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- 3 Typical Sections & Pavement Schedules
- 4 Plan and Profile
- 5 Horizontal Layout
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- 17-23 Bridge Plans

LIST OF STANDARDS

- Standard 000001-05 Standard symbols, abbreviations and patterns
- Standard 280001-04 Temporary erosion control systems
- Standard 285001-02 Fabric Formed Concrete Revetment Mats
- Standard 420101-04 24' (7.2 m) Jointed PCC Pavement
- Standard 420401-06 Bridge Approach Pavement
- Standard 515001-02 Name Plate for Bridges
- Standard 542301-01 Precast Reinforced Concrete Flared End Section
- Standard 542306-01 Precast Reinforced Concrete Elliptical Flared End Section
- Standard 542401 Metal End Sections for Pipe Culverts
- Standard 601101 Concrete Headwall for Pipe Drain
- Standard 602301-01 Inlet - Type A
- Standard 604006-03 Frame and Grate Type 3
- Standard 606001-03 Concrete Curb Type B and Combination Concrete Curb and Gutter
- Standard 630001-07 Steel Plate Beam Guardrail
- Standard 630301-04 Shoulder Widening For Type 1 (Special) Guardrail Terminals
- Standard 631011-04 Traffic Barrier Terminal, Type 2
- Standard 631032-03 Traffic Barrier Terminal, Type 6A
- 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

ROADWAY CLASSIFICATION: LOCAL STREET (URBAN)
 2007 ADT = 2,650 (2027 ADT = 3,450)
 DESIGN SPEED: 45 MPH

JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS

J.U.L.I.E. Telephone No. Toll Free 1-800-892-0123

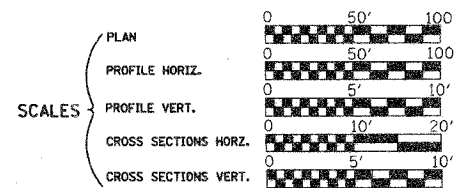
SEE PROPOSAL FOR UTILITY COMPANIES

CONTRACT NO. : 95542



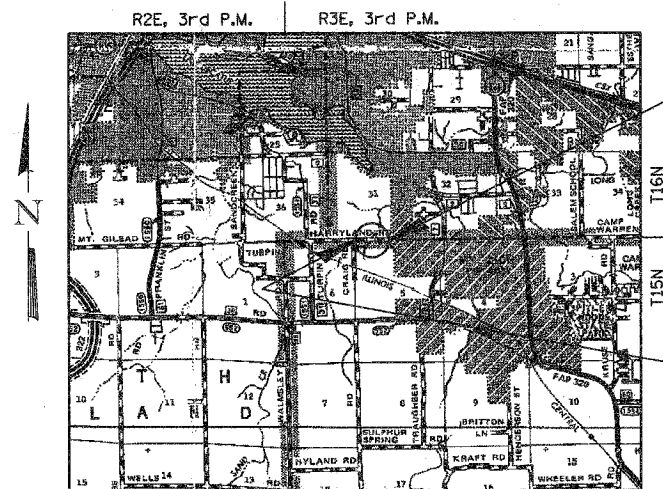
345 EAST ASH AVENUE, SUITE B
 DECATUR, ILLINOIS 62526
 PH. 217-875-4800

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



**HIGHWAY BRIDGE PROGRAM
 CS #900 (HARRY LAND ROAD)
 OVER TRIB. TO LAKE DECATUR
 SECTION 05-00205-00-BR
 VILLAGE OF MOUNT ZION
 MACON COUNTY
 PROJECT BRM-5169(40)**

C-97-047-08



LAYOUT

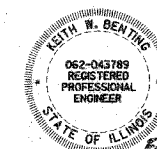
Approximate Scale: scale miles

Total and Net Length of Improvement 1058.90 Feet = 0.201 Miles

IMPROVEMENT ENDS
 STA. 22+56.20

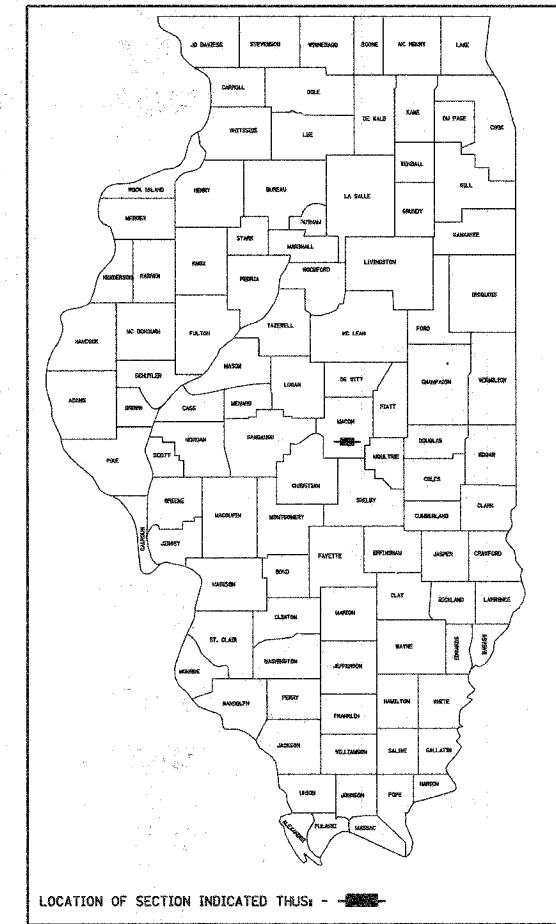
EXIST. STR. NO. 058-3153
 PROP. STR. NO. 058-3386

IMPROVEMENT BEGINS
 STA. 11+97.30



Keith B. Berting
 Illinois Professional No. 43789

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	1
FED. ROAD DIST. NO.		ILLINOIS PROJECT: BRM-5169(40)	CONTRACT NO. 95542	



APPROVED: *[Signature]* 1-29 2008
 ADMINISTRATOR - VILLAGE OF MOUNT ZION

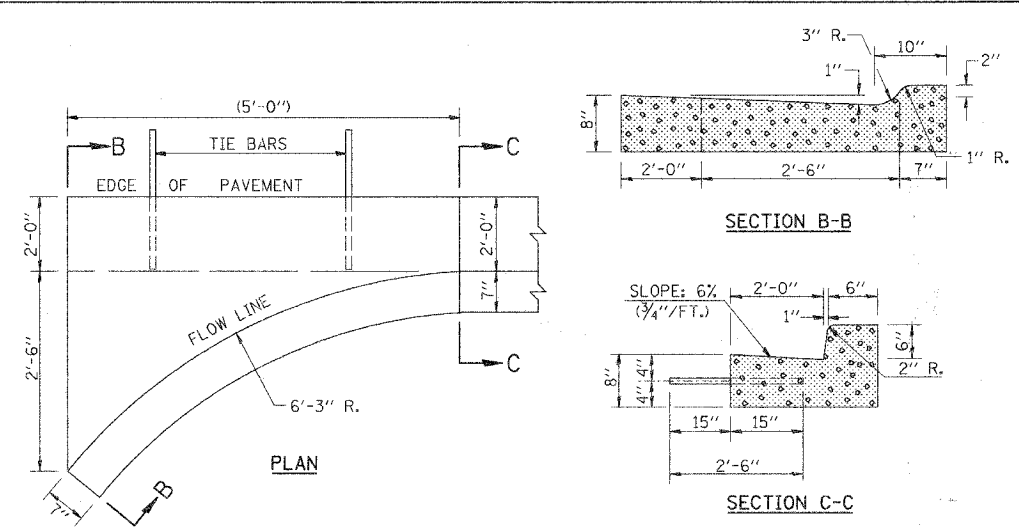
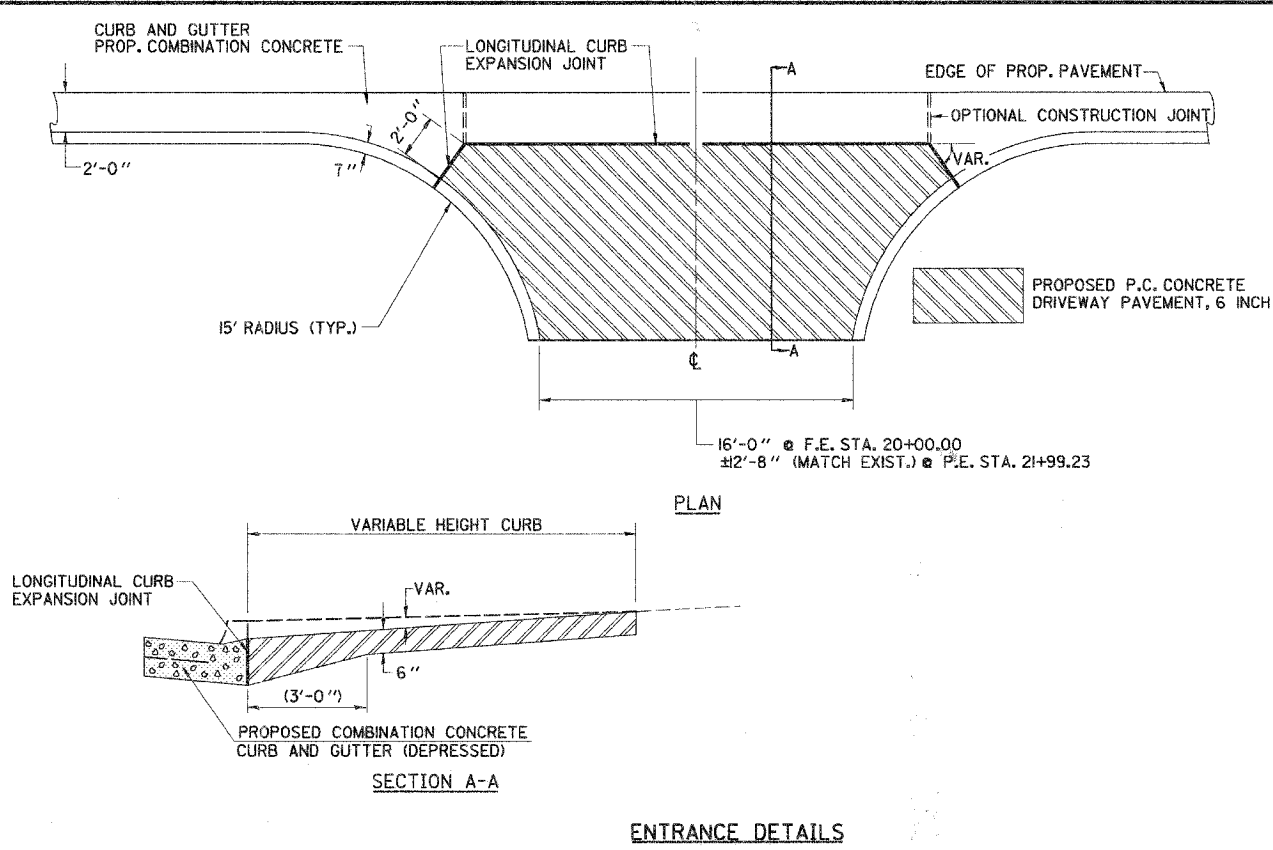
PASSED: *[Signature]* 2-11 2008
 DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review: *[Signature]* 2-11 2008
 DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

1/24/2008
 Date

SUMMARY OF QUANTITIES			X081-2A
CODE NO.	ITEM	UNIT	QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	0.25
20200100	EARTH EXCAVATION	CU YD	983
20300100	CHANNEL EXCAVATION	CU YD	820
20400800	FURNISHED EXCAVATION	CU YD	1,903
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	66.1
20800150	TRENCH BACKFILL	CU YD	43.2
25000200	SEEDING, CLASS 2	ACRE	1.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	113
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	113
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	113
25100115	MULCH, METHOD 2	ACRE	2.5
25100630	EROSION CONTROL BLANKET	SQ YD	25
28000200	EARTH EXCAVATION FOR EROSION CONTROL	CU YD	71
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	125
28000300	TEMPORARY DITCH CHECKS	EACH	7
28000400	PERIMETER EROSION BARRIER	FOOT	1,002
28000500	INLET AND PIPE PROTECTION	EACH	11
28500100	FABRIC FORMED CONCRETE REVETMENT MAT	SQ YD	1,856
30200650	PROCESSING MODIFIED SOIL 12"	SQ YD	3,418
30201500	LIME	TON	77
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	40
40603080	HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50	TON	108
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	35
42000301	PORTLAND CEMENT CONCRETE PAVEMENT 8" (JOINTED)	SQ YD	2,413
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	200
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	80
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	52
48101200	AGGREGATE SHOULDERS, TYPE B	TON	39
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	94.8
50300225	CONCRETE STRUCTURES	CU YD	23.0
50300260	BRIDGE DECK GROOVING	SQ YD	212
50300300	PROTECTIVE COAT	SQ YD	212
50301200	CONCRETE WEARING SURFACE	SQ YD	212
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1,910
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5,750
50901050	STEEL RAILING, TYPE SM	FOOT	128
51201105	FURNISHING METAL SHELL PILES 14"	FOOT	448
51202305	DRIVING PILES	FOOT	448
51203200	TEST PILE METAL SHELLS	EACH	1
51500100	NAME PLATES	EACH	1
52000050	PREFORMED JOINT SEAL 4"	FOOT	35
54200487	PIPE CULVERTS, TYPE 1 RCCP 72"	FOOT	54
54207153	PIPE CULVERTS, TYPE 1, REINFORCED CONCRETE - ELLIPTICAL, EQUIVALENT ROUND-SIZE 18"	FOOT	66
54213717	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 72"	EACH	2
54214713	PRECAST REINFORCED CONCRETE FLARED END SECTIONS - ELLIPTICAL, EQUIVALENT ROUND-SIZE 18"	EACH	4
54215547	METAL END SECTIONS 12"	EACH	8
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	43.5
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	4
60100945	PIPE DRAINS 12"	FOOT	63
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	89
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	8
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	0.9
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	1,670
63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	475
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	2
66500105	WOVEN WIRE FENCE, 4'	FOOT	907
67100100	MOBILIZATION	L SUM	1
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
XX007149	EXISTING GATE TO BE RELOCATED	EACH	1
Z0018900	DRILL AND GROUT DOWEL BARS	EACH	26
* SEE SPECIAL PROVISIONS Δ SPECIALTY ITEMS			



SPECIAL INLET NOTES

- CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
- TIE BARS SHALL BE NO. 6 AT 24" CENTERS UNLESS OTHERWISE SHOWN. SPECIAL INLETS SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001-07.
- TIE BARS SHOWN ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN CLASS SI CONCRETE OUTLETS.
- WHEN SPECIAL INLET IS CONSTRUCTED ADJACENT TO FLEXIBLE PAVEMENT, THE TIE BARS SHALL BE OMITTED AND ALL CONSTRUCTION JOINTS SHALL BE PROVIDED WITH A DOWEL BAR CONFORMING TO ARTICLE 1006.11(b).
- THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CU. YD. FOR CLASS SI CONCRETE (OUTLET) WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

DETAIL OF SPECIAL INLET FOR COMBINATION CURB AND GUTTER

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	2
FED. ROAD DIST. NO.	ILLINOIS	PROJECT: BRM-51691401	CONTRACT NO. 95542	

- ENTRANCE NOTES**
- THE LONGITUDINAL CURB EXPANSION JOINT SHALL CONFORM TO SECTION 1051 OF THE STANDARD SPECS.
 - THE ENTRANCE GRADES WILL BE AS SHOWN ON THE STATION CROSS SECTIONS AND AS DIRECTED BY THE ENGINEER.
 - THE COMBINATION CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED AS SHOWN AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LIN. FT. FOR COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
 - BEFORE A CHANGE IN THE METHOD OF CONSTRUCTION IS ALLOWED, THE REQUEST SHALL BE SUBMITTED IN WRITING AND MUST BE APPROVED BY THE ENGINEER.
 - THE VARIABLE HEIGHT CURB ADJACENT TO THE P.C. CONCRETE DRIVEWAY PAVEMENT SHALL BE CONSTRUCTED MONOLITHIC WITH AND INCLUDED IN THE AREA OF THE P.C. CONCRETE DRIVEWAY PAVEMENT, 6". THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQ.YD. FOR P.C. CONCRETE DRIVEWAY PAVEMENT, 6" INCLUDING THE MONOLITHIC CURBS AS SPECIFIED, THE SCORED GROOVES, THE LONGITUDINAL CURB EXPANSION JOINTS, AND THE ADDITIONAL THICKNESS REQUIRED ADJACENT TO THE DEPRESSED COMBINATION CONCRETE CURB AND GUTTER, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

GENERAL NOTES

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

SEEDING DATES FOR CLASS 2 SEEDING WILL BE AS LISTED BELOW:

SPRING MARCH 1 THRU JUNE 1
FALL AUGUST 1 THRU NOVEMBER 15

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.

REMOVAL OF EXISTING PAVEMENT MATERIAL AND EXISTING FENCE SHALL BE INCLUDED IN EARTH EXCAVATION.

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

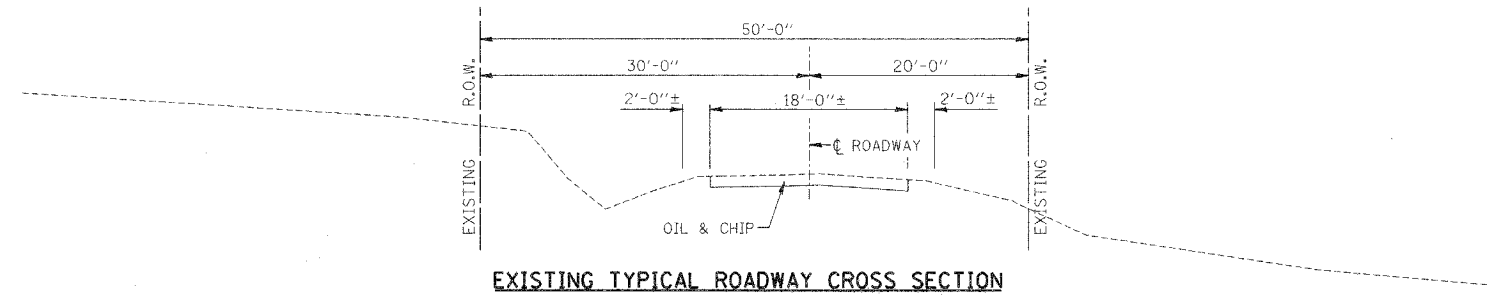
APPLICATION RATES		
NITROGEN FERTILIZER NUTRIENT	90	LBS./ACRE
PHOSPHORUS FERTILIZER NUTRIENT	90	LBS./ACRE
POTASSIUM FERTILIZER NUTRIENT	90	LBS./ACRE
MULCH METHOD 2	2	TONS/ACRE
TEMPORARY EROSION CONTROL SEEDING	100	LBS./ACRE
LIME	45	LBS./SQ. YD.
BITUMINOUS MATERIALS-PRIME COAT	0.10	GALS./S. Y.
BITUMINOUS MATERIALS-FOG COAT	0.03	GALS./S. Y.
HOT MIX ASPHALT	112	LBS./S. Y./INCH
AGGREGATE SHOULDERS	2.05	TONS/CU. YD.

SUM. OF QUANTITIES, GEN. NOTES, & DETAILS

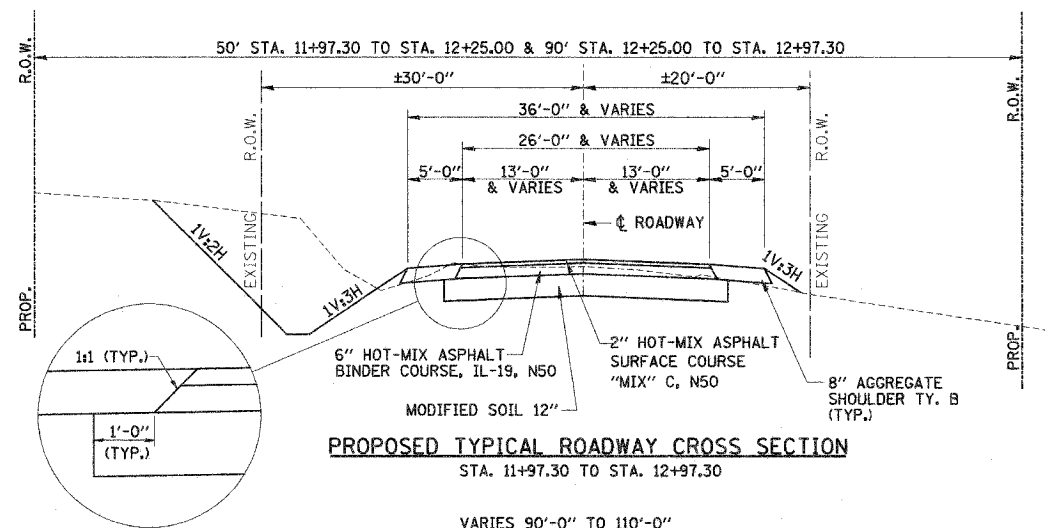
Date	Designed MJP	CS #900 (HARRY LAND ROAD) OVER TRIB. TO LAKE DECATUR SECTION 05-00205-00-BR MACON COUNTY STA. 15+93.29 PROP. STR. NO. 058-3386
Revisions	Drawn BKN	
	Checked KWB	
	Approved KWB	
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526	URS Job No. 36431928

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	3
FED. ROAD DIST. NO.	ILLINOIS PROJECT: BRM-5169(40)			

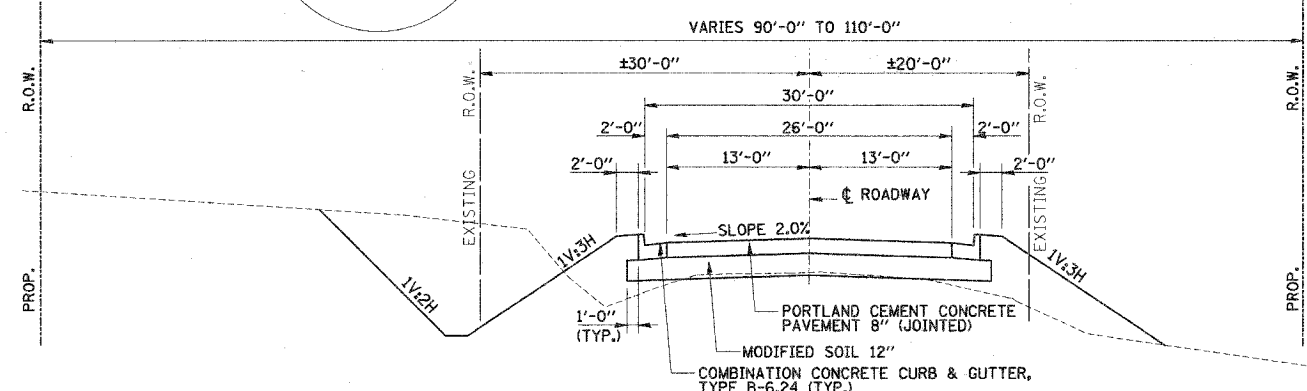
CONTRACT NO. 95542



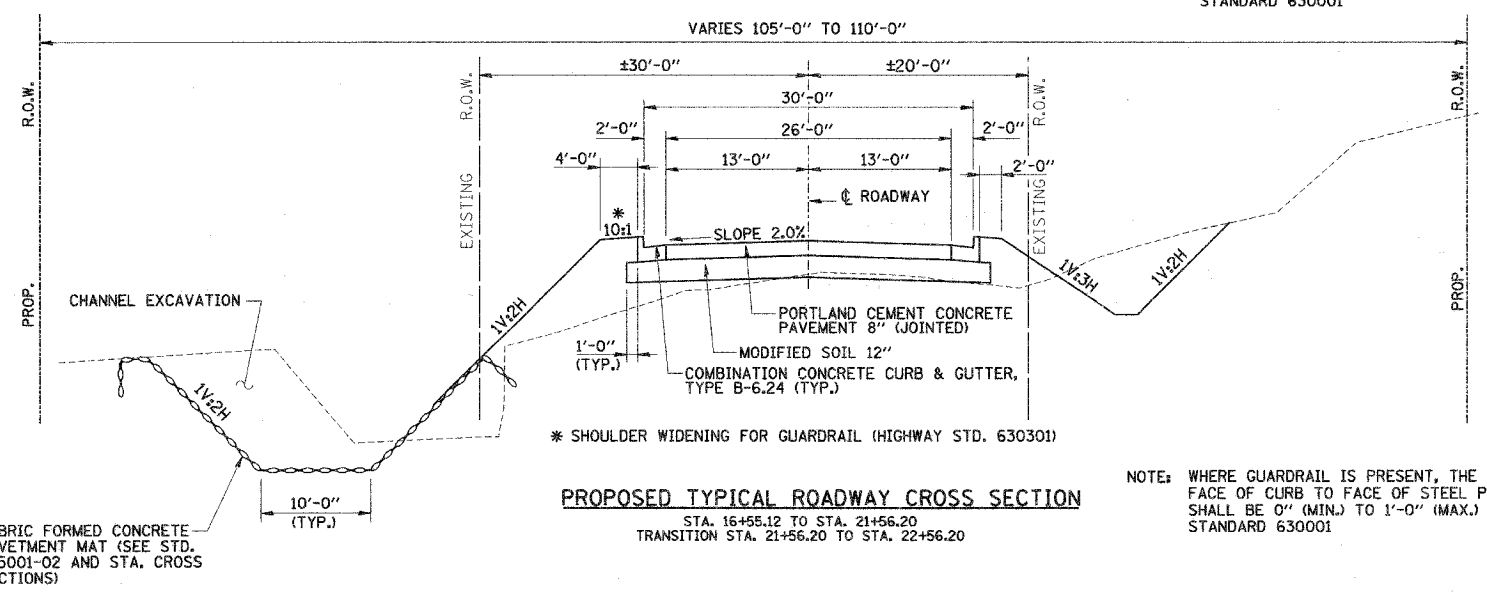
EXISTING TYPICAL ROADWAY CROSS SECTION



PROPOSED TYPICAL ROADWAY CROSS SECTION
STA. 11+97.30 TO STA. 12+97.30



PROPOSED TYPICAL ROADWAY CROSS SECTION
STA. 12+97.30 TO STA. 15+31.46



PROPOSED TYPICAL ROADWAY CROSS SECTION
STA. 16+55.12 TO STA. 21+56.20
TRANSITION STA. 21+56.20 TO STA. 22+56.20

NOTE: WHERE GUARDRAIL IS PRESENT, THE DISTANCE FROM FACE OF CURB TO FACE OF STEEL PLATE BEAM GUARDRAIL SHALL BE 0" (MIN.) TO 1'-0" (MAX.) IN ACCORDANCE WITH STANDARD 630001

NOTE: WHERE GUARDRAIL IS PRESENT, THE DISTANCE FROM FACE OF CURB TO FACE OF STEEL PLATE BEAM GUARDRAIL SHALL BE 0" (MIN.) TO 1'-0" (MAX.) IN ACCORDANCE WITH STANDARD 630001

FLEXIBLE PAVEMENT QUANTITY SCHEDULE

LOCATION	PROCESS MOD SOIL 12 (SQ YD)	LIME (TON)	BITUMINOUS MATERIALS (PRIME COAT) (GAL)	HMA BC IL-19.0 N50 (TON)	HMA SC MIX "C" N50 (TON)	AGGREGATE SHLDS B (TON)
M.L. STA. 11+97.30 TO STA. 12+97.30	306	7	40	108	35	39
TOTALS	306	7	40	108	35	39

BITUMINOUS MIXTURE REQUIREMENTS

LOCATION	CS #900	CS #900
MIX USE	BINDER	SURFACE
AC/PG	PG 58-22	PG 58-22
RAP %	25	15
DESIGN VOIDS	4.0 @ N=50	4.0 @ N=50
MIXTURE COMPOSITION (GRAD. MIXTURE)	IL-19.0	IL-9.5
FRICITION	N/A	MIX C

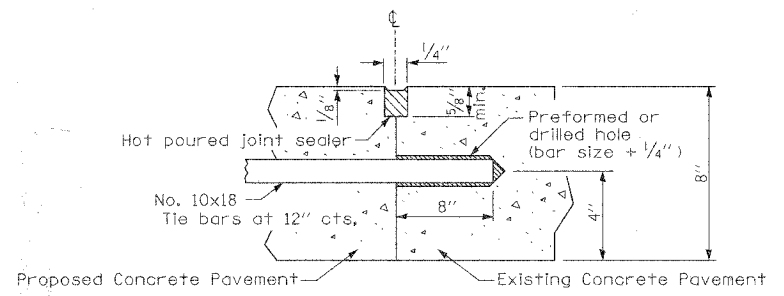
RIGID PAVEMENT QUANTITY SCHEDULE

LOCATION	PROCESS MOD SOIL 12 (SQ YD)	LIME (TON)	PCC PVT 8 JOINTED (SQ YD)	BRIDGE APPR PAVT (SQ YD)	CONC WEARING SURF (SQ YD)	COMB CC&G TB6.24 (FT)
M.L. STA. 12+97.30 TO STA. 15+31.46	863	20 (1)	677			468
M.L. STA. 15+31.46 TO STA. 15+61.46	17 (1)			100	212	
M.L. STA. 15+61.46 TO STA. 16+25.12				100		
M.L. STA. 16+25.12 TO STA. 16+55.12	17 (2)					
M.L. STA. 16+55.12 TO STA. 22+56.20	2215	50 (2)	1736			1202
TOTALS	3112	70	2413	200	212	1670

(1) END STA. 15+36.08
(2) BEGIN STA. 16+50.12

ENTRANCE QUANTITY SCHEDULE

LOCATION	PCC DRIVEWAY PAVT 6 (SQ YD)	DRIVEWAY PAVEMENT REMOVAL (SQ YD)
F.E. RT., STA. 20+00.00	47	
P.E. RT., STA. 21+99.23	33	52
TOTALS	80	52

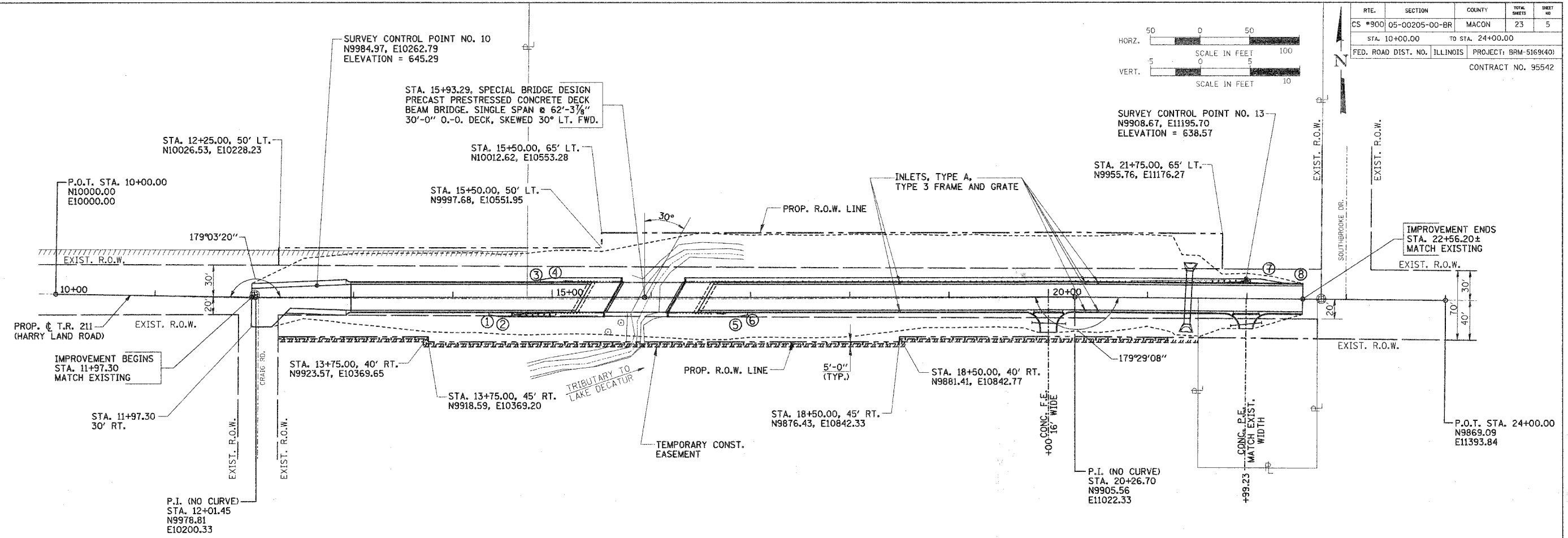
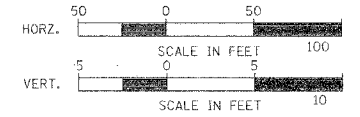


TRANSVERSE CONSTRUCTION JOINT
(TIE BARS SET IN NON-SHRINK GROUT - STA. 22+56.20±)
(SEE SPECIAL PROVISION FOR DRILL AND GROUT DOWEL BARS)

TYPICAL SECTIONS & PAVEMENT SCHEDULES

Date	Designed MJP	CS #900 (HARRY LAND ROAD) OVER TRIB. TO LAKE DECATUR SECTION 05-00205-00-BR MACON COUNTY STA. 15+93.29 PROP. STR. NO. 058-3386
Revisions	Drawn BKN	
	Checked KWB	
	Approved KWB	
Prepared by:	URS	
345 East Ash Avenue Decatur, IL 62526		URS Job No. 36431928

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	5
STA. 10+00.00 TO STA. 24+00.00				
FED. ROAD DIST. NO. ILLINOIS PROJECT: BRM-5169(40)				
CONTRACT NO. 95542				



INLETS, TYPE A

- STA. 15+00.00, 14.66' RT.
- STA. 15+00.00, 14.66' LT.
- STA. 18+50.00, 14.66' RT.
- STA. 18+50.00, 14.66' LT.
- STA. 20+37.00, 14.66' RT.
- STA. 20+37.00, 14.66' LT.
- STA. 20+50.00, 14.66' RT.
- STA. 20+50.00, 14.66' LT.

PROPOSED STRUCTURE LAYOUT

- WEST ABUTMENT**
- BK. OF W. ABUT. STA. 15+60.69
N9946.93, E10558.16
 - ☐ W. ABUT. STA. 15+62.13
N9946.80, E10559.59

- EAST ABUTMENT**
- BK. OF E. ABUT. STA. 16+25.89
N9941.14, E10623.11
 - ☐ E. ABUT. STA. 16+24.45
N9941.27, E10621.67

SHOULDER WIDENING FOR GUARDRAIL TERMINALS

- | | |
|-----------------------------|-----------------------------|
| ① STA. 14+36.43, 17.58' RT. | ⑤ STA. 16+85.00, 19.58' RT. |
| ② STA. 14+48.43, 19.58' RT. | ⑥ STA. 16+97.00, 17.58' RT. |
| ③ STA. 14+88.00, 17.58' LT. | ⑦ STA. 22+14.00, 19.6'± LT. |
| ④ STA. 15+00.00, 19.58' LT. | ⑧ STA. 22+38.00, 15.6'± LT. |

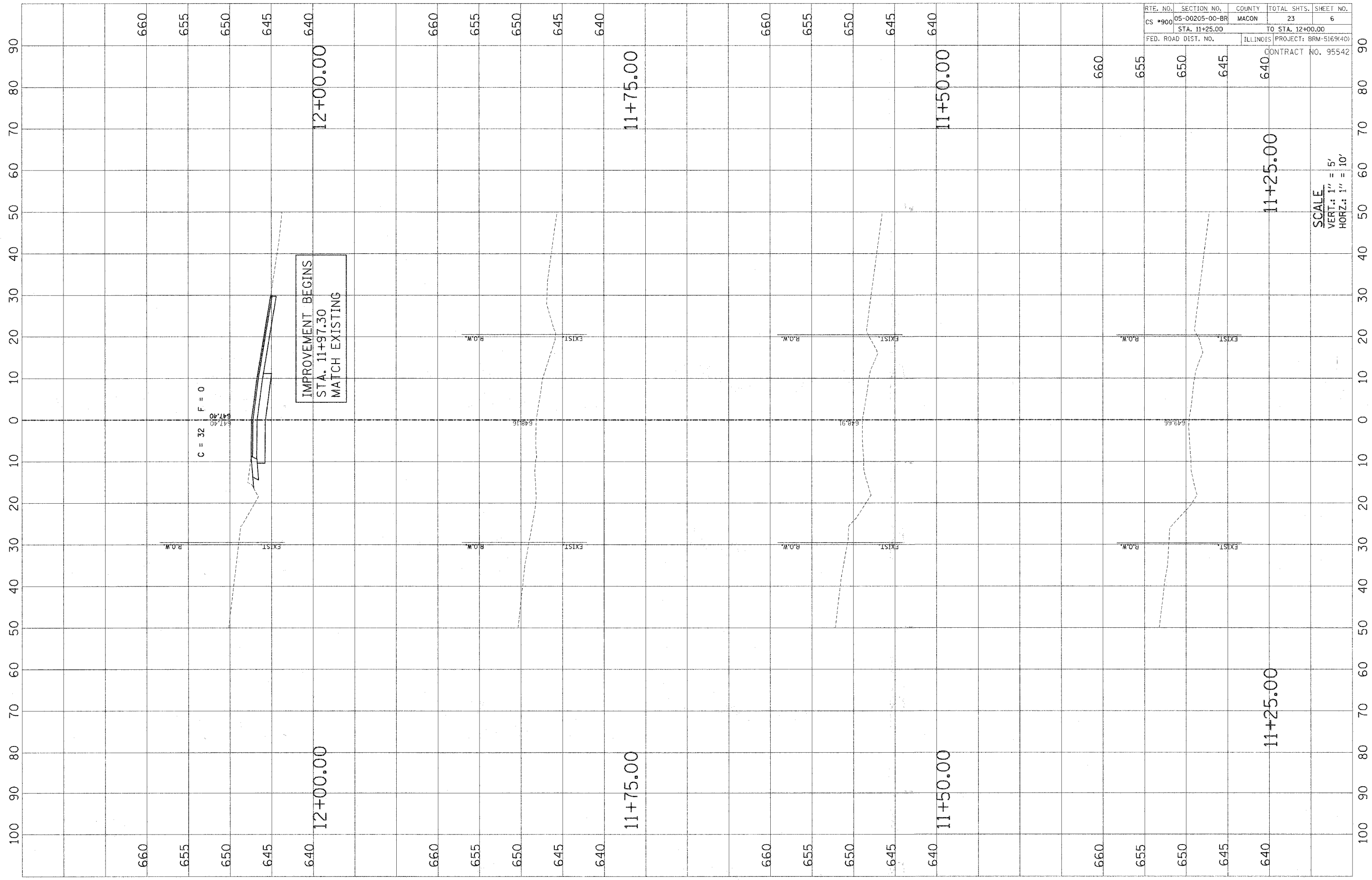
NOTE:
FOR TIE POINTS AND BENCHMARK LOCATION,
SEE SHEET 4 OF 23.

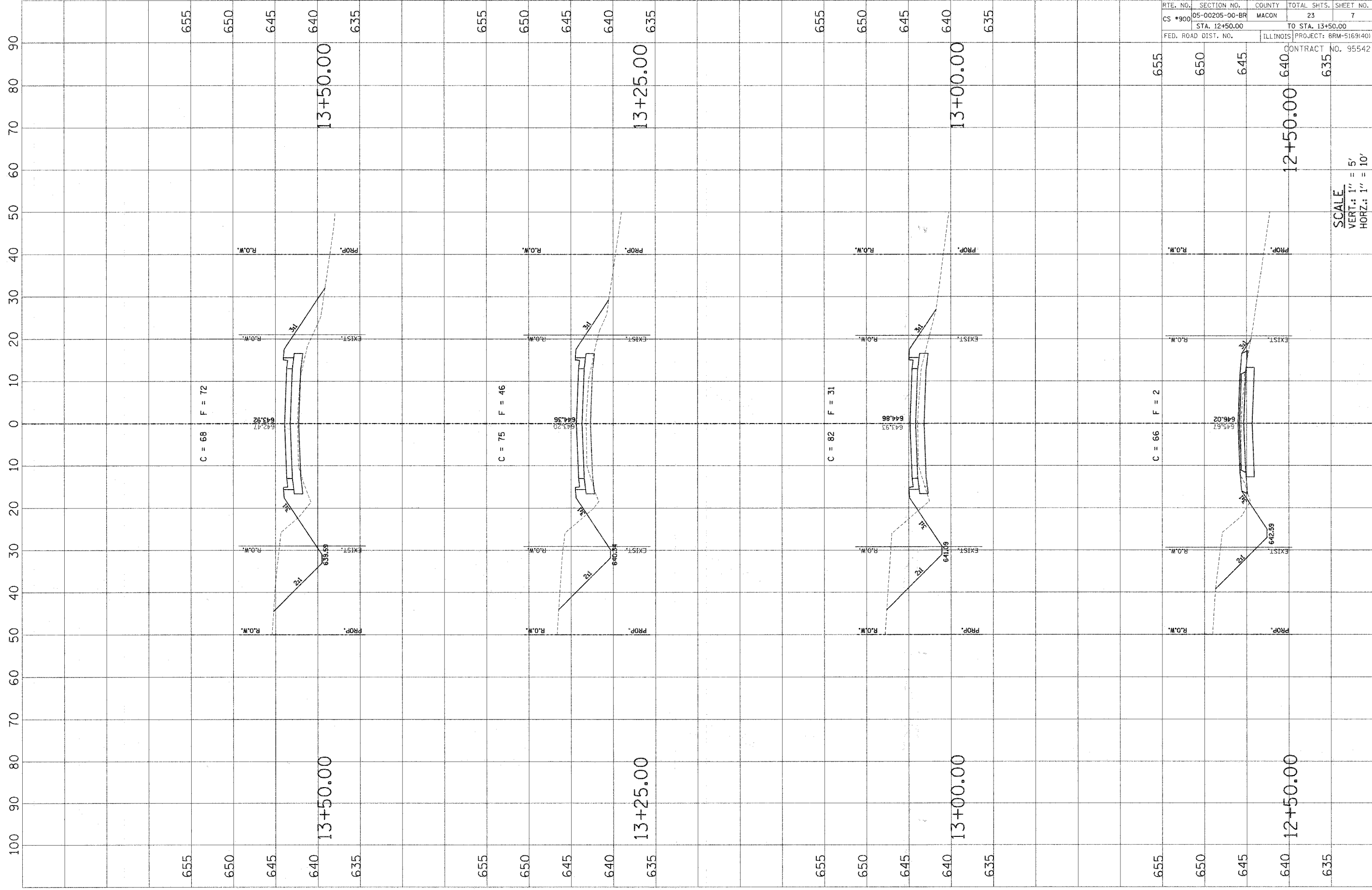
HORIZONTAL LAYOUT

PLAN	DATE	BY

PROFILE	DATE	BY

RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	6
STA. 11+25.00		TO STA. 12+00.00		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT: BRM-5169(40)		
CONTRACT NO. 95542				

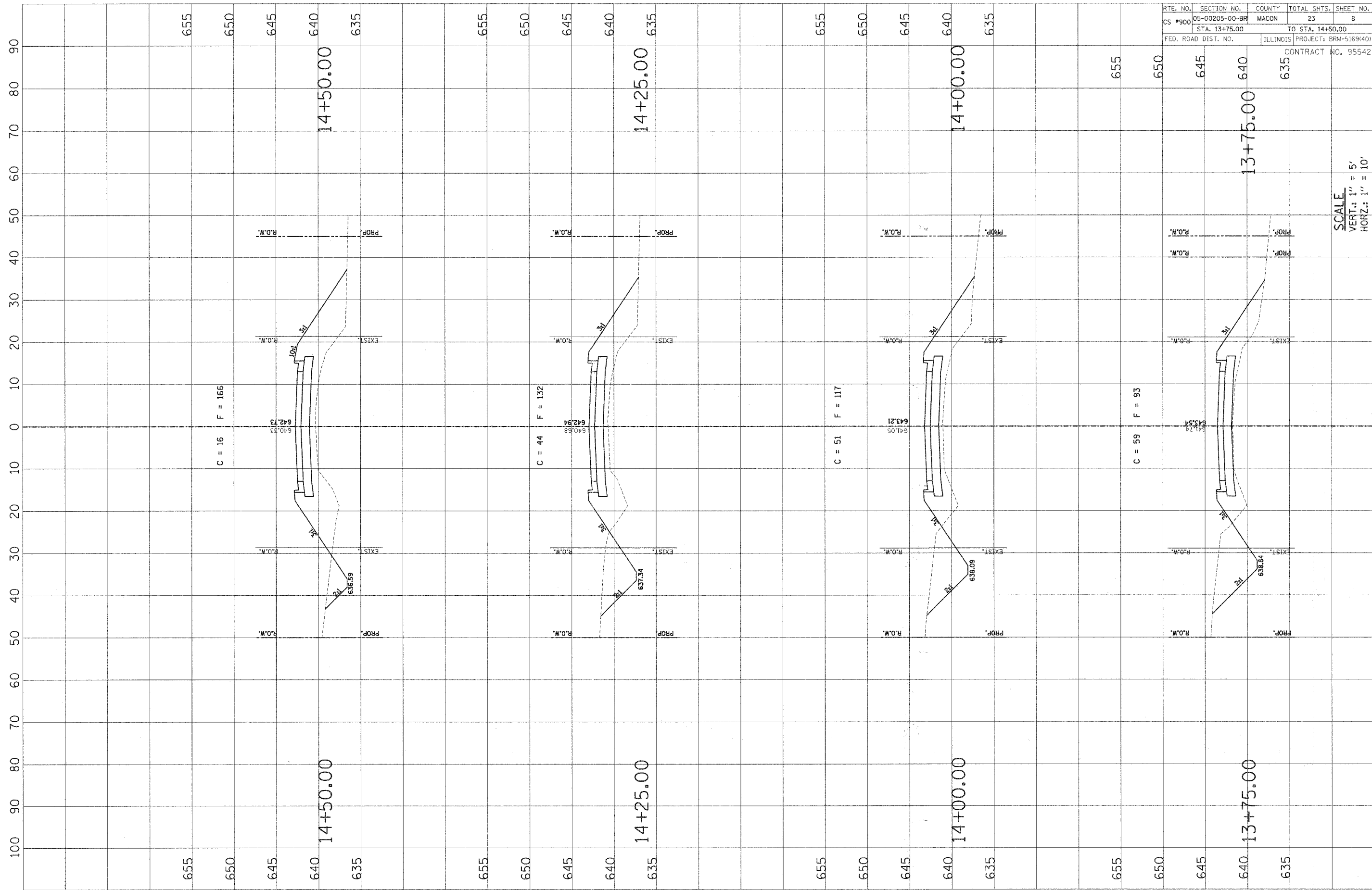




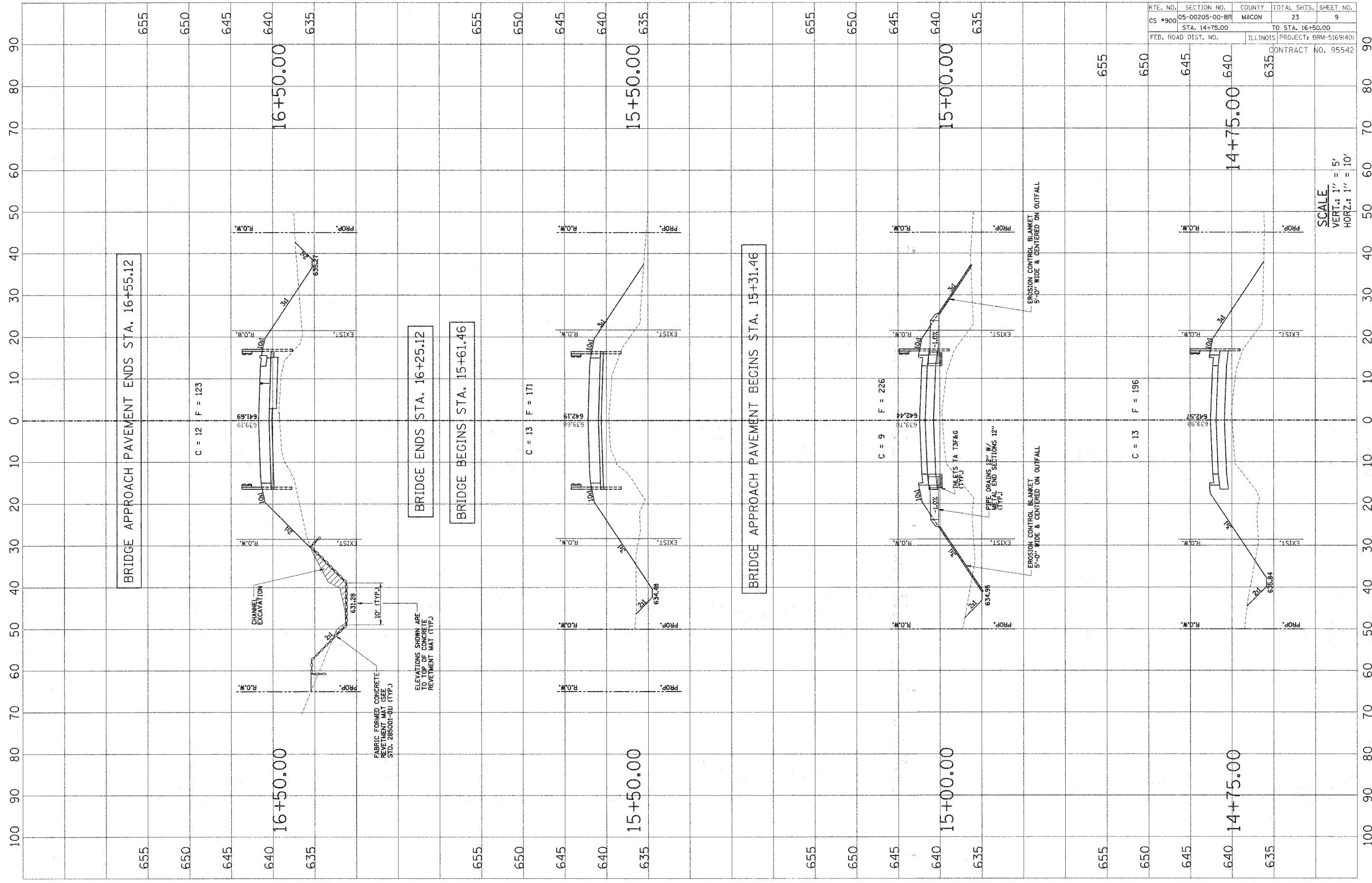
RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
CS *900	05-00205-00-BR	MACON	23	7
STA. 12+50.00		TO STA. 13+50.00		
FED. ROAD DIST. NO.		ILLINOIS PROJECT: BRM-5169(40)		
		CONTRACT NO. 95542		

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

RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	8
STA. 13+75.00		TO STA. 14+50.00		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT: BRM-5169(40)		
		CONTRACT NO. 95542		



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



BRIDGE APPROACH PAVEMENT ENDS STA. 16+55.12

BRIDGE ENDS STA. 16+25.12

BRIDGE BEGINS STA. 15+61.46

BRIDGE APPROACH PAVEMENT BEGINS STA. 15+31.46

C = 12 F = 123

C = 13 F = 171

C = 9 F = 226

C = 13 F = 196

CHANNEL EXCAVATION

FABRIC FORMED CONCRETE
RETAINMENT MAT (SEE
STD. 285001-00 (TYP.))

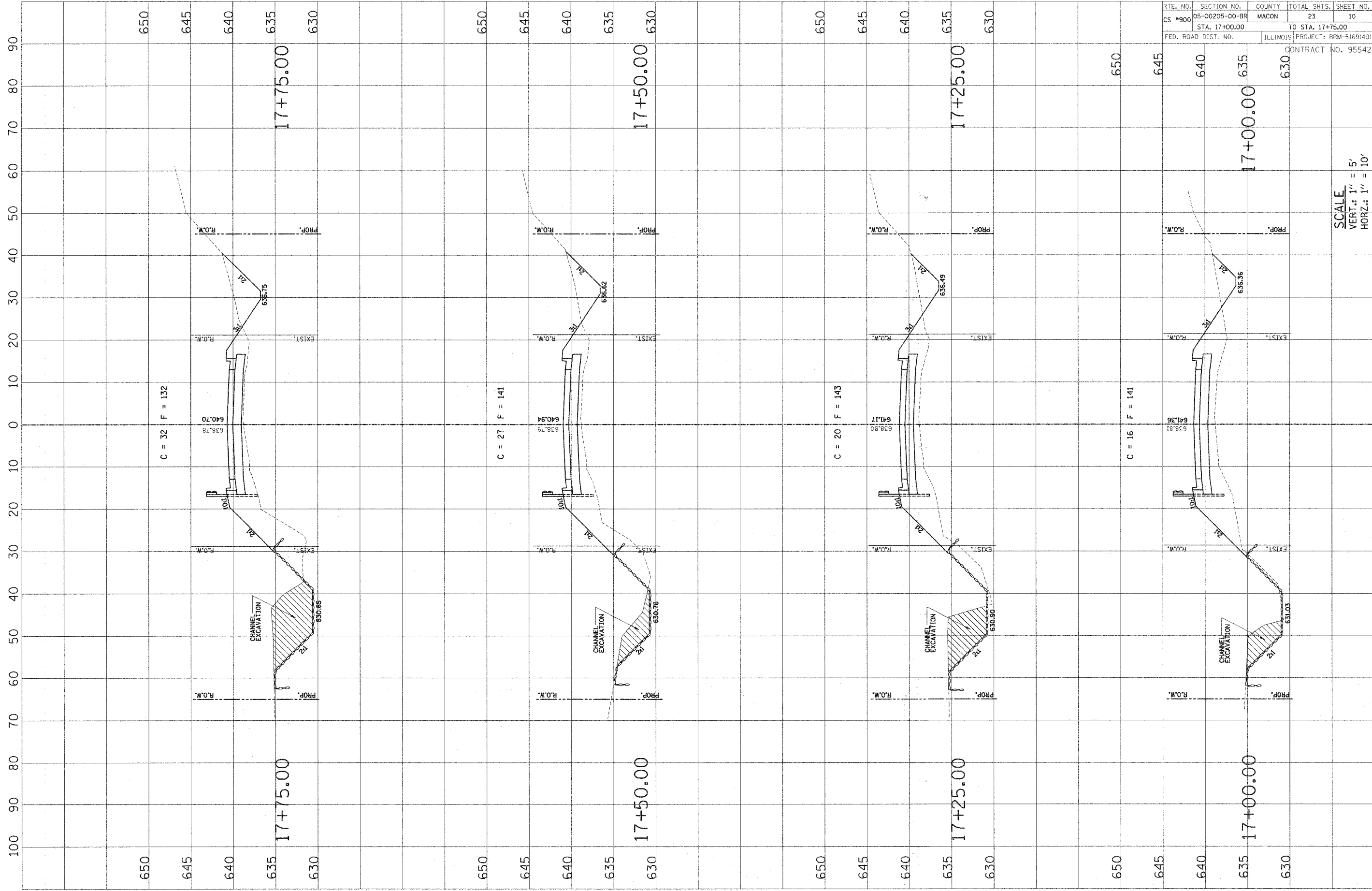
ELEVATIONS SHOWN ARE
TO TOP OF CONCRETE
RETAINMENT MAT (TYP.)

INLETS TA 13F&G
(TYP.)
PIPE DRAINS 12" DIA.
(TYP.) END SECTIONS 12"

EROSION CONTROL BLANKET
5'-0" WIDE & CENTERED ON OUTFALL

EROSION CONTROL BLANKET
5'-0" WIDE & CENTERED ON OUTFALL

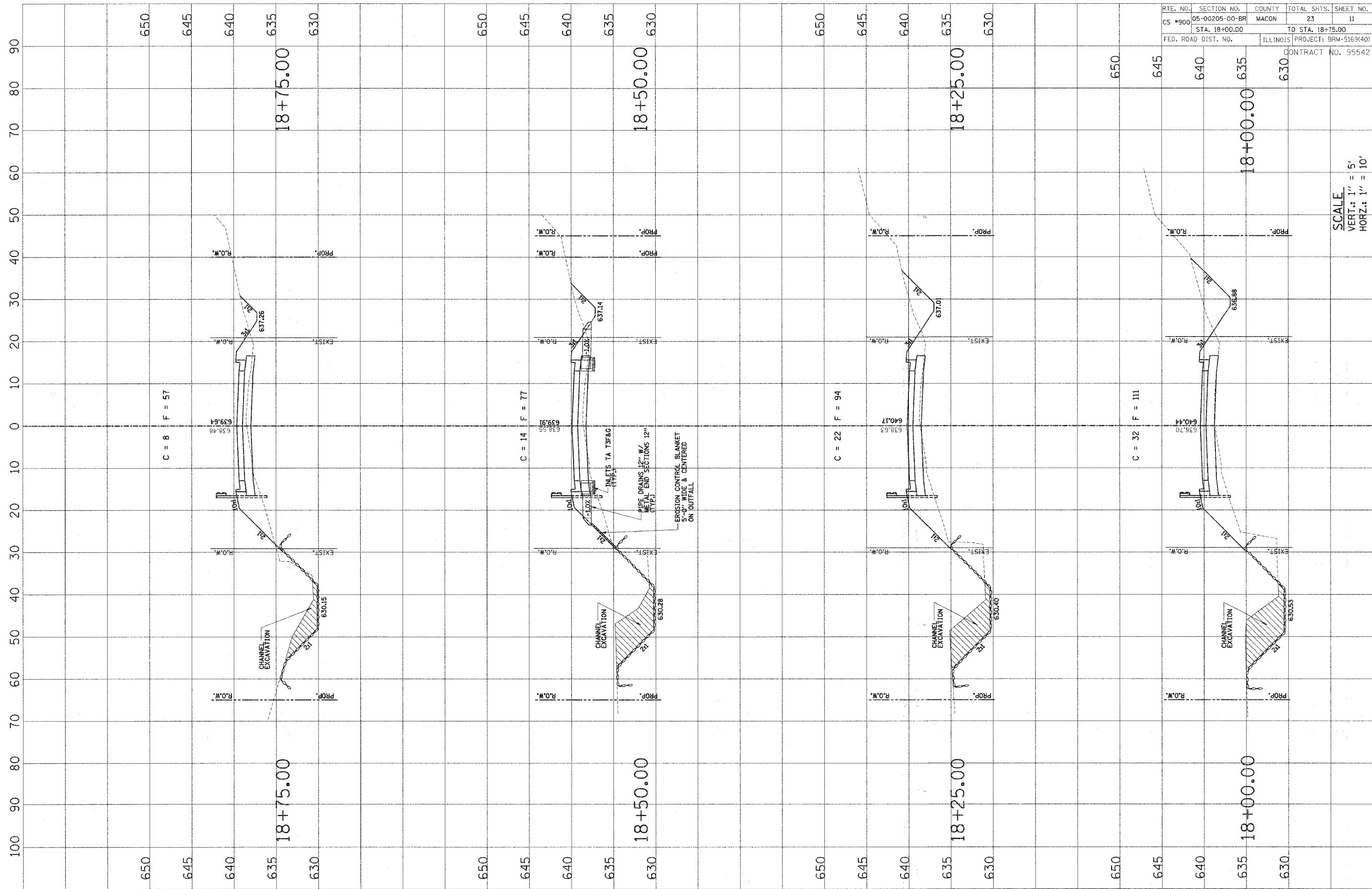
SCALE
VERT.: 1" = 5'
HORZ.: 1" = 10'



RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	10
STA. 17+00.00		TO STA. 17+75.00		
FED. ROAD DIST. NO.		ILLINOIS PROJECT: BRM-5169(40)		
		CONTRACT NO. 95542		

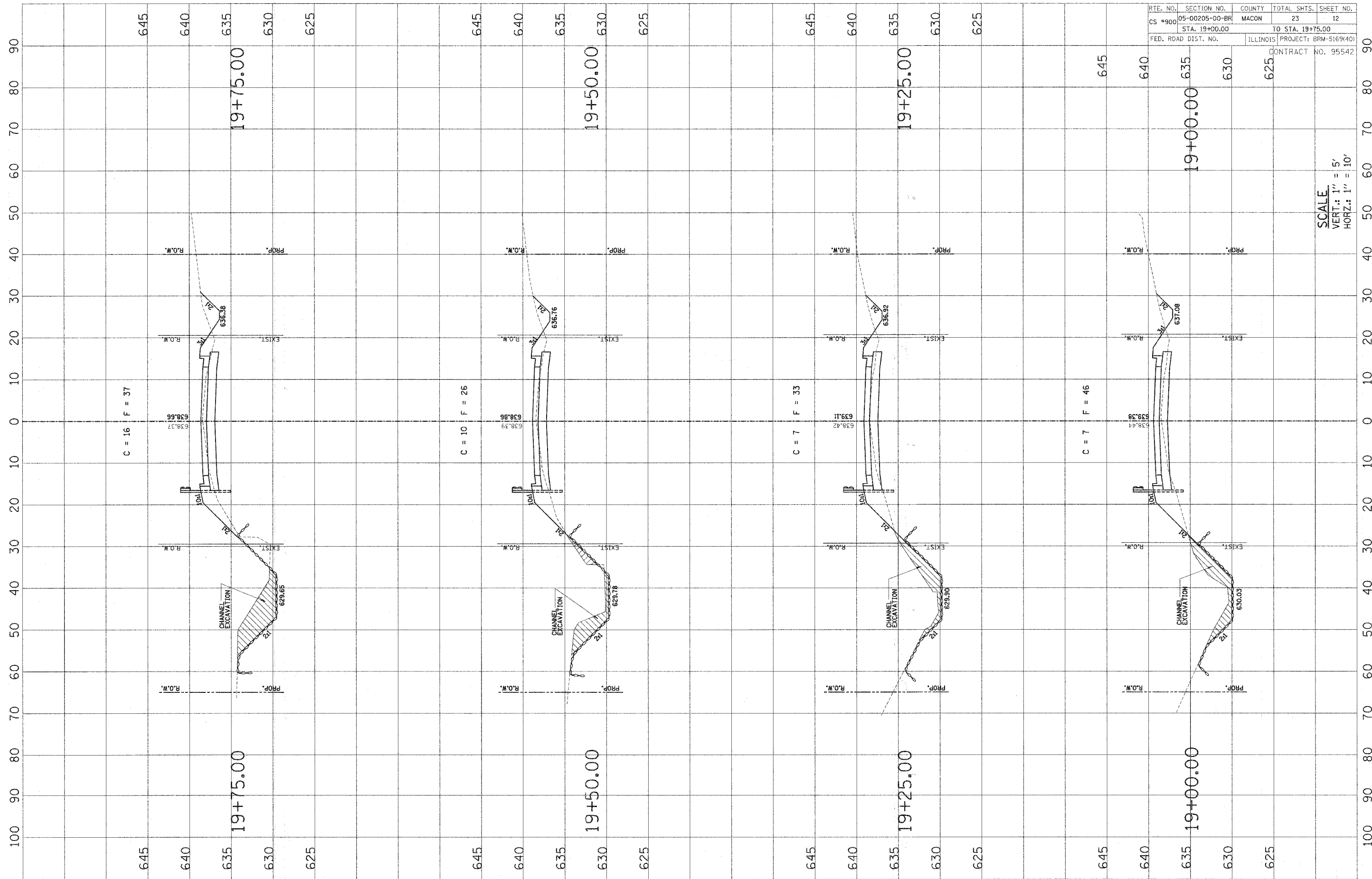
SCALE
 VERT.: 1" = 5'
 HORIZ.: 1" = 10'

RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	11
STA. 18+00.00		TO STA. 18+75.00		
FED. ROAD DIST. NO.	ILLINOIS PROJECT: BRM-5169(40)		CONTRACT NO. 95542	



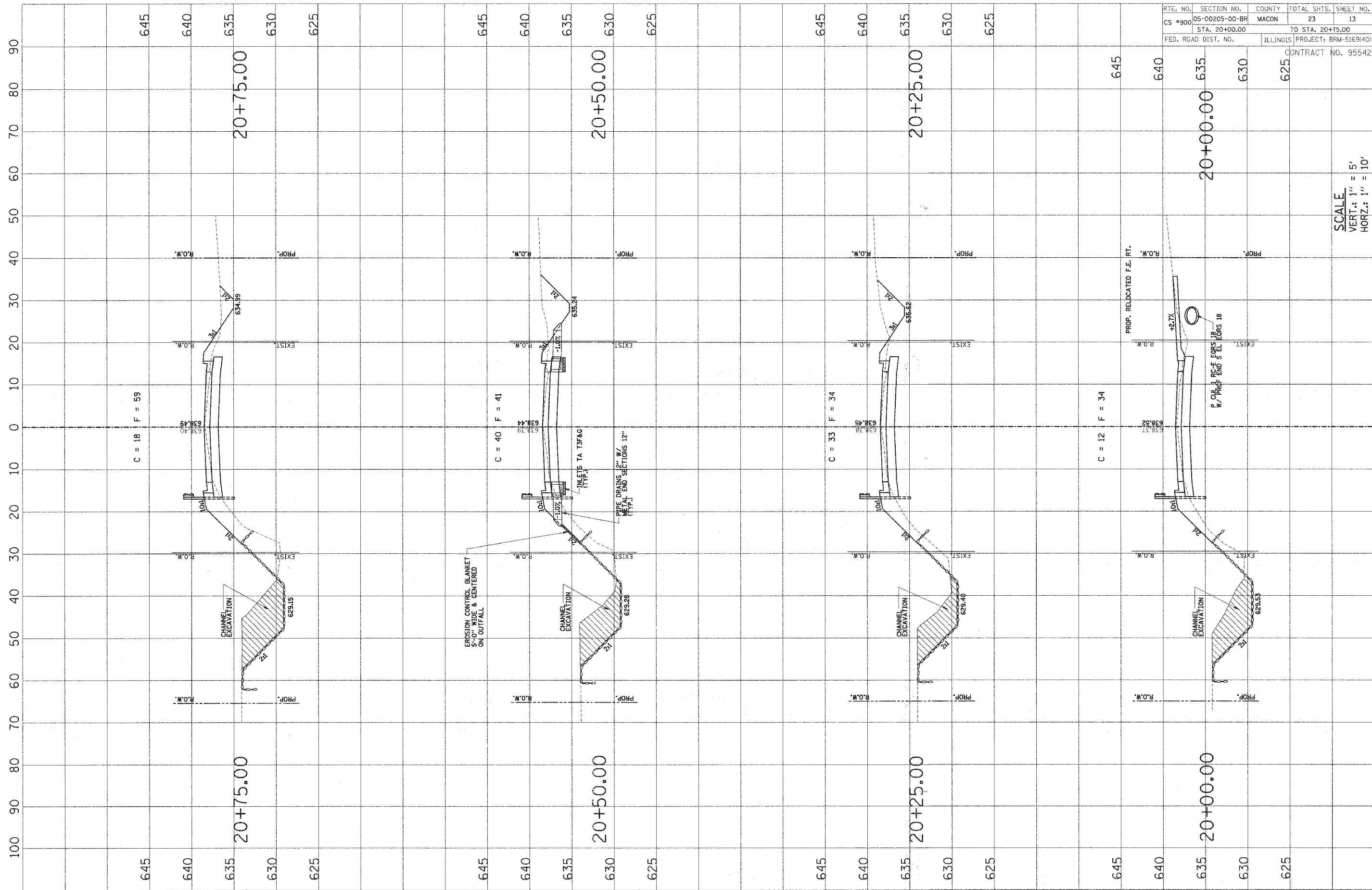
SCALE
 VERT.: 1" = 5'
 HORIZ.: 1" = 10'

RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	12
STA. 19+00.00		TO STA. 19+75.00		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT: BRM-5169(40)		
		CONTRACT NO. 95542		



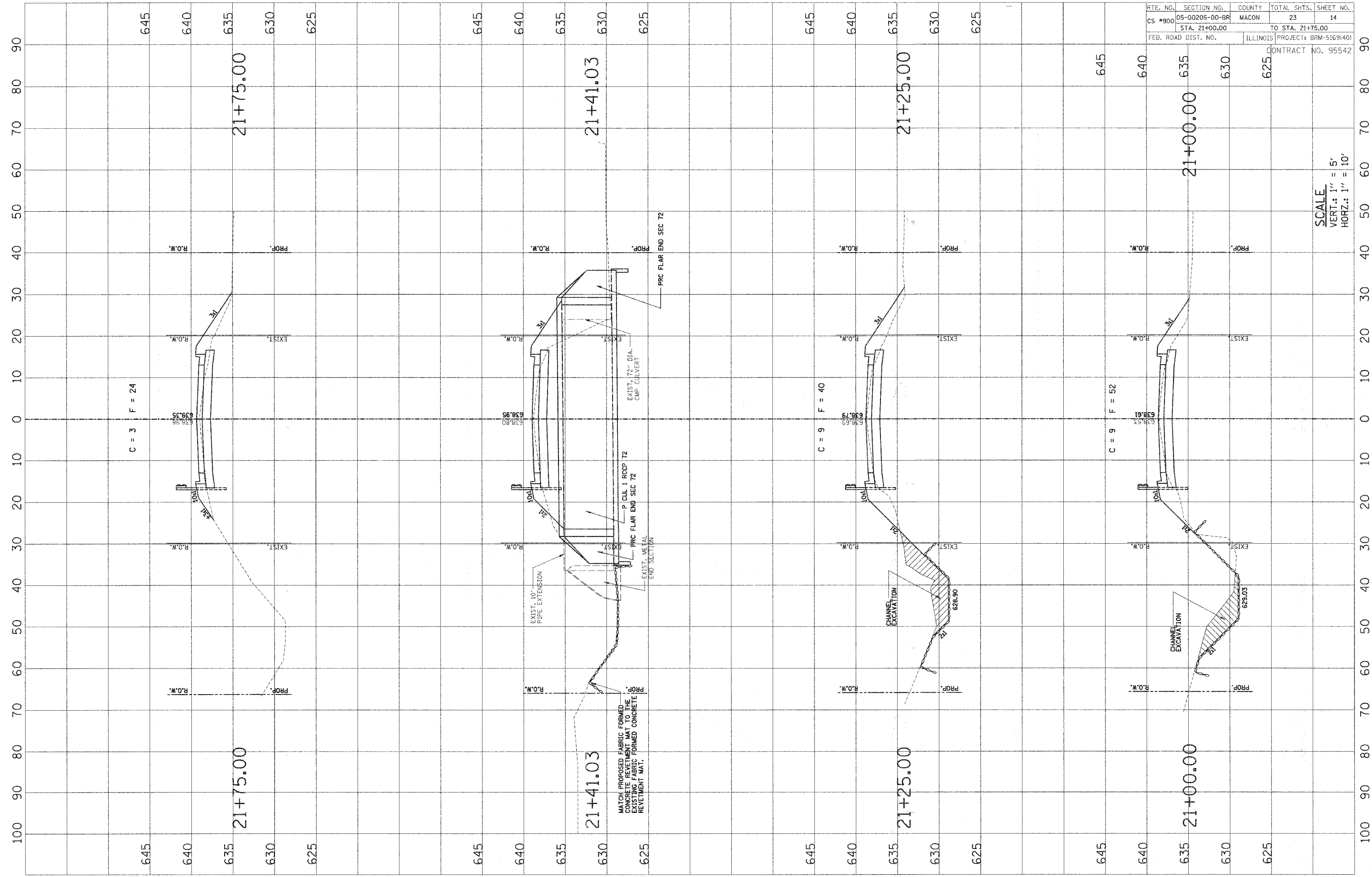
SCALE
 VERT.: 1" = 5'
 HORIZ.: 1" = 10'

RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	13
STA. 20+00.00		TO STA. 20+75.00		
FED. ROAD DIST. NO.	ILLINOIS PROJECT: BRM-5169140		CONTRACT NO. 95542	

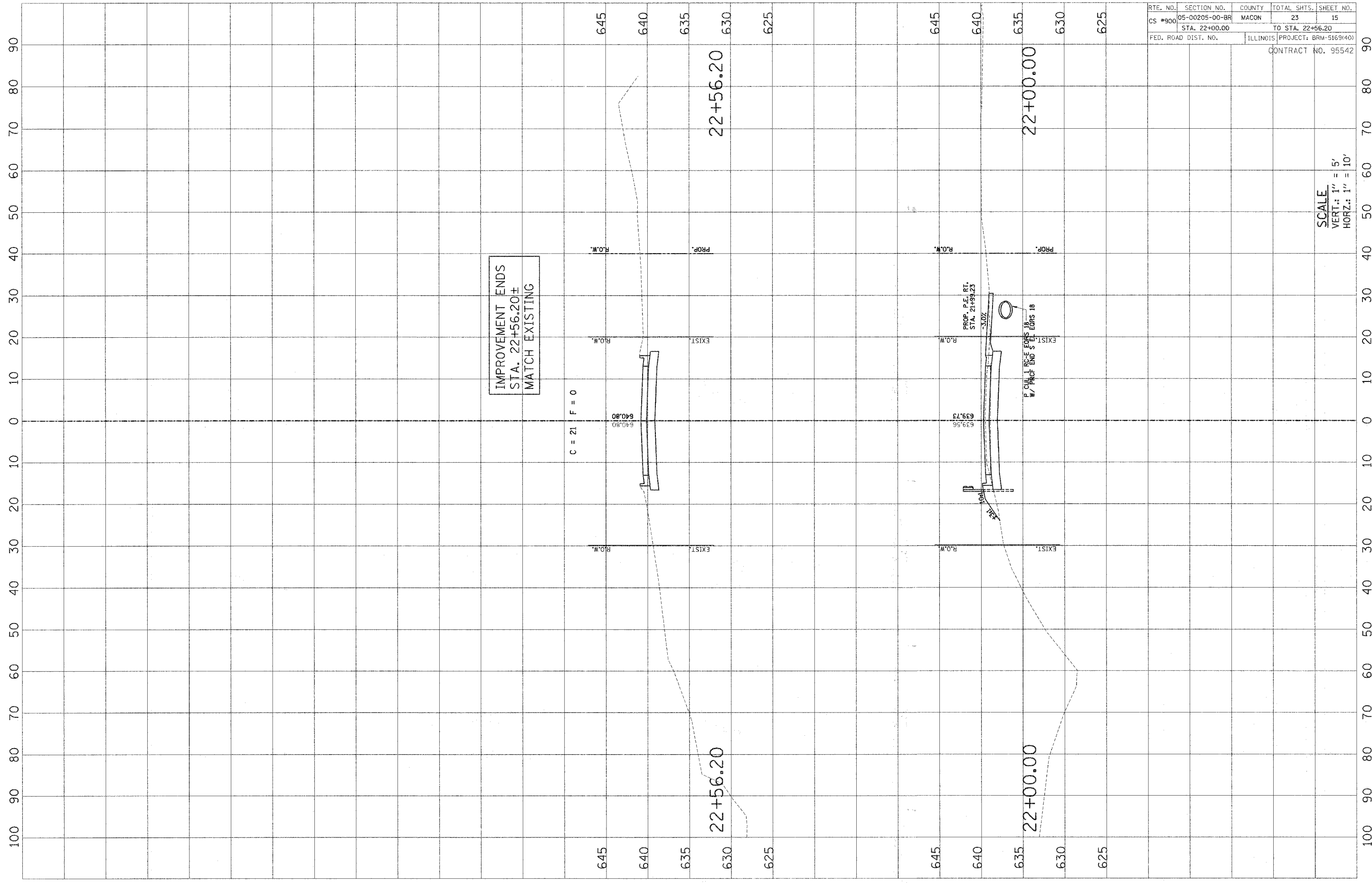


SCALE
 VERT.: 1" = 5'
 HORZ.: 1" = 10'

RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	14
STA. 21+00.00		TO STA. 21+75.00		
FED. ROAD DIST. NO.	ILLINOIS PROJECT# BRM-5169(40)		CONTRACT NO. 95542	



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



IMPROVEMENT ENDS
 STA. 22+56.20±
 MATCH EXISTING

C = 21 F = 0

PROP. P.E.I. RT.
 STA. 21+93.23

P. CIV. I. R.C.F. EORS 18
 W/ PROP. END S. EORS 18

RTE. NO.	SECTION NO.	COUNTY	TOTAL SHTS.	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	15
STA. 22+00.00		TO STA. 22+56.20		
FED. ROAD DIST. NO.		ILLINOIS	PROJECT: BRM-5169(40)	
CONTRACT NO. 95542				

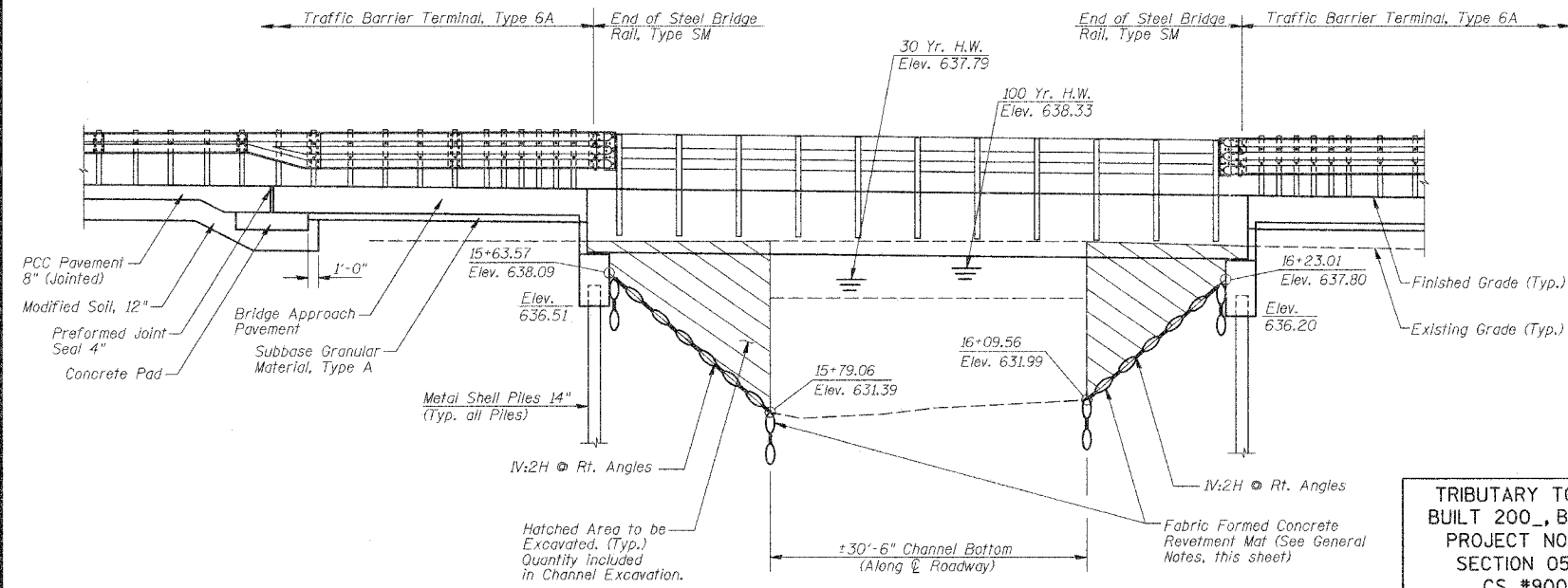
SCALE
 VERT.: 1" = 5'
 HORZ.: 1" = 10'

BENCHMARK:

Top of curb on bridge (Southeast corner of North curb)
Sta. 16+10.45, 10.3' Lt.
Elevation = 639.79
NOTE: Relocate B.M. prior to removal of existing structure.

EXISTING STRUCTURE (SN 058-3153):

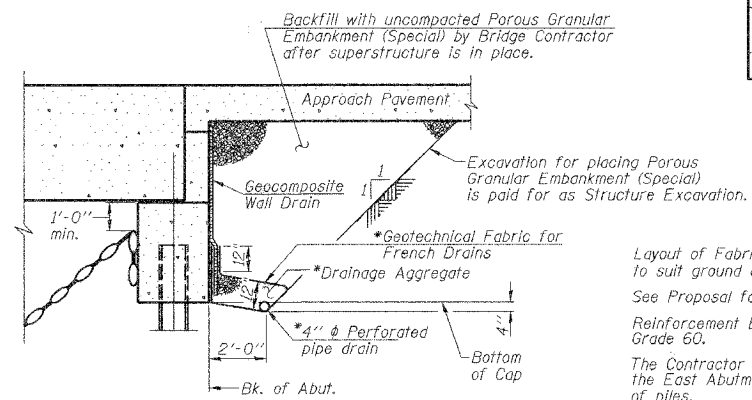
Single Span Concrete Deck on WF Beam Superstructure on Closed Timber Abutments with Timber Wingwalls. 25'-0"± O.-O. Deck. 33'-0"± Bk.-Bk. Abuts. No Salvage.



ELEVATION LOOKING DOWNSTREAM

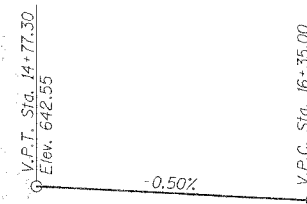
TRIBUTARY TO LAKE DECATUR
BUILT 200., BY MACON COUNTY
PROJECT NO. BRM-5169(40)
SECTION 05-00205-00-BR
CS #900 STA. 15+93.29
STR. NO. 058-3386 LOADING HS-20
HARRY LAND BRIDGE

NAME PLATE
(See Std. 515001)



SECTION THRU ABUTMENT
(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures.
Note: All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



PROFILE T.R. 211

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	17
FED. ROAD DIST. NO.	ILLINOIS PROJECT:	BRM-5169(40)		

CONTRACT NO. 95542

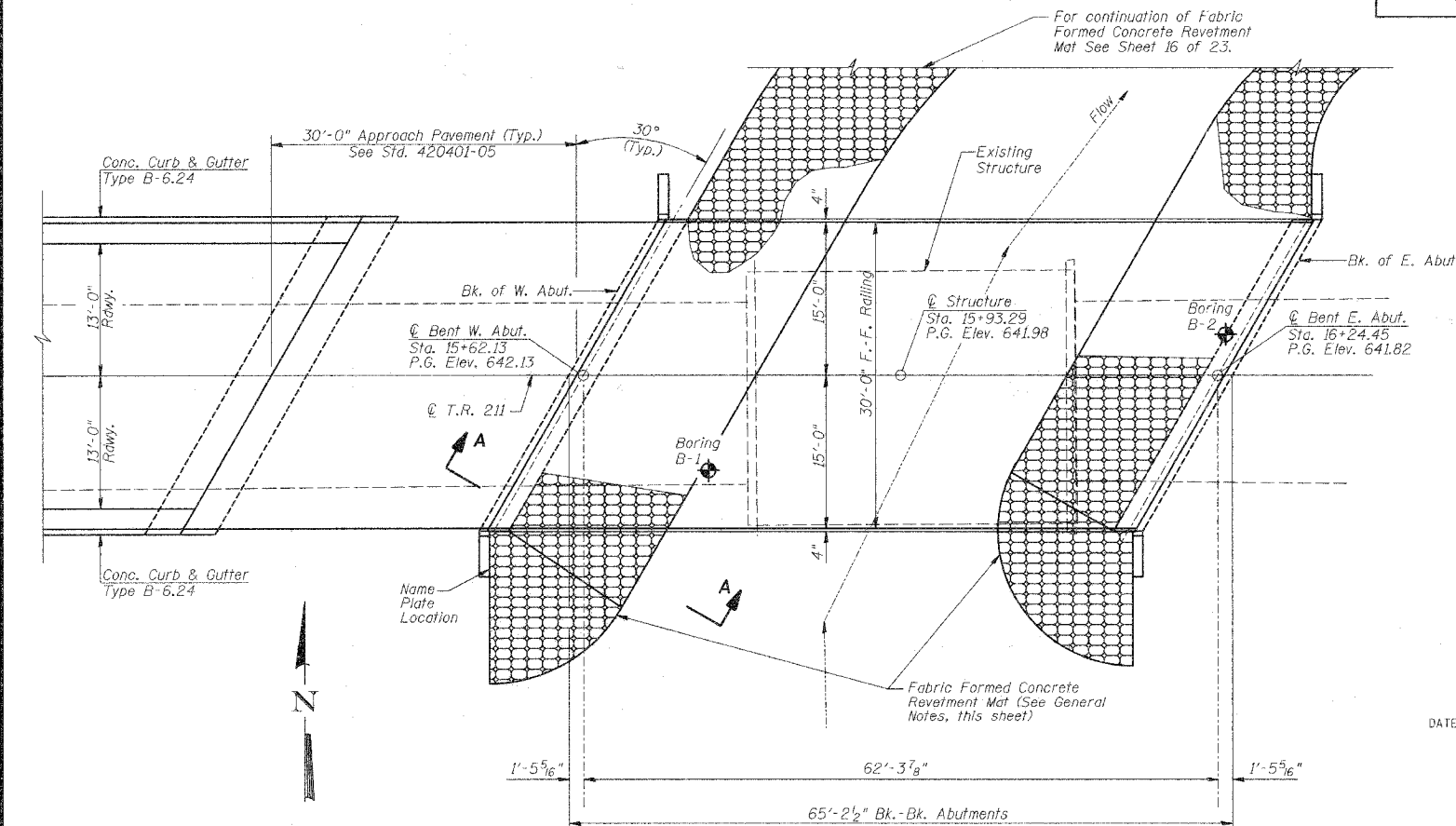
GENERAL NOTES

Layout of Fabric Formed Concrete Revetment Mat 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 (IL MOD), Grade 60.
The Contractor shall drive one Metal Shell Test Pile in a permanent location at the East Abutment as directed by the Engineer before ordering the remainder of piles.

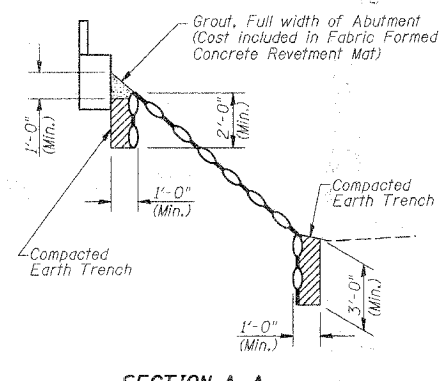
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
P.F.C Deck Beams (27" Depth)	Sq. Ft.	1910		1910
Concrete Structures	Cu. Yd.		23.0	23.0
Reinforcement Bars, Epoxy Coated	Pound	2610	3140	5750
Furnishing Metal Shell Piles 14"	Foot		448	448
Driving Piles	Foot		448	448
Test Pile Metal Shells	Each		1	1
Channel Excavation	Cu. Yd.		156	156
Name Plates	Each		1	1
Steel Bridge Rail, Type SM	Foot	128		128
Protective Coat	Sq. Yd.	212		212
Concrete Wearing Surface	Sq. Yd.	212		212
Porous Granular Embankment, Special	Cu. Yd.		66.1	66.1
Structure Excavation	Cu. Yd.		94.8	94.8
Geocomposite Wall Drain	Sq. Yd.		43.5	43.5
Concrete Headwall for Pipe Drains	Each		4	4
Pipe Underdrains for Structures 4"	Foot		89	89
Bridge Deck Grooving	Sq. Yd.	212		212

* Bridge Quantity only, total quantity listed on sheet 2 of 23.



PLAN



SECTION A-A

DESIGN SPECIFICATIONS
2002 AASHTO

LOADING HS20-44

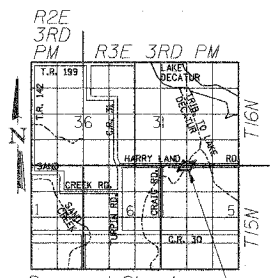
Allowed 25 lbs./sq. ft. for future wearing surface

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 p.s.i.
f't = 60,000 p.s.i.
n = 9

PPC UNITS
f'c = 4,000 p.s.i.
f't = 5,000 p.s.i.
f's = 270,000 p.s.i.
f'si = 201,960 p.s.i.

CONCRETE WEARING SURFACE
f'c = 5,000 p.s.i.



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 2.0 Sq. Mi. Existing Low Grade Elev. 638.37 @ Sta. 20+00.00
Proposed Low Grade Elev. 638.35 @ Sta. 20+50.00

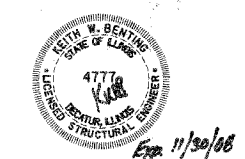
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Nat. Prop.	Head-Ft. H.W.E. Exist.	Headwater El. Prop.
Design	30	786	170	241	637.79	0.20 637.99
Base	100	1088	170	271	638.33	0.43* 638.76
Overtopping						
Max. Calc.	500	1508	170	299	638.90	0.24* 639.15

Low Beam Elev. (Prop.) = 638.80
IDNR/OWR Permit No. DS2007133

* Over-the-Road Flow Occurs
EXISTING
100 Yr.: 195.6 Sq. Ft. over roadway
500 Yr.: 239.0 Sq. Ft. over roadway

PROPOSED
500 Yr.: 71.6 Sq. Ft. over roadway

DATE: January 24, 2008
Keith W. Benting
KEITH W. BENTING
ILL. STRUCTURAL NO. 4777

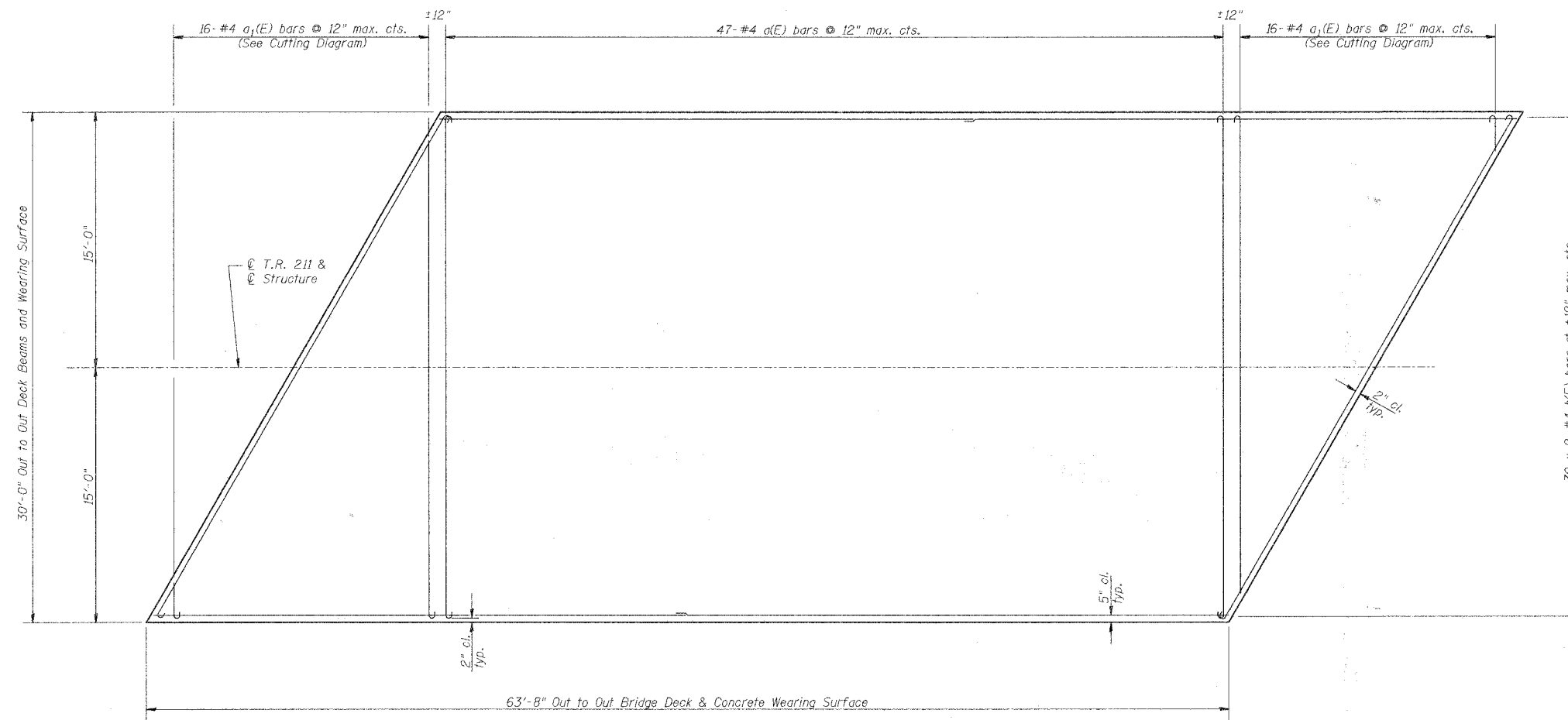


"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT 'AASHTO' STANDARD SPECIFICATIONS FOR HIGHWAY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

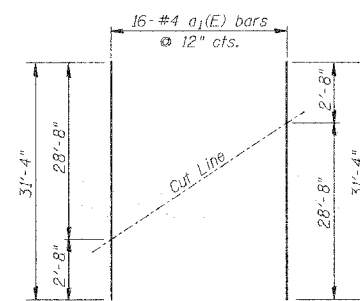
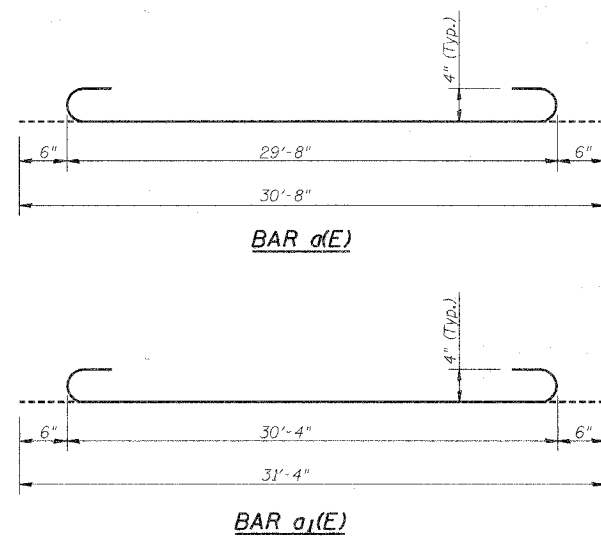
GENERAL PLAN AND ELEVATION

Date	Designed MJP	CS #900 (HARRY LAND ROAD) OVER TRIB. TO LAKE DECATUR SECTION 05-00205-00-BR MACON COUNTY STA. 15+93.29 PROP. STR. NO. 058-3386	Sheet No.
Revisions	Drawn BKN		1
	Checked KWB		
	Approved KWB		
			of 7
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526		URS Job No. 36431928

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	19
FED. ROAD DIST. NO.	ILLINOIS PROJECT: BRM-5169(40)		CONTRACT NO. 95542	



DECK PLAN



CUTTING DIAGRAM
Order bars full length.
Cut bars as shown and use remainder at other end of span.

NOTES

1. Work this Sheet with Sheet 2 of 7 and Sheet 4 of 7.
2. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.
3. Reinforcement bars designated (E) shall be epoxy coated.
4. Bars indicated thus 31 x 2-#4 etc. indicates 31 lines of bars with 2 lengths per line.

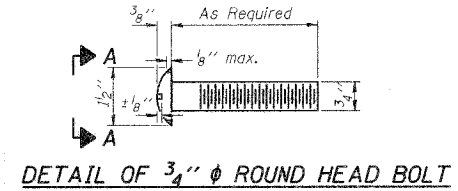
MIN. BAR LAP
#4 = 1'-7"

SUPERSTRUCTURE BILL OF MATERIAL

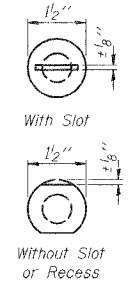
Bar	No.	Size	Length	Shape
a(E)	47	#4	30'-8"	⌌
a1(E)	16	#4	31'-4"	⌌
b(E)	60	#4	32'-6"	—
Reinforcement Bars, Epoxy Coated		Pound	2,610	
Concrete Wearing Surface		Sq. Yd.	212	
Protective Coat		Sq. Yd.	212	
Bridge Deck Grooving		Sq. Yd.	212	

CONCRETE WEARING SURFACE DETAILS

Date	Designed: MJP	CS #900 (HARRY LAND ROAD) OVER TRIB. TO LAKE DECATUR SECTION 05-00205-00-BR MACON COUNTY STA. 15+93.29 PROP. STR. NO. 058-3386	Sheet No.
Revisions	Drawn: BKN		3
	Checked: KWB		
	Approved: KWB		
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526		URS Job No. 36431928

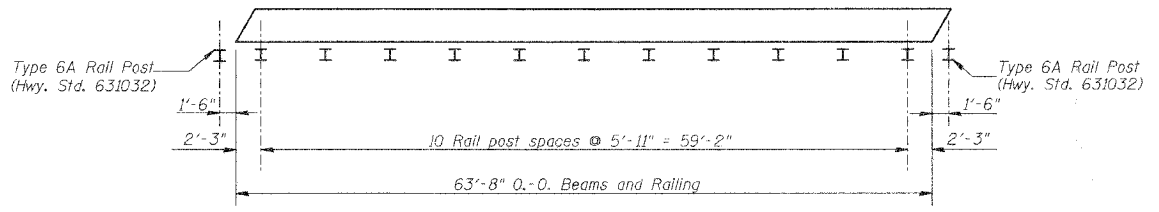


DETAIL OF 3/4" ϕ ROUND HEAD BOLT

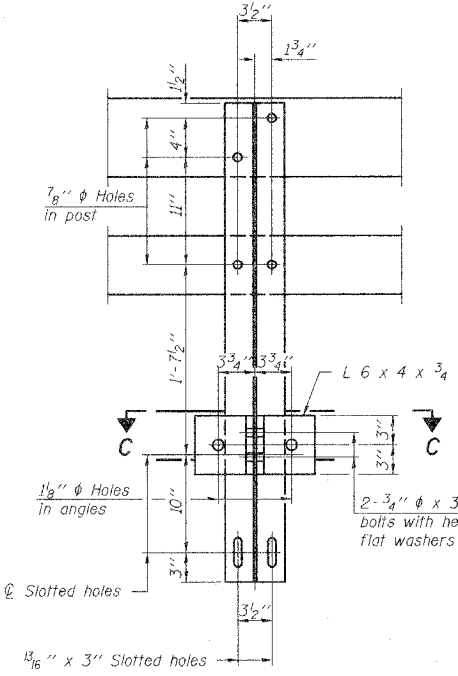


VIEW A-A

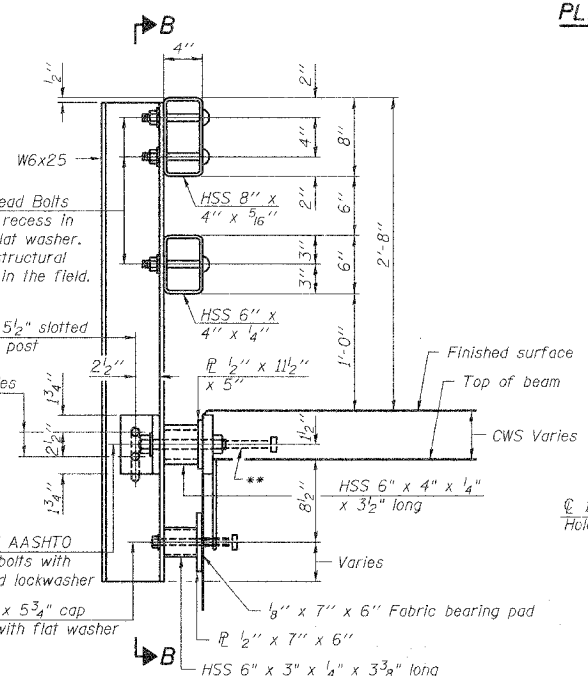
4-3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.



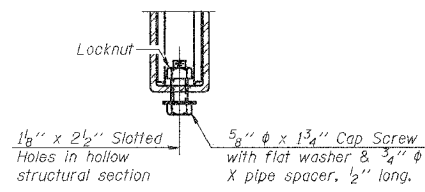
PLAN VIEW - EXTERIOR BEAMS (Showing Rail Post Spacing)



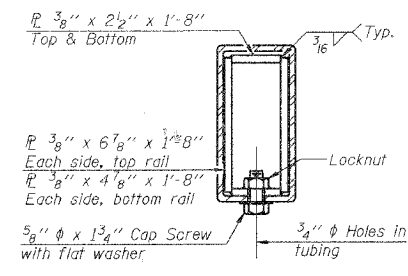
SECTION B-B



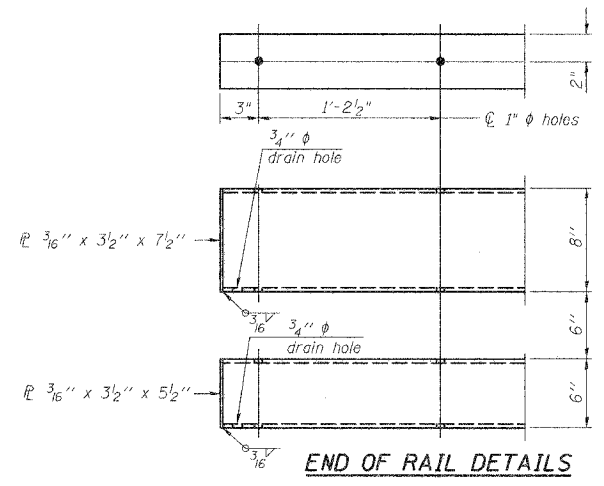
SECTION AT RAIL POST



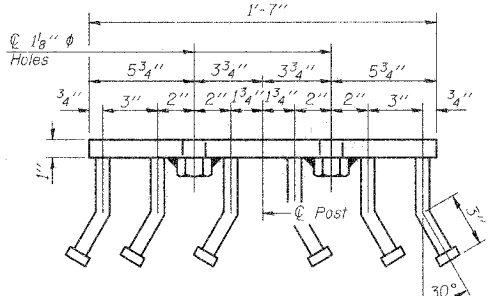
RAIL SPLICE CONNECTION AT EXPANSION JT.



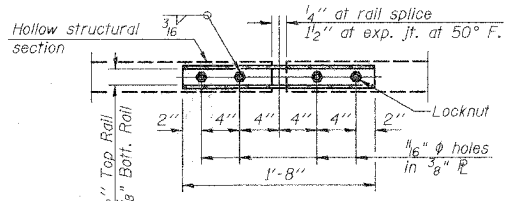
SECTION AT RAIL SPLICE



END OF RAIL DETAILS



VIEW D-D



PLAN-BOTT. SPLICE TYPICAL

NOTES

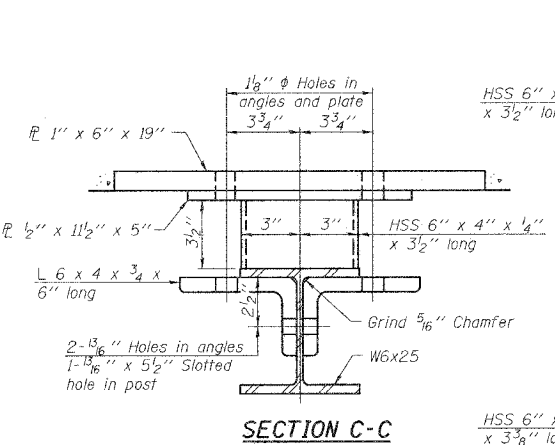
All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.
 Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 **The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

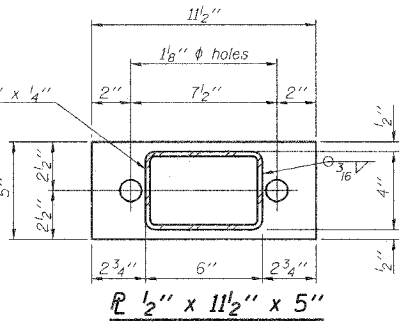
Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	128

TYPE SM STEEL BRIDGE RAIL SIDE MOUNTED WITH CONCRETE WEARING SURFACE

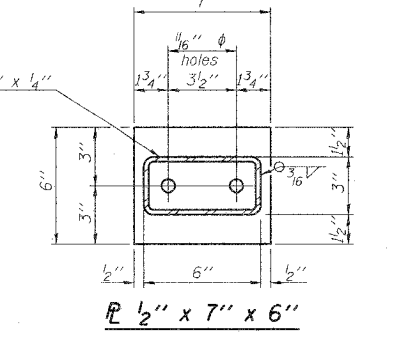
Date	Designed	MJP	CS #900 (HARRY LAND ROAD) OVER TRIB. TO LAKE DECATUR SECTION 05-00205-00-BR MACON COUNTY STA. 15+93.29 PROP. STR. NO. 058-3386	Sheet No.
Revisions	Drawn	BKN		4
	Checked	KWB		of 7
	Approved	KWB		URS Job No. 36431928
Prepared by: URS			345 East Ash Avenue Decatur, IL 62526	



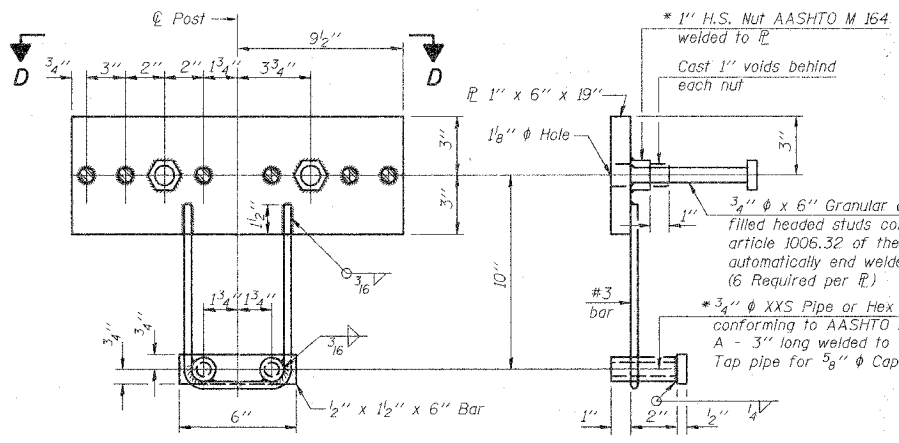
SECTION C-C



SECTION AT RAIL POST



SECTION AT RAIL POST

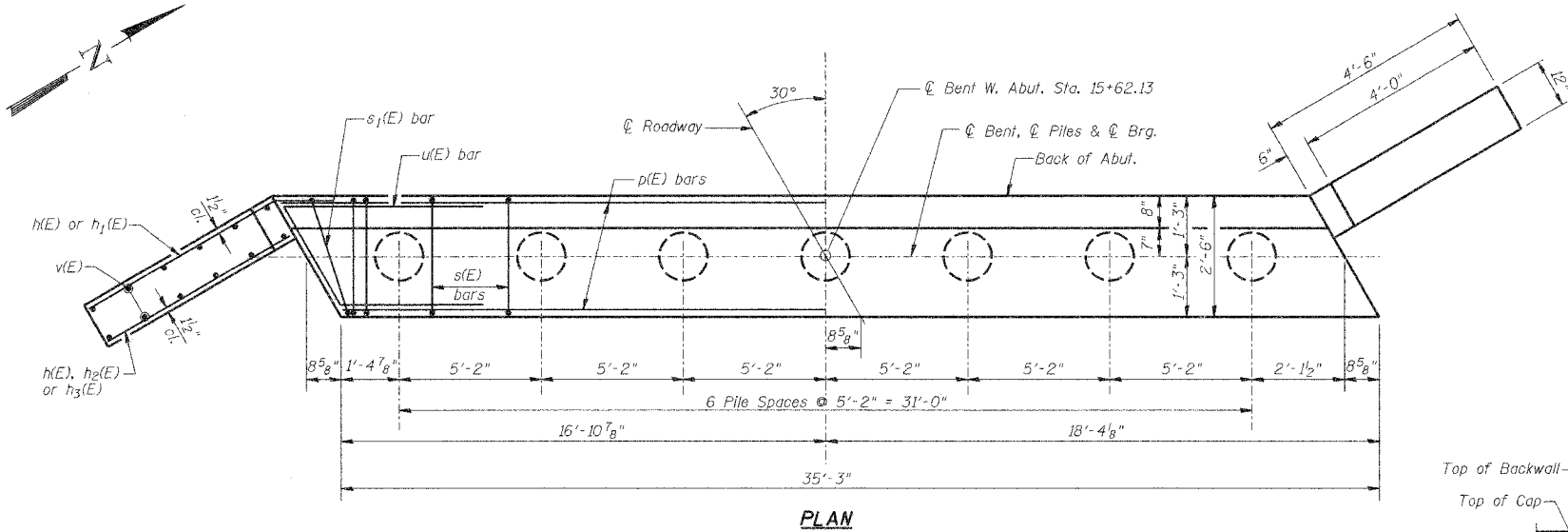


ANCHOR DEVICE

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

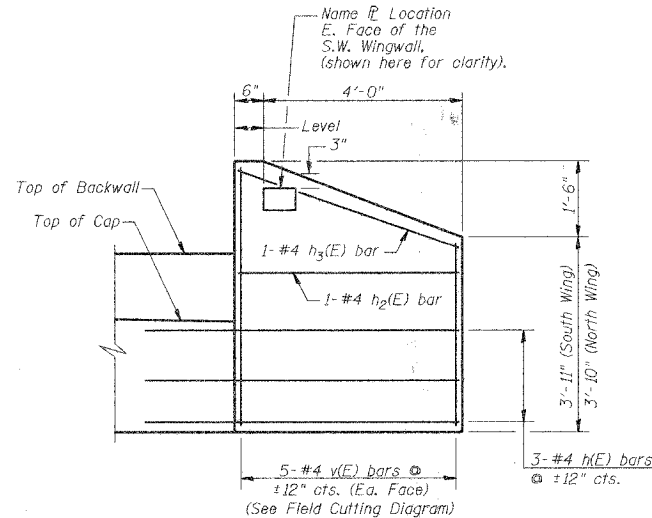
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	21
FED. ROAD DIST. NO.	ILLINOIS PROJECT: BRM-5163(40)	CONTRACT NO. 95542		

- NOTES**
- After beams have been erected, 1/2" holes shall be drilled into substructure and 1" dia. x 2'-6" anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting shear keys.
 - Hatched area to be cast against the in-place beams.
 - Reinforcement bars designated (E) shall be Epoxy Coated.
 - The Metal Shell Piles shall be according to ASTM A 252 Grade 3.
 - The Test Pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the Pile Data information.
 - Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See Special Provisions.

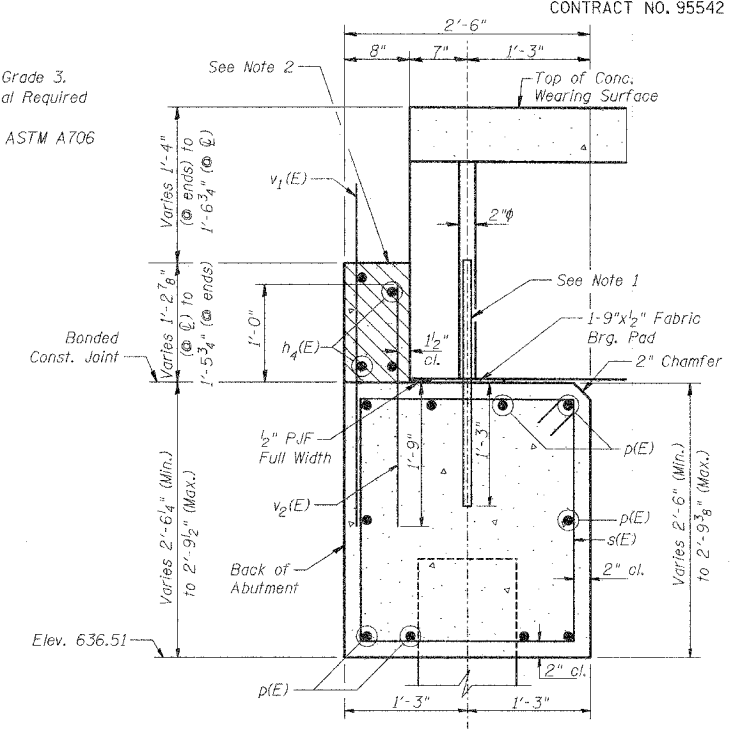


PILE DATA

Type & Size: Metal Shell - 14 in. dia. x 0.25 in. walls
 Nominal Required Bearing: 228 Kips
 Allowable Resistance Available: 76 Kips
 Est. Length: 34'-0"
 No. Required: 7



WINGWALL ELEVATION
(Showing Reinforcement in Front Face)

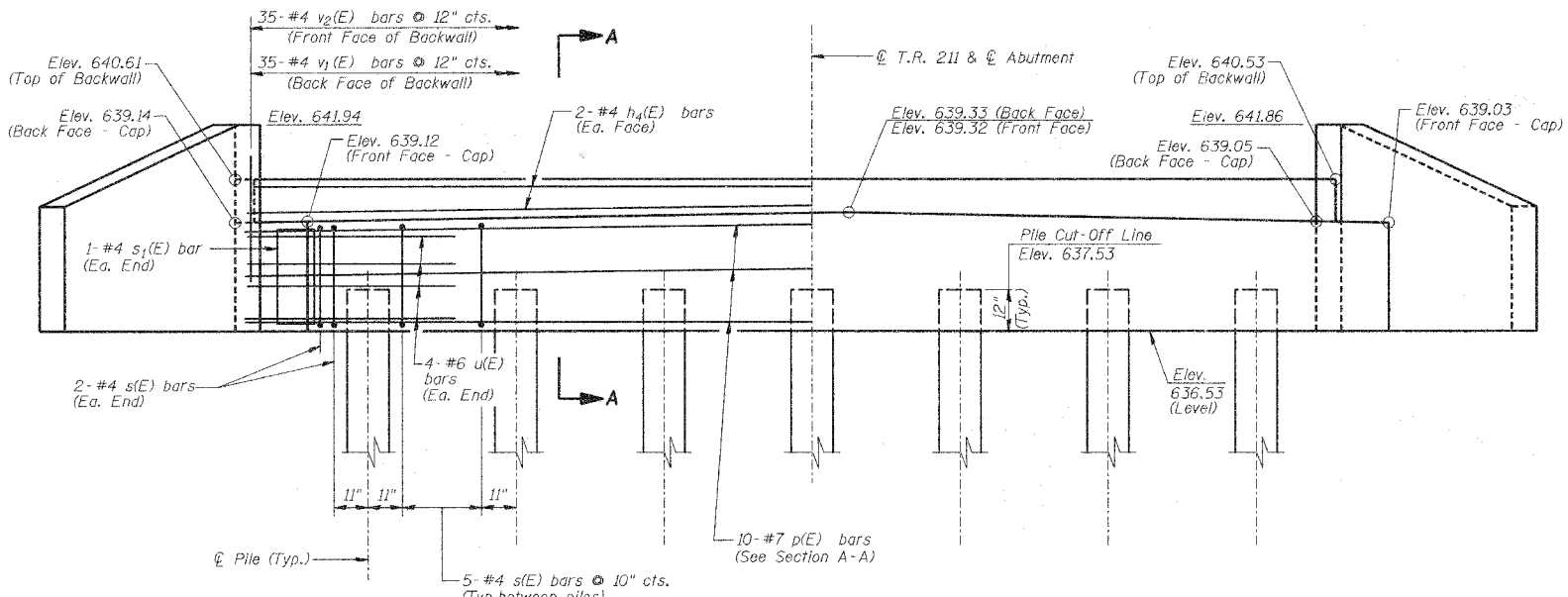


SECTION A-A

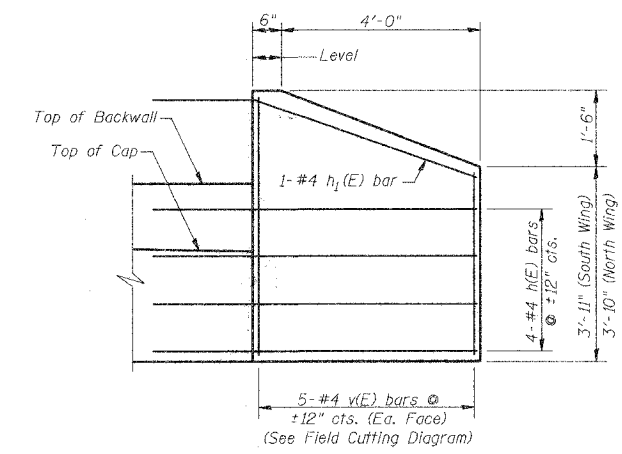
BILL OF MATERIAL WEST ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	14	#4	6'-3"	
h1(E)	2	#4	6'-6"	
h2(E)	2	#4	4'-2"	
h3(E)	2	#4	4'-4"	
h4(E)	4	#4	34'-11"	
p(E)	10	#7	34'-11"	
s(E)	34	#4	9'-5"	
s1(E)	2	#4	9'-9"	
u(E)	8	#6	11'-5"	
v(E)	10	#4	8'-6"	
v1(E)	35	#5	4'-3"	
v2(E)	35	#5	2'-9"	

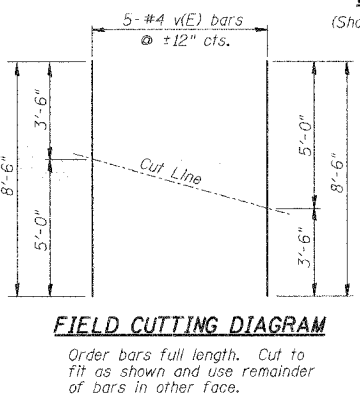
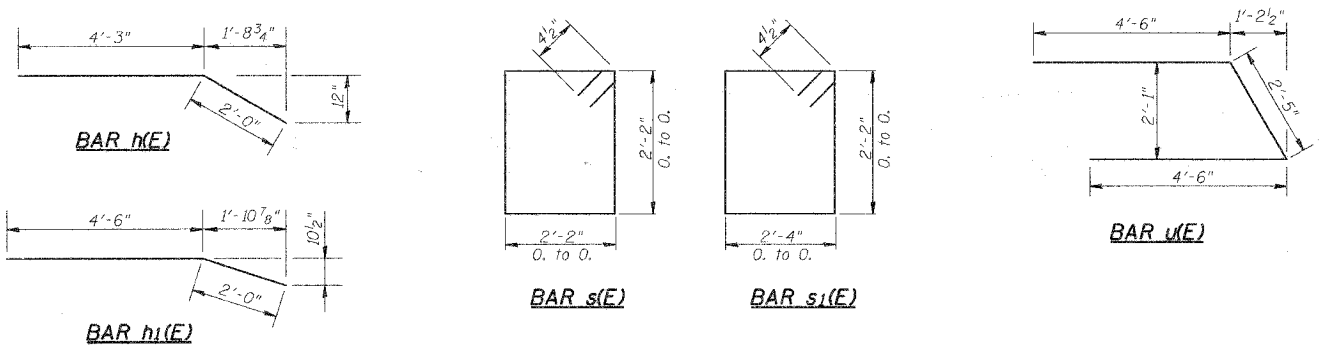
Reinforcement Bars, Epoxy Coated	Pound	1570
Concrete Structures	Cu. Yd.	11.5
Furnishing Metal Shell Piles 14"	Foot	238
Driving Piles	Foot	238
Structure Excavation	Cu. Yd.	46.3



ELEVATION



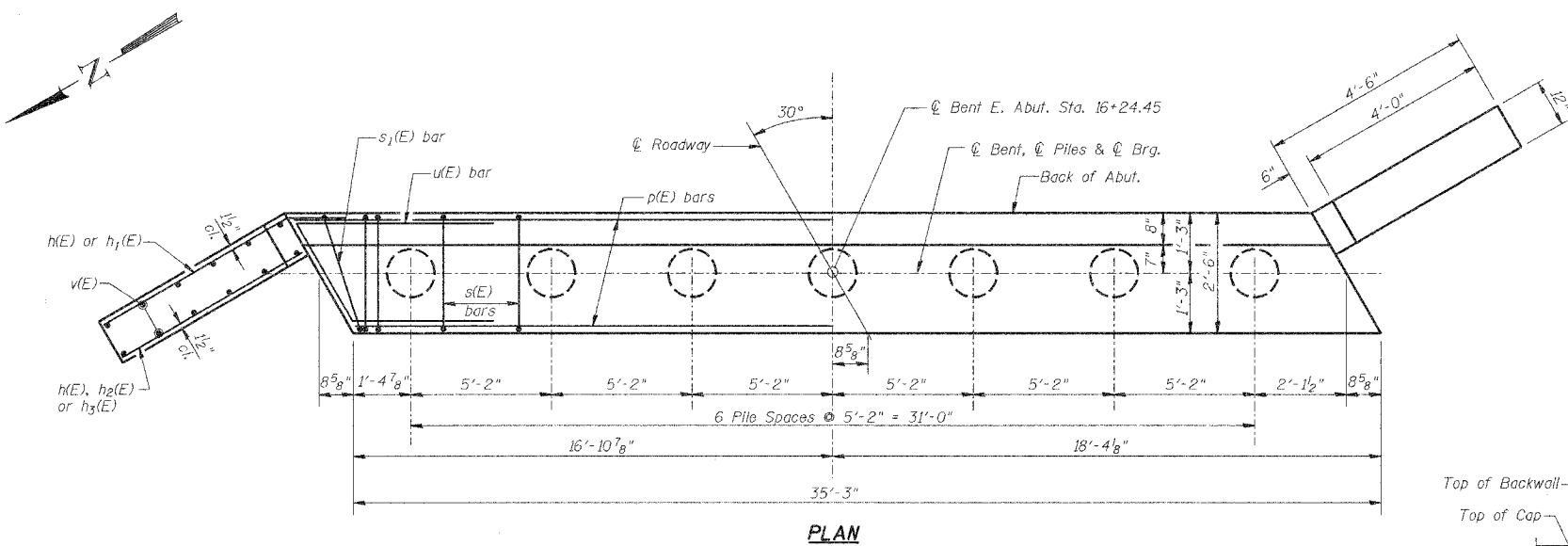
WINGWALL ELEVATION
(Showing Reinforcement in Back Face)



FIELD CUTTING DIAGRAM
Order bars full length. Cut to fit as shown and use remainder of bars in other face.

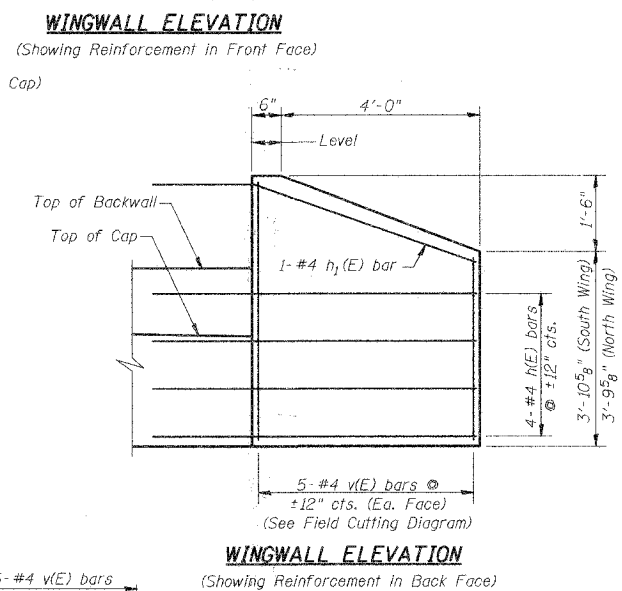
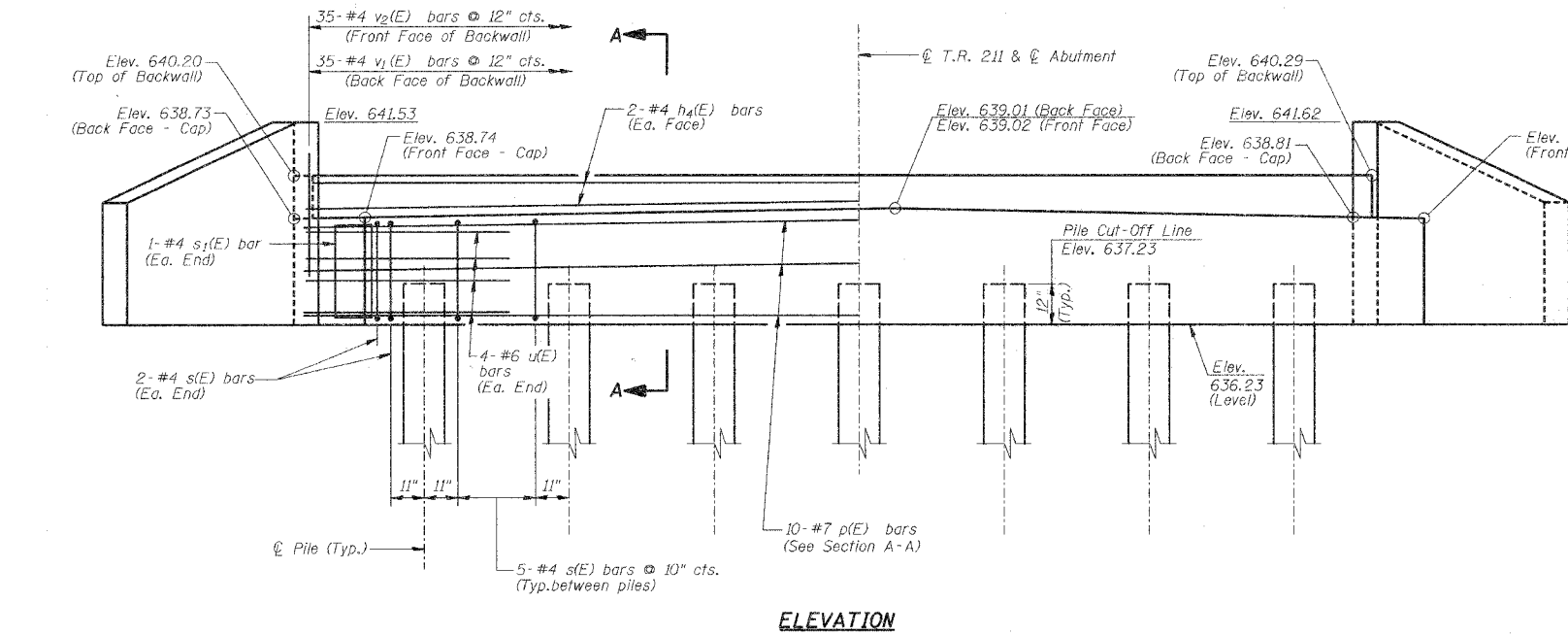
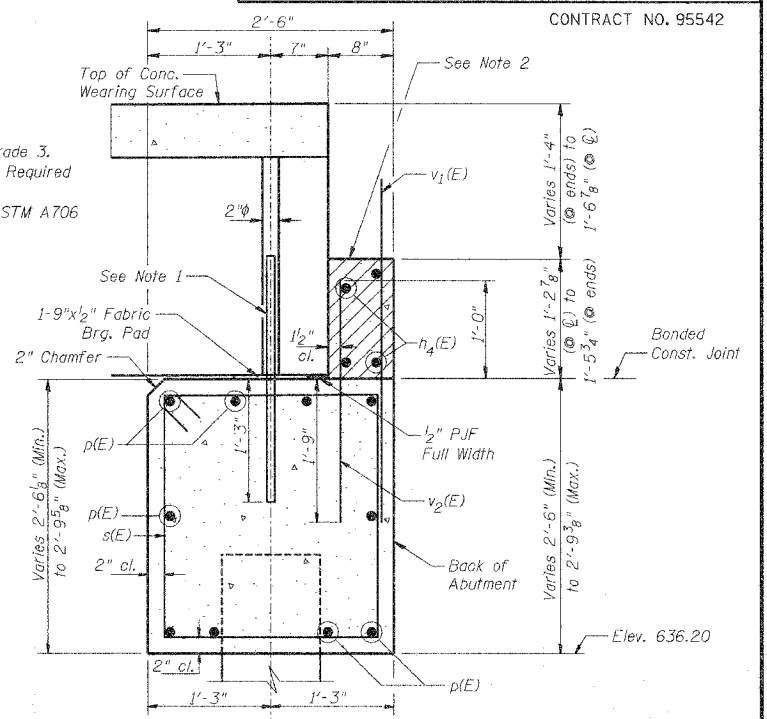
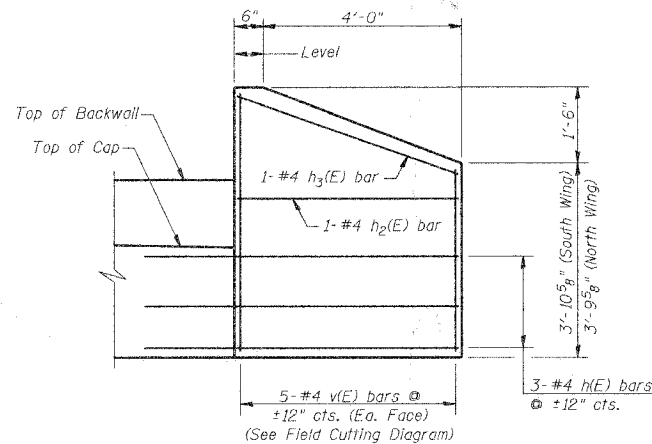
WEST ABUTMENT		Date	Designed MJP	CS #900 (HARRY LAND ROAD) OVER TRIB. TO LAKE DECATUR SECTION 05-00205-00-BR MACON COUNTY STA. 15+93.29 PROP. STR. NO. 058-3386	Sheet No.
Revisions	Drawn BKN				5
	Checked KWB				
	Approved KWB				
Prepared by: URS 345 East Ash Avenue Decatur, IL 62526					of 7 URS Job No. 36431928

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CS #900	05-00205-00-BR	MACON	23	22
FED. ROAD DIST. NO.	ILLINOIS PROJECT: BRM-51691(40)		CONTRACT NO. 95542	



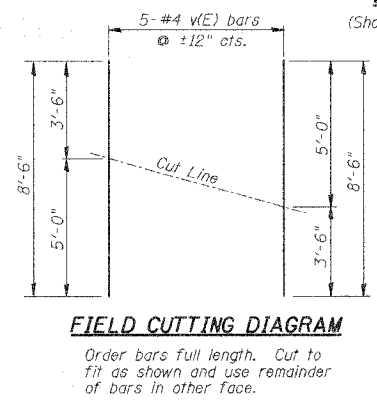
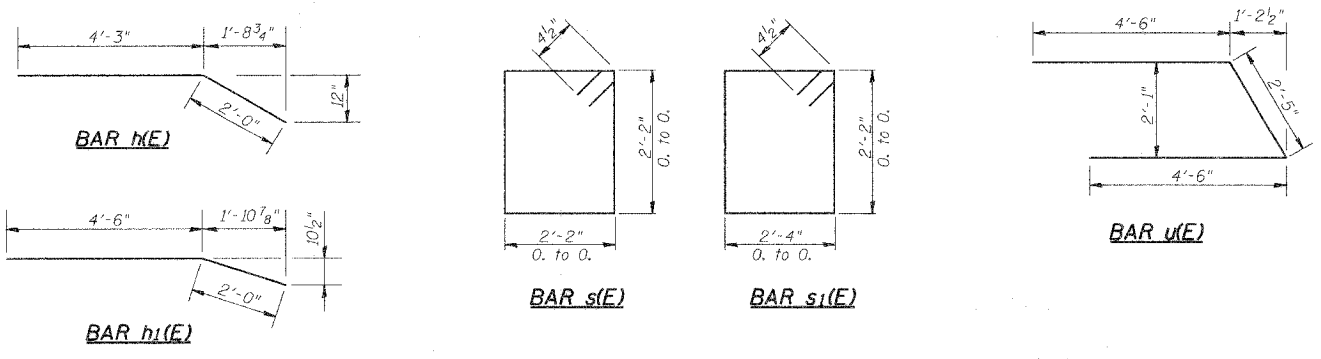
- NOTES**
- After beams have been erected, 1/2" holes shall be drilled into substructure and 1" dia. x 2'-6" anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting shear keys.
 - Hatched area to be cast against the in-place beams.
 - Reinforcement bars designated (E) shall be Epoxy Coated.
 - The Metal Shell Piles shall be according to ASTM A 252 Grade 3.
 - The Test Pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the Pile Data Information.
 - Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See Special Provisions.

PILE DATA
 Type & Size: Metal Shell - 14 in. dia. x 0.25 in. walls
 Nominal Required Bearing: 228 Kips
 Allowable Resistance Available: 76 Kips
 Est. Length: 35'-0"
 No. Required: 6 plus 1 permanent test pile (at opposite end of boring location)



BILL OF MATERIAL EAST ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	14	#4	6'-3"	
h1(E)	2	#4	6'-6"	
h2(E)	2	#4	4'-2"	
h3(E)	2	#4	4'-4"	
h4(E)	4	#4	34'-11"	
p(E)	10	#7	34'-11"	
s(E)	34	#4	9'-5"	□
s1(E)	2	#4	9'-9"	□
u(E)	8	#6	11'-5"	
v(E)	10	#4	8'-6"	
v1(E)	35	#5	4'-3"	
v2(E)	35	#5	2'-9"	
Reinforcement Bars, Epoxy Coated			Pound	1570
Concrete Structures			Cu. Yd.	11.5
Furnishing Metal Shell Piles 14"			Foot	210
Driving Piles			Foot	210
Test Pile Metal Shells			Each	1
Structure Excavation			Cu. Yd.	48.5

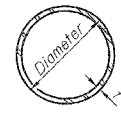


EAST ABUTMENT

Date	Designed MJP	CS #900 (HARRY LAND ROAD) OVER TRIB. TO LAKE DECATUR SECTION 05-00205-00-BR MACON COUNTY STA. 15+93.29 PROP. STR. NO. 058-3386	Sheet No.
Revisions	Drawn BKN		6
	Checked KWB		
	Approved KWB		
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526		of 7 URS Job No. 36431928

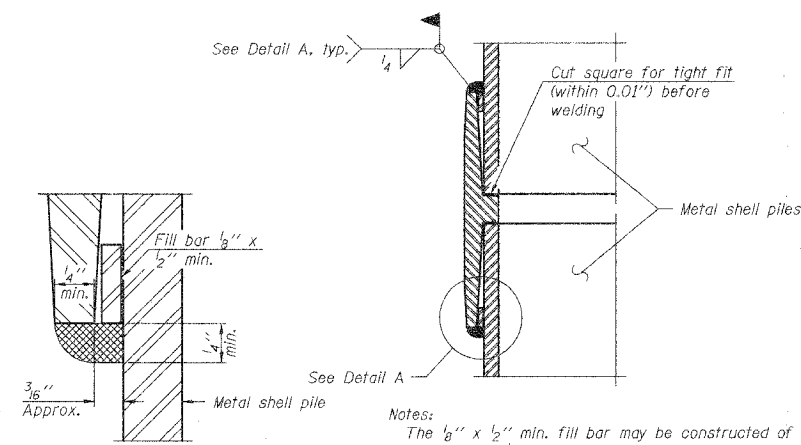
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CS #900	05-00205 -00-BR	MACON	23	23
FED. ROAD DIST. NO.	ILLINOIS	PROJECT: BRM-5169(40)		

CONTRACT NO. 95542



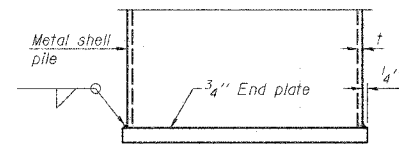
METAL SHELL PILE TABLE

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

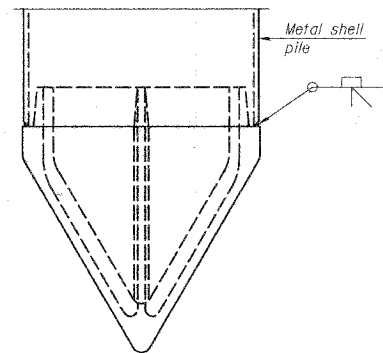


DETAIL A

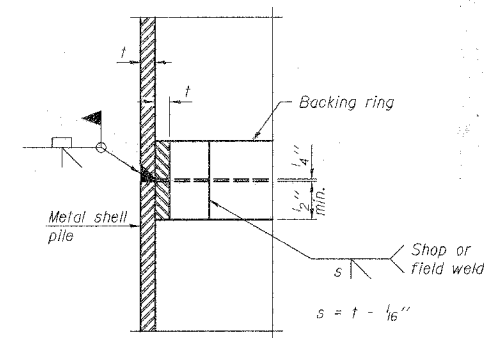
WELDED COMMERCIAL SPLICE



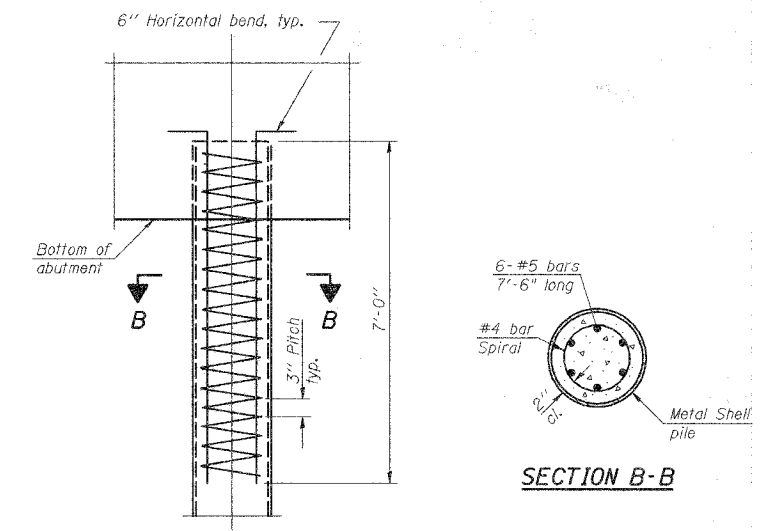
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT



COMPLETE PENETRATION WELD SPLICE



ELEVATION

METAL SHELL REINFORCEMENT AT ABUTMENTS

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

PILE DETAILS

Date	Designed MJP	CS #900 (HARRY LAND ROAD) OVER TRIB. TO LAKE DECATUR SECTION 05-00205-00-BR MACON COUNTY STA. 15+93.29 PROP. STR. NO. 058-3386	Sheet No.
Revisions	Drawn BKN		7
	Checked KWB		
	Approved KWB		
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526		
		URS Job No.	36431928