

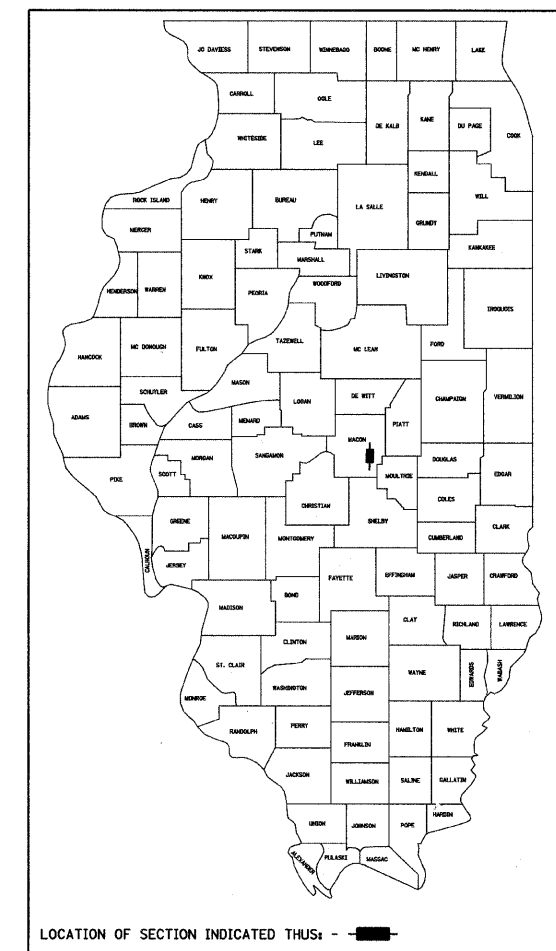
INDEX OF SHEETS

- 1 Cover Sheet
- 2 Summary of Quantities, General Notes, and Typical Sections
- 3 Plan and Profile
- 4 Horizontal Layout
- 5 Entrance Details
- 6-9 Station Cross Sections
- 10-14 Bridge Plans

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
LOCAL AGENCY IMPROVEMENT

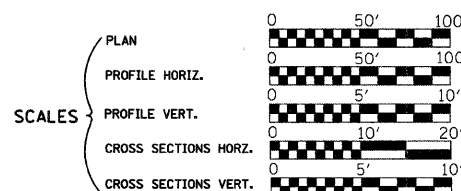
RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHTS. NO.
T.R. 256	06-1116-00-BR	MACON	14	1
FED. ROAD DIST. NO.	ILLINOIS	PROJECT: BROS-115(63)		

CONTRACT NO. 95530



LIST OF STANDARDS

Standard 000001-05	Standard symbols, abbreviations and patterns
Standard 280001-04	Temporary erosion control systems
Standard 515001-02	Name plate for bridges
Standard 542306-01	Precast Reinforced Concrete Elliptical Flared End Section
*Standard 542311	Grating For Concrete Flared End Section
Standard 630001-07	Steel Plate Beam Guardrail Deleted 12.20.07
Standard 630301-04	Shoulder Widening For Type 1 (Special) Guardrail Terminals
Standard 631011-04	Traffic Barrier Terminal, Type 2
Standard 635006-02	Reflector and Terminal Marker Placement
Standard 665001-01	Woven Wire Fence
Standard 701011-01	Off-road moving operations, 2-l, 2-w, day only, for speeds > 45 mph
Standard 701301-02	Lane closure, 2-l, 2-w, short time operations
Standard 701901	Traffic control devices
Standard BLR-21-7	Typical application of traffic control devices for Construction on Rural Local Highways
Standard BLR-22-5	Typical application of traffic control devices 2-l, 2-w, rural, Road closed to Thru Traffic
Standard BLR-27	Traffic Barrier Terminal, Type 5A
*Grating dimensions	to be modified to fit "PRCF END S EL EQRS 60".
Standard BLR-26	Steel Plate Beam Guardrail



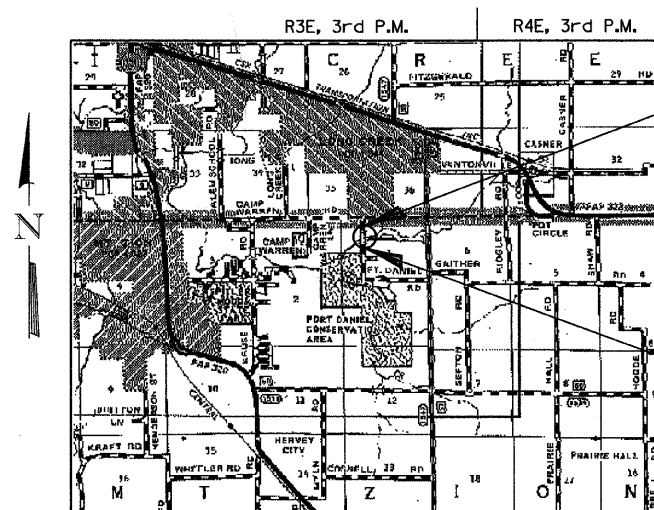
HIGHWAY BRIDGE PROGRAM
T.R. 256 OVER BIG CREEK
SECTION 06-1116-00-BR
MACON COUNTY
PROJECT BROS-115(63)
C-97-021-08

ROADWAY CLASSIFICATION: LOCAL STREET (URBAN)
2005 ADT = 550 (2026 ADT = 750)
DESIGN SPEED: 30 MPH

JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS
J.U.L.I.E. Telephone No. Toll Free 1-800-892-0123

CONTRACT NO. : 95530

URS
345 EAST ASH AVENUE, SUITE B
DECATUR, ILLINOIS 62526
PH. 217-875-4800



IMPROVEMENT ENDS
STA. 17+15.00

EXIST. STR. NO. 058-3168
PROP. STR. NO. 058-3389

IMPROVEMENT BEGINS
STA. 12+85.00

LAYOUT

Approximate Scale: scale miles

Total and Net Length of Improvement 430.00 Feet = 0.081 Miles



Keith W. Bentley
Illinois Professional No. 43789

APPROVED	<i>November 5, 2007</i>	2007
	<i>Chris</i>	COUNTY ENGINEER
PASSED	<i>November 9, 2007</i>	2007
	<i>Maryann B. Kestel</i>	DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS
Releasing For Bid Based on Limited Review	<i>November 9, 2007</i>	2007
	<i>Chris</i>	DEPUTY DIRECTOR OF HIGHWAYS, REGIONAL ENGINEER

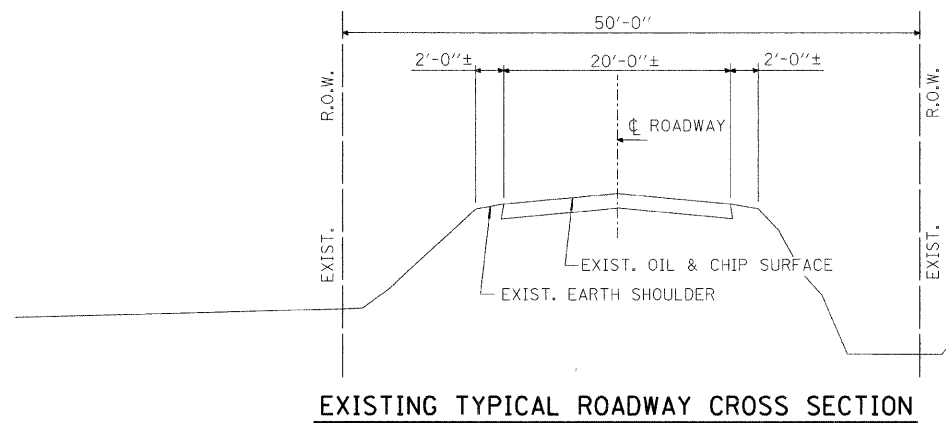
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

11/5/2007
Date

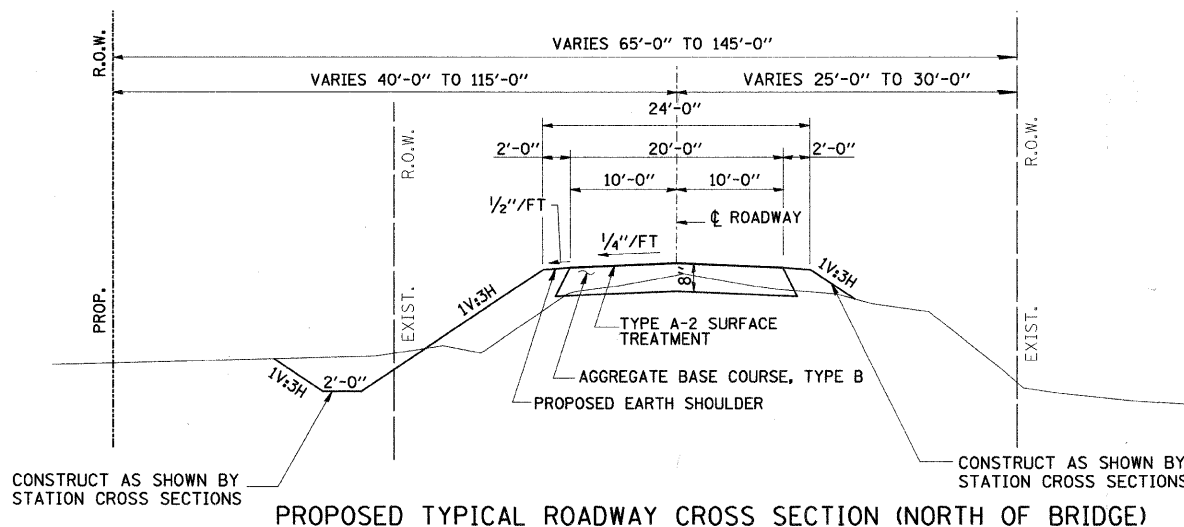
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 256	06-III6-00-BR	MACON	14	2
FED. ROAD DIST. NO.	ILLINOIS PROJECT: BROS-115(63)	CONTRACT NO. 95530		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	0.25
20200100	EARTH EXCAVATION	CU YD	421
20300100	CHANNEL EXCAVATION	CU YD	189
20400800	FURNISHED EXCAVATION	CU YD	173
20800150	TRENCH BACKFILL	CU YD	40.4
25000200	SEEDING, CLASS 2	ACRE	0.75
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	68
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	68
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	68
25100115	MULCH, METHOD 2	ACRE	0.75
28000300	TEMPORARY DITCH CHECKS	EACH	2
28000400	PERIMETER EROSION BARRIER	FOOT	148
28000500	INLET AND PIPE PROTECTION	EACH	3
28100107	STONE RIPRAP, CLASS A4	SQ YD	476
28200200	FILTER FABRIC	SQ YD	476
35101400	AGGREGATE BASE COURSE, TYPE B	TON	498
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	418
40300300	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	GALLON	835
40300500	COVER COAT AGGREGATE	TON	10
40300600	SEAL COAT AGGREGATE	TON	10
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	19
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	18.6
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1484
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2320
50900205	STEEL RAILING, TYPE S1	FOOT	124
51201005	FURNISHING METAL SHELL PILES 12"	FOOT	206
51202305	DRIVING PILES	FOOT	206
51203200	TEST PILE METAL SHELLS	EACH	1
51500100	NAME PLATES	EACH	1
54207195	PIPE CULVERTS, TYPE 1, REINFORCED CONCRETE - ELLIPTICAL, EQUIVALENT ROUND-SIZE 60"	FOOT	100
54214755	PRECAST REINFORCED CONCRETE FLARED END SECTIONS - ELLIPTICAL, EQUIVALENT ROUND-SIZE 60"	EACH	2
54248200	GRATING FOR CONCRETE FLARED END SECTION EQUIVALENT ROUND-SIZE 60"	EACH	1
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	49
542D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	51
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	165
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	433
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	16.2
Δ 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1
Δ 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
Δ 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	3
Δ 63300725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	25
66500105	WOVEN WIRE FENCE, 4'	FOOT	230
67100100	MOBILIZATION	L SUM	1
Δ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
* XX000610	RELOCATE EXISTING MAILBOX	EACH	2
* XX007147	EXISTING GATE TO BE RELOCATED	EACH	1
* XX007150	RELOCATE EXISTING SIGN, TYPE 1	EACH	1

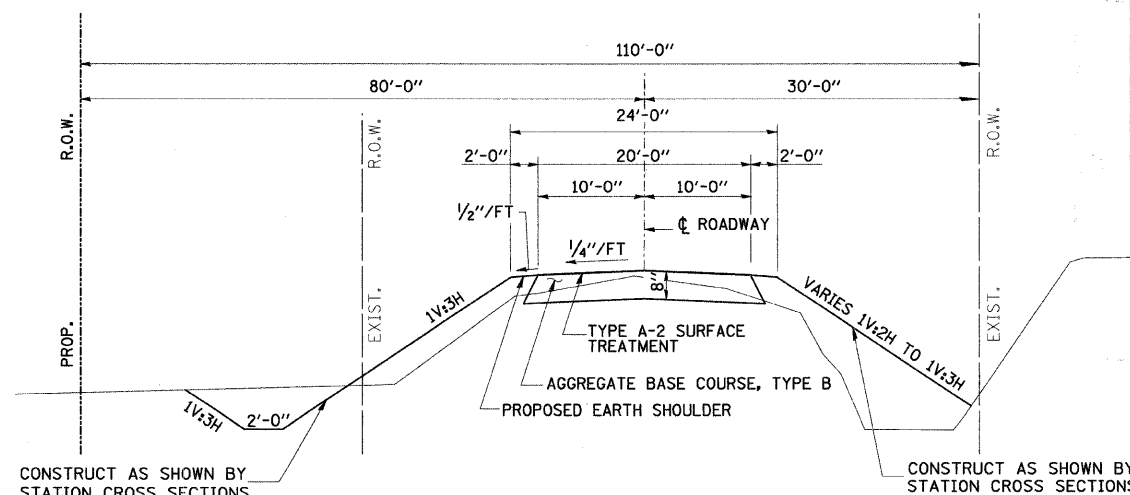


EXISTING TYPICAL ROADWAY CROSS SECTION



PROPOSED TYPICAL ROADWAY CROSS SECTION (NORTH OF BRIDGE)

STA. 15+33.65 TO STA. 16+65.00
TRANSITION STA. 16+65.00 TO STA. 17+15.00
AGGREGATE BASE COURSE, TYPE B = 187 TONS



PROPOSED TYPICAL ROADWAY CROSS SECTION (SOUTH OF BRIDGE)

STA. 13+35.00 TO STA. 14+70.15
TRANSITION STA. 12+85.00 TO STA. 13+35.00
AGGREGATE BASE COURSE, TYPE B = 194 TONS

GENERAL NOTES

THE AREA TO BE SEEDDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT-OF-WAY AS DIRECTED BY THE ENGINEER.

CLASS OF SEEDING	BEGINNING DATES	TERMINATION
1, 1A, 1B, 2, 2A, 3 (IN SPRING)	MARCH 1	JUNE 1
1, 1A, 1B, 2, 2A, 3 (IN FALL)	AUGUST 1	NOVEMBER 15

LAYOUT OF EROSION CONTROL ITEMS MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITY FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR THEIR MARKING OF THE EXACT LOCATION.

APPLICATION RATES

GRANULAR MATERIALS	2.05	TONS/CU. YD.
NITROGEN FERTILIZER NUTRIENT	90	LBS./ACRE
PHOSPHORUS FERTILIZER NUTRIENT	90	LBS./ACRE
POTASSIUM FERTILIZER NUTRIENT	90	LBS./ACRE
MULCH METHOD 2	2	TONS/ACRE
BITUMINOUS MATERIALS (PRIME COAT)	0.5	GAL/SQ. YD.
BITUMINOUS MATERIALS (COVER & SEAL COATS)	0.5	GAL/SQ. YD.
COVER COAT AGGREGATE	25	LBS./SQ. YD.
SEAL COAT AGGREGATE	25	LBS./SQ. YD.
BITUMINOUS SURFACE COURSE	112	LBS./SQ. YD.

MATERIAL REQUIRED FOR FURNISHED EXCAVATION SHALL BE DELIVERED FROM AN OFF-SITE LOCATION.

ROADWAY QUANTITY SCHEDULE

LOCATION	AGG BASE CSE B (TON)	BIT MATLS PR CT (GAL)	BIT MATLS C&S CT (GAL)	COVER COAT AGG (TON)	SEAL COAT AGG (TON)	HMA SC MIX "C" N50 (TON)
M.L. STA. 12+85.00 TO STA. 14+70.15	194	213	425	5	5	
M.L. STA. 15+33.65 TO STA. 17+15.00	187	205	410	5	5	
F.E. LT STA. 13+50.00	57					
P.E. LT STA. 16+06.00	50					
P.E. RT STA. 16+82.63	10					
OVERLAY AT STRUCTURE						19
TOTALS	498	418	835	10	10	19

GENERAL DATA

Date	Designed MJP	T.R. 256 OVER BIG CREEK SECTION 06-III6-00-BR MACON COUNTY STA. 15+01.90 PROP. STR. NO. 058-3389
Revisions	Drawn BKN	
	Checked KWB	
	Approved KWB	
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526	URS Job No. 36431783

BENCHMARK:

"M" IN MUELLER ON FIRE HYDRANT
STA. 17+86.7, 19.2' LT.

EXISTING STRUCTURE NO. 058-3168

SINGLE SPAN CONCRETE DECK ON WF BEAM SUPERSTRUCTURE ON CLOSED TIMBER ABUTMENTS WITH TIMBER WINGWALLS. SUPERSTRUCTURE ALSO SUPPORTED WITH A STEEL BEAM PIER ADJACENT TO SOUTH ABUTMENT SUPPORTED BY STEEL PIPE PILES.
32'-0"± BK.-BK. ABUTMENTS
25'-0"± O.-O. DECK

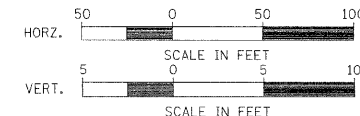
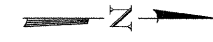
33.2' LT., STA. 13+26.00 TO
34.7' LT., STA. 13+74.00
49 FOOT PIPE CULVERT
CLASS D, TYPE 1 15"
U.S. \bar{r} = 90.46
D.S. \bar{r} = 90.22

SURVEY CONTROL POINT NO. 2
N100000.00, E100000.00
ELEV. 97.41

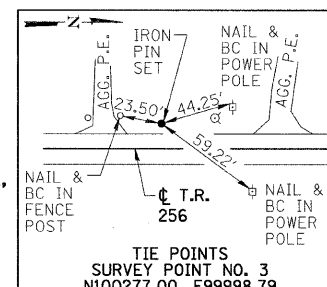
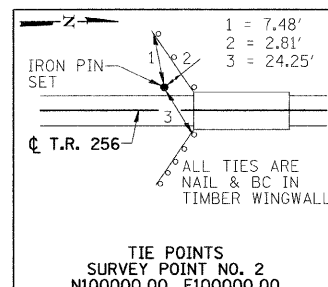
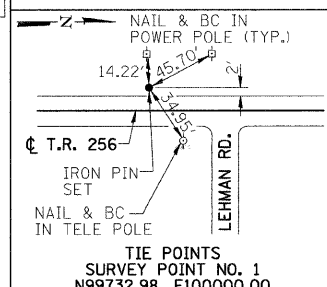
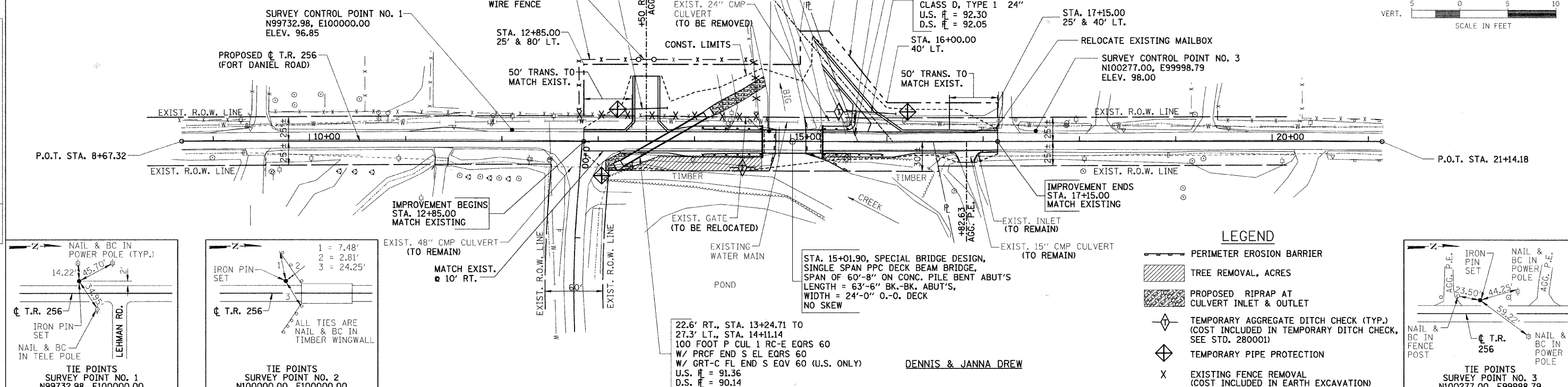
STA. 15+10.00
80 & 115' LT.
STA. 15+40.00
115' LT.

MARY L. SPHAR

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 256	06-11116-00-BR	MACON	14	3
STA. 8+67.32		TO STA. 21+14.18		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT:	BROS-115(63)	
CONTRACT NO. 95530				



DATE	BY	REVISION



LEGEND

- PERIMETER EROSION BARRIER
- TREE REMOVAL, ACRES
- PROPOSED RIPRAP AT CULVERT INLET & OUTLET
- TEMPORARY AGGREGATE DITCH CHECK (TYP.) (COST INCLUDED IN TEMPORARY DITCH CHECK, SEE STD. 280001)
- TEMPORARY PIPE PROTECTION
- EXISTING FENCE REMOVAL (COST INCLUDED IN EARTH EXCAVATION)

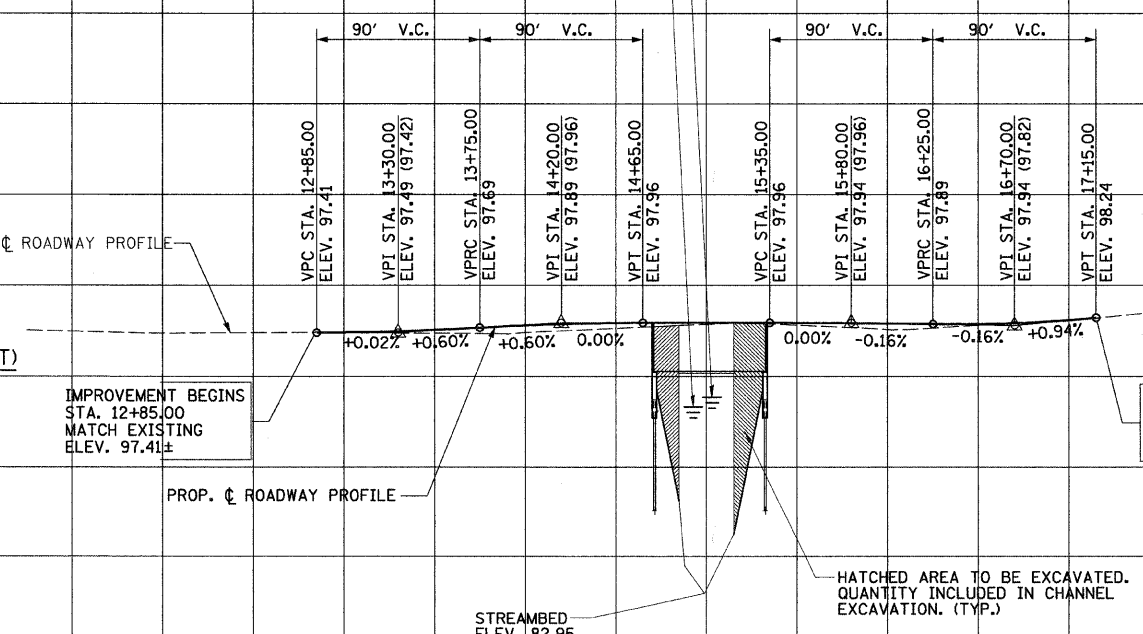
STA. 15+01.90, SPECIAL BRIDGE DESIGN,
SINGLE SPAN PPC DECK BEAM BRIDGE,
SPAN OF 60'-8" ON CONC. PILE BENT ABUT'S,
LENGTH = 63'-6" BK.-BK. ABUT'S,
WIDTH = 24'-0" O.-O. DECK
NO SKEW

22.6' RT., STA. 13+24.71 TO
27.3' LT., STA. 14+11.14
100 FOOT P CUL 1 RC-E EQRS 60
W/ PRCF END S EL EQRS 60
W/ GRT-C FL END S EQV 60 (U.S. ONLY)
U.S. \bar{r} = 91.36
D.S. \bar{r} = 90.14

DENNIS & JANNA DREW

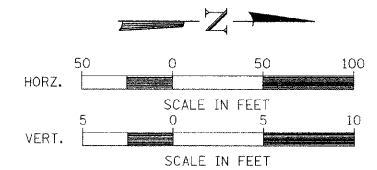
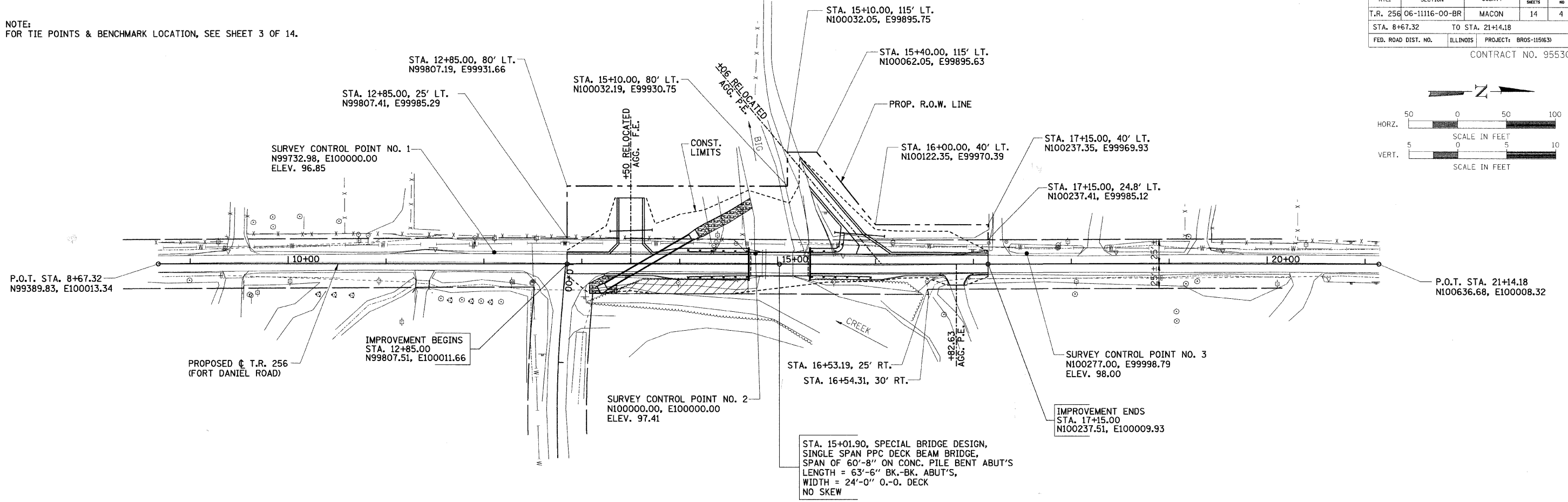
DATE	BY	REVISION

STATION	DESCRIPTION	QUANTITY	UNIT	STATION	DESCRIPTION	QUANTITY	UNIT
120	EARTHWORK SUMMARY EARTH EXCAVATION = 421 CU. YD. CHANNEL EXCAVATION = 189 CU. YD. FURNISHED EXCAVATION = 173 CU. YD.				EXISTING GATE TO BE RELOCATED	S.W. QUADRANT = 1 EA.	
115	FOR INFORMATION ONLY, NOT A PAY ITEM MATERIAL REQUIRED FOR EMBANKMENT = 630 CU. YD. ESTIMATED EXCAVATED MATERIAL THAT WILL NOT BE SUITABLE FOR FILL = 0 CU. YD. FURNISHED EXCAVATION REQUIRED = 630 - (421+173) (0.75 SHRINKAGE) = 173 CU. YD.				WOVEN WIRE FENCE, 4'	S.W. QUADRANT = 230 L.F.	
110	RELOCATE EXISTING MAILBOX STA. 15+67, 10' LT. = 1 EA. STA. 17+13, 15' LT. = 1 EA. TOTAL = 2 EA.				TREE REMOVAL, ACRES	S.E. AND N.E. QUADRANTS = 0.25 ACRE	
105	TRAFFIC BARRIER TERMINAL, TYPE 5A S.E. QUADRANT = 1 EA. S.W. QUADRANT = 1 EA. N.E. QUADRANT = 1 EA. N.W. QUADRANT = 1 EA. TOTAL = 4 EA.				TEMPORARY DITCH CHECKS	STA. 14+50, 30.2' RT. = 1 EACH STA. 15+50, 32.8' LT. = 1 EACH TOTAL = 2 EACH	
100	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT) S.E. QUADRANT = 1 EA. S.W. QUADRANT = 1 EA. N.E. QUADRANT = 1 EA. TOTAL = 3 EA.				PERIMETER EROSION BARRIER	TO BE CONSTRUCTED AT LOCATIONS SHOWN ON PLANS. LAYOUT MAY VARY AS DIRECTED BY THE ENGINEER. TOTAL = 148 FOOT	
95	TRAFFIC BARRIER TERMINAL, TYPE 2 N.W. QUADRANT = 1 EA. TOTAL = 1 EA.				INLET AND PIPE PROTECTION	22.6' RT., STA. 13+24.7 = 1 EACH 33.2' LT., STA. 13+26.0 = 1 EACH 28.4' LT., STA. 16+09.3 = 1 EACH TOTAL = 3 EACH	
90	STEEL PLATE BEAM GUARD RAIL (SHORT RADIUS) N.W. QUADRANT = 25 FT. TOTAL = 25 FT.				SEEDING, CLASS 2	AREA INSIDE OF CONSTRUCTION LIMITS, LESS ROADWAY. TOTAL = 0.75 ACRES	
85					NITROGEN FERTILIZER NUTRIENT	TOTAL = 68 POUNDS	
80					PHOSPHORUS FERTILIZER NUTRIENT	TOTAL = 68 POUNDS	
					POTASSIUM FERTILIZER NUTRIENT	TOTAL = 68 POUNDS	
					MULCH, METHOD 2	TOTAL = 0.75 ACRES	
					STONE RIPRAP, CLASS A4		
					BRIDGE ABUT. SLOPES = 372 SQ YD P CUL 1 RC-E EQRS 60 (U.S.) = 32 SQ YD P CUL 1 RC-E EQRS 60 (D.S.) = 72 SQ YD TOTAL = 476 SQ YD		



RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 256	06-11116-00-BR	MACON	14	4
STA. 8+67.32		TO STA. 21+14.18		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT:	BROS-115(63)	
CONTRACT NO. 95530				

NOTE:
FOR TIE POINTS & BENCHMARK LOCATION, SEE SHEET 3 OF 14.



PLAN	DATE	BY
SURVEYED		
ALIGNED		
CHECKED		
PT. OF WAY		
CHECKED		
NO.		

PROFILE	DATE	BY
SURVEYED		
GRADES		
CHECKED		
BLK. NOTED		
NO.		

SHOULDER WIDENING FOR GUARDRAIL TERMINALS

- | | |
|--------------------------------|--------------------------|
| ① STA. 13+73.7, 12' RT. & LT. | ④ STA. 15+33.65, 16' RT. |
| ② STA. 13+97.7, 16' RT. & LT. | ⑤ STA. 16+06.0, 16' RT. |
| ③ STA. 14+70.15, 16' RT. & LT. | ⑥ STA. 16+30.0, 12' RT. |

PROPOSED STRUCTURE LAYOUT

<u>SOUTH ABUTMENT</u>	<u>NORTH ABUTMENT</u>
BK. OF S. ABUT. STA. 14+70.15 N99992.66, E100010.91	BK. OF N. ABUT. STA. 15+33.65 N100056.16, E100010.66
☉ S. ABUT. STA. 14+71.40 N99993.91, E100010.91	☉ N. ABUT. STA. 15+32.40 N100054.91, E100010.66
FRONT FACE OF S. ABUT. STA. 14+72.65 N99995.16, E100010.90	FRONT FACE OF N. ABUT. STA. 15+31.15 N100053.66, E100010.67

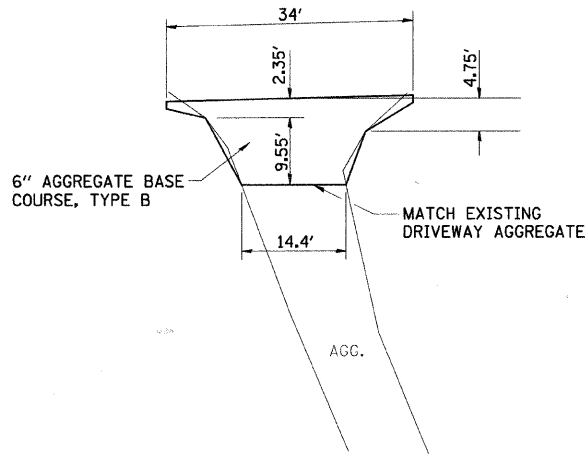
HORIZONTAL LAYOUT

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 256	06-11116-00-BR	MACON	14	5
STA. 8+67.32		TO STA. 21+14.18		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT:	BROS-115163	

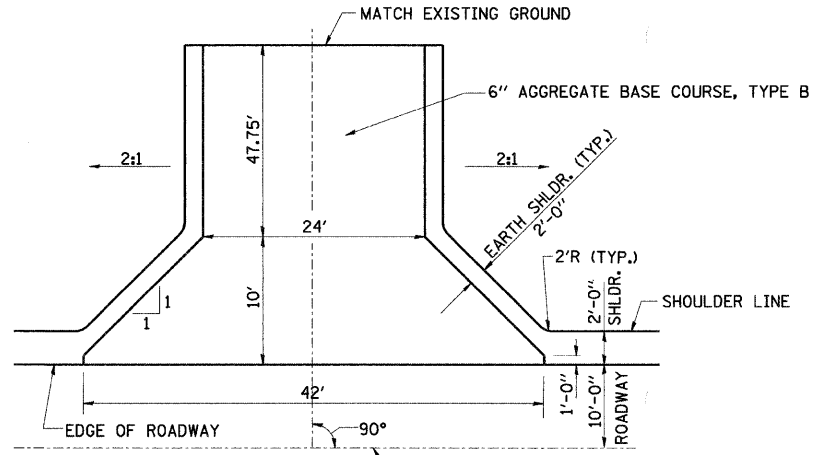
CONTRACT NO. 95530

PLAN	SURVEYED	DATE
NOTE BOOK	ALIGNED	BY
NO.	CHECKED	
	BY	
	DATE	

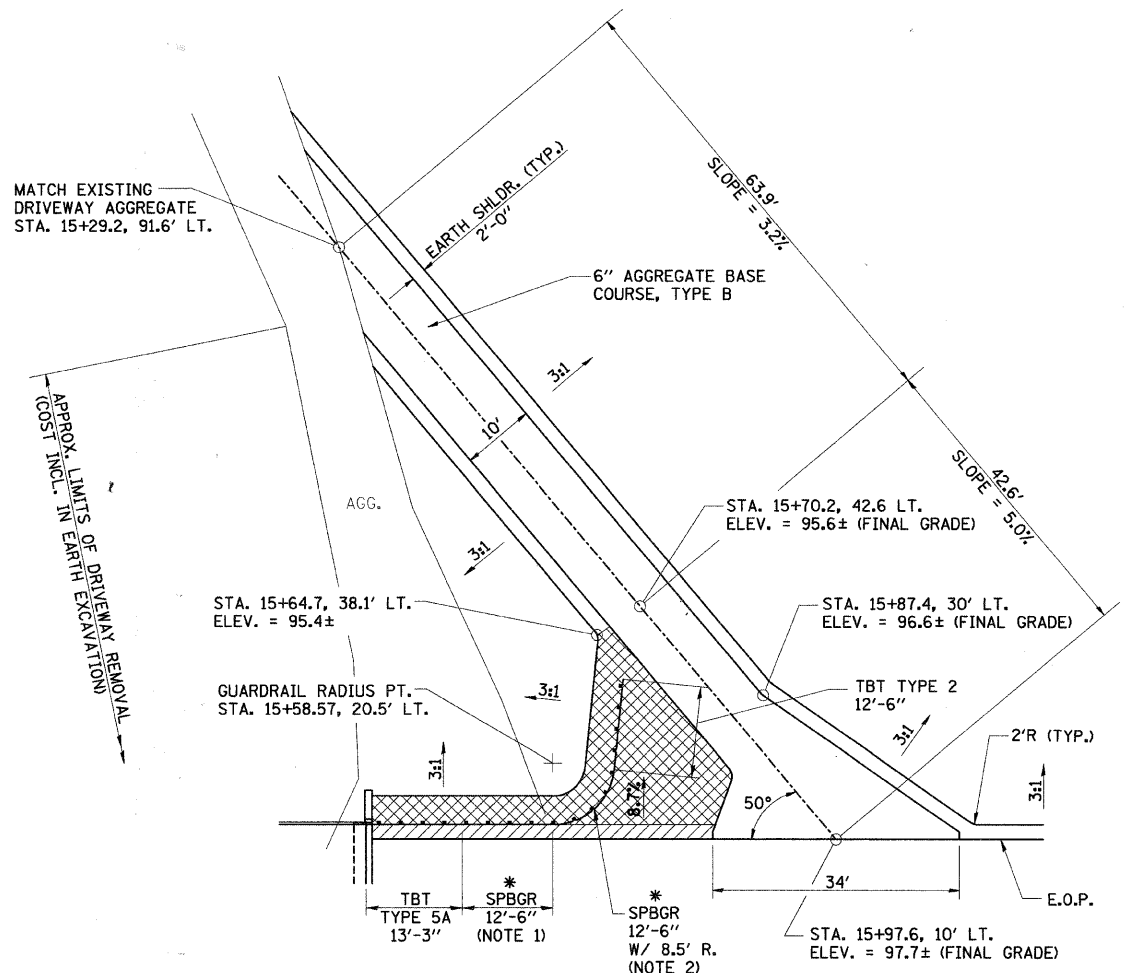
PROFILE	SURVEYED	DATE
NOTE BOOK	GRADES CHECKED	BY
NO.	STRUCTURE NOTATION	
	CHTD	



PRIVATE ENTRANCE DETAIL
STA. 16+82.83
 AGGREGATE BASE COURSE, TYPE B
 TOTAL = 10 TONS



FIELD ENTRANCE DETAIL
STA. 13+50.00
 AGGREGATE BASE COURSE, TYPE B
 TOTAL = 57 TONS



2' SHLDR. SLOPED AT 1/2" / FT.
 SLOPED AT 8.7%

* PAY LIMITS OF STEEL PLATE BEAM
 GUARDRAIL, SHORT RADIUS = 25'-0"

PRIVATE ENTRANCE DETAIL
STA. 16+06.00
 AGGREGATE BASE COURSE, TYPE B
 TOTAL = 50 TONS

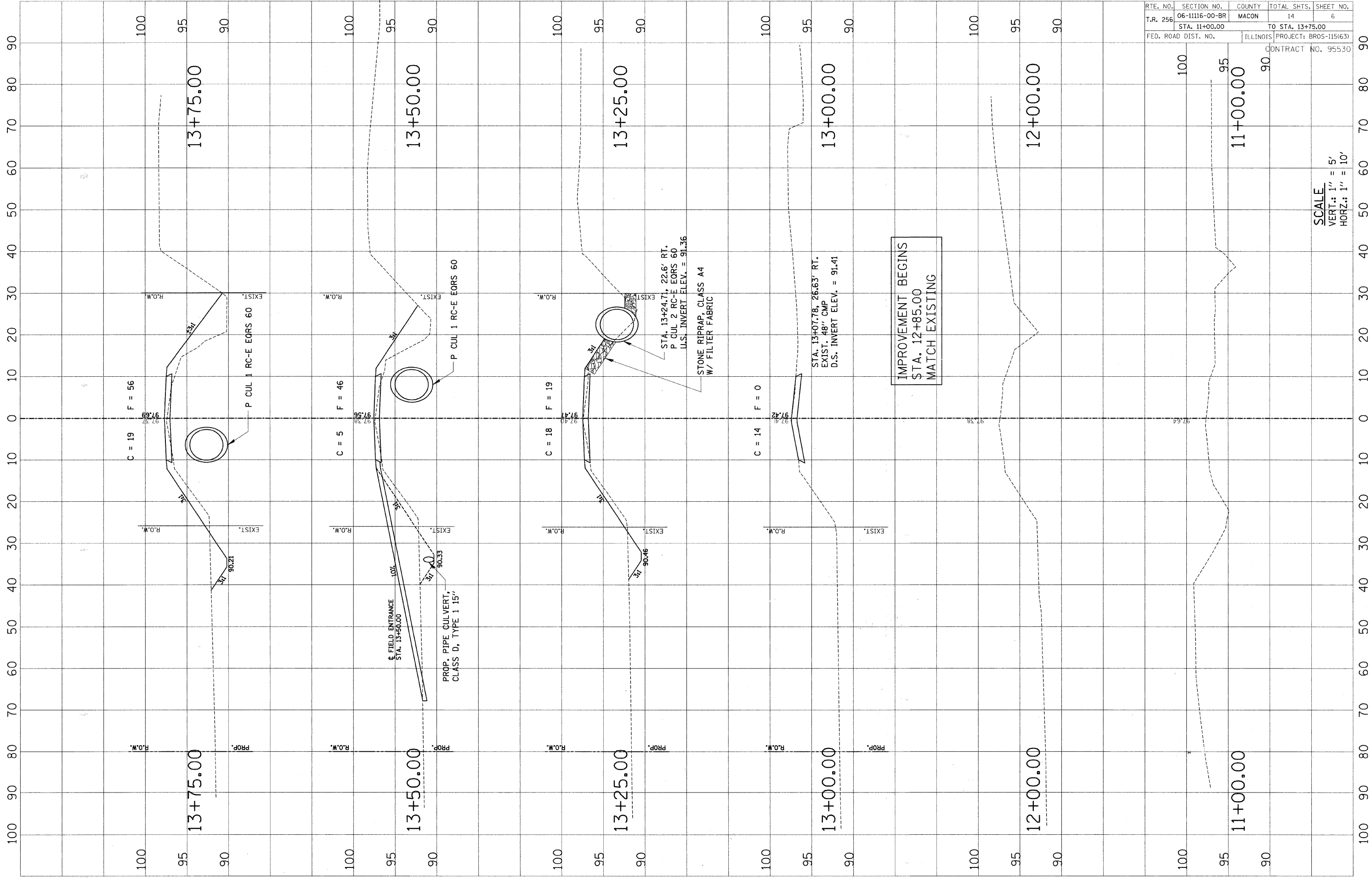
- NOTES:
- CONSTRUCT ACCORDING TO STANDARD 631011-04 FOR TRAFFIC BARRIER TERMINAL TYPE 2, EXCEPT DELETE END SECTION AND SPLICE INTO RADIUS GUARDRAIL. THE RAIL HEIGHT OF THE TRAFFIC BARRIER TERMINAL TYPE 2's WILL BE 27".
 - FOR THE 8'-6" RADIUS, THE RAIL IS NOT BOLTED TO THE POST LOCATED AT THE MIDPOINT OF THE CURVE.
- Revised 12-20-07

ENTRANCE DETAILS

RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
T.R. 256	06-11116-00-BR	MACON	14	6
STA. 11+00.00		TO STA. 13+75.00		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT: BR05-115(63)	

CONTRACT NO. 95530

SCALE
VERT.: 1" = 5'
HORIZ.: 1" = 10'



IMPROVEMENT BEGINS
STA. 12+85.00
MATCH EXISTING

STA. 13+24.71, 22.6' RT.
P CUL. 2 RC-E EORS 60
U.S.I. INVERT ELEV. = 91.36

STONE RIPRAP, CLASS A4
W/ FILTER FABRIC

STA. 13+07.78, 26.63' RT.
EXIST. 48" CMP
D.S. INVERT ELEV. = 91.41

C = 19 F = 56

C = 5 F = 46

C = 18 F = 19

C = 14 F = 0

13+75.00

13+50.00

13+25.00

13+00.00

12+00.00

11+00.00

13+75.00

13+50.00

13+25.00

13+00.00

12+00.00

11+00.00

P CUL 1 RC-E EORS 60

P CUL 1 RC-E EORS 60

PROP. PIPE CULVERT,
CLASS D, TYPE 1 15"

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

EXIST.

EXIST.

EXIST.

EXIST.

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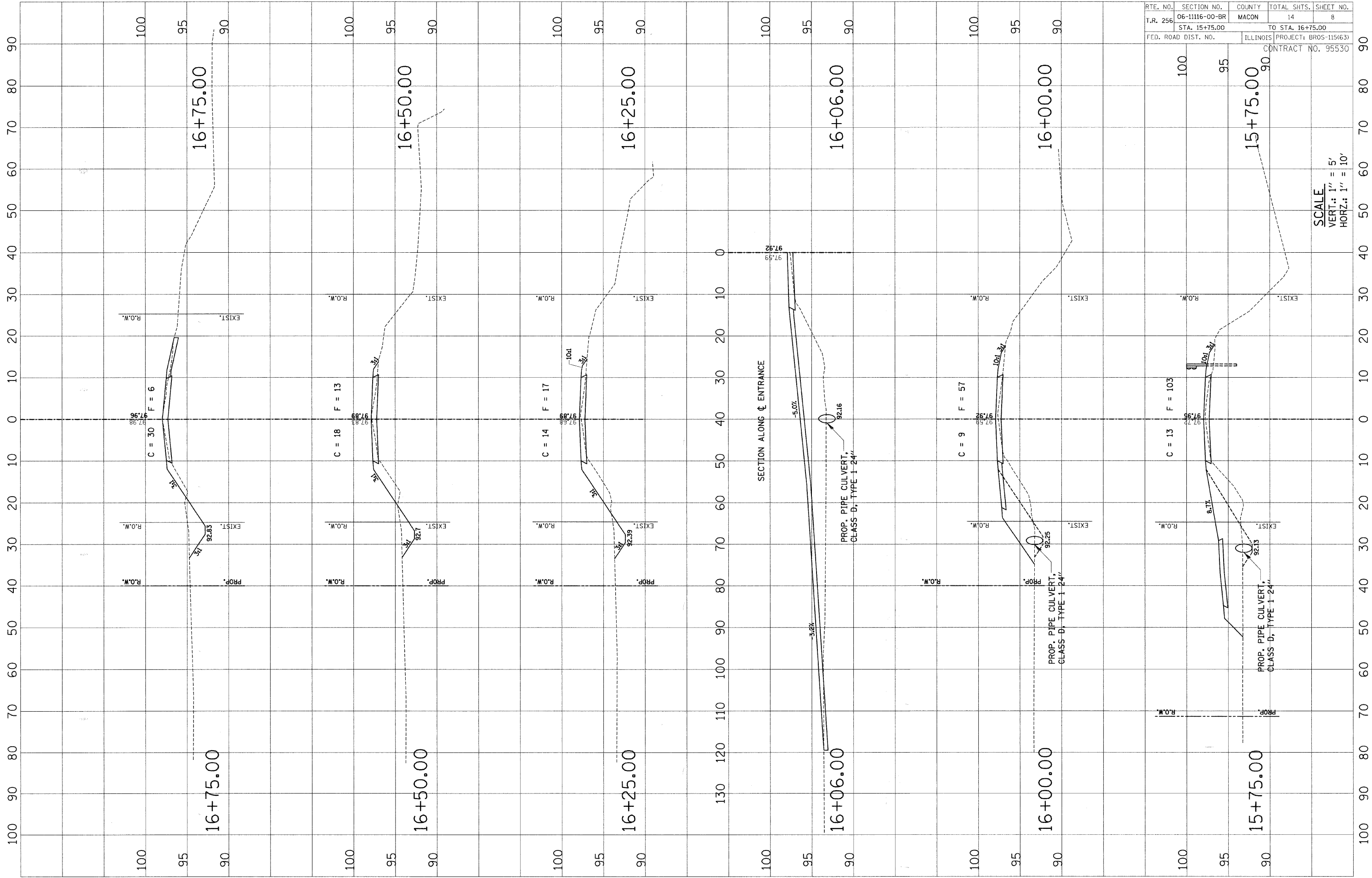
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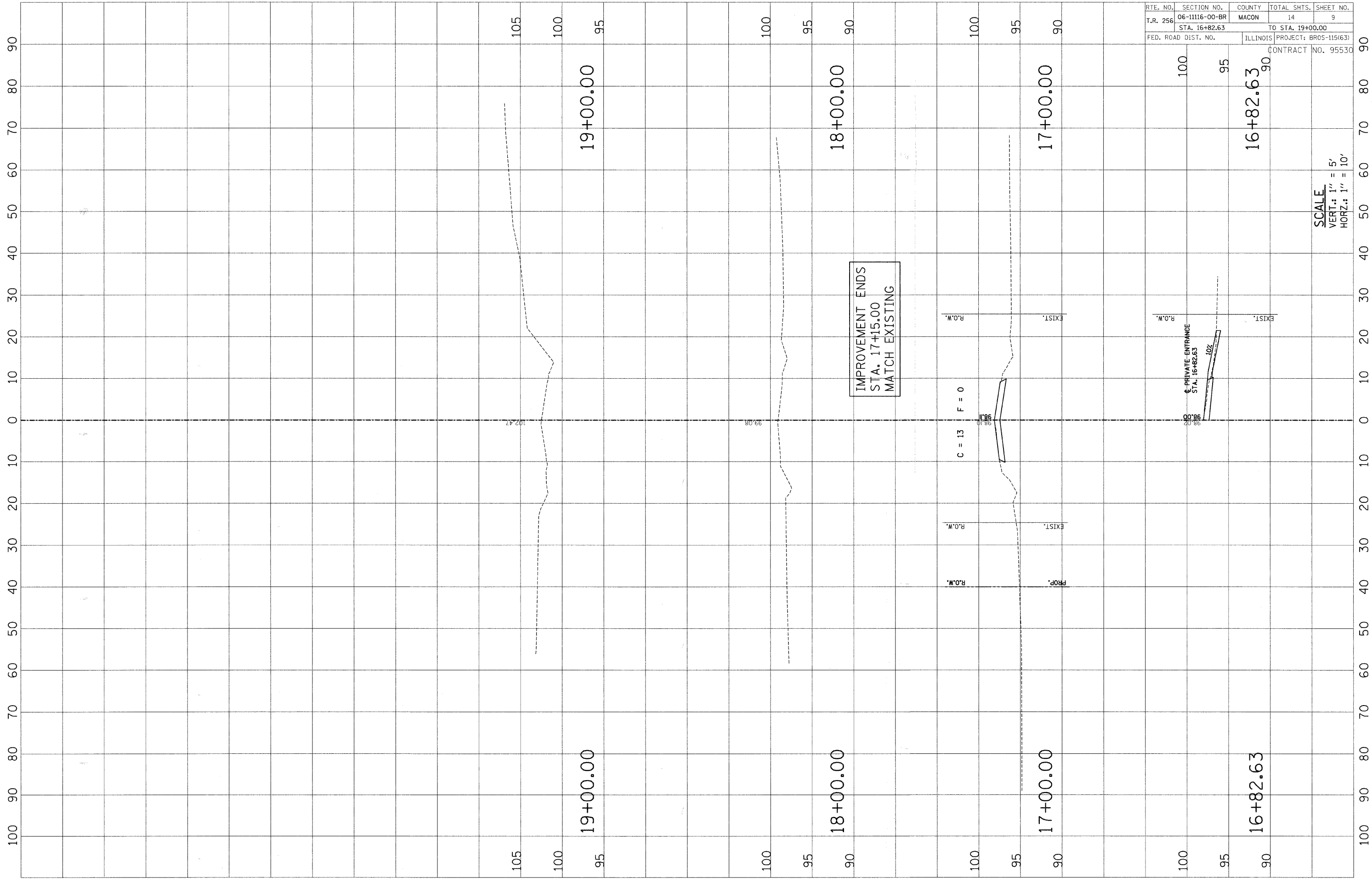
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RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
T.R. 256	06-11116-00-BR	MACON	14	8
STA. 15+75.00		TO STA. 16+75.00		
FED. ROAD DIST. NO.		ILLINOIS PROJECT: BROS-115(63)		
CONTRACT NO. 95530				



SCALE
 VERT.: 1" = 5'
 HORZ.: 1" = 10'



RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
T.R. 256	06-11116-00-BR	MACON	14	9
STA. 16+82.63		TO STA. 19+00.00		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT: BR05-115(63)	
CONTRACT NO. 95530				

SCALE
 VERT.: 1" = 5'
 HORZ.: 1" = 10'

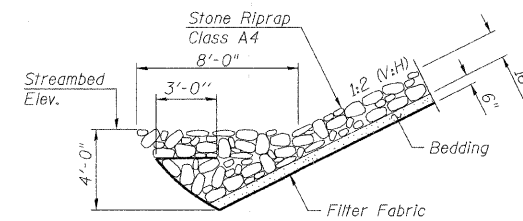
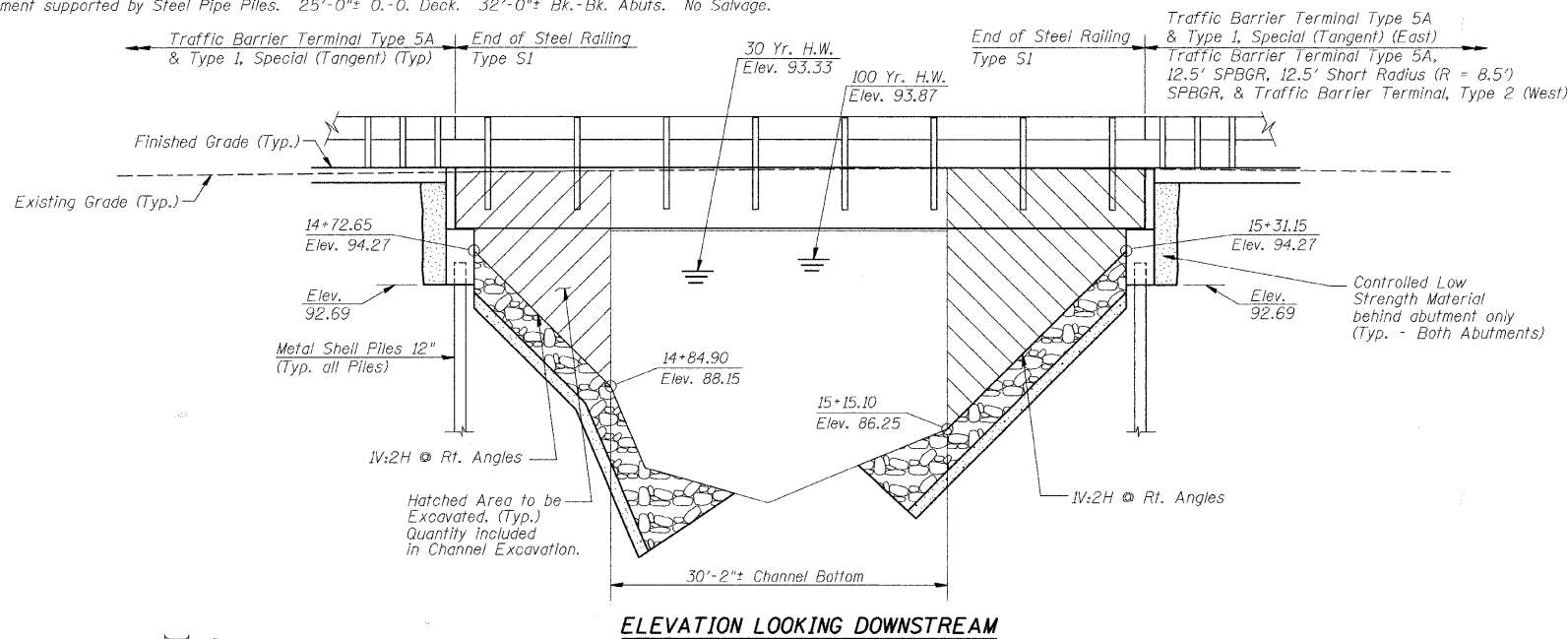
BENCHMARK:

"M" In Mueller on Fire Hydrant Sta. 17+86.78, 19.2' Lt.
Elevation = 100.00

EXISTING STRUCTURE (SN 058-3168):

Single Span Concrete Deck on WF Beam Superstructure on Closed Timber Abutments with Timber Wingwalls. Superstructure also supported with a Steel Beam Pier adjacent to South Abutment supported by Steel Pipe Piles. 25'-0"± 0.-0. Deck. 32'-0"± Bk.-Bk. Abutms. No Salvage.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 256	06-III16-00-BR	MACON	14	10
FED. ROAD DIST. NO.		ILLINOIS PROJECT: BROS-115(63)	CONTRACT NO. 95530	



BIG CREEK
BUILT 200_, BY MACON COUNTY
PROJECT NO. BROS-115(63)
SECTION 06-III16-00-BR
T.R. 256 STA. 15+01.90
STR. NO. 058-3389 LOADING HS-20
FORT DANIEL BRIDGE

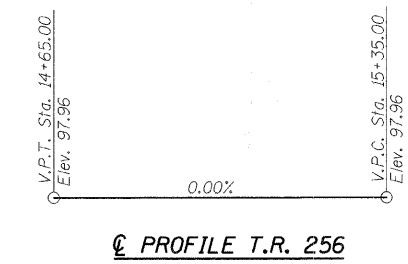
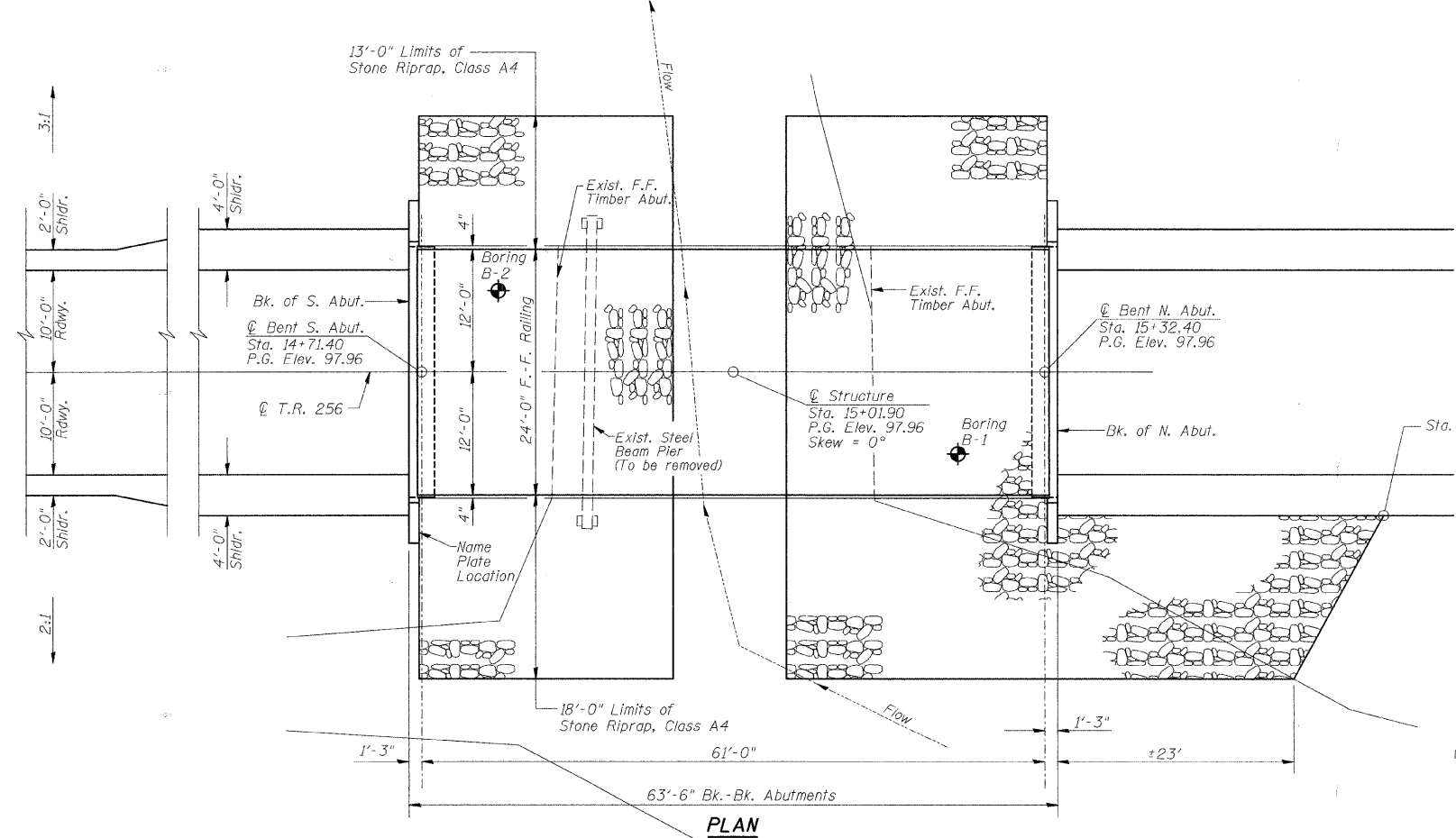
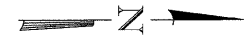
NAME PLATE
(See Std. 515001)

GENERAL NOTES

Layout of Riprap Slopes may be varied in the field to suit ground conditions as directed by the Engineer.
See Proposal for Boring Data.
Reinforcement Bars shall conform to the requirements of ASTM A 706 (LL MOD), Grade 60.
The Contractor shall drive one Metal Shell Test Pile in a permanent location at the North Abutment as directed by the Engineer before ordering the remainder of piles.
Excavation required for abutment construction shall be included in the cost of Concrete Structures. No additional compensation will be provided for Structure Excavation.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
P.P.C Deck Beams (27" Depth)	Sq. Ft.	1484		1484
Concrete Structures	Cu. Yd.		18.6	18.6
Reinforcement Bars, Epoxy Coated	Pound		2320	2320
Furnishing Metal Shell Piles 12"	Foot		206	206
Driving Piles	Foot		206	206
Test Pile Metal Shells	Each		1	1
Channel Excavation	Cu. Yd.		189	189
Stone Riprap, Class A4	Sq. Yd.		372	372
Filter Fabric	Sq. Yd.		372	372
Name Plates	Each		1	1
Steel Railing Type S1	Foot	124		124
Portland Cement Mortar Fairing Course	Foot	433		433
Waterproofing Membrane System	Sq. Yd.	165		165
Hot Mix Asphalt Surface Course, Mixture C, N50	Ton	19		19
Controlled Low-Strength Material	Cu. Yd.		16.2	16.2

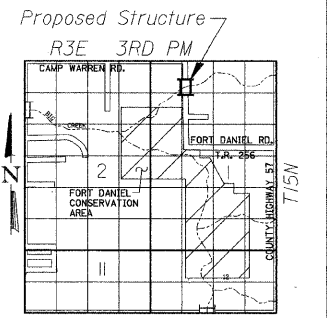


DESIGN SPECIFICATIONS

2002 AASHTO
LOADING HS20-44
Allowed 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS: f'c = 3,500 p.s.i.; f'y = 60,000 p.s.i.; n = 9
PPC UNITS: f'ci = 4,000 p.s.i.; f'c = 5,000 p.s.i.; f's = 270,000 p.s.i.; f'si = 201,960 p.s.i.



WATERWAY INFORMATION

Drainage Area = 6.8 Sq. Mi. Existing Low Grade Elev. 97.38 @ Sta. 12+50.00
Proposed Low Grade Elev. 97.41 @ Sta. 12+85.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E. Exist.	Prop.	Headwater E.I. Exist.	Prop.
Design	30	1499	271	345	93.33	0.09	0.01	93.42
Base	100	2021	290	376	93.87	0.18	0.01	94.05
Overtopping								
Max. Calc.	500	2707	314	410	94.47	0.38	0.02	94.85

Low Beam Elev. (Prop.) = 95.27

DATE: Nov. 5, 2007
Keith W. Bentley
KEITH W. BENTLEY
ILL. STRUCTURAL NO. 4777

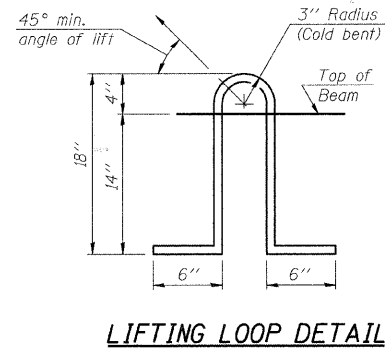
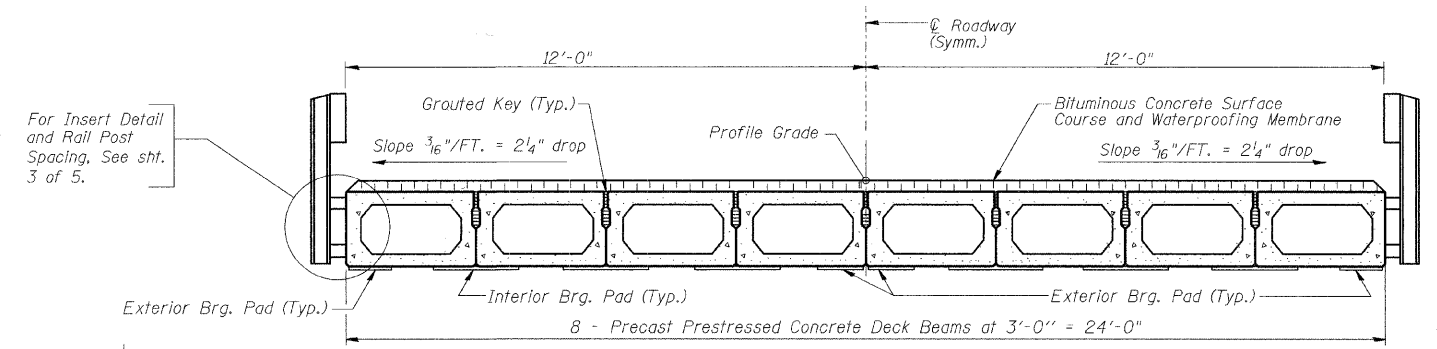
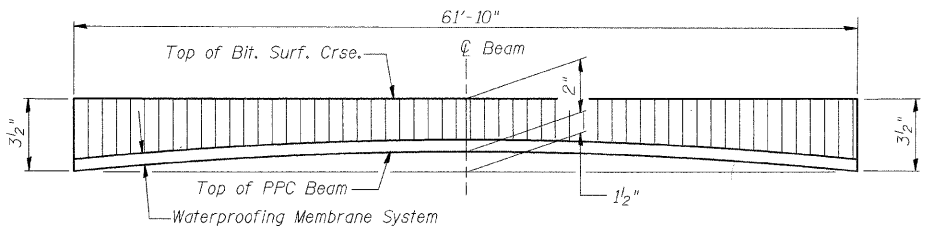
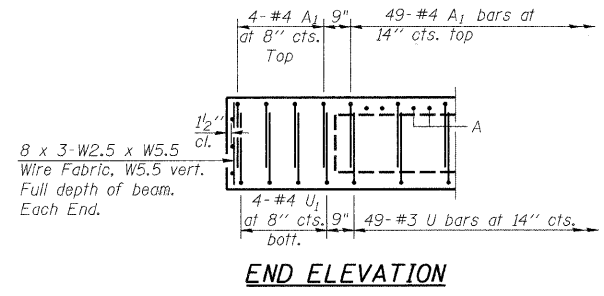
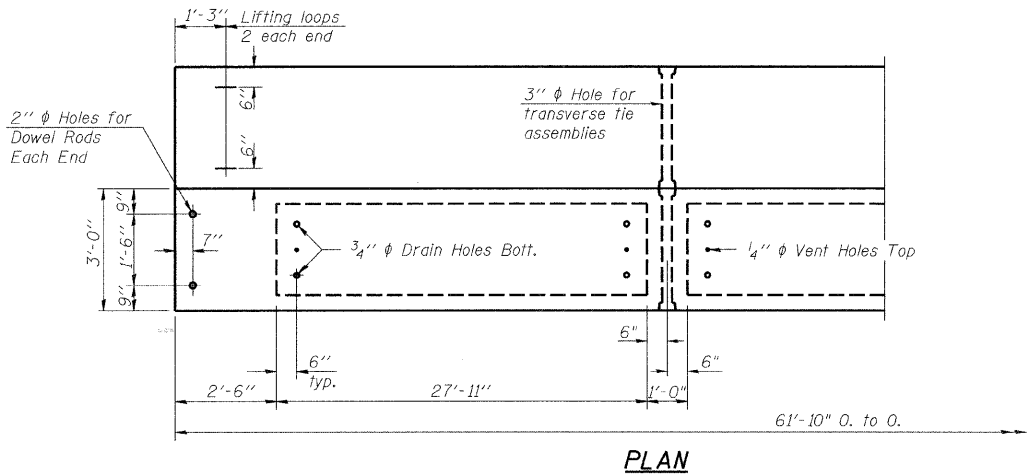
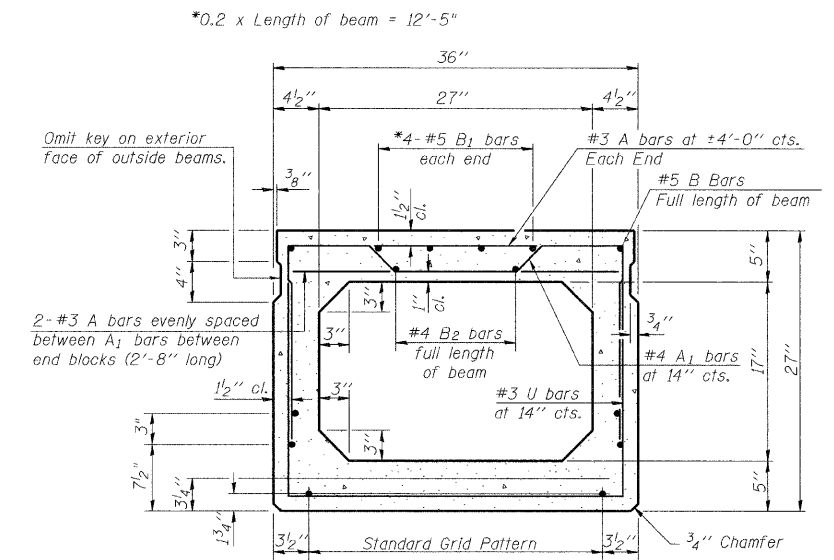
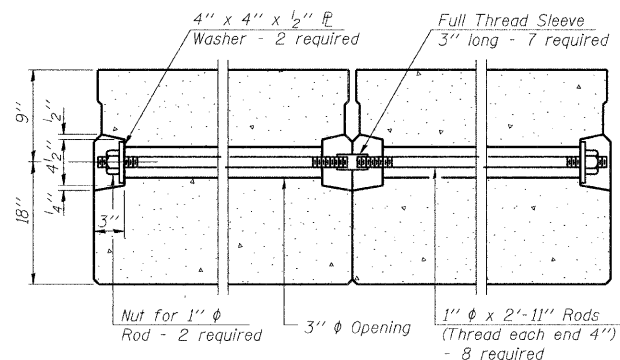
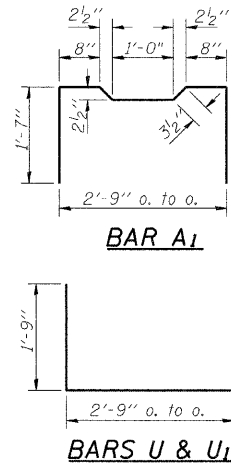
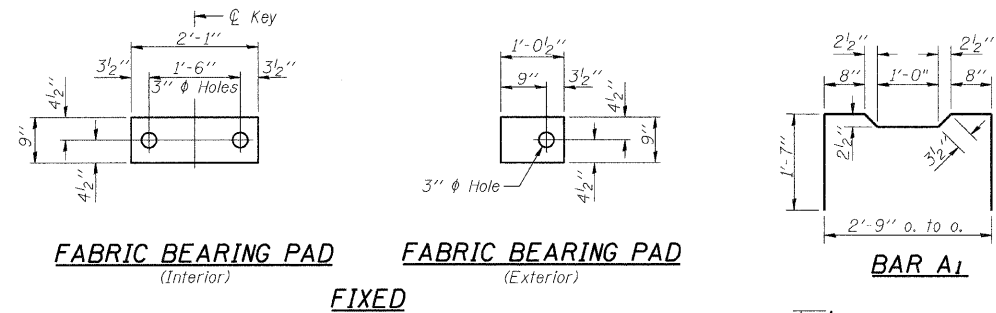


"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT 'AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY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

GENERAL PLAN AND ELEVATION

Date	Designed MJP	T.R. 256 OVER BIG CREEK SECTION 06-III16-00-BR MACON COUNTY STA. 15+01.90 PROP. STR. NO. 058-3389	Sheet No.
Revisions	Drawn BKN		1
	Checked KWB		of 5
	Approved KWB		
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526		URS Job No. 36431783

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 256	06-III6-00-BR	MACON	14	II
FED. ROAD DIST. NO.	ILLINOIS PROJECT: BROS-115(63)		CONTRACT NO. 95530	



NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2 - 1/2" φ-270 ksi strands, as shown. The 1" φ 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 ASTM A 706 (IL MOD), 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, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i.

BILL OF MATERIAL

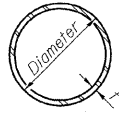
Precast Prestressed Conc. Deck Bms. 27"	Sq. Ft.	1484
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SUPERSTRUCTURE

Date	Designed MJP	T.R. 256 OVER BIG CREEK SECTION 06-III6-00-BR MACON COUNTY STA. 15+01.90 PROP. STR. NO. 058-3389	Sheet No.
Revisions	Drawn BKN		2
	Checked KWB		
	Approved KWB		
Prepared by: URS	345 East Ash Avenue Decatur, IL 62526		of 5 URS Job No. 36431783

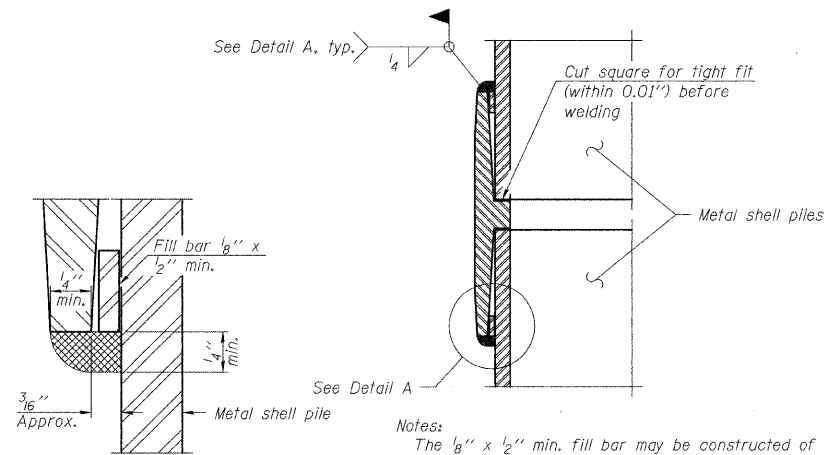
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T.R. 256	06-III6-00-BR	MACON	14	14
FED. ROAD DIST. NO.		ILLINOIS PROJECT: BROS-115(63)		

CONTRACT NO. 95530



METAL SHELL PILE TABLE

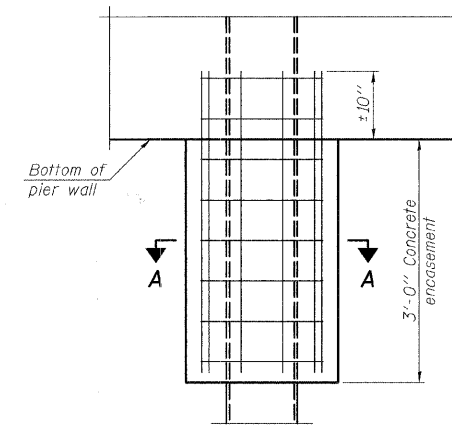
Designation	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)	Encasement diameter A
PP12	0.250"	31.37	0.0267	30"
PP14	0.250"	36.71	0.0368	30"



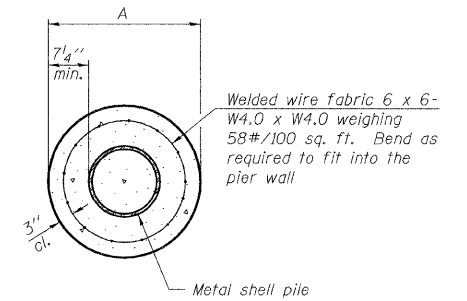
DETAIL A

Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



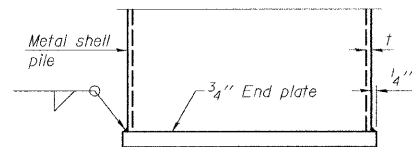
ELEVATION



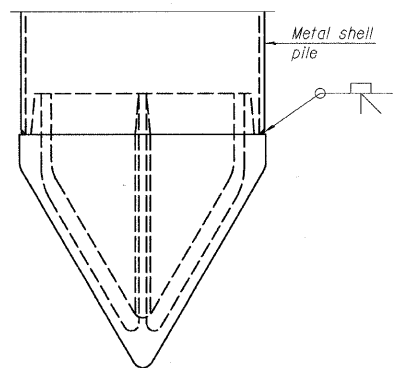
SECTION A-A

Notes:
 See Metal Shell Pile Table for dimension "A".
 Forms for encasement may be omitted when soil conditions permit.

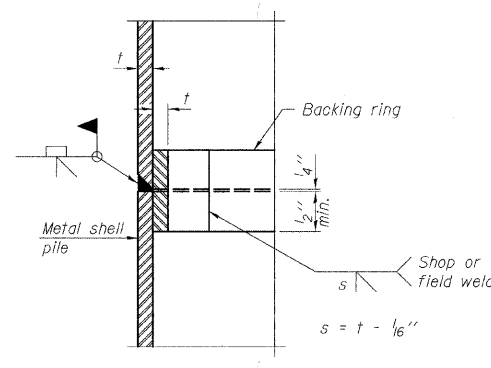
CONCRETE ENCASEMENT AT PIERS



END PLATE ATTACHMENT

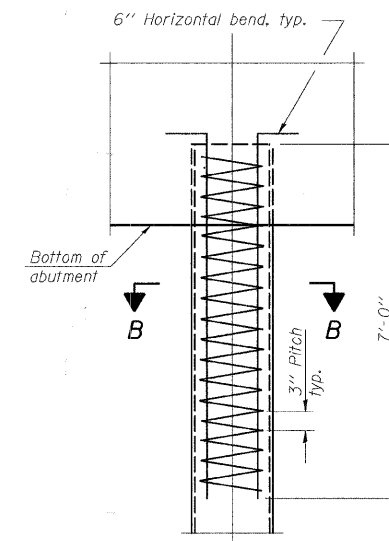


METAL SHELL PILE SHOE ATTACHMENT

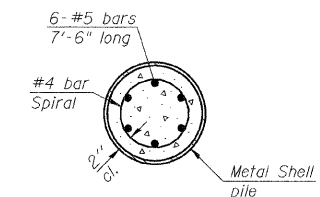


COMPLETE PENETRATION WELD SPLICE

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

Note:
 The metal shell piles shall be according to ASTM A 252 Grade 3.

PILE DETAILS

Date	Designed MJP	T.R. 256 OVER BIG CREEK SECTION 06-III6-00-BR MACON COUNTY STA. 15+01.90 PROP. STR. NO. 058-3389	Sheet No.
Revisions	Drawn BKN		5
	Checked KWB		
	Approved KWB		
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526		of 5 URS Job No. 36431783