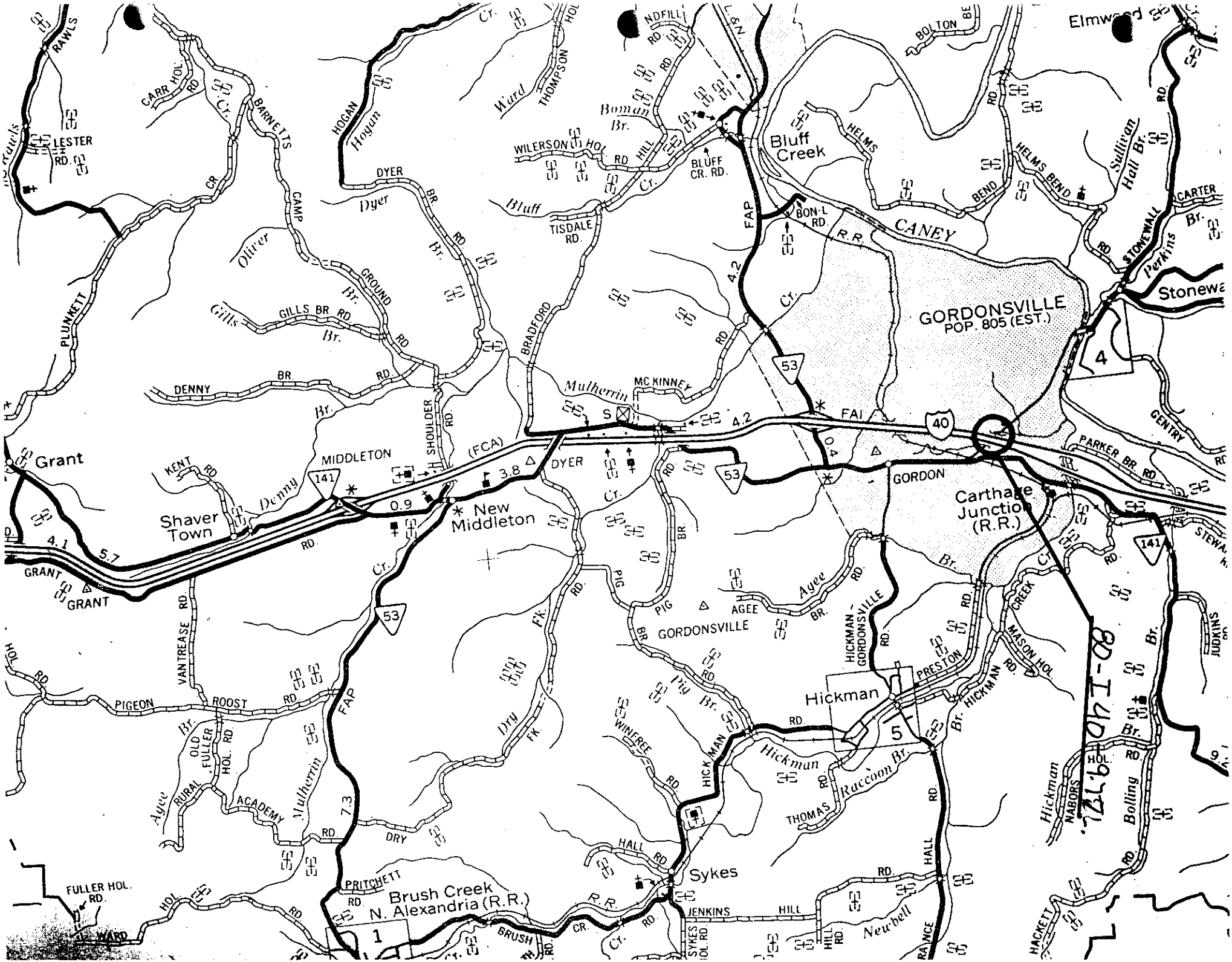

GORDONSVILLE
POP. 805 (EST.)
Bluff Creek
CANEY
Shaver Town
New Middleton
Carthage Junction (R.R.)
Hickman
Sykes
Brush Creek
N. Alexandria (R.R.)
Grant
Gordonsville
Dyer
Middleton
Mulherrin
McKinney
Bon-L Rd.
Bluff Cr. Rd.
Tisdale Rd.
Wilerson Hol. Rd.
Gills Br. Rd.
Denny Br. Rd.
Kent Rd.
Shoulder Rd.
Bradford Rd.
Vantrease Rd.
Pigeon Roost Rd.
Old Fuller Hol. Rd.
Academy Rd.
Pritchett Rd.
Fuller Hol. Rd.
Ward Hol. Rd.
Winfree Rd.
Hall Rd.
Jenkins Hill Rd.
Neurbell Rd.
Hickman-Gordonsville Rd.
Preston Rd.
Mason Hol. Rd.
Hickman Nabors Rd.
Bolling Rd.
Hackett Rd.
Parker Br. Rd.
Gentry Rd.
Stonewall Carter Br. Rd.
Helms Bend Rd.
Bolton Bend Rd.
Sullivan Hall Br.
Perkins Br.
Stewart Creek
Judkins Br.
Raccoon Br.
Thomas Br.
Agee Br.
Pig Br.
Dry Fk.
Denny Br.
Bradford Br.
Ground Br.
Camp Br.
Hogan Br.
Ward Br.
Thompson Br.
Boman Br.
Plunkett Rd.
Carr Hol. Rd.
Barnetts Br.
Lester Rd.
Rawls Rd.
Ndfill Rd.
L&N R.R.
Caney R.R.
Brush Cr. Rd.
Sykes Hol. Rd.
Hill Rd.
Rayance Rd.
Agee Rural Academy
Mulherrin Academy
Pig Fk. Rd.
Dyer Br. Rd.
Shoulder Rd. (FCA)
FAP
FAI
4.2
3.8
0.9
4.1
5.7
7.3
0.4
53
40
141
1
4
5
Elmwood

Bridge Maintenance Recommendations

Bridge Location No.: 80 - I0040 - 9.77 L
Co. Route Log Mile

Crossing: DRAINAGE CANAL & SR 264 *

Bridge Rating: GOOD

Inspection Cycle: 15

Inspection Date: 4/22/2003

Comments: *

Bridge Number: 80I00400020
County: Smith
Region: 03
District: 32
Maint.Resp.: 01
Spec.Case: 0
Co.Seq: 01

Maintenance Recommendations:

Maintenance Completed By / Date

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**

Bridge Maintenance Recommendations

Bridge Location No.: 80 - I0040 - 9.77 L
Co. Route Log Mile

Crossing: DRAINAGE CANAL & SR 264 *

Bridge Rating: GOOD

Inspection Cycle: 15

Inspection Date: 6/11/01

Comments: *

Bridge Number: 80100400020
County: Smith
Region: 03
District: 32
Maint.Resp.: 01
Spec.Case: 0
Co.Seq: 01

Maintenance Recommendations:

Maintenance Completed By / Date

REPAIR ASPHALT CONCRETE AT JOINTS

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

County:	80
Route:	I0040
Special Case:	0
County Sequence:	01
Log Mile:	9.77

Bridge Number: (Includes Item 5A) 80I004000201

Feature Intersected: DRAINAGE CANAL & SR 264

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	06/11/2001 4/22/03
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
36	TRAFFIC SAFETY FEATURES	Br. Rail / Trans. / Appr. Rail / Appr. Rail Ends
		1 / 1 / 1 / 1
		___ / ___ / ___ / ___
41	STRC OPEN/CLOSED/POSTED (A K P)	A
58	DECK	7
59	SUPERSTRUCTURE	8
60	SUBSTRUCTURE	8
61	CHANL/CHANL PROTECTION	N
62	CULVERT AND RETAIN WALL	N
71	WATERWAY ADEQUACY	N
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	8
521	OVERALL CONDITION (Circle One)	GOOD FAIR POOR CRITICAL

Martin Daniel — TEAM LEADER SIGNATURE

4/22/03 — REVIEW DATE

CONDITION CODING GUIDELINES
(Values for Coding Items 58, 59, 60 and 62)

- N NOT APPLICABLE
- 9 EXCELLENT CONDITION
- 8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
- 7 GOOD CONDITION - SOME MINOR PROBLEMS.
- 6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
- 5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
- 4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
- 3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOURSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
- 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.
- 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.
- 0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

Revised 06/15/2000

County:	80
Route:	SR264
Special Case:	0
County Sequence:	01
Log Mile:	5.59

Bridge Number: (Includes Item 5A) 80I004000202

Feature Intersected: I40 / SR 264 STONEWALL R

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	06/11/2001 4 / 22 / 03
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	14 FT. 7 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	14 FT. 7 IN. ____ FT. ____ IN.
47	TOTAL HORIZONTAL UNDERCLEARANCE	53 FT. 9 IN. ____ FT. ____ IN.
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS) Circle One: H R	14 FT. 7 IN.
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE Circle One: H R	7 FT. 0 IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	0 FT. 0 IN.

UNDERPASS SAFETY FEATURES

515 (A) TYPE UNDERPASS BARRIER
None Exists but Needed

Revised Barrier Type

(B) ADEQUACY OF BARRIER OR RAIL 0

(C) ADEQUACY OF TRANSITIONS 0

(D) ADEQUACY OF TERMINALS 0

554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING
99 FT. 99 IN.
____ FT. ____ IN.

521 OVERALL CONDITION (Circle One)
(GOOD) FAIR POOR CRITICAL

HEIGHT POSTED AT BOTH APPROACHES? YES [ ] NO [ ] N/A [ ]

555 COMMENTS _____

Martin Daniel
TEAM LEADER SIGNATURE

4/22/03
REVIEW DATE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 06/15/2000

County:	80
Route:	I0040
Special Case:	0
County Sequence:	01
Log Mile:	9.77

Bridge Number: (Includes Item 5A) 80I004000201

Feature Intersected: DRAINAGE CANAL & SR 264

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	06/11/1999 6/11/01
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
36	TRAFFIC SAFETY FEATURES Br. Rail / Trans. / Appr. Rail / Appr. Rail Ends	1 / 1 / 1 / 1 ___ / ___ / ___ / ___
41	STRC OPEN/CLOSED/POSTED A K P	A ___
58	DECK	7 ___
59	SUPERSTRUCTURE	8 ___
60	SUBSTRUCTURE	8 ___
61	CHANL/CHANL PROTECTION	N ___
62	CULVERT AND RETAIN WALL	N ___
71	WATERWAY ADEQUACY	N ___
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	8 ___
521	OVERALL CONDITION (Circle One)	GOOD FAIR POOR CRITICAL

Martin Daniel — TEAM LEADER SIGNATURE

6/11/01 — REVIEW DATE

CONDITION CODING GUIDELINES
(Values for Coding Items 58, 59, 60 and 62)

- N NOT APPLICABLE
- 9 EXCELLENT CONDITION
- 8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
- 7 GOOD CONDITION - SOME MINOR PROBLEMS.
- 6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
- 5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
- 4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
- 3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOURSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
- 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.
- 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.
- 0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

Revised 06/15/2000

County:	80
Route:	SR264
Special Case:	0
County Sequence:	01
Log Mile:	5.59

Bridge Number: (Includes Item 5A) 80I004000202

Feature Intersected: I40 / SR 264 STONEWALL R

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	06/11/1999 6/11/01
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	14 FT. 7 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	14 FT. 7 IN. ____ FT. ____ IN.
47	TOTAL HORIZONTAL UNDERCLEARANCE	53 FT. 9 IN. ____ FT. ____ IN.
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS) Circle One: (H) R	14 FT. 7 IN.
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE Circle One: (H) R	7 FT. 0 IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	0 FT. 0 IN.

UNDERPASS SAFETY FEATURES

515 (A) TYPE UNDERPASS BARRIER
None Exists but Needed

Revised Barrier Type

(B) ADEQUACY OF BARRIER OR RAIL 0

(C) ADEQUACY OF TRANSITIONS 0

(D) ADEQUACY OF TERMINALS 0

554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING
99 FT. 99 IN.
____ FT. ____ IN.

521 OVERALL CONDITION (Circle One)
(GOOD) FAIR POOR CRITICAL

HEIGHT POSTED AT BOTH APPROACHES? YES [ ] NO [ ] N/A [✓]

555 COMMENTS

Martin Daniel
TEAM LEADER SIGNATURE

6/11/01
REVIEW DATE

Bridge Condition Coding Form

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

County:	80
Route:	10040
Special Case:	0
County Sequence:	1
Log Mile:	9.77

Bridge Number: (Includes Item 5A) 80I004000201

Feature Intersected: DRAINAGE CANAL & SR 264

CODE ONLY THOSE NUMBERS WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	5/1/97 6/11/99
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS)	H 14 FT. 7 IN. Circle One: H R N ____ FT. 8 IN.
36	TRAFFIC SAFETY FEATURES	Br. Rail: 1 / Trans.: 1 / Appr. Rail: 1 / Appr. Rail Ends: 1
41	STRC OPEN/CLOSED/POSTED (A K P)	A
58	DECK	7
59	SUPERSTRUCTURE	8
60	SUBSTRUCTURE	8
61	CHANL/CHANL PROTECTION	N
62	CULVERT AND RETAIN WALL	N
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	8

OVERALL CONDITION (Circle One)

(GOOD) FAIR POOR CRITICAL

Gilbert Wayne Hunter — SIGNATURE

6/11/99 — DATE

COMMENTS

RATINGS FOR CODING ITEMS 58, 59, 60 AND 62

N NOT APPLICABLE

9 EXCELLENT CONDITION

8 VERY GOOD CONDITION - NO PROBLEMS NOTED.

7 GOOD CONDITION - SOME MINOR PROBLEMS.

6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.

5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.

4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.

3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOURSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.

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.

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.

0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

County: 80
Route: SR264
Special Case: 0
County Sequence: 1
Log Mile: 5.59

Bridge Number: (Includes Item 5A) 80I004000202
Feature Intersected: I40 / SR 264 STONEWALL R

CODE ONLY THOSE NUMBERS WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	5/1/97
		06/11/99
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	14 FT. 7 IN.
		____ FT. 8 IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	14 FT. 7 IN.
		____ FT. 8 IN.
47	TOTAL HORIZONTAL UNDERCLEARANCE	53 FT. 9 IN.
		____ FT. 0 IN.
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE [H]	8 FT. 10 IN.
	Circle One: H R N	7 FT. 0 IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	0 FT. 0 IN.
		____ FT. ____ IN.

UNDERPASS SAFETY FEATURES

(A) TYPE UNDERPASS BARRIER: None Exists but Needed

Revised Barrier Type

(B) ADEQUACY OF BARRIER OR RAIL: 0

(C) ADEQUACY OF TRANSITIONS: 0

(D) ADEQUACY OF TERMINALS: 0

VERTICAL CLEARANCE LISTED ON HEIGHT POSTING SIGNS
99 FT. 99 IN.
____ FT. ____ IN.

OVERALL CONDITION (Circle One)
GOOD FAIR POOR CRITICAL

HEIGHT POSTED AT BOTH APPROACHES? YES [ ] NO [ ] N/A [X]

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.

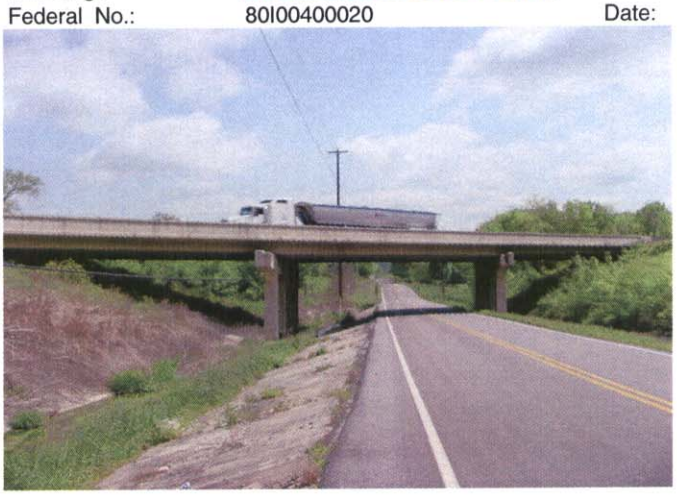
COMMENTS

SIGNATURE

6/11/99
DATE

Bridge No.: 80 — I0040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No.: 80I00400020 Date: April 22, 2003

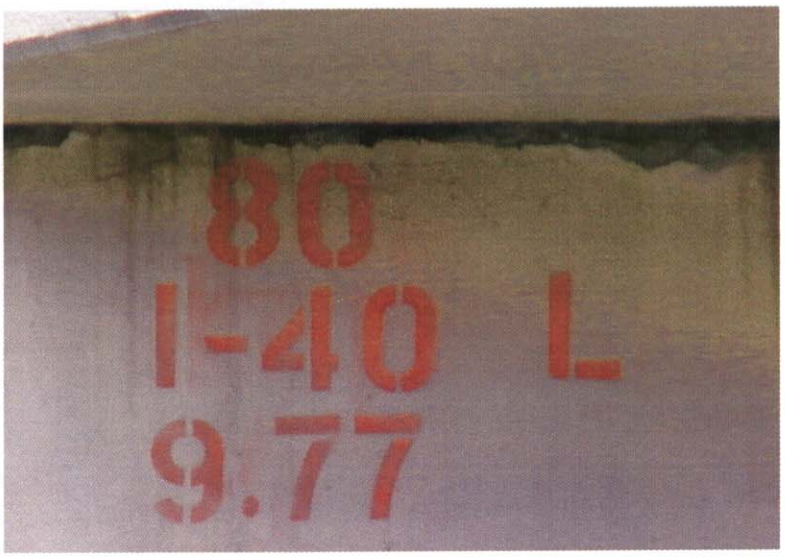
PIC1



RIGHT SIDE VIEW

Bridge No.: 80 — I0040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No 80I00400020 Date: April 22, 2003

PIC2



BRIDGE NO. AT ABUTMENT # 1

PIC3



CLEARENCE SIGN (14' 2") W/LEFT SIDE VIEW

Bridge No.: 80 — I0040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No.: 80I00400020 Date: April 22, 2003

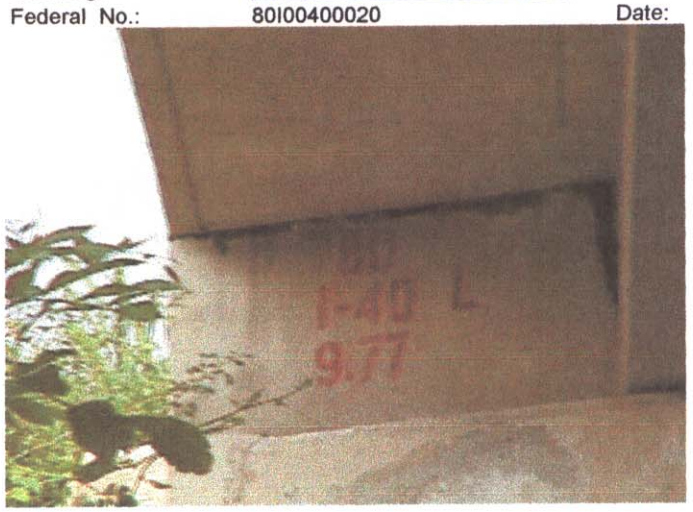
PIC4



VIEW ACROSS DECK FROM A-APPR

Bridge No.: 80 — 10040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No.: 80100400020 Date: June 11, 2001

PIC1



BRIDGE NO. AT ABUTMENT # 1

Bridge No.: 80 — I0040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No 80I00400020 Date: June 11, 2001

PIC2



LEFT SIDE VIEW

PIC3



VIEW ACROSS DECK

Bridge No.: 80 — I0040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No.: 80I00400020 Date: June 11, 2001

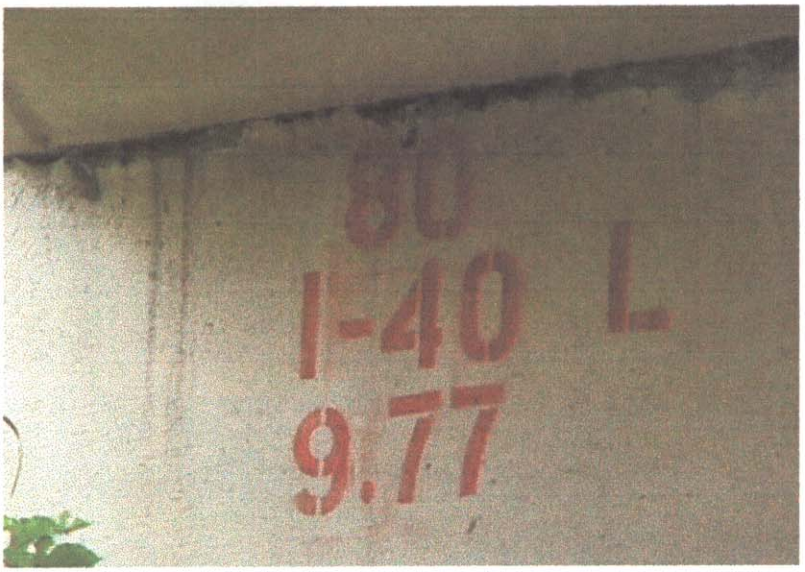
PIC4



POTHOLES @ JOINT A-APPR

Bridge No.: 80 — I0040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No.: 80I00400020 Date: March 11, 1999

PIC4



BRIDGE NO. AT ABUTMENT # 1

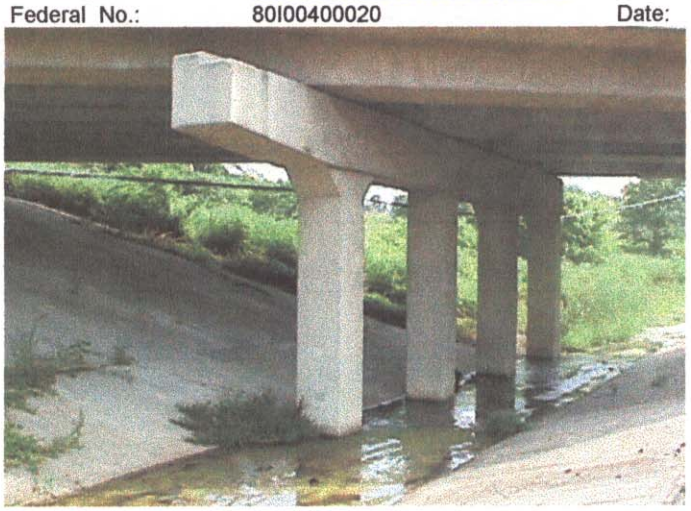
PIC5



ABUTMENT TYPICAL

Bridge No.: 80 — 10040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No.: 80100400020 Date: March 11, 1999

PIC1



PIER TYPICAL

Bridge No.: 80 — I0040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No 80I00400020 Date: March 11, 1999

PIC2



BOTTOM OF DECK

PIC3



LEFT SIDE VIEW

Bridge No.: 80 — I0040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No.: 80I00400020 Date: March 11, 1999

PIC6



APPROACH #1

PIC7



APPROACH #2

Bridge No.: 80 — I0040 — 0977
Crossing:: DRAINAGE CANAL & SR 264 *
Federal No.: 80I00400020 Date: March 11, 1999

PIC8



ACROSS TOP OF DECK

ROUTINE BRIDGE INSPECTION REPORT

Page No.___

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

Field Report No. 16 Date 4-22-03
Previous Report No. 15 Date 6/11/2001
Plans: yes

Bridge No. 80I00400020 (Eleven Digit No.)
Bridge Location No. 80 - I0040 - 9.77 L (Co. - Route - Log Mile)

I 40 (Road Name) over DRAINAGE CANAL & SR 264 * (Crossing)
Indepth Insp. Req'd: N 10 (If yes itemize limits under comment)

Structure Type HBB
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 Thompson
Daniel
Crutcher
Waller

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

		Comments
Approaches	G	
Deck Condition (Item 58)	G	
Superstructure (Item 59)	G	
a. Beams	G	
b. Bearings	G	
c. Diaphragms	G	
Substructure (Item 60)	G	
a. Caps/Bridge Seats	G	
b. Columns/Piles	G	
c. Footings	N/V	
d. Wing W./Breast W.	G	
Scour/Erosion	G	
Channel (Item 61)	N/A	

UNDERWATER INSPECTION
To Be Performed By: n/a
Date Underwater Insp. —
BRIDGE is: open

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

COMMENTS:

Supervising Bridge Inspector: Martin Daniel

BRIDGE RATING: **GOOD**

SUMMARY
80-I40-9.77 LT
4/22/2003

I40/SR264
3 Span/H.B.B.

This bridge was inspected and found to be in **good** condition. The approach alignment and approach areas are good. The approach guardrail and bridge rail are standard type and good. There are no paddleboards.

The wearing surface, parapet, joint leakage, and expansion joints are good. The bottom deck is also good. along with the bearing devices. Superstructure elements and sub-structure units are in good condition. There is no underpass guardrail making this sub-standard type at this time.

Martin Daniel

ROUTINE BRIDGE INSPECTION REPORT

Page No.___

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

Field Report No. 14 Date 6/11/99
Previous Report No. 15 Date 6-11-01
Plans: yes

Bridge No. 80I00400020 (Eleven Digit No.)
Bridge Location No. 80 - I0040 - 9.77 L (Co. Route Log Mile)

I-10 (Road Name) over DRAINAGE CANAL & SR 264 * (Crossing)
Indepth Insp. Req'd: no
(If yes itemize limits under comment

Structure Type HBB
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

Daniel
Crutcher
Waller
Thompson

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

		Comments
Approaches	G	small potholes @ joint Abut # 1 #2
Deck Condition (Item 58)	G	
Superstructure (Item 59)	G	
a. Beams	G	
b. Bearings	G	
c. Diaphragms	G	
Substructure (Item 60)	G	
a. Caps/Bridge Seats	G	
b. Columns/Piles	G	
c. Footings	N/V	
d. Wing W./Breast W.	G	
Scour/Erosion	—	
Channel (Item 61)	—	

UNDERWATER INSPECTION

To Be Performed By: n/a
Date Underwater Insp. —
BRIDGE is: open

Weight Limit Posted no

Gross..... ____ Tons
2 Axle..... ____ Tons
3 or more Axles.. ____ Tons

COMMENTS:

Supervising Bridge Inspector: Martin Daniel

BRIDGE RATING: **GOOD**

SUMMARY
80-I40-9.77 LT
6-11-01

I40/SR264
3 Span/H.B.B.

This bridge was inspected and found to be in **good** condition. The approach alignment and approach areas are good. The approach guardrail and bridge rail are standard type and good. There are no paddleboards.

The wearing surface, parapet, joint leakage, and expansion joints are good. The bottom deck is also good. along with the bearing devices. Superstructure elements and sub-structure units are in good condition. There is no underpass guardrail making this sub-standard type at this time.

Martin Daniel

BRIDGE INSPECTION REPORT

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

FIELD REPORT NO. 14 DATE 6-11-99
REVIOUS REPORT NO. 13 DATE 5-6-97
PLANS ---- YES [X] NO [ ]

BRIDGE NO. 80I0040020 (ELEVEN DIGIT NO.)
BRIDGE LOC. NO. 80 - I40 - 9.77 Lt. (CO. ROUTE LOG MILE)

I40 (ROAD NAME) OVER SR 264 (FEATURE INTERSECTED) — (STRUCTURE NAME (IF NAMED))

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

YEAR WIDENED 1985 (ESTIMATED OR ACTUAL) [ ] [X]
YEAR REHABILITATED 1985 (ESTIMATED OR ACTUAL) [ ] [X]

FEATURES

WEARING SURFACE-- CONCRETE [ ] TIMBER [ ] ASPHALT [X] (DEPTH= 2")
FLARED WIDTH --------- YES [ ] NO [X]
NAVIGATIONAL CONTROL-- YES [ ] NO [X]
MEDIAN WIDTH -------- OPEN [X] NONE [ ] CLOSED [ ]

BRIDGE SKEW 53° LT [X] RT [ ]

STRUCTURE TYPE H.B.B. (Main Span) NO. SPANS 3 (Main Span)
STRUCTURE TYPE — (Approach Spans) NO. SPANS — (Approach Spans)
MAXIMUM SPAN LENGTH 67' TOTAL LENGTH 181'

INSPECTORS

1. Hunter
2. Urello
3. Daniel
4. Crutcher
5. Waller
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 14'8"
MIN. LATERAL UNDER CL 9' RT
— LT

UNDERWATER INSPECTION

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

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

FRACTURE CRITICAL DETAILS: YES [ ] NO [X]
IF YES, INCLUDE BIR 3.9

CHANGE IN STRUCTURAL CONDITION YES [ ] NO [X]
MAJOR REPAIRS MADE YES [ ] NO [X]

COMMENTS:

Dillard Wayne Hunter
SUPERVISING BRIDGE INSPECTOR

BRIDGE RATING [X] [ ] [ ] [ ]
GOOD FAIR POOR CRITICAL

FORM BIR 3.1
Rev. 09/24/98
DT-0080

BRIDGE LOC. NO. 80 (CO.) - I40 (ROUTE) - 9.77 Lt. (L.M.)

DATE: 6-11-99

PERFORMANCE EVALUATION

Time of day inspected 10:00 Weather conditions Sunny 80°

Vehicles observed Tractor trailer & passenger type

LIVE LOAD BEHAVIOR	YES	NO	COMMENTS
Substructure			
Horiz. & Vert. Defl.	[ ]	[X]	
Vibration	[ ]	[X]	
Superstructure			
Horiz. & Vert. Defl.	[ ]	[X]	
Vibration	[ ]	[X]	

APPROACH

Alignment	(G)	F	P	C	
Slab	G	F	P	C	NA
Joints	G	F	P	C	NV
Pavement	(G)	F	P	C	New A.C. overlay
Embankment	(G)	F	P	C	
Drains	G	F	P	C	N/A

TRAFFIC SAFETY FEATURES

					STANDARD	SUB-STANDARD	
Bridgerailing	(G)	F	P	C	[X]	[ ]	
Transitions	(G)	F	P	C	[X]	[ ]	
Guardrail	(G)	F	P	C	[X]	[ ]	
Guardrail Terminal	(G)	F	P	C	[X]	[ ]	

SIGNING

	YES	NO	NEEDED
Paddleboard	[ ]	[X]	[ ]
Vertical Clearance (< 14')	[ ]	[ ]	[ ]
Narrow [ ] One Lane Bridge [ ]	[ ]	[X]	[ ]

WEIGHT LIMIT POSTED
YES [ ] NO [X]

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 - 9.77 Lt. (CO. - ROUTE - L.M.) DATE: 6-11-[illegible]

DECK

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

SUPERSTRUCTURE

					COMMENTS
BEARING DEVICES	(G)	F	P	C	
GIRDERS OR BEAMS	(G)	F	P	C	1" deep col. damage
FLOOR BEAMS	G	F	P	C	N/A
STRINGERS	G	F	P	C	N/A
DIAPHRAGMS	(G)	F	P	C	
BRACING	G	F	P	C	N/A
TRUSSES - ~~GENERAL~~	G	F	P	C	
- PORTALS	G	F	P	C	
- BRACING	G	F	P	C	
PAINT	G	F	P	C	N/A
ALIGNMENT OF MEMBERS	(G)	F	P	C	

TEXTURE COAT

CONDITION RATING	G	(F)	P	C	
OVERALL APPEARANCE	G	(F)	P	C	NEEDS SPOT PAINTING? YES [ ] NO [✓]
STAINING	G	(F)	P	C	NEEDS REPAINTING? YES [ ] NO [✓]
SCALING	(G)	F	P	C	
FADING	G	F	P	C	

COMMENTS:

COMMENDATIONS

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

BRIDGE LOC. NO. 80 - I 40 - 9.77 Lt. (CO. - ROUTE - L.M.) DATE: 6-11-98

SUBSTRUCTURE

ABUTMENTS					COMMENTS
CAPS	(G)	F	P	C	
BREASTWALL	G	F	P	C	N/A
WINGS	(G)	F	P	C	
BACKWALL	(G)	F	P	C	RANDOM scale up to 1" deep
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	
BEARINGS	(G)	F	P	C	
SLOPE PAVING	(G)	F	P	C	

PIERS					
CAPS	G	F	P	C	
COLUMNS	G	F	P	C	
PLUMB	G	F	P	C	
FOOTINGS	G	F	P	C	
PILES	G	F	P	C	
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 [X]

RECOMMENDATIONS:

FORM BIR 3.8
Rev. 3-1-97
DT-1508

BRIDGE LOC. NO. 80 - I40 - 2.77 ( ) DATE: 6-11-99
CO. ROUTE L.M. (LOG km)

STREAM CHANNEL DATA AND CONDITIONS

STREAM CROSSING: Drainage Canal

I. 1. Type of bed material? _____
2. Has the channel shifted? YES [ ] NO [ ] NOT APPARENT [
3. Condition of rip-rap? G F P C Est. % failed ____ N/A [
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: ____
6. Underwater diver inspection recommended? YES [ ] NO [ ]
If yes, why? _____

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

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

IV. Comments: _____

* *

SPECIAL INSPECTION DATA - FOR REASONS OTHER THAN FC OR SCOUR

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

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

SUMMARY
80-I40-9.77 LT
6-11-99

I40/SR264
3 Span/H.B.B.

This bridge was inspected and found to be in good condition. The approach alignment and approach areas are good. The approach drain shows a 76mM deep settlement. The approach guardrail and bridge rail are standard type and good. There are no paddleboards.

The wearing surface, parapet, joint leakage, and expansion joints are good. The bottom deck is also good. along with the bearing devices. Superstructure elements and sub-structure units are in good condition. There is no underpass guardrail making this sub-standard type at this time.

Gilbert Hunter

CURRENT FIELD REPORT NO. 14 DATE 6-11-99
PREVIOUS FIELD REPORT NO. 13 DATE 5-6-97

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

INSPECTION REPORT FOR UNDERPASS ROUTE

BRIDGE NO. 80I00400020 (ELEVEN DIGIT NUMBER) UNDERPASS LOC. NO. 80 (CO.) - SR 264 (RTE.) - 5.59 (L.M.)

80 (CO.) - I40 (RTE.) - 9.77 (L.M.) OVER 80 (CO.) - 264 (RTE.) - 5.59 (L.M.) STRUCTURE NAME (IF NAMED)

COUNTY Smith

YEAR CONSTRUCTED 1959 YEAR WIDENED '85 YEAR REHABILITATED '85
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 19 FT. (DOES NOT INCLUDE SHOULDERS)
WIDTH OF MEDIAN IF DIVIDED HIGHWAY — FT.
APPROACH SHOULDER WIDTH 4 FT. (RT.) 4 FT. (LT.)
*HORIZONTAL CLEARANCE UNDER BRIDGE 53 FT. 0 IN.
*DISTANCE BETWEEN PIER PROTECTION GUARDRAIL AND SUBSTRUCTURE — FT. (RT.) — FT. (LT.)
*WIDTH OF SIDEWALK UNDER BRIDGE — FT. (RT.) — FT. (LT.)
*MINIMUM VERTICAL CLEARANCE 14 FT. 8 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 TRANSITIONS	G F P (C)	[ ]	[ ]	NON EXIST [X]
APPROACH GUARDRAIL	G F P (C)	[ ]	[ ]	NON EXIST [X]
APPROACH GUARDRAIL TERMINAL	G F P (C)	[ ]	[ ]	NON EXIST [X]

SIGNING FOR UNDERPASS ROUTE

				INSPECTORS
PADDLEBOARD	YES [ ]	NO [X]	NEEDED [ ]	1. HUNTER
VERTICAL CLEARANCE (< 14'6")	YES [ ]	NO [X]	NEEDED [ ]	2. URRUTIA
NARROW PASSAGE	YES [ ]	NO [X]	NEEDED [ ]	3. DANIEL
ONE LANE PASSAGE	YES [ ]	NO [X]	NEEDED [ ]	4. CRITCHER
CURVE	YES [ ]	NO [X]	NEEDED [ ]	5. WALLER
SPEED LIMIT	YES [ ]	NO [X]	NEEDED [ ]	6.

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

UNDERPASS LOC. NO. 80 - 264 - 5.59
CO. RTE. L.M.

OTHER SIGNS OR PLAQUES —

COMMENTS REGARDING ANY PROBLEM WITH SIGNING —

BRIDGE FEATURES

BRIDGE SKEW _____
STRUCTURE TYPE _____ NO. SPANS _____
MAIN SPAN MAIN TYPE
STRUCTURE TYPE _____ NO. SPANS _____
APPROACH SPAN APPROACH TYPE
MAXIMUM SPAN LENGTH _____FT. TOTAL LENGTH _____FT.
WIDTH OF BRIDGE OUT-TO-OUT _____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 [X]

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

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

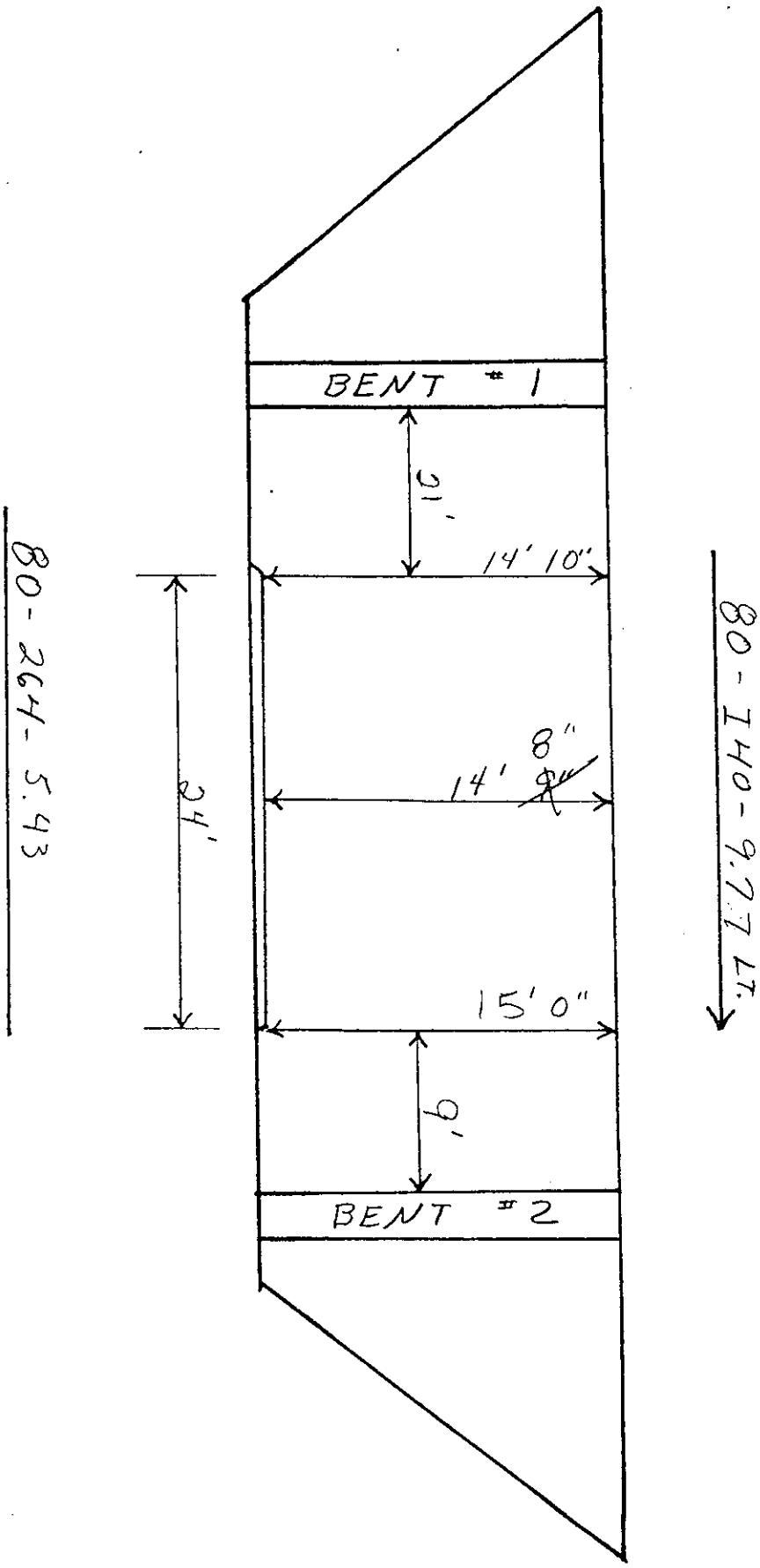
C. Clearance Sketch

10-20-75
C

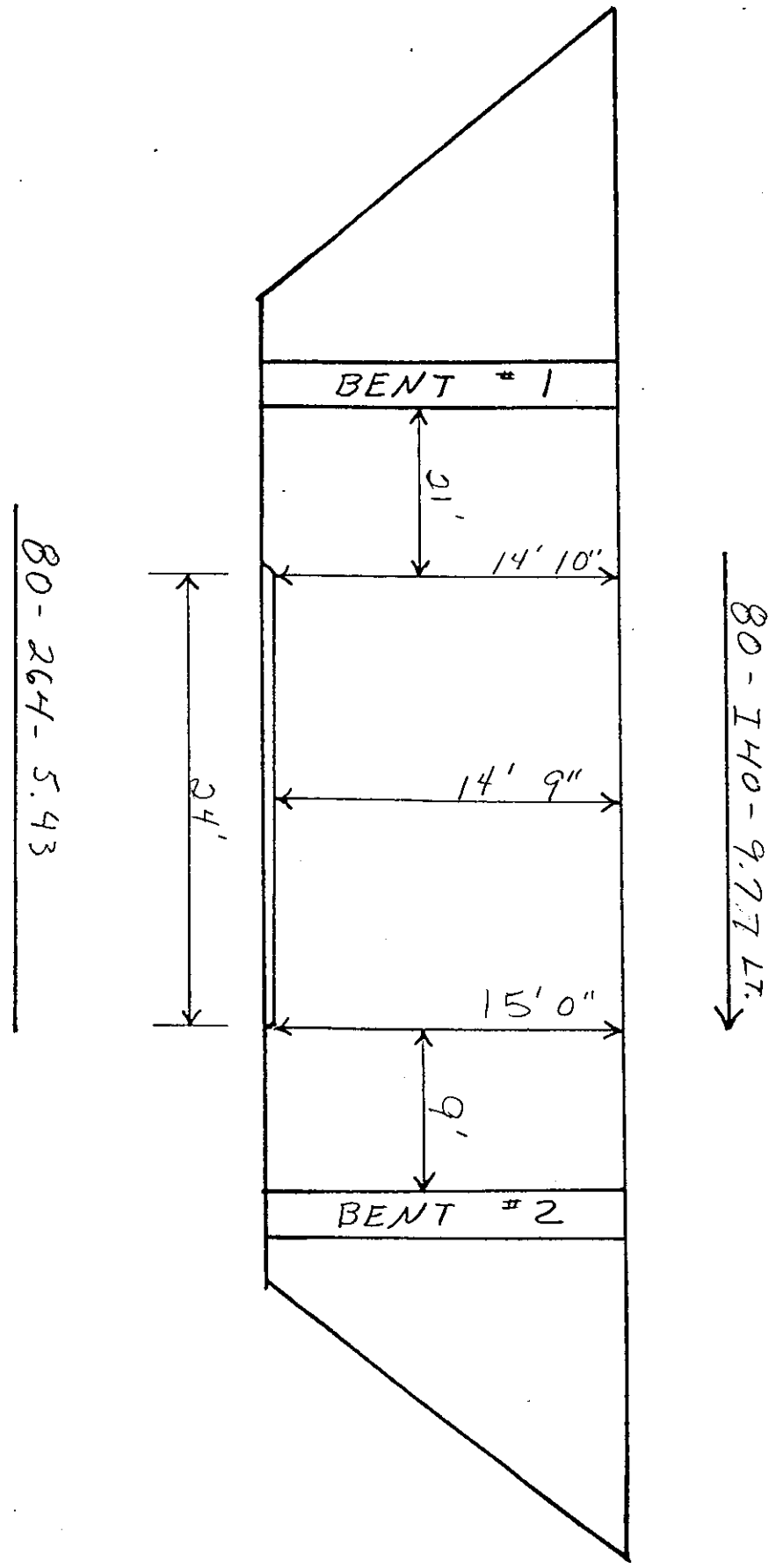
MAR 20 1992

8-22-95 MD

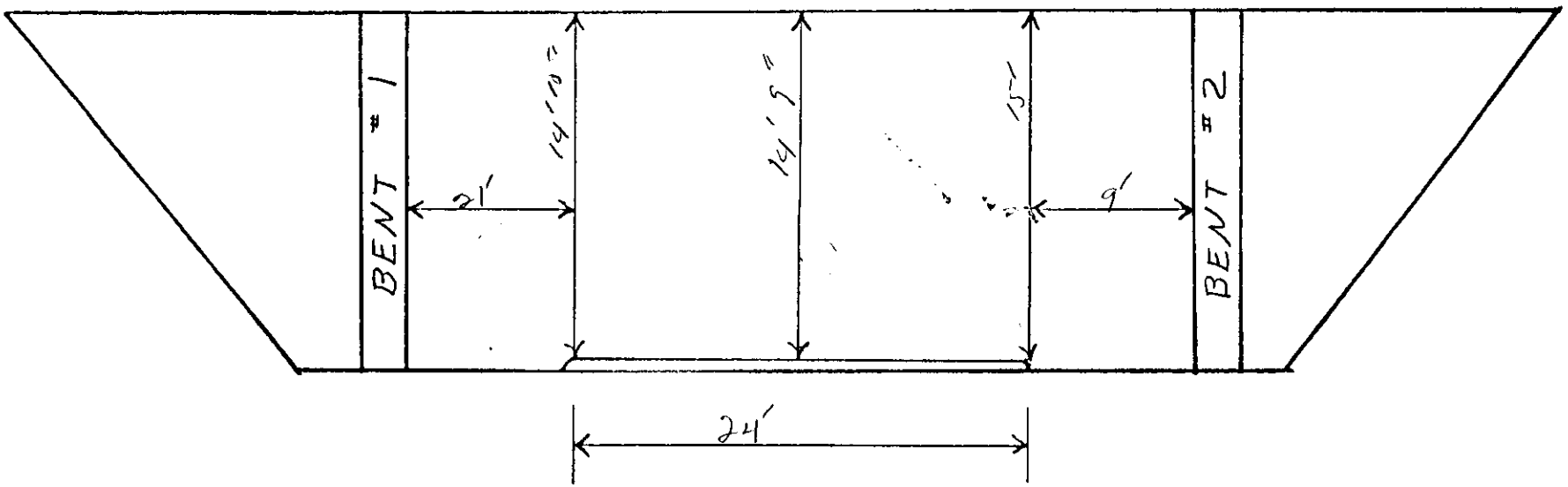
Vb 26-9-5



MAR 20 1992



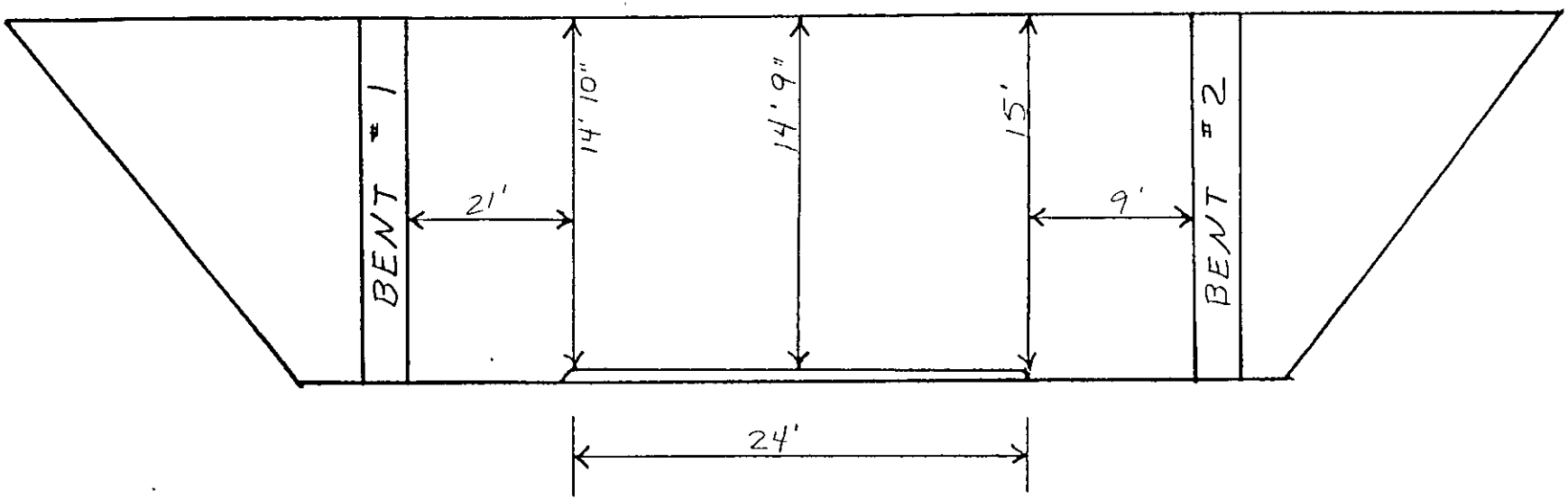
80-I40-9.77 ~~8~~ LT.



80-264-5.31

FEB 5 1980

80 - I40 - 9.77 LT. →



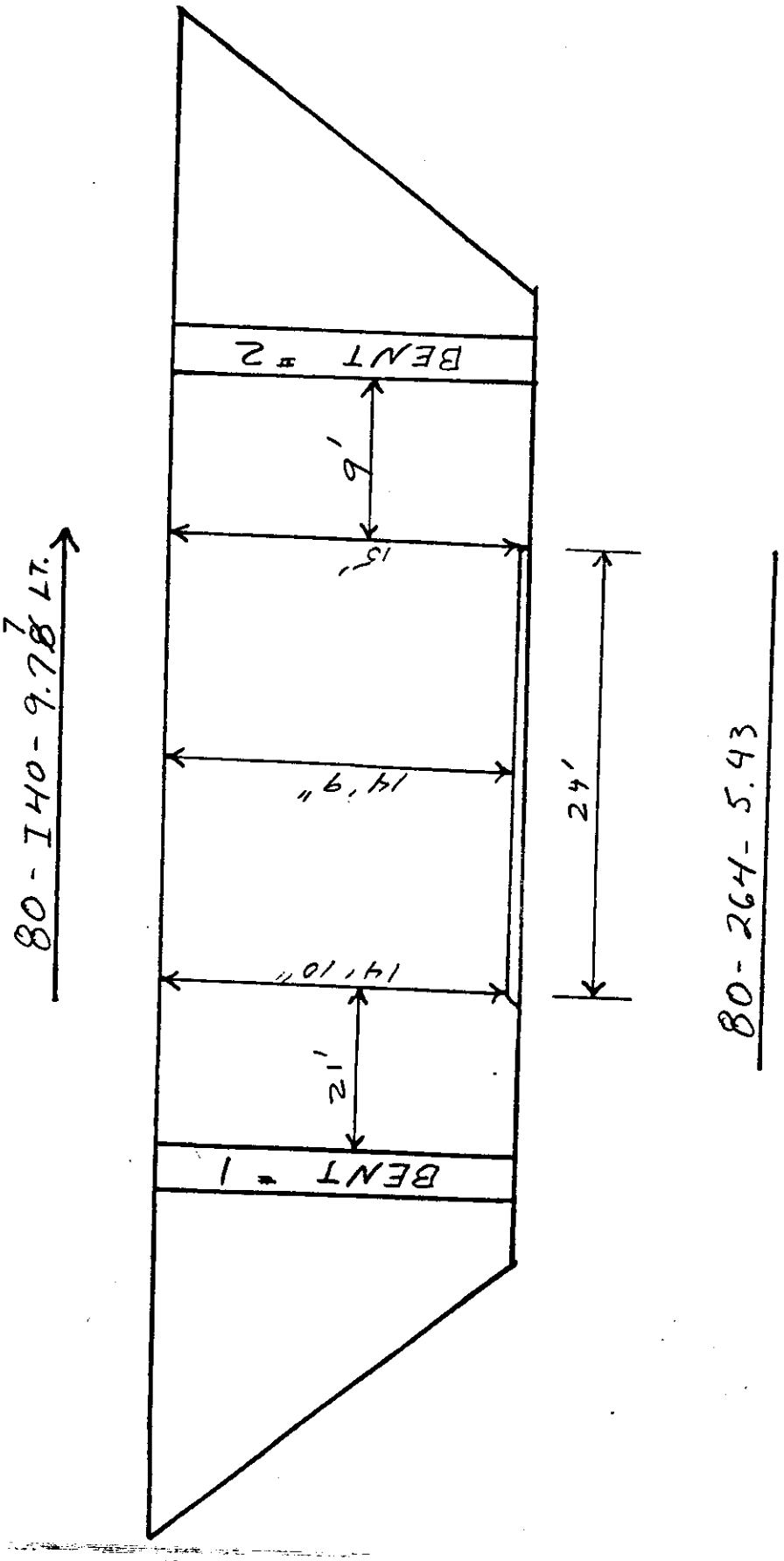
80 - 264 - 5.43

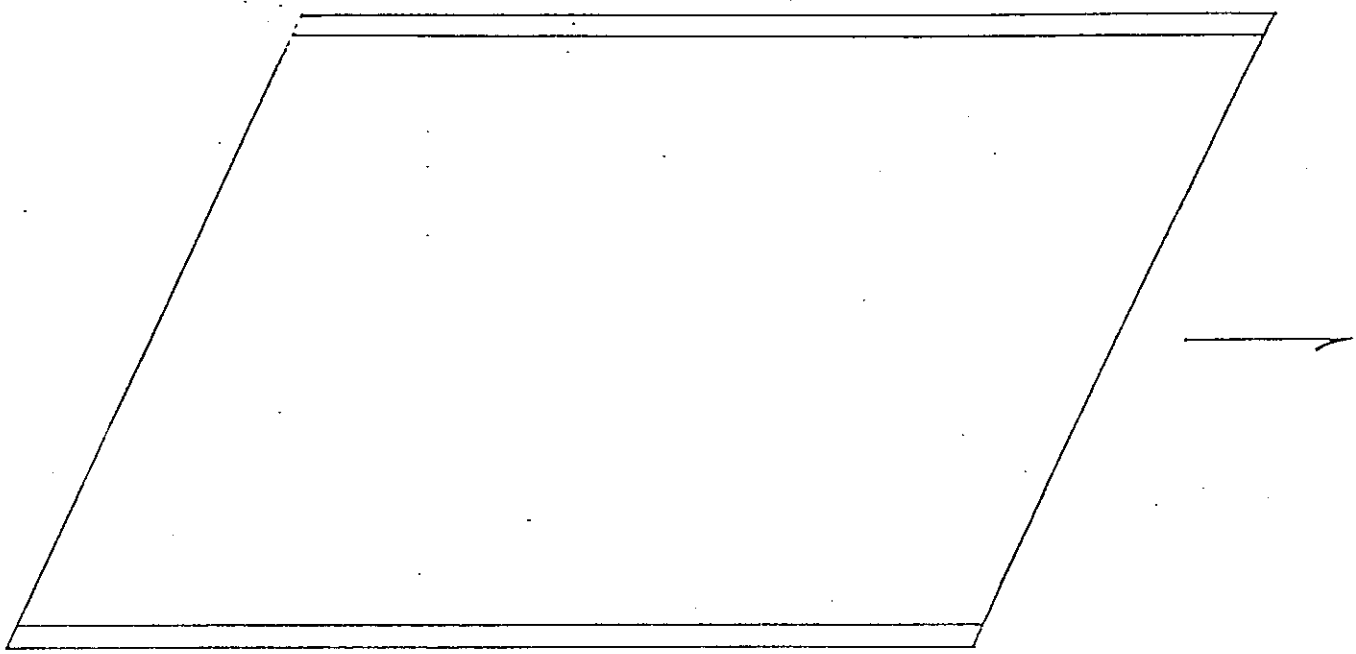
JAN 2 9 1988

17

JUL 2 1 1986

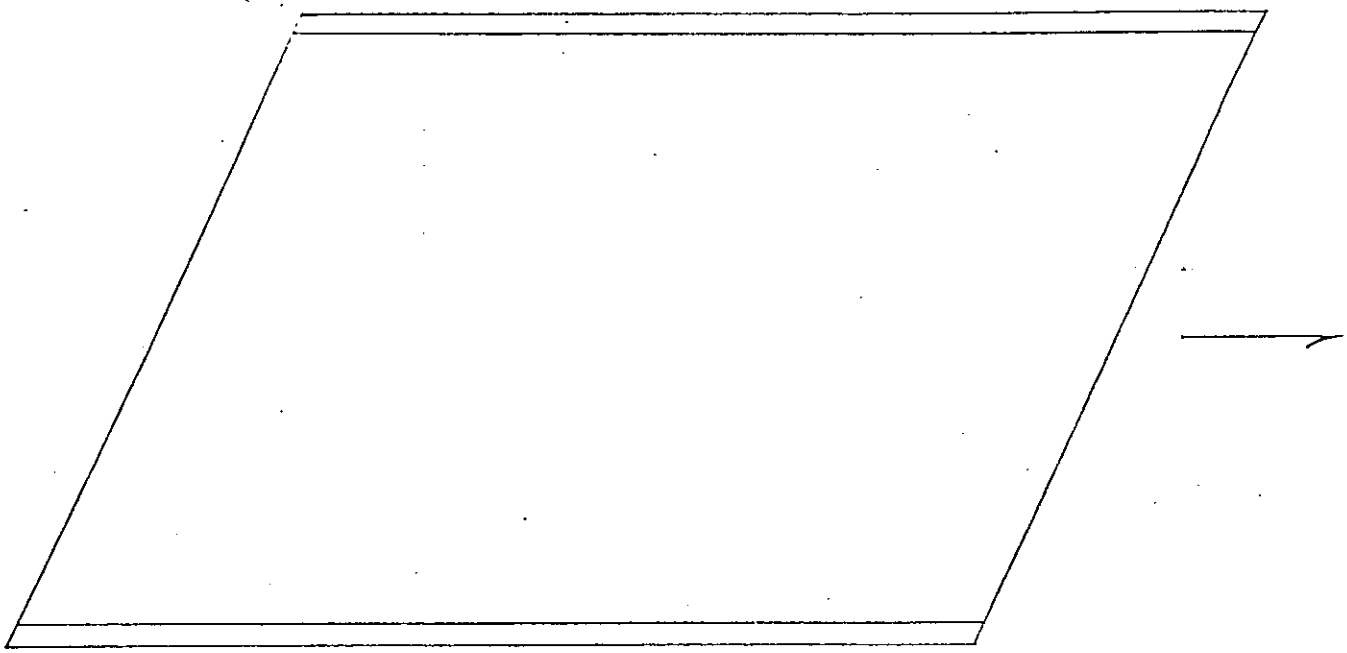
JUL 2 1 1986





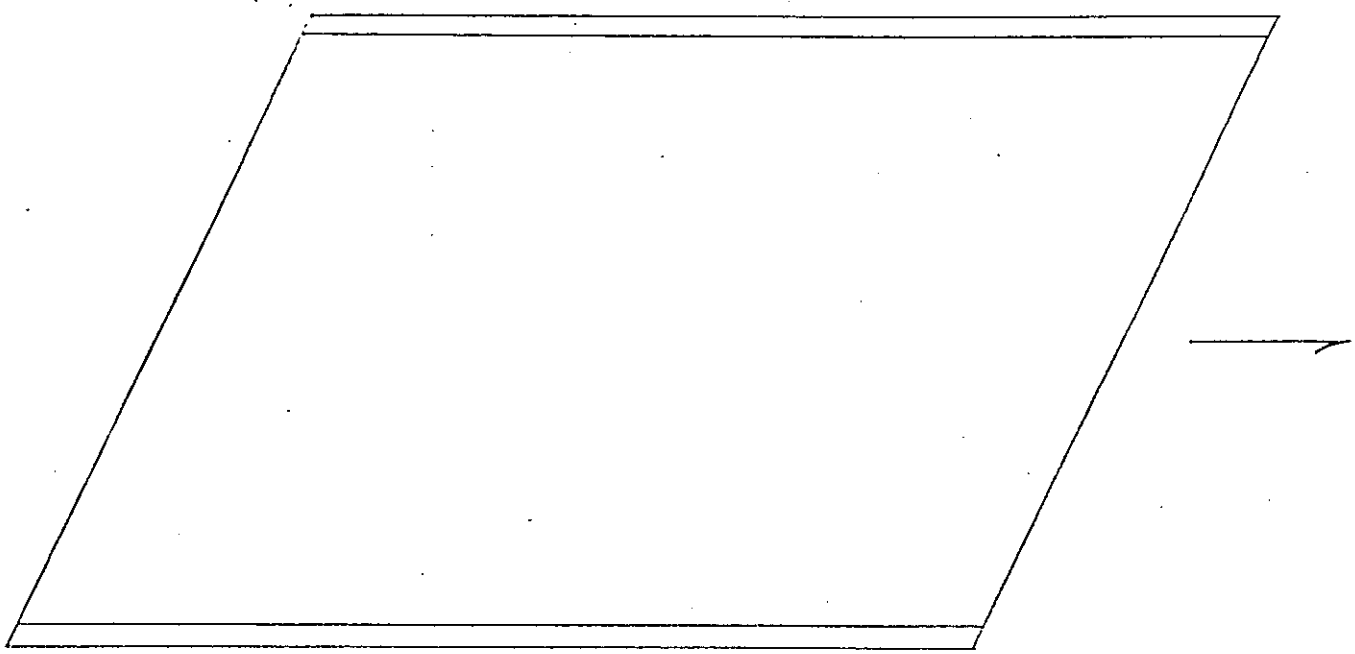
Top Slab # 1 Br. # 80-I40-9.77 LT.

Deck	NV	AC OVERLAY
Parapet	G	
Drains	NA	
Joints	NV	PAVED OVER



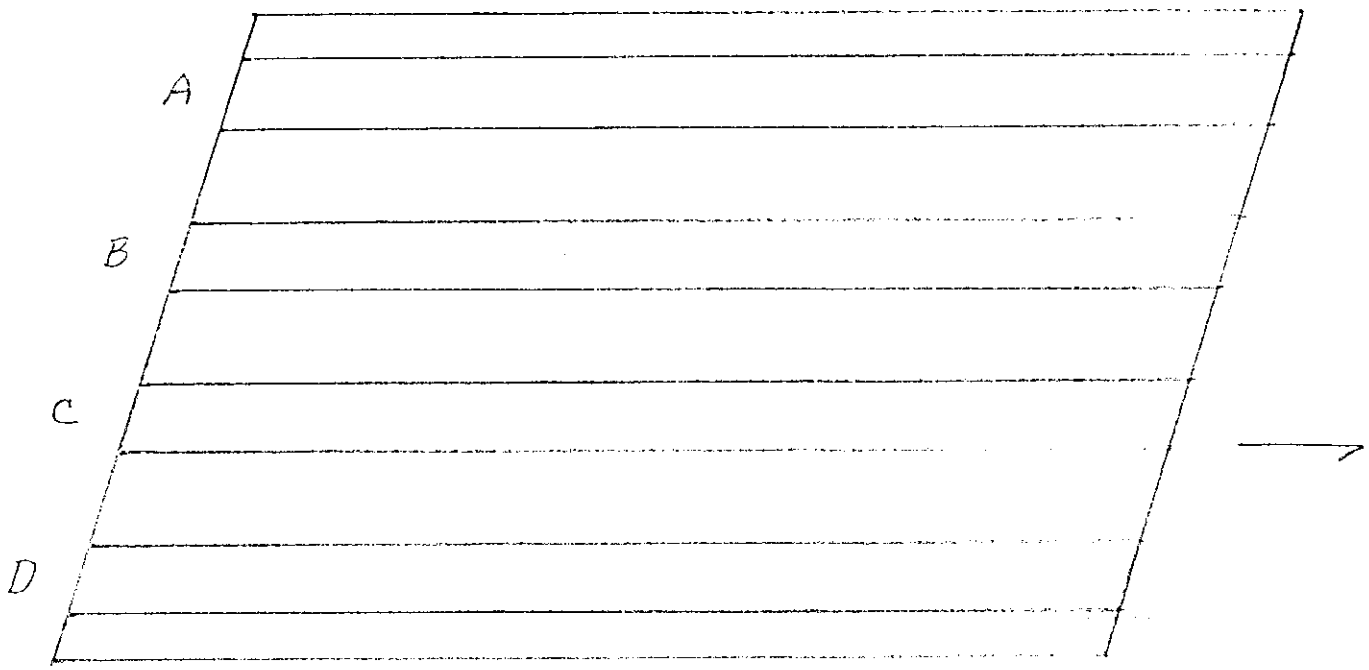
Top Slab # 2 Br. # 80-I40-9.77 LT.

Deck	NV	AC OVERLAY
Parapet	G	
Drains	N/A	
Joints	NV	PAVED OVER



Top Slab # 3 Br. # 80-I40-9.77 LT.

Deck	NV	NO OUTLAW
Parapet	G	
Drains	NA	
Joints	NV	PAVED OVER

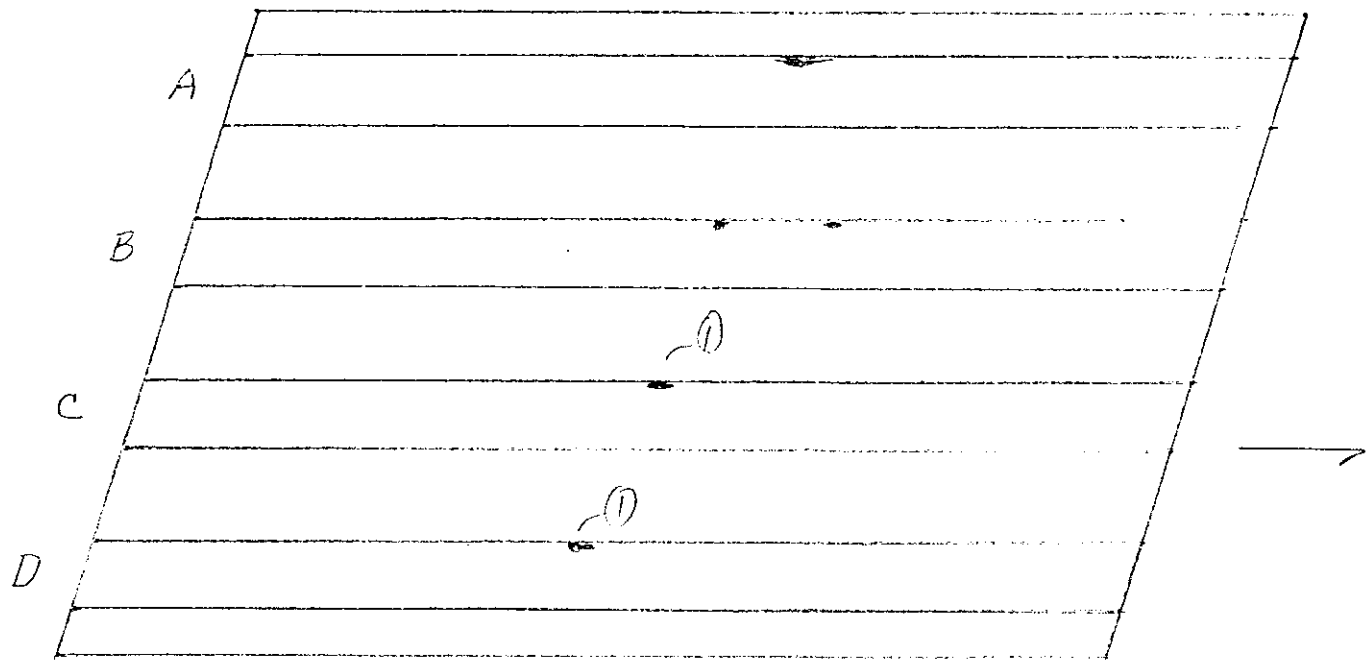


Bottom slab =

Br. 80-I40-9.77 Lt.

DECK	Good	
Diaphragms	Good	
Beams	Good	

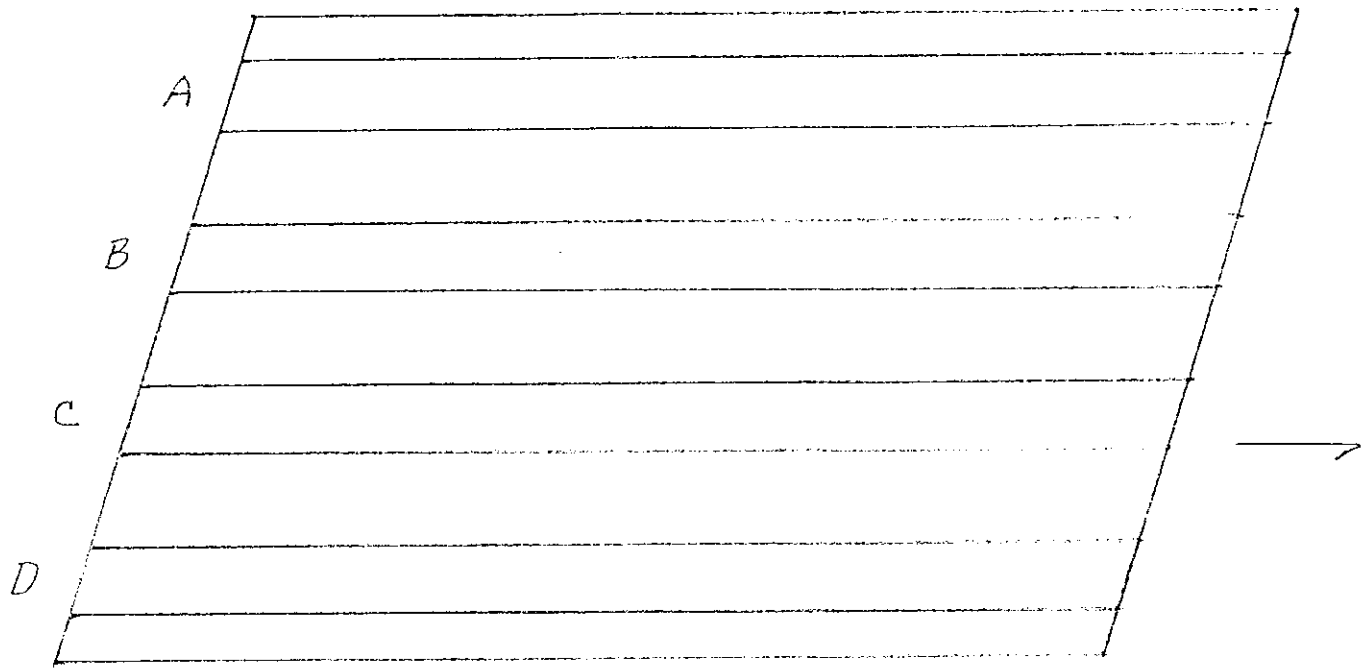
6-11-99MD



Bottom slab = 2 Br. 80-I40-9.77 Lt

DECK	G	
Diaphragms	G	
Beams	G	1" dp coll. damage break-out

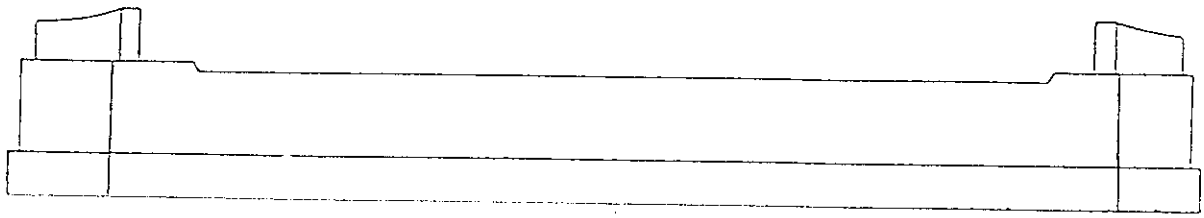
6-11-99 MD



Bottom slab #3 Br. 80-I40-9.77 Lt.

DECK	G	
Diaphragms	G	
Beams	G	

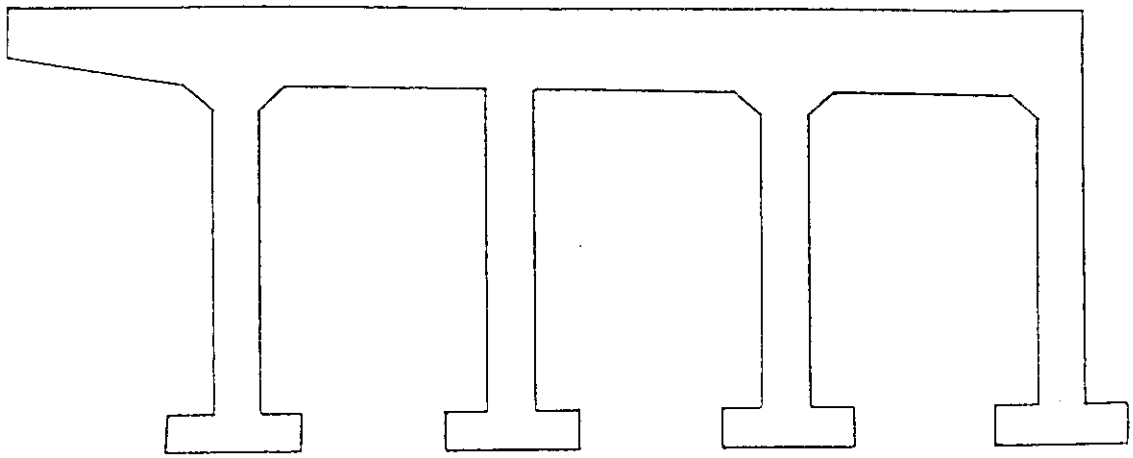
6-11-99 MH

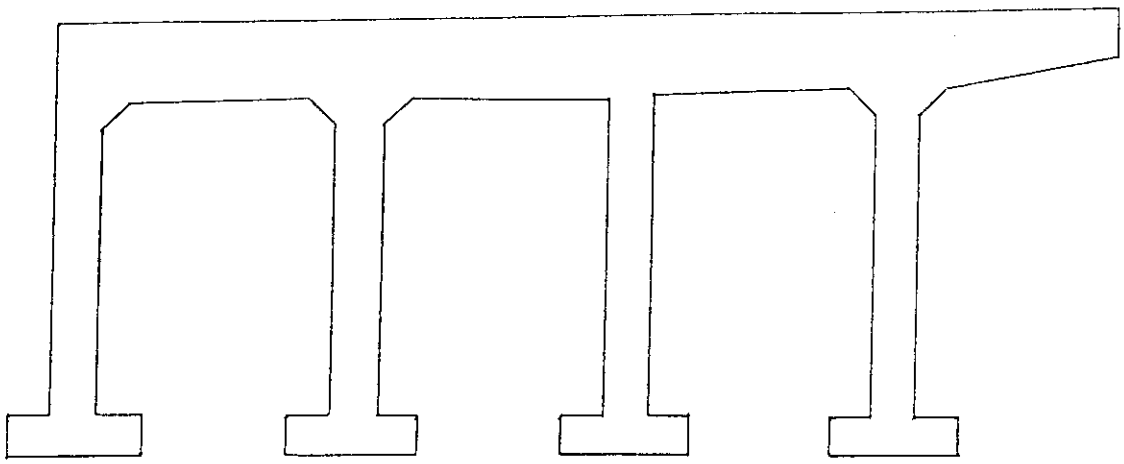


ABUT = 1 Br. = 80 - I40 - 9.77 Lt

Back wall	NV
CAP	G
wings	G
Bearings	G

6-11-99 (WD)

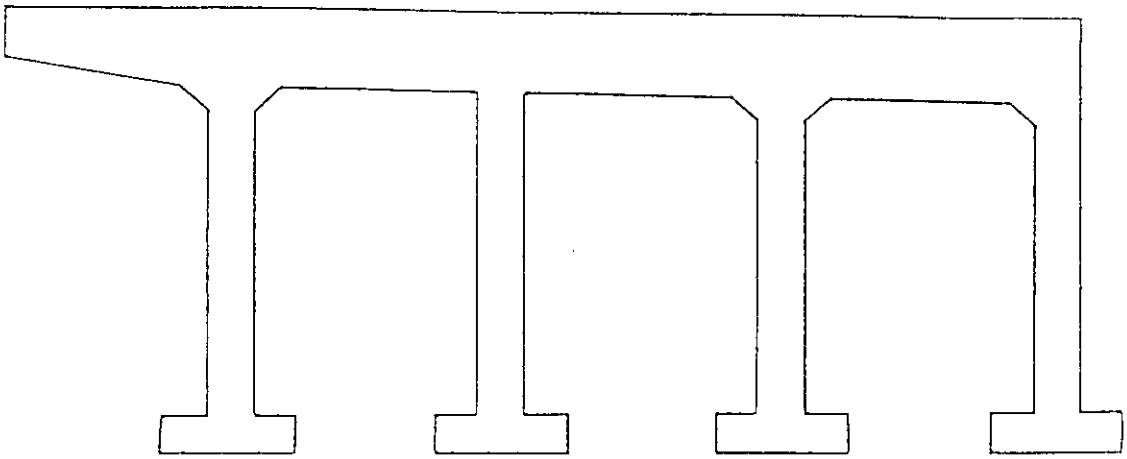


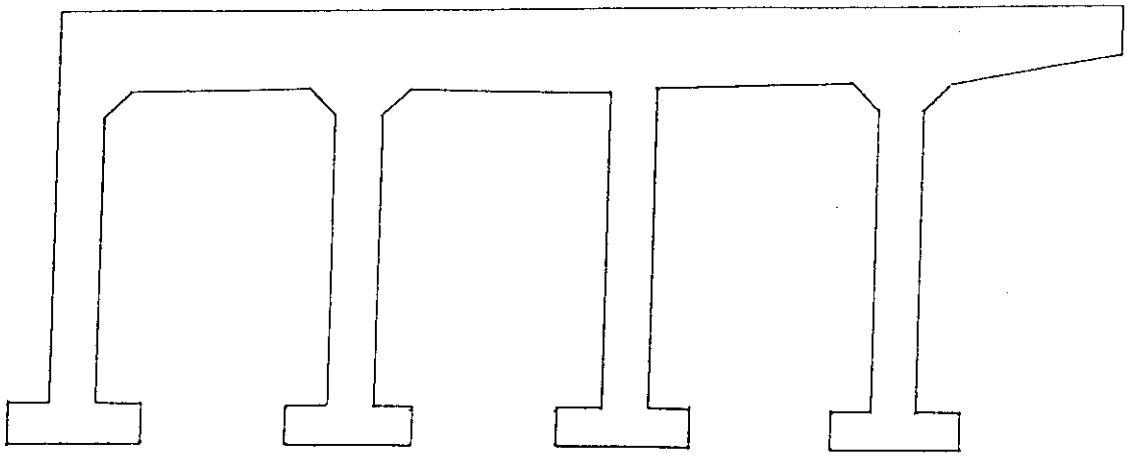


BENT # 1 BR # 80-I40-9.77 Lt.

Cap	G
Bearings	G
Footings	N/V
Cols.	G

6-11-99 MD

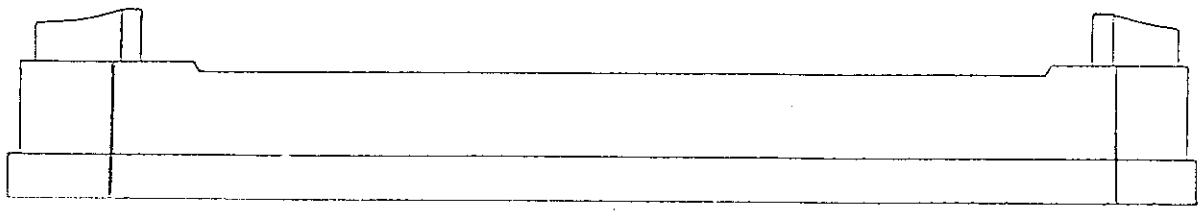




BENT # 2 BR # 80-I40-9.77 Lt

Cap	G	
Bearings	G	
Footings	N/V	
Cols.	G	

6-11-79 MD



ABUT = 2 Br. = 80-I40-9.77 Lt

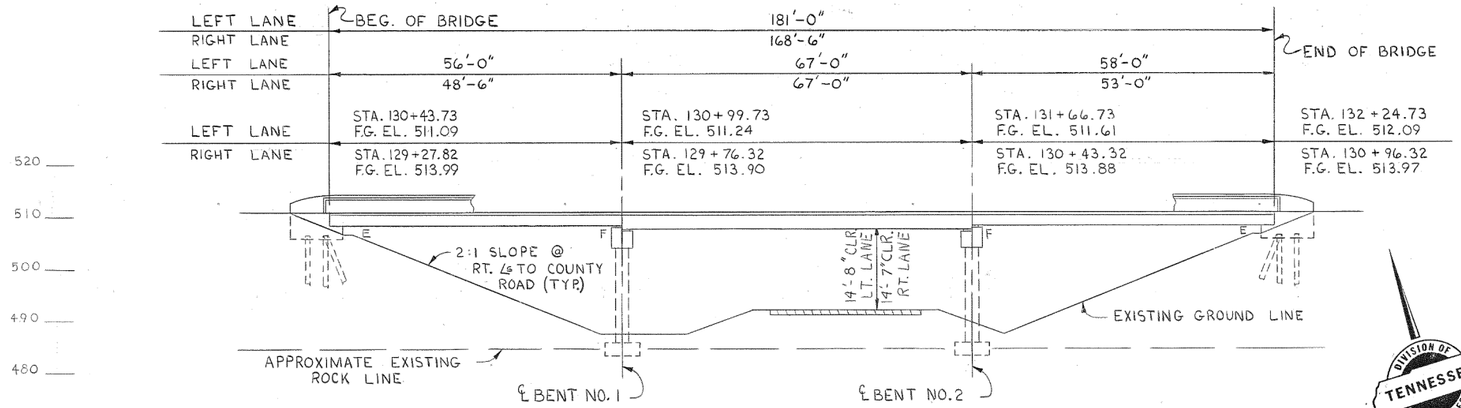
Back wall	NV
CAP	G
wings	G
Bearings	G

CONST. NO. 80001-3148-44

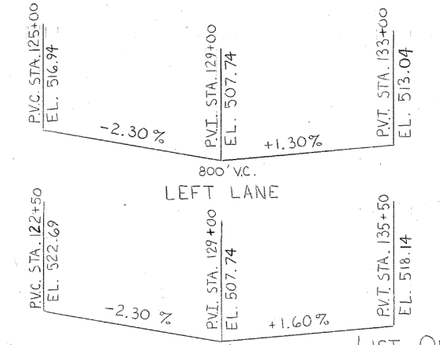
PROJECT NO.	YEAR	SHEET NO.
IR-40 5(78)259	1984	

REVISIONS

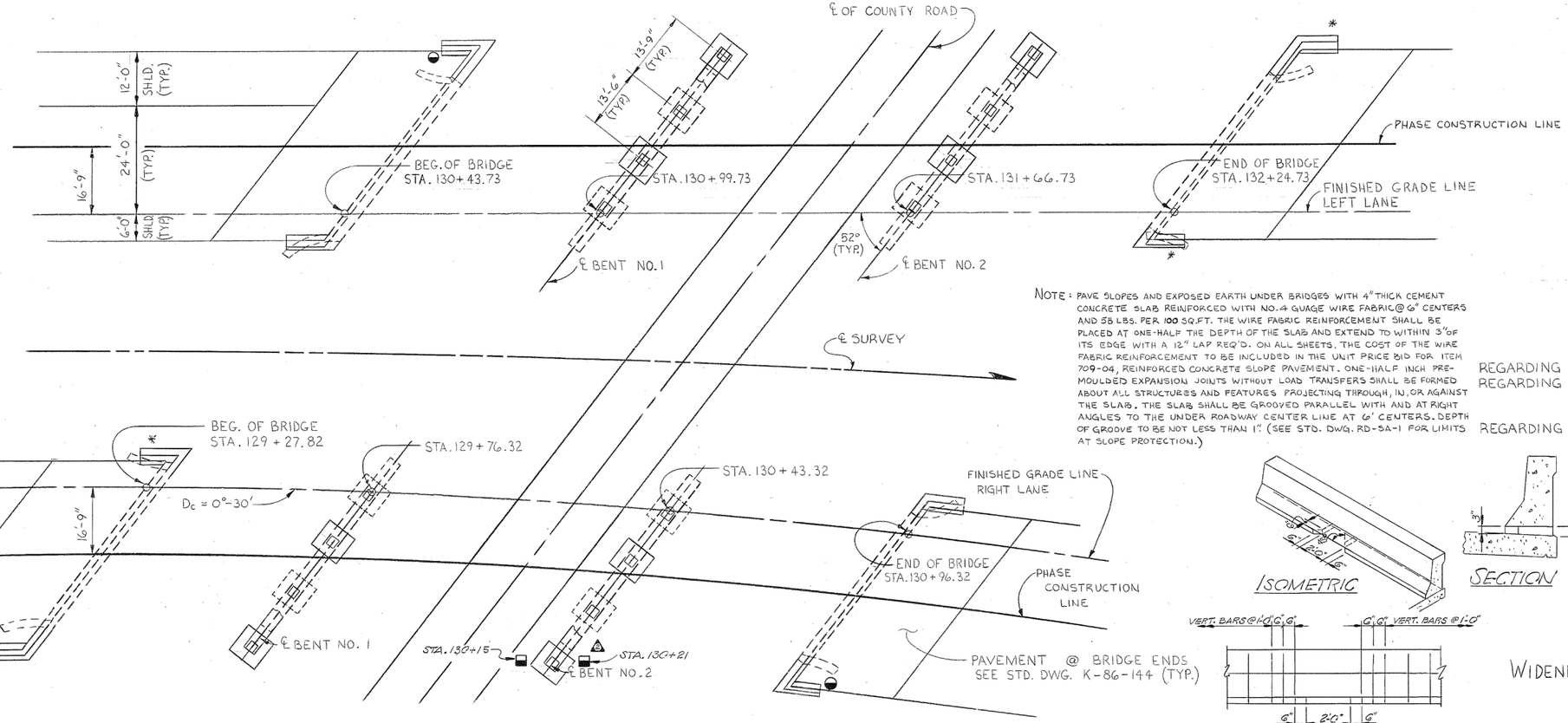
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-13-84	JHW	REVISION DATE FOR SPEC. PROV. 907A
2	3-30-84	JHW	DRAINS AND DETAIL.



ELEVATION
(@ RT. ℄ TO I-40)



GRADE SKETCHES
(EL. BASED ON EXISTING FINISHED GRADE + 5¼")



PLAN

NOTE: PAVE SLOPES AND EXPOSED EARTH UNDER BRIDGES WITH 4" THICK CEMENT CONCRETE SLAB REINFORCED WITH NO. 4 GUAGE WIRE FABRIC @ 6" CENTERS AND 58 LBS. PER 100 SQ.FT. THE WIRE FABRIC REINFORCEMENT SHALL BE PLACED AT ONE-HALF THE DEPTH OF THE SLAB AND EXTEND TO WITHIN 3" OF ITS EDGE WITH A 12" LAP REQ'D. ON ALL SHEETS, THE COST OF THE WIRE FABRIC REINFORCEMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 709-04, REINFORCED CONCRETE SLOPE PAVEMENT. ONE-HALF INCH PRE-MOULDED EXPANSION JOINTS WITHOUT LOAD TRANSFERS SHALL BE FORMED ABOUT ALL STRUCTURES AND FEATURES PROJECTING THROUGH, IN, OR AGAINST THE SLAB. THE SLAB SHALL BE GROOVED PARALLEL WITH AND AT RIGHT ANGLES TO THE UNDER ROADWAY CENTER LINE AT 6' CENTERS. DEPTH OF GROOVE TO BE NOT LESS THAN 1". (SEE STD. DWG. RD-SA-1 FOR LIMITS AT SLOPE PROTECTION.)

LIST OF DRAWINGS

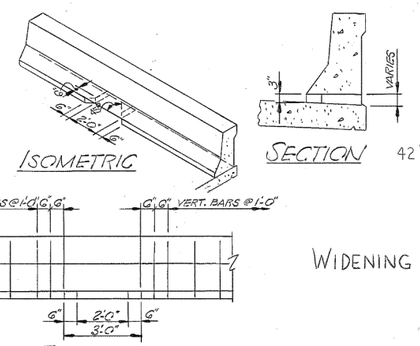
	DWG. NO.	LAST REV. DATE
LAYOUT	M-142-64	
GEN. NOTES & EST. QUAN.	M-142-65	
SUPERSTRUCTURE RT. LN.	M-142-66	
SUPERSTRUCTURE DETAIL @ ABUT. 1, RT. LN.	M-142-67	
SUPERSTRUCTURE DETAIL @ ABUT. 2, RT. LN.	M-142-68	
SUPERSTRUCTURE LT. LN.	M-142-69	
SUPERSTRUCTURE DETAIL @ ABUT. 1, LT. LN.	M-142-70	
SUPERSTRUCTURE DETAIL @ ABUT. 2, LT. LN.	M-142-71	
PRESTRESSED BOX BEAM SPANS 1 & 3 RT. LN.	M-142-72	
PRESTRESSED BOX BEAM SPAN 2 RT. LN.	M-142-73	
PRESTRESSED BOX BEAM SPANS 1 & 3 LT. LN.	M-142-74	
PRESTRESSED BOX BEAM SPAN 2 LT. LN.	M-142-75	
ABUTMENT 1 RT. LN.	M-142-76	
ABUTMENT 2 RT. LN.	M-142-77	
ABUTMENT 1 LT. LN.	M-142-78	
ABUTMENT 2 LT. LN.	M-142-79	
BENTS 1 & 2 RT. LN.	M-142-80	
BENTS 1 & 2 LT. LN.	M-142-81	
BILL OF STEEL	M-142-82	

LIST OF STANDARD DWGS.

	DWG. NO.	LAST REV. DATE
STANDARD PILE DETAILS	H-5-111	11-12-82
REINFORCING BAR SUPPORT	K-80-14	8-27-76
MISC. ABUTMENT AND DRAINAGE DETAILS	K-85-150	1-9-75
PRECAST, PRESTRESSED, BRIDGE DECK PANELS	M-103-149 & 150	4-21-83
BRIDGE RAILING - CONCRETE PARAPET	M-28-1	7-17-81
SLOPE PROTECTION	RD-SA-1	1-11-82

LIST OF SPECIAL PROVISIONS

		PROV. NO.	LAST REV. DATE
REGARDING	APPROVAL OF SHOP DWGS.	105A	9-8-81
REGARDING	CLASS "A" CONCRETE BRIDGE DECKS	604A	12-20-82
REGARDING	EPOXY COATED REINFORCING STEEL	907A	4-18-83 ⚠1



BRIDGE DECK DRAINS ⚠2

42' ROADWAY WITH M-28-1 BRIDGERAIL

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

LAYOUT

WIDENING OF INTERSTATE-40 OVER COUNTY ROAD

STATION 130+43.73 (LEFT LANE I-40)
STATION 129+27.82 (RIGHT LANE I-40)
SMITH COUNTY
1984

DESIGNED BY HOUSTON WALKER DATE 9-83
DRAWN BY RON KAUFMAN DATE 11-83
SUPERVISED BY RLH, HWB DATE 11-83
CHECKED BY HOUSTON WALKER DATE 1-84

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-142-64

* DENOTES GUARDRAIL ATTACHMENTS REQUIRED.
⚠2 DENOTES ROADWAY DRAIN REQUIRED.
⚠2 DENOTES BRIDGE DECK DRAIN REQUIRED.

CLASS "A" GRADING "D" = 25 C.Y.

CONSTRUCTION NO. 80001-3148-44

PROJECT NO.	YEAR	SHEET NO.
12-40-5(78) 259	1984	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	2-13-84	JHW	ADDED NOTES
2	3-30-84	JHW	REVISED QUANTITIES.
3	4-13-84	JHW	QUANTITY

GENERAL NOTES

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (MARCH 1981 EDITION).

LOADING: HS20-44 WITH ALTERNATE MILITARY.

DESIGN SPECIFICATIONS: AASHTO 1977 EDITION WITH ADDENDA.

CONCRETE: TO BE CLASS "A" (CAST IN PLACE), F'c 3000 P.S.I.

CLASS "A" CONCRETE FOR BRIDGE DECKS: SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS EXCEPT AS MODIFIED BY SPECIAL PROVISION 604(A). PAYMENT WILL BE MADE UNDER ITEM 604-01.12.

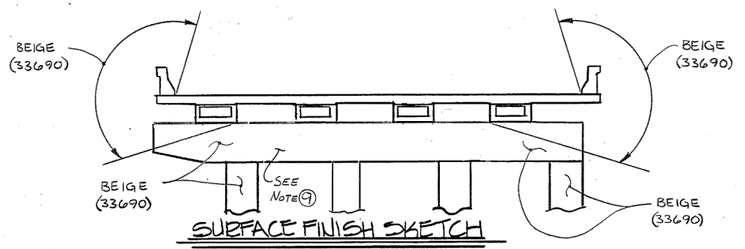
BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. PERMANENT FORMS MAY BE EITHER REMAIN-IN-PLACE STEEL OR PRECAST, PRESTRESSED CONCRETE PANELS. IN EITHER CASE, FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO SUPPORT MEMBERS. THE CONTRACTOR SHALL TAKE STEPS TO ASSURE THE STABILITY OF THE EXTERIOR GIRDER AGAINST TWISTING OR OVERTURNING DURING SLAB POURING OPERATIONS.

REINFORCING STEEL: TO BE ASTM A615 GRADE 60. STANDARD CBSI HOOK DETAILS APPLY UNLESS OTHERWISE NOTED ON BILL OF STEEL. BENDING DIMENSIONS SHOWN ARE BASED ON GRADE 60. SPACING DIMENSIONS ARE CENTER TO CENTER UNLESS OTHERWISE NOTED ON DETAIL DRAWINGS. THE SUFFIX "E" FOR BARS SO MARKED, DENOTES EPOXY COATED REINFORCEMENT. SEE SPECIAL PROVISION 907A.

LINSEED OIL PROTECTIVE TREATMENT: SURFACES RECEIVING AN APPLIED TEXTURE FINISH SHALL NOT RECEIVE A LINSEED OIL TREATMENT. SEE SURFACE FINISH SKETCH ON THIS SHEET.

NON PAY ITEMS: ONLY ITEMS SHOWN ON THE PROPOSAL AS PAY ITEMS WILL BE PAID FOR. COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS FOR THE ENTIRE CONTRACT SHALL BE INCLUDED IN THE PRICE BID FOR PAY ITEMS.

NOTE: THE CONTRACTOR SHALL CHECK THE LOCATION OF ALL EXISTING SUBSTRUCTURES AND VERIFY SPAN LENGTHS BEFORE FABRICATING GIRDERS.



SURFACE FINISH SKETCH

(11) NOTE: BITUMINOUS COATING ON EXISTING BENT CAPS SHALL BE REMOVED BEFORE APPLYING TEXTURE FINISH. COST OF REMOVAL TO BE INCLUDED IN PRICE BID FOR ITEM NO. 604-04.02.

PILES: TO BE HP 10X42 STEEL PILES. DRIVEN TO REFUSAL ON ROCK OR A MINIMUM BEARING OF 40 TONS FOR THE ABUTMENTS.

BRIDGE RAIL SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DRAWING M-28-1.

SHOP DRAWINGS: SEE SPECIAL PROVISION NO. 105 A.

SPECIAL NOTE - FOOTING FOR BENTS: AFTER EXCAVATION TO ROCK FOR FOOTING HAS BEEN COMPLETED, HOLES 6' DEEP SHALL BE DRILLED AT POINTS DESIGNATED BY THE ENGINEER. FROM THE RESULTS OBTAINED, THE ENGINEER SHALL DETERMINE THE FINAL FOOTING ELEVATIONS. NO REINFORCING STEEL FOR BENT COLUMNS SHALL BE ORDERED UNTIL FINAL FOOTING ELEVATIONS HAVE BEEN DETERMINED.

GROUTED BARS IN DRILLED HOLES: HOLES FOR GROUTED BARS ARE TO BE DRILLED 1½" IN DIAMETER LARGER THAN THE BAR. AFTER CLEANING HOLE, PACK WITH GROUT AND DRIVE BAR TO ITS SEAT. APPROVED GROUTS ARE: EPI TOP 100 (CELANESE COATING CO.); COLMA-DUR OR SIKASTIX 370 (SIKA CHEMICAL CORP.); FX-75 HYDRO-ESTER BONDING AGENT (FOX INDUSTRIES) AND FEL-POXY 102 (FEL-PRO BUILDING PRODUCTS, INC.).

FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604-22 OF THE TENNESSEE STANDARD SPECIFICATION. AN APPLIED TEXTURE FINISH SHALL BE USED IN LIEU OF A CLASS 2 FINISH. THE COLOR OF THE FINISH SHALL BE SIMILAR TO BEIGE, FEDERAL SPECIFICATION NO. 33690, FEDERAL COLOR STANDARD NO. 595A, AND A COLOR SAMPLE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. NO TEXTURE FINISH SHALL BE APPLIED PRIOR TO COMPLETION OF PAVING AND HAULING OPERATIONS AT THE BRIDGE SITE. PAYMENT FOR THE APPLIED TEXTURE FINISH SHALL BE UNDER ITEM 604-04.01 & 604-04.02. ALL EXPOSED SURFACES OF BENTS AND ABUTMENTS SHALL RECEIVE AN APPLIED TEXTURE FINISH.

ESTIMATED QUANTITIES

	ITEM NO.	202-04.03	202-04.04	204-02.01	604-01.12	604-02.03	604-03.01	604-03.02	604-03.03	604-04.01	604-04.02	606-02.03	615-02.31	620-03	710-10	710-11	709-04	604-10.05	615-02.28
	ITEM	REMOVAL OF STRUCTURES (SUPERSTRUCTURE, BOX BEAMS, AND BENT CAPS) (STA 130+43.73) L.S. (1)	REMOVAL OF STRUCTURES (SUPERSTRUCTURE, BOX BEAMS, AND BENT CAPS) (STA 129+27.82) L.S. (1)	DRY EXCAVATION (BRIDGES) C.Y. (2)	CLASS "A" CONCRETE (BRIDGE DECK) (C.Y.)	EPOXY COATED REINFORCING STEEL LB	CLASS "A" CONCRETE (BRIDGES) C.Y.	STEEL BAR REINFORCEMENT (BRIDGES) LB	LINSEED OIL TREATMENT S.Y.	APPLIED TEXTURE FINISH (NEW STRUCTURES) S.Y.	APPLIED TEXTURE FINISH (EXISTING STRUCTURES) S.Y. (11)	STEEL PILES (10 INCH) L.F.	PRESTRESSED CONCRETE BOX BEAM (30"X48") L.F. (4)	CONCRETE PARAPET L.F. (6)	6" PERF. C.M. PIPE (18 GA) W/ POROUS BACKFILL L.F. (5)	6" C.M. PIPE UNDERDRAINS (18 GA.) C.Y.	REINFORCED CONCRETE SLOPE PAVEMENT C.Y. (10)	PNEUMATIC CONCRETE REPAIR S.F.	PRESTRESSED CONCRETE BOX BEAM (24"X48") L.F. (9)
LEFT LANE	SUPERSTRUCTURE				203.7	59,856	26.7	2,108		737									
	ABUTMENT NO.1			15			3.8	751		5	16	56						10	
	BENT NO.1			60			21.0	3,073		53	96							50	
	BENT NO.2			55			20.9	3,064		53	96							50	
	ABUTMENT NO.2			17			4.5	903		4	16	56						10	
	PV'MT @ BR. ENDS (8)					5,562	107.5	17,690				100							
	TOTALS	1		147	203.7	65,418	184.4	27,589	1,034	852	224	212 (3)	268	394	66	30	15	120	442
RIGHT LANE	SUPERSTRUCTURE				185.1	53,880	44.1	1,349		690									
	ABUTMENT NO.1			17			3.9	1,022		5	16	56						10	
	BENT NO.1			72			22.0	2,924		60	99							50	
	BENT NO.2			28			20.8	2,753		60	99							50	
	ABUTMENT NO.2			15			5.6	864		4	15	56						10	
	PV'MT @ BR. ENDS (8)					5,494	107.5	(3) 17,540				100							
	TOTALS		1	132	185.1	59,374 (2)	203.9	26,452 (2)	869	819	229	212 (3)	264	369	66	30	13	120	393

(3) (1) NOTE: LUMP SUM: ASPHALT, BRIDGERAIL, BOX BEAMS, PORTIONS OF BENT CAPS, AND PORTIONS OF THE ABUTMENTS ARE TO BE REMOVED.

(2) NOTE: EXCAVATION BASED ON EXISTING GROUND.

(3) NOTE: THE COST OF BITUMINOUS FIBERBOARD, TARPAPER, AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN BRIDGE ITEMS BID ON.

(4) NOTE: COST OF ELASTOMERIC PADS, RUBBER BONDING CEMENT, AND DOWEL BARS TO BE INCLUDED IN THE COST OF PRESTRESSED BEAM.

(5) NOTE: COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN COST OF PERFORATED C.M. PIPE.

(6) NOTE: ALL REINFORCING STEEL IN THE TRAFFIC FACE OF PARAPETS SHALL BE EPOXY COATED. COST TO BE INCLUDED IN THE PRICE FOR ITEM 620-03.

(7) NOTE: THE COST OF 16 THREADED STEEL INSERTS AND 16 7/8" HEX HEAD BOLTS (A307), TO BE INCLUDED IN BRIDGE ITEMS BID ON.

(8) NOTE: PAVEMENT AT BRIDGE ENDS MUST BE CONSTRUCTED IN PHASES WITH TRANSVERSE STEEL SPLICED AT CONST. JOINT.

(9) NOTE: ITEM NO. 604-10.05 INCLUDES REMOVAL OF ALL SPALLED, CRACKED AND/OR DETERIORATED CONCRETE ON THE EXPOSED SURFACES OF THE EXISTING SUBSTRUCTURES AND THEN REPAIRING WITH PNEUMATIC CONCRETE. SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 622. ALL REPAIRED AREAS, UNLESS OTHERWISE SHOWN ON THE PLANS, ARE TO BE RESTORED TO THE LINES SHOWN ON THE ORIGINAL CONTRACT DRAWINGS. THE MAJORITY OF THE OUTLINED WORK IS IN THE AREAS SHOWN AND/OR STATED ON THE PLANS, HOWEVER THE RESTORATION WORK IS NOT LIMITED TO THOSE LOCATIONS AND THE ENGINEER MAY DESIGNATE OTHER LOCATIONS THROUGH OUT THE STRUCTURE TO BE REPAIRED AT THE SAME UNIT COST AS THE BID PRICE. THE CONTRACTOR MAY SUBSTITUTE CLASS 'A' CONCRETE FOR PNEUMATIC CONCRETE PROVIDED THE MINIMUM DEPTH OF REPAIR AREAS SHALL BE FOUR (4") INCHES AND AN APPROVED EPOXY BONDING MATERIAL IS PLACED BETWEEN OLD AND NEW CONCRETE. IF CLASS 'A' CONCRETE IS USED, THE SURFACE PREPARATION SHALL BE AS SPECIFIED IN SECTION 622.06 EXCEPT AS MODIFIED ABOVE.

(10) NOTE: EXISTING PAVED AREAS REQUIRED TO BE REMOVED FOR CONSTRUCTION OF SUBSTRUCTURES SHALL BE REPAIRED IN KIND BY THE CONTRACTOR. ALL COSTS TO BE INCLUDED IN ITEMS BID ON.

CONSTRUCTION SEQUENCE

(1) SET TEMPORARY BARRIER AND MOVE TRAFFIC TO INSIDE OF BRIDGE. PROVIDING ONE 12' LANE.
(2) REMOVE EXISTING BEAMS AND BUILD NEW COLUMNS AND BENT CAP EXTENSIONS.
(3) PLACE NEW BEAMS AND POUR NEW PORTION OF SLAB AND PARAPET.
(4) SET BARRIER TO PROVIDE ONE 16' LANE ON OUTSIDE OF BRIDGE.
(5) REMOVE REMAINING EXISTING BEAMS AND PLACE NEW BEAMS. POUR NEW SLAB AND PARAPET ON INSIDE OF BRIDGE.
(6) REMOVE MEDIAN BARRIER.

DESIGNED BY HOUSTON WALKER DATE 10-83
DRAWN BY KELLY WEBB DATE 11-83
SUPERVISED BY P.L. HARRIGAN & BROOKS DATE 11-83
CHECKED BY H. WALKER DATE 1-84

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

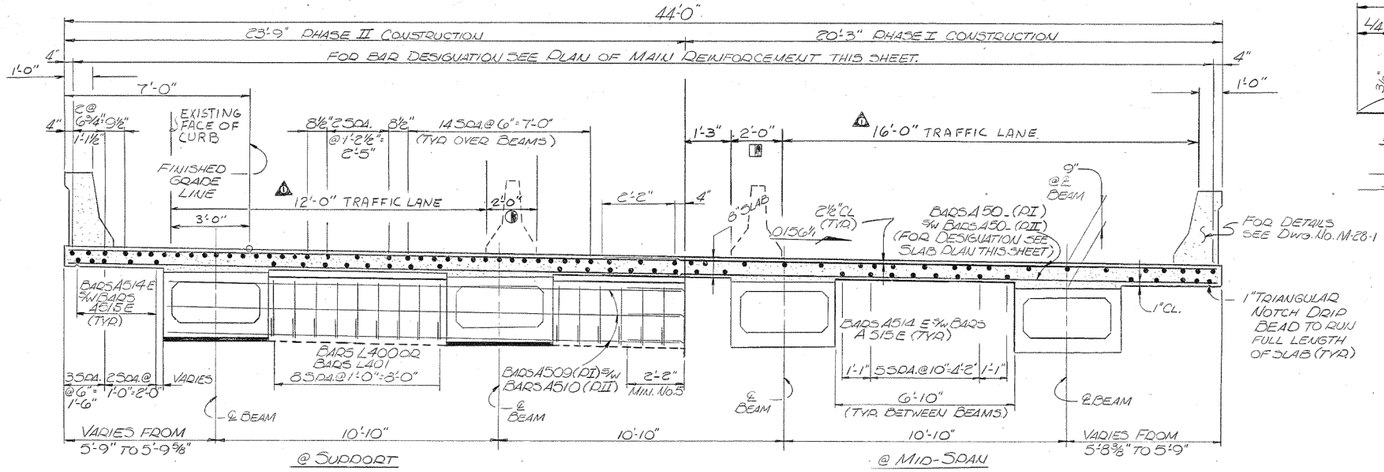
GENERAL NOTES AND ESTIMATED QUANTITIES

WIDENING OF INTERSTATE 40 OVER COUNTY ROAD

STATION 130+43.73 (LEFT LANE INTERSTATE-40.)
STATION 129+27.82 (RIGHT LANE INTERSTATE-40.)
SMITH COUNTY

CORRECT Clellon L Loveall, ENGINEER OF STRUCTURES 1984
APPROVED Lewis Evans, DIRECTOR OF HIGHWAYS

M-142-65

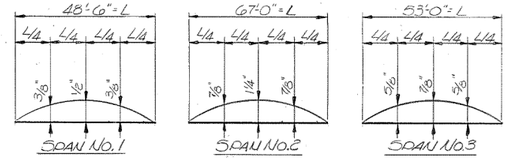


— TYPICAL CROSS SECTION —

(LOOKING FORWARD ON SURVEY)

◑ DENOTES LOCATION OF PORTABLE MEDIAN BARRIER FOR PHASE I CONST.

◧ DENOTES LOCATION OF PORTABLE MEDIAN BARRIER FOR PHASE II CONST.



— DEAD LOAD CORRECTION CURVE —

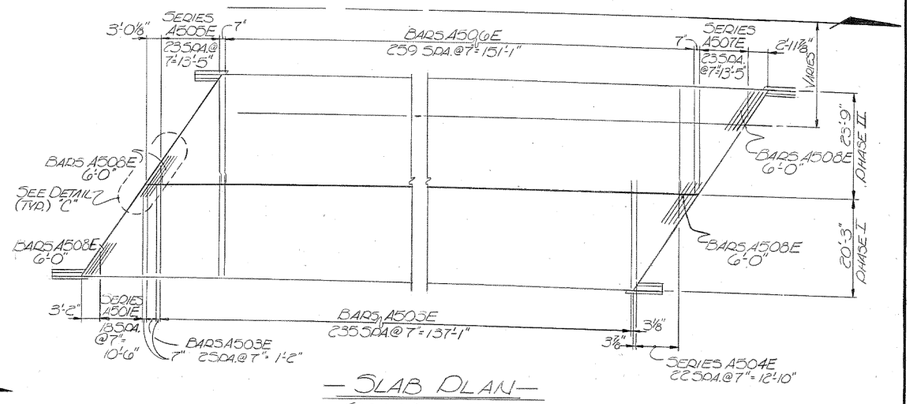
THESE CURVES ARE FOR DEAD LOAD SLAB AND ALL DEAD LOADS THAT ARE APPLIED AFTER SLAB IS IN PLACE AND SHOULD BE CORRECTED TO COMPENSATE FOR THE EFFECTS DUE TO VERTICAL CURVE.

COUST. NO. 80001-3148-44

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

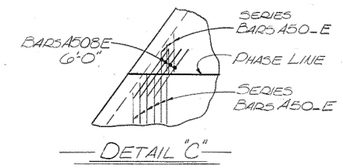
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	2-13-84	JHW	LOCATED BARRIERS
2	3-30-84	JHW	QUANTITIES & GEN. REV.

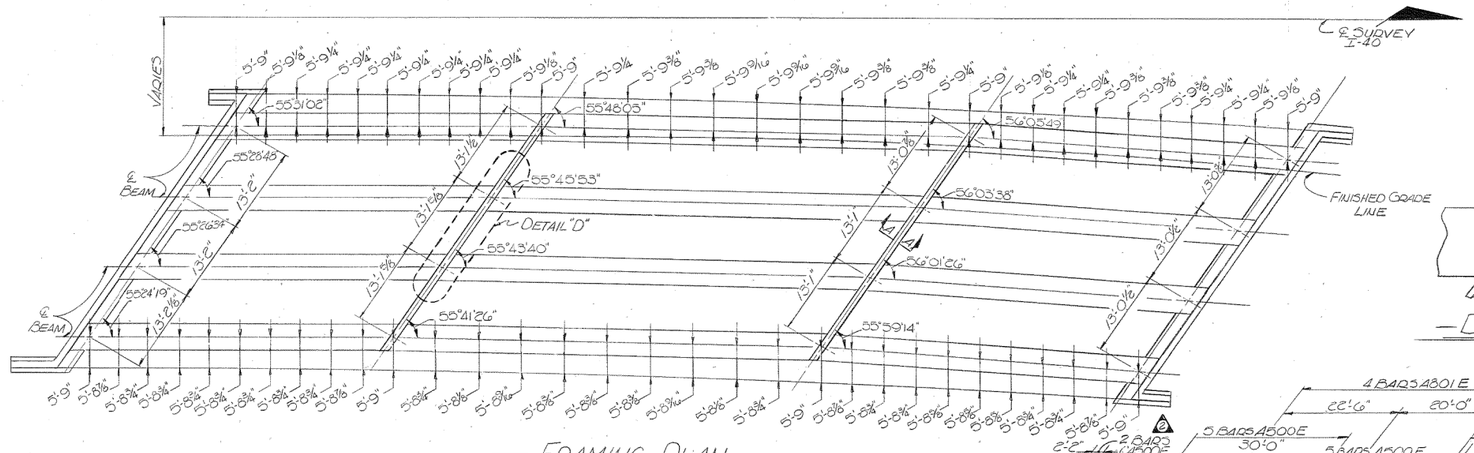


— SLAB PLAN —

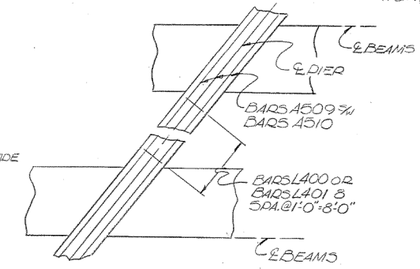
(TOP AND BOTTOM SLAB)



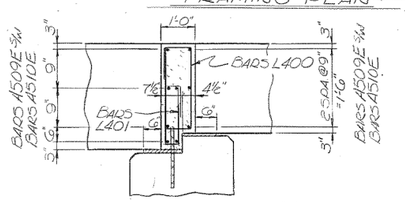
— DETAIL "C" —



— FRAMING PLAN —



— DETAIL "D" —

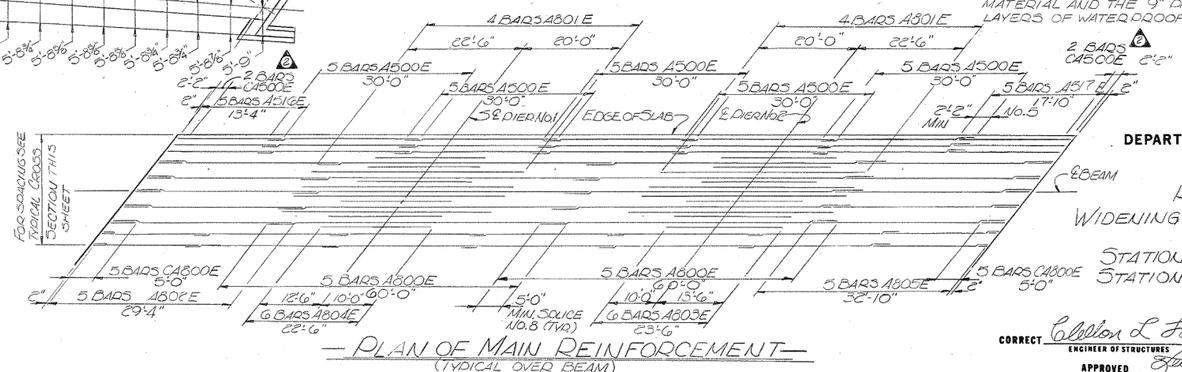


— SECTION "A"-"A" —

⚠ ESTIMATED QUANTITIES

CLASS "A" CONCRETE (BRIDGE DECK) C.Y.	EPOXY COATED REINFORCING STEEL LB.	CLASS "A" CONCRETE C.Y.	STEEL BAR REINFORCEMENT LB.
185.1	53,880	44.1	1,349

SPECIAL NOTE FOR DOWEL BARS AT BENT: TOP OF DOWELS TO BE COVERED WITH ½" OF COMPRESSIBLE MATERIAL AND THE 9" PROJECTION WRAPPED WITH TWO LAYERS OF WATERPROOF PAPER.



— PLAN OF MAIN REINFORCEMENT —

(TYPICAL OVER BEAM)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE
RIGHT LANE
WIDENING OF INTERSTATE 40 OVER
COUNTY ROAD
STATION 130+43.73 (LEFT LANE)
STATION 129+27.22 (RIGHT LANE)
SMITH COUNTY
1984

CORRECT Clifton L. Forrest
ENGINEER OF STRUCTURES

APPROVED Harris Evans
DIRECTOR OF HIGHWAYS

M-142-66

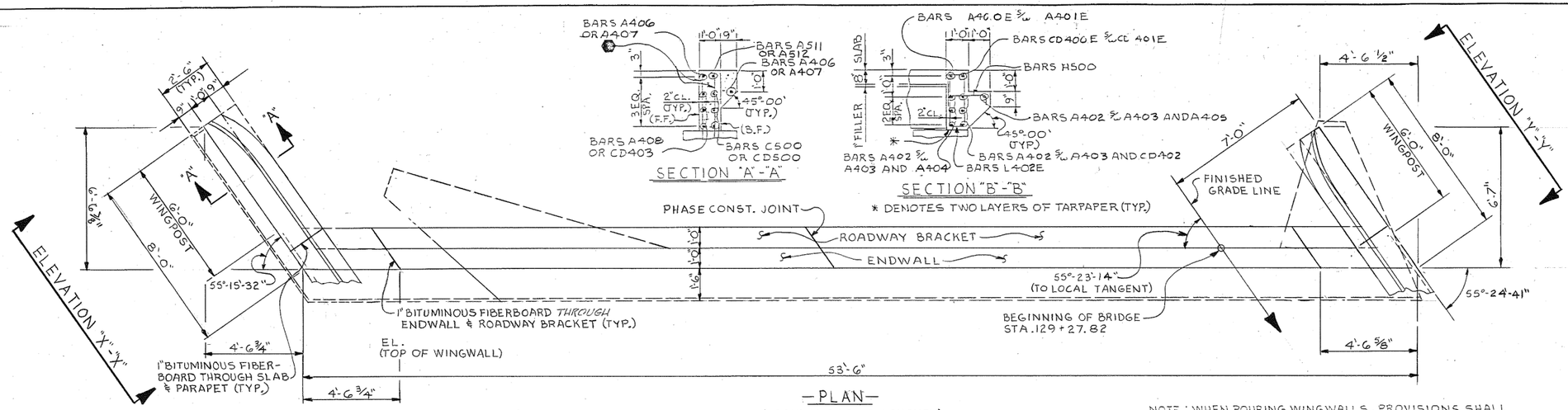
DESIGNED BY Houston Walker DATE
DRAWN BY Penny Jackson DATE
SUPERVISED BY HMB-RLH DATE
CHECKED BY DATE

CONST. No. 80001-3148-44

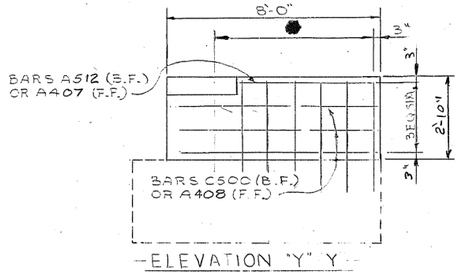
PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

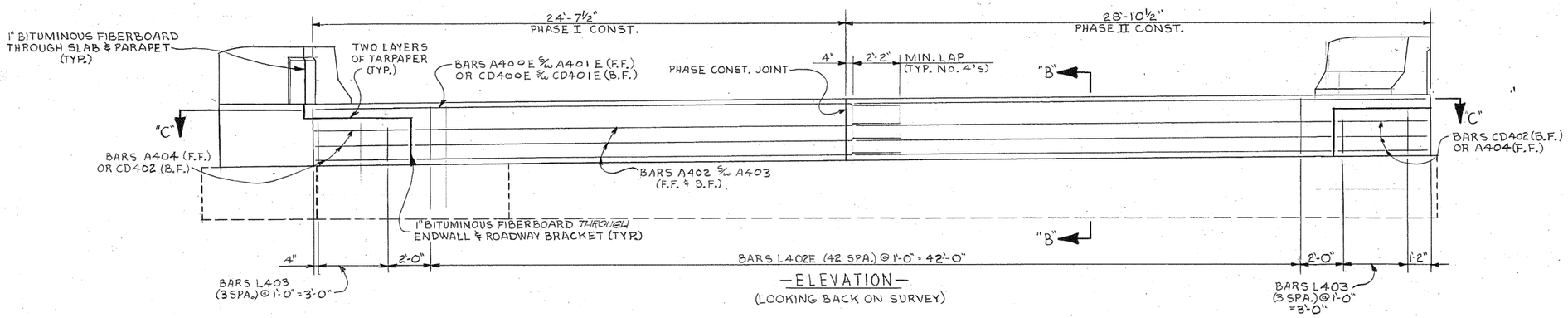
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	3-30-84	JHW	GENERAL REVISIONS

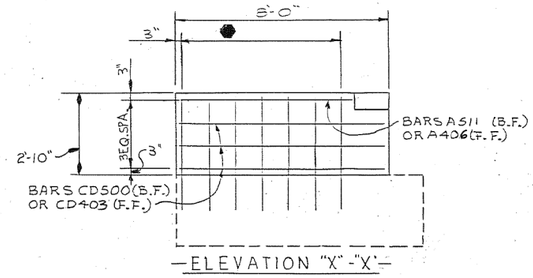


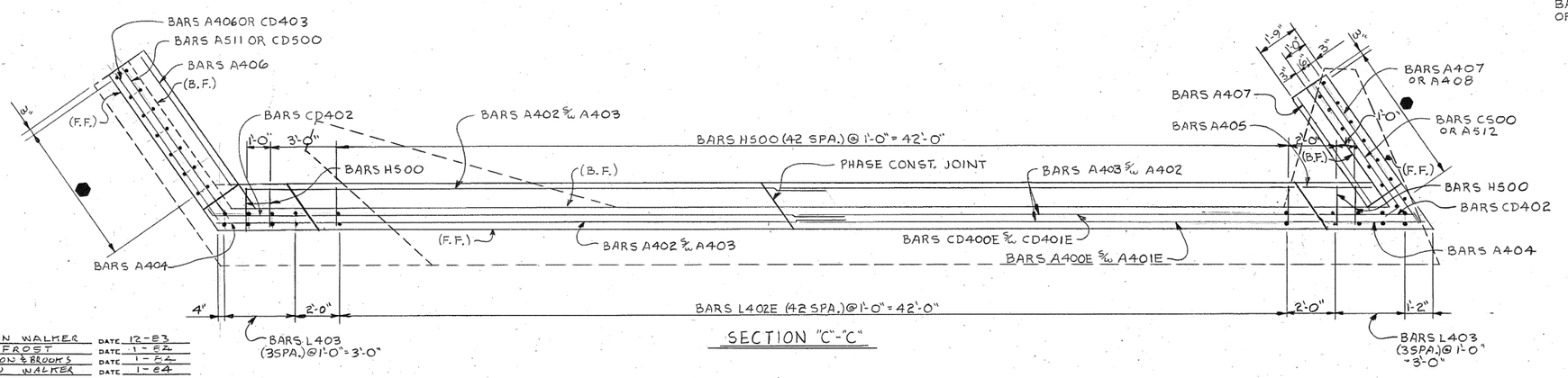
NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE SETTING REINFORCING STEEL FOR WINGPOST AND PARAPET. FOR DETAILS OF WINGPOST AND PARAPET SEE STD. DWG. M-28-1.





● DENOTES FOR BAR DESIGNATION SEE ABUT. No. 1, DWG. No. M-142-76.





DESIGNED BY HOUSTON WALKER DATE 12-83
DRAWN BY FRANK FROST DATE 1-84
SUPERVISED BY HARRISON & BROOKS DATE 1-84
CHECKED BY HOUSTON WALKER DATE 1-84

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAIL AT ABUTMENT No. 1, RIGHT LANE WIDENING OF INTERSTATE 40 OVER COUNTY ROAD STATION 129+27.82 (RIGHT LANE) SMITH COUNTY 1984

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

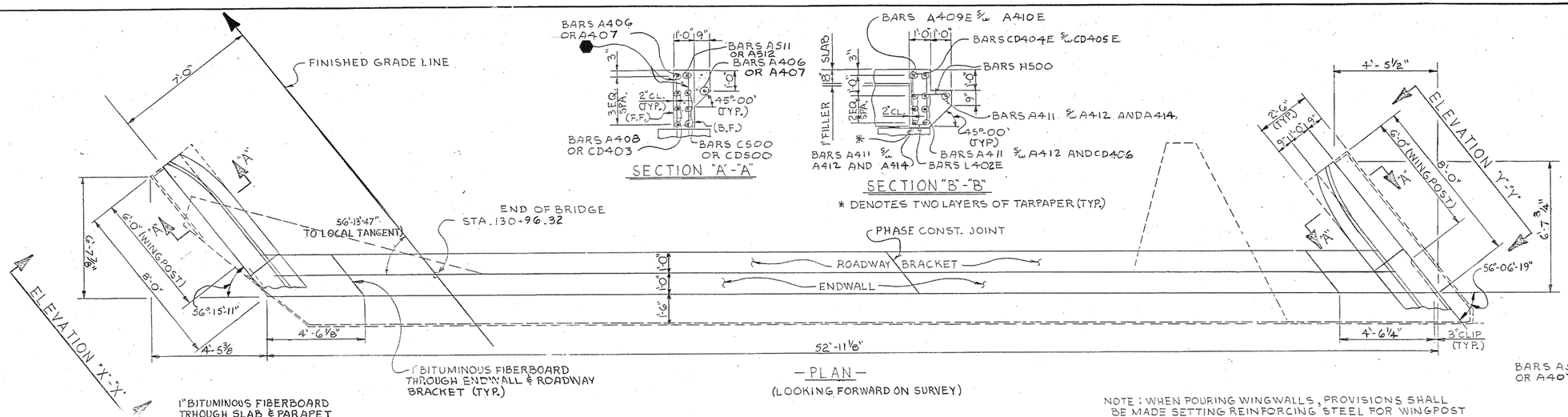
M-142-67

CONST. No. 80001-3148-44

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

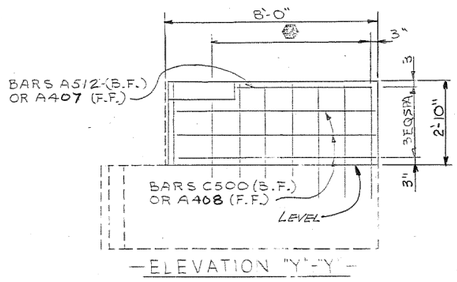
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	3-30-84	JHW	GENERAL REVISIONS.

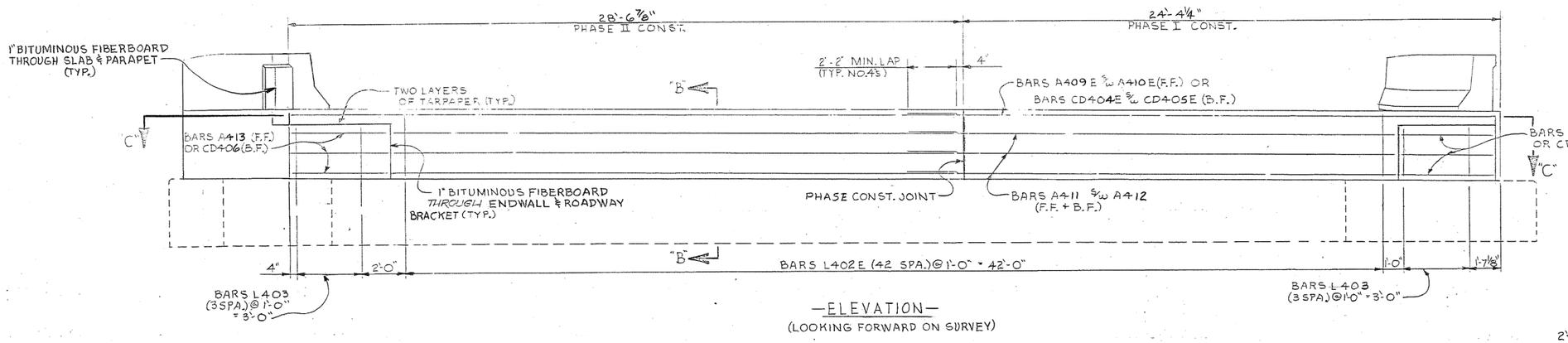


—PLAN—
(LOOKING FORWARD ON SURVEY)

NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE SETTING REINFORCING STEEL FOR WINGPOST AND PARAPET. FOR DETAILS OF WINGPOST AND PARAPET SEE STD. DWG. M-28-1.

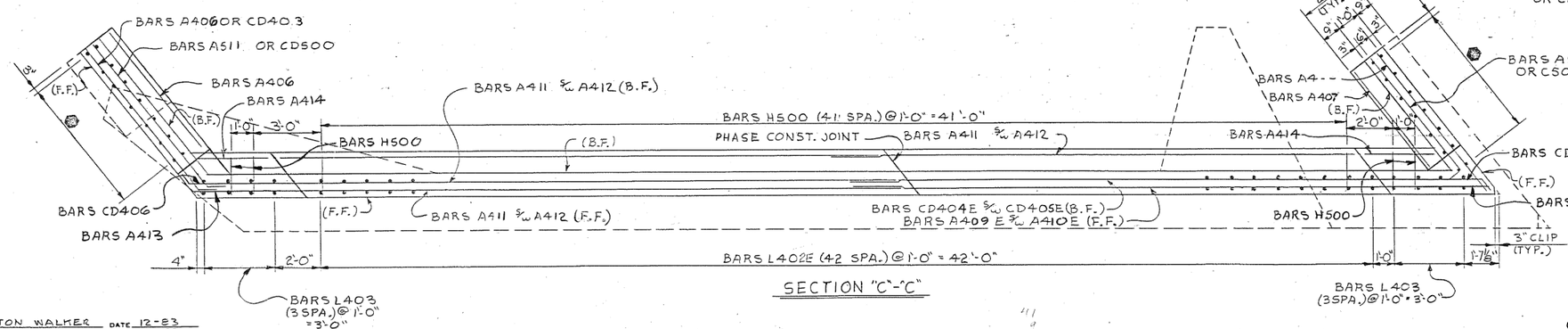


—ELEVATION "Y"-"Y"—

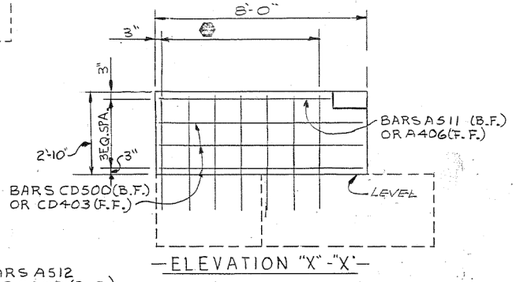


—ELEVATION—
(LOOKING FORWARD ON SURVEY)

DENOTES FOR BAR DESIGNATION SEE ABUT. No. 2, DWG. No. M-142-77.



SECTION "C"-"C"



—ELEVATION "X"-"X"—

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAIL AT ABUTMENT No. 2, RIGHT LANE WIDENING OF I-40 OVER COUNTY ROAD STATION 129+27.82 (RIGHT LANE) SMITH COUNTY 1984

DESIGNED BY	HOUSTON WALKER	DATE 12-83
DRAWN BY	FRANK FROST	DATE 1-84
SUPERVISED BY	HARRISON & BROOKS	DATE 1-84
CHECKED BY	HOUSTON WALKER	DATE 1-84

CORRECT: Clellon L Foreall
ENGINEER OF STRUCTURES
APPROVED: Lewis Evans
DIRECTOR OF HIGHWAYS

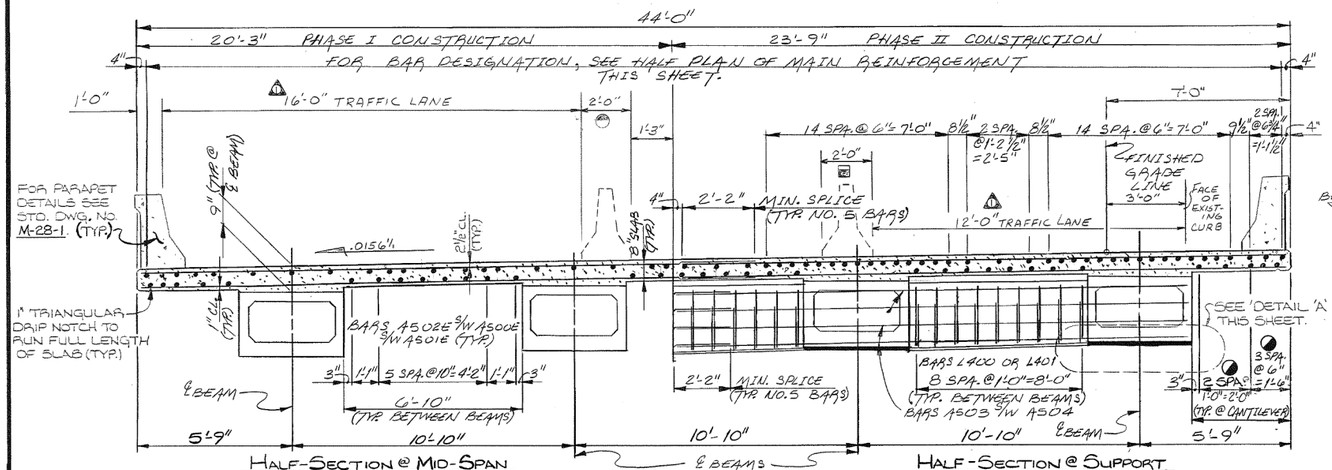
M-142-68

CONST. No. 80001-3148-44

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

REVISIONS

NO	DATE	BY	BRIEF DESCRIPTION
1	2-13-84	JHW	LOCATED BARRIERS
2	3-30-84	JHW	GENERAL REVISIONS.



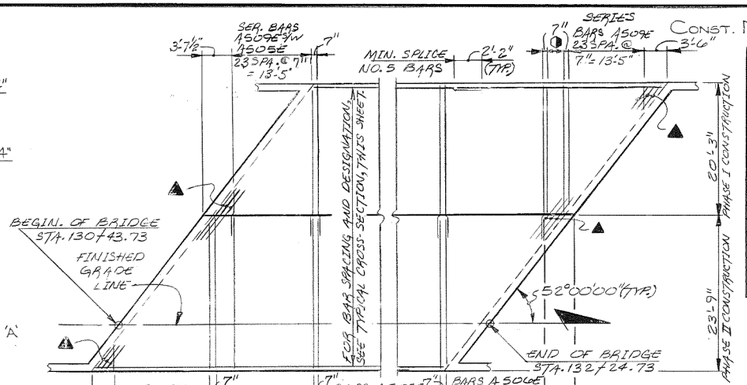
TYPICAL CROSS SECTION

(LOOKING FORWARD ON SURVEY)

▲ DENOTES LOCATION OF PORTABLE MEDIAN BARRIER FOR PHASE I CONSTRUCTION.

◓ DENOTES LOCATION OF PORTABLE MEDIAN BARRIER FOR PHASE II CONSTRUCTION.

◑ = DENOTES BARS A501E 3/W A502E 3/W A501E (TYPICAL @ CANTILEVER)

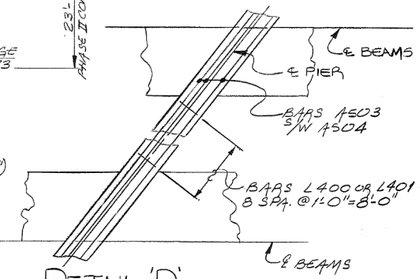


▲ = DENOTES 3 BARS A501E (TYP.)

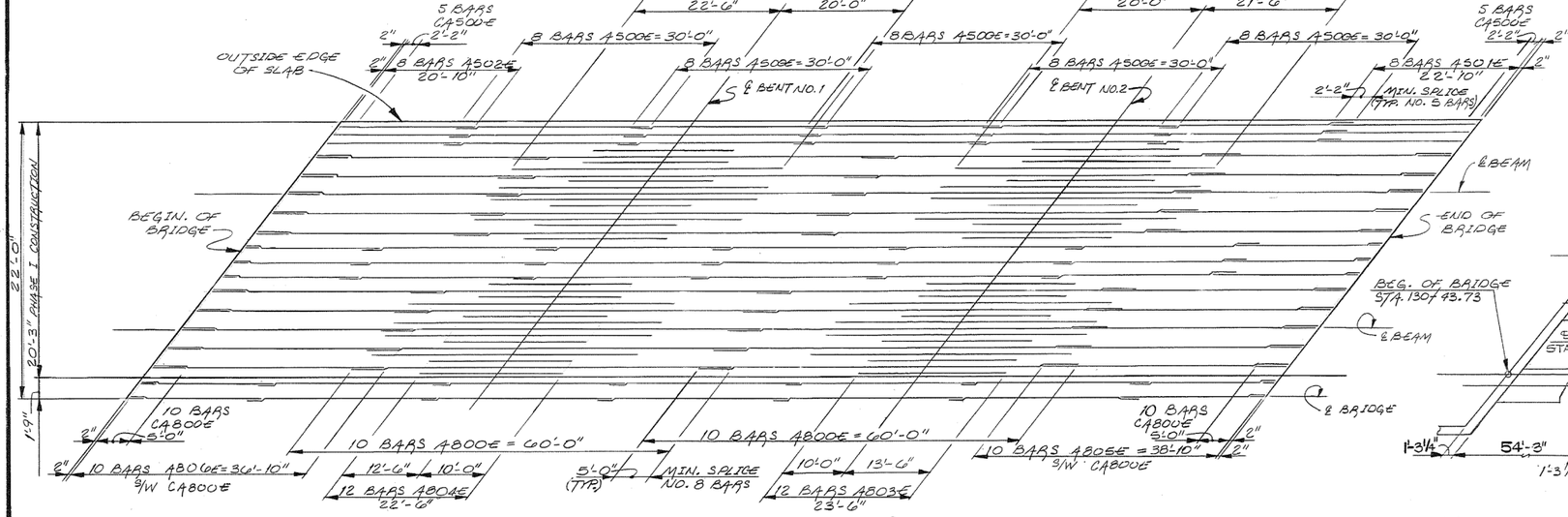
◑ = DENOTES BARS A501E 3/W A502E 3/W A501E (4 SPA. @ 7" = 2'-4")

▲ SLAB PLAN

(STEEL TO BE TYPICAL FOR TOP AND BOTTOM OF SLAB UNLESS NOTED OTHERWISE)



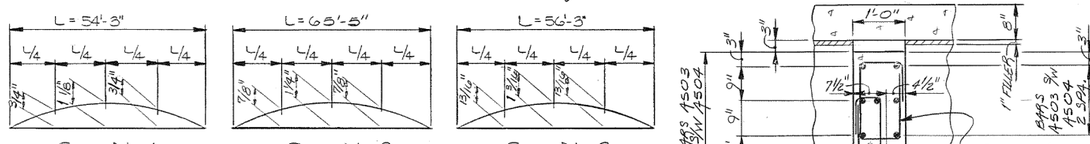
DETAIL 'D'



HALF PLAN of MAIN REINFORCEMENT

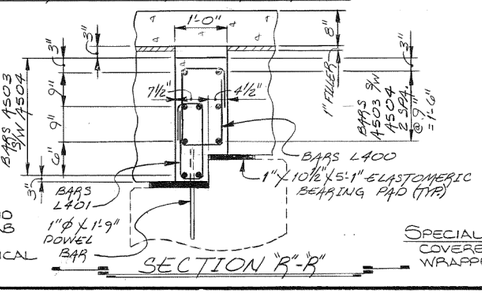
FRAMING PLAN

NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED.



DEAD LOAD CORRECTION CURVE

THESE CURVES ARE FOR DEAD LOAD SLAB AND ALL DEAD LOADS THAT ARE APPLIED AFTER SLAB IS IN PLACE AND SHOULD BE CORRECTED TO COMPENSATE FOR THE EFFECTS DUE TO VERTICAL CURVE.



SECTION "R"-"R"

SPECIAL NOTE FOR DOWEL BARS AT BENT: TOP OF DOWELS TO BE COVERED WITH ½" OF COMPRESSIBLE MATERIAL AND THE 9" PROJECTION WRAPPED WITH TWO LAYERS OF WATERPROOF PAPER.

▲ ESTIMATED QUANTITIES

	CLASS "A" CONCRETE (BRIDGE DECK) C.Y.	EPOXY COATED REINFORCING STEEL LB.	CLASS 'A' CONCRETE C.Y.	STEEL BAR REINFORCEMENT LB.
SUPERSTRUCTURE	203.7	59,856	26.7	2,108

DESIGNED BY H. WALKER DATE 10-83
DRAWN BY M. DYE & G. LLOYD DATE 11-83
SUPERVISED BY A.L.H. & H.W. DATE 11-83
CHECKED BY H.WALKER DATE 1-84

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE - LEFT LANE WIDENING OF INTERSTATE 40 OVER COUNTY ROAD STATION 130+43.73 SMITH COUNTY 1984

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

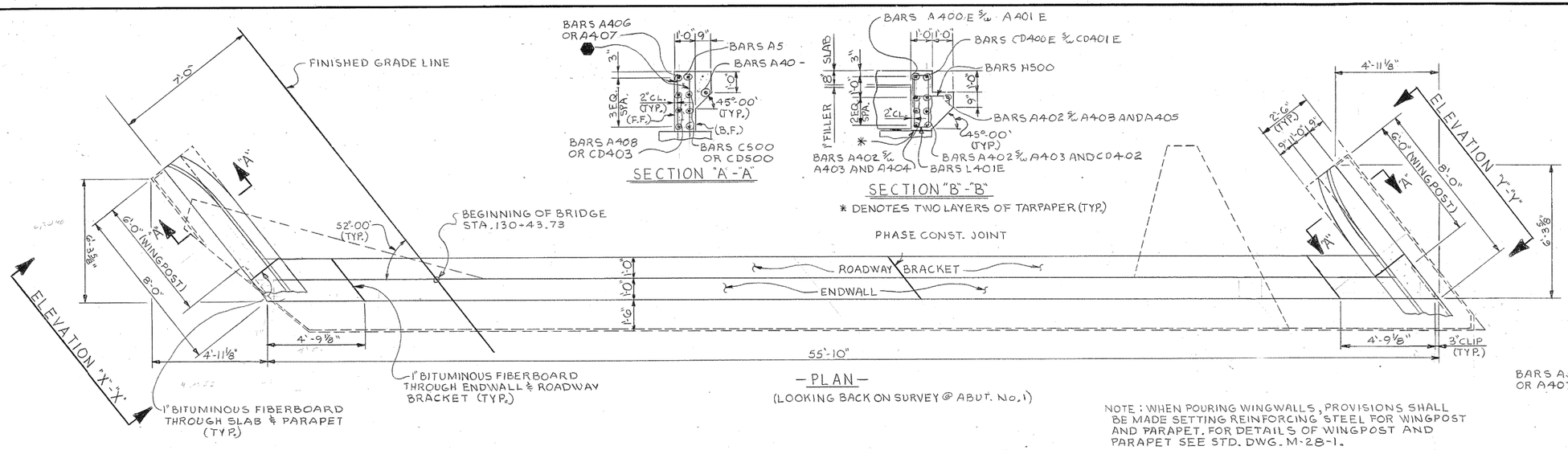
M-142-69

CONST. No. 80001-3148-44

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	3-30-84	JHW	GENERAL REVISIONS



SECTION "A"-"A"

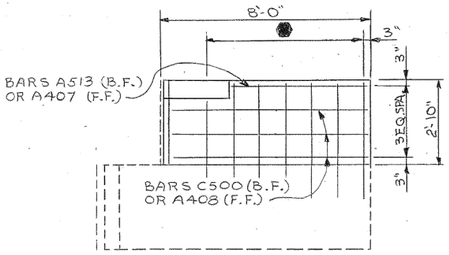
SECTION "B"-"B"

* DENOTES TWO LAYERS OF TARPAPER (TYP.)

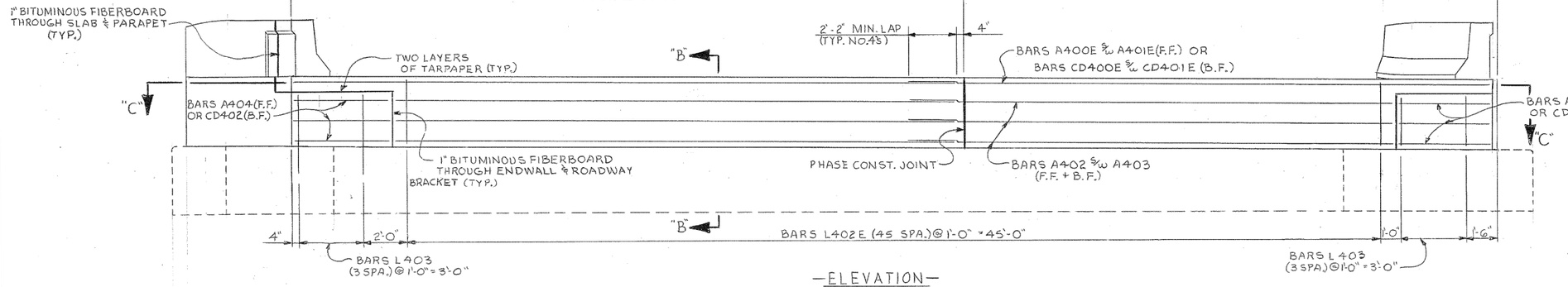
—PLAN—

(LOOKING BACK ON SURVEY @ ABUT. No. 1)

NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE SETTING REINFORCING STEEL FOR WINGPOST AND PARAPET. FOR DETAILS OF WINGPOST AND PARAPET SEE STD. DWG. M-28-1.

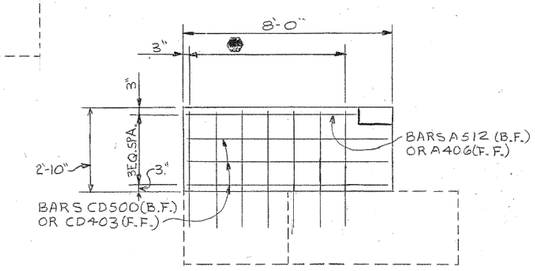


—ELEVATION "Y"-"Y"—



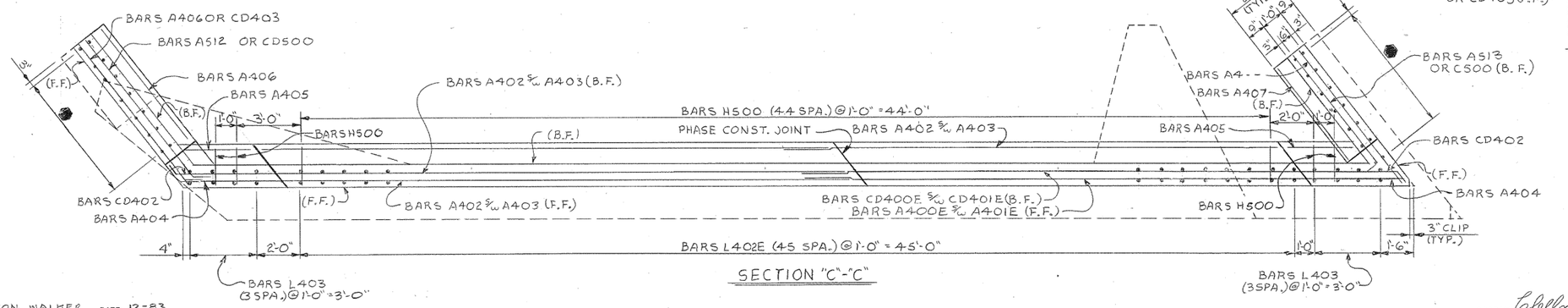
—ELEVATION—

(LOOKING BACK ON SURVEY @ ABUT. No. 1)



—ELEVATION "X"-"X"—

⚠1 DENOTES FOR BAR DESIGNATION SEE ABUT. No. 1, DWG. No. M-142-78.



SECTION "C"-"C"

DESIGNED BY HOUSTON WALKER DATE 12-83
DRAWN BY FRANK FROST DATE 1-84
SUPERVISED BY HARRISON & BROOKS DATE 1-84
CHECKED BY HOUSTON WALKER DATE 1-84

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAIL
AT ABUTMENT No. 1, LEFT LANE
WIDENING OF I-40 OVER
COUNTY ROAD
STATION 130+43.73 (LEFT LANE)
SMITH COUNTY
1984

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

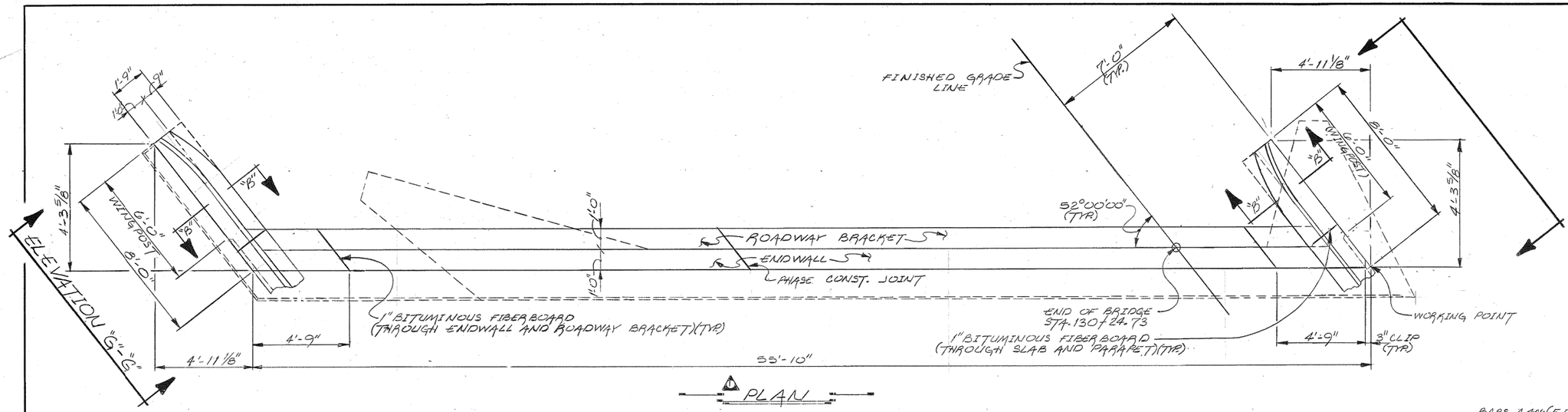
M-142-70

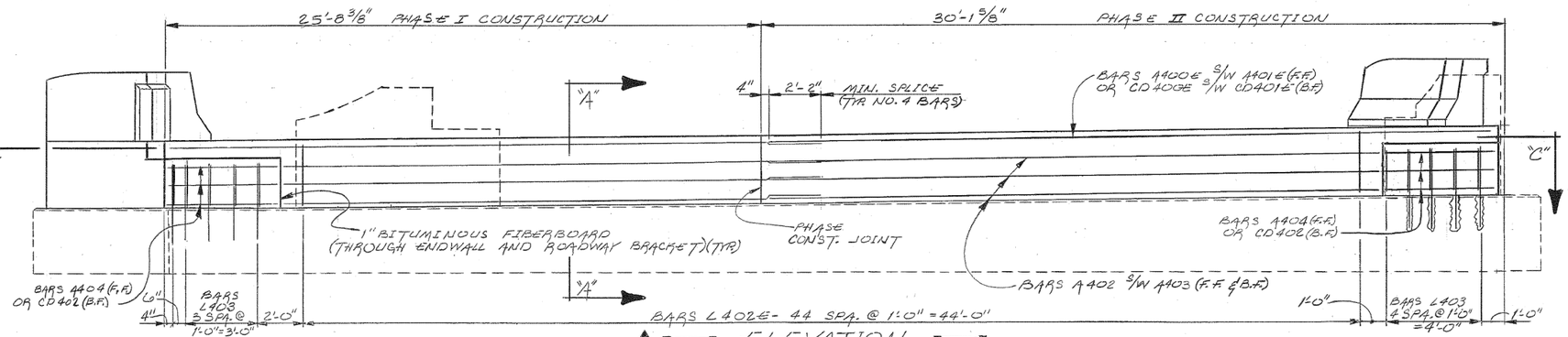
Const. No. 80001-3148-44

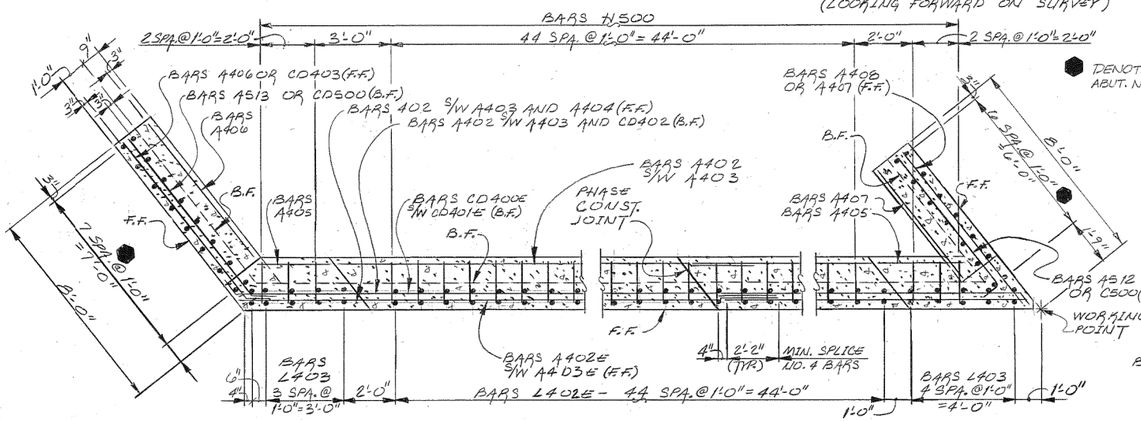
PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

REVISIONS

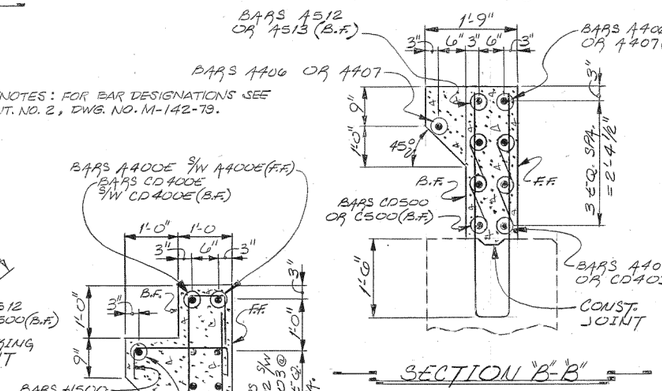
NO.	DATE	BY	BRIEF DESCRIPTION
1	3-30-84	JHW	GENERAL REVISIONS

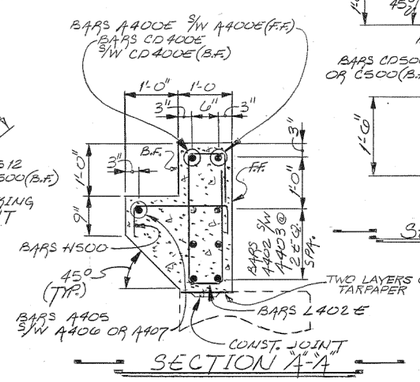


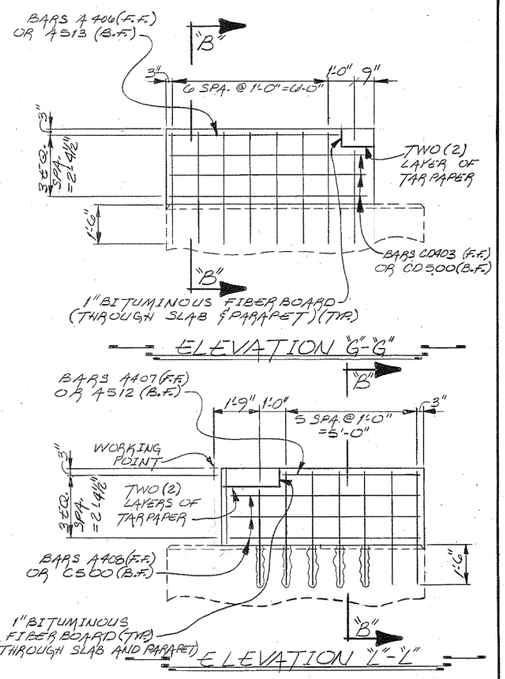




● DENOTES: FOR BAR DESIGNATIONS SEE ABUT. NO. 2, DWG. NO. M-142-79.







STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS at ABUTMENT NO. 2
LEFT LANE
WIDENING of INTERSTATE-40 Over COUNTY ROAD
STATION 130+43.73
SMITH COUNTY
1984

DESIGNED BY Houston Walker DATE 1-84
DRAWN BY Grant A. Floyd DATE 1-84
SUPERVISED BY H. E. LENB. DATE 1-84
CHECKED BY H. WALKER DATE 1-84

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

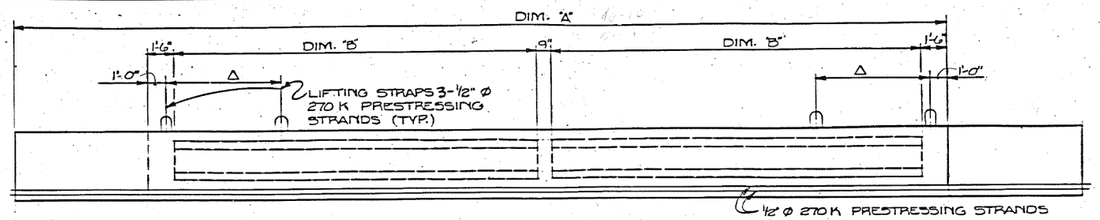
M-142-71

CONST. NO. 80001-3148-44.

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

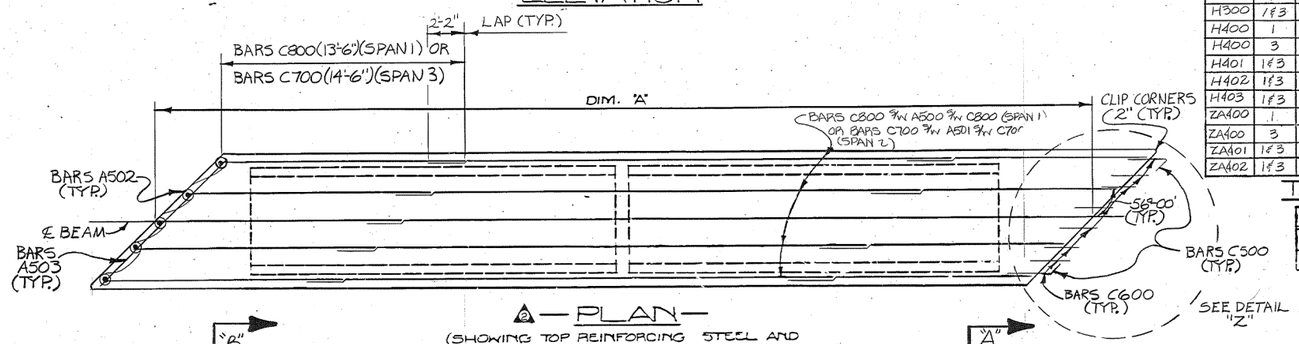
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6-18-84	JHW	DIM. C & BAR SPACING AND
2	6-21-84	JHW	REVISED SKEW ANGLE.



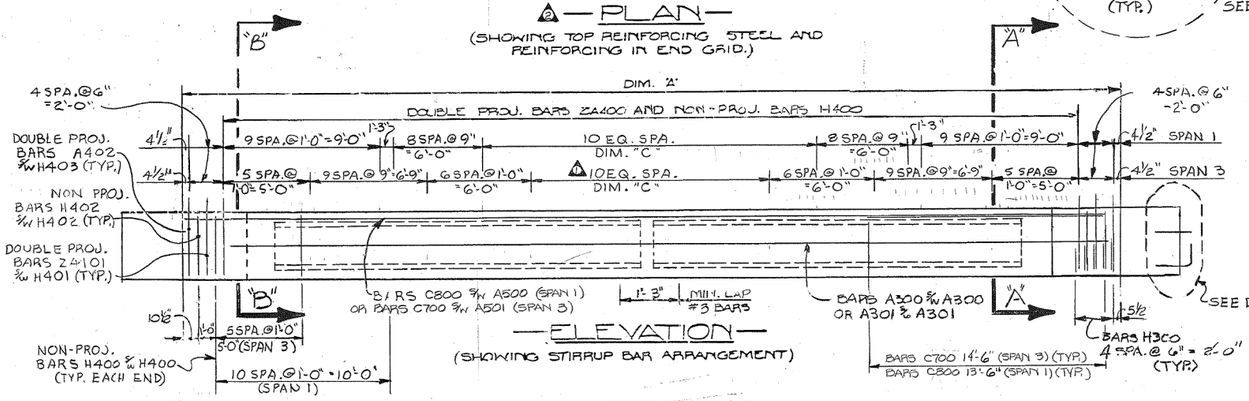
Δ: DISTANCE TO BE DETERMINED BY FABRICATOR.

—ELEVATION—



Δ—PLAN—

(SHOWING TOP REINFORCING STEEL AND REINFORCING IN END GRID.)



—ELEVATION—

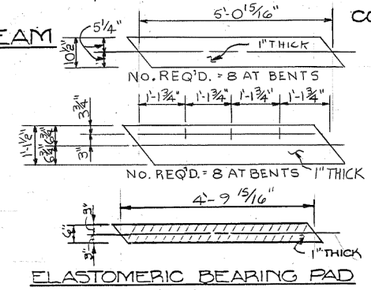
(SHOWING STIRRUP BAR ARRANGEMENT)

BILL OF STEEL ~ PER BEAM

BAR	SPAN	SIZE	NO. REQD.	BENDING DIMENSIONS a	b	c	d	LENGTH
A300	1	3	4					23'-11"
A301	3	3	4					26'-2"
A500	1	5	4					23'-10"
A501	3	5	4					26'-4"
A502	1&3	5	10					1'-8"
A503	1&3	5	6					4'-6"
C500	1&3	5	4	1'-11"				2'-8"
C600	1&3	6	16	1'-11"				2'-8"
C700	3	7	8	14'-6"				15'-8"
C800	1	8	8	13'-6"				14'-9"
H300	1&3	3	10	3'-7 1/2"	1'-0"			5'-7"
H400	1	4	91	3'-7 1/2"	1'-8"			6'-11"
H400	3	4	73	3'-7 1/2"	1'-8"			6'-11"
H401	1&3	4	2	3'-10 1/2"	1'-8"			7'-2"
H402	1&3	4	4	4'-1 1/2"	1'-8"			7'-5"
H403	1&3	4	2	4'-4 1/2"	1'-8"			7'-8"
ZA400	1	4	94	2'-10"	1'-0"	7 1/2"	4"	4'-8"
ZA400	3	4	98	2'-10"	1'-0"	7 1/2"	4"	4'-8"
ZA401	1&3	4	4	3'-0 1/2"	1'-0"	7 1/2"	4"	4'-11"
ZA402	1&3	4	4	3'-5"	1'-0"	7 1/2"	4"	5'-3"

TABLE OF DIMENSIONS

LOCATION	DIM. "A"	DIM. "B"	DIM. "C"
SPAN 1	46'-10"	20'-2 5/16"	9'-7" Δ
SPAN 3	51'-4"	22'-5 5/16"	11'-1" Δ

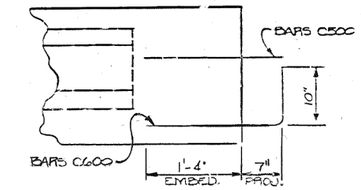


ELASTOMERIC BEARING PAD

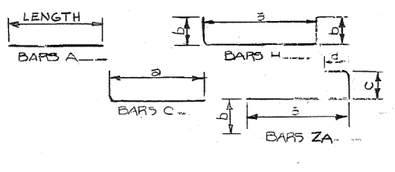
NO. REQ'D. = 8 AT ABUTS.

—GENERAL NOTES—

1. THE TOP OF ALL BEAMS ARE TO BE ROUGH FLOATED. AT APPROXIMATELY THE TIME OF INITIAL SET, THE TOP OF THE BEAMS WILL ALSO BE SCRUBBED TRANSVERSELY WITH A COARSE WIRE BRUSH TO REMOVE ALL LAITANCE AND PRODUCE A ROUGH SURFACE. WHERE PRECAST SLAB PANELS ARE TO BE USED AND SET ON FELT PADS, THE OUTER TWO INCHES OF THE TOP FLANGE MAY BE TROWELED.
2. MILD STEEL REINFORCING SHALL BE ASTM A615 GRADE 60.
3. ALL PRESTRESSING STRANDS TO BE 1/2" Ø ASTM GRADE 270K, 7 WIRE UNCOATED STRESS-RELIEVED PRESTRESSING STRANDS.
4. AN INITIAL FORCE OF 28,950 LBS. SHALL BE APPLIED TO EACH STRAND IN ALL BEAMS.
5. AFTER THE BEAM IS REMOVED FROM THE PRESTRESSING BED, BARS C600 AND C400 SHALL BE BENT A SUFFICIENT AMOUNT SO AS TO PERMIT THE "C" BARS OF ADJOINING BEAM TO MESH WHEN IN THE CORRECTED POSITION.
6. THE PRESTRESSING STRANDS SHALL BE LEFT PROJECTING 3" ± FROM THE ENDS OF THE BEAMS. THERE SHALL NOT BE ANY PROTECTIVE COATING PLACED ON THE ENDS OF THE BEAMS OR ON THE PROJECTING STRANDS.
7. ELASTOMERIC PADS TO BE 4'-9 15/16" X 6" X 1" AT ABUTMENT ENDS AND 4'-9 15/16" X 1'-1 1/2" X 1" WITH 1 1/4" Ø HOLES OR 4'-9 3/16" X 10 1/2" X 1" AT BENTS.
8. THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 5,000 + PSI AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 4,000 + PSI. SEE GENERAL NOTES SHEET FOR CONCRETE FINISHING NOTE.
9. 1" Ø WEEP HOLES REQUIRED AT LOW POINT OF EACH CELL.
10. EACH CELL SHALL BE VENTED, (DURING THE FABRICATION PHASE), IN SUCH A MANNER SO AS NOT TO ALLOW EXTERNAL WATER TO ENTER THE CELL.



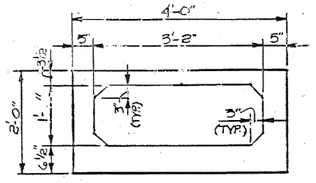
—DETAIL "X"—



ESTIMATED QUANTITIES PER BEAM

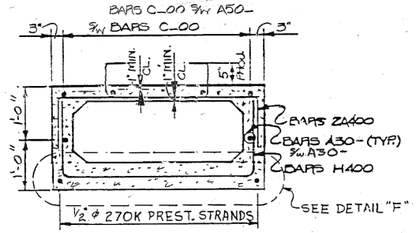
LOCATION	NO. REQ'D.	CLASS "A" CONCRETE C.Y.	STEEL BAR REINFORCEMENT LBS.	PREST. STEEL LBS.
SPAN 1	4	8.5	1,373	447
SPAN 3	4	9.3	1,257	653

NOTE: COST OF ELASTOMERIC PADS AND 16 DOWEL BARS AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE COST OF PRESTRESSED BEAM.



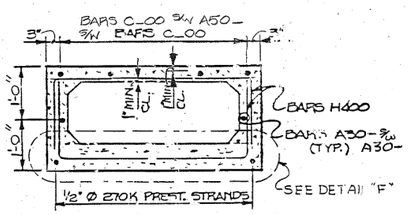
—SECTION—

(SHOWING PROPERTIES)



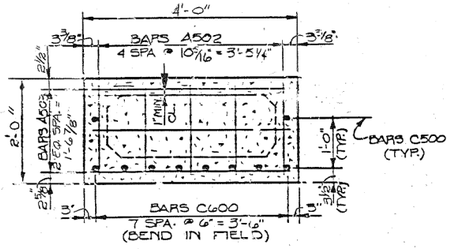
—SECTION "A"-"A"—

(SHOWING NON-PROJECTING BARS)



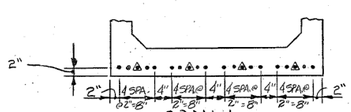
—SECTION "A"-"A"—

(SHOWING NON-PROJECTING BARS)



—SECTION "B"-"B"—

(SHOWING REINFORCING IN END GRID)

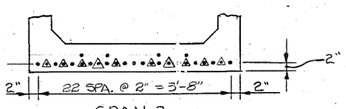


SPAN 1

Δ DENOTES BREAK BOND @ 1'-9" FROM END OF BEAM. (SPAN 1)

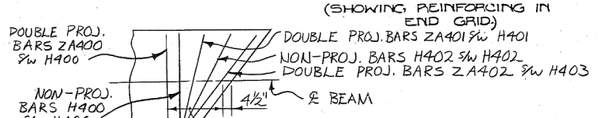
—DETAIL "F"—

(SHOWING 1/2" Ø 270K PREST. STRANDS)



SPAN 3

Δ DENOTES BREAK BOND @ 4'-8" FROM END OF BEAM (SPAN 3)



—DETAIL "Z"—

(SHOWING FLARED BARS)

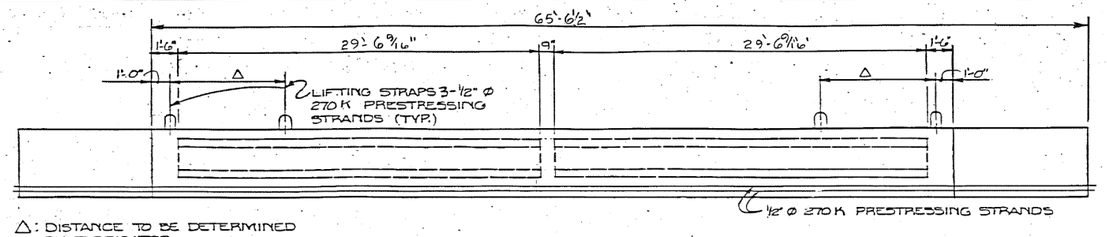
DESIGNED BY HOUSTON WALKER DATE 9-83
DRAWN BY REPS./FRANKE FROST DATE 11-83
SUPERVISED BY R.L.H.; HWD. DATE 11-83
CHECKED BY HOUSTON WALKER DATE 1-84

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

PRESTRESSED BOX BEAM
WIDENING OF I-40 OVER
COUNTY ROAD
STATION 129+27.82/RIGHT LANE I-40)
SPANS 1 & 3
SMITH COUNTY
1984

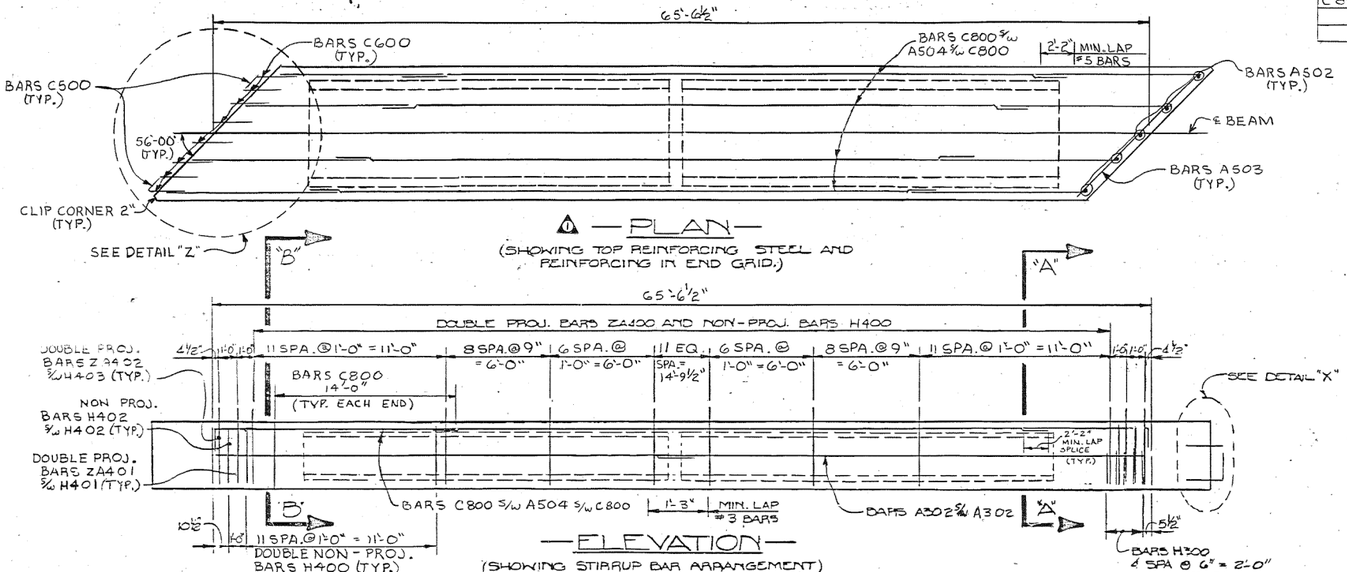
CORRECT Clellon L. Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-142-72



Δ: DISTANCE TO BE DETERMINED BY FABRICATOR.

—ELEVATION—



—PLAN—

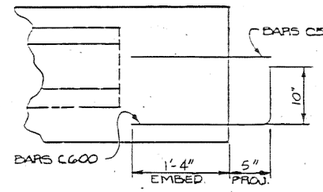
(SHOWING TOP REINFORCING STEEL AND REINFORCING IN END GRID.)

—ELEVATION—

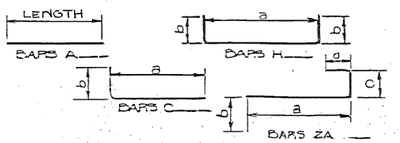
(SHOWING STIRRUP BAR ARRANGEMENT)

BILL OF STEEL — PER BEAM

BAR	SPAN	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH
A302	2	3	4					33'-6"
A502	2	5	10					2'-2"
A503	2	5	6					4'-5"
A504	2	5	74					42'-1"
C500	2	5	4	1'-11"	10"			2'-8"
C600	2	6	16	1'-9"	10"			2'-7"
H300	2	3	10	4'-4½"	1'-0"			6'-4"
H400	2	4	110	3'-7½"	2'-2"			7'-11"
H401	2	4	2	3'-10½"	2'-2"			8'-2"
H402	2	4	4	4'-1½"	2'-2"			8'-5"
H403	2	4	2	4'-4½"	2'-2"			8'-8"
ZA400	2	4	124	2'-10"	1'-0"	7½"	4"	4'-8"
ZA401	2	4	4	3'-0"	1'-0"	7½"	4"	4'-10"
ZA402	2	4	4	3'-5"	1'-0"	7½"	4"	5'-3"
C800	2	8	8	14'	1'-4"			15'-3"



—DETAIL "X"—



CONST. NO. 80001-3148-44

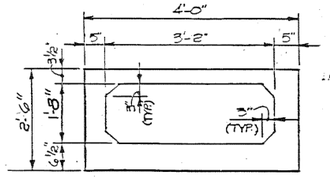
PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6/20/84	JMB	REVISED SKEW ANGLE

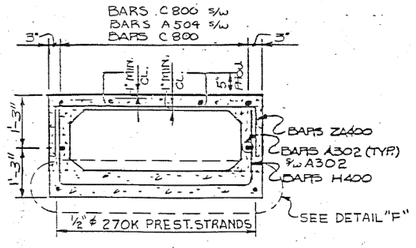
—GENERAL NOTES—

1. THE TOP OF ALL BEAMS ARE TO BE ROUGH FLOATED. AT APPROXIMATELY THE TIME OF INITIAL SET, THE TOP OF THE BEAMS WILL ALSO BE SCRUBBED TRANSVERSELY WITH A COARSE WIRE BRUSH TO REMOVE ALL LAITANCE AND PRODUCE A ROUGH SURFACE. WHERE PRECAST SLAB PANELS ARE TO BE USED AND SET ON FELT PADS, THE OUTER TWO INCHES OF THE TOP FLANGE MAY BE TROWELED.
2. MILD STEEL REINFORCING SHALL BE ASTM A615 GRADE 60.
3. ALL PRESTRESSING STRANDS TO BE ½" ø ASTM GRADE 270K, 7 WIRE UNCOATED STRESS-RELIEVED PRESTRESSING STRANDS.
4. AN INITIAL FORCE OF 28,9⅜ LBS. SHALL BE APPLIED TO EACH STRAND IN ALL BEAMS.
5. AFTER THE BEAM IS REMOVED FROM THE PRESTRESSING BED, BARS C600 AND C400 SHALL BE BENT A SUFFICIENT AMOUNT SO AS TO PERMIT THE "C" BARS OF ADJOINING BEAM TO MESH WHEN IN THE ERECTED POSITION.
6. THE PRESTRESSING STRANDS SHALL BE LEFT PROJECTING 3" ± FROM THE ENDS OF THE BEAMS. THERE SHALL NOT BE ANY PROTECTIVE COATING PLACED ON THE ENDS OF THE BEAMS OR ON THE PROJECTING STRANDS.
7. ELASTOMERIC PADS TO BE 4'-9⅝" X 6" X 1" AT ABUTMENT ENDS AND 4'-9 15/16" X 1'-1½" X 1" WITH 1½" ø HOLES OR 4'-9 15/16" X 10½" X 1" AT BENTS.
8. THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 6,000 + PSI AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 4,700 + PSI. SEE GENERAL NOTES SHEET FOR CONCRETE FINISHING NOTE.
9. 1" ø WEEP HOLES REQUIRED AT LOW POINT OF EACH CELL.
10. EACH CELL SHALL BE VENTED. (DURING THE FABRICATION PHASE) IN SUCH A MANNER SO AS NOT TO ALLOW EXTERNAL WATER TO ENTER THE CELL.



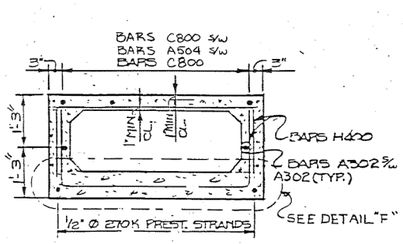
—SECTION—

(SHOWING PROPERTIES)



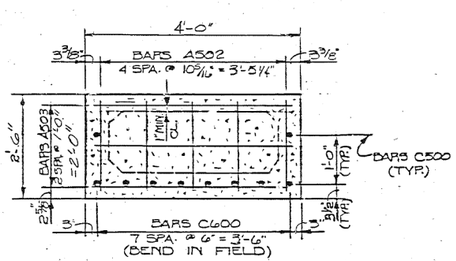
—SECTION "A"-"A"—

(SHOWING PROJECTING BARS)



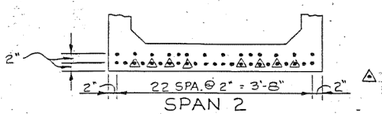
—SECTION "A"-"A"—

(SHOWING NON-PROJECTING BARS)



—SECTION "B"-"B"—

(SHOWING REINFORCING IN END GRID.)

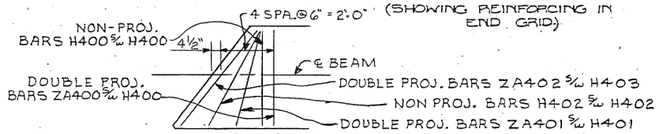


Δ DENOTES BREAK BOND 3'-8" FROM ENDS OF BEAM.

SPAN 2

—DETAIL "F"—

(SHOWING ½" ø 270K PREST. STRANDS)



—DETAIL "Z"—

(SHOWING FLARED BARS)

ESTIMATED QUANTITIES PER BEAM

LOCATION	NO. REQ'D.	CLASS "A" CONCRETE C.Y.	STEEL BAR REINFORCEMENT LBS.	PREST. STEEL LBS.
SPAN 2	4	13.0	1,740	1,283

DESIGNED BY HOUSTON WALKER DATE 9-83
DRAWN BY REF0/ FRANK E FROST DATE 11-83
SUPERVISED BY B.L.H.; HWD. DATE 11-83
CHECKED BY HOUSTON WALKER DATE 1-84

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

PRESTRESSED BOX BEAM
WIDENING OF I-40 OVER
COUNTY ROAD
STATION 129+27.82 (RIGHT LANE I-40)
SPAN 2
SMITH COUNTY
1984

CORRECT C. Clellon L. Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Grams
DIRECTOR OF HIGHWAYS

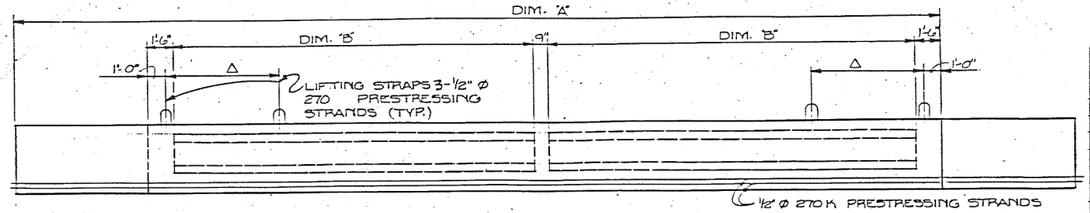
M-142-73

CONST. NO. 80001-3148-44.

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

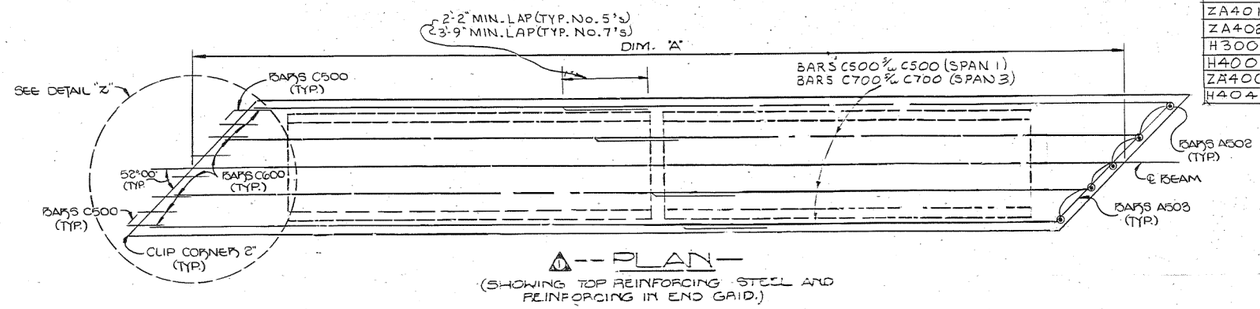
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6-21-84	HMD	REVISED SKEW ANGLE



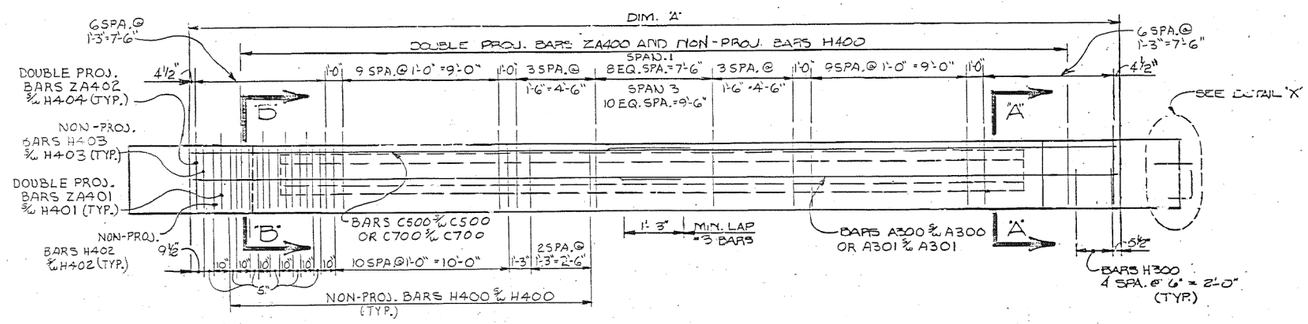
△: DISTANCE TO BE DETERMINED BY FABRICATOR.

—ELEVATION—



△1 —PLAN—

(SHOWING TOP REINFORCING STEEL AND REINFORCING IN END GRID.)



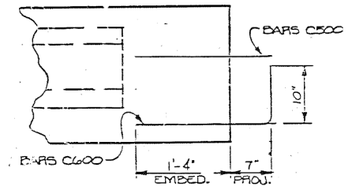
BILL OF STEEL ~ PER BEAM

BAR	SPAN	SIZE	No. REQ'D	BENDING DIMENSIONS A	B	C	D	LENGTH
A300	1	3	4					27'-7"
A301	3	3	4					28'-7"
C500	1	5	8	29'-4"	10"			28'-11"
C700	3	7	8	29'-0"	1'-2"			29'-11"
A502	1&3	5	10					1'-8"
A503	1&3	5	6					4'-9"
C500	1&3	5	4	1'-11"	10"			2'-8"
C600	1&3	6	16	1'-11"	10"			2'-8"
H400	1	4	141	3'-7½"	1'-8"			6'-11"
H401	1&3	4	2	3'-10¼"	1'-8"			7'-1"
H402	1&3	4	4	4'-2"	1'-8"			7'-5"
H403	1&3	4	4	4'-5¾"	1'-8"			7'-8"
ZA400	1	4	90	2'-10"	1'-0"	4"	7½"	4'-8"
ZA401	1&3	4	4	3'-0⅛"	1'-0"	4"	7½"	4'-10"
ZA402	1&3	4	4	3'-7⅛"	1'-0"	4"	7½"	5'-5"
H300	1&3	3	10	4'-7½"	1'-0"			6'-6"
H400	3	4	143	3'-7½"	1'-8"			6'-10"
ZA400	3	4	94	2'-10"	1'-0"	4"	7½"	4'-8"
H404	1&3	4	2	4'-8½"	1'-8"			8'-0"

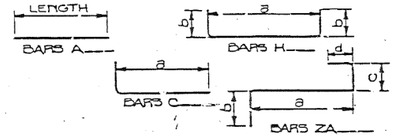
TABLE OF DIMENSIONS

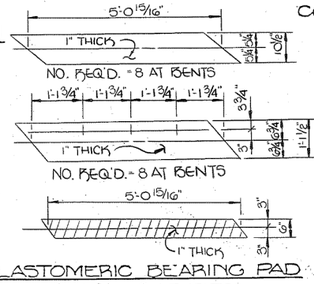
LOCATION	DIM. 'A'	DIM. 'B'
SPAN 1	54'-3"	23'-6¼"
SPAN 3	56'-3"	24'-8¼"

DETAIL 'Z'



—DETAIL 'X'—





△1 ELASTOMERIC BEARING PAD

NO. REQ'D. = 8 AT ABUTS.

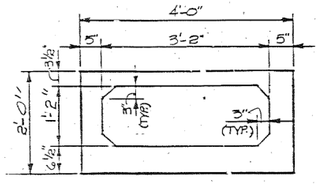
—GENERAL NOTES—

1. THE TOP OF ALL BEAMS ARE TO BE ROUGH FLOATED. AT APPROXIMATELY THE TIME OF INITIAL SET, THE TOP OF THE BEAMS WILL ALSO BE SCRUBBED TRANSVERSELY WITH A COARSE WIRE BRUSH TO REMOVE ALL LAITANCE AND PRODUCE A ROUGH SURFACE. WHERE PRECAST SLAB PANELS ARE TO BE USED AND SET ON FELT PADS, THE OUTER TWO INCHES OF THE TOP FLANGE MAY BE TROWELED.
2. MILD STEEL REINFORCING SHALL BE ASTM A615 GRADE 60
3. ALL PRESTRESSING STRANDS TO BE ½" ø ASTM GRADE 270K, 7 WIRE UNCOATED STRESS-RELIEVED PRESTRESSING STRANDS.
4. AN INITIAL FORCE OF 28,930 LBS. SHALL BE APPLIED TO EACH STRAND IN ALL BEAMS.
5. AFTER THE BEAM IS REMOVED FROM THE PRESTRESSING BED, BARS C600 AND C400 SHALL BE BENT A SUFFICIENT AMOUNT SO AS TO PERMIT THE 'C' BARS OF ADJOINING BEAM TO MESH WHEN IN THE ERECTED POSITION.
6. THE PRESTRESSING STRANDS SHALL BE LEFT PROJECTING 3" ± FROM THE ENDS OF THE BEAMS. THERE SHALL NOT BE ANY PROTECTIVE COATING PLACED ON THE ENDS OF THE BEAMS OR ON THE PROJECTING STRANDS.
7. ELASTOMERIC PADS TO BE 5'-0 15/16" X 6" X 1" AT ABUTMENT ENDS AND 5'-0 15/16" X 1'-1½" X 1" WITH 1¼" ø HOLES OR 5'-0 15/16" X 10½" X 1" AT BENTS.
8. THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 5,000 + PSI FOR SPAN 1 OR 6,000 + PSI FOR SPAN 3 AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 4000 + PSI FOR SPAN 1 OR 4800 + PSI FOR SPAN 3. SEE GENERAL NOTES SHEET FOR CONCRETE FINISHING NOTE.
9. 1" ø WEEP HOLES REQUIRED AT LOW POINT OF EACH CELL.
10. EACH CELL SHALL BE VENTED. (DURING THE FABRICATION PHASE), IN SUCH A MANNER SO AS NOT TO ALLOW EXTERNAL WATER TO ENTER THE CELL.

ESTIMATED QUANTITIES ~ PER BEAM

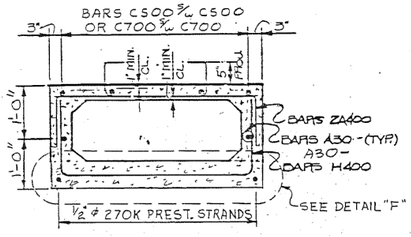
LOCATION	NO. REQ'D.	CLASS 'A' CONCRETE C.Y.	STEEL BAR REINFORCEMENT LBS.	PREST. STEEL LBS.
SPAN 1	4	9.8	1450	891
SPAN 3	4	10.1	1,713	1,073

NOTE: COST OF ELASTOMERIC PADS AND 16 DOWEL BARS AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE COST OF PRESTRESSED BEAM.



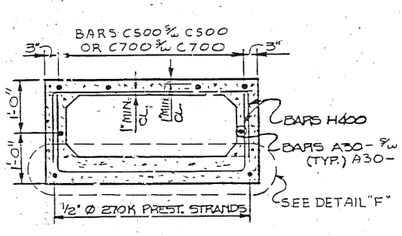
—SECTION—

(SHOWING PROPERTIES)



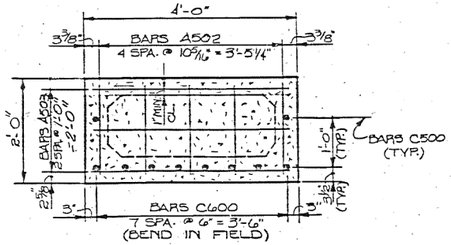
—SECTION 'A'-'A'—

(SHOWING PROJECTING BARS)



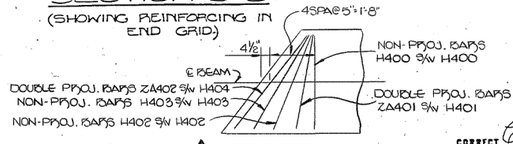
—SECTION 'A'-'A'—

(SHOWING NON-PROJECTING BARS)



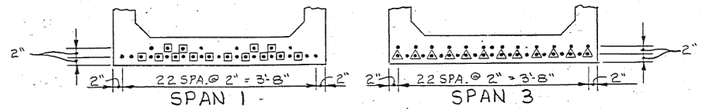
—SECTION 'B'-'B'—

(SHOWING REINFORCING IN END GRID)



△1 DETAIL 'Z'

(SHOWING FLARED BARS)



—DETAIL 'F'—

(SHOWING ½" ø 270K PREST. STRANDS)

⊡ DENOTES 14 STRANDS WRAPPED 7'-0" FROM END OF BEAM.

△ DENOTES 12 STRANDS WRAPPED 5'-2" FROM END OF BEAM.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

PRESTRESSED BOX BEAM
WIDENING OF I-40 OVER
COUNTY ROAD, SPAN 1 AND 3
STATION 130+43.73 (LEFT LANE I-40)
SMITH COUNTY
1984

DESIGNED BY	HOUSTON WALKER	DATE 9-83
DRAWN BY	REPD. / FRANK F. FROST	DATE 11-83
SUPERVISED BY	R. L. H.; HMD.	DATE 11-83
CHECKED BY	HOUSTON WALKER	DATE 1-84

CORRECT Clellon L. Loveall
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

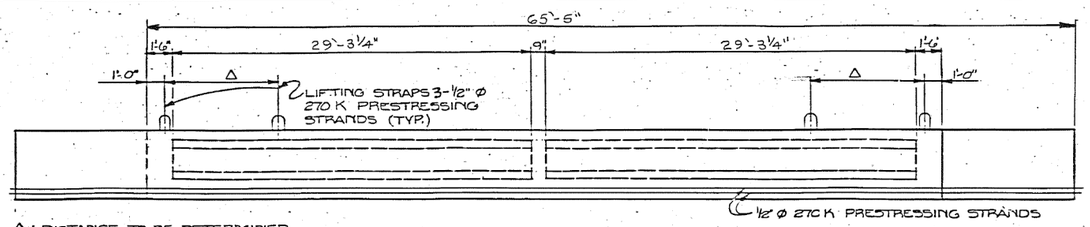
M-142-74

CONST. NO. 80001-3148-44

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6-21-84	JHW	REVISED SKEW ANGLE



Δ: DISTANCE TO BE DETERMINED BY FABRICATOR.

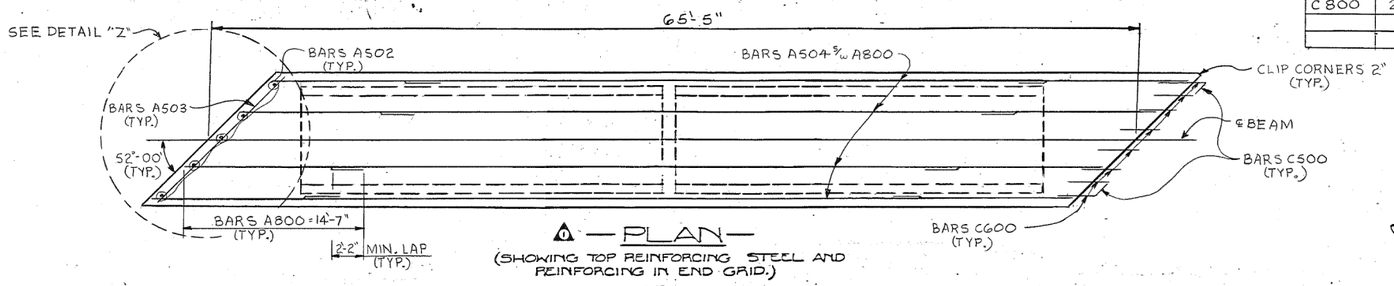
—ELEVATION—

BILL OF STEEL—PER BEAM

BAR	SPAN	SIZE	No. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH
A302	2	3	4					33'-6"
A502	2	5	10					2'-2"
A503	2	5	6					4'-8"
A504	2	5	4					40'-11"
C500	2	5	4					2'-8"
C600	2	6	16	1'-9"				2'-7"
H300	2	3	10	4'-8"	1'-0"			6'-7"
H400	2	4	108	3'-7½"	2'-2"			7'-11"
H401	2	4	2	3'-11"	2'-2"			8'-2"
H402	2	4	4	4'-3"	2'-2"			8'-6"
H403	2	4	2	4'-7"	2'-2"			8'-10"
ZA400	2	4	120	2'-10"	1'-0"	7½"	4"	4'-8"
ZA401	2	4	4	2'-11"	1'-0"	7½"	4"	4'-9"
ZA402	2	4	4	3'-7"	1'-0"	7½"	4"	5'-5"
C800	2	8	8	14'-7"				15'-10"

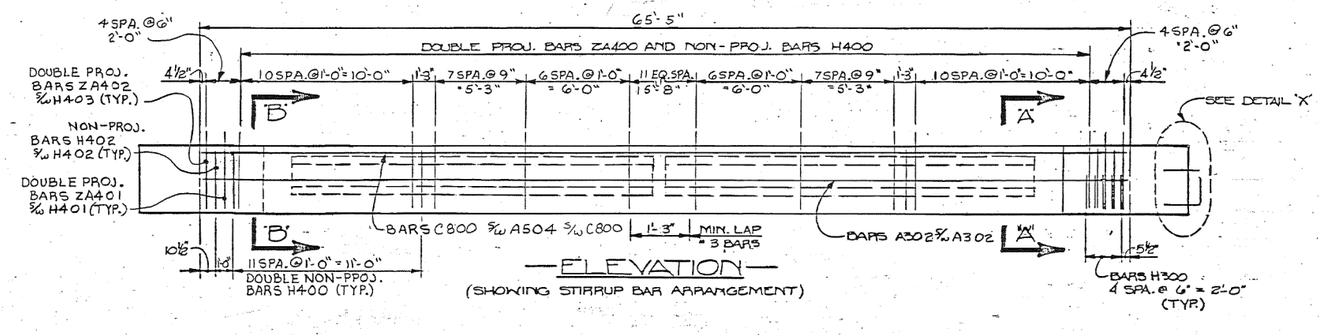
—GENERAL NOTES—

1. THE TOP OF ALL BEAMS ARE TO BE ROUGH FLOATED. AT APPROXIMATELY THE TIME OF INITIAL SET, THE TOP OF THE BEAMS WILL ALSO BE SCRUBBED TRANSVERSELY WITH A COARSE WIRE BRUSH TO REMOVE ALL LAITANCE AND PRODUCE A ROUGH SURFACE. WHERE PRECAST SLAB PANELS ARE TO BE USED AND SET ON FELT PADS, THE OUTER TWO INCHES OF THE TOP FLANGE MAY BE TROWELED.
2. MILD STEEL REINFORCING SHALL BE ASTM A615 GRADE 60.
3. ALL PRESTRESSING STRANDS TO BE ½" ø ASTM GRADE 270K, 7 WIRE UNCOATED STRESS-RELIEVED PRESTRESSING STRANDS.
4. AN INITIAL FORCE OF 28,936 LBS. SHALL BE APPLIED TO EACH STRAND IN ALL BEAMS.
5. AFTER THE BEAM IS REMOVED FROM THE PRESTRESSING BED, BARS C600 AND C400 SHALL BE BENT A SUFFICIENT AMOUNT SO AS TO PERMIT THE 'C' BARS OF ADJOINING BEAM TO MESH WHEN IN THE EPECTED POSITION.
6. THE PRESTRESSING STRANDS SHALL BE LEFT PROJECTING 3" ± FROM THE ENDS OF THE BEAMS. THERE SHALL NOT BE ANY PROTECTIVE COATING PLACED ON THE ENDS OF THE BEAMS OR ON THE PROJECTING STRANDS.
7. ELASTOMERIC PADS TO BE 5'-0 5/16" × 6" × 1" AT ABUTMENT ENDS AND 5'-0 5/16" × 1'-1½" × 1" WITH 1¼" ø HOLES OR 5'-0 5/16" × 10½" × 1" AT BENTS.
8. THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 6,000 + PSI AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 5,000 + PSI. SEE GENERAL NOTES SHEET FOR CONCRETE FINISHING NOTE.
9. 1" ø WEEP HOLES REQUIRED AT LOW POINT OF EACH CELL.
10. EACH CELL SHALL BE VENTED, (DURING THE FABRICATION PHASE), IN SUCH A MANNER SO AS NOT TO ALLOW EXTERNAL WATER TO ENTER THE CELL.



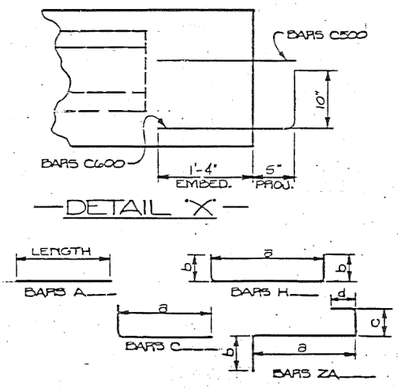
Δ—PLAN—

(SHOWING TOP REINFORCING STEEL AND REINFORCING IN END GRID.)

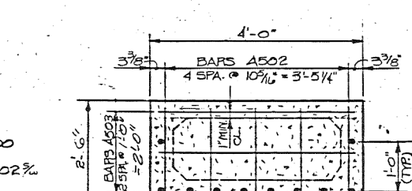


—ELEVATION—

(SHOWING STIRRUP BAR ARRANGEMENT)

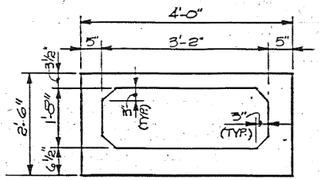


—DETAIL 'X'—



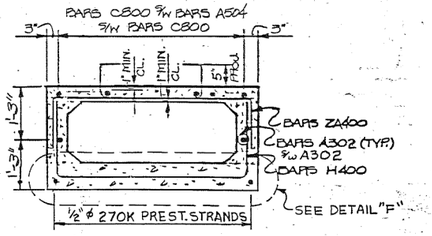
ESTIMATED QUANTITIES—PER BEAM

LOCATION	NO. REQ'D.	CLASS 'A' CONCRETE C.Y.	STEEL BAR REINFORCEMENT LBS.	PREST. STEEL LBS.
SPAN 2	4	13.1	1,723	1,384



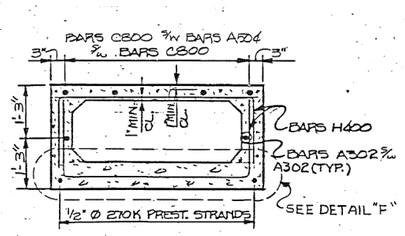
—SECTION—

(SHOWING PROPERTIES)



—SECTION 'A'-'A'—

(SHOWING NON-PROJECTING BARS)

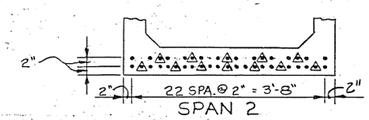


—SECTION 'A'-'A'—

(SHOWING NON-PROJECTING BARS)

—SECTION 'B'-'B'—

(SHOWING REINFORCING IN END GRID)

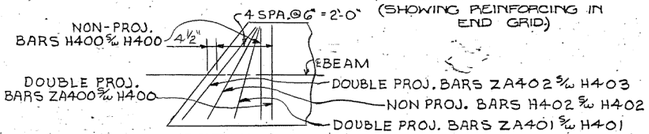


SPAN 2

—DETAIL 'F'—

(SHOWING ½" ø 270K PREST. STRANDS)

Δ DENOTES 12 STRANDS WRAPPED 5'-0" FROM END OF BEAM.



—DETAIL 'Z'—

(SHOWING FLARED BARS)

DESIGNED BY HOUSTON WALKER — DATE 9-83
DRAWN BY REPD/FRANK E FROST — DATE 11-83
SUPERVISED BY R.L.H.; HYD. — DATE 11-83
CHECKED BY HOUSTON WALKER — DATE 1-84

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

PRESTRESSED BOX BEAM
WIDENING OF I-40 OVER COUNTY ROAD
STATION 130+43.73 (LEFT LANE I-40)
SPAN 2
SMITH COUNTY
1984

CORRECT C. Clellon L. Loveall, ENGINEER OF STRUCTURES
APPROVED Lewis Evans, DIRECTOR OF HIGHWAYS

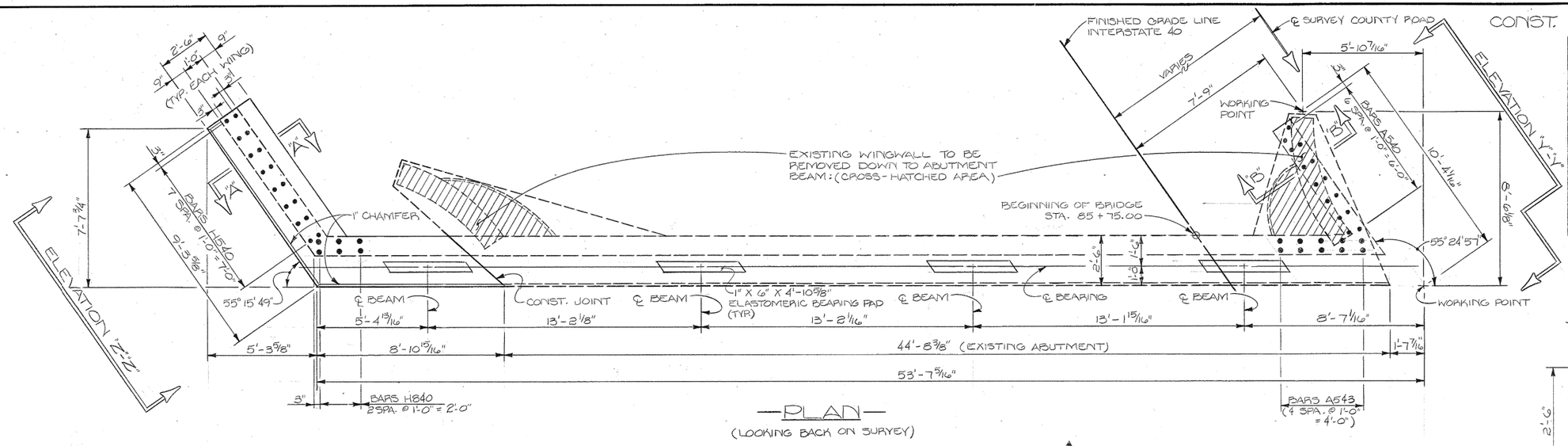
M-142-75

CONST. NO. 80001-3148-44.

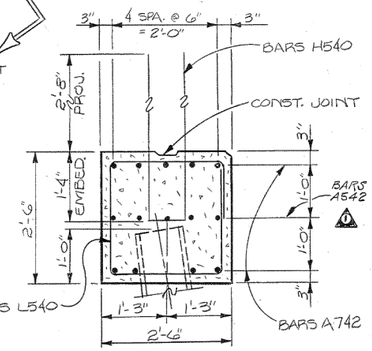
PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	3-30-84	JHW	GENERAL REVISIONS.
2	4-13-84	JHW	STEEL QUANT.



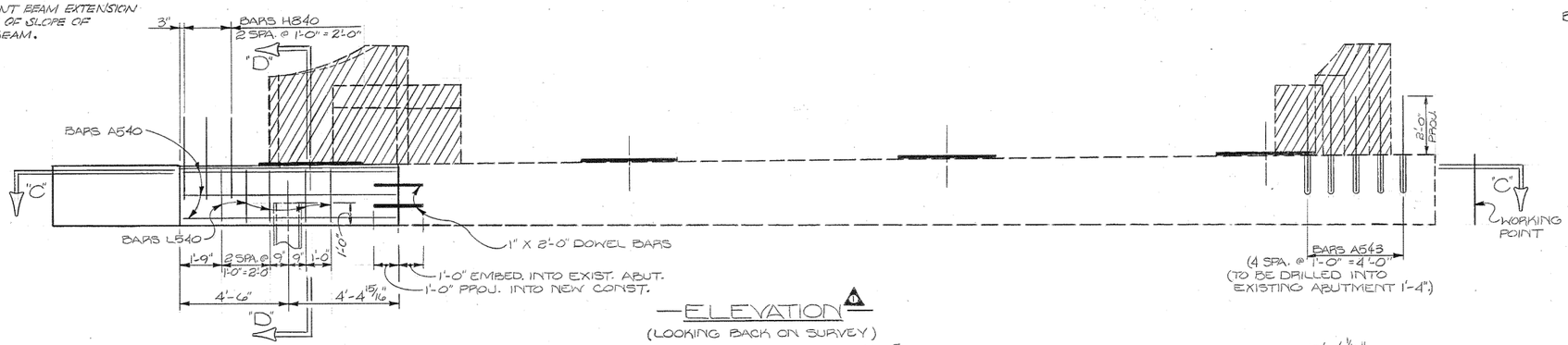
—PLAN—
(LOOKING BACK ON SURVEY)



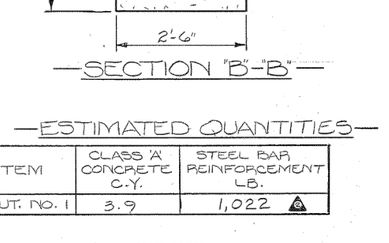
—SECTION A-A—

⚠1 NOTE: EXISTING DOWEL BARS IN ABUTMENTS TO BE REMOVED FLUSH WITH ABUTMENT BEAM.

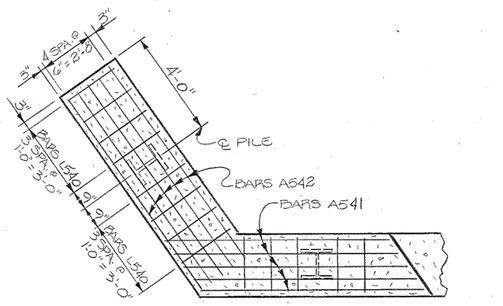
⚠1 NOTE: SLOPE OF ABUTMENT BEAM EXTENSION TO BE A CONTINUATION OF SLOPE OF EXISTING ABUTMENT BEAM.



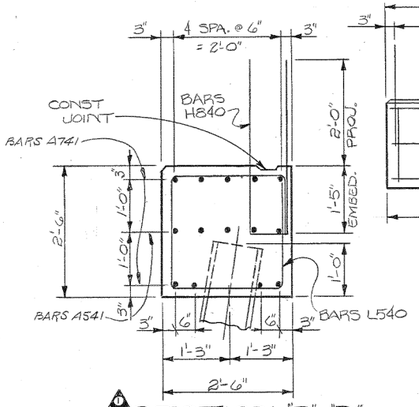
—ELEVATION ⚠1
(LOOKING BACK ON SURVEY)



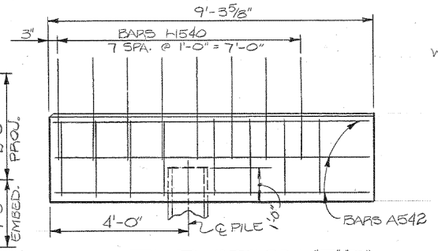
—SECTION "B"-"B"—



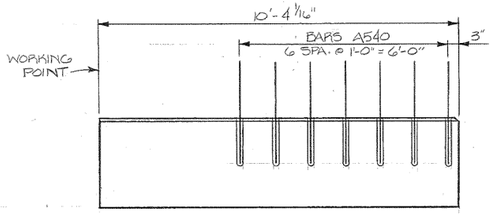
—PART SECTION "C"-"C"—



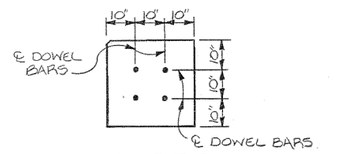
—SECTION "D"-"D"—



—ELEVATION "Z"-"Z"—



—ELEVATION "Y"-"Y"—



—SECTION—
(SHOWING DOWEL BAR PLACEMENT)

—ESTIMATED QUANTITIES—

ITEM	CLASS 'A' CONCRETE C.Y.	STEEL BAR REINFORCEMENT LB.
ABUT. NO. 1	3.9	1,022 ⚠6

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 1 RIGHT LANE WIDENING OF INTERSTATE 40 OVER COUNTY ROAD STATION 129+27.22 SMITH COUNTY 1984

DESIGNED BY HOUSTON WALKER DATE 10-83
DRAWN BY VICKY FORREST DATE 1-84
SUPERVISED BY B.L.H. : H.M.B. DATE 1-84
CHECKED BY H. WALKER DATE 1-84

CORRECT Clellon L Foreall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

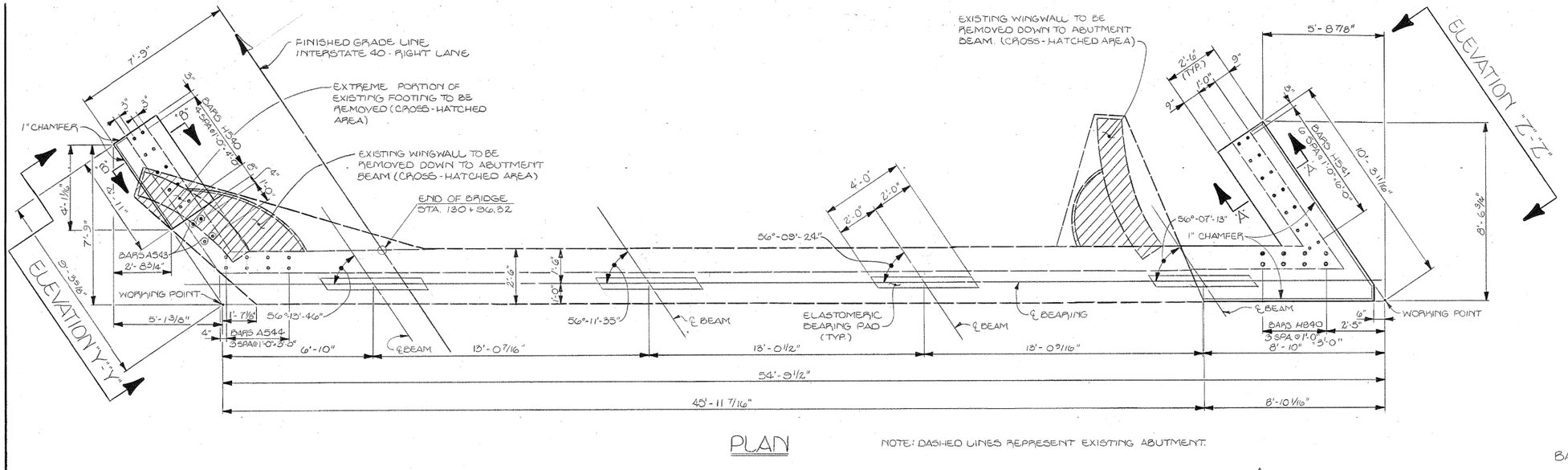
M-142-76

CONST. NO. 80001-3148-44

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

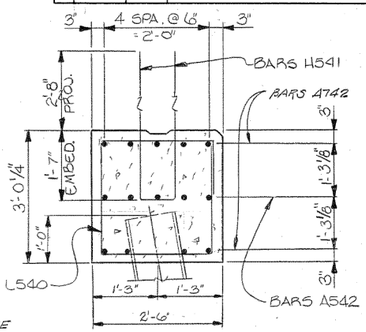
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	3-30-84	JHW	GENERAL REVISIONS.
2	4-13-84	JHN	STEEL QUANT.



PLAN

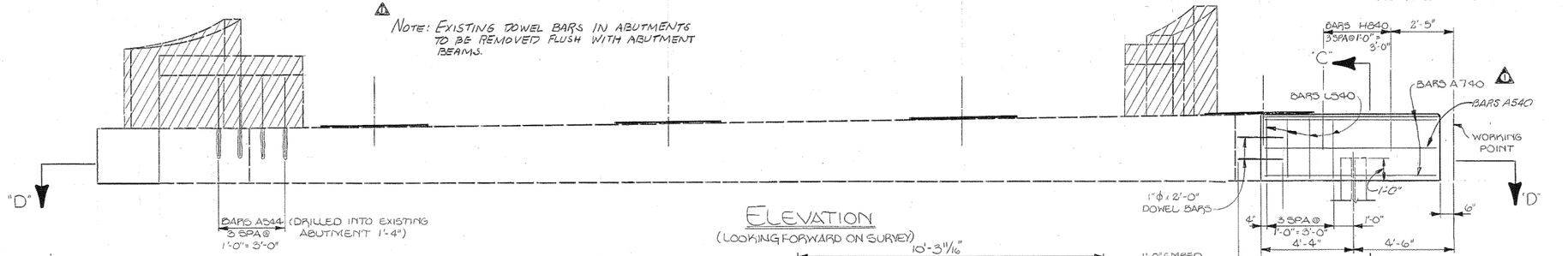
NOTE: DASHED LINES REPRESENT EXISTING ABUTMENT.



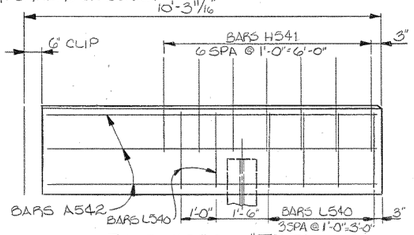
SECTION "A"-"A"

⚠1 NOTE: SLOPE OF ABUTMENT BEAM EXTENSION TO BE A CONTINUATION OF SLOPE OF EXISTING ABUTMENT BEAM.

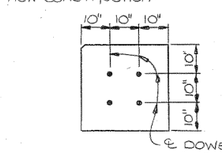
⚠ NOTE: EXISTING DOWEL BARS IN ABUTMENTS TO BE REMOVED FLUSH WITH ABUTMENT BEAMS.



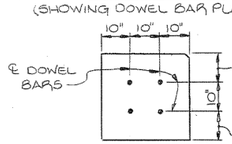
ELEVATION
(LOOKING FORWARD ON SURVEY)



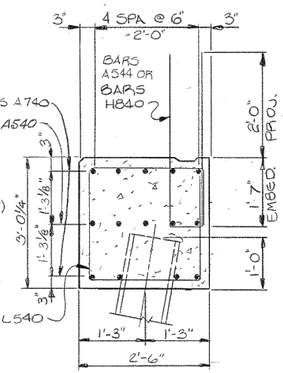
ELEVATION "Z"-"Z"



SECTION "B"-"B"
(SHOWING DOWEL BAR PLACEMENT)

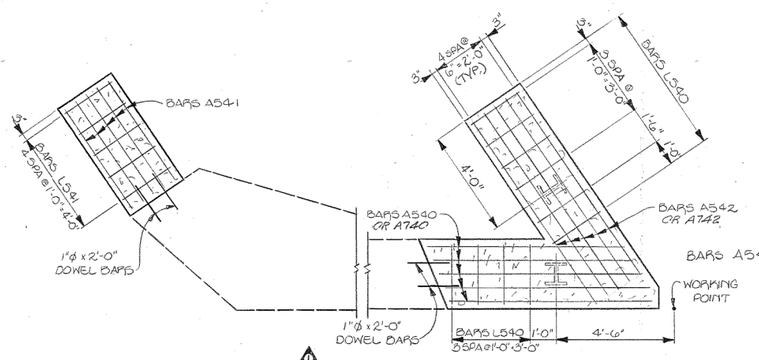


SECTION "C"-"C"
(SHOWING DOWEL BAR PLACEMENT)

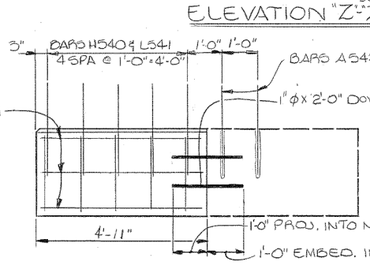


SECTION "C"-"C"

SECTION "B"-"B"



SECTION "D"-"D"



ELEVATION "Y"-"Y"

ESTIMATED QUANTITIES

ITEM	CLASS 'A' CONCRETE C.Y.	STEEL BAR REINFORCEMENT LB.
ABUT. No. 2	5.6	864 ⚠

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 2 - RIGHT LANE
WIDENING OF INTERSTATE 40
OVER
COUNTY ROAD
STATION 130+43.73
SMITH COUNTY
1984

DESIGNED BY Houston Walker DATE 10-83
DRAWN BY Deanna Collins DATE 1-84
SUPERVISED BY Don Hutchison & HMB DATE 1-84
CHECKED BY H. WALKER DATE 1-84

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

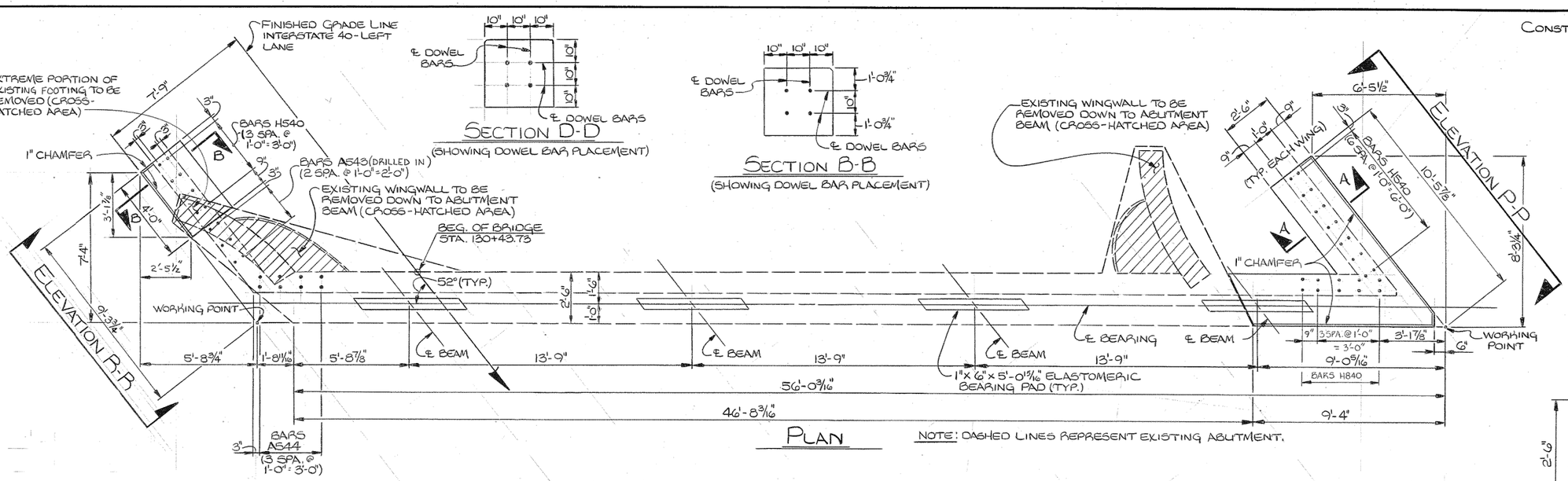
M-142-77

CONST. No. 80001-3148-44

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	3-30-84	JHW	GENERAL REVISIONS.
2	4-13-84	JHW	STEEL QUANT.



'ESTIMATED QUANTITIES'

ITEM	CLASS 'A' CONCRETE C.Y.	STEEL BAR REINFORCEMENT LB.
ABUT. No. 1	3.8	751 ⚠

DESIGNED BY H. WALKER DATE 10-83
DRAWN BY M. DYE DATE 11-83
SUPERVISED BY R.L.H. & H.W.S. DATE 11-83
CHECKED BY H. WALKER DATE 1-84

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 1 - LEFT LANE WIDENING OF INTERSTATE 40 OVER COUNTY ROAD STATION 130+43.73 SMITH COUNTY 1984

CORRECT Clellon L. Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

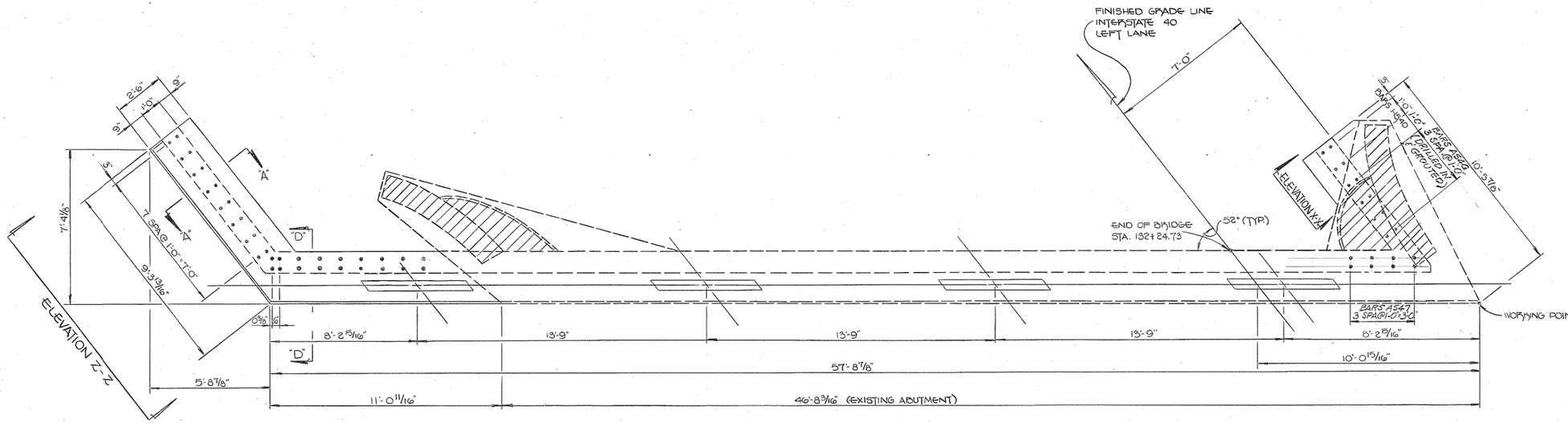
M-142-78

CONST. NO. 80001-3148-44

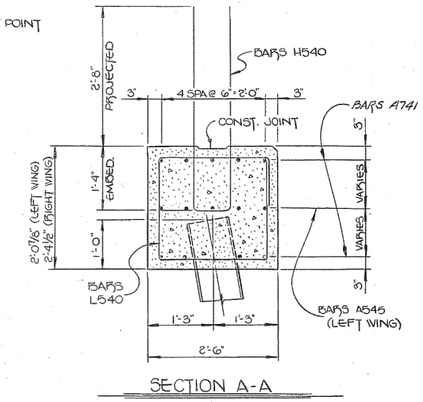
PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

REVISIONS

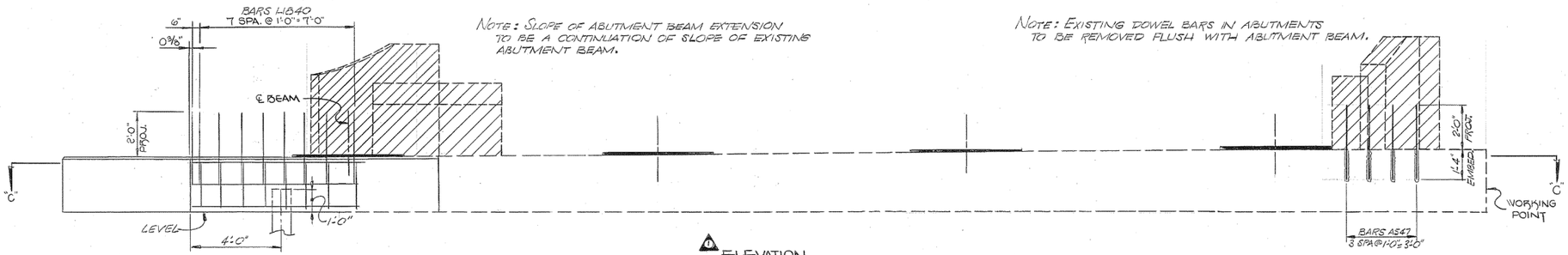
NO.	DATE	BY	BRIEF DESCRIPTION
1	5-30-84	JHW	GENERAL REVISIONS.
2	9-13-84	JHW	STEEL QUANT.

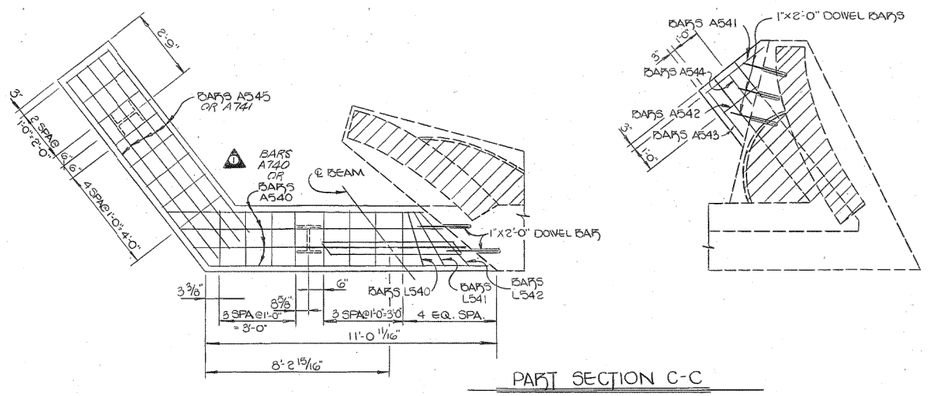


⚠1 PLAN
(LOOKING FORWARD ON SURVEY)



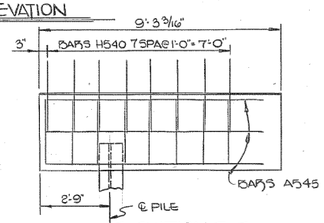
SECTION A-A



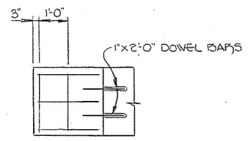


PART SECTION C-C

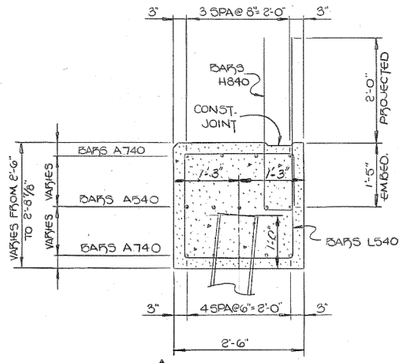
⚠1 ELEVATION



ELEVATION Z-Z



ELEVATION X-X



⚠1 SECTION D-D

ESTIMATED QUANTITIES

ITEM	CLASS 'A' CONCRETE C.Y.	STEEL BAR REINFORCEMENT LBS.
ABUT NO. 2	4.5	903 ⚠2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 2 - LEFT LANE
WIDENING OF INTERSTATE 40
OVER
COUNTY ROAD
STATION 130+43.73
SMITH COUNTY
1984

DESIGNED BY HOUSTON WALKER DATE 10-83
DRAWN BY D. FRANKENFIELD DATE 1-84
SUPERVISED BY DON HARRISON & HMB DATE 1-84
CHECKED BY H. WALKER DATE 1-84

CORRECT Clellon L Loveace
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

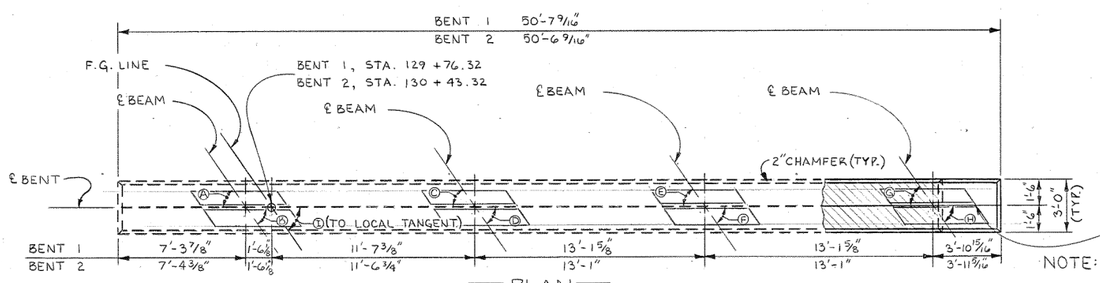
M-142-79

CONST. NO. 80001-3148-44

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	4-13-84	JHW	STEEL QUANT.



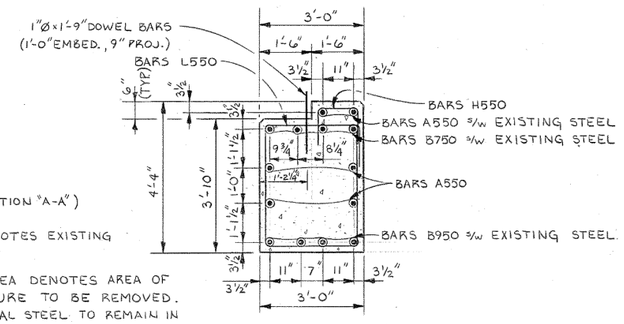
PLAN

(LOOKING FORWARD ON SURVEY)

FOR L's Ⓐ→Ⓗ, AND F.G. LINE L's Ⓘ, SEE ANGLES CHART THIS DWG.

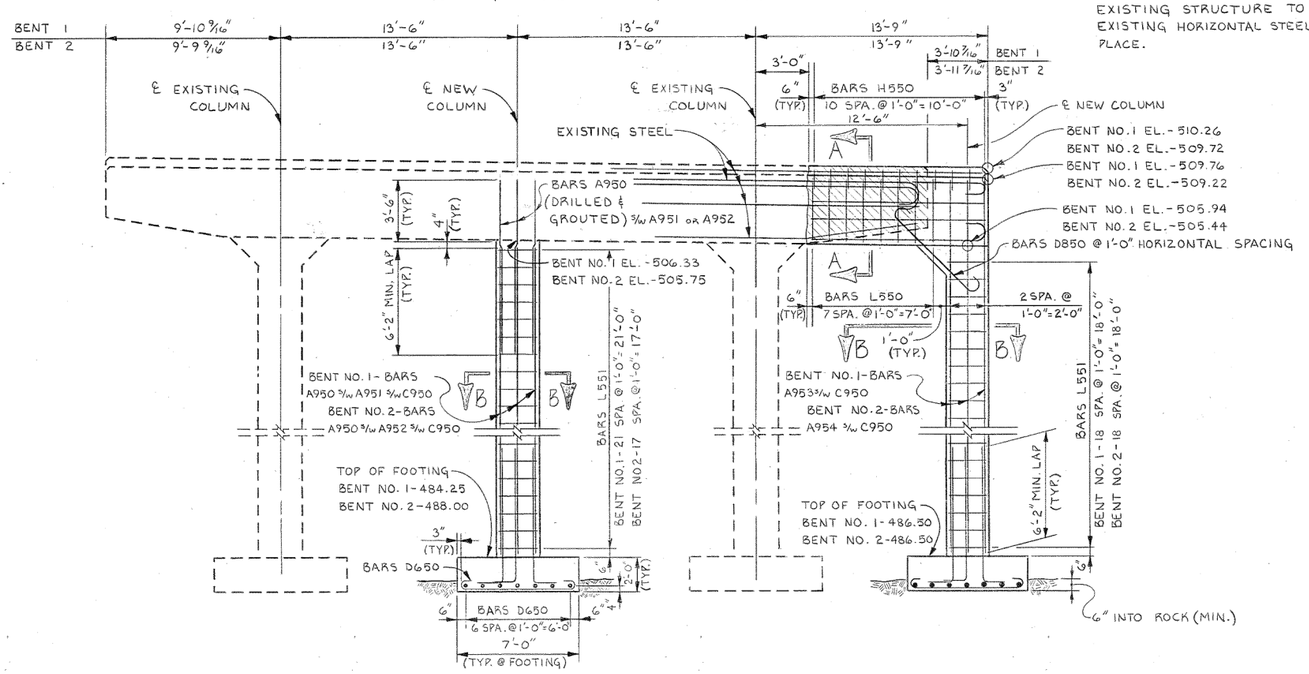
NOTE: DASHED LINES DENOTES EXISTING STRUCTURES.

NOTE: CROSS-HATCHED AREA DENOTES AREA OF EXISTING STRUCTURE TO BE REMOVED. EXISTING HORIZONTAL STEEL TO REMAIN IN PLACE.



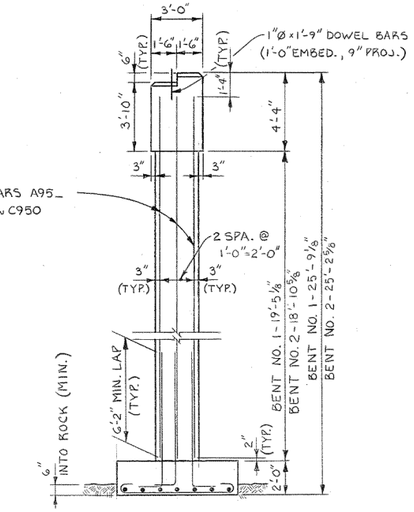
SECTION "A-A"

(BENT NO. 2 AS SHOWN)
(BENT NO. 1 OPP. HAND)



ELEVATION

(LOOKING FORWARD ON SURVEY)



END ELEVATION

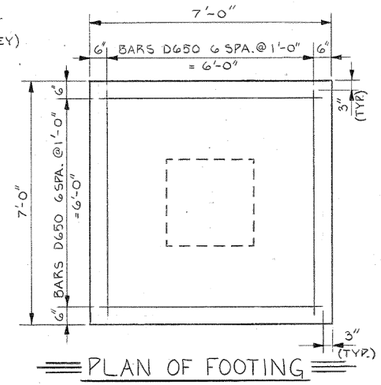
(BENT NO. 2 - AS SHOWN)
(BENT NO. 1 - OPP. HAND)

ESTIMATED QUANTITIES

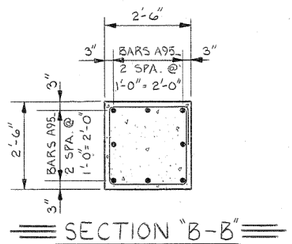
ITEM	REINFORCING STEEL LBS. ①	CLASS 'A' CONCRETE CY.
BENT NO. 1	2,924	22.0
BENT NO. 2	2,753	20.8

ANGLES CHART

ANGLES	BENT 1	BENT 2
A	55°-48'-05"	56°-05'-49"
B	55°-31'-02"	55°-48'-05"
C	55°-45'-53"	56°-03'-38"
D	55°-28'-48"	55°-45'-53"
E	55°-43'-40"	56°-01'-26"
F	55°-26'-34"	55°-43'-40"
G	55°-41'-26"	55°-59'-14"
H	55°-24'-19"	55°-41'-26"
I	55°-37'-47"	55°-57'-53"



PLAN OF FOOTING



SECTION "B-B"

DESIGNED BY HOUSTON WALKER DATE 12-83
DRAWN BY RON KAUFMAN DATE 1-84
SUPERVISED BY DON HARGISON DATE 1-84
CHECKED BY HOUSTON WALKER DATE 1-84

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BENT NO. 1, AND 2
RIGHT LANE
WIDENING OF INTERSTATE 40 OVER
COUNTY ROAD
STATION 130+43.73 (LEFT LANE)
STATION 129+27.22 (RIGHT LANE)
SMITH COUNTY
1984

CORRECT Clifton L Loveall
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-142-80

CONST. NO. 80001-3148-44

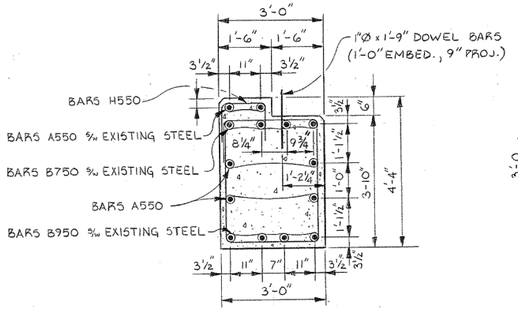
PROJECT NO.	YEAR	SHEET NO.
IR-40-5(78)259	1984	

REVISIONS

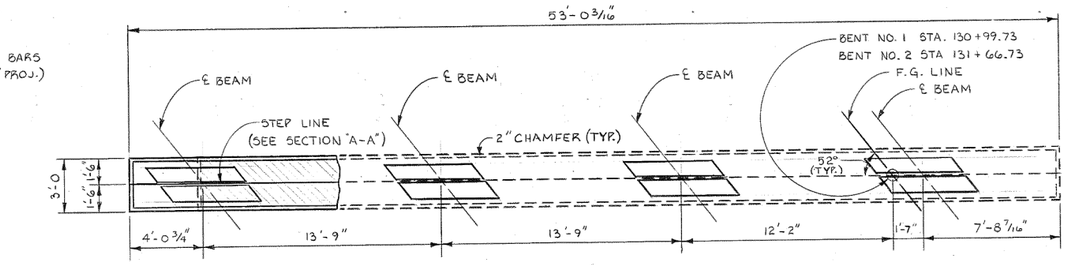
NO.	DATE	BY	BRIEF DESCRIPTION
1	4-13-84	JHW	STEEL QUANT.

NOTE: DASHED LINES DENOTE EXISTING STRUCTURES

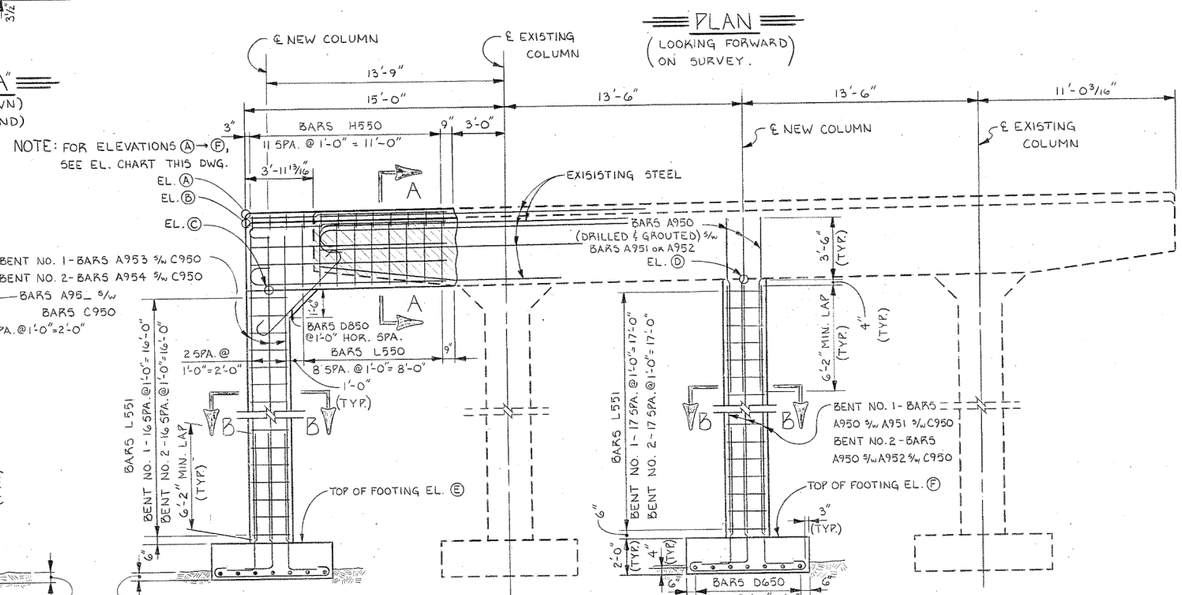
NOTE: CROSS-HATCHED AREA DENOTES AREA OF EXISTING STRUCTURE TO BE REMOVED. EXISTING HORIZONTAL STEEL TO REMAIN IN PLACE.

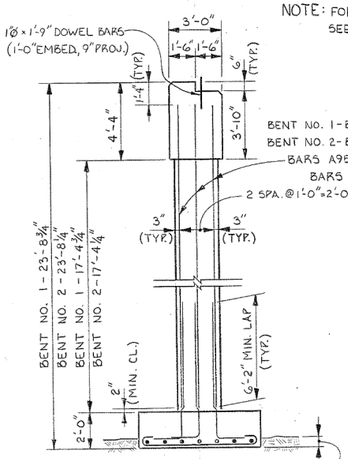


SECTION "A-A"
(BENT NO. 2 AS SHOWN)
(BENT NO. 1 OPP. HAND)

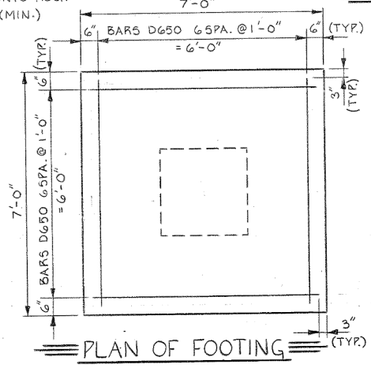


PLAN
(LOOKING FORWARD ON SURVEY.

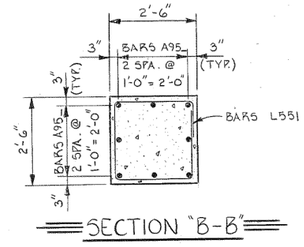




END ELEVATION
(BENT NO. 2 AS SHOWN)
(BENT NO. 1 OPP. HAND)



PLAN OF FOOTING



SECTION "B-B"

ELEVATION CHART

ELEVATION	BENT NO. 1	BENT NO. 2
A	507.73	508.19
B	507.23	507.69
C	503.41	503.87
D	503.68	504.08
E	486.00	486.50
F	486.00	486.50

ESTIMATED QUANTITIES

ITEM	REINFORCING STEEL LBS. ⚠	CLASS "A" CONCRETE C.Y.
BENT NO. 1	3,073	21.0
BENT NO. 2	3,064	20.9

DESIGNED BY HOUSTON WALKER DATE 12-83
DRAWN BY RON KAUFMAN DATE 1-84
SUPERVISED BY DON HARBISON & MB DATE 1-84
CHECKED BY HOUSTON WALKER DATE 1-84

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BENT NO. 1, AND 2.
LEFT LANE
WIDENING OF INTERSTATE 40 OVER
COUNTY ROAD
STATION 130+43.73 (LEFT LANE)
STATION 129+27.22 (RIGHT LANE)
SMITH COUNTY
1984

CORRECT Clellon L. Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-142-81

CONST. NO. 80001-3148-44

FED ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	IR-40-5(98) 259	1984		

BILL OF STEEL

① LEFT LANE

SUPERSTRUCTURE

Bar	Location	Size	No. Req'd	Bending Dimensions A	B	C	D	Length
	REGULAR							
A402E	ENDWALL (P1)	4	14					23'-4"
A403E	ENDWALL (P2)	4	14					24'-11"
A404	ENDWALL	4	12					4'-5"
A405	PDWY. BRKT.	4	4					3'-1"
A406	WING BRKT.	4	2					6'-6"
A407	WING BRKT.	4	2					5'-1"
A408	WINGWALL	4	6					7'-6"
A503	SUP. DIA. @ P.I.	5	18					18'-6"
A504	SUP. DIA. @ P.2	5	18					19'-10"
A512	WINGWALL	5	2					6'-6"
A513	WINGWALL	5	2					5'-1"
C600	WINGWALL	5	6	6'-1"				6'-11"
CD402	ENDWALL	4	12	4'-5"	6"	4"		4'-11"
CD403	WINGWALL	4	6	7'-6"	6"	4"		8'-0"
CD500	WINGWALL	5	6	7'-9"	10"	5'8"		8'-7"
H500	PDWY. BRKT.	5	100	1'-8"	6"			2'-7"
L401	SUP. DIAPH. @ P.I.	4	48	9"	1'-0"	1'-6"		5'-4"
L402	SUP. DIAPH. @ P.II	4	48	9"	1'-0"	1'-8"		6'-2"
L403	ENDWALL	4	17	8"	1'-0"	2'-0"		6'-2"
	EPOXY							
A402E	ENDWALL (P1)	4	2					23'-0"
A403E	ENDWALL (P2)	4	2					23'-8"
A500E	SLAB	5	245					30'-0"
A501E	SLAB	5	98					22'-10"
A502E	SLAB	5	98					20'-10"
A503E	SLAB (P2)	5	248					23'-3"
A600E	SLAB (P1)	5	244					22'-7"
A601E	SLAB (P1)	5	10					20'-0"
A602E	SLAB (P2)	5	4	LENGTH VARIES FROM 4'2" TO 22'-10" IN INC OF 9" (24 BARS)				33'-10"
A603E	SLAB (P1)	5	4	LENGTH VARIES FROM 5'-3" TO 22'-6" IN INC OF 9" (24 BARS)				33'-0"
A604E	SLAB	5	24					6'-6"
A611E	SLAB	5	6					3'-0"
A700E	SLAB	8	40					60'-0"
A701E	SLAB	8	16					42'-6"
A702E	SLAB	8	16					41'-6"
A703E	SLAB	8	24					23'-6"
A704E	SLAB	8	24					22'-6"
A705E	SLAB	8	20					38'-10"
A706E	SLAB	8	20					36'-10"
CD402E	ENDWALL (P1)	4	2	28'-0"	6"	4"		28'-6"
CD403E	ENDWALL (P2)	4	2	29'8"	6"	4"		30'-2"
C600E	SLAB	5	20	2'-2"	2'-8"			4'-4"
C602E	SLAB	6	40	5'-0"	2'-8"			7'-1"
L600E	ENDWALL	4	91	8"	1'-0"	1'-6"	2'-6"	7'-8"

ABUTMENT NO. 1

Bar	Location	Size	No. Req'd	Bending Dimensions A	B	C	D	Length
A540	BEAM	5	5					9'-0"
A541	WING	5	15					8'-3"
A542	WING	5	5					8'-3"
A543	WING	5	6					4'-0"
A544	BEAM	5	8					3'-4"
A742	WING	7	9					8'-3"
H540	WING	5	11	8"	4'-0"			8'-8"
L540	BEAM & WING	5	11	2'-2"	1'-0"	2'-2"		9'-6"
L541	WING	5	4	2'-2"	1'-0"	2'-8"		10'-6"
A740	BEAM	7	8					9'-0"
	ABUTMENT NO.2							
A540	ABUT. BEAM	5	14					10'-6"
A541	WING	5	3					2'-10"
A542	WING	5	3					1'-8"
A543	WING	5	3					2'-3"
A544	WING	5	3					1'-6"
A545	WING	5	5					8'-11"
A740	WING	7	8					10'-6"
L540	ABUT. BEAM	5	17	2'-2"	1'-0"	2'-2"		9'-6"
L541	ABUT. BEAM	5	1	2'-4"	1'-0"	2'-2"		9'-10"
L542	ABUT. BEAM	5	1	2'-10"	1'-0"	2'-2"		10'-10"
A741	WING	7	9					8'-11"
H540	WING	5	10	8"	4'-0"			9'-8"
A546	WING	5	8					9'-0"
A546	ABUT. BEAM	8	2	8"	3'-5"			7'-4"
A547	ABUT. BEAM	8	8					3'-4"
	BENT NO.1							
B550	BENT CAP	5	6					11'-6"
B750	BENT CAP	7	4	11'-6"				12'-4"
B850	BENT CAP	9	4	11'-6"				12'-8"
C950	FOOTINGS	9	16	7'-11"				9'-5"
C650	FOOTINGS	6	28	6'-6"				7'-10"
D850	BENT CAP/COL	8	3	6'-7"				8'-5"
H550	BENT CAP	5	12	2'-7"	1'-0"	3'-5"		12'-10"
L551	COLUMN	5	35	2'-2"	1'-0"	2'-2"		9'-6"
	BENT NO.2							
A550	BENT CAP	5	6					11'-6"
A750	BENT CAP	7	4	11'-6"				12'-4"
A850	BENT CAP/COL	9	8					10'-0"
A851	COLUMN	9	8					17'-1"
A852	END COL.	9	8					20'-10"
B750	BENT CAP	7	4	11'-6"				12'-4"
B850	BENT CAP	9	4	11'-6"				12'-8"
C950	FOOTINGS	9	16	7'-11"				9'-5"
D650	FOOTINGS	6	28	6'-6"				7'-10"
D850	BENT CAP/COL	8	3	6'-7"				8'-5"
H550	BENT CAP	5	12	2'-7"	1'-0"	3'-5"		12'-10"
L551	COLUMN	5	35	2'-2"	1'-0"	2'-2"		9'-6"

PAVEMENT @ BRIDGE ENDS

Bar	Location	Size	No. Req'd	Bending Dimensions A	B	C	D	Length
	ABUTMENT NO.1							
	REGULAR							
A800	SLAB (P1)	4	25					24'-0"
A801	SLAB (P2)	4	25					26'-6"
A700	FOOTING (P1)	7	8					26'-1"
A701	FOOTING (P2)	7	8					26'-6"
A900	SLAB	9	81					24'-2"
A1100	SLAB (DRAINS)	11	2					6'-0"
L500	FOOTING SLAB	5	45	1'-2"	1'-0"	2'-2"		7'-5"
	EPOXY							
A802E	SLAB (P1)	4	25					25'-0"
A803E	SLAB (P2)	4	25					27'-9"
A700E	FOOTING (P1)	7	8					27'-1"
A701E	FOOTING (P2)	7	8					27'-9"
A900E	SLAB	9	81					24'-2"
A1100E	SLAB (DRAINS)	11	2					6'-0"
L500E	FOOTING SLAB	5	45	1'-2"	1'-0"	2'-2"		7'-5"
	ABUTMENT NO.2							
	REGULAR							
A802	SLAB (P1)	4	25					23'-9"
A803	SLAB (P2)	4	25					26'-3"
A700	FOOTING (P1)	7	8					25'-10"
A701	FOOTING (P2)	7	8					26'-3"
A900	SLAB	9	81					24'-2"
A1100	SLAB (DRAINS)	11	2					6'-0"
L500	FOOTING SLAB	5	46	1'-2"	1'-0"	2'-2"		7'-5"
	EPOXY							
A802E	SLAB (P1)	4	25					23'-9"
A803E	SLAB (P2)	4	25					26'-3"
A900E	SLAB	9	81					24'-2"
A1100E	SLAB (DRAINS)	11	2					6'-0"
L500E	FOOTING SLAB	5	46	1'-2"	1'-0"	2'-2"		7'-5"

NOTE: P-1 DENOTES PHASE 1
P-2 DENOTES PHASE 2

② RIGHT LANE

SUPERSTRUCTURE

Bar	Location	Size	No. Req'd	Bending Dimensions A	B	C	D	Length
	REGULAR							
A402E	ENDWALL (P1)	4	7					22'-5"
A403E	ENDWALL (P2)	4	7					23'-10"
A404	ENDWALL	4	6					4'-2"
A405	ENDWALL	4	1					2'-11"
A406	WINGWALL	4	2					6'-6"
A407	WINGWALL	4	2					5'-4"
A408	WINGWALL	4	6					7'-5"
A409	BRACKET	4	1					2'-0"
A411	ENDWALL (P1)	4	7					22'-2"
A412	ENDWALL (P2)	4	7					23'-7"
A414	BRACKET	4	2					2'-11"
A415	ENDWALL	4	6					4'-2"
A511	WINGWALL	5	2					6'-6"
A512	WINGWALL	5	2					5'-4"
C600	WINGWALL	5	6	6'-1"				6'-11"
CD402	ENDWALL	4	6	4'-2"	6"	4"		4'-8"
CD403	WINGWALL	4	6	7'-6"	6"	4"		8'-0"
CD406	ENDWALL	4	6	4'-4"	6"	4"		4'-10"
D650	WINGWALL	5	6	7'8"	6"	4"		8'-2"
H500	PDWY. BRKT.	5	93	1'-8"	6"			2'-7"
L400	DIAPHRAGM	4	54	5"	1'-0"	1'-5"		5'-6"
L401	DIAPHRAGM	4	54	3'6"	1'-0"	1'-4"		4'-11"
L403	ENDWALL	4	10	8"	1'-0"	2'-0"		6'-2"
	EPOXY							
A402E	ENDWALL (P1)	4	1					21'-0"
A403E	ENDWALL (P2)	4	1					23'-4"
A405E	ENDWALL (P1)	4	1					26'-5"
A410E	ENDWALL (P2)	4	1					28'-1"
A500E	TOP SLAB	5	178					30'-0"
A501E	TOP & BOTTOM SLAB	5	2	LENGTH VARIES FROM 4'2" TO 10'-2" IN INC OF 10" (13 BARS)				22'-3"
A502E	TOP & BOTTOM SLAB	5	478					28'-7"
A503E	TOP & BOTTOM SLAB	5	2	LENGTH VARIES FROM 4'-0" TO 23'-1 9/16" IN INC OF 10" (24 BARS)				30'-3"
A504E	TOP & BOTTOM SLAB	5	670					23'-3"
A511E	TOP & BOTTOM SLAB	5	2	LENGTH VARIES FROM 3'-11 9/16" TO 23'-10 1/2" IN INC OF 10" (24 BARS)				32'-3"
A600E	TOP SLAB	5	36					6'-0"
A601E	DIAPHRAGM (D1)	5	16					13'-8"
A602E	DIAPHRAGM (D2)	5	16					20'-0"
A606E	BOTTOM SLAB	5	136					40'-0"
A611E	BOTTOM SLAB	5	34					16'-10"
A700E	TOP SLAB	5	18					13'-4"
A701E	TOP SLAB	5	18					17'-10"
A800E	TOP SLAB	8	40					60'-0"
A801E	TOP SLAB	8	32					40'-6"
A802E	TOP SLAB	8	20					29'-4"
A803E	TOP SLAB	8	24					23'-6"
A804E	TOP SLAB	8	24					22'-6"
A805E	TOP SLAB	8	20					32'-10"
C600E	TOP SLAB	5	18	2'-2"	2'-2"			4'-4"
C602E	TOP SLAB	8	40	5'-0"	2'-2"			7'-2"
CD402E	ENDWALL (P1)	4	1	270	6"	4"		27'-0"
CD403E	ENDWALL (P2)	4	1	284	6"	4"		28'-10"
CD406E	ENDWALL (P1)	4	1	268	6"	4"		27'-2"
CD407E	ENDWALL	4	1	280	6"	4"		28'-6"
L400E	ENDWALL	4	94	8"	1'-0"	2'-6"		7'-2"

ABUTMENT NO.1

Bar	Location	Size	No. Req'd	Bending Dimensions A	B	C	D	Length
A540	WING	5	14					4'-0"
A541	BEAM	5	5					8'-7"
A542	WING	5	5					8'-11"
A543	BEAM	5	10					3'-4"
A741	BEAM	7	9					8'-7"
H540	WING	5	8	8"	4'-0"			8'-7"
A742	WING	7	9					8'-11"
H540	BEAM	8	3	8"	5'-5"			7'-4"
L540	WING/BEAM	5	13	2'-2"	1'-0"	2'-2"		9'-6"
	ABUTMENT NO.2							
A540	BEAM	5	5					8'-5"
A541	WING	5	15					4'-7"
A542	WING	5	5					8'-3"
A543	WING	5	4					4'-0"
A544	BEAM	5	8					3'-7"
A740	BEAM	7	8					8'-5"
A530	WINGS	5	6	8"	4'-0"			8'-7"
A541	WING	5	7	8"	4'-3"			9'-1"
A742	WING	7	9					8'-3"
H540	BEAM	8	4	8"	5'-7"			7'-8"
L540	BEAM & WING	5	10	2'-2"	1'-0"	2'-8"		10'-6"
L541	WING	5	5	2'-2"	1'-0"	2'-8"		9'-6"
	BENT NO.1							
A550	BENT CAP	5	6					10'-4"
A850	BENT CAP/COL	9	8					10'-0"
A851	COLUMN	9	8					21'-9"
A853	END COL.	9	8					22'-11"
B750	BENT CAP	7	4	10'2"				11'-0"
B850	BENT CAP	9	4	10'2"				11'-5"
C950	FOOTINGS	9	16	7'-11"				9'-5"
D650	FOOTINGS	6	28	6'-6"				7'-10"
D850	BENT CAP/COL	8	3	6'-7"				8'-5"
H550	BENT CAP	5	11	1'-1"	1'-0"			3'-0"
L551	COLUMN	5	41	2'-2"	1'-0"	2'-2"		9'-6"
	BENT NO.2							
A550	BENT CAP	5	6					10'-4"
A850	BENT CAP/COL	9	8					10'-0"
A851	COLUMN	9	8					17'-5"
A853	END COL.	9	8					22'-5"
B750	BENT CAP	7	4	10'2"				11'-0"
B850	BENT CAP	9	4	10'2"				11'-5"
C950	FOOTINGS	9	16	7'-11"				9'-5"
D650	FOOTINGS	6	28	6'-6"				7'-10"
D850	BENT CAP/COL	8	3	6'-7"				8'-5"
H550	BENT CAP	5	11	1'-1"	1'-0"			3'-0"
L551	COLUMN	5	37	2'-2"	1'-0"	2'-2"		9'-6"

PAVEMENT @ BRIDGE ENDS

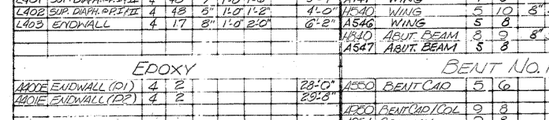
Bar	Location	Size	No. Req'd	Bending Dimensions A	B	C	D	Length
	ABUTMENT NO.1							
	REGULAR							
A800	SLAB (P1)	4	25					24'-0"
A801	SLAB (P2)	4	25					26'-6"
A700	FOOTING (P1)	7	8					26'-1"
A701	FOOTING (P2)	7	8					26'-6"
A900	SLAB	9	81					24'-2"
A1100	SLAB (DRAINS)	11	2					6'-0"
L500	FOOTING SLAB	5	46	1'-2"	1'-0"	2'-2"		7'-5"
	EPOXY							
A802E	SLAB (P1)	4	25					24'-0"
A803E	SLAB (P2)	4	25					26'-6"
A900E	SLAB	9	81					24'-2"
A1100E	SLAB (DRAINS)	11	2					6'-0"
L500E	FOOTING SLAB	5	46	1'-2"	1'-0"	2'-2"		7'-5"
	ABUTMENT NO.2							
	REGULAR							
A802	SLAB (P1)	4	25					23'-9"
A803	SLAB (P2)	4	25					26'-3"
A700	FOOTING (P1)	7	8					25'-10"
A701	FOOTING (P2)	7	8					26'-3"
A900	SLAB	9	81					24'-2"
A1100	SLAB (DRAINS)	11	2					6'-0"
L500	FOOTING SLAB	5	46	1'-2"	1'-0"	2'-2"		7'-5"
	EPOXY							
A802E	SLAB (P1)	4	25					23'-9"
A803E	SLAB (P2)	4	25					26'-3"
A900E	SLAB	9	81					24'-2"
A1100E	SLAB (DRAINS)	11	2					6'-0"
L500E	FOOTING SLAB	5	46	1'-2"	1'-0"	2'-2"		7'-5"

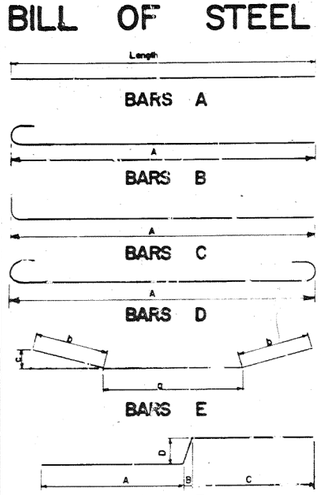
REINFORCING STEEL CODE

Type	Size	Series
A	5	06

NOTE Dimensions shown on this sheet are outside to outside of Bar. Standard C.R.S.I. hook details shall apply, except as noted.

NOTE: THE SUFFIX "E" DENOTES EPOXY COATED REINFORCING STEEL.





DESIGNED BY	DATE
DRAWN BY	DATE
SUPERVISED BY	DATE
CHECKED BY	DATE

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	3-30-84	JHW	GENERAL REVISIONS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL

WIDENING OF INTERSTATE 40 OVER COUNTY ROAD
STATION 130+43.73 (LEFT LANE)
STATION 129+27.22 (RIGHT LANE)
SMITH COUNTY
1984

CORRECT Eldon L Fussell
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-14C-82