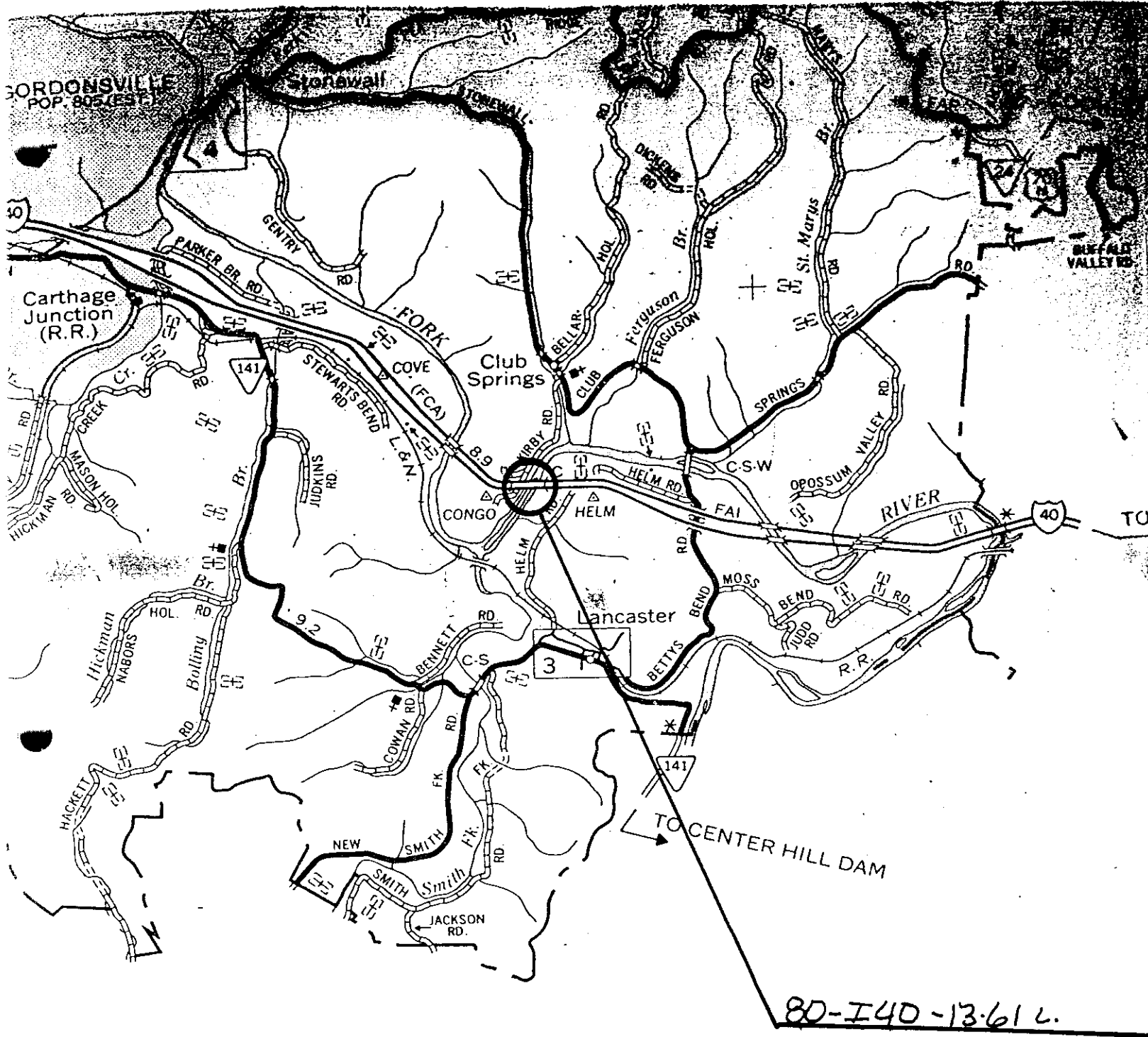




COUNTY

Bridge Maintenance Recommendations

Page No. _____

Page 1 of 1

Bridge Location No.: 80 - I0040 - 13.61 L

Co. Route Log Mile

Crossing: CANEY FORK RIV & KIRBY R*

Bridge Rating: GOOD

Inspection Cycle: 16

Inspection Date: 4/25/2003

Comments: CLEAN DRAINS 50% CLOGGED

Bridge Number: 80I00400028

County: Smith

Region: 03

District: 32

Maint.Resp.: 01

Spec.Case: 0

Co.Seq: 01

Maintenance Recommendations:

Maintenance Completed
By / Date

003

REPAIR APPROACH NO. 0002

COMPLETION NOTIFICATION: RETURN WITHIN 6 MONTHS OF INSPECTION DATE.

INITIAL AND DATE RECOMMENDATIONS WHEN COMPLETED.

MAINTENANCE ACTIVITIES ARE COMPLETED (DATE) _____ BY _____

MAINTENANCE ACTIVITIES ARE PARTIALLY COMPLETED (DATE) _____ BY _____

MAINTENANCE ACTIVITIES ARE INCOMPLETE, SCHEDULED FOR (DATE) _____

EXPLANATIONS AND COMMENTS:

CONTACT:

MR. RAY MCCLELLAND
D.O.T. BRIDGE INSPECTION
6601 CENTENNIAL BLVD.
NASHVILLE, TN 37243

MR. DON GREER
D.O.T. BRIDGE INSPECTION
6601 CENTENNIAL BLVD.
NASHVILLE, TN 37243



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 06/15/2000

Bridge Number: 80I004000281
(Includes Item 5A)

Feature Intersected: CANEY FORK RIV & KIRBY R

County: 80
Route: 10040
Special Case: 0
County Sequence: 01
Log Mile: 13.61

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	CONDITION CODING GUIDELINES (Values for Coding Items 58, 59, 60 and 62)
90	INSPECTION DATE	<u>06/12/2001</u> <u>4/25/03</u>	N NOT APPLICABLE
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. _____ FT. _____ IN.	9 EXCELLENT CONDITION
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. _____ FT. _____ IN.	8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
36	TRAFFIC SAFETY FEATURES		7 GOOD CONDITION - SOME MINOR PROBLEMS.
	Br. Rail Trans. Appr. Rail Appr. Rail Ends		6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
	1 1 1 1		5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
41	STRC OPEN/CLOSED/POSTED	A	4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
	A K P		3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
58	DECK	8	2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN.
59	SUPERSTRUCTURE	7	1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT BACK IN LIGHT SERVICE.
60	SUBSTRUCTURE	8	0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.
61	CHANL/CHANL PROTECTION	7	
62	CULVERT AND RETAIN WALL	N	
71	WATERWAY ADEQUACY	6	
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	6	
521	OVERALL CONDITION (Circle One)		
	GOOD FAIR POOR CRITICAL		
		<u>4/25/03</u>	
TEAM LEADER SIGNATURE		REVIEW DATE	



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

Revised 06/15/2000

Bridge Number: 80I004000282
(Includes Item 5A)

Feature Intersected: I40 / A136 KIRBY RD.

County: 80

Route: 0A136

Special Case: 0

County Sequence: 01

Log Mile: 0.82

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	UNDERPASS SAFETY FEATURES
90	INSPECTION DATE	<u>06/11/2001</u> <u>4 125 103</u>	515 (A) TYPE UNDERPASS BARRIER None Exists but Needed
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	17 FT. 10 IN. ____ FT. ____ IN.	Revised Barrier Type
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	17 FT. 10 IN. ____ FT. ____ IN.	(B) ADEQUACY OF BARRIER OR RAIL 0
47	TOTAL HORIZONTAL UNDERCLEARANCE	41 FT. 11 IN. ____ FT. ____ IN.	(C) ADEQUACY OF TRANSITIONS 0
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS)	Circle One: (H) R <u>17</u> FT. <u>10</u> IN.	(D) ADEQUACY OF TERMINALS 0
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE Circle One: (H) R <u>3</u> FT. <u>0</u> IN.		554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING 99 FT. 99 IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	<u>0</u> FT. <u>0</u> IN.	____ FT. ____ IN.
521	OVERALL CONDITION (Circle One) <u>GOOD</u> FAIR POOR CRITICAL		HEIGHT POSTED AT BOTH APPROACHES? YES [] NO [] N/A [✓]
555	COMMENTS		

Gilbert Wayne Hunter
TEAM LEADER SIGNATURE

4 125 103
REVIEW DATE



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 06/15/2000

Bridge Number: 80I004000281
(Includes Item 5A)

Feature Intersected: CANEY FORK RIV & KIRBY R

County: 80

Route: 10040

Special Case: 0

County Sequence: 01

Log Mile: 13.61

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	CONDITION CODING GUIDELINES (Values for Coding Items 58, 59, 60 and 62)
90	INSPECTION DATE	<u>06/15/1999</u> <u>6/12/01</u>	N NOT APPLICABLE
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.	9 EXCELLENT CONDITION
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.	8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
36	TRAFFIC SAFETY FEATURES		7 GOOD CONDITION - SOME MINOR PROBLEMS.
	Br. Rail Trans. Appr. Rail Appr. Rail Ends		6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
	<u>1</u> <u>1</u> <u>1</u> <u>1</u>		5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
41	STRC OPEN/CLOSED/POSTED	<u>A</u>	4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
	<u>A</u> <u>K</u> <u>P</u>		3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
58	DECK	<u>8</u>	2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN.
59	SUPERSTRUCTURE	<u>7</u>	1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT BACK IN LIGHT SERVICE.
60	SUBSTRUCTURE	<u>8</u>	0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.
61	CHANL/CHANL PROTECTION	<u>7</u>	
62	CULVERT AND RETAIN WALL	<u>N</u>	
71	WATERWAY ADEQUACY	<u>6</u>	
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	<u>6</u>	
521	OVERALL CONDITION (Circle One)		
	<u>GOOD</u> FAIR POOR CRITICAL		
		<u>6/12/01</u>	
TEAM LEADER SIGNATURE		REVIEW DATE	



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

Revised 06/15/2000

Bridge Number: 80I004000282
(includes Item 5A)

Feature Intersected: I40 / A136 KIRBY RD.

County: 80
Route: 0A136
Special Case: 0
County Sequence: 01
Log Mile: 0.82

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	UNDERPASS SAFETY FEATURES
90	INSPECTION DATE	<u>06/15/1999</u> <u>6 112101</u>	515 (A) TYPE UNDERPASS BARRIER None Exists but Needed
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	<u>17</u> FT. <u>9</u> IN.	Revised Barrier Type
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	<u>17</u> FT. <u>9</u> IN.	(B) ADEQUACY OF BARRIER OR RAIL 0
47	TOTAL HORIZONTAL UNDERCLEARANCE	<u>41</u> FT. <u>11</u> IN.	(C) ADEQUACY OF TRANSITIONS 0
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS)	<u>17</u> FT. <u>9</u> IN.	(D) ADEQUACY OF TERMINALS 0
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE Circle One: (H) R	<u>3</u> FT. <u>0</u> IN.	554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING 99 FT. 99 IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	<u>0</u> FT. <u>0</u> IN.	
521	OVERALL CONDITION (Circle One) <u>GOOD</u> FAIR POOR CRITICAL		HEIGHT POSTED AT BOTH APPROACHES? YES [] NO [] N/A [X]

555 COMMENTS

Gilbert Wayne Hunter
TEAM LEADER SIGNATURE

6 112101
REVIEW DATE



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Bridge Number:
(Includes Item 5A)

801004000281

Feature Intersected:

CANEY FORK RIV & KIRBY R

County: 80

Route: 10040

Special Case: 0

County Sequence: 1

Log Mile: 13.61

CODE ONLY THOSE NUMBERS WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	COMMENTS
90	INSPECTION DATE	5/1/97	RATINGS FOR CODING ITEMS 58, 59, 60 AND 62
		6/1/5/99	N NOT APPLICABLE
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN.	9 EXCELLENT CONDITION
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN.	8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS)	17 FT. 10 IN.	7 GOOD CONDITION - SOME MINOR PROBLEMS.
	Circle One: H R N	17 FT. 9 IN.	6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
36	TRAFFIC SAFETY FEATURES		5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
	Br. Rail Trans. Appr. Rail Appr. Rail Ends		4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
	1 1 1 1		3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
41	STRC OPEN/CLOSED/POSTED	A	2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN.
	A K P		1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT BACK IN LIGHT SERVICE.
58	DECK	8	0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.
59	SUPERSTRUCTURE	7	
60	SUBSTRUCTURE	8	
61	CHANL/CHANL PROTECTION	7	
62	CULVERT AND RETAIN WALL	N	
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	6	
	OVERALL CONDITION (Circle One)		
	GOOD FAIR POOR CRITICAL		
	SIGNATURE	DATE	
	Gilbert Wayne Hunter	6/1/5/99	



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

County: 80
Route: 0A136
Special Case: 0
County Sequence: 1
Log Mile: 0.82

Bridge Number: 80I004000282
(Includes Item 5A)

Feature Intersected: I40 / A136 KIRBY RD.

CODE ONLY THOSE NUMBERS WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	UNDERPASS SAFETY FEATURES
90	INSPECTION DATE	5/1/97 <u>6/15/99</u>	(A) TYPE UNDERPASS BARRIER None Exists but Needed
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	17 FT. 10 IN.	
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	17 FT. 10 IN.	Revised Barrier Type
47	TOTAL HORIZONTAL UNDERCLEARANCE	41 FT. 11 IN.	(B) ADEQUACY OF BARRIER OR RAIL 0
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE ☒ H	3 FT. 11 IN.	(C) ADEQUACY OF TRANSITIONS 0
	Circle One: H R N	FT. IN.	(D) ADEQUACY OF TERMINALS 0
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	0 FT. 0 IN.	VERTICAL CLEARANCE LISTED ON HEIGHT POSTING SIGNS
		FT. IN.	99 FT. 99 IN.
		FT. IN.	

OVERALL CONDITION (Circle One)

☒ GOOD ☐ FAIR ☐ POOR ☐ CRITICAL

HEIGHT POSTED AT BOTH APPROACHES? YES ☐ NO ☐ N/A ☒

NOTE: DESCRIBE ANY PROBLEMS ON BRIDGES THAT THE STATE DOES NOT INSPECT (SUCH AS RAILROAD OR PRIVATE BRIDGES) THAT WOULD AFFECT THE ROADWAY SUCH AS LOOSE MEMBERS, SEVERELY SPALLED OR CRACKED CONCRETE, EXCESSIVE SECTION LOSS ON STEEL, EXCESSIVE TIMBER DECAY, ETC. ALSO, DESCRIBE ANY UNSAFE ITEMS.

COMMENTS

Harold Wayne Hunter
SIGNATURE

6/15/99
DATE

REV. 06-28-90

V.C. Over Deck _____ ft. _____ in. [~~X~~ NA

	Culverts
67 Structural Evaluation	7
68 Deck Geometry	8
69 Under Clearance	N 9
70 Bridge Posting	5
71 Waterway Adequacy	6
72 Approach Rdy Alignment	6

(36) Sr. Rail. Trans., Appr. rails, Terminals
Traffic Safety features: 1/1/1/1
Rail Under Bridge (515): 6000

CONCUR 3-8-02 ARM

COMMENTARY (Appraisal)

- N Not applicable
 9 Superior to present desirable
 criteria
 8 Equal to present desirable
 criteria
 7 Better than present minimum
 criteria
 6 Equal to present minimum
 criteria
 5 Somewhat better than minimum
 adequacy to tolerate being left
 in place as is
 4 Meets minimum tolerable limits
 to be left in place as is
 3 Basically intolerable requiring
 high priority of corrective
 action
 2 Basically intolerable requiring
 high priority of replacement
 1 This value of rating code not
 used
 0 Bridge closed

GOOD-----7, 8 & 9
FAIR-----5 & 6
POOR-----3 & 4
CRITICAL 0, 1 & 2

Sufficiency Rating
Dated:

Bridge No.: 80 — 10040 — 1361
Crossing:: CANEY FORK RIV & KIRBY R*
Federal No.: 80I00400028

Date:

April 25, 2003

PIC1



BRIDGE NO. AT ABUTMENT # 1

Bridge No.: 80 — I0040 — 1361
Crossing:: CANEY FORK RIV & KIRBY R*
Federal No 80I00400028

Date:

April 25, 2003

PIC2



LEFT SIDE VIEW

PIC3



INLET-ELEV

Bridge No.: 80 — I0040 — 1361
Crossing:: CANEY FORK RIV & KIRBY R*
Federal No.: 80I00400028

Date:

April 25, 2003

PIC4



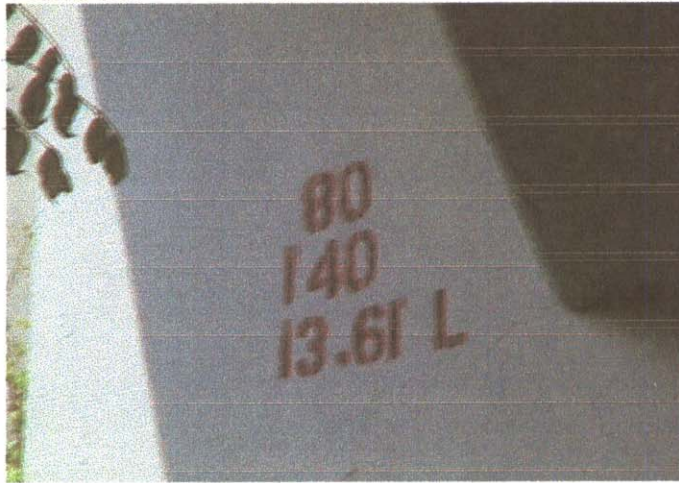
VIEW ACROSS DECK FROM A-APPR

Bridge No.: 80 — 10040 — 1361
Crossing:: CANEY FORK RIV & KIRBY R*
Federal No.: 80100400028

Date:

June 12, 2001

PIC1



BRIDGE NO. AT ABUTMENT # 1

Bridge No.: 80 — I0040 — 1361
Crossing: CANEY FORK RIV & KIRBY R*
Federal No 80I00400028

Date:

June 12, 2001

PIC2



LEFT SIDE VIEW

PIC3



INLET-ELEV

Bridge No.: 80 — 10040 — 1361
Crossing: CANEY FORK RIV & KIRBY R*
Federal No.: 80100400028

Date:

June 12, 2001

PIC4



DRIFT @ PIER 2 & 3

PIC5



VIEW ACROSS DECK

Bridge No.: 80 — I0040 — 1361
Crossing:: CANEY FORK RIV & KIRBY R*
Federal No.: 80I00400028

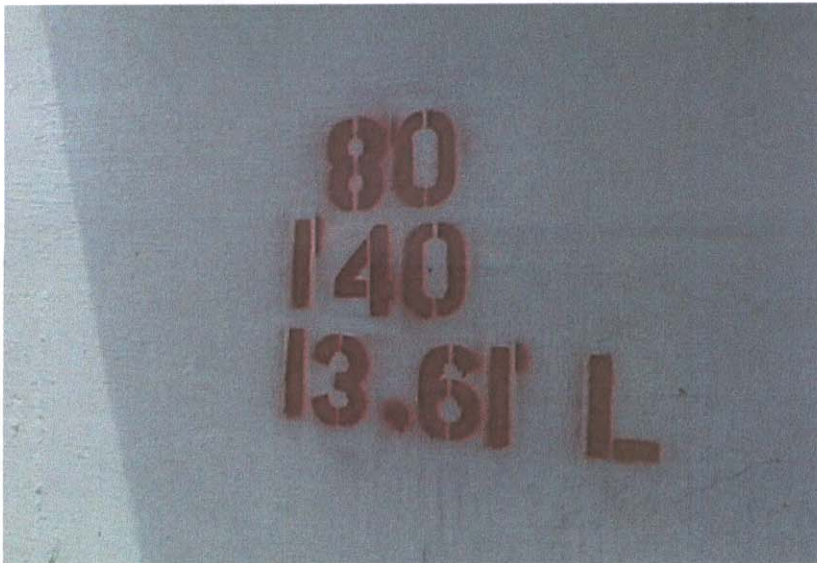
Date: June 15, 1999

PIC10



ACROSS TOP OF DECK

PIC11



BRIDGE NO. AT ABUTMENT # 1

Bridge No.:
Crossing::
Federal No.:

80 — 10040 — 1361
CANEY FORK RIV & KIRBY R*
80100400028

Date:

June 15, 1999

PIC1



ELEVATION INLET

Bridge No.: 80 — I0040 — 1361
Crossing:: CANEY FORK RIV & KIRBY R*
Federal No 80I00400028

Date:

June 15, 1999

PIC2



PIER TYPICAL

PIC3



BOTTOM OF DECK

Bridge No.: 80 — 10040 — 1361
Crossing:: CANEY FORK RIV & KIRBY R*
Federal No.: 80I00400028

Date:

June 15, 1999

PIC4



LEFT SIDE APPROACH

PIC5

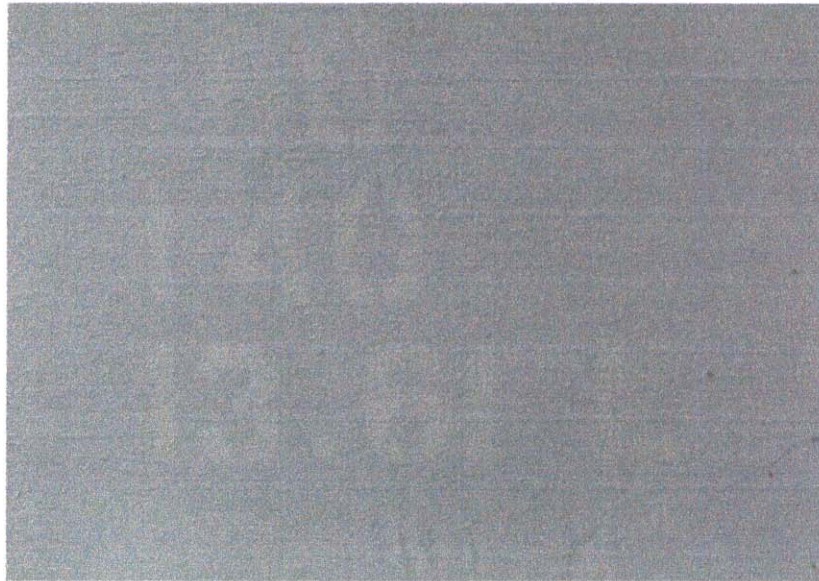


ABUTMENT TYPICAL

Bridge No.: 80 — I0040 — 1361
Crossing:: CANEY FORK RIV & KIRBY R*
Federal No.: 80I00400028

Date: June 15, 1999

PIC6



BRIDGE NO. AT ABUTMENT # 1

PIC7



APPROACH #1

Bridge No.: 80 — 10040 — 1361
Crossing:: CANEY FORK RIV & KIRBY R*
Federal No.: 80I00400028

Date:

June 15, 1999

PIC8



APPROACH #2

PIC9



UPSTREAM

ROUTINE BRIDGE INSPECTION REPORT

Page No. _____

Form BIR 3.0C
(Rev. 9-22-98)
DT-1537

Field Report No. 16 Date 4-25-03
Previous Report No. 15 Date 6/12/2001
Plans: Yes

Bridge No. 80I00400028
Eleven Digit No.

Bridge Location No. 80 - I0040 - 13.61 L
Co. Route Log Mile

I 40 over CANEY FORK RIV & KIRBY R* Indepth Insp. Req'd: No
Road Name Crossing (If yes itemize limits under comment)

Structure Type PPCIB FRACTURE CRITICAL: No

FEATURE CHANGES:

Wearing Surface S Type Depth (in.)
Bridge Rail Describe changes:
Approach Rail

CLEARANCE CHANGES: (If yes make changes below)

Vertical Clearance over deck (ft.-in.)
Vertical Under Clearance (ft.-in.)
Horizontal Under Clearance (*. * ft.)
Deck Width Curb/Curb (*. * ft.)
Deck Width Rail/Rail (*. * ft.)
Sidewalk Width Rt. Lt.

INSPECTORS

Hunter _____
Crutcher _____
Waller _____
Thompson _____

Condition: **GOOD** (If change describe in comments)

Comments

Approaches	<u>G</u>	
Deck Condition (Item 58)	<u>G</u>	
Superstructure (Item 59)		
a. Beams	<u>G</u>	
b. Bearings	<u>G</u>	
c. Diaphragms	<u>G</u>	
Substructure (Item 60)		
a. Caps/Bridge Seats	<u>G</u>	
b. Columns/Piles	<u>G</u>	
c. Footings	<u>NV</u>	
d. Wing W./Breast W.	<u>G</u>	
Scour/Erosion	<u>F</u>	<u>erosion on Abut #2 w. exp. piles</u>
Channel (Item 61)	<u>G</u>	

UNDERWATER INSPECTION

To Be Performed By: None required

Date Underwater Insp. S

BRIDGE is: Good

COMMENTS:

Weight Limit Posted No
Gross..... Tons
2 Axle..... Tons
3 or more Axles.. Tons

Supervising Bridge Inspector: Gilbert Wayne Hunter

BRIDGE RATING: GOOD

SUMMARY
80-I40-13.61 LT
4/25/2003

I40/Caney Fork River & Kerby Rd.
Span/P.P.C.I. Beam

This bridge was inspected and found to be in **good** condition. The approach alignment and approach drains are good. Approach pavement is good. The bridge railing and approach rail are standard type and good.

The wearing surface has random transverse hair cracks but is good along with parapet, drains, joints, and joint leakage. The bottom deck was good with only a minor 1" deep breakout with exposed steel and some light transverse cracking with leaching.

The superstructure elements including bearings are good. The sub-structure units are also good including abutments and piers. The embankments and abutments did show some 1' settlement at #2, but in fair condition with 3 exposed piles. There is no problem with debris build-up or scour at this time.

Gilbert Hunter

ROUTINE BRIDGE INSPECTION REPORT

Page No. _____

Form BIR 3.0C
(Rev. 9-22-98)
DT-1537

Field Report No. 14 Date 6/15/99
Previous Report No. 15 Date 6/12/01
Plans: YES

Bridge No. 80I00400028
Eleven Digit No. I 40

Bridge Location No. 80 - I0040 - 13.61 L
Co. Route Log Mile

Road Name over CANEY FORK RIV & KIRBY R*
Crossing

Indepth Insp. Req'd: NO
(If yes itemize limits under comment)

Structure Type PPCIB

FRACTURE CRITICAL: NO

FEATURE CHANGES:

Wearing Surface _____ Type _____ Depth _____ (in.)
Bridge Rail _____ Describe changes: _____
Approach Rail _____

CLEARANCE CHANGES: (If yes make changes below)

Vertical Clearance over deck _____ (ft.-in.)
Vertical Under Clearance _____ (ft.-in.)
Horizontal Under Clearance _____ (*. ft.)
Deck Width Curb/Curb _____ (*. ft.)
Deck Width Rail/Rail _____ (*. ft.)
Sidewalk Width Rt. _____ Lt. _____

INSPECTORS

Hunter _____
Daniel _____
Waller _____
Thompson _____

Condition: **GOOD** (If change describe in comments)

Comments

Approaches	G	
Deck Condition (Item 58)	G	
Superstructure (Item 59)		
a. Beams	G	
b. Bearings	G	
c. Diaphragms	G	
Substructure (Item 60)		
a. Caps/Bridge Seats	G	
b. Columns/Piles	G	
c. Footings	G	
d. Wing W./Breast W.	G	
Scour/Erosion	F	1' high X 3' back under length of Abut #2 Erosion
Channel (Item 61)	G	

UNDERWATER INSPECTION

To Be Performed By: None required

Date Underwater Insp. 1

BRIDGE is: open

COMMENTS:

Weight Limit Posted NO

Gross..... Tons

2 Axle..... Tons

3 or more Axles.. Tons

Supervising Bridge Inspector: Willard Wayne Hunter

BRIDGE RATING: GOOD

SUMMARY
80-I40-13.61 LT
6-12-01

I40/Caney Fork River & Kerby Rd.
Span/P.P.C.I. Beam

This bridge was inspected and found to be in **good** condition. The approach alignment and approach drains are good. Approach pavement is good. The bridge railing and approach rail are standard type and good.

The wearing surface has random transverse hair cracks but is good along with parapet, drains, joints, and joint leakage. The bottom deck was good with only a minor 1" deep breakout with exposed steel and some light transverse cracking with leaching.

The superstructure elements including bearings are good. The sub-structure units are also good including abutments and piers. The embankments and abutments did show some 1' settlement at #2, but in fair condition. There is no problem with debris build-up or scour at this time.

Gilbert Hunter

BRIDGE INSPECTION REPORT

FORM BIR 3.0
Rev. 09/24/98
DT-0069

FIELD REPORT NO. 14 DATE 6-15-97
REVIEW REPORT NO. 13 DATE 5-12-97
PLANS ---- YES ☒ NO ☐

BRIDGE NO. 80I00400028
ELEVEN DIGIT NO.

BRIDGE LOC. NO. 80 - I40 - 13.61 Lt
CO. ROUTE LOG MILE

I 40 OVER Caney Fk. & Kirby Rd
ROAD NAME FEATURE INTERSECTED

YEAR CONSTRUCTED 1959 COUNTY Smith MAINTENANCE DISTRICT NO. 32
(ESTIMATED OR ACTUAL)

[] [x]
YEAR WIDENED _____ YEAR REHABILITATED _____
ESTIMATED OR ACTUAL ESTIMATED OR ACTUAL
[] [] [] []

FEATURES

WEARING SURFACE-- CONCRETE ☐ TIMBER ☐ ASPHALT ☒ (DEPTH= 2 1/2")
FLARED WIDTH ----- YES ☐ NO ☒
NAVIGATIONAL CONTROL-- YES ☐ NO ☒
MEDIAN WIDTH ----- OPEN ☒ NONE ☐ CLOSED ☐

BRIDGE SKEW 52° LT ☒ RT ☐

INSPECTORS

STRUCTURE TYPE PPCIB NO. SPANS 5
Main Span Main Span

STRUCTURE TYPE — NO. SPANS —
Approach Spans Approach Spans

MAXIMUM SPAN LENGTH 96' TOTAL LENGTH 447'

1. Hunter
2. Daniel
3. Crutcher
4. Waller
5. _____
6. _____
7. _____
8. _____
9. _____

WIDTHS
DECK OUT-TO-OUT 44'
ROADWAY CURB/CURB 42'
SIDEWALK _____ RT _____ LT _____
*APPROACH ROADWAY 24'
APPR. SHLD. 10 RT 4 LT
*DOES NOT INCLUDE SHOULDER

CLEARANCES
MIN. VERTICAL OVER DECK _____
MIN. VERTICAL UNDER CL 17'-9"
MIN. LATERAL UNDER CL 31' RT _____ LT _____

UNDERWATER INSPECTION

INSPECTION PERFORMED BY:
DOT FIELD TEAM [] DATE _____
CONTRACT DIVERS [] DATE _____
NONE REQUIRED ☒

(<25')
NBIS BRIDGE
LENGTH over 25'
(ft) (in)

CHANGE IN STRUCTURAL CONDITION YES ☐ NO ☒
MAJOR REPAIRS MADE YES ☐ NO ☒

FRACTURE CRITICAL
DETAILS: YES ☐ NO ☒
IF YES, INCLUDE BIR 3.9

COMMENTS: _____

Albert Wayne Hunter

SUPERVISING BRIDGE INSPECTOR

BRIDGE RATING [x] [] [] []

GOOD FAIR POOR CRITICAL

PERFORMANCE EVALUATION

Time of day inspected 12:00 Weather conditions SUNNY 80°

Vehicles observed Tractor Trailer & passenger type

<u>LIVE LOAD BEHAVIOR</u>	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
Substructure			
Horiz. & Vert. Defl. - - - []	☒	☐	
Vibration - - - - - []	☒	☐	
Superstructure			
Horiz. & Vert. Defl. - - - [X]	☐	☐	
Vibration - - - - - [X]	☐	☐	

APPROACH

Alignment	☒ G	F	P	C	<u>NV</u>
Slab	☐ G	F	P	C	<u>NV</u>
Joints	☐ G	F	P	C	
Pavement	☒ G	F	P	C	
Embankment	☒ G	F	P	C	
Drains	☒ G	F	P	C	

TRAFFIC SAFETY FEATURES

					STANDARD	SUB-STANDARD
Bridgerailing	☒ G	F	P	C	☒	☐
Transitions	☒ G	F	P	C	☒	☐
Guardrail	☒ G	F	P	C	☒	☐
Guardrail Terminal	☒ G	F	P	C	☒	☐

SIGNING

	YES	NO	NEEDED	
Paddleboard - - - - -	☐	☒	☐	WEIGHT LIMIT POSTED YES [] NO ☒
Vertical Clearance (< 14') - - - - -	☐	☐	☐	
Narrow [] One Lane Bridge [] - []	☒	☐	☐	GROSS _____ TONS 2 AXLE _____ TONS 3 OR MORE AXLES _____ TONS

Other Signs or Plaques _____

Comments Regarding Any Problems With Signing _____

Other Recommendations _____

FORM BIR 3.2
Rev. 09/24/98
DT-0081

BRIDGE LOC. NO. 80 - I40 - 13.61 Lt
CO. ROUTE L.M.

DATE: 6-15-99

DECK

COMMENTS

WEARING SURFACE	(G)	F	P	C
DECK - STRUCTURAL	(G)	F	P	C
CONDITION				
CURBS	G	F	P	C
MEDIAN	G	F	P	C
SIDEWALKS	G	F	P	C
PARAPET	(G)	F	P	C
RAILING	G	F	P	C
PAINT	G	F	P	C
DRAINS	(G)	F	P	C
LIGHTING STD'S	G	F	P	C
UTILITIES	G	F	P	C
JOINT LEAKAGE	(G)	F	P	C
EXPANSION JOINTS	G	F	P	C

NA

NA

NA

NA

NA

NA

NA

SUPERSTRUCTURE

COMMENTS

BEARING DEVICES	(G)	F	P	C
GIRDERS OR BEAMS	(G)	F	P	C
FLOOR BEAMS	G	F	P	C
STRINGERS	G	F	P	C
DIAPHRAGMS	(G)	F	P	C
BRACING	G	F	P	C
TRUSSES - GENERAL	G	F	P	C
- PORTALS	G	F	P	C
- BRACING	G	F	P	C
PAINT	G	F	P	C
ALIGNMENT OF	(G)	F	P	C
MEMBERS				

NA

NA

NA

NA

TEXTURE COAT

CONDITION RATING	G	F	P	C
OVERALL APPEARANCE	G	F	P	C
STAINING	G	F	P	C
SCALING	G	F	P	C
FADING	G	F	P	C

NEEDS SPOT PAINTING? YES [] NO [X]

NEEDS REPAINTING? YES [] NO [X]

COMMENTS: _____

RECOMMENDATIONS: _____

FORM BIR 3.3
Rev. 09/24/98
DT-0082

BRIDGE LOC. NO. 80 - I40 - 13.6124
CO. ROUTE L.M.

DATE: 6-15-99

SUBSTRUCTURE

ABUTMENTS

COMMENTS

CAPS	(G)	F	P	C	
BREASTWALL	G	F	P	C	NA
WINGS	(G)	F	P	C	
BACKWALL	G	F	P	C	NA
PLUMB	(G)	F	P	C	
FOOTING	G	F	P	C	NV
PILES	G	F	P	C	NV
EMBANKMENT	(G)	F	P	C	
BEARING SURFACE	G	F	P	C	NV
BEARINGS	G	F	P	C	NV
SLOPE PAVING	G	F	P	C	NA

PIERS

CAPS	(G)	F	P	C	
COLUMNS	(G)	F	P	C	
PLUMB	(G)	F	P	C	
FOOTINGS	G	F	P	C	NV
PILES	G	F	P	C	NV
BEARING SURFACE	(G)	F	P	C	
BEARINGS	(G)	F	P	C	
BENTS					

CAPS	(G)	F	P	C	
COLUMNS	(G)	F	P	C	
PLUMB	(G)	F	P	C	
FOOTINGS	G	F	P	C	NV
PILES	G	F	P	C	NV
BEARING SURFACE	(G)	F	P	C	
BEARINGS	(G)	F	P	C	

SCOUR CONDITION NONE ☒ _____

RECOMMENDATIONS: _____

STREAM CHANNEL DATA AND CONDITIONS

STREAM CROSSING: Carrey Fork River

- I. 1. Type of bed material? Boulders & Gravel
2. Has the channel shifted? YES [] NO [] NOT APPARENT [X]
3. Condition of rip-rap? G F P C Est. % failed _____ N/A [X]
4. Overall condition of channel? G F P C
5. Item 61 - Code values 0 thru 9 according to the recording and coding guide currently in effect: 7
6. Underwater diver inspection recommended? YES [] NO [X]
If yes, why? _____

- II. Channel and bank stability conditions: (check if applicable)
1. Steep bank - Failures upstream [] downstream [] conditions
2. Moderate bank erosion [X]
3. Bank (a) low growth [] (b) large timber [X]
Vegetation (c) dead trees [X] (d) clear banks []
4. Sediment or gravel accumulation: YES [X] NO [] UNKNOWN []
5. Channel altered or straightened: YES [] NO [X] UNKNOWN []
6. Stable conditions: (a) live growth [X] (b) bedrock []
(c) boulders [X] (d) flat slopes []
(≤2:1)

- III. Waterway adequacy and debris characteristics: (check if applicable)
1. Bridge deck elevations:
(a) level with approach roadway [X]
(b) higher than approach roadway. []
(c) roadway approach ≥0.6 m above natural ground line. . [X]
2. Abutment encroaches into channel []
3. Large scour (blowhole) under bridge. []
4. Indications that flood waters overtop bridge:
NO [X] YES [] OCCASIONALLY [] FREQUENTLY [] UNKNOWN []
5. Debris characteristics:
(a) debris present YES [X] NO []
(b) debris likely to accumulate: YES [X] NO []
(c) dead trees upstream: [X] or downstream: [X]

IV. Comments: Light drift

SPECIAL INSPECTION DATA - FOR REASONS OTHER THAN FC OR SCOUR

- I. Does this bridge need a special inspection? YES [] NO [X]
II. Reason for special inspection: _____

NOTE: UNLESS OTHERWISE NOTED, MEASUREMENTS ARE TO BE TAKEN TO TWO (2) DECIMAL PLACES IN METERS.

SUMMARY
80-I40-13.61 LT
6-15-99

I40/Caney Fork River & Kerby Rd.
Span/P.P.C.I. Beam

This bridge was inspected and found to be in good condition. The approach alignment and approach drains are good. Approach pavement is fair with slight settlement and asphalt patch at the "B" end. The bridge railing and approach rail are standard type and good.

The wearing surface has random transverse hair cracks but is good along with parapet, drains, joints, and joint leakage. The bottom deck was good with only a minor 25mm deep breakout with exposed steel and some light transverse cracking with leaching.

The superstructure elements including bearings are good. The sub-structure units are also good including abutments and piers. The embankments and abutments did show some .15m settlement at #2, but in fair condition. There is no problem with debris build-up or scour at this time.

Gilbert Hunter

FORM BIR 3.0A
Rev. 6-9-92
DT-1443

CURRENT FIELD REPORT NO. 14
PREVIOUS FIELD REPORT NO. 13

DATE 5-12-97
DATE 5-12-97

INSPECTION REPORT FOR UNDERPASS ROUTE

BRIDGE NO. 80I004000Z8
ELEVEN DIGIT NUMBER

UNDERPASS LOC. NO. 80 - A136 - 0.82
CO. RTE. L.M.

80 - I40 - 13.61 ⁺ OVER 80 - A136 - 0.82
CO. RTE. L.M. CO. RTE. L.M.

STRUCTURE NAME (IF NAMED)

COUNTY Smith

YEAR CONSTRUCTED 1959 YEAR WIDENED _____ YEAR REHABILITATED _____
ESTIMATED [] ACTUAL [X]

GEOMETRIC FEATURES UNDER BRIDGE

DIVIDED HIGHWAY - - - - LEFT RDWY [] RIGHT RDWY [] N.A. [X]
TYPE OF WEARING SURFACE - - - - CONCRETE [] ASPHALT [X] GRAVEL []
WIDTH OF APPROACH TRAVELED ROADWAY 12' FT. (DOES NOT INCLUDE SHOULDERS)
WIDTH OF MEDIAN IF DIVIDED HIGHWAY _____ FT.
APPROACH SHOULDER WIDTH 5 FT. (RT.) 0 FT. (LT.)
*HORIZONTAL CLEARANCE UNDER BRIDGE _____ FT. _____ IN.
*DISTANCE BETWEEN PIER PROTECTION GUARDRAIL AND
SUBSTRUCTURE _____ FT. (RT.) _____ FT. (LT.)
*WIDTH OF SIDEWALK UNDER BRIDGE _____ FT. (RT.) _____ FT. (LT.)
*MINIMUM VERTICAL CLEARANCE 17 FT. 9 IN.

*SHOW ON SKETCH

TRAFFIC SAFETY FEATURES FOR UNDERPASS ROUTE

STANDARD SUB-STANDARD

PIER PROTECTION RAILING
OR PARAPET

G F P C

[]

[] NON EXIST [X]

APPROACH GUARDRAIL

G F P C

[]

[] NON EXIST [X]

TRANSITIONS

APPROACH GUARDRAIL

G F P C

[]

[] NON EXIST [X]

APPROACH GUARDRAIL

TERMINAL

G F P C

[]

[] NON EXIST [X]

SIGNING FOR UNDERPASS ROUTE

PADDLEBOARD YES [] NO [X] NEEDED []
VERTICAL CLEARANCE
(< 14'6") YES [] NO [X] NEEDED []
NARROW PASSAGE YES [] NO [X] NEEDED []
ONE LANE PASSAGE YES [] NO [X] NEEDED []
CURVE YES [] NO [X] NEEDED []
SPEED LIMIT YES [] NO [X] NEEDED []

INSPECTORS

1. Hunter
2. Daniel
3. Carlicher
4. Waller
5. _____
6. _____

FORM BIR 3.0A (CONTINUED)
 Rev. 6-9-92
 DT-1443

UNDERPASS LOC. NO. 80 - A136 - 082
 CO. RTE. L.M.

OTHER SIGNS OR PLAQUES _____

COMMENTS REGARDING ANY PROBLEM WITH SIGNING _____

BRIDGE FEATURES

BRIDGE SKEW 52°
 STRUCTURE TYPE PCCTB NO. SPANS 5
 MAIN SPAN MAIN TYPE
 STRUCTURE TYPE _____ NO. SPANS _____
 APPROACH SPAN APPROACH TYPE
 MAXIMUM SPAN LENGTH 89 FT. TOTAL LENGTH 445.5 FT.
 WIDTH OF BRIDGE OUT-TO-OUT 44 FT. (RT. < TO L OF BRIDGE)
 WIDTH OF BRIDGE ALONG SKEW _____ FT. (IF UNABLE TO MEASURE AT RT. } TO
 L OF BRIDGE)
 NUMBER OF LANES/TRACKS ON BRIDGE 2

BRIDGE CONDITION

(G)

F

P

C

DOES POTENTIAL EXIST FOR ELEMENTS FROM BRIDGE FALLING ON ROADWAY
 BENEATH? YES [] NO [☒]

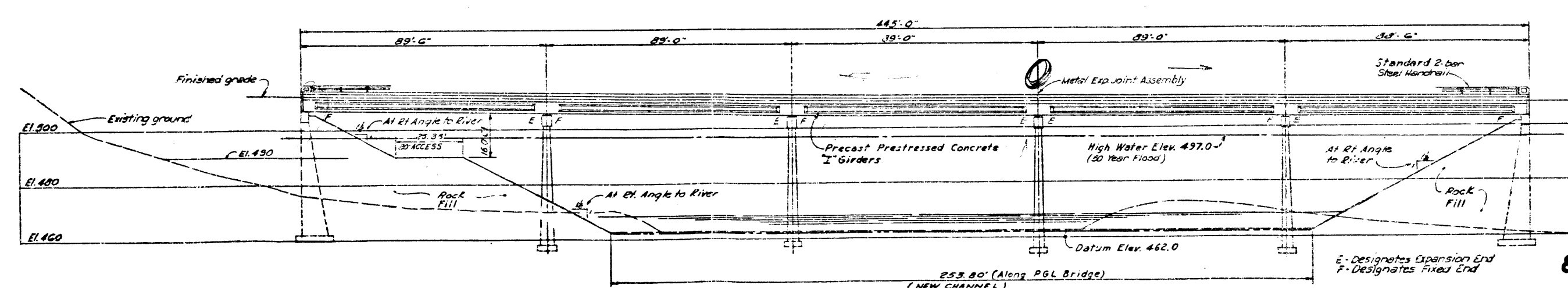
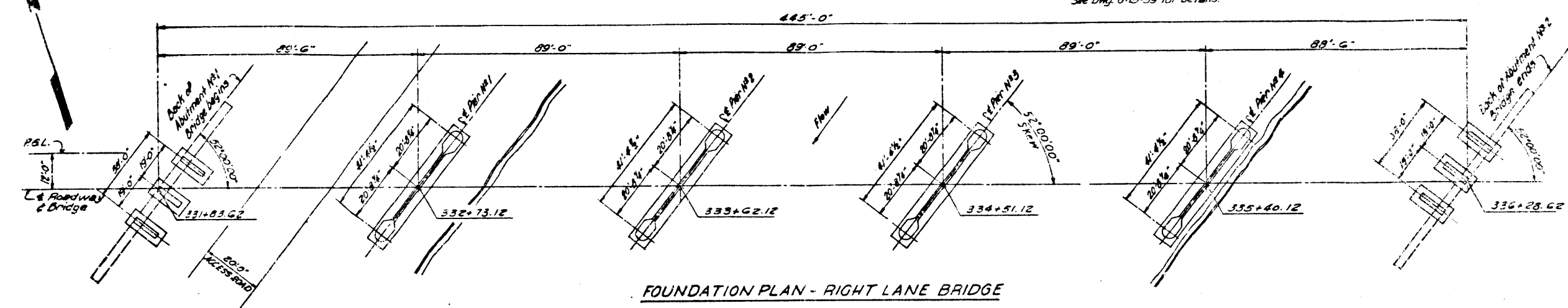
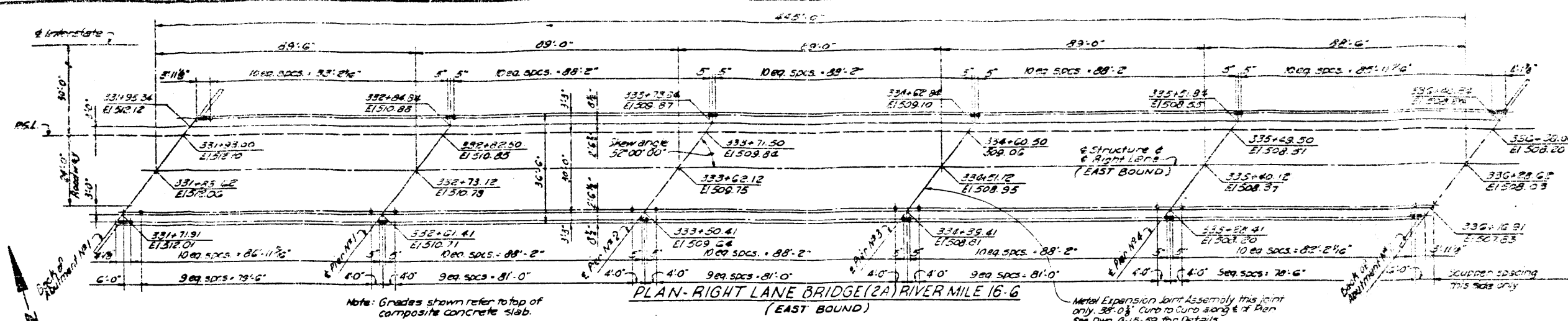
DOES POTENTIAL EXIST BECAUSE OF DETERIORATED CONDITION FOR FAILURE
 OF MAJOR MEMBERS? YES [] NO [☒]

COMMENT ON ANY CONDITIONS OF BRIDGE THAT WOULD EFFECT ROADWAY BENEATH _____

NOTE: IF UNDERPASS ROUTE IS DIVIDED HIGHWAY, USE TWO (2) OF
 THESE FORMS, ONE FOR EACH ROADWAY.

MINIMUM PICTURES REQUIRED

1. ELEVATION VIEW OF BRIDGE ON BOTH SIDES SHOWING UNDERPASS
2. VIEW SHOWING BOTH APPROACHES TO BRIDGE
3. VIEW SHOWING SAFETY FEATURES
4. VIEW SHOWING ANY PROBLEMS



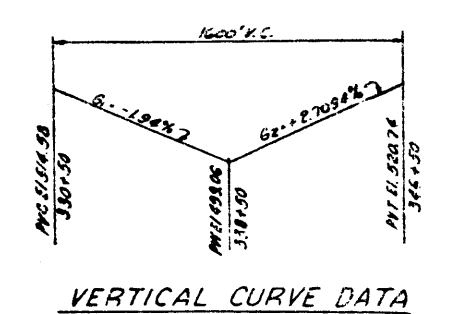
ESTIMATED QUANTITIES											
ITEM NO.	17-9	17-2	17-4	17-5	17-6	702	17-4-PT3	17-4-PT2	17-4-PT4	17-5	17-2-1
ITEMS	EXCAVATION	CONC	REINF	STEEL	TYPE I	AAS-50	ROCK	STRUCTURAL			
UNIT	WET DRY ROCK	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS
SUBSTRUCTURE			34.8	37.0	54	876					1945
GRADERS							G	18	G		
ABUTMENT #1	260	35	17.3	24,299						18	
ABUTMENT #2	70	35	18.2	24,299							
PIER #1	94	144	27	1755	14,908					18	
PIER #2	95	18	17.1	14,732						18	
PIER #3	110	18	17.9	14,732							
PIER #4	121	18	17.2	14,732							
TOTALS	750	144	151	13256	204,726	876	5	18	6	24	1945

TOTALS	750	144	151	1325	6	204	150	876	5	18	6	54	184
--------	-----	-----	-----	------	---	-----	-----	-----	---	----	---	----	-----

NOTE: All joint material shall be included in the Unit Price Bid for Class "A" Concrete

HYDRAULIC DESIGN DATA

High Water Elevation ——— 497.0
Design Discharge ——— $Q = 41900$ cfs
Design Velocity ——— $V = 6$ fps
Opening Required ——— $A_2 = 7000$ sq.ft.
Opening Furnished ——— $A_f = 8900$ sq.ft.(gross)



GENERAL NOTES:

GENERAL SPECIFICATIONS: Standard Road and Bridge Specifications of the Tennessee Department of Highways and Public Works.

DESIGN SPECIFICATIONS: Standard Specifications for Highway Bridges AASHTO, 1957, and various AASHTO Specifications covering prestressed concrete design and construction (with subsequent revisions).

DESIGN LOADING: W-20, S16.44 and for alternate loading as per Section 4C of Part 20-4.

CONCRETE: All concrete shall be Class "A" and shall be air entrained.

REINFORCING STEEL: See Specifications.

FORMS & FINISH: See Specifications.

HAND RAILS: Standard 2" x 4" steel handrail, Tennessee Highway Department Standard.

PRECAST PRESTRESSED CONCRETE GIRDERS: See Special Provisions.

SELF LUBRICATING BEARING PLATES: See Special Provisions.

<u>LIST OF DRAWINGS:</u>	<u>DRAWING NO.</u>
Layout Of Bridge	G-15-54
Layout & Log Of Core Borings	G-15-55
Abutments Nos 1 & 2	G-15-56
Pier No 1	G-15-57
Piers Nos 2, 3 & 4	G-15-58
Slab & Girder Details	G-15-59
Superstructure & Girder Brg. Details	G-15-60
Slab Reinforcing Plan and Details	G-15-61
Prestressed Girder Details	G-15-62
Reinforcing Steel Schedule No 1	G-15-63
Reinforcing Steel Schedule No 2	G-15-64
Steel Handrailing	G-10-99

NOTES:

1. Pier and Abutment footings shall set a minimum of 1' into sound rock.
2. Contractor shall exercise special care in backfilling at Piers and Abutments to prevent overturning.
3. After excavating to bottom of footings for Abutment No. 1 and No. 2, rock drillings 8" into rock shall be made at locations designated by the Engineer.

SMITH COUNTY
30'-0" Roadway with Safety Curbs.
Scale 1" = 20'

MID-SOUTH ENGINEERING CO., INC.
820 BROADWAY, N. E. KNOXVILLE, TENNESSEE

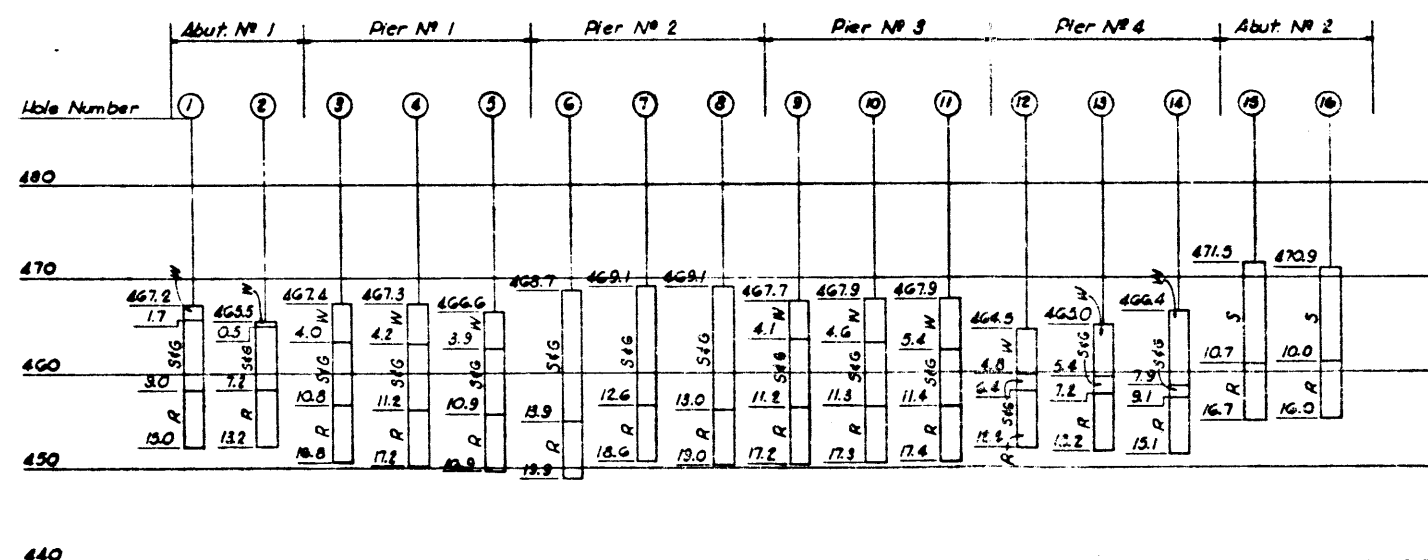
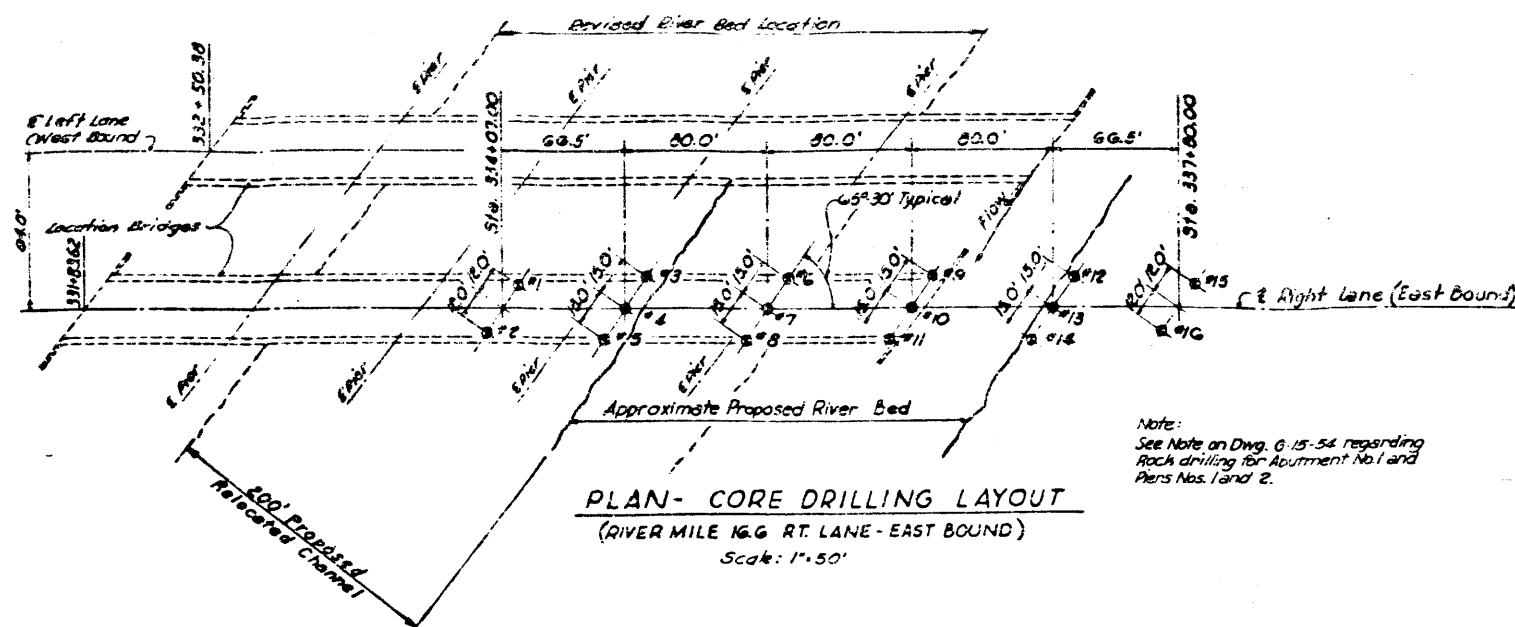
BRIDGE OVER CANEY FORK RIVER - RIVER MILE 12.6
STA 331+93 - RIGHT LANE (EAST BOUND) (2A)

LAYOUT OF BRIDGE

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
AND PUBLIC WORKS
NASHVILLE

DR. <i>RWP</i>	DATE <i>11-16-59</i>	<i>G-15-54</i>
CH'D. <i>E.A.H.</i>		
APP'D. <i>WR</i>		

FEEDBACK	DATE	REVISION	BY	APP'D
3	11-16-59			



LEGEND

- W.....Water
- C.....Clay and Silt
- S.....Sand
- S&G...Sand and Gravel
- WR...Weathered Rock
- R.....Rock (Limestone)
- B.....Boulders

LOG OF CORE BORINGS

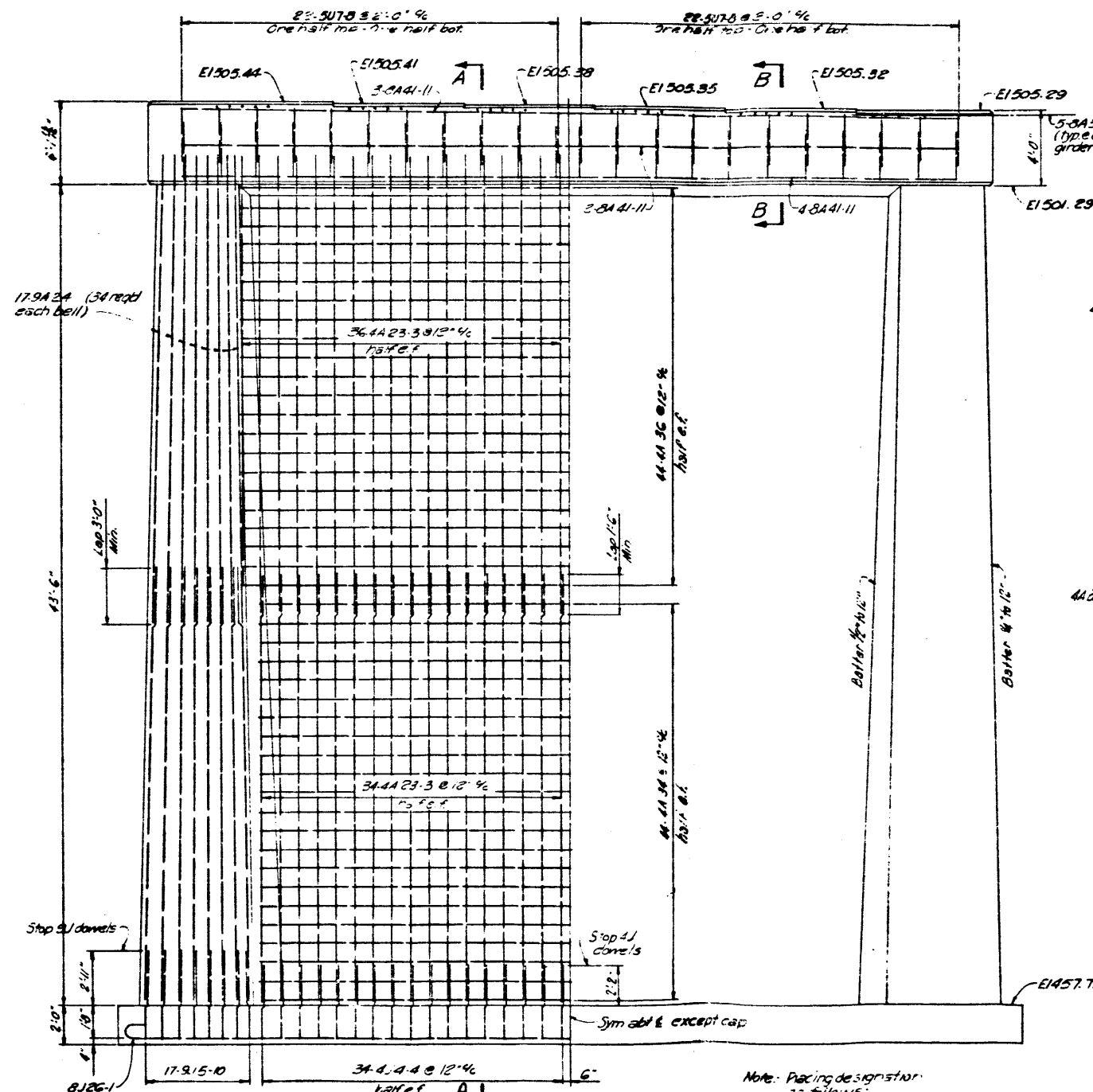
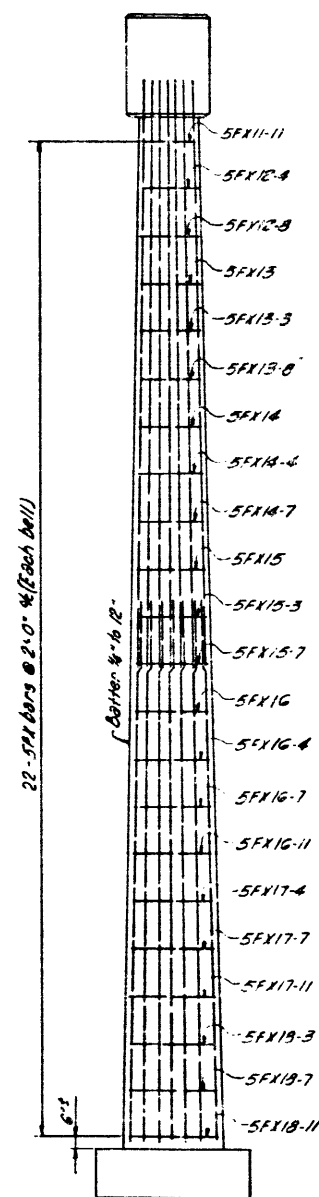
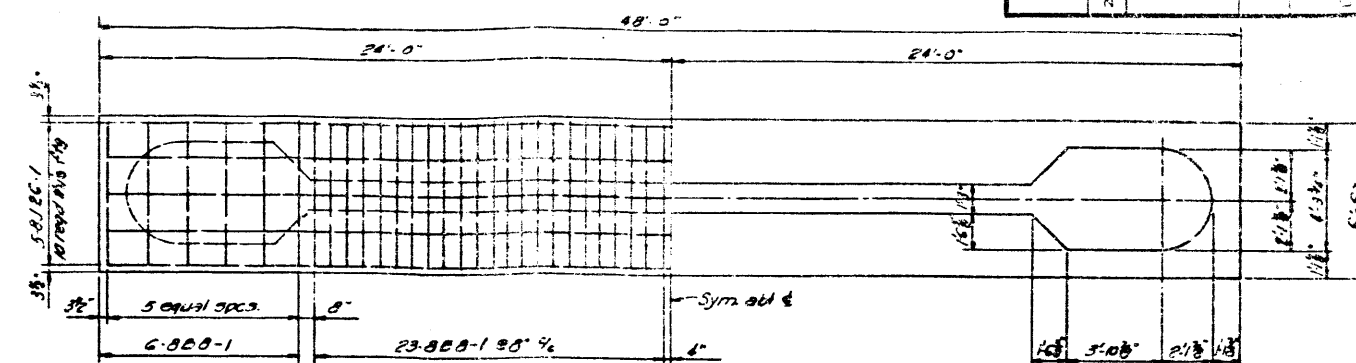
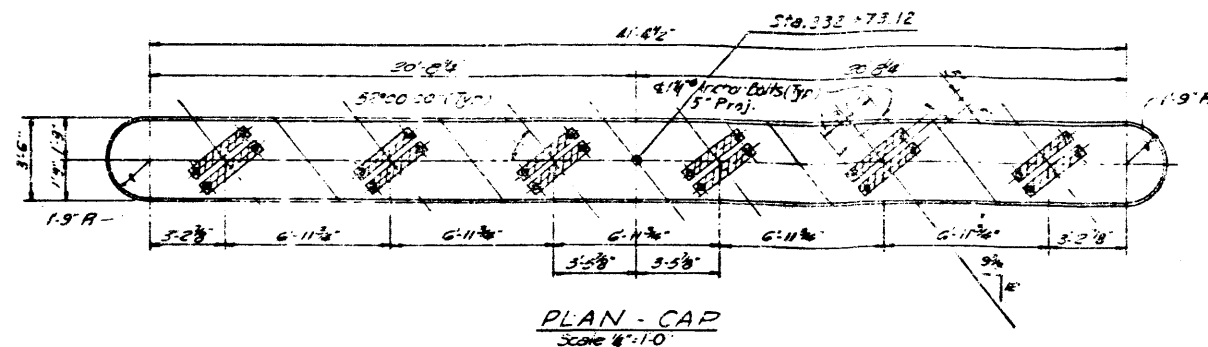
NOTE: Water elevation in
Canev Fork River fluctuates
depending on discharge
at Center Hill Dam.

MID-SOUTH ENGINEERING CO., INC. 125 BROADWAY, N. E. KNOXVILLE, TENNESSEE	
BRIDGE OVER CANEV FORK RIVER - RIVER MILE 16.6 STA. 331+93.00 RIGHT LANE (EAST BOUND) (2A)	
LAYOUT & LOG OF CORE BORINGS	
STATE OF TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS NASHVILLE	
DR. H. R. S.	DATE 11-16-59
CHKD. R. A. H.	
APPD. W. R.	G-15-55

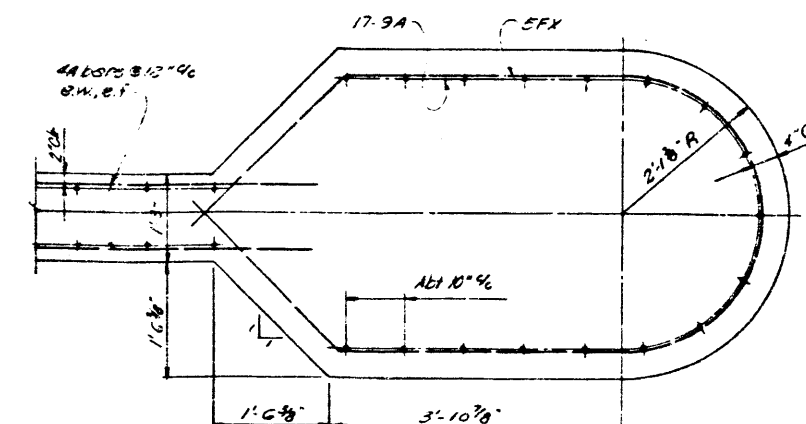
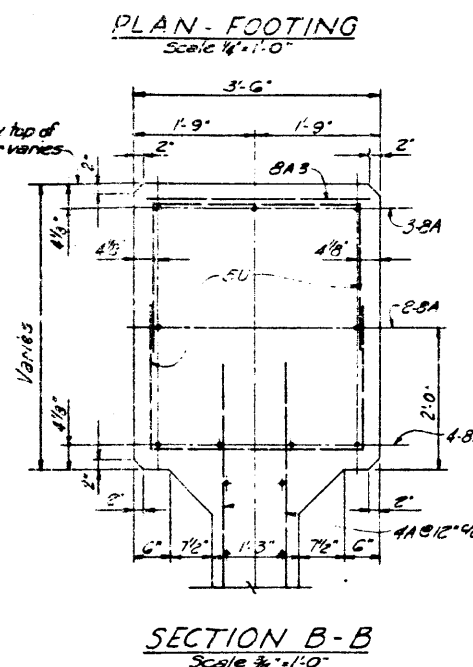
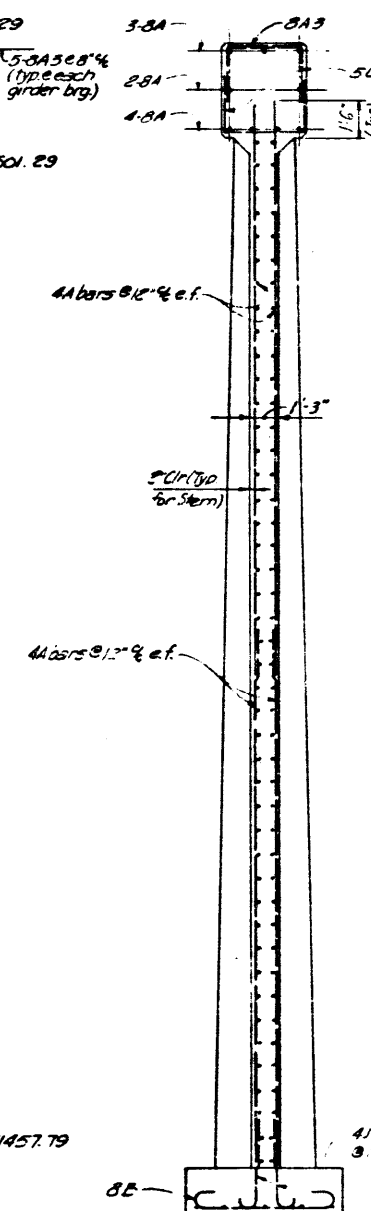
FED. ROAD DIST. NO.	T	PROJECT NO.	PIER NO.	SHEET NO.	TOTAL SHEETS
3	N	1-405(2) R 22A	72	22	22

ESTIMATED QUANTITIES

Class A Conc.	Cu Yds	PIER #1
Reinf Steel	Lbs.	175.5
		14908



Note: Pacing designation as follows:
e.f. - each face
e.w. - each way



Scale as noted

MID-SOUTH ENGINEERING CO., INC.
820 BROADWAY, N. E. KNOXVILLE, TENNESSEE

BRIDGE OVER CANEY FORK RIVER-RIVER MILE 10.6
STA 331+93.00-RIGHT LANE (EAST BOUND)(2A)

PIER No 1

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
AND PUBLIC WORKS
NASHVILLE

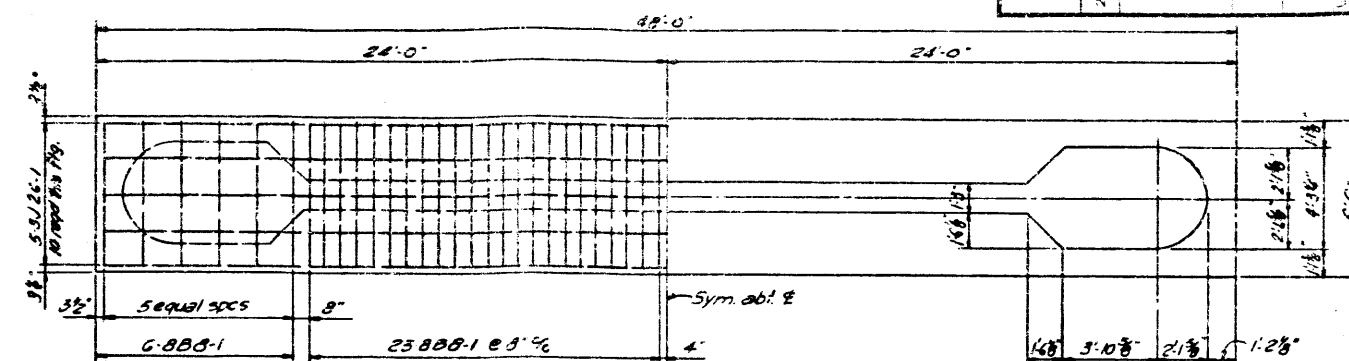
DR. R.W.P.
CH'D. R.A.H.
APP'D. W.P.

DATE
11-16-59

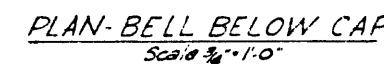
G-15-57

ESTIMATED QUANTITIES

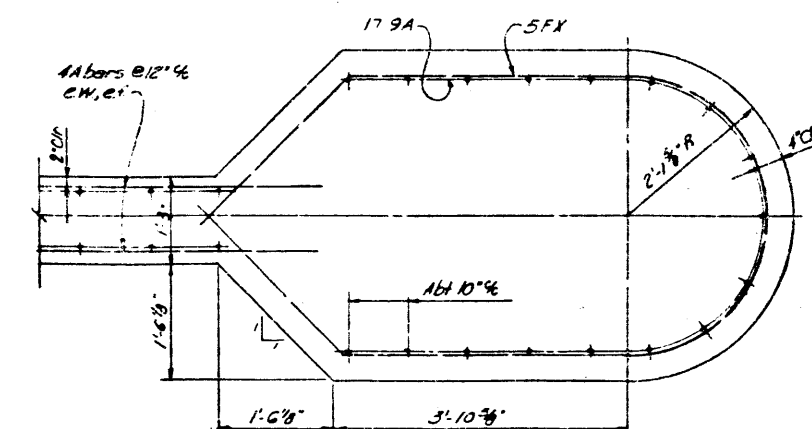
PLAN - CAD
Scale = 1" = 0'



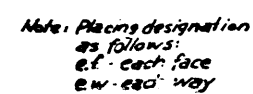
PLAN - FOOTING
Scale 1/4" = 1' 0"



SECTION B-B
Scale $\frac{3}{4}" = 1'-0"$



PLAN - BELL AT FOOTING
Scale $\frac{3}{4}" = 1'-0"$



SECTION A-A
Scale 1/4" = 1'-0"

END ELEVATION
Scale 4" = 1'-0"

SIDE ELEVATION
LOOKING FORWARD ON SURVEY
Scale 1/4" = 1'-0"

Scale as noted

MID-SOUTH ENGINEERING CO., INC.
820 BROADWAY, N. E. KNOXVILLE, TENNESSEE

BRIDGE OVER CANEY FORK RIVER-RIVER MILE 16.6
STA 331+93-RIGHT LANE (EAST BOUND) (2A)

PIER N^{os} 2, 3 & 4

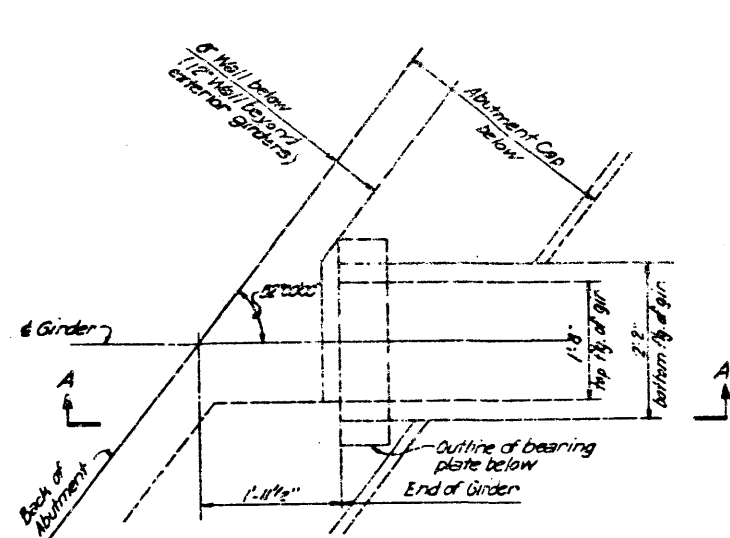
STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
AND PUBLIC WORKS
NASHVILLE

DR. <u>R. V. F.</u>	DATE <u>11-16-51</u>
CHK'D <u>R. A. H.</u>	
APPRO. <u>H. R.</u>	

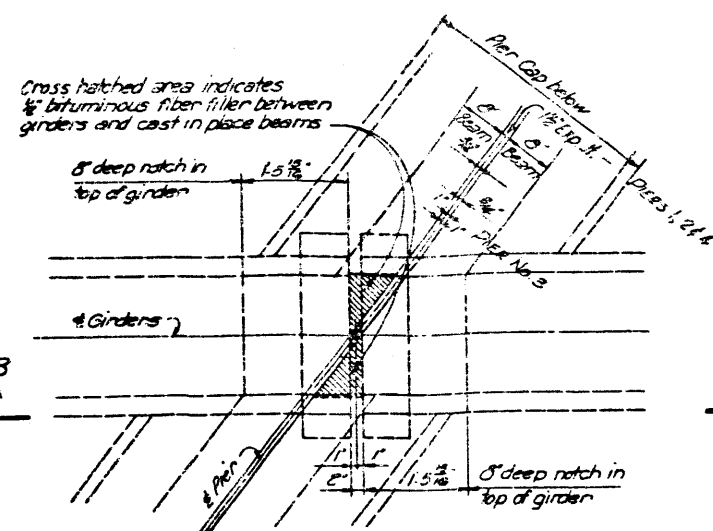
G-15-58

Rev. 8-22-60

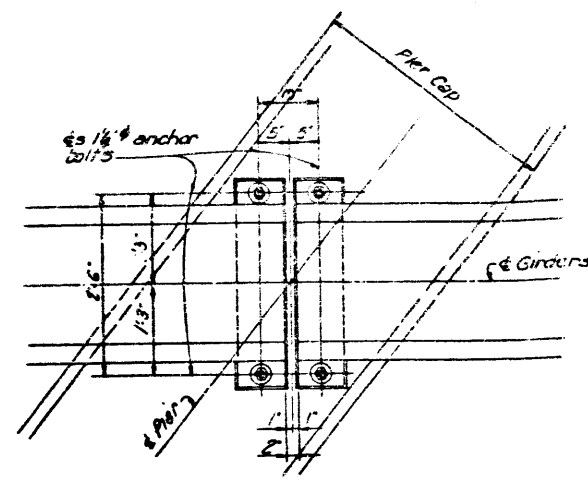
RD. ROAD DIST. No.	F	E	REVISION	DATE	BY	CHKD.
3	N	N	1-10-59	74		



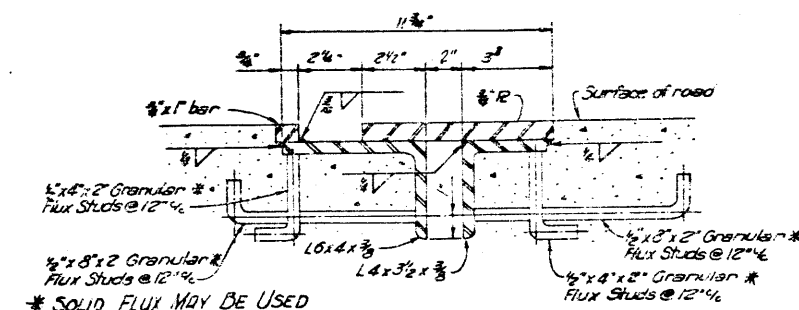
PLAN-SLAB ABOVE GIRDERS
BEARING ON ABUTMENT



PLAN-SLAB ABOVE GIRDERS
BEARING ON PIERS

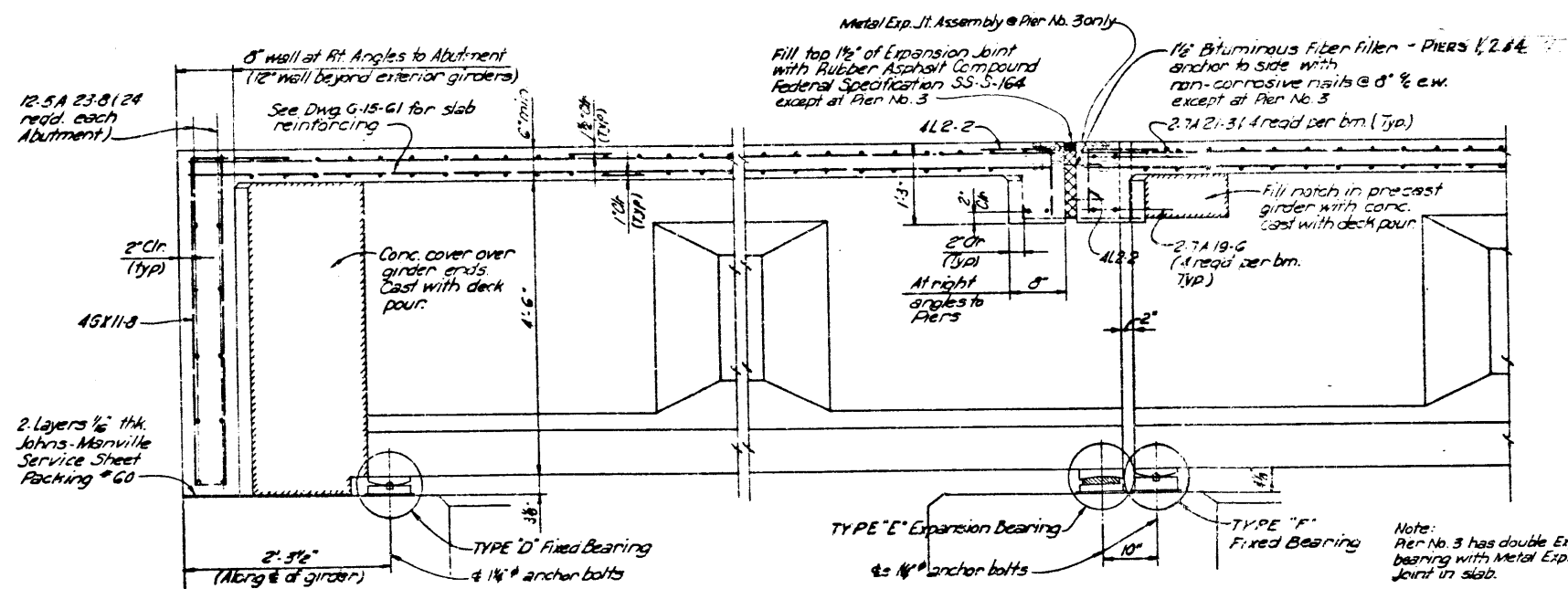


PLAN-GIRDER BEARING
ON PIER



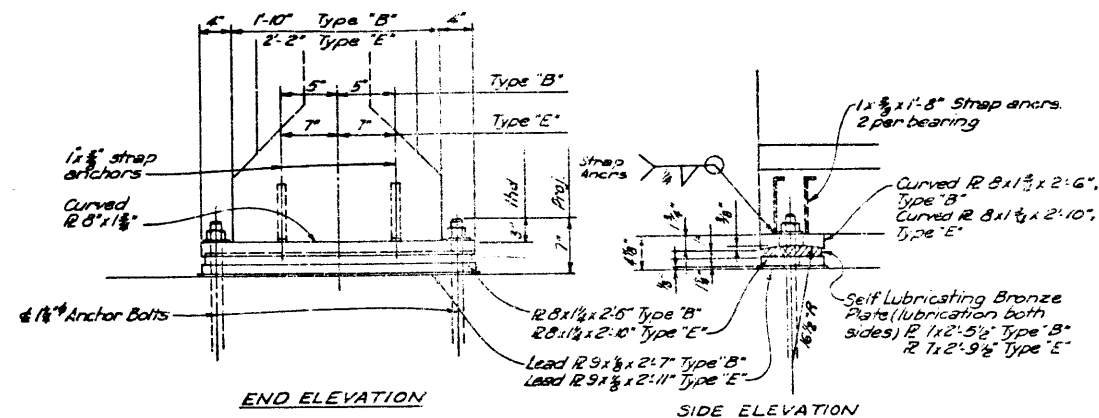
TYP. ROADWAY EXPANSION DEVICE

Note
Expansion Assembly shall
extend 6\"/>



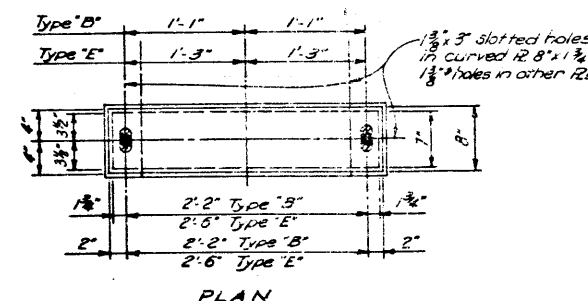
SECTION A-A

SECTION B-B



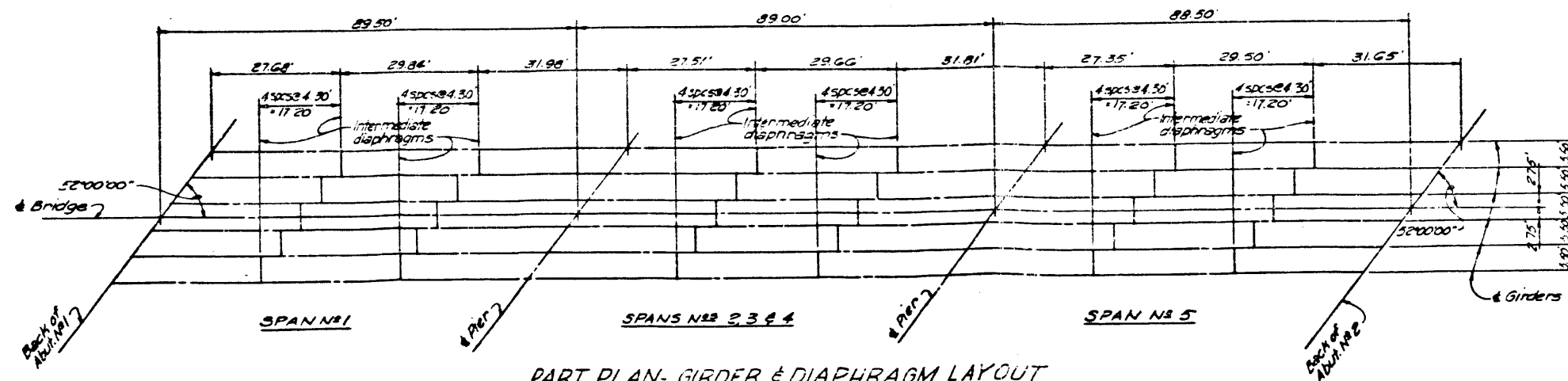
END ELEVATION

SIDE ELEVATION



PLAN

DETAILS
EXP BEARINGS
TYPES 'B' AND 'E'
Scale 1\"/>



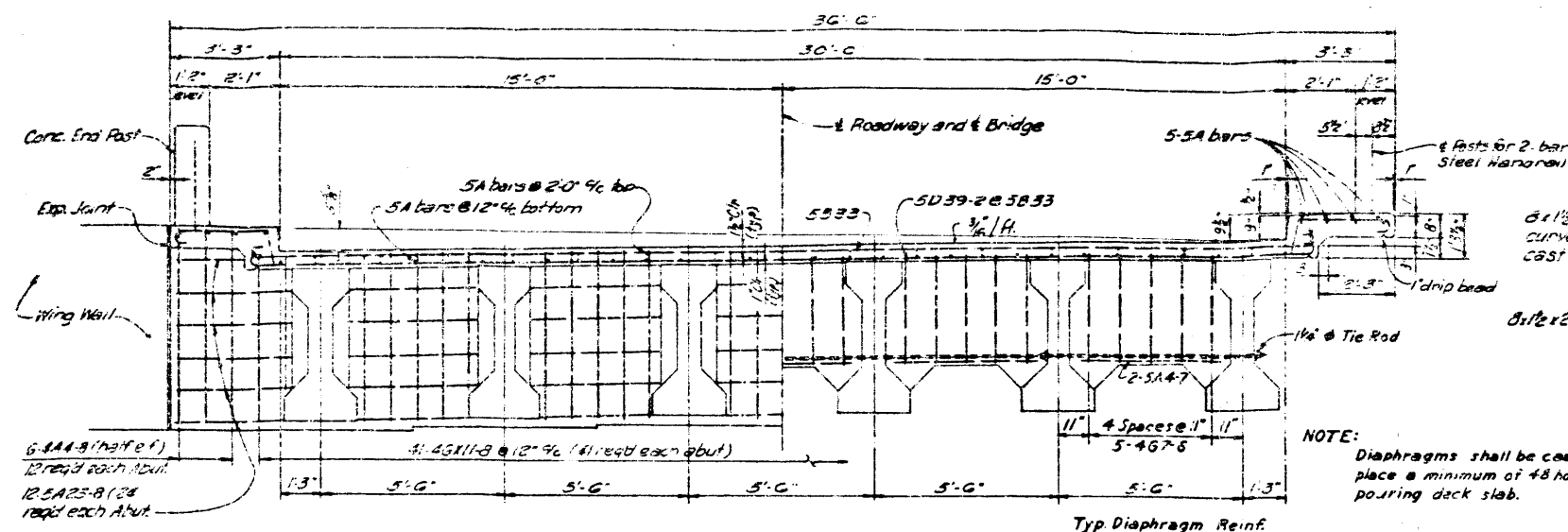
PART PLAN-GIRDER & DIAPHRAGM LAYOUT
Scale 1/16\"/>

Scale: 1/4\"/>

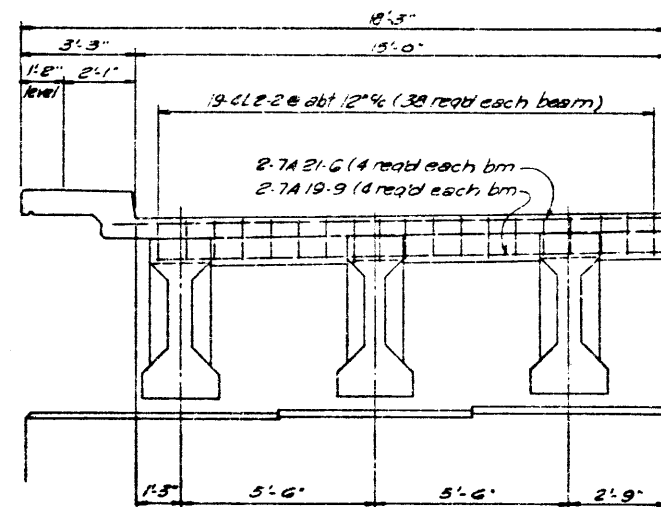
MID-SOUTH ENGINEERING CO., INC. 820 BROADWAY, N. E. KNOXVILLE, TENNESSEE	
BRIDGE OVER CANEY FORK RIVER - RIVER MILE 10.6 STA 331+93.00 - RIGHT LANE (EAST BOUND) (2A)	
SLAB AND GIRDER DETAILS	
STATE OF TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS NASHVILLE	
DR. R. W. P. CHKD. R. A. H. APPD. W. R.	DATE 11-16-59 G-15-59

REV. 4-18-60

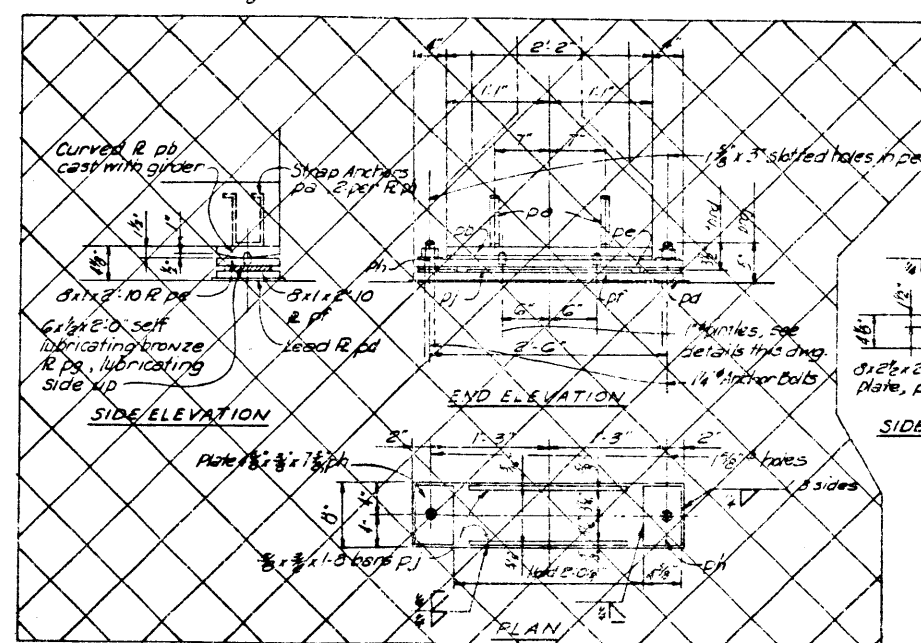
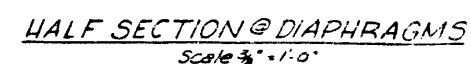
REG. ROAD DIST. No.	T E	RECEIVED AND PROJECT NO.	ROAD YEAR	SPENT IN	COST ESTIMATED
3	N N	44-519 1204		75	370



HALF SECTION @ ABUTMENTS
Scale $\frac{1}{2}" = 1'-0"$

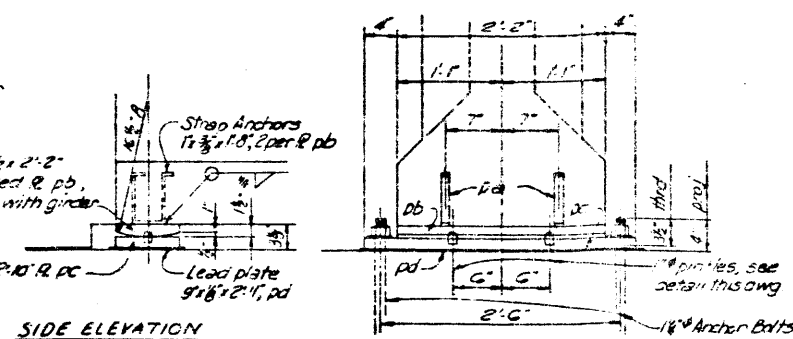


HALF SECTION @ PIERS
Showing slab reinforcing omitted
Scale $\frac{1}{4}" = 1'-0"$

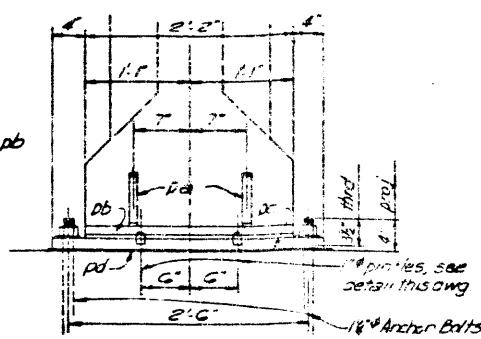


DETAILS-EXPANSION BEARING 'E'
Scale 1"=1'-0"

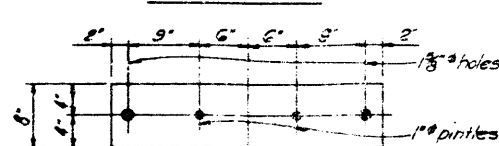
See Dwg. G-15-59 for Exp. Bearings "B" & "E"



SIDE ELEVATION

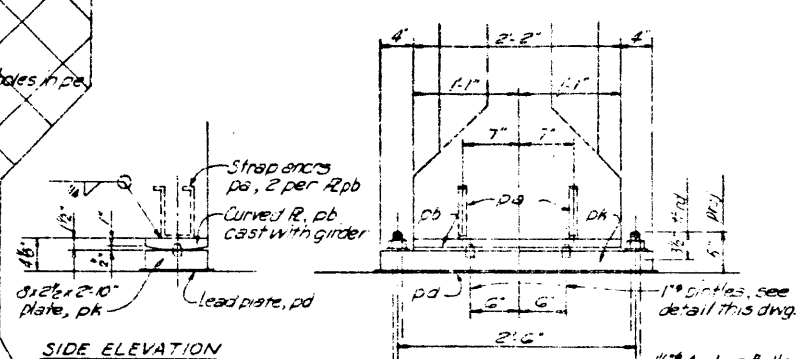


END ELEVATION



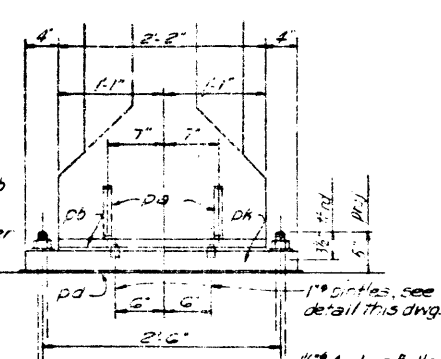
PLAN

DETAILS - FIXED BEARING 'D'
Scale 1" = 1'-0"

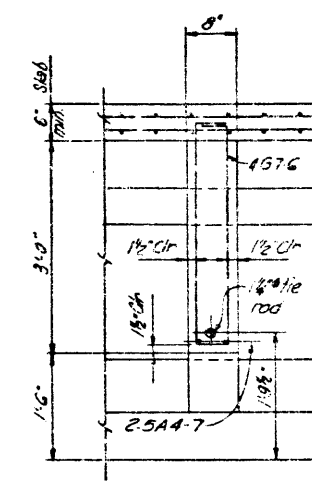


SIDE ELEVATION

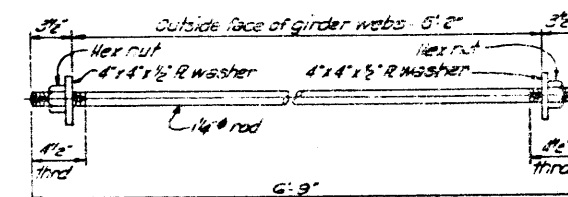
DETAILS - FIXED BEARING "F"
Scale 1" = 1'-0"



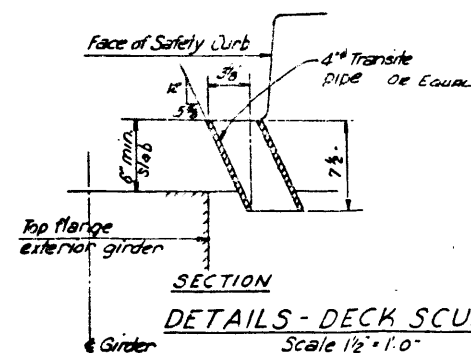
END ELEVATION



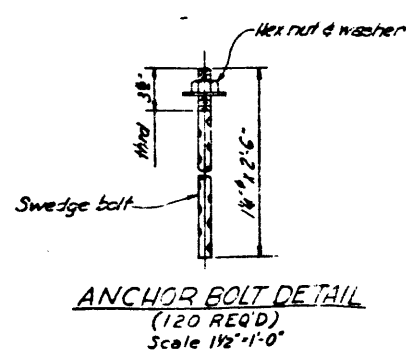
SECTION THRU INTERMEDIATE
DIAPHRAGMS
Scale $\frac{3}{8}" = 1' - 0"$



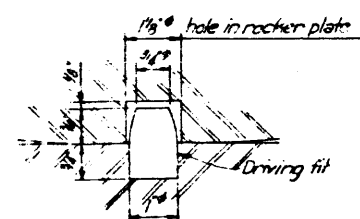
DETAIL OF TIE RODS AT DIAPHRAGMS
Scale 1 1/2" = 1'-0"



DETAILS - DECK SCUPPER
Scale 1/2" = 1'-0"



ANCHOR BOLT DETAIL
(120 REQ'D)
Scale 1 1/2" = 1'-0"



PINTLE DETAIL
Scale: one half size

Scale as noted

MID-SOUTH ENGINEERING CO., INC.
820 BROADWAY N. E. KNOXVILLE, TENNESSEE

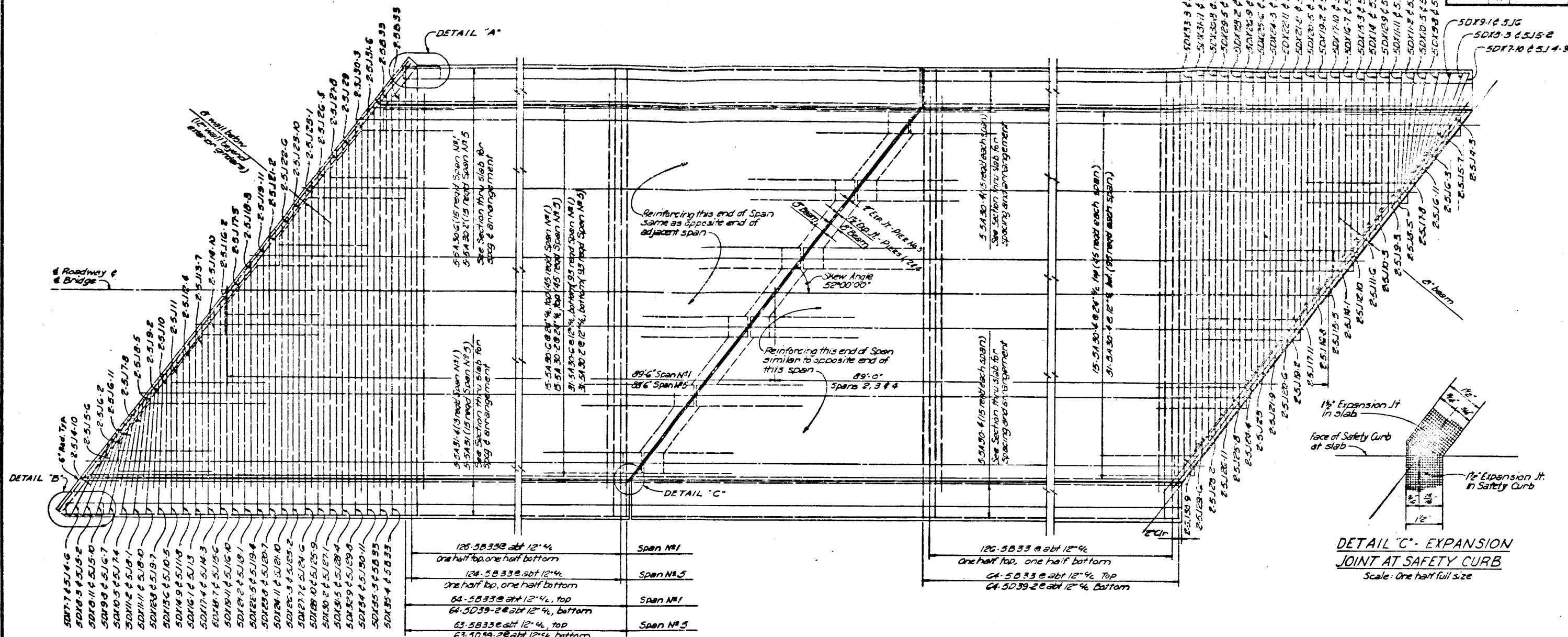
BRIDGE OVER CANEY FORK RIVER - RIVER MILE 10.6
STA 331+93.00 - RIGHT LANE (EAST BOUND) (2A)

SUPERSTRUCTURE AND
GIRDER BEARING DETAILS

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
AND PUBLIC WORKS
NASHVILLE

DR. <u>R.W.P.</u>	DATE <u>11-16-59</u>	G-15-60
CHK'D <u>R.A.H.</u>		
APPRO. <u>W.P.</u>		

REV.	NO.	DATE	BY	CHKD.	APPD.	SHEET	TOTAL
3	1	11-16-59	W.E.	R.A.H.		76	77

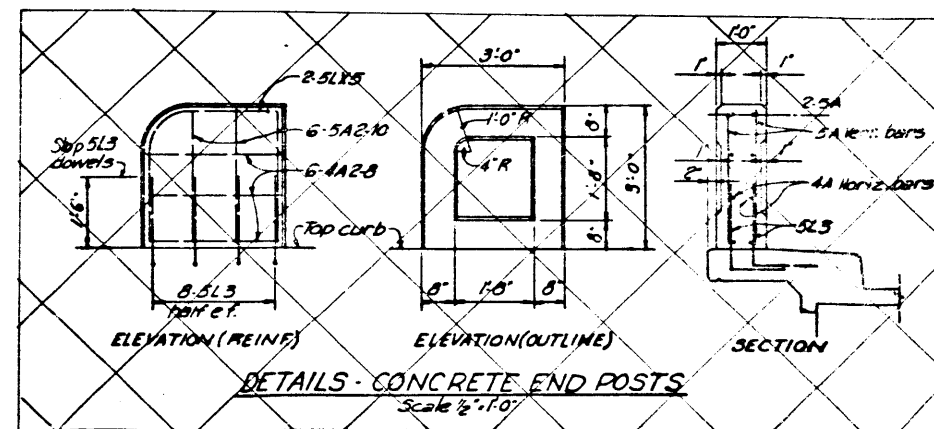
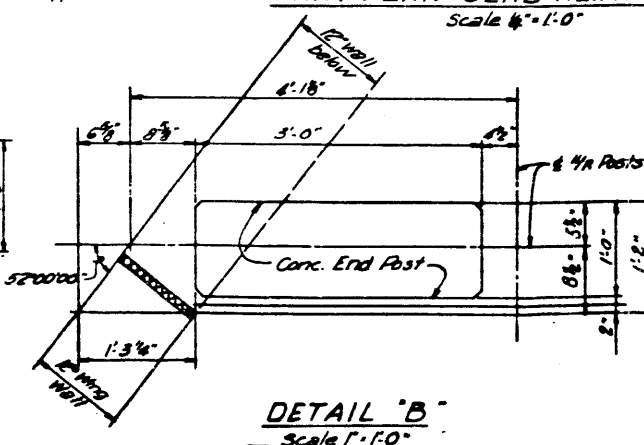
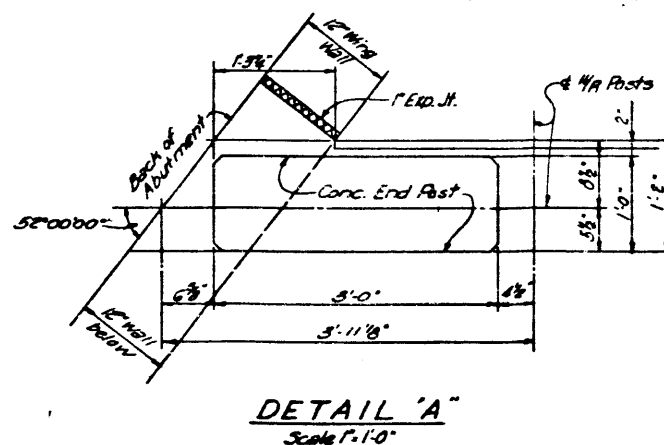


SPANS NOS 1 & 5
Span No. 1 as shown - Span No. 5 Opp. Hand

PART PLAN - SLAB REINFORCING
Scale 1/4" = 1'-0"

SPANS NOS 2, 3 & 4
As shown

DETAIL "C" - EXPANSION
JOINT AT SAFETY CURB
Scale: One half full size



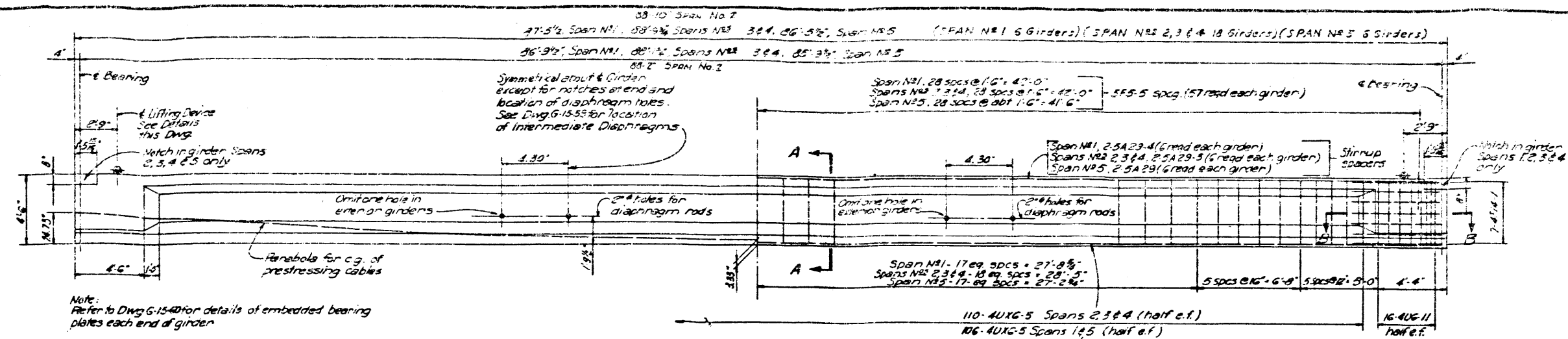
ESTIMATED QUANTITIES

Class 'A' Conc	Cu Yds	398.8
Reinf Steel	Lbs	97,054

Includes end walls, beams at expansion joints, girder end coverage, diaphragms and concrete end posts.

Scale as noted

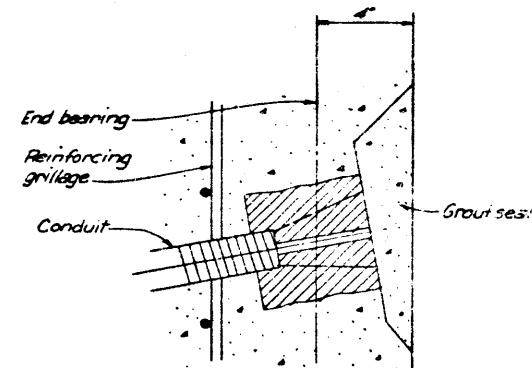
MID-SOUTH ENGINEERING CO., INC. 628 BROADWAY, N. E. KNOXVILLE, TENNESSEE	
BRIDGE OVER CANEY FORK RIVER - RIVER MILE 10.6 STA 331+93.00 - RIGHT LANE (EAST BOUND) (2A)	
SLAB REINFORCING PLAN AND DETAILS	
STATE OF TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS NASHVILLE	
DR. R.W.P. CHD. R.A.H. APPD. W.E.	DATE 11-16-59 G-15-61



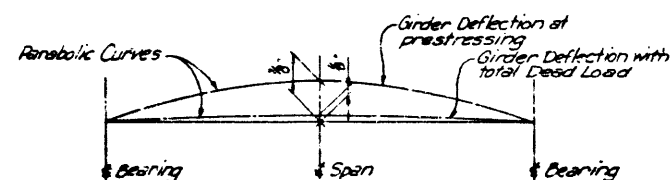
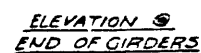
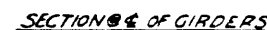
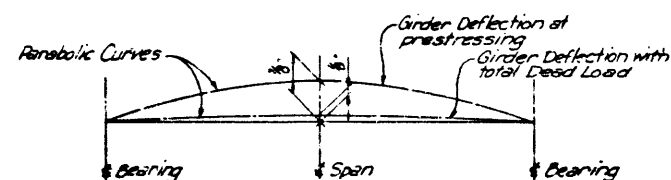
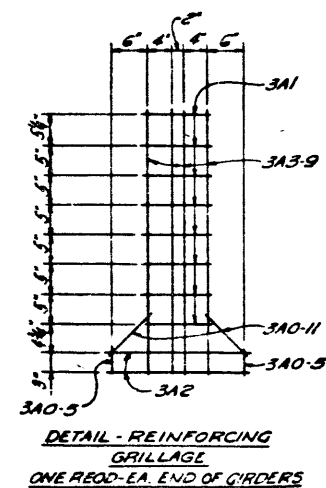
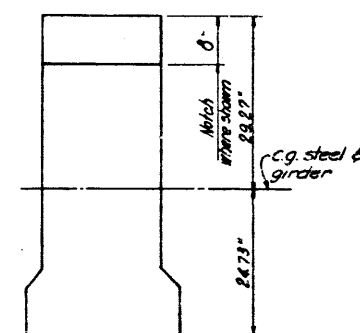
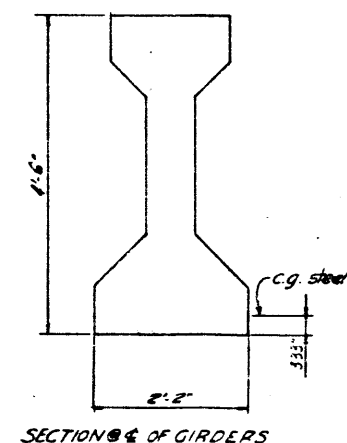
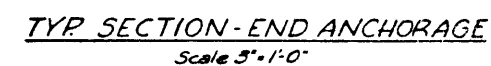
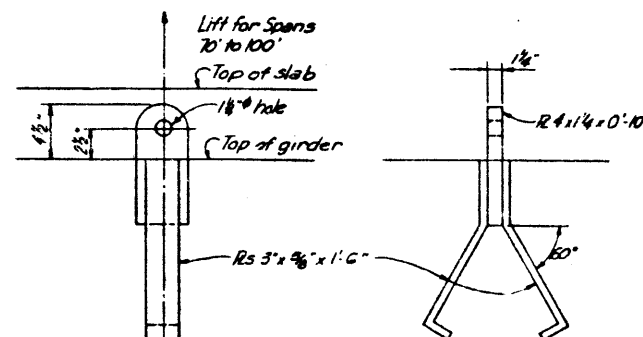
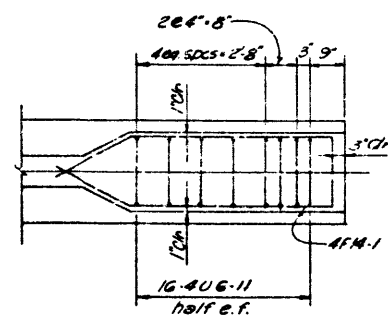
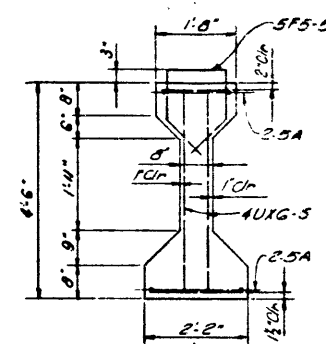
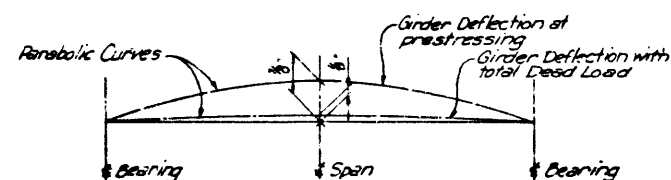
FED. ROAD DIST. No.	T E N	FEDERAL AID PROJECT No.	SECT. YEAR	SHEET No.	TOTAL SHEETS
3	T E N	140-5(9) 264		77	372

ESTIMATED QUANTITIES

1. Type unit: 18 x 0.196" (18 - 0.196" diameter high tension wires anchored in each unit. 10 units required each girder.
2. The initial prestressing force shall be 962,500 lbs., (96 250 lbs each unit) This is based on assumed losses of 20% due to creep, shrinkage, elastic deformation and cable friction losses. An amount sufficient to allow for the anchorage losses as determined by test, shall be added to the initial prestressing force.
3. The final prestressing force shall be 770,000 lbs., (77,000 lbs each unit) at the E of span.
4. Details are for the parallel wire system.



5. The following information shall be submitted to the Engineer for approval: The proposed type of tendons which will be used in post-tensioning the sections, all necessary additional details, including those for anchorage, methods to be employed, procedures to be followed and the total relaxed post-tension force for each girder including allowances for all losses.
6. The tops of all girders shall be artificially roughened to insure bond with the concrete slab.
7. Allow 25 k/sg ft dead load for future wearing surface.



DETAILS - PRESTRESSING STEEL LAYOUT
Scale 3/4" = 1'-0"

Scale as noted

MID-SOUTH ENGINEERING CO., INC.
820 BROADWAY, N. E. KNOXVILLE, TENNESSEE

BRIDGE OVER CANEY FORK RIVER - RIVER MILE 16.6
STA 331+93.00 - RIGHT LANE (EAST BOUND) (2A)

PRESTRESSED GIRDER DETAILS

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
AND PUBLIC WORKS
NASHVILLE

DR. <u>R.W.F.</u>	DATE <u>11-16-59</u>	G-15-62
CH'CD. <u>E.A.H.</u>		
APPD. <u>W.P.</u>		

G-15-62

PROJECT: PAGE OF												
ITEM:	LOCATION	BAR MARK	NO. REQD	BENDING DIMENSIONS - FEET & INCHES								WEIGHT
				a	b	c	d	e	f	g	h	
	SUPERSTRUCTURE REINF (Cont)											
		5J30-2	8								29-7	252
		5J28-10	8								28-3	241
		5J27-7	8								27-0	230
		5J26-4	8								25-9	220
		5J25-1	8								24-6	209
		5J23-8	8								23-1	198
		5J22-5	8								21-10	187
		5J21-2	8								20-7	177
		5J19-10	8								19-3	165
		5J18-7	8								18-0	155
		5J17-4	8								16-9	145
		5J16-1	8								15-6	134
		5J14-9	8								14-2	123
		5J13-6	8								12-11	113
		5J12-2	8								11-7	102
		5J9-8	8								9-1	81
		5J8-10	8								8-3	74
		5J8-1	8								7-6	67
		5J7-4	8								6-9	61
		5J6-7	8								6-0	55
		5J6	8								5-5	50
		5J5-2	8								4-7	43
		5J4-9	8								4-2	40
		5J30-9	16								30-2	513
		5J29-6	16								28-11	492
		5J28-2	16								27-7	470
		5J26-11	16								26-4	449
		5J25-8	16								25-1	428
		5J24-4	16								23-9	406
		5J23	16								22-5	384
		5J21-9	16								21-2	363
		5J20-6	16								19-11	342
		5J19-2	16								18-7	320
		5J17-11	16								17-4	299
		5J16-8	16								16-1	278
		5J15-5	16								14-10	257
		5J14-1	16								13-6	235
		5J12-10	16								12-3	214
		5J11-6	16								10-11	192
		5J10-3	16								9-8	171
		5J9-3	16								8-8	154
		5J8-5	16								7-10	141
		5J7-8	16								7-1	128
		5J6-11	16								6-4	116
		5J6-3	16								5-8	104
		5J5-7	16								5-0	93
		5J4-3	16								3-8	71
		5J10-11	8								10-4	91
		5B33	959								31-10	33,008
		5D39-2	319	2-9 1/2	1-0 1/4	30-3	1-0 1/2	0-2 1/2	2-9 1/2		36-3	13,033
		5A31-4	15									490
		5A31	15									485
		5A30-6	153									4867
		5A30-2	153									4815
		5A30-4	504									15,944
		5A23-8	48									1185
		5A4-7	100									478
		5A2-10	24									71
		5L3-4	32	1-8	1-8							111
		4A4-8	24									75
		4A2-8	16									29
		4A2-5	8									13
		46X11-8	82	See bar bending detail								639
		467-6	250	0-3	3-0 1/2							1253
		4L2-2	304	1-1	1-1							441
		7A21-6	32									1426
		7A19-9	32									1292
												97,052

PROJECT: PAGE OF												
ITEM:	LOCATION	BAR MARK	NO. REQD	BENDING DIMENSIONS - FEET & INCHES								WEIGHT
				a	b	c	d	e	f	g	h	
	54 PRECAST GIRDERS (30 REQD) (Reinf furnished by Girder Supplier)											
		5A30-4	108									3415
		5A29-10	36									1120
		5A29-6	36									1108
		5A29-4	36									1101
		5A29-3	108									3384
		5A29	36									1089
		5F5-5	1710	0-9 1/2	0-8 1/2	1-0						8536
		4F14-1	420	4-2 1/2	1-10 1/2	2-1						3950
		4UG-11	960	1-4 1/2	4-2 1/2							4540
		4UX6-5	3252	See bar bending detail								13,751
		3A3-9	240									338
		3A2	120									90
		3A1	480									181
		3A0-11	120									42
		3A0-5	120									19
												Total
												42,565

PROJECT: PAGE OF												
ITEM:	LOCATION	BAR MARK	NO. REQD	BENDING DIMENSIONS - FEET & INCHES								WEIGHT
				a	b	c	d	e	f	g	h	

ITEM: BENDING DIAGRAMS

NO. REQD

3

MODEL AND REVISION NO.

140-55-8-1254

PHYSICAL FEET

79

SHEET NO.

79

TOTAL SHEETS

80

Bending diagrams shown with symbols for variable dimensions are standard types of bars. Some types shown may not be billed in the attached lists. All bars "Mark A" are straight.

B BAR

C BAR

D BAR

E BAR

F BAR

G BAR

H BAR

J BAR

K BAR

L BAR

M BAR

N BAR

P BAR

R BAR

T BAR

U BAR

45X11-8 BAR

STANDARD HOOK DETAIL

Use 5d pins for all other bars as indicated

4UX6-4 BAR

Notes:

1. The figures to the left of the letter, or letters, represents the bar size number -- 4-1/2", 5-3/8", 6-3/8", etc.

2. The letter represents the type of bar - A, H, J, etc. Special type bars are designated by letters "XA", etc. Bars of same type and same length, but different bends are marked La, Lb, Ka, Kb, etc.

3. The figures to the right of the letter, or letters, represent the length in feet and inches, 10-3, 12-6, etc. Thus a bar, Mark GE21-3, represents a No. G bar, type E, 21'-3" long. For bar lengths in even feet, the dash and zero (- and 0) are omitted.

4. Dimensions are out-out.

MID-SOUTH ENGINEERING CO., INC.

620 BROADWAY, N.E. KNOXVILLE, TENNESSEE

BRIDGE OVER CANEY FORK RIVER-RIVER MILE 15.6

STA. 331+93 RIGHT LANE (EAST BOUND)(2A)

REINFORCING STEEL

SCHEDULE NO. 2

STATE OF TENNESSEE

DEPARTMENT OF HIGHWAYS

AND PUBLIC WORKS

NASHVILLE

DR. W.L.E.

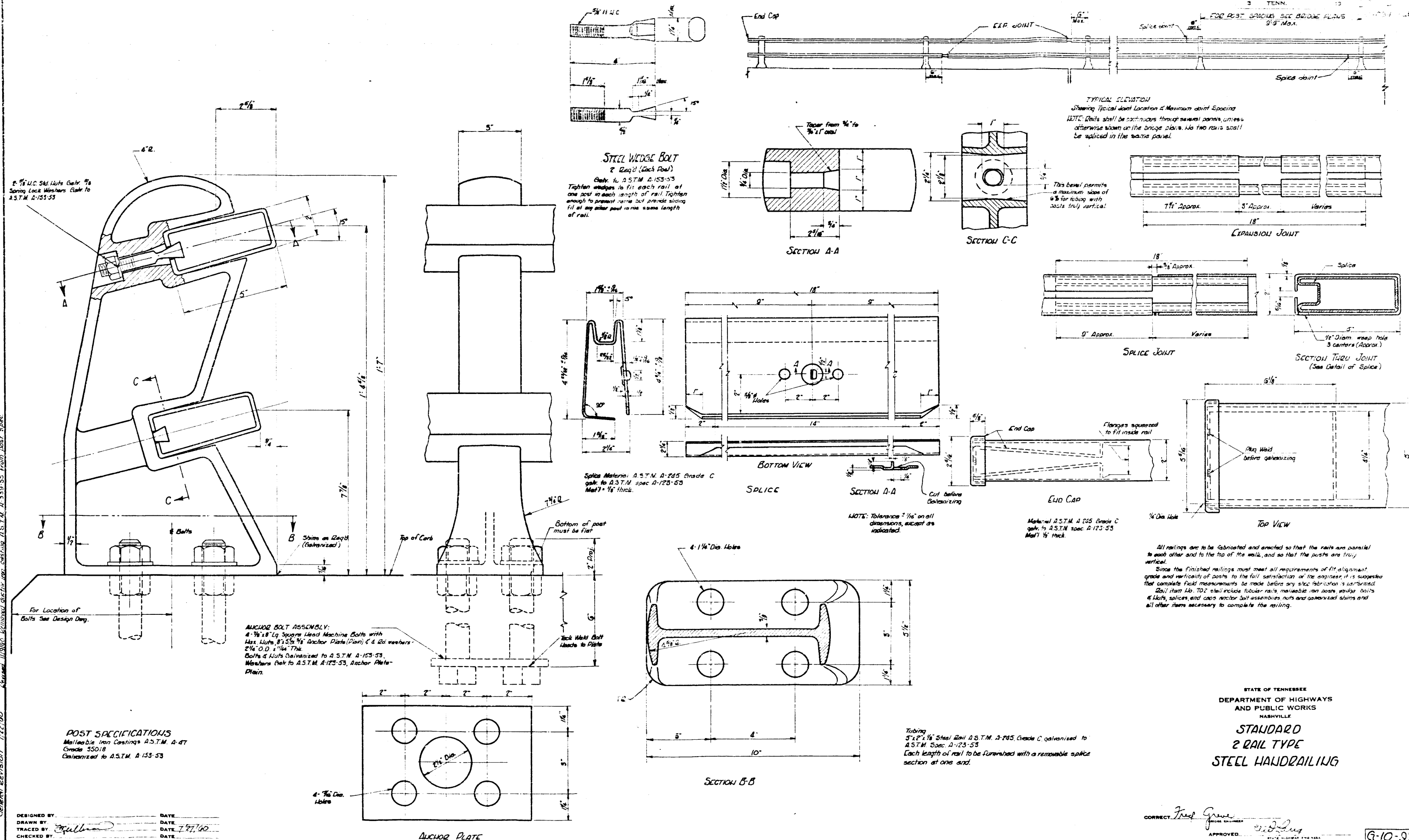
CHK'D E.A.H.

APP'D W.B.

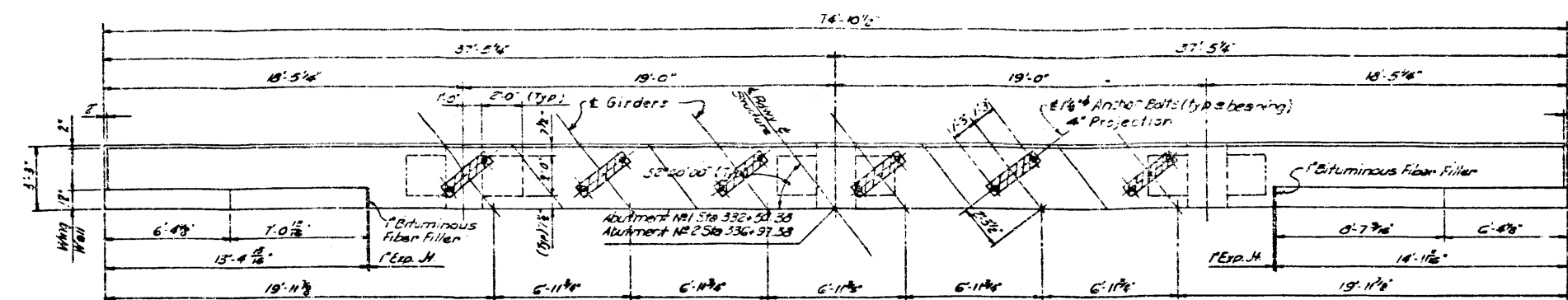
DATE

11-16-59

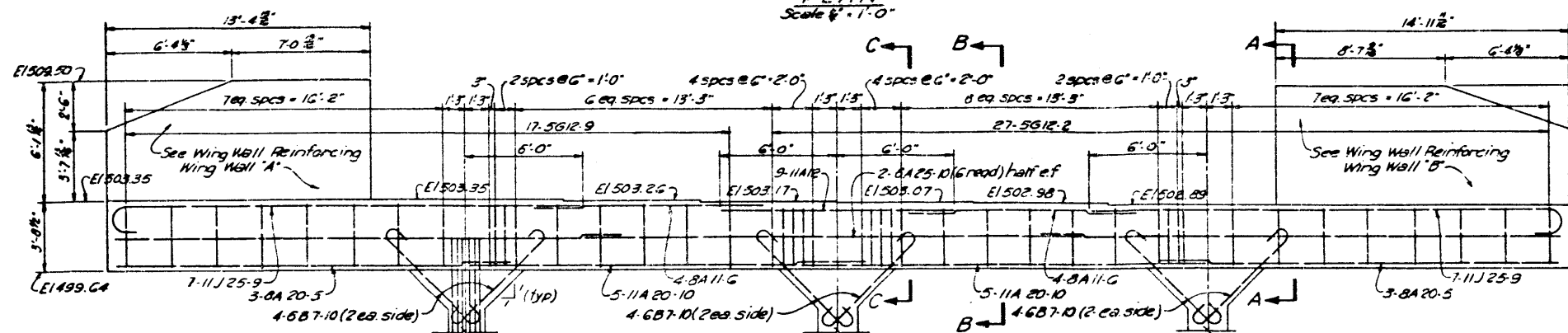
G-15-64



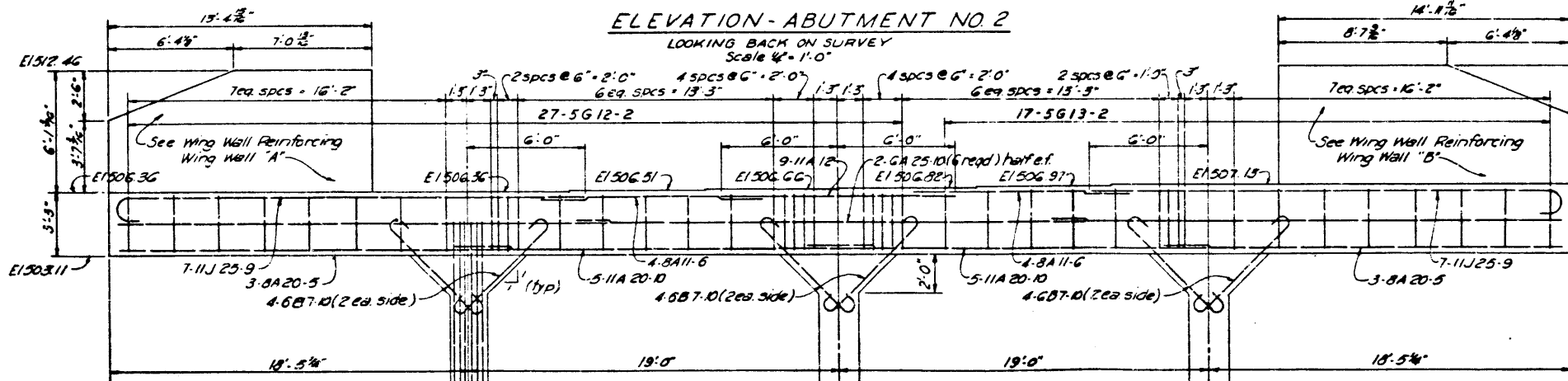
REL. ROAD DIST. NO.	T	REVISED TO	DATE	BY
3	E	2-45-89	31	AW



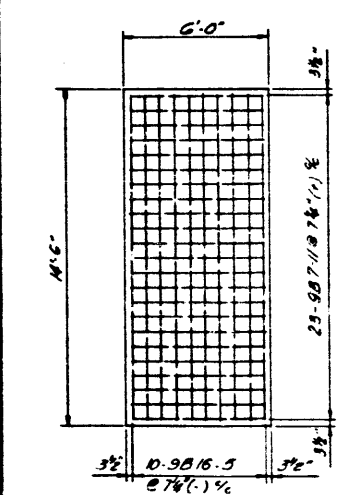
PLAN
Scale 1/4" = 1'-0"



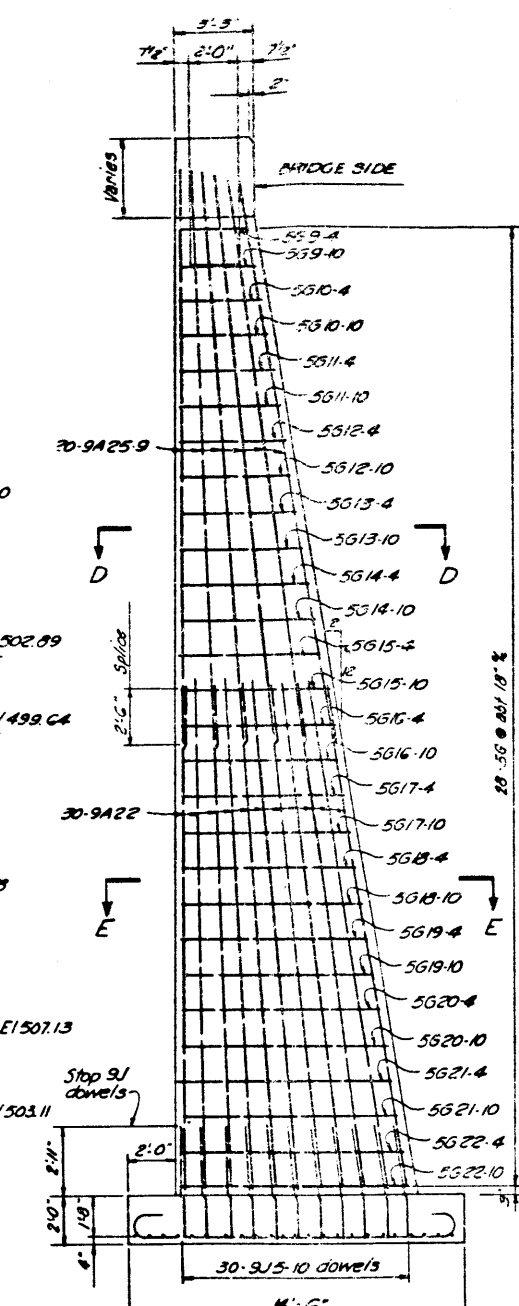
ELEVATION - ABUTMENT NO. 2
LOOKING BACK ON SURVEY
Scale 1/4" = 1'-0"



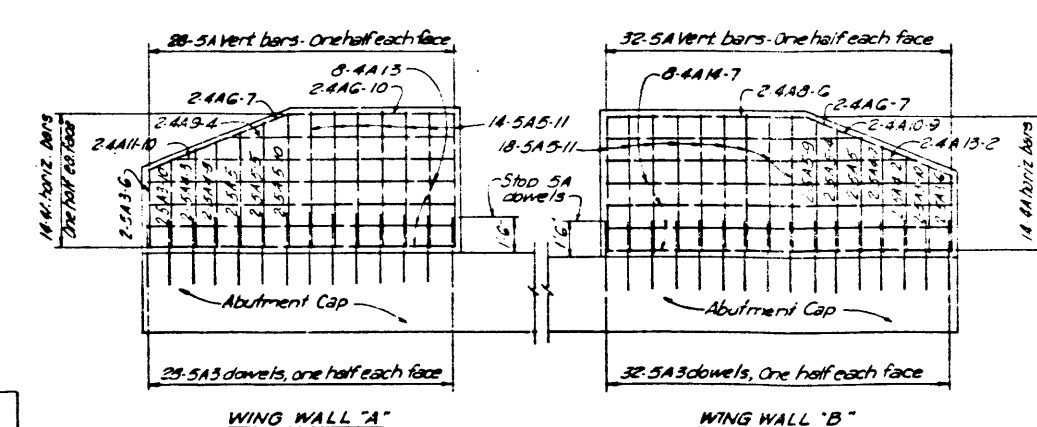
ELEVATION - ABUTMENT NO. 1
LOOKING FORWARD ON SURVEY
Scale 1/4" = 1'-0"



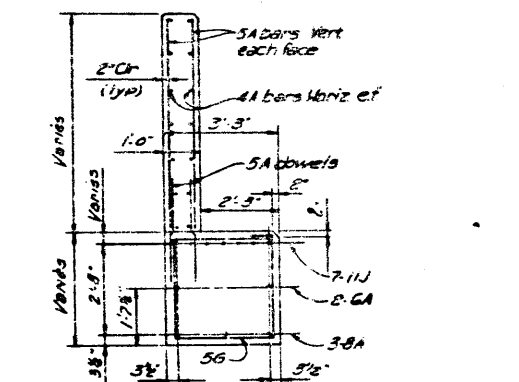
FOOTING
REINFORCING PLAN
Scale 1/4" = 1'-0"



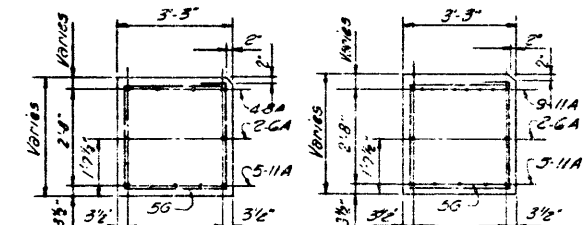
SIDE ELEVATION - COLUMNS
Scale 1/4" = 1'-0"



WING WALL REINFORCING
Scale 1/4" = 1'-0"

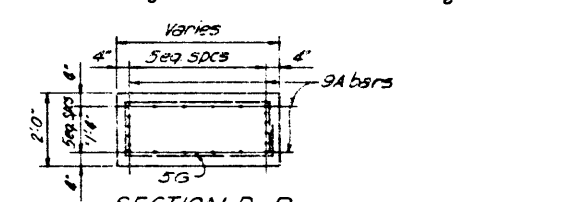


SECTION A-A
Scale 1/4" = 1'-0"

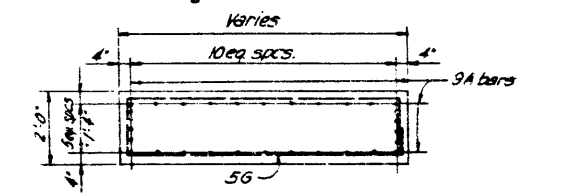


SECTION B-B
Scale 1/4" = 1'-0"

SECTION C-C
Scale 1/4" = 1'-0"



SECTION D-D
Scale 1/4" = 1'-0"



SECTION E-E
Scale 1/4" = 1'-0"

ESTIMATED QUANTITIES

	Abutment No. 1	Abutment No. 2
Class 'A' Concrete cu yds.	124.5	119.6
Reinforcing Steel lbs.	24,560	24,552

Scale as noted

MID-SOUTH ENGINEERING CO., INC.
200 BROADWAY, N.E. KNOXVILLE, TENNESSEE

BRIDGE OVER CANEY FORK RIVER - RIVER MILE 10.6
STA 332+41 - LEFT LANE (WEST BOUND) (2B)

ABUTMENTS NOS 1 AND 2

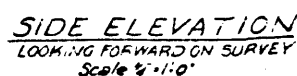
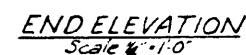
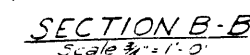
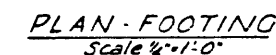
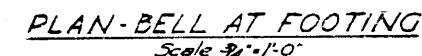
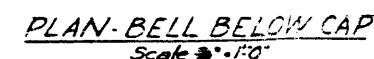
STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
AND PUBLIC WORKS
NASHVILLE

DR. R.W.P. DATE 11-16-59
CHD. C.A.H.
APPD. H.R.

G-15-67

ESTIMATED QUANTITIES

PLAN - CAP
Scale 1/4" = 1'-0"



Note: Placing designation as follows:
e.f. - each face
e.w. - each way



Scale as noted

MID-SOUTH ENGINEERING CO., INC.
120 BROADWAY N. E. KNOXVILLE TENNESSEE

BRIDGE OVER CANEY FORK RIVER-RIVERMILE 16.6

PIERS NOS 1, 2 AND 3

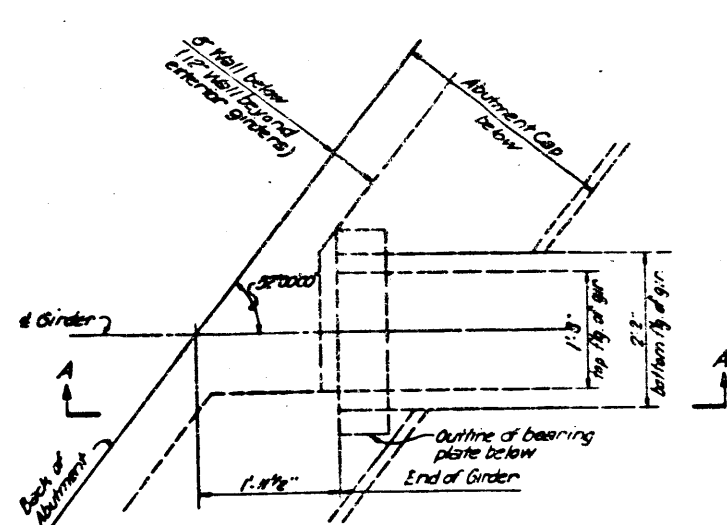
STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
AND PUBLIC WORKS
NASHVILLE

DR. R.W.P.
CHICAGO, ILL.
APR 1962

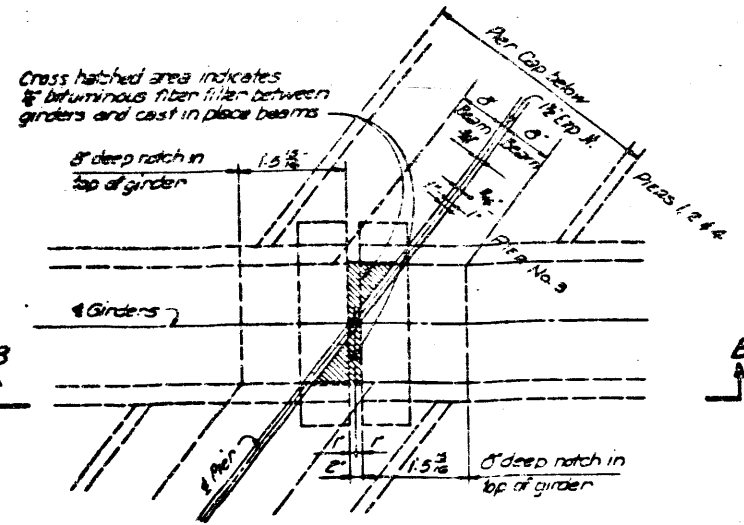
DATE	11-16-53
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G-15-68

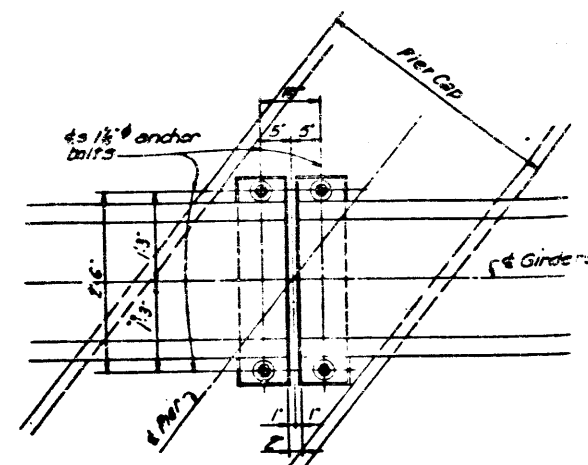
RD. ROAD DIST. NO.	T E N N	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3		1-40-3(9)264		04	27



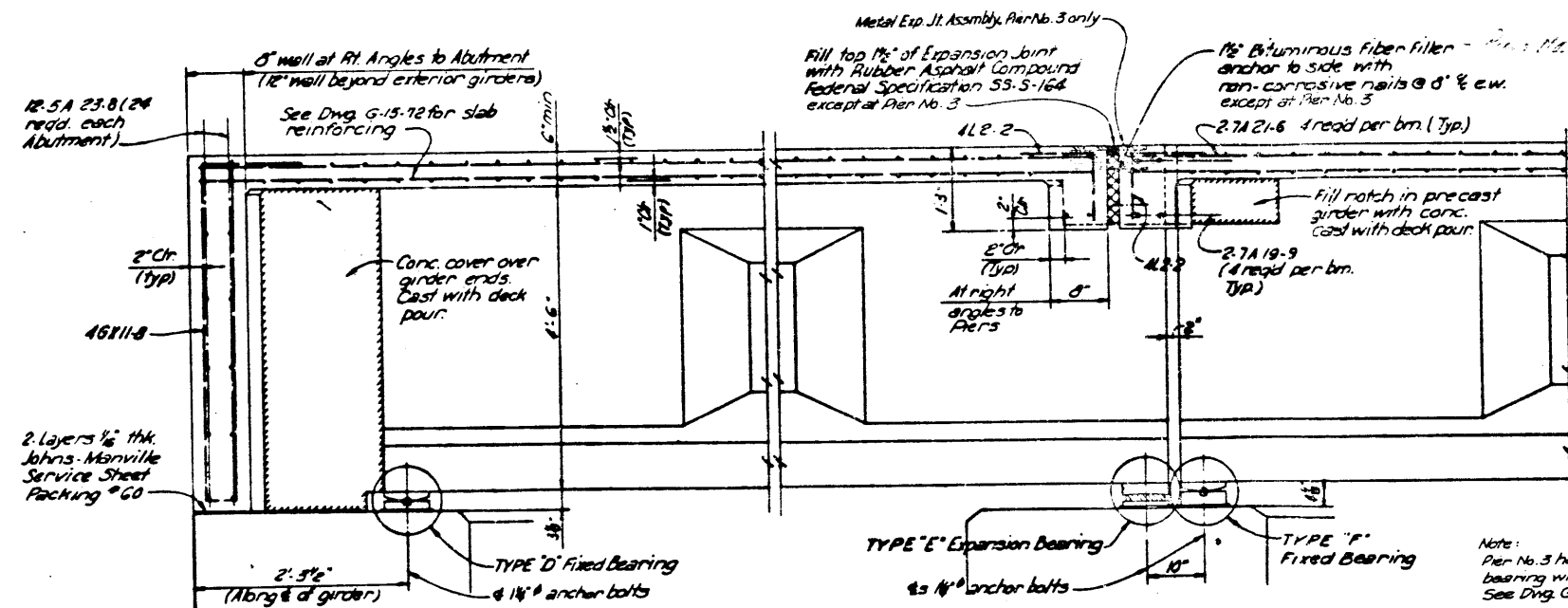
**PLAN-SLAB ABOVE GIRDERS
BEARING ON ABUTMENT**



**PLAN-SLAB ABOVE GIRDERS
BEARING ON PIERS**

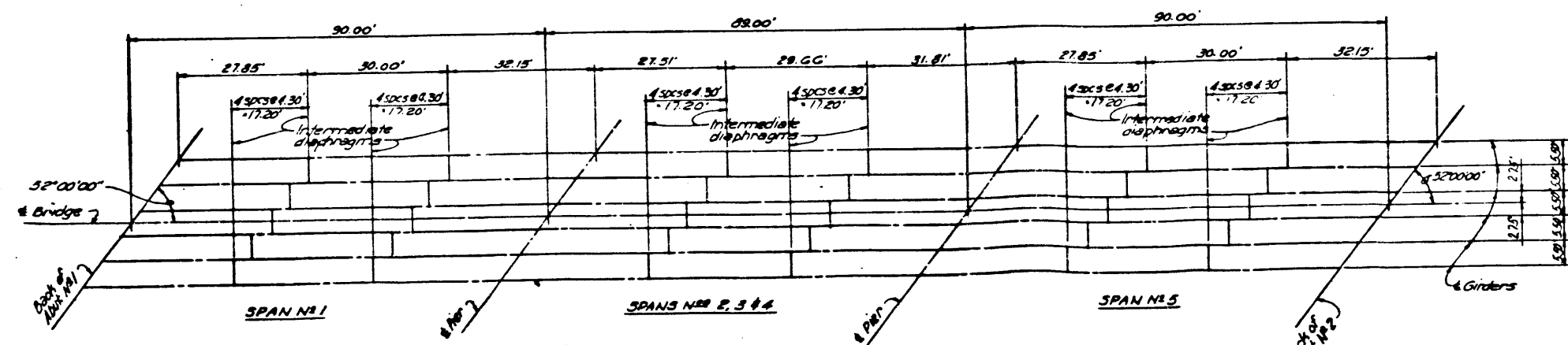


**PLAN- GIRDER BEARING
ON PIER**



SECTION A-A

SECTION B-B



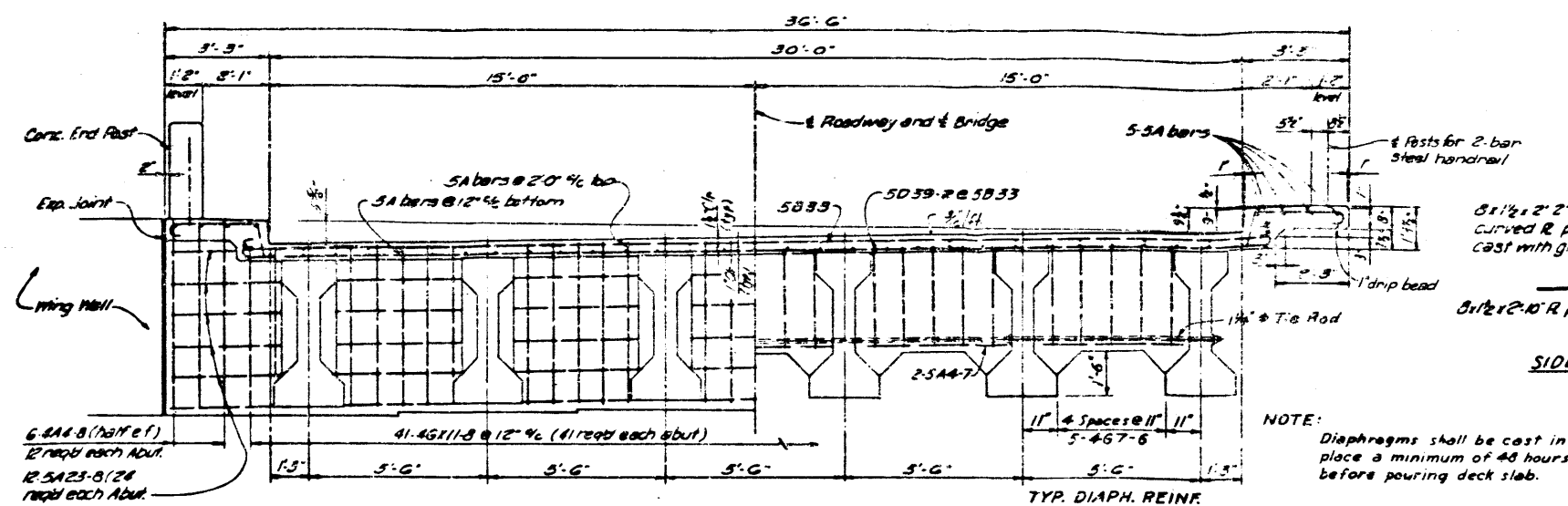
PART PLAN- GIRDER AND DIAPHRAGM LAYOUT
Scale 1/8" = 1'-0"

Scale: 1/8" = 1'-0" Unless otherwise noted

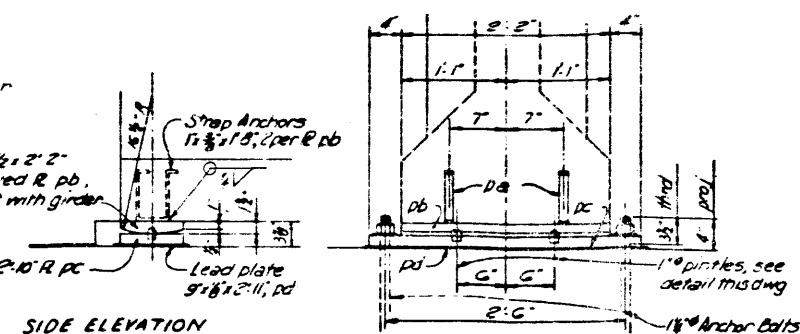
MID-SOUTH ENGINEERING CO., INC. 820 BROADWAY, N. E. KNOXVILLE, TENNESSEE	
BRIDGE OVER CANEY FORK RIVER - RIVER MILE 10+6 STA 532+41 - LEFT LANE (WEST BOUND) (2B)	
SLAB AND GIRDER DETAILS	
STATE OF TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS NASHVILLE	
DR. R.W.P. CHD. P.A.H. APPD. W.E.	DATE 11-16-59 G-15-70

REV. 4-18-60

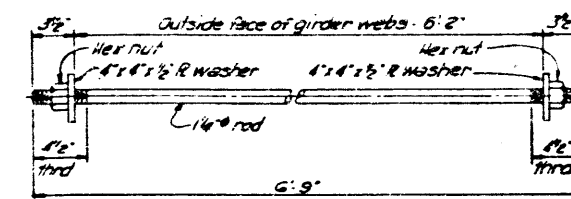
F.O. ROAD DIST No	T E N	FEDERAL AID PROJECT No	FISCAL YEAR	SHEET No	TOTAL SHEET
3	N	I-40-51 9 1264		25	27



HALF SECTION @ ABUTMENTS
Scale 1/4" = 1'-0"



END ELEVATION

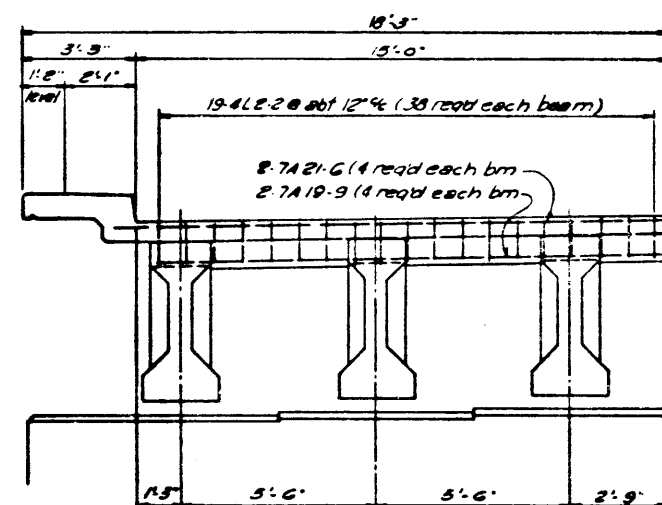


DETAIL OF TIE RODS AT DIAPHRAGMS
Scale 1/2" = 1'-0"

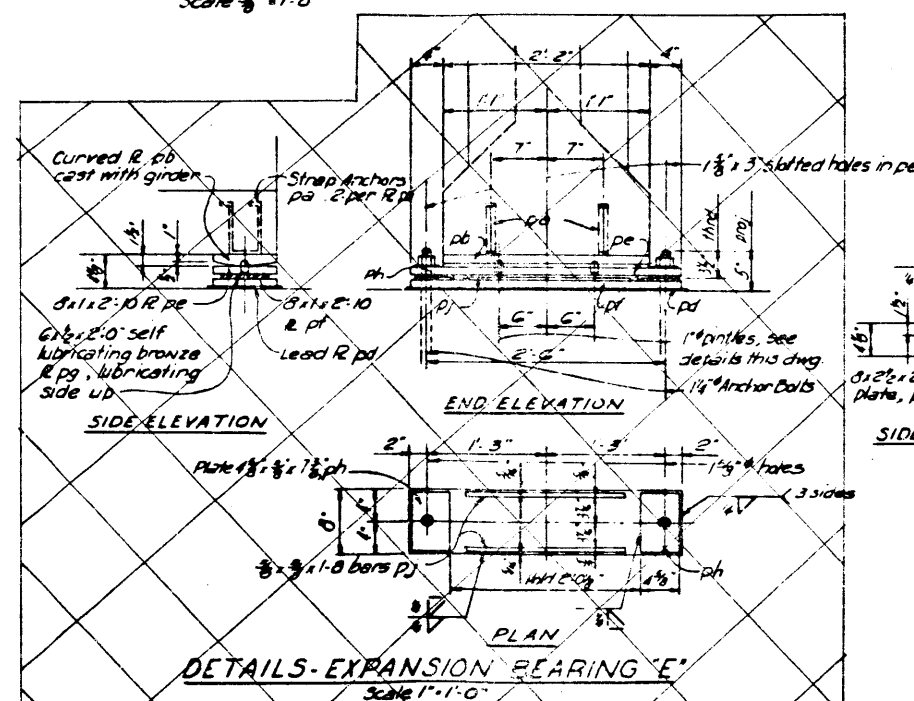


PLAN

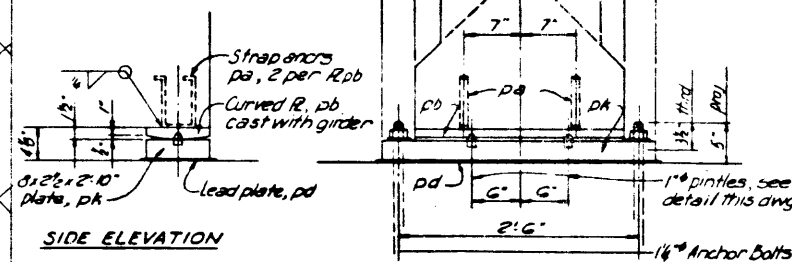
DETAILS-FIXED BEARING "D"
Scale 1" = 1'-0"



HALF SECTION @ PIERS
Showing slab reinforcing omitted
Scale $\frac{1}{2}'' = 1'-0''$

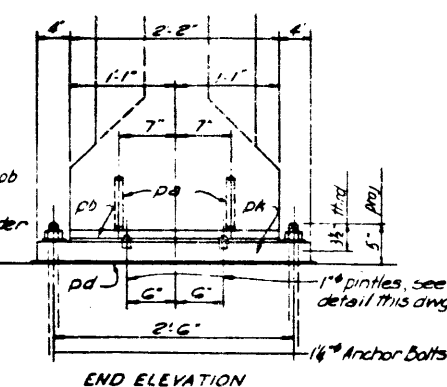


DETAILS-EXPANSION BEARING
Scale 1"=1'-0"

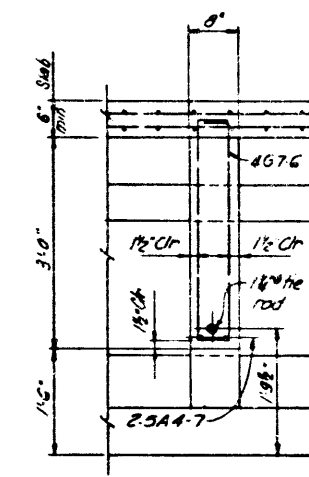


PLAN: Similar to Fixed Bearing "D"

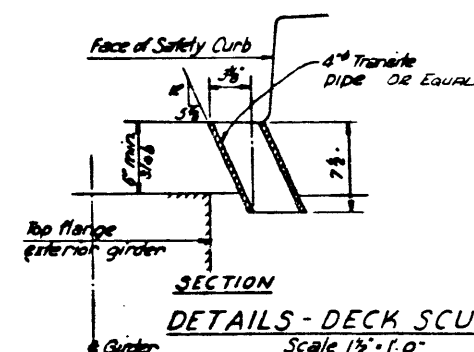
DETAILS - FIXED BEARING "F"
Scale 1" = 1'-0"



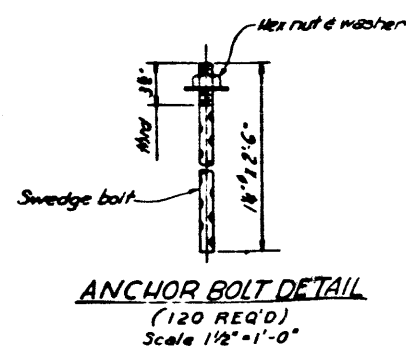
END ELEVATION



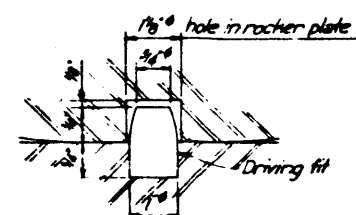
SECTION THRU INTERMEDIATE
DIAPHRAGMS
Scale 1/4" = 1'-0"



SECTION
DETAILS - DECK SCUPPER
Scale 1 1/2" = 1'-0"



ANCHOR BOLT DETAIL
(120 REQ'D)
Scale 1 1/2" = 1'-0"



PINTLE DETAIL
Scale: One half size

"VOID"
See Dwg. G-15-59 for Exp. Brings "B" & "E"

Scale as noted

MID-SOUTH ENGINEERING CO., INC.
620 BROADWAY, N. E. KNOXVILLE, TENNESSEE

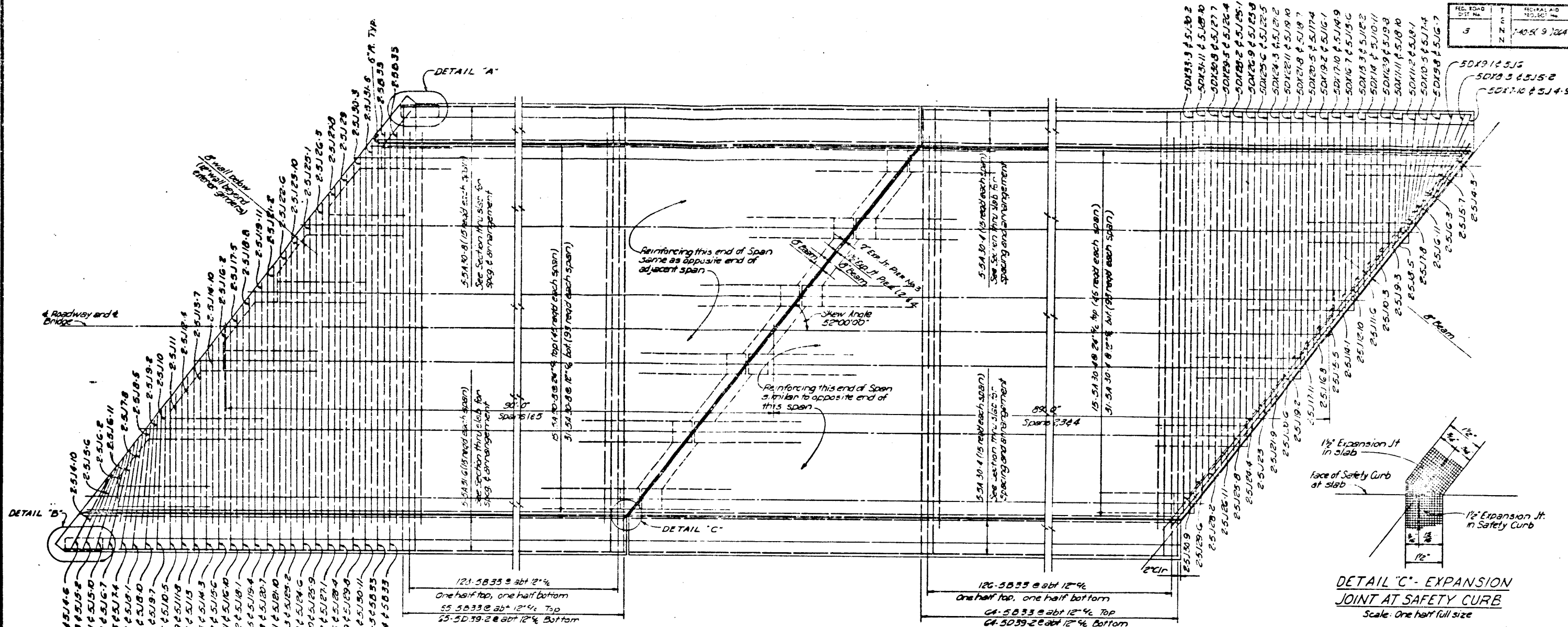
BRIDGE OVER CANEY FORK RIVER-RIVER MILE 16.6
STA 532+41- LEFT LANE(WEST BOUND)(2B)

SUPERSTRUCTURE AND
GIRDER BEARING DETAILS

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
AND PUBLIC WORKS
NASHVILLE

DR. <u>RWP</u>	DATE <u>11-16-59</u>	G-15-71
CHD <u>RAH</u>		
AND <u>WP</u>		

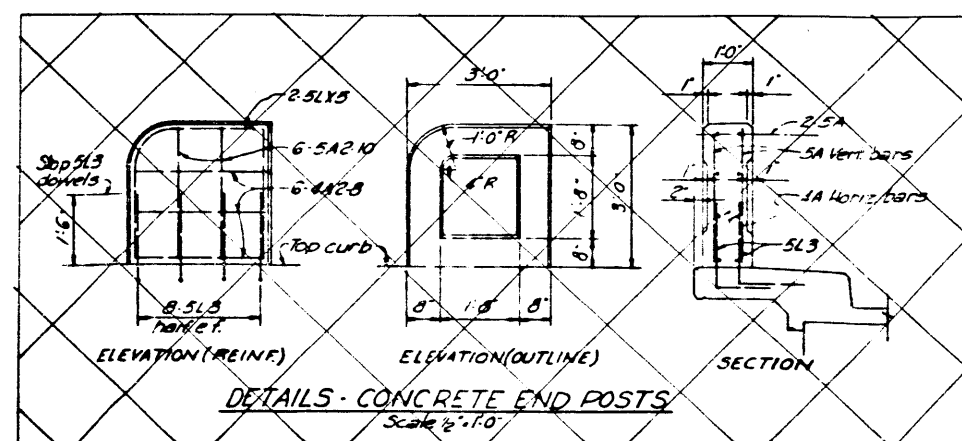
REV. NO.	DATE	BY	CHKD.	APPD.	REASON
1	11-16-59	DR. R.W.P.	CHD. R.A.H.	APPD. N.E.	



SPANS NOS 1 & 5
Span No 1 as shown - Span No 5 Opposite

PART PLAN - SLAB REINFORCING
Scale 1/4" = 1'-0"

SPANS NOS 2, 3 & 4
As shown



DETAILS - CONCRETE END POSTS
Scale 1/2" = 1'-0"

ESTIMATED QUANTITIES

Class 'A' Concrete	Cu Yds.	400.2
Reinforcing Steel	Lbs.	95,443

Includes end walls, beams at expansion joints, girder end coverage, diaphragms, and concrete end posts.

Scale as noted

MID-SOUTH ENGINEERING CO., INC.
220 BROADWAY, N. E. KNOXVILLE, TENNESSEE

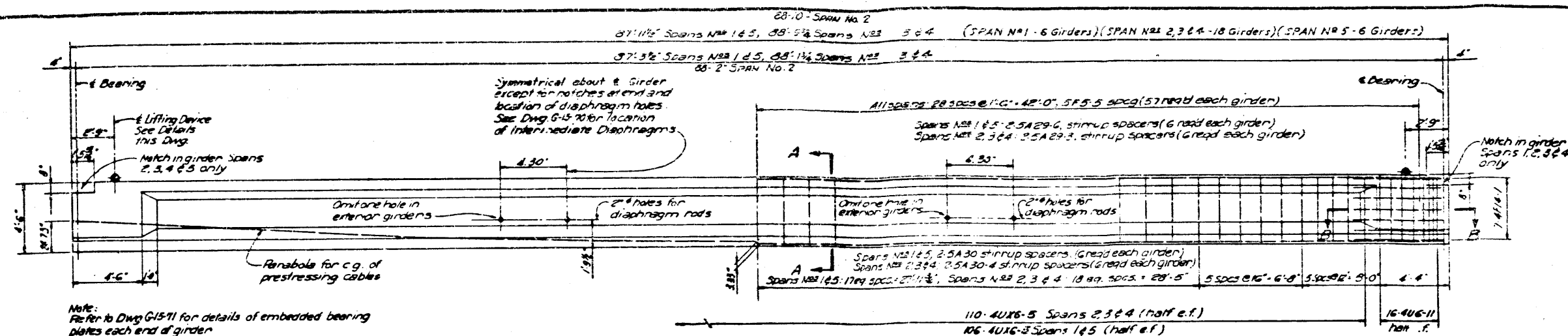
BRIDGE OVER CANEY FORK RIVER - RIVER MILE 16.6
STA 352+41 - LEFT LANE (WEST BOUND) (2D)

SLAB REINFORCING PLAN AND DETAILS

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
AND PUBLIC WORKS
NASHVILLE

DR. R.W.P. DATE 11-16-59
CHD. R.A.H.
APPD. N.E. G-15-72

RD. ROAD DIST. No.	T E N	FEDERAL AID PROJECT No.	SSA YEAR	SHEET No.	TOTAL SHEETS
3	N	1-40-5(9)264		87	300



ELEVATION - GIRDERS (TYPE IV AASHO "I")

Approx. wt ea girder, Spans Nos 1 & 5 = 38 Tons
Approx. wt ea girder, Spans Nos 2, 3 & 4 = 35 Tons
Scale 1/4" = 1'-0"

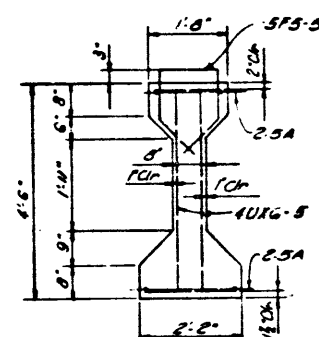
ESTIMATED QUANTITIES

5000 psi Concrete	Cu Yds	562.8
Hi. Tensile Reinf. Steel	Lbs	59,773
Reinforcing Steel	Lb	42,758
Structural Steel	Lbs	22,101

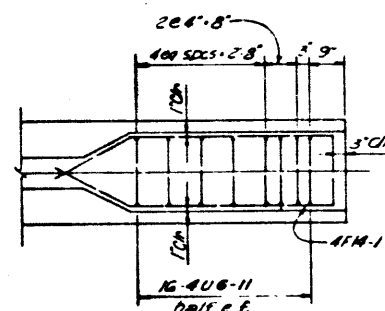
* Includes Brg Rs, Tie Rods & Lifting Devices

GENERAL GIRDER NOTES:

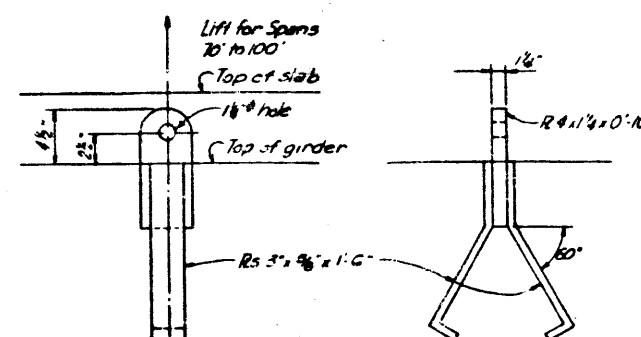
1. Type unit - 18 x 0.196 (18-0.196" diameter high tension wires anchored in each unit 10 units required each girder).
2. The initial prestressing force shall be 962,500 lbs. (96,250 lbs each unit). This is based on assumed losses of 20% due to creep, shrinkage, elastic deformation and cable friction losses. An amount sufficient to allow for the anchorage losses as determined by test shall be added to the initial prestressing force.
3. The final prestressing force shall be 770,000 lbs. (77,000 lbs each unit) at the E of span.
4. Details are for the parallel wire system.
5. The following information shall be submitted to the Engineer for approval: The proposed type of tendons which will be used in post tensioning the sections, all necessary additional details, including those for anchorage, methods to be employed, procedures to be followed and the total relaxed post-tension force for each girder including allowances for all losses.
6. The tops of all girders shall be artificially roughened to insure bond with the concrete slab.
7. Allow 25 1/2 sq ft dead load for future wearing surface.



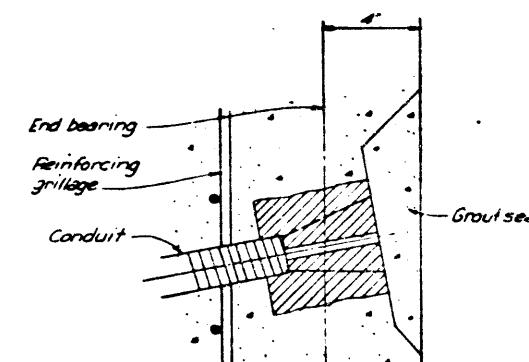
SECTION A-A
Scale 1/2" = 1'-0"



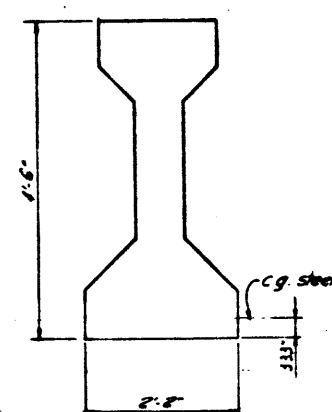
SECTION B-B
Scale 1/2" = 1'-0"



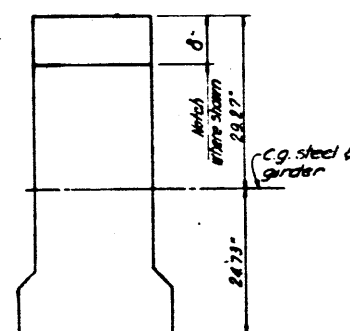
DETAIL - SUGGESTED LIFTING DEVICE
Scale 1 1/2" = 1'-0"



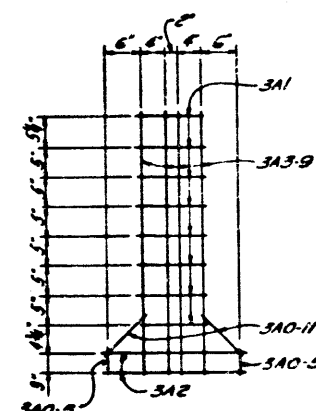
TYP. SECTION - END ANCHORAGE
Scale 5" = 1'-0"



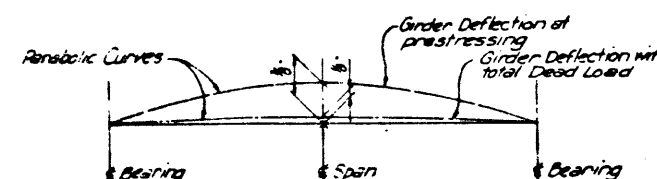
SECTION C-C OF GIRDERS



ELEVATION @ END OF GIRDERS



DETAIL - REINFORCING GRILLAGE
ONE REQD. EA. END OF GIRDERS



DEFLECTION DIAGRAM
Not to scale

DETAILS - PRESTRESSING STEEL LAYOUT
Scale 3/4" = 1'-0"

Scale as noted

MID-SOUTH ENGINEERING CO., INC. 820 BROADWAY, N.E. KNOXVILLE, TENNESSEE	
BRIDGE OVER CANEY FORK RIVER - RIVER MILE 10.6 STA 532+41 - LEFT LANE (WEST BOUND) (2B)	
PRESTRESSED GIRDER DETAILS	
STATE OF TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS NASHVILLE	
DR. R.W.F. CHD. E.A.H. APP. W.E.	DATE 11-16-59 G-15-73

