAL. / S.Y. OVER AGG.
BROOKSIDE DRIVE	11	.1 GAL. / S.Y. OVER BIT.
PROJECT TOTAL	1,258	

40600100

AGGREGATE (PRIME COAT)		
STATION	TON	REMARKS
11+75 - 21+60	4	3 LBS. / S.Y.
PROJECT TOTAL	4	

40600300

HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50		
STATION	TON	REMARKS
11+75 - 21+60	680	4 1/2" COMPLETE
ROSENKRANS DRIVE	46	4 1/2" COMPLETE
BROOKSIDE DRIVE	28	4 1/2" COMPLETE
PROJECT TOTAL	754	

40603080

HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50		
STATION	TON	REMARKS
11+75 - 21+60	300	2"
FER 12+45	14	3"
ROSENKRANS DRIVE	21	2"
BROOKSIDE DRIVE	13	2"
PROJECT TOTAL	350	

40603310

PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH		
STATION	SQ YD	REMARKS
PEL 12+62	64.1	
PEL 14+52	73.1	
PEL 14+82	58.2	
PER 15+61	37.1	
PEL 16+34.5	64.3	
PEL 16+71.5	54.3	
PEL 18+44.5	35.1	
PEL 18+96	35.1	
PER 20+93	51.1	
PEL 21+10	68.6	
PROJECT TOTAL	541.0	

42300200

PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH		
STATION	SQ FT	REMARKS
R 11+75 - 12+35	300	
R 12+55 - 14+13	940	
R 14+61 - 15+55	505	
R 15+67 - 17+02	671	
R 17+44.5 - 17+64	173	
L 17+56 - 18+46.5	512	
L 18+05	5	
L 18+60.5 - 18+90	147	
L 19+02 - 20+96	980	
L 21+24 - 22+00	380	
PROJECT TOTAL	4,613	

42400200

DETECTABLE WARNINGS		
STATION	SQ FT	REMARKS
R 17+04	24	
R 17+43	15.5	
R 17+61	17.5	
L 17+61	19	
PROJECT TOTAL	79	

42400800

COMBINATION CURB AND GUTTER REMOVAL		
STATION	FOOT	REMARKS
L 11+82 - 13+84	202	
R 12+46 - 16+86	420	
ROSENKRANS DR.	39	SW CORNER
ROSENKRANS DR.	40	NW CORNER
L 14+72 - 21+60	686	
BROOKSIDE DR.	39	SE CORNER
BROOKSIDE DR.	37	NE CORNER
R 17+64 - 21+60	396	
PROJECT TOTAL	1,861	

44000500

STORM SEWERS, CLASS A, TYPE 2 30"		
STATION	FOOT	REMARKS
R 30+11 - 20+31	20	
PROJECT TOTAL	20	

550A0430

STORM SEWERS REMOVAL 10"		
STATION	FOOT	REMARKS
L 19+84 - 19+86	3	
L 20+14.5 - 20+16.5	7	
PROJECT TOTAL	10	

55100400

STORM SEWERS REMOVAL 15"		
STATION	FOOT	REMARKS
L & R 19+86	34	
L & R 20+18.5	33	
PROJECT TOTAL	67	

55100700

STORM SEWERS REMOVAL 30"		
STATION	FOOT	REMARKS
R 20+11 - 20+31	20	
PROJECT TOTAL	20	

55101400

INLETS, TYPE B, SPECIAL, WITH FRAME AND GRATE		
STATION	EACH	REMARKS
26.5' L 14+08.75	1	
24.6' L 14+42.50	1	
15.87' R 16+86	1	
22.87' R 17+45	1	
PROJECT TOTAL	4	

55100700

INLETS, SPECIAL		
STATION	EACH	REMARKS
L 20+60	1	
R 20+09	1	
PROJECT TOTAL	2	

60242400

MANHOLES TO BE ADJUSTED		
STATION	EACH	REMARKS
R 12+76	1	
R 14+27	1	
R 16+32	1	
R 17+47	1	
R 19+26	1	
R 19+75	1	
PROJECT TOTAL	6	

60255500

INLETS TO BE REMOVED, SPECIAL		
STATION	EACH	REMARKS
L 14+09	1	
L 14+42	1	
R 16+86	1	
R 17+45	1	
L 19+84	1	
L & R 19+86	2	
L & R 20+18	3	
PROJECT TOTAL	10	

60268300

VALVE BOXES TO BE ADJUSTED		
STATION	EACH	REMARKS
L 16+82	1	
L 18+47	1	
L 20+75	1	
PROJECT TOTAL	3	

60268600

CLASS SI CONCRETE (OUTLET)		
STATION	CU YD	REMARKS
L 11+18.8 - 12+03	2.60	
R 11+18.6 - 12+03	2.60	
PROJECT TOTAL	5.2	

60600095

COMBINATION CONCRETE CURB AND GUTTER TYPE B - 6.18		
STATION	FOOT	REMARKS
L 12+03 - 13+84	181	
R 12+03 - 16+86	483	
ROSENKRANS DR.	43.5	SW CORNER
ROSENKRANS DR.	50.5	NW CORNER
L 14+72 - 21+60	658	
BROOKSIDE DR.	39	SE CORNER
BROOKSIDE DR.	39	NE CORNER
R 17+64 - 21+60	396	
PROJECT TOTAL	1,919	

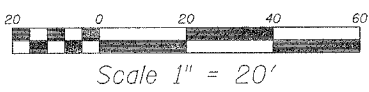
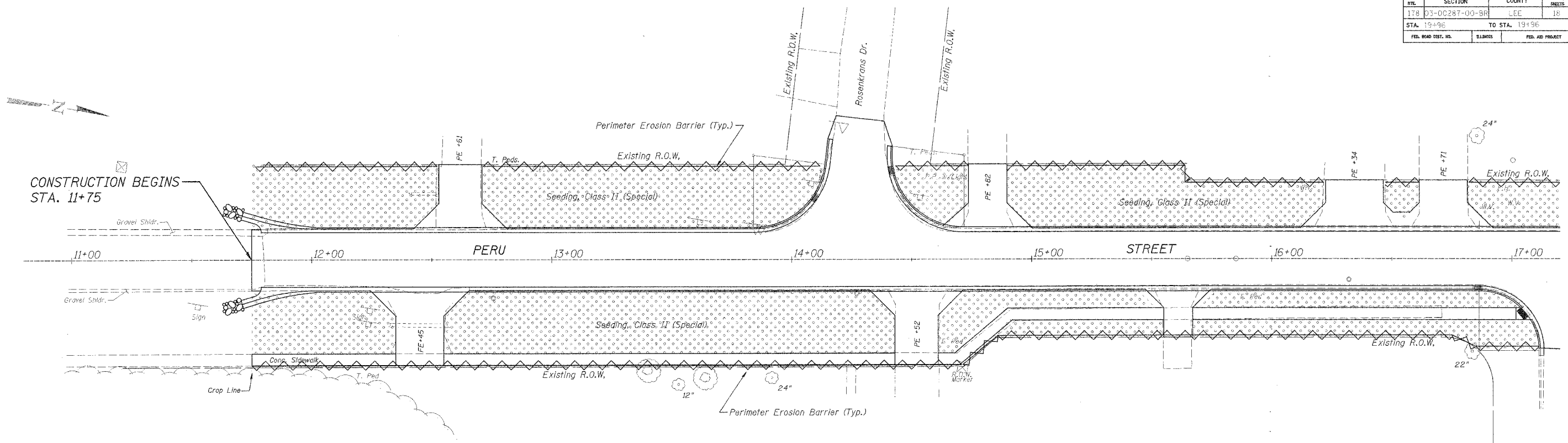
60604400

BREAKER-RUN CRUSHED STONE		
STATION	TON	REMARKS
CONTINGENCY ITEM	205	AS DIRECTED BY THE ENGINEER
PROJECT TOTAL	205	

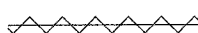
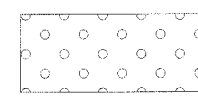
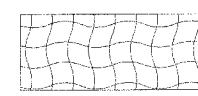
70005400

SCHEDULES  
PERU STREET OVER BR. OF PAW PAW RUN  
SECTION 03-00287-00-BR  
STA. 19+96 (S.N. 052-6200)  
LEE COUNTY  
WHA # 1231D03

FED. DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178	03-00287-00-BR	LEE	18	4
STA. 19+96		TO STA. 19+96		
FED. ROAD DIST. NO.	ELIMBS	FED. AID PROJECT		



**LEGEND**

-  Perimeter Erosion Barrier
-  Seeding Class II (Special)
-  Erosion Control Blanket

**NOTES:**

Temporary Ditch Checks Shall Comply With Section 280 Of The Standard Specifications For Road And Bridge Construction And Standard 280001-03.

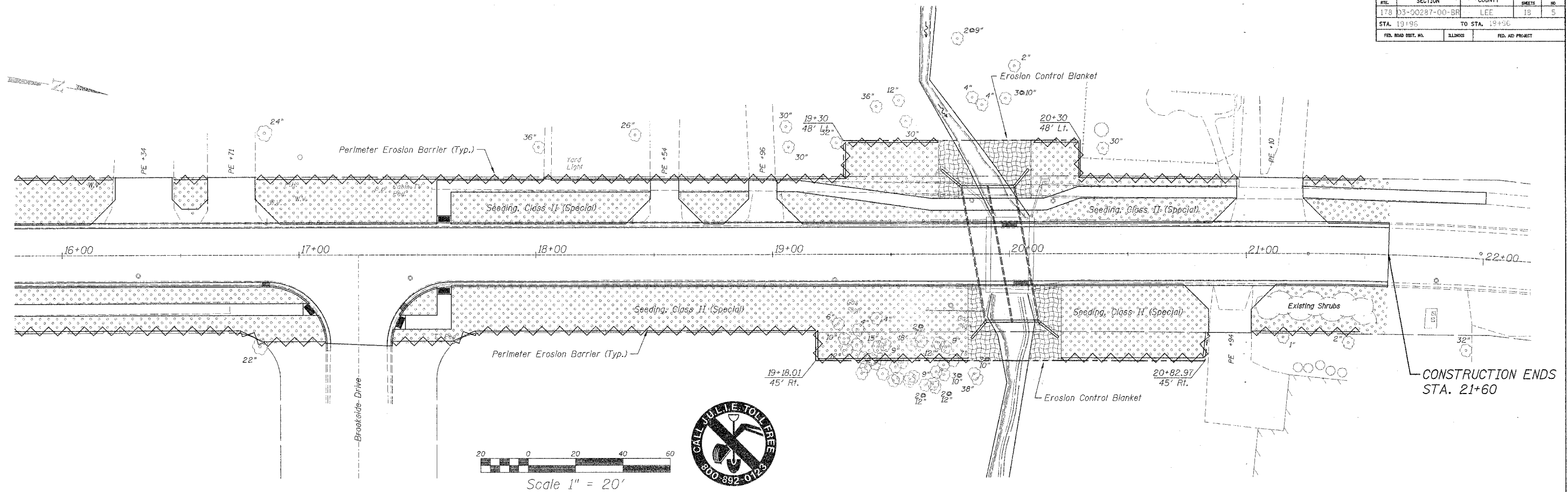
Perimeter Erosion Barrier Shall Comply With Section 280 Of The Standard Specifications And Shall Be Placed As Shown On The Erosion Control Plan And In Accordance With Stations Shown On The Schedule Of Quantities Sheet Or As Directed By The Engineer.

For Seeding, Class II (Special) See Special Provisions.



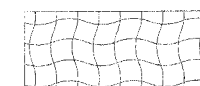
Erosion Control Blanket Shall Be Placed In Ditches And Around The Wingwalls And In Front Of Box Culvert At Upstream and Downstream Locations As Shown On This Erosion Control Plan Sheet And In Accordance With Section 251 Of The Standard Specifications For Road And Bridge Construction.

**EROSION CONTROL PLAN**  
**SECTION 03-00287-00-BR**  
**PERU STREET OVER BR. OF PAW PAW RUN**  
**LEE COUNTY**  
 WHA # 1231003

FAB. YR.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178	03-00287-00-BR	LEE	18	5
STA. 19+96		TO STA. 19+96		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**LEGEND**

-  Perimeter Erosion Barrier
-  Seeding Class II (Special)
-  Erosion Control Blanket

**NOTES:**

Temporary Ditch Checks Shall Comply With Section 280 Of The Standard Specifications For Road And Bridge Construction And Standard 280001-03.

Perimeter Erosion Barrier Shall Comply With Section 280 Of The Standard Specifications And Shall Be Placed As Shown On The Erosion Control Plan And In Accordance With Stations Shown On The Schedule Of Quantities Sheet Or As Directed By The Engineer.

For Seeding, Class II (Special) See Special Provisions.

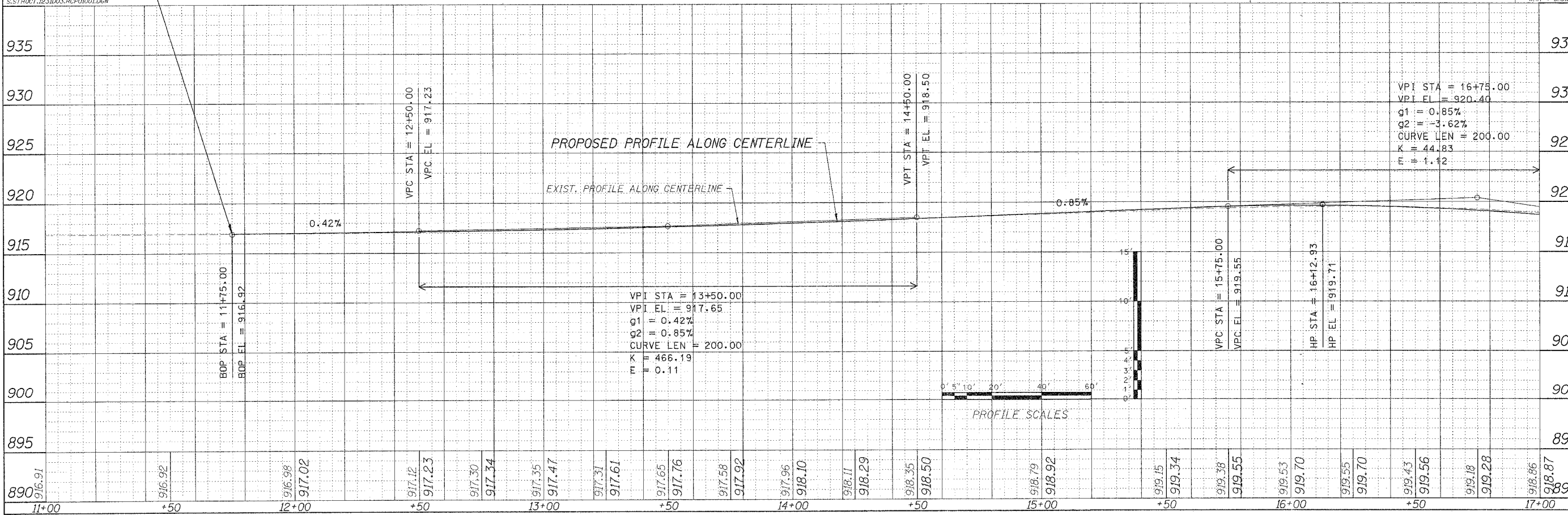
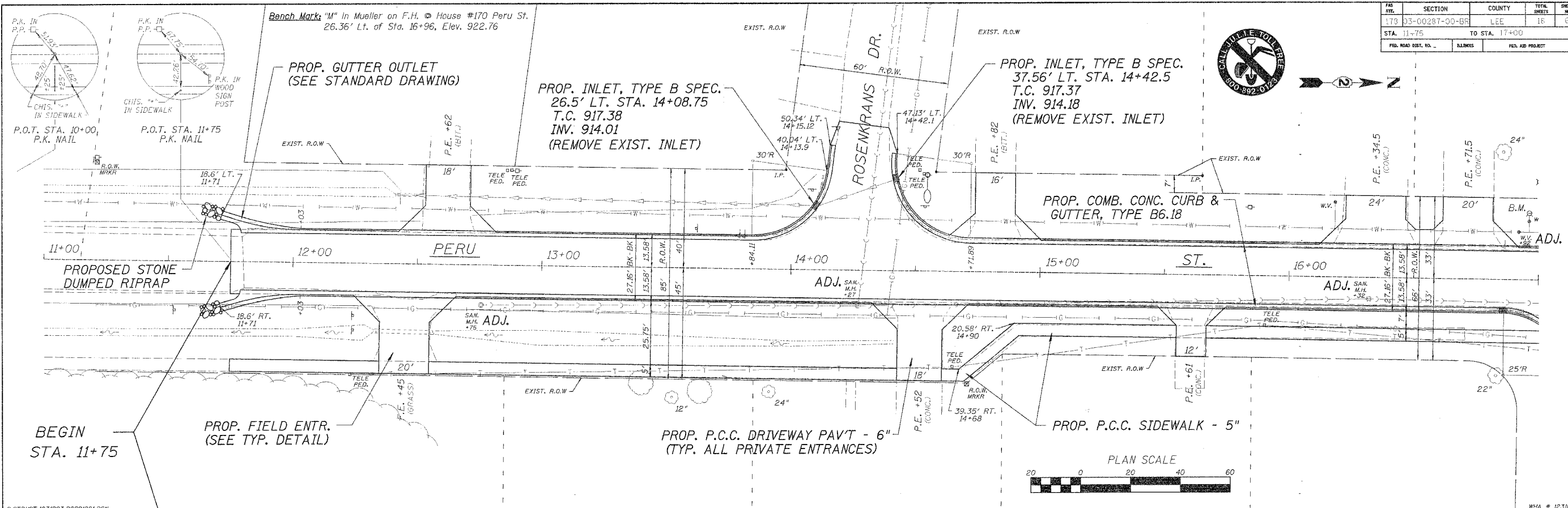
Erosion Control Blanket Shall Be Placed In Ditches And Around The Wingwalls And In Front Of Box Culvert At Upstream and Downstream Locations As Shown On This Erosion Control Plan Sheet And In Accordance With Section 251 Of The Standard Specifications For Road And Bridge Construction.

**BILL OF MATERIAL**

Seeding, Class II	Acres	0.8
Seeding, Class II (Special)	Acres	0.8
Erosion Control Blanket	Sq. Yd.	139
Perimeter Erosion Barrier	Foot	1754

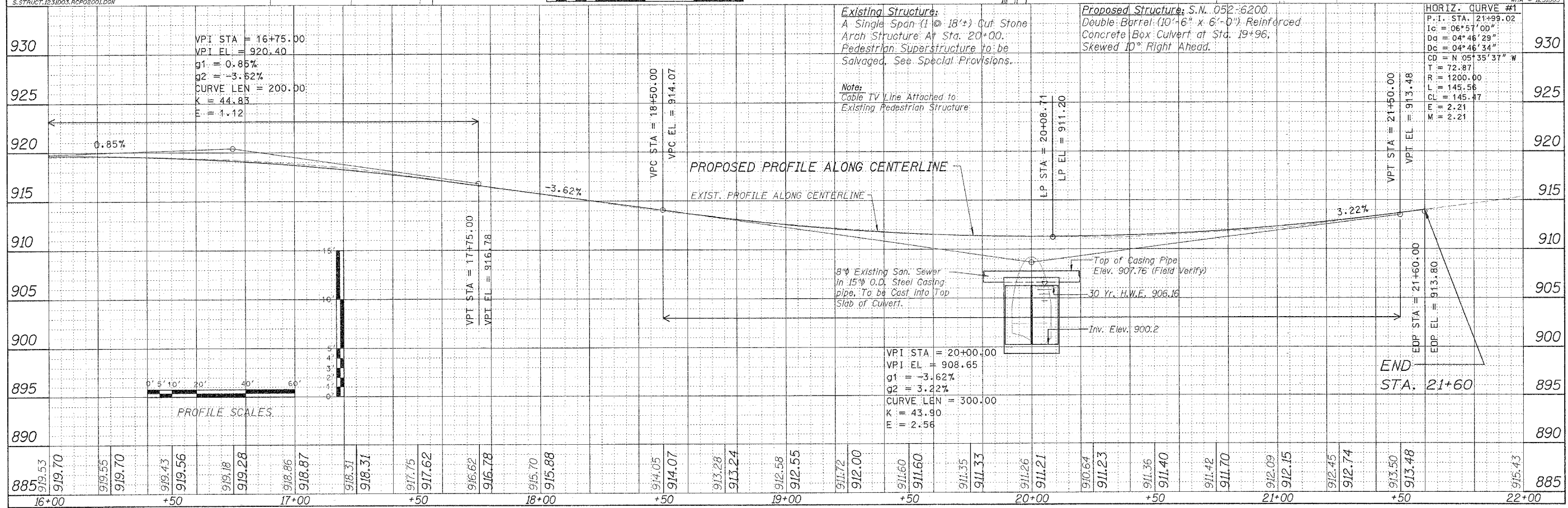
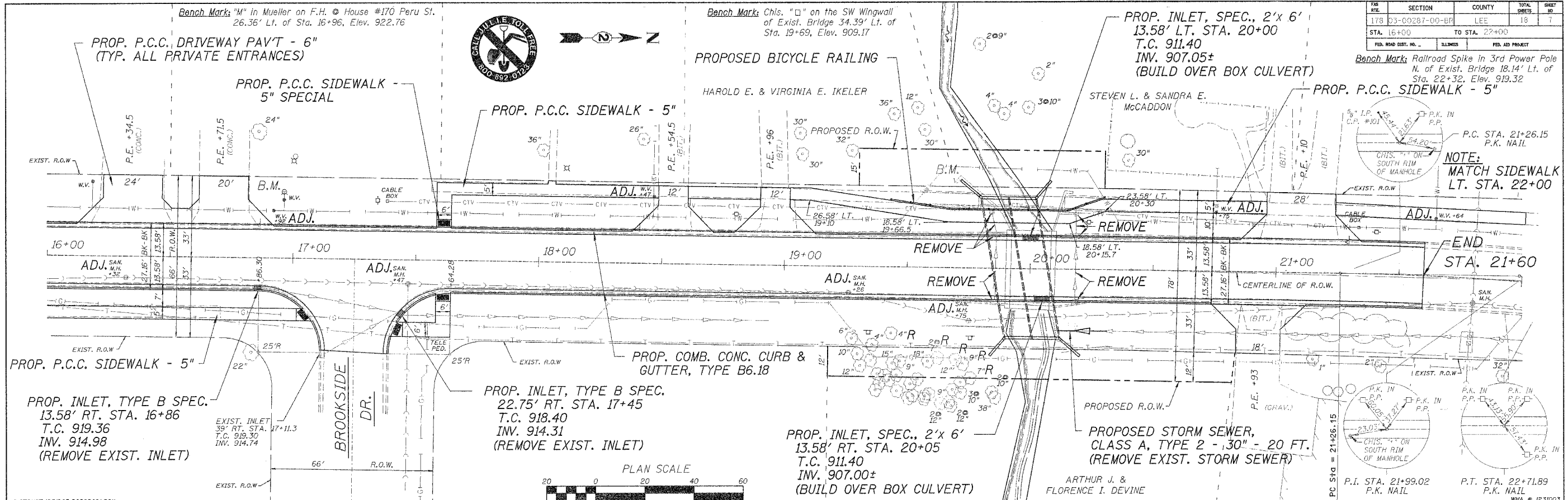
**EROSION CONTROL PLAN**  
**SECTION 03-00287-00-BR**  
**PERU STREET OVER BR. OF PAW PAW RUN**  
**LEE COUNTY**  
 WHA # 1231003

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
173 03-00287-00-65	LEE	16	6
STA. 11+75 TO STA. 17+00			
FED. ROAD DIST. NO. -		ILLINOIS	FED. AID PROJECT



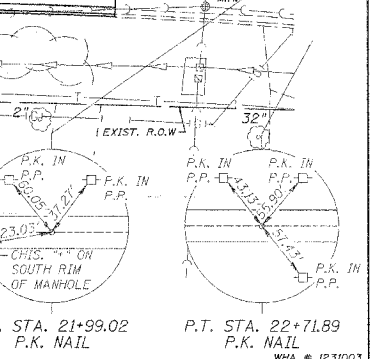
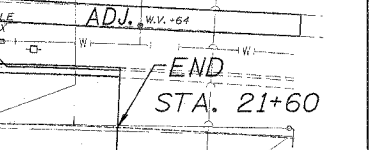
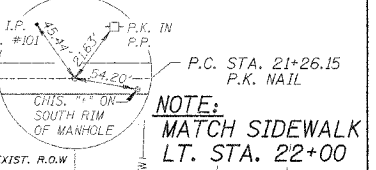
S:\STRUCT\1231003.RCP\1001.DGN

WHA # 1231003



FED. AID PROJECT	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178 03-00287-00-BF	LEE	18	7	

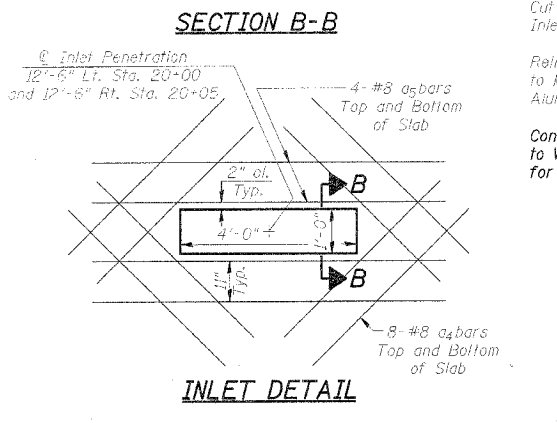
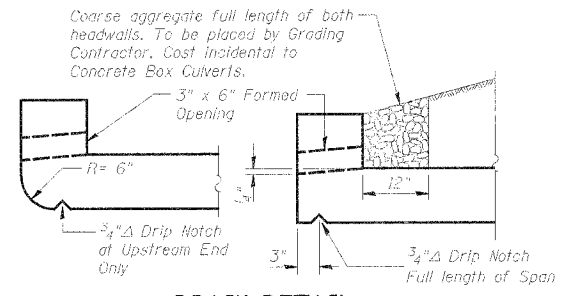
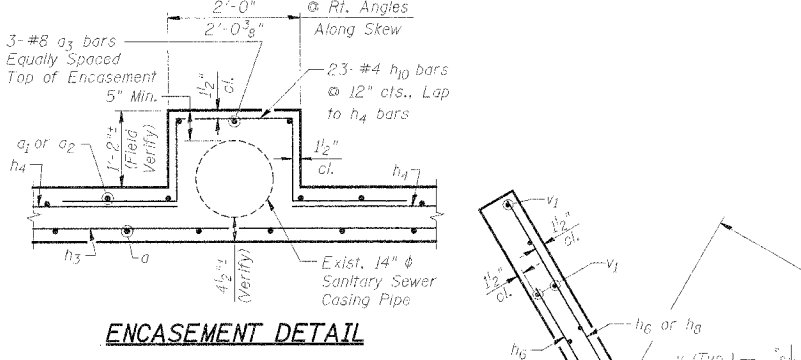
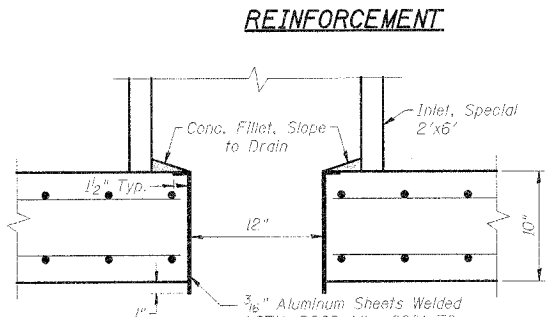
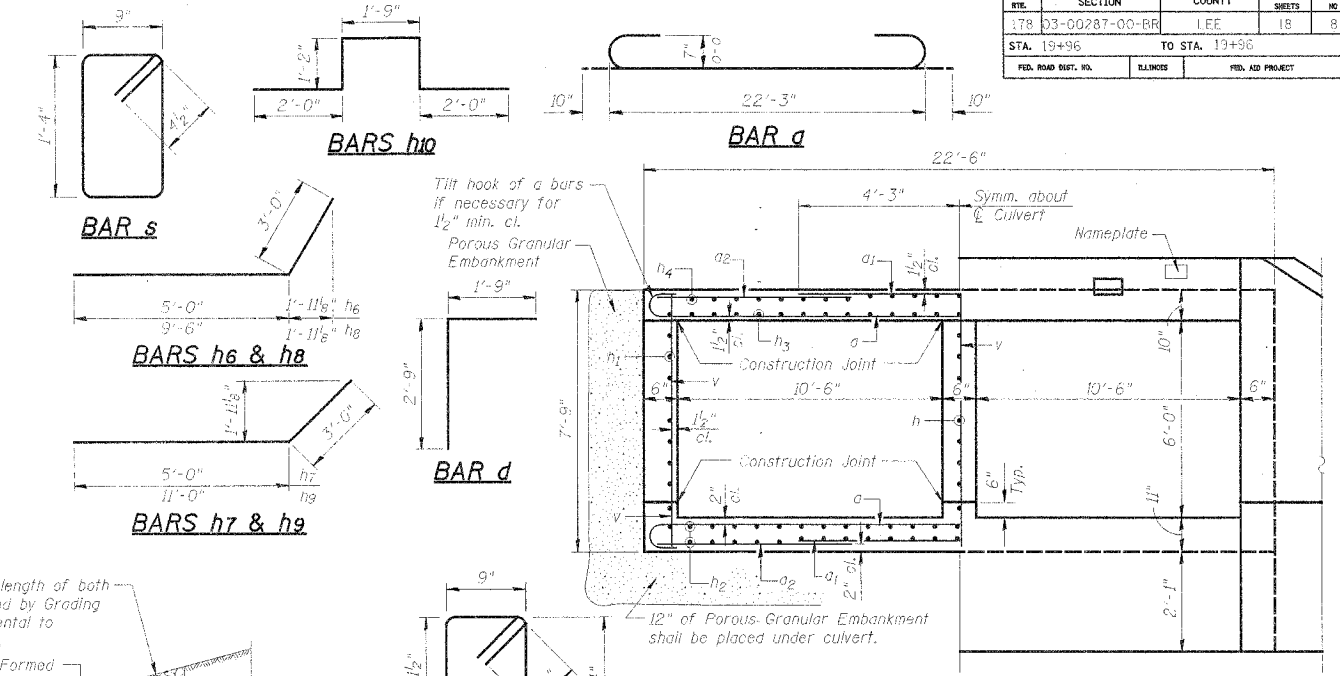
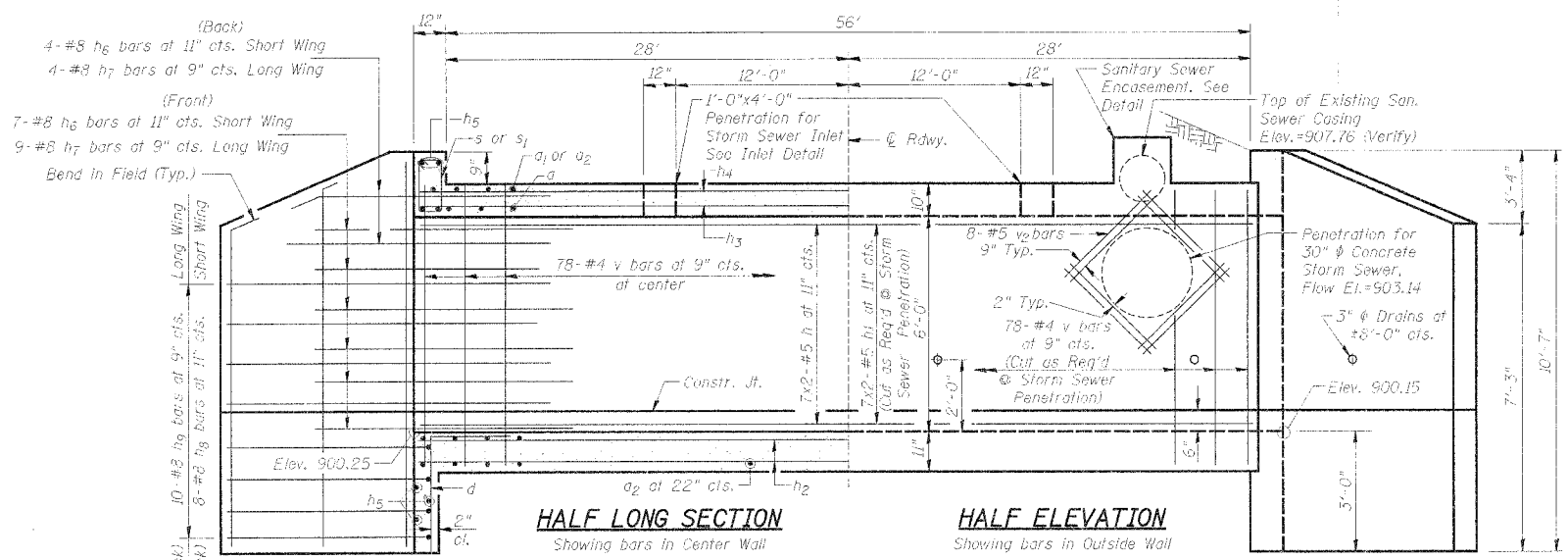
Bench Mark: Railroad Spike in 3rd Power Pole N. of Exist. Bridge 18.14' Lt. of Sta. 22+32, Elev. 919.32



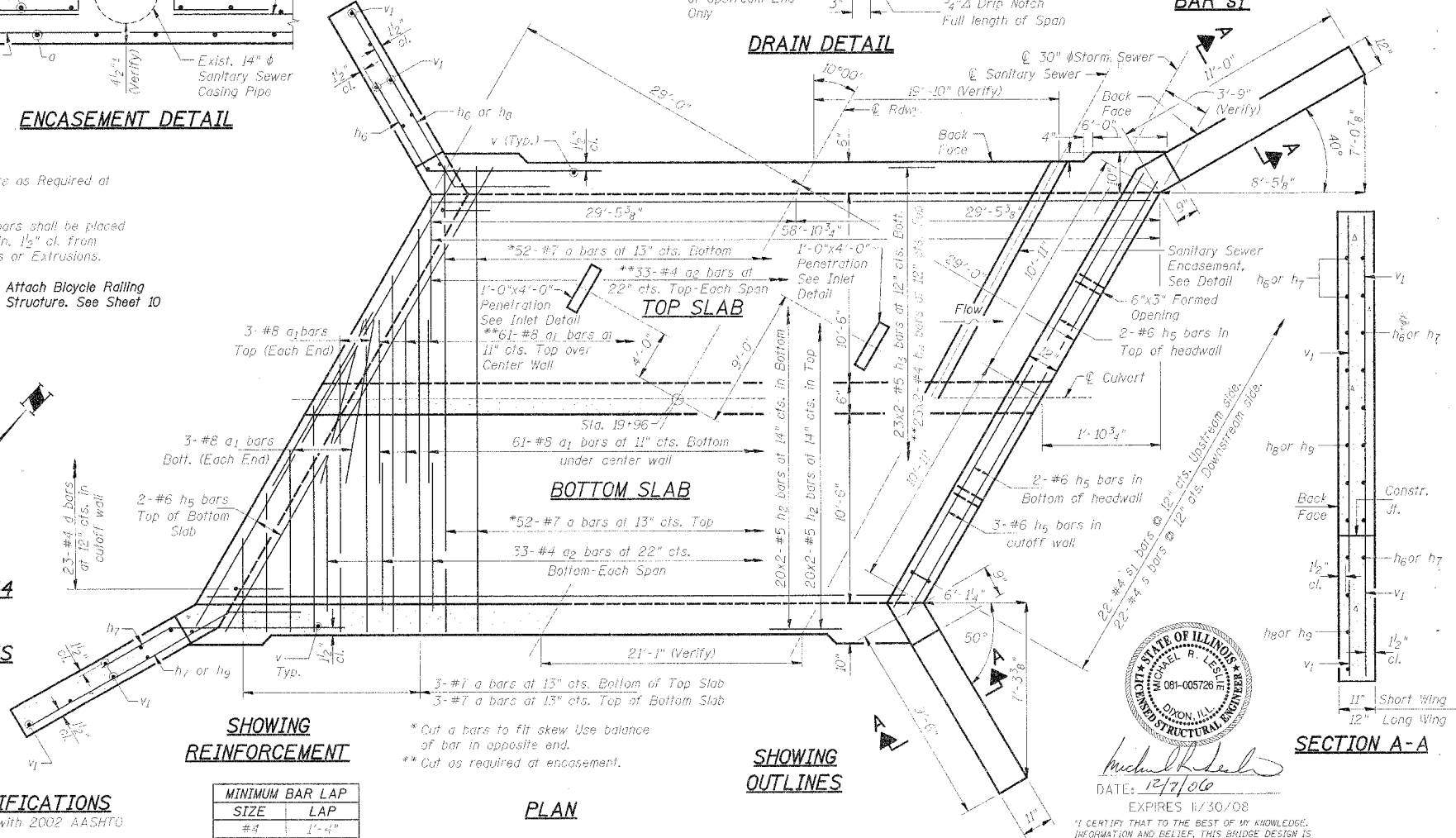
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WPA # 1231003

FILE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178	03-00287-00-BR	LEE	18	8
STA. 19+96	TO STA. 19+96			
FED. ROAD DIST. NO.	BLANKS	FED. AID PROJECT		



**Notes:**  
Cut  $a_1$  &  $a_2$  bars as Required at Inlet Locations.  
Reinforcement bars shall be placed to maintain a min.  $1\frac{1}{2}$ " cl. from Aluminum Sheets or Extrusions.  
Contractor shall Attach Bicycle Railing to West Side of Structure. See Sheet 10 for Details.



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a	110	#7	23'-11"	U
a <sub>1</sub>	128	#8	8'-6"	—
a <sub>2</sub>	132	#4	8'-3"	—
a <sub>3</sub>	3	#8	22'-6"	—
a <sub>4</sub>	32	#8	5'-0"	—
a <sub>5</sub>	16	#8	8'-0"	—
d	45	#4	4'-6"	L
h	14	#5	30'-2"	—
h <sub>1</sub>	28	#5	30'-2"	—
h <sub>2</sub>	80	#5	30'-2"	—
h <sub>3</sub>	46	#5	30'-2"	—
h <sub>4</sub>	46	#4	30'-0"	—
h <sub>5</sub>	18	#6	22'-0"	—
h <sub>6</sub>	22	#8	8'-0"	—
h <sub>7</sub>	26	#8	8'-0"	—
h <sub>8</sub>	16	#8	12'-6"	—
h <sub>9</sub>	20	#8	14'-0"	—
h <sub>10</sub>	23	#4	8'-1"	—
s	22	#4	4'-11"	U
s <sub>1</sub>	22	#4	4'-9"	U
v	238	#4	7'-6"	—
v <sub>1</sub>	32	#4	10'-3"	—
v <sub>2</sub>	8	#5	7'-0"	—
Concrete Box Culverts				Cu. Yds. 125.2
Reinforcement Bars				Lbs. 20,950
Name Plate				Each 1
Porous Granular Embankment				Cu. Yds. 126

**Notes:**  
Class S1 concrete shall be used throughout.  
Exposed edges shall be beveled  $\frac{3}{4}$ ".  
For backfill & embankment, See Special Provisions.  
Reinforcement bars shall conform to the requirements of ASSHTO M-31, M-42, or M-53 Grade 60.  
A min. of 6'-0" of barrel shall be poured monolithically with wing.  
Bars indicated thus 20x2-#5 etc. indicates 20 lines of bar with 2 lengths per line.

**NAME PLATE LETTERING**  
Refer to Sta. 515001

**WATERWAY INFORMATION**

DRAINAGE AREA	1,289 SQ. MI.
DESIGN DISCHARGE (30 YR.)	440 CFS
EXISTING OPENING	85 SQ. FT
REQUIRED OPENING	125 SQ. FT
PROPOSED OPENING	125 SQ. FT
CREATED HEAD (30 YR.)	<0.3 FT.
100 YR. DISCHARGE	590 CFS
CREATED HEAD (100 YR.)	<0.5 FT.
HIGH WATER ELEV. (100 YR.)	906.4 FT.

**LOADING-HS20-44**  
Allow 50 psf Future Wearing Surface

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

**DESIGN SPECIFICATIONS**  
Design in accordance with 2002 AASHTO Specifications.

**MINIMUM BAR LAP**

SIZE	LAP
#4	1'-4"
#5	1'-8"
#6	2'-0"



DATE: 12/7/06  
EXPIRES: 11/30/08

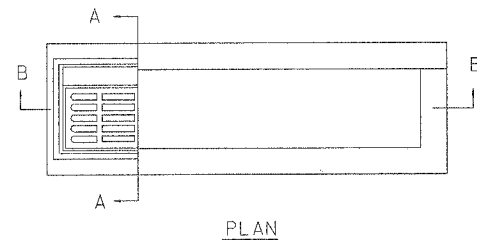
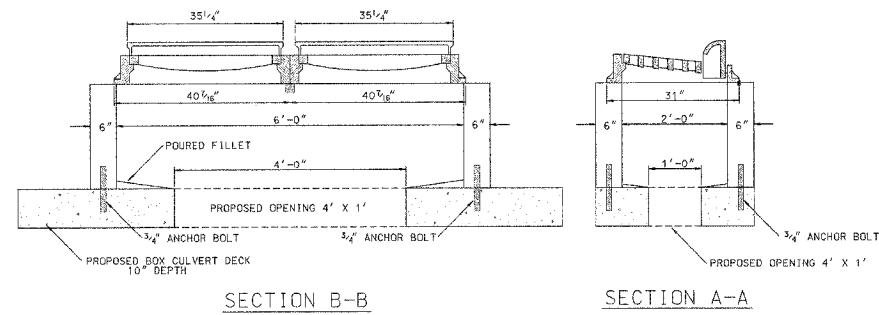
"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE WHICH COMPLIES WITH REQUIREMENTS OF THE CURRENT 'AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES'."

**CULVERT DETAILS**  
PERU STREET OVER BR. OF PAW PAW RUN  
SECTION 03-00287-00-BR  
STA. 19+96 (S.N. 052-6200)  
LEE COUNTY  
WHA # 123JD03



FILE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178	03-00287-00-BR	LEE	18	9
STA. 19+96		TO STA. 19+96		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

### INLETS, SPECIAL 2' X 6' BOX

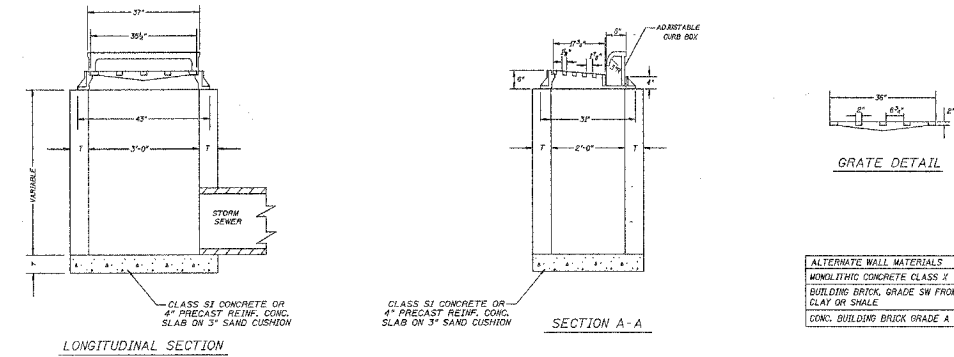


**NOTES:**  
 THE INLET (SPECIAL) SHALL BE CAST IN PLACE.  
 HERE ON, INLET SPECIAL 2' X 6' WITH FRAME AND GRATE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SEC. 602 OF THE STANDARD SPECIFICATIONS.  
 THE CONTRACT UNIT PRICE FOR EACH INLET (SPECIAL) SHALL INCLUDE THE COST OF FURNISHING ALL MATERIALS REQUIRED TO BUILD THE INLET BOX, FRAME AND GRATE, AND ANCHOR BOLTS.  
 CLASS S1 CONCRETE SHALL BE USED THROUGHOUT.  
 THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 6" SHORT TO ALLOW FOR FIELD ADJUSTMENTS.  
 THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS S1 CONCRETE.  
 ANCHOR BOLTS SHALL BE CAST INTO THE SLAB AT A DEPTH OF 6" INTO THE TOP SLAB OF THE CULVERT DECK AND SHALL BE SPACED ON 15" CENTERS ON BOTH SIDES OF THE BOX.  
 THE FRAME AND GRATE USED SHALL BE NEENAH R-3295-2 OR APPROVED EQUAL.

INLETS, SPECIAL  
 STANDARD: WHA 615

**WILLETT, HOFMANN & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 Land Surveying - Transportation - Structural - Environmental - Architecture  
 809 East Second Street, Dixon, Illinois 61021  
 Phone: 815-284-3300 Fax: 815-284-3385  
 Design Firm #164-00078  
 www.willett.com

### INLETS, TYPE B, SPECIAL WITH FRAME AND GRATE



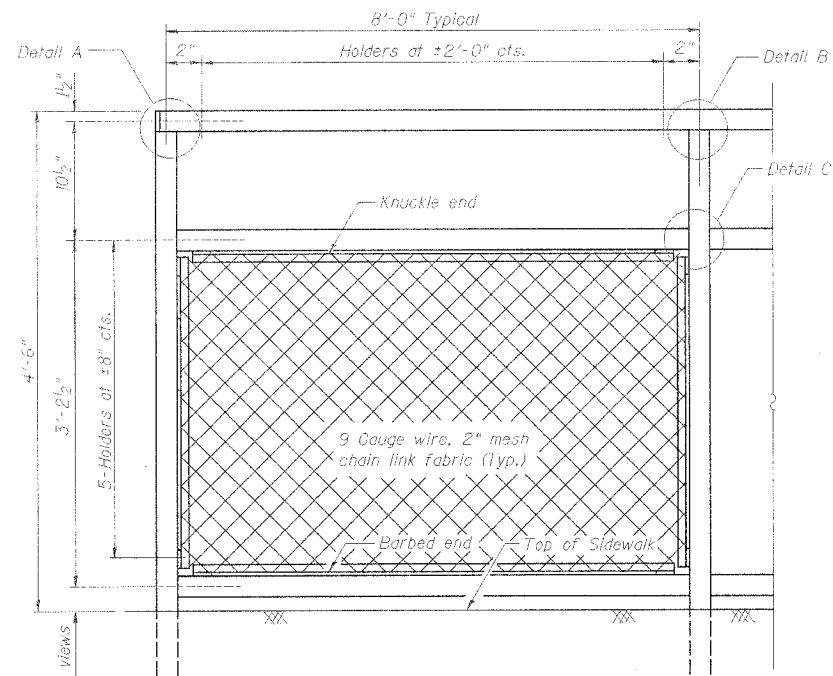
**NOTES:**  
 THE INLET, TYPE B, SPECIAL WITH FRAME AND GRATE SHALL BE PRECAST OR CAST IN PLACE, EXCEPT AS NOTED HERE AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH SEC. 602 OF THE STANDARD SPECIFICATIONS.  
 THE CONTRACT UNIT PRICE FOR EACH INLETS, TYPE B, SPECIAL WITH FRAME AND GRATE SHALL INCLUDE THE COST OF FURNISHING ALL MATERIALS AND LABOR REQUIRED TO CONSTRUCT THE INLET BOX, FRAME AND GRATE.  
 CLASS S1 CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT.  
 THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 6" SHORT TO ALLOW FOR FIELD ADJUSTMENTS.  
 THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS S1 CONCRETE.  
 ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR, AND THE FLOOR SHALL BE FINISHED WITH CLASS S1 CONCRETE SO THAT THERE IS NO STANDING WATER IN THE INLET.

INLETS, TYPE B, SPECIAL  
 WITH FRAME AND GRATE  
 STANDARD: WHA 622

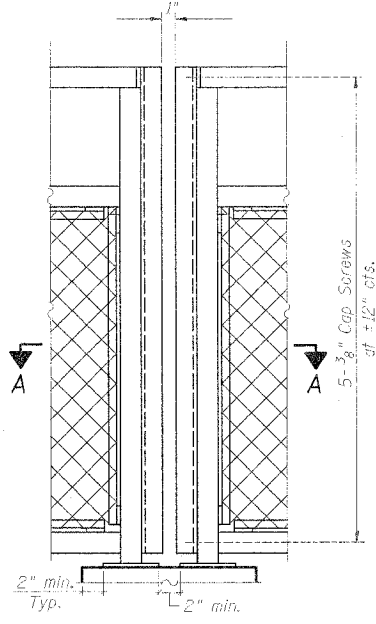
**WILLETT, HOFMANN & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 Land Surveying - Transportation - Structural - Environmental - Architecture  
 809 East Second Street, Dixon, Illinois 61021  
 Phone: 815-284-3300 Fax: 815-284-3385  
 Design Firm #164-00078  
 www.willett.com

INLETS DETAILS  
 PERU STREET OVER BR. OF PAW PAW RUN  
 SECTION 03-00287-00-BR  
 LEE COUNTY  
 WHA # 1231003

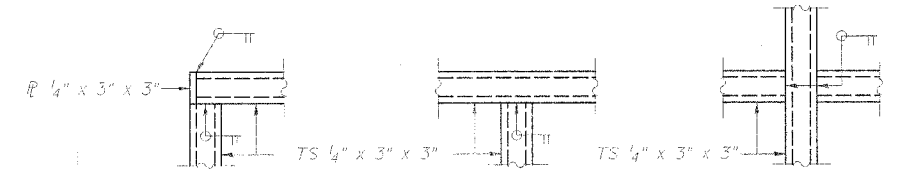
PAGE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178	03-00287-00-BR	LEE	18	10
STA. 19+96	TO STA. 19+96			
FED. ROAD DIST. NO.	RD. NO.	FED. AID PROJECT		



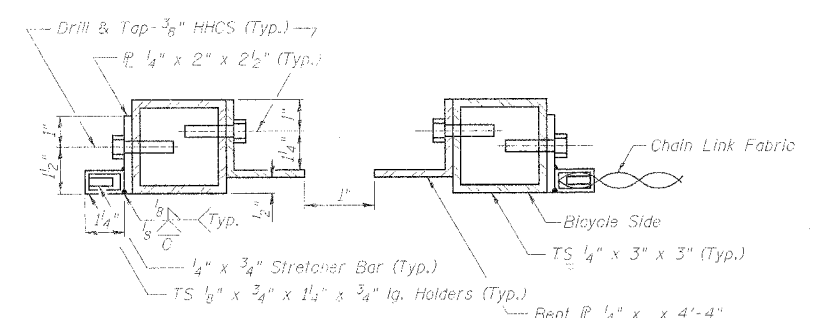
**ELEVATION**  
At End of Rail



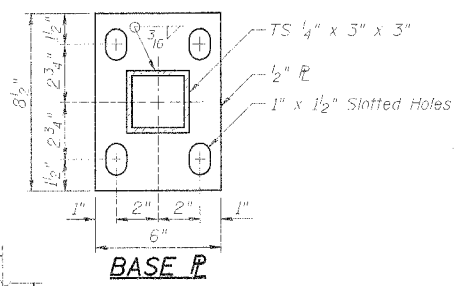
**ELEVATION**  
At Rail Corners



**DETAIL A**      **DETAIL B**      **DETAIL C**



**SECTION A-A**



**BASE P**

**NOTES**

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 Bicycle Railing.

The 9 gauge fabric ties shall be according to Article 1006.27 (d) of the Standard Specifications.

Installation of the chain link fabric shall be according to Section 664 of the Standard Specifications.

Follow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36.

The Parapet Railing, furnished and installed shall not be paid for separately but shall be included in the unit bid price for "Bicycle Railing."

The chain link fabric shall be placed along Bicycle Side as shown on Section A-A.

Stretcher bars shall be used of all four sides of each panel.

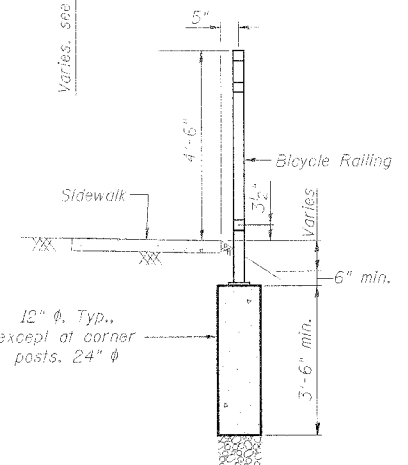
If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.

Space reinforcement to miss anchor rods.

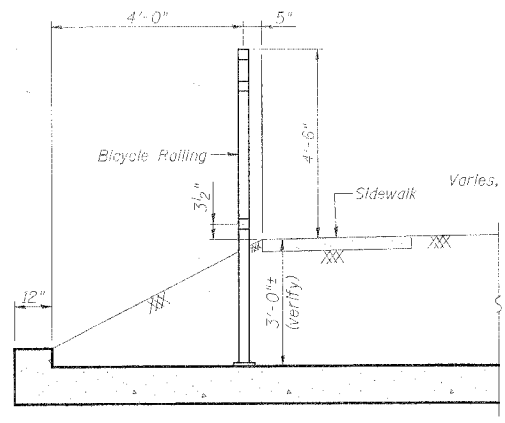
All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. All bolts, nuts, washers, and anchor rods shall be galvanized according to AASHTO M 232 except stainless steel bolts as noted.

Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.

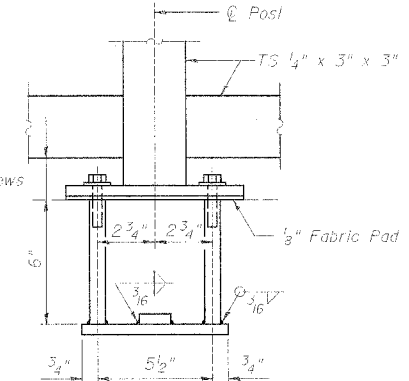
The chain link fence fabric shall conform to the requirements of Article 1006.27(a)(1), b or c of the Standard Specifications.



**SECTION OFF CULVERT**

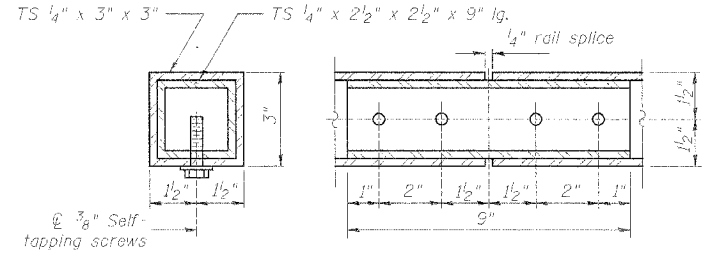
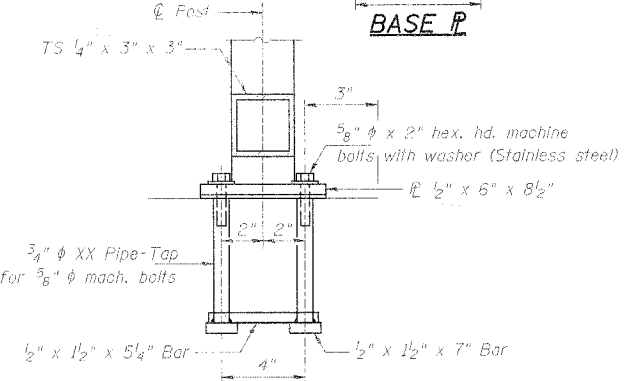


**SECTION THRU CULVERT**

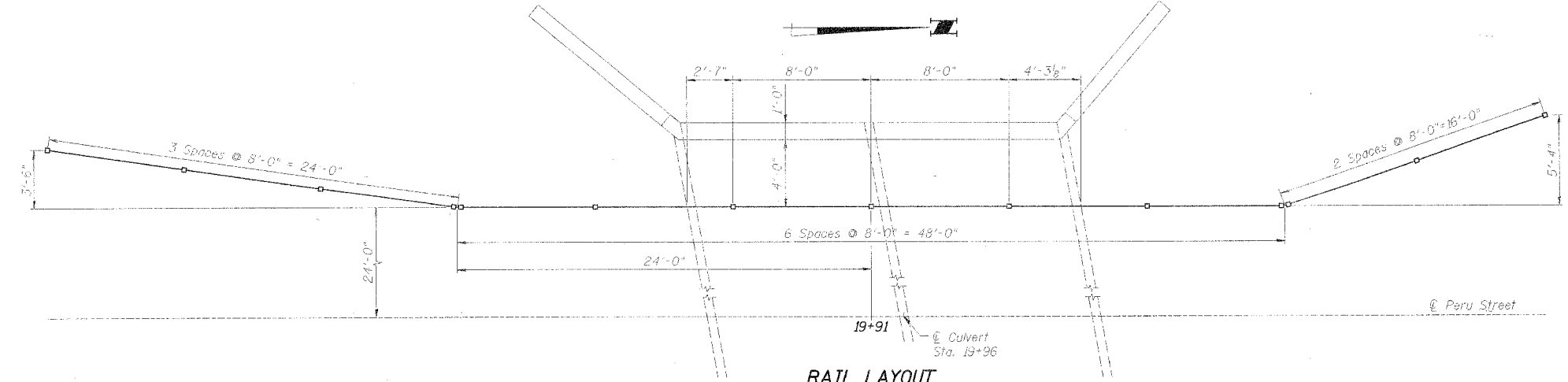


**ANCHOR BOLT DETAILS**

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting 5/8" φ anchor rods. Embedment shall be according to the manufacturer's specifications.



**RAIL SPLICE**



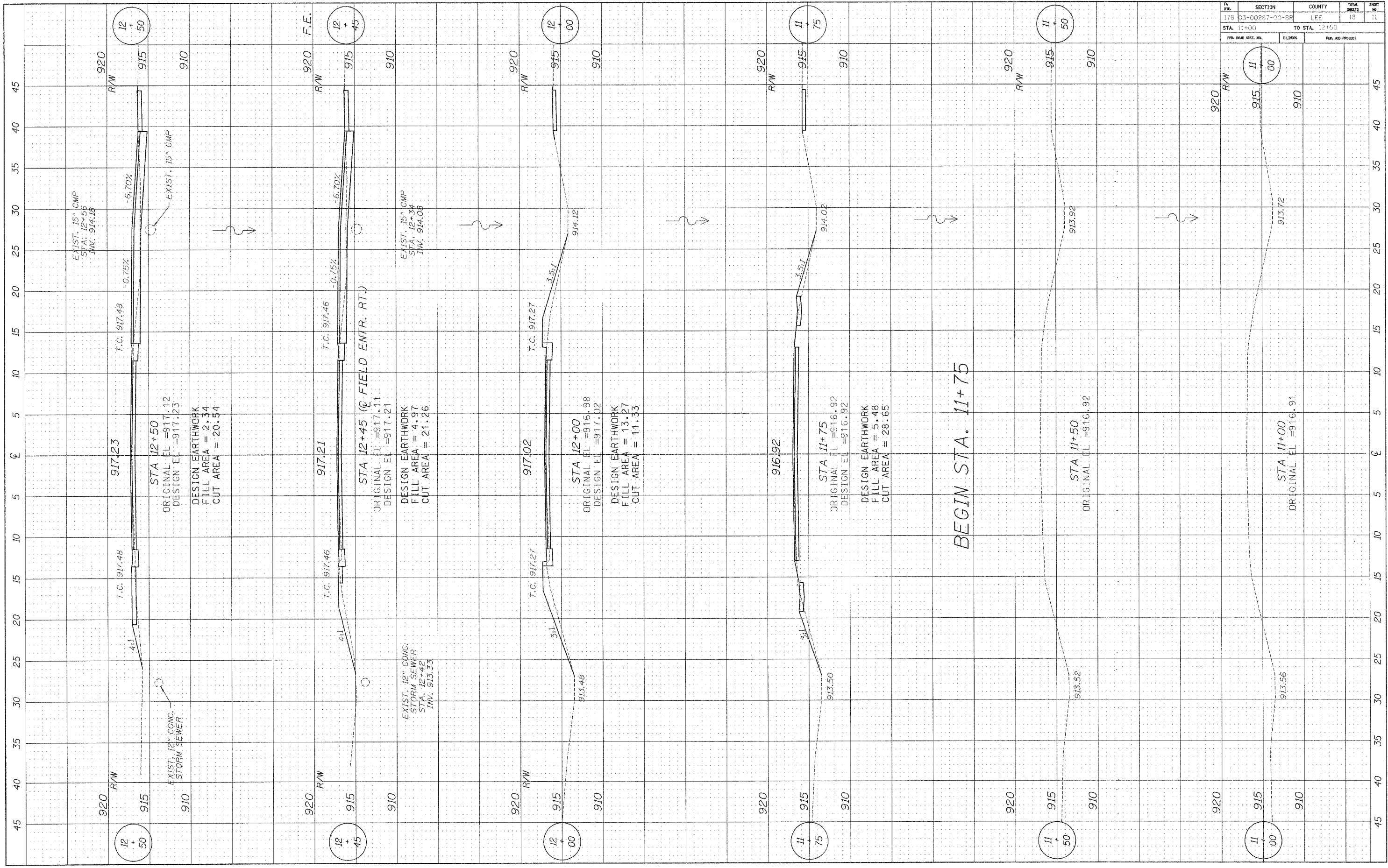
**RAIL LAYOUT**

**BILL OF MATERIAL**

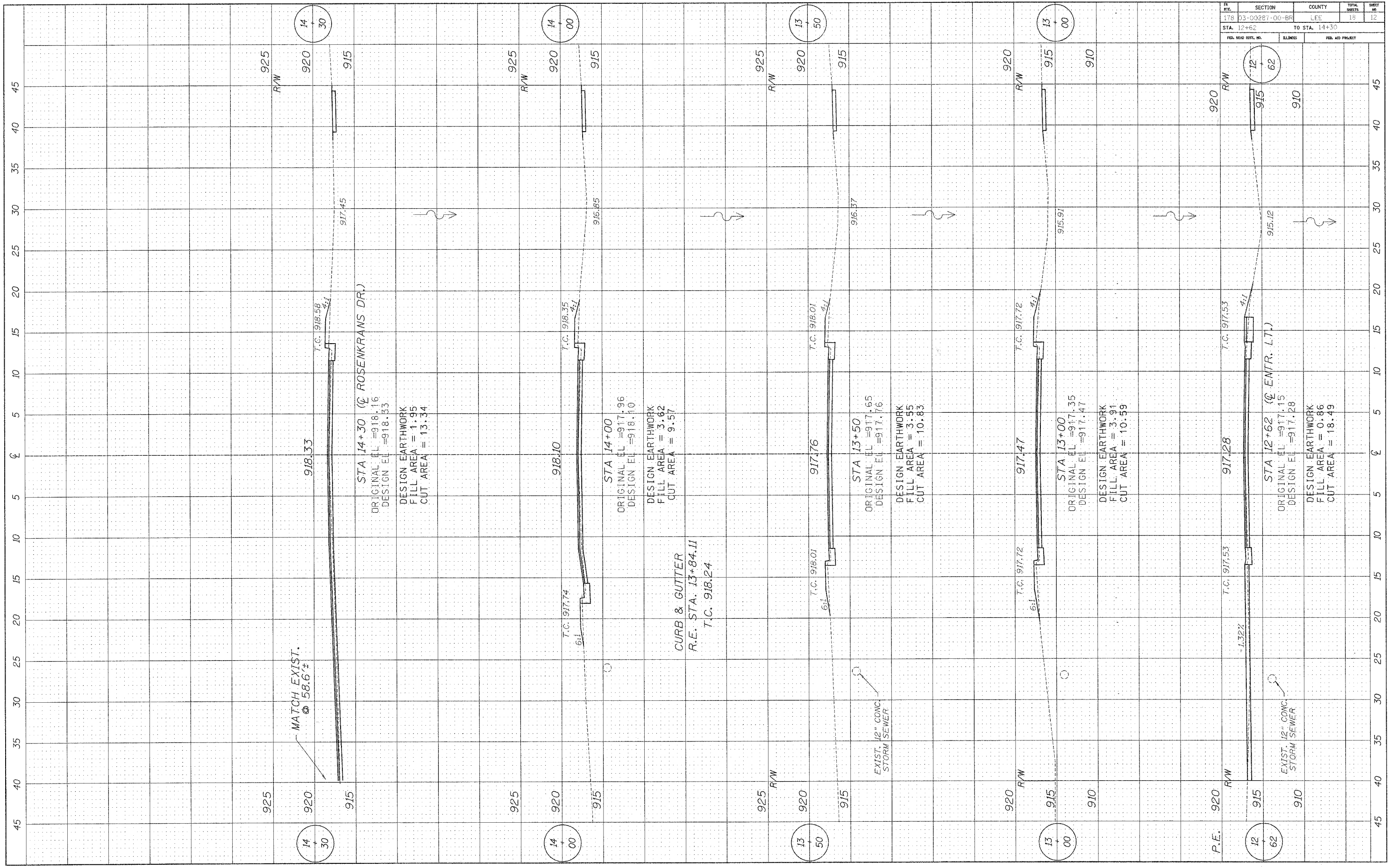
Item	Unit	Quantity
Bicycle Railing	Foot	88

**BICYCLE RAILING**

**BICYCLE RAILING DETAILS**  
PERU STREET OVER BR. of PAW PAW RUN  
SECTION 03-00287-00-BR  
STA. 19+96 (S.N. 052-6200)  
LEE COUNTY  
WHA # 1231D03



FE	SECTION	COUNTY	TOTAL	SHEET
178	93-00287-00-BP	LEE	18	11
STA. 11+00		TO STA. 12+50		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178 03-00287-00-BF	LEE	18	12
STA. 12+62 TO STA. 14+30		FED. AID PROJECT	

MATCH EXIST.  
@ 58.6'

STA 14+30 (C ROSENKRANS DR.)  
ORIGINAL EL = 918.16  
DESIGN EL = 918.53  
DESIGN EARTHWORK  
FILL AREA = 1.95  
CUT AREA = 13.34

STA 14+00  
ORIGINAL EL = 917.96  
DESIGN EL = 918.10  
DESIGN EARTHWORK  
FILL AREA = 3.62  
CUT AREA = 9.57

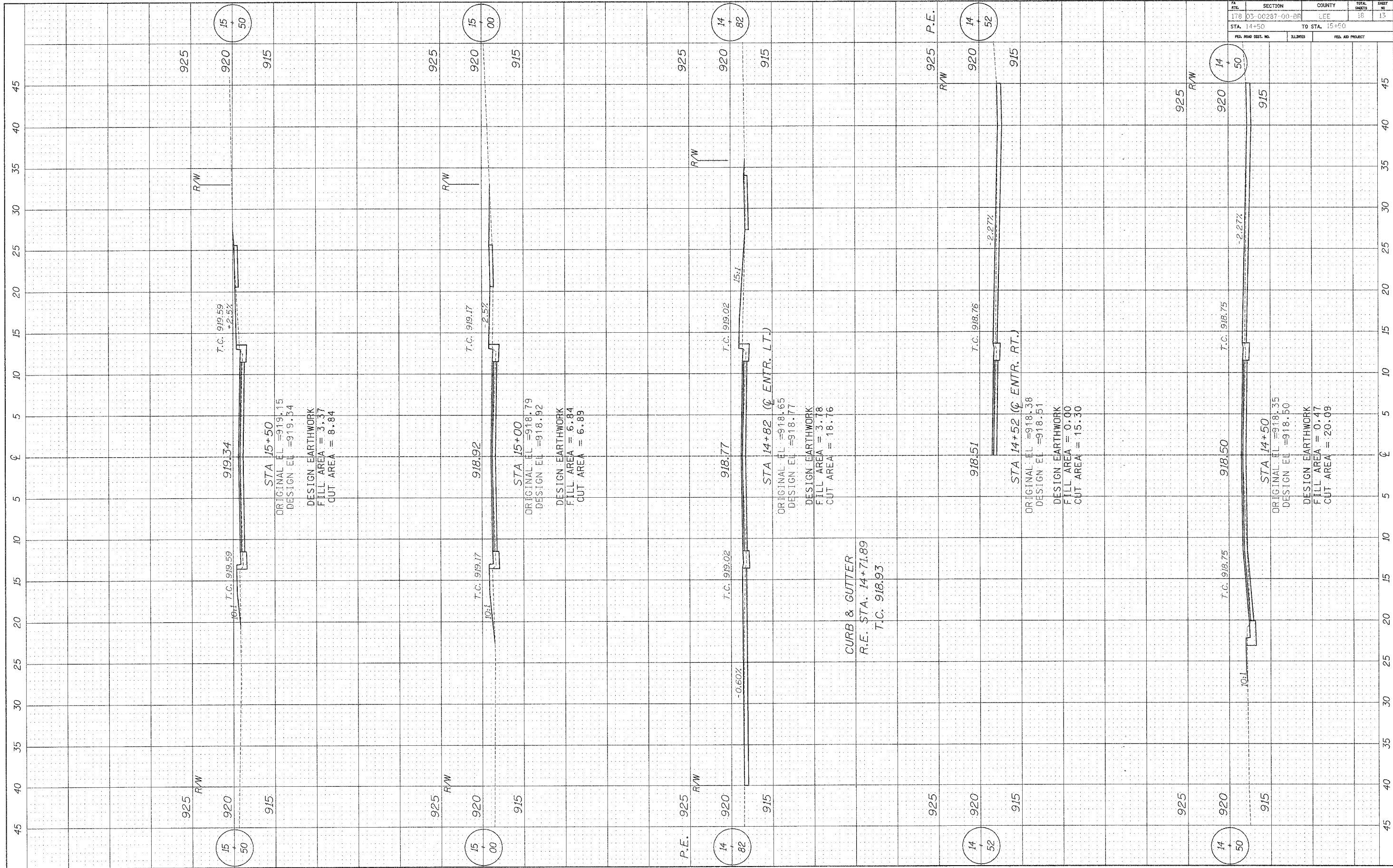
CURB & GUTTER  
R.E. STA. 13+84.11  
T.C. 918.24

EXIST. 12" CONC.  
STORM SEWER

STA 13+50  
ORIGINAL EL = 917.65  
DESIGN EL = 917.76  
DESIGN EARTHWORK  
FILL AREA = 3.55  
CUT AREA = 10.83

EXIST. 12" CONC.  
STORM SEWER

STA 12+62 (C ENTR. L.T.)  
ORIGINAL EL = 917.15  
DESIGN EL = 917.28  
DESIGN EARTHWORK  
FILL AREA = 0.86  
CUT AREA = 18.49



FA 178	SECTION 03-00287-00-BR	COUNTY LEE	TOTAL SHEETS 18	SHEET NO. 13
STA. 14+50		TO STA. 15+50		
FED. ROAD DIST. NO.		BLANKS	FED. AID PROJECT	

15  
50

15  
00

14  
82

14  
52

14  
50

STA 15+50  
ORIGINAL EL = 919.15  
DESIGN EL = 919.34  
DESIGN EARTHWORK  
FILL AREA = 3.37  
CUT AREA = 6.84

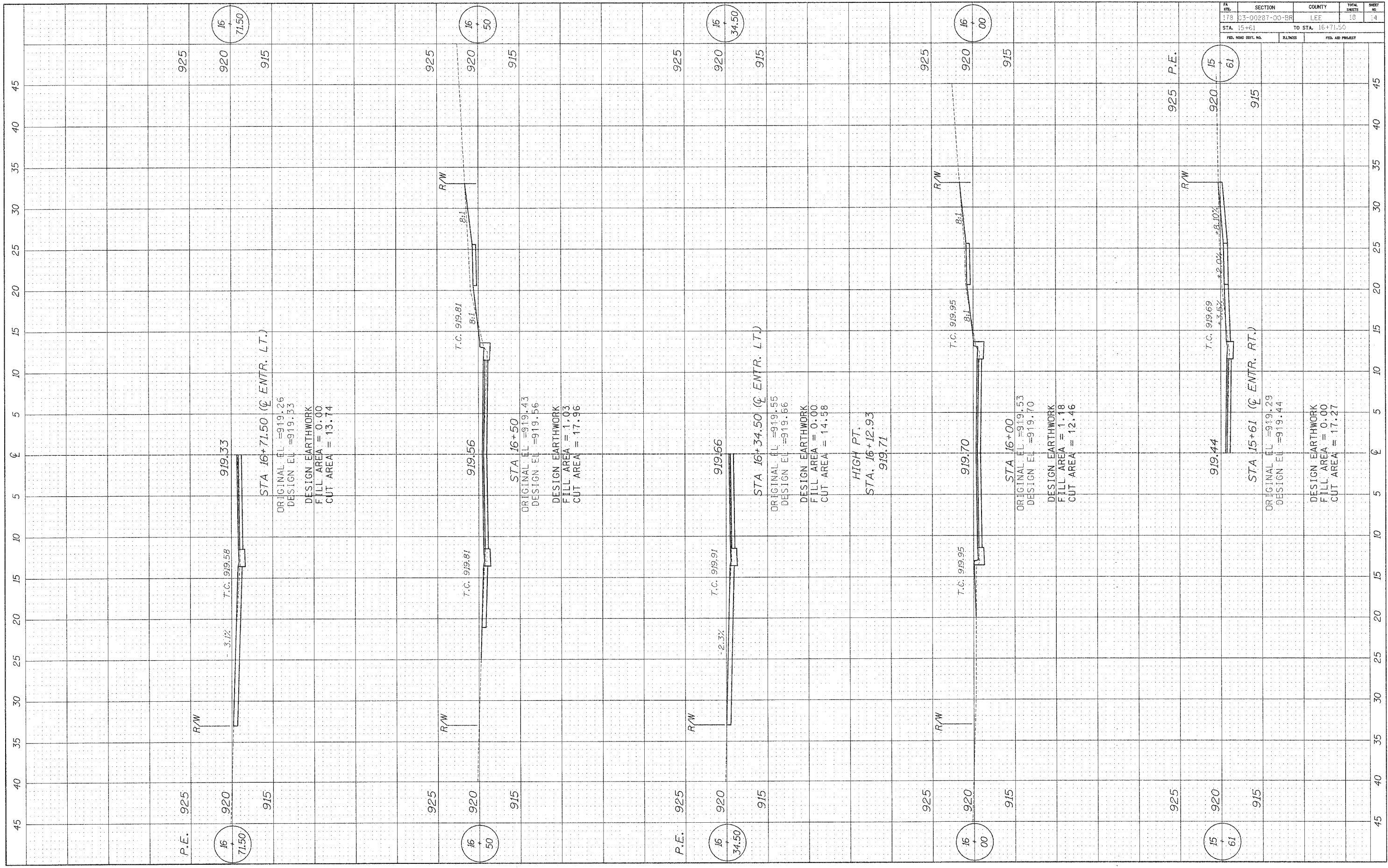
STA 15+00  
ORIGINAL EL = 918.79  
DESIGN EL = 918.92  
DESIGN EARTHWORK  
FILL AREA = 6.84  
CUT AREA = 6.89

STA 14+82 (C ENTR. LT.)  
ORIGINAL EL = 918.65  
DESIGN EL = 918.77  
DESIGN EARTHWORK  
FILL AREA = 3.78  
CUT AREA = 18.76

STA 14+52 (C ENTR. RT.)  
ORIGINAL EL = 918.38  
DESIGN EL = 918.51  
DESIGN EARTHWORK  
FILL AREA = 0.00  
CUT AREA = 15.30

STA 14+50  
ORIGINAL EL = 918.35  
DESIGN EL = 918.50  
DESIGN EARTHWORK  
FILL AREA = 0.47  
CUT AREA = 20.08

CURB & GUTTER  
R.E. STA. 14+71.89  
T.C. 918.93



SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178 33-00287-00-BR	LEE	10	14
STA. 15+61 TO STA. 16+71.50			
FED. ROAD DIST. NO.	RLNOS	FED. AID PROJECT	

P.E. 925

16  
71.50

919.33

STA 16+71.50 (Q ENTR. LT.)

ORIGINAL EL = 919.26  
DESIGN EL = 919.53  
DESIGN EARTHWORK  
FILL AREA = 0.00  
CUT AREA = 13.74

P.E. 925

16  
50

T.C. 919.81

919.56

STA 16+50

ORIGINAL EL = 919.43  
DESIGN EL = 919.56  
DESIGN EARTHWORK  
FILL AREA = 1.03  
CUT AREA = 17.96

P.E. 925

16  
34.50

919.66

STA 16+34.50 (Q ENTR. LT.)

ORIGINAL EL = 919.55  
DESIGN EL = 919.66  
DESIGN EARTHWORK  
FILL AREA = 0.00  
CUT AREA = 14.58

HIGH PT.  
STA. 16+12.93  
919.71

P.E. 925

16  
00

T.C. 919.95

919.70

STA 16+00

ORIGINAL EL = 919.53  
DESIGN EL = 919.70  
DESIGN EARTHWORK  
FILL AREA = 1.18  
CUT AREA = 12.46

P.E. 925

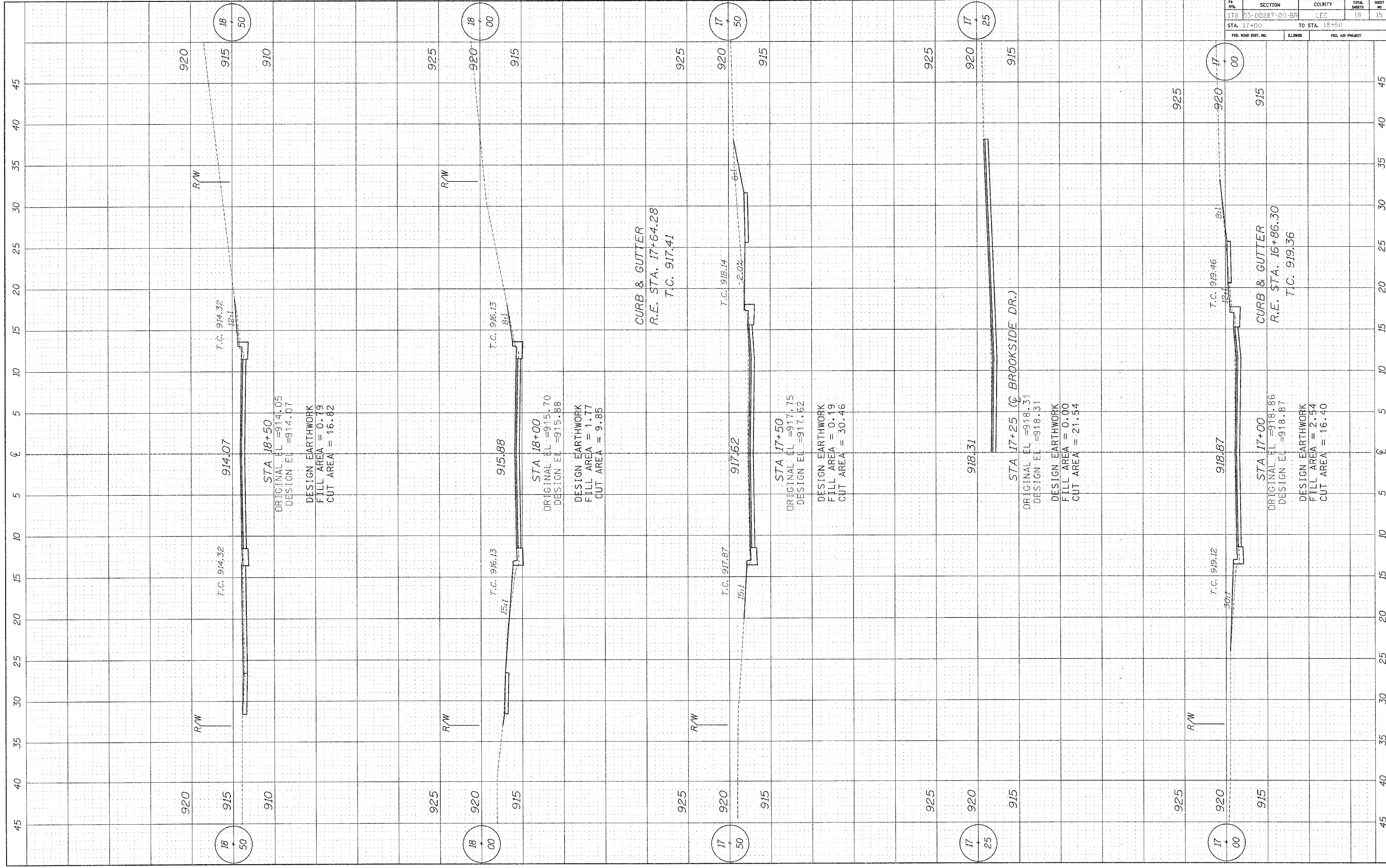
15  
61

T.C. 919.69

919.44

STA 15+61 (Q ENTR. RT.)

ORIGINAL EL = 919.29  
DESIGN EL = 919.44  
DESIGN EARTHWORK  
FILL AREA = 0.00  
CUT AREA = 17.27



SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178 03-00287-00-65	LEE	18	15

STA. 17+00 TO STA. 18+50  
 FEB. ROAD DIST. NO. E.L.N.W.S. FED. AID PROJECT

18  
50

18  
00

17  
50

17  
25

17  
00

920  
915  
910

925  
920  
915

925  
920  
915

925  
920  
915

925  
915

R/W

R/W

R/W

R/W

T.C. 914.32  
12:1

T.C. 916.13  
8:1

T.C. 918.14  
-2.0%

T.C. 919.46  
8:1

914.07

915.88

917.62

918.31

918.87

STA 18+50  
ORIGINAL EL = 914.05  
DESIGN EL = 914.07  
DESIGN EARTHWORK  
FILL AREA = 0.79  
CUT AREA = 16.82

STA 18+00  
ORIGINAL EL = 915.70  
DESIGN EL = 915.88  
DESIGN EARTHWORK  
FILL AREA = 1.77  
CUT AREA = 9.85

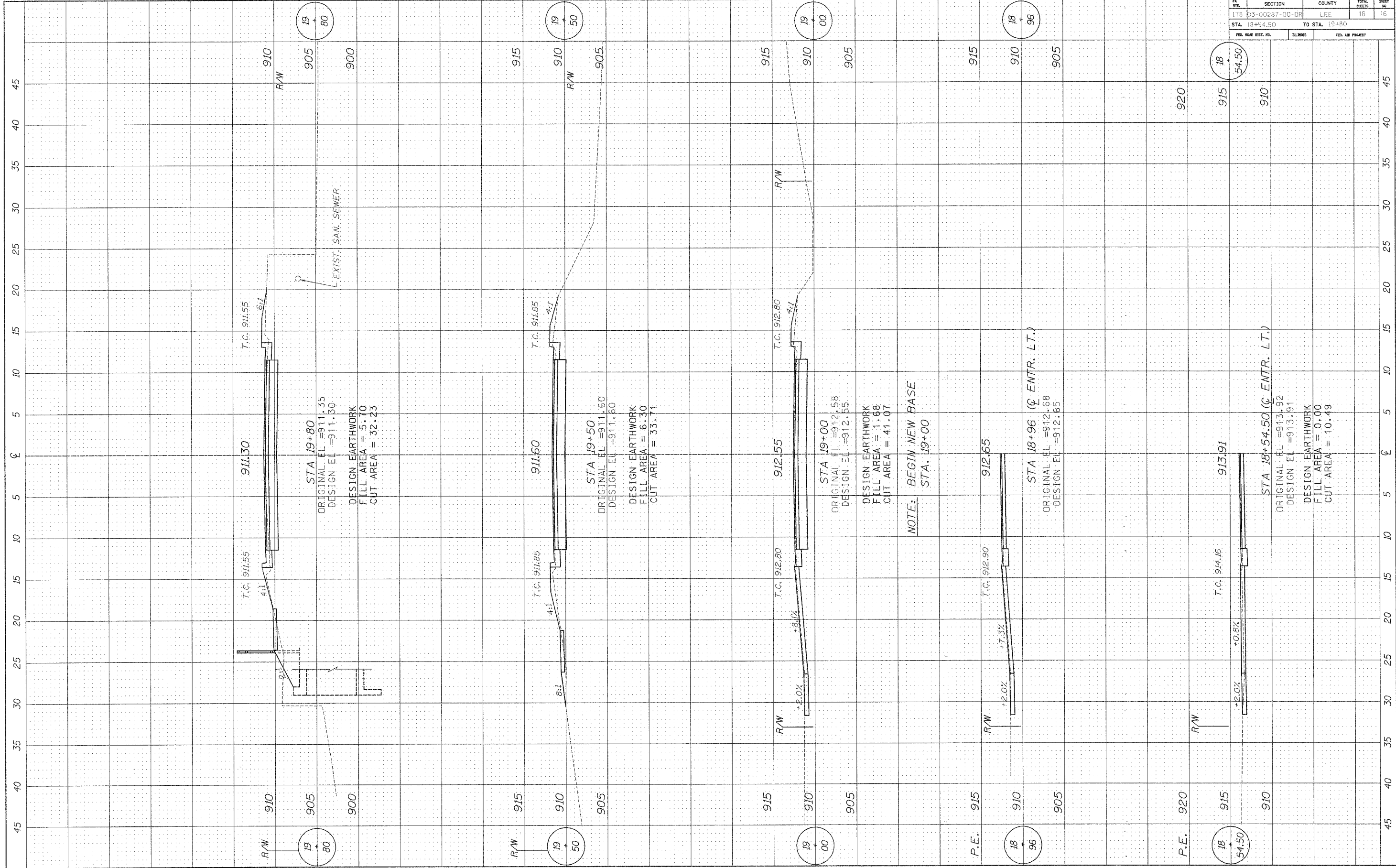
STA 17+50  
ORIGINAL EL = 917.75  
DESIGN EL = 917.62  
DESIGN EARTHWORK  
FILL AREA = 0.19  
CUT AREA = 30.46

STA 17+25 (C BROOKSIDE DR.)  
ORIGINAL EL = 918.31  
DESIGN EL = 918.31  
DESIGN EARTHWORK  
FILL AREA = 0.00  
CUT AREA = 21.54

STA 17+00  
ORIGINAL EL = 918.86  
DESIGN EL = 918.87  
DESIGN EARTHWORK  
FILL AREA = 2.54  
CUT AREA = 16.40

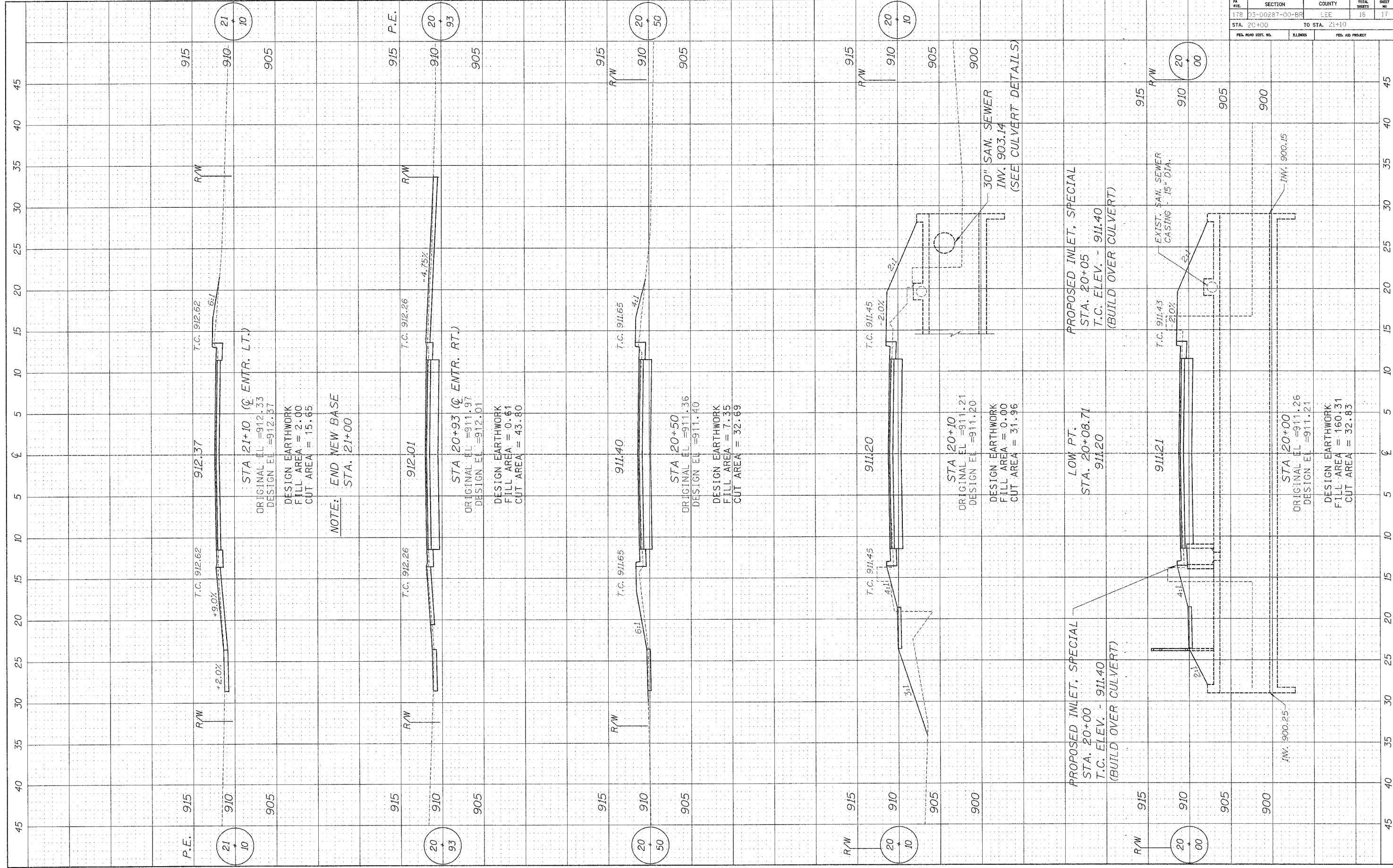
CURB & GUTTER  
R.E. STA. 17+64.28  
T.C. 917.41

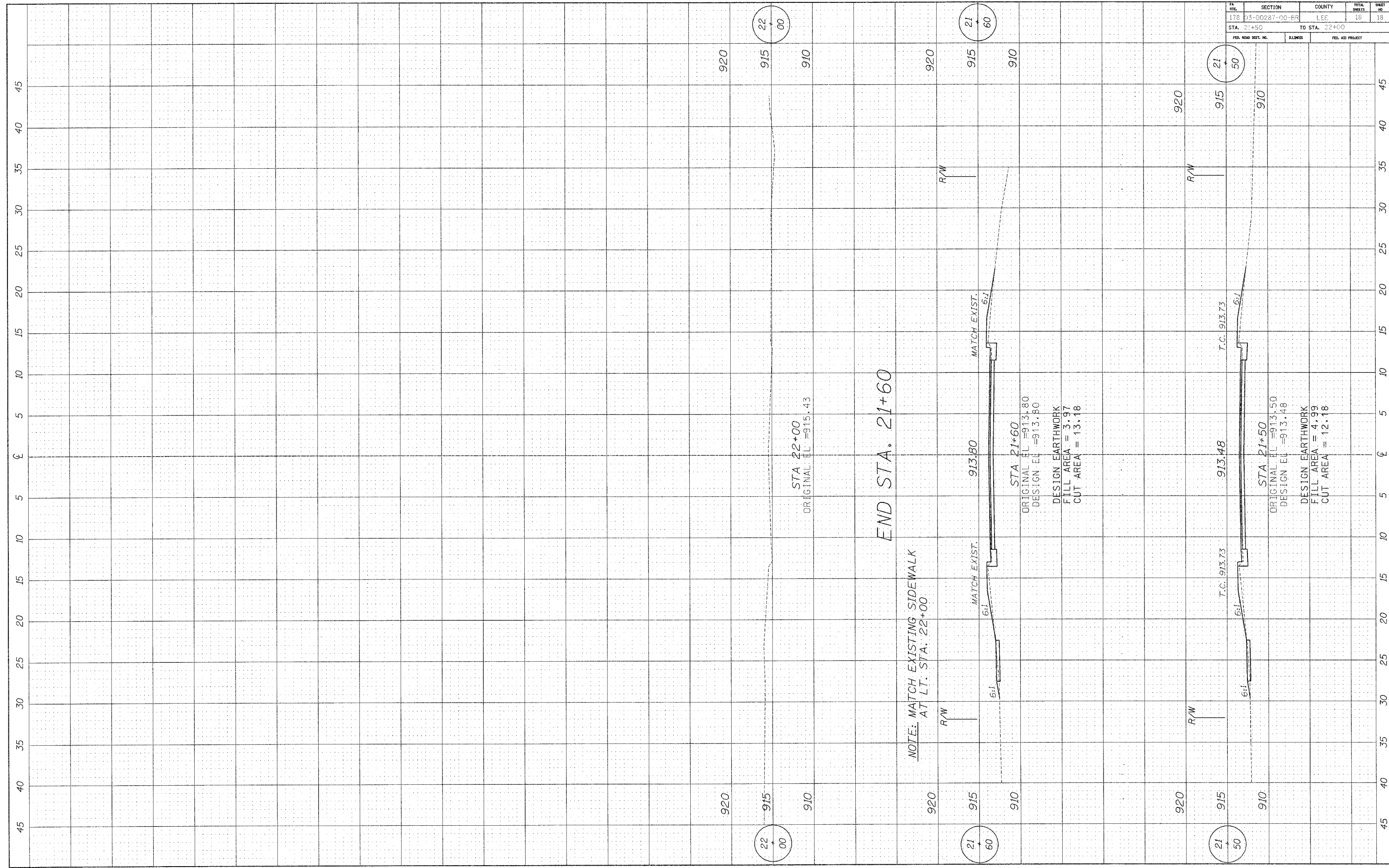
CURB & GUTTER  
R.E. STA. 16+86.30  
T.C. 919.36



FA RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
178	33-00287-00-BR	LEE	16	16
STA. 18+54.50		TO STA. 19+80		
FED. ROAD DIST. NO.	ALLIANCE	FED. AID PROJECT		







22  
+  
00

21  
+  
60

21  
+  
50

920  
915  
910

920  
915  
910

920  
915  
910

STA 22+00  
ORIGINAL EL = 915.43

END STA. 21+60

NOTE: MATCH EXISTING SIDEWALK  
AT LT. STA. 22+00

STA 21+60  
ORIGINAL EL = 913.80  
DESIGN EL = 913.80  
DESIGN EARTHWORK  
FILL AREA = 3.97  
CUT AREA = 13.18

STA 21+50  
ORIGINAL EL = 913.50  
DESIGN EL = 913.48  
DESIGN EARTHWORK  
FILL AREA = 4.99  
CUT AREA = 12.18

PA	SECTION	COUNTY	TOTAL	SHEET
ITE			SHEETS	NO.
178	D3-00287-00-BR	LEE	18	18
STA. 21+50		TO STA. 22+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	