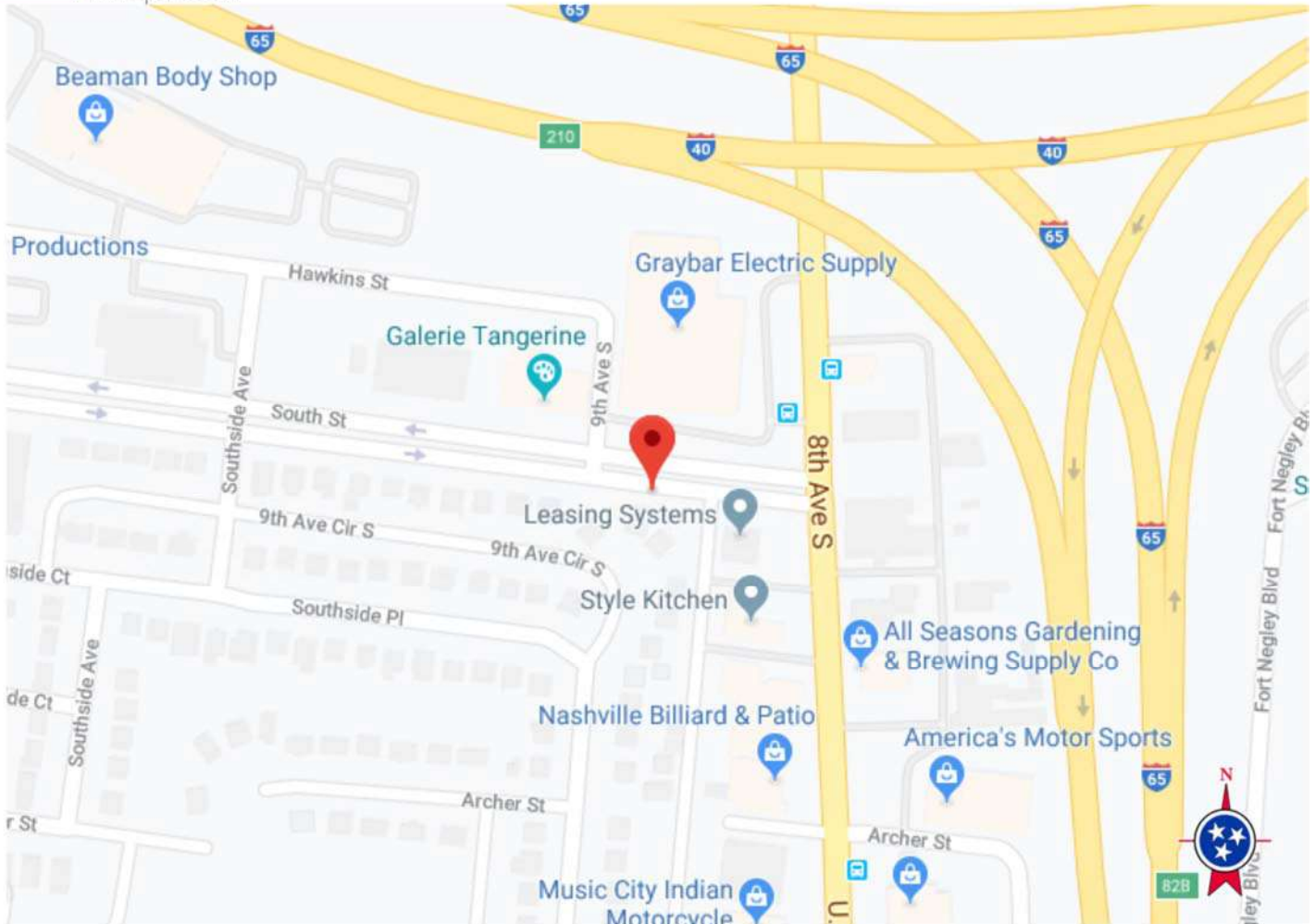


Davidson County



Regular Inspection Report

Location: 19-I0040-18.34-RT

Federal ID: 19I00400079

Owner: Nashville

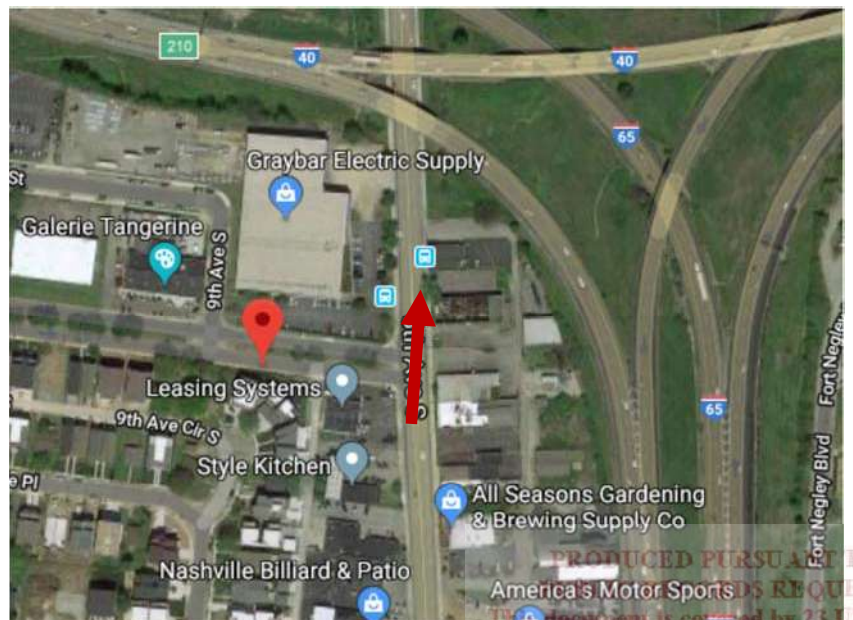
Description:

3 span Bridge/ W.P.G.

I-40 RT/8TH AVE SR 6

G.P.S.

N 36° 8.8000' W 86° 46.8000'



PRODUCED PURSUANT TO
PUBLIC INFORMATION REQUEST
The information is covered by 23 USC §409
And its production pursuant to a public
document records request does not
waive the provisions of §409

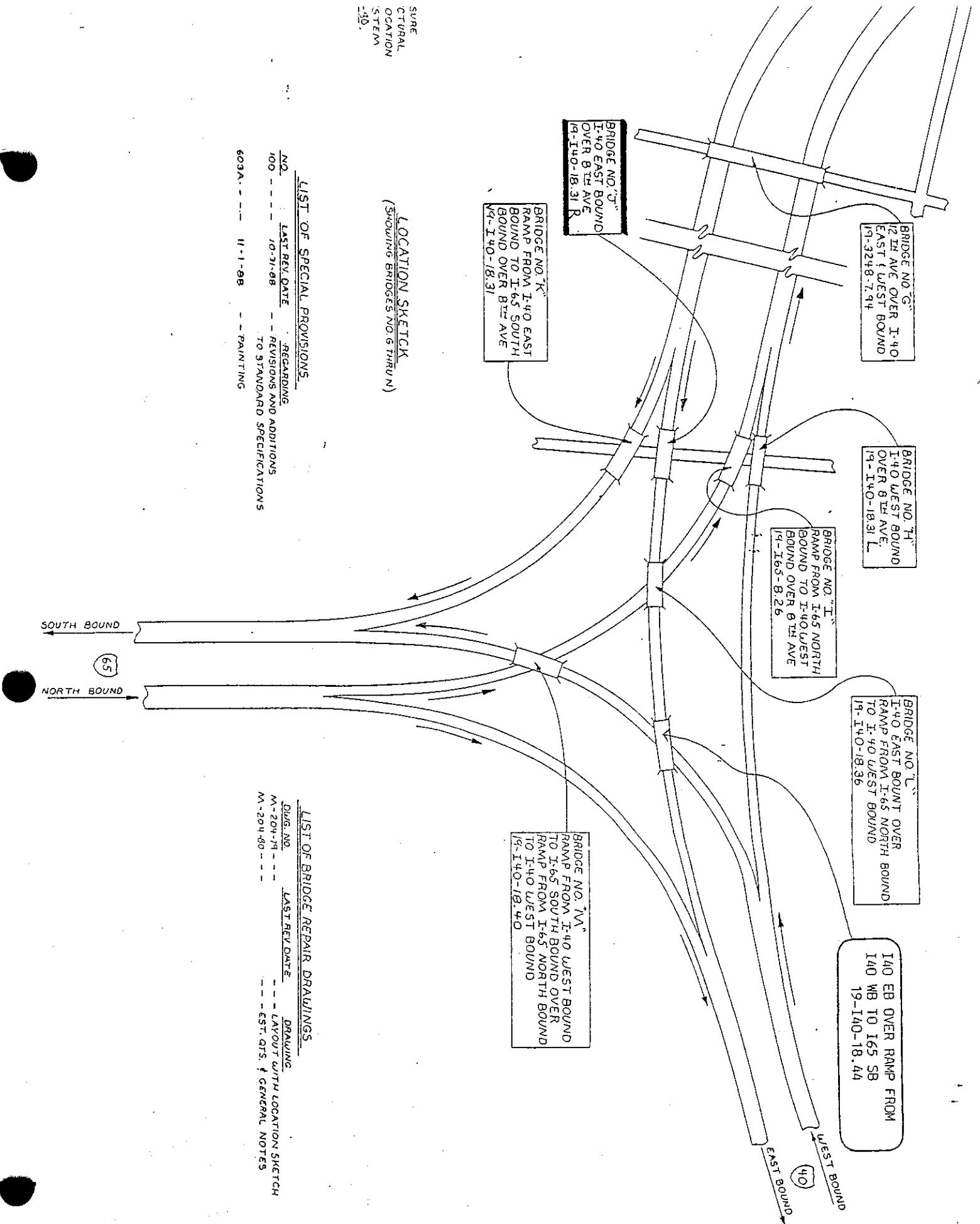
SURE
STRUCTURAL
LOCATION
SYSTEM
-20.

LOCATION SKETCH (SHOWING BRIDGES NO. 6 THROUGH 11)

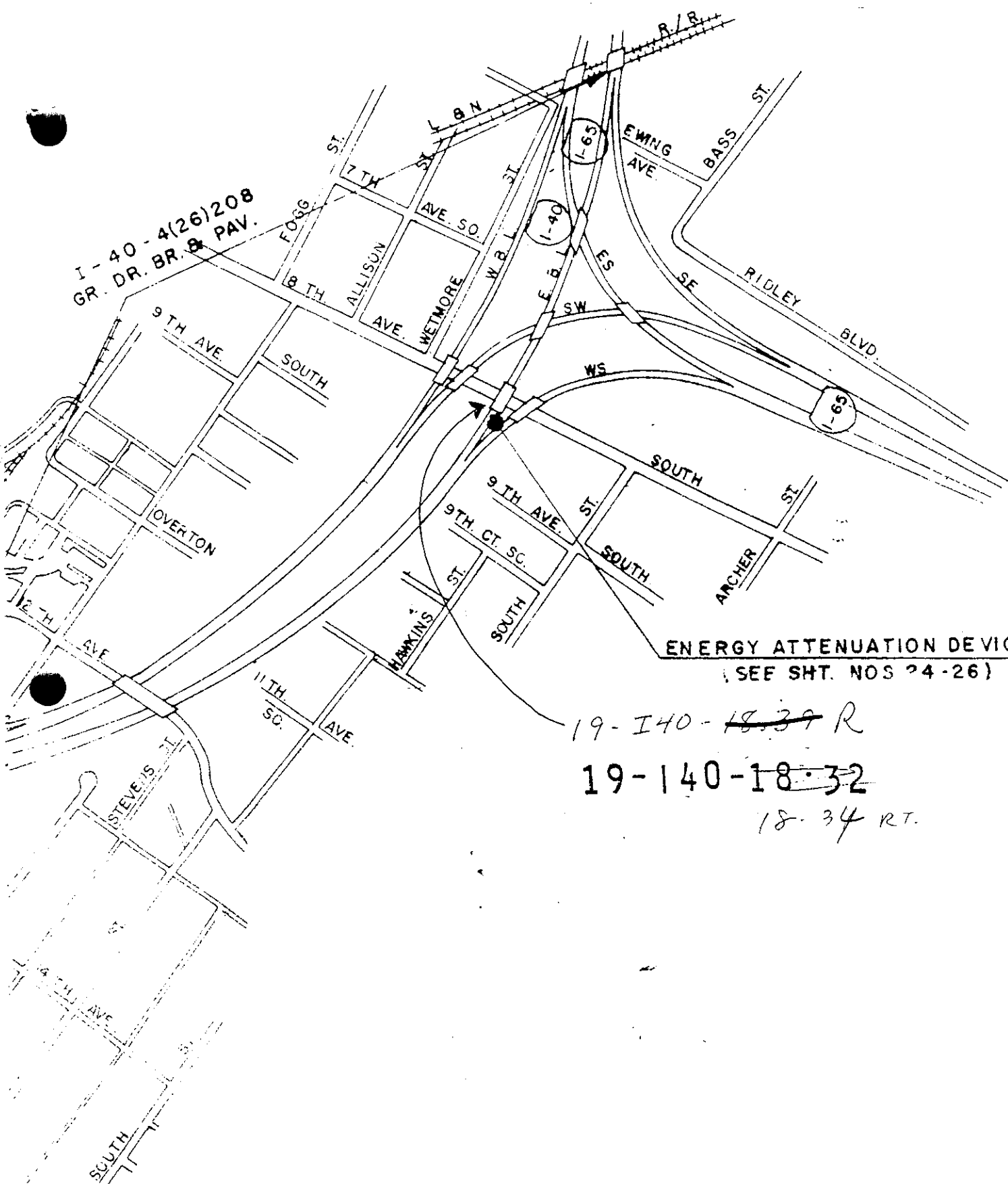
LIST OF SPECIAL PROVISIONS			
NO.	LAST REV. DATE	REVISIONS	REMARKS
100	10-31-88	REVISIONS AND ADDITIONS	TO STANDARD SPECIFICATIONS
603A	11-1-88	PAINTING	

LIST OF BRIDGE REPAIR DRAWINGS

DWG. NO.	LAST REV. DATE	DRAWING
M-204-74		LAYOUT WITH LOCATION SKETCH
M-204-80		EST. QTS. & GENERAL NOTES



I-40-4(26)208
GR. DR. BR. & PAV.



ENERGY ATTENUATION DEVICE
(SEE SHT. NOS 24-26)

19-I40-~~18-37~~ R

19-140-18-32

18-34 RT.

X101 RETAINING WALL
40S 20 231

Bridge Maintenance Recommendations

Page No. _____

Page 1 of 1

Bridge Location No.: 19 - I0040 - 18.34 R

Bridge Number: 19I00400079

Co. Route Log Mile

County: Davidson

Crossing: I40 RL / 8TH AVE SR 6 *

Region: 03

Bridge Rating: GOOD

District: 31

Inspection Cycle: 15

Maint.Resp.: 01

Inspection Date: 12/1/2003

Spec.Case: 0

Co.Seq: 01

Comments: REPAIR BROKEN BOLT BEARING "A" ABUTMENT #1.
REPAIR PARAPET LEFT SIDE SPAN#1.

Maintenance Recommendations:

Maintenance Completed
By / Date

190 CLEAN AND PAINT BEARING AT ABUTMENT #1 AND #2

031 CLEAN AND SEAL JOINTS IN SPAN NO. _____

CLEAN AND SPOT PAINT STRUCTURAL STEEL

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:

Bridge Maintenance Recommendations

Page No. _____

Page 1 of 1

Bridge Location No.: 19 - I0040 - 18.34 R

Co. Route Log Mile

Crossing: I40 RL / 8TH AVE SR 6 *

Bridge Rating: GOOD

Inspection Cycle: 14

Inspection Date: 10/22/2001

Bridge Number: 19I00400079

County: Davidson

Region: 03

District: 31

Maint.Resp.: 01

Spec.Case: 0

Co.Seq: 01

Comments: REPAIR BROKEN BOLT BEARING "A" ABUTMENT #1.
REPAIR PARAPET LEFT SIDE SPAN#1.

Maintenance Recommendations:

Maintenance Completed
By / Date

190	CLEAN AND PAINT BEARING AT ABUTMENT NO. BOTH
031	CLEAN AND SEAL JOINTS IN SPAN NO.
	CLEAN AND SPOT PAINT STRUCTURAL STEEL

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:

Bridge Maintenance Recommendations

Page No. _____

Page 1 of 1

Bridge Location No.: 19 - I0040 - 18.3⁴✓ R

Co. Route Log Mile

Bridge Number: 19I00400079

County: Davidson

Crossing: I40 RL / 8TH AVE SR 6 *

Region: 03

Bridge Rating: GOOD

District: 31

Inspection Cycle: 13

Maint.Resp.: 01

Inspection Date: 2/29/00

Spec.Case: 0

Co.Seq: 01

Comments: REPAIR BROKEN BOLT "A" END BEAM "A" BEARING.
REPAIR PARAPET LEFT SIDE SPAN#1.

Level of Service: 1

Number Main Spans: 003

Owner: 01

Number Appr Spans: 0000

Appr Rdwy (xxx ft): 038

Bridge Length (xxxxxxx ft) 000158

Skew: 84

Curb-to-Curb (xxx.x ft): 0380

Type of Service: 11

Out-to-Out (xxx.x ft): 0420

Main Structure Type: 402

Item 500: 02

Appr Structure Type: 000

Facility Carried By: I40

Maintenance Recommendations:

Maintenance Completed
By / Date

190	CLEAN AND PAINT BEARING AT ABUTMENT NO. BOTH
008	REPAIR DRAINS AT APPROACH NO. 0001
033	REWORK "EXPANSION JOINT" IN SPAN NO. 0001
031	CLEAN AND SEAL JOINTS IN SPAN NO.

BRIDGE MAINTENANCE RECOMMENDATIONS

BRIDGE SEQ. NO. : 19I00400079

BRIDGE NO. : 19 - I0040 - 1831 - R
OVER : I40 RL / 8TH AVE SR 6 *

DATE : 02/25/98 BRIDGE RATING : GOOD COUNTY : Davidson
O. SEQ. : 01 INSPECTION CYCLE : 12 MAINT DIST : 31
SPEC. CASE : 1 INSPECTION DATE : 02/25/98 REGION : 03

007 - FACILITY CARRIED BY STRUCT : I40
021 - MAINTENANCE RESPONSIBILITY : 01
022 - OWNER : 01
042 - TYPE OF STRUCTURE : 11
043 - STRUCTURE TYPE, MAIN : 402
044 - STRUCTURE TYPE, APPROACH : 000
045 - SPANS, MAIN UNIT : 003
046 - SPANS, APPROACH : 0000
049 - STRUCTURE LENGTH : 000158
032 - APPROACH ROADWAY WIDTH : 038
034 - SKEW : 84
051 - BRDG RDWY WID, CRB-TO-CRB : 0380
052 - DECK WIDTH, OUT-TO-OUT : 0420
500 - HWY OF THE INVENTORY ROUTE : 02

: MAINTENANCE & REPAIR RECOMMENDATIONS :

- 1 CLEAN AND PAINT BEARING AT ABUTMENT NO. BOTH__
- 2 REWORK "EXPANSION JOINT" IN SPAN NO. 0001__
- 3 CLEAN AND SEAL JOINTS IN SPAN NO. _____
- 4 REPAIR DRAINS AT APPROACH NO. 0001__

: MAINTENANCE COMPLETED :

- | | | |
|---|----------|------------|
| 1 | BY _____ | DATE _____ |
| 2 | BY _____ | DATE _____ |
| 3 | BY _____ | DATE _____ |
| 4 | BY _____ | DATE _____ |

COMMENTS FOR BRIDGE SEQ. NO. : 19I00400079 :

COMPLETION NOTIFICATION : RETURN WITHIN 6 MONTHS OF INSPECTION DATE

MAINTENANCE ACTIVITIES ARE

--- COMPLETED (DATE) -----
--- PARTIALLY COMPLETE (DATE) -----
--- INCOMPLETE SCHEDULED FOR (DATE) -----

EXPLANATIONS AND COMMENTS:

TENNESSEE BRIDGE INSPECTION PROGRAM

SUMMARY OF EVALUATION

REV. 03-05-2003

BRIDGE ID NO: 19I00400079

LOCATION NO: 19 - I0040 - 18.34 R

(6A) CROSSING: I40 RL / 8TH AVE SR 6

(505) METHOD OF ANALYSIS: LOAD FACTOR
METHOD

(548) RATING BASED ON: CONCRETE DECK

LOAD RATINGS IN TONS

INVENTORY (503) H 20	(518B) HS 36
OPERATING (504) H 42	(519) HS 76

(549) EVALUATOR: CAJ
 (522) EVAL. DATE: 4/13/2004
 LAST UPDATED BY: JOHNSON
 (29) ADT: 121,260 (30) ADT YR: 2003
 (100) STRAHNET ROUTE: YES
 (19) DETOUR LENGTH: 2 KM
 (520) VC OVER RDWY: 99.99 METERS

CONDITION RATINGS

(58) DECK RATING: 7
 (59) SUPERSTRUCTURE RATING: 6
 (60) SUBSTRUCTURE RATING: 7
 (61) CHANNEL PROTECTION: N
 (62) CULVERT RATING: N
 (113A) NBIS SCOUR CODE: N
 (113B) TDOT SCOUR CODE:

APPRAISAL RATINGS

(67) STRUCTURAL EVALUATION: 6
 (68) DECK GEOMETRY: 6
 (69) UNDER CLEARANCE: 6
 (70) BRIDGE POSTING: 5
 (71) WATERWAY ADEQUACY: N
 (72) APPROACH RDWY ALIGNMENT: 8

CODE VALUES

N - NOT APPLICABLE
 9 - EXCELLENT CONDITION
 8 - VERY GOOD CONDITION
 7 - GOOD CONDITION
 6 - SATISFACTORY
 5 - FAIR CONDITION
 4 - POOR CONDITION
 3 - SERIOUS CONDITION
 2 - CRITICAL CONDITION
 1 - FAILURE IS IMMINENT
 0 - FAILED CONDITION

OTHER RATING ITEMS

(521) OVERALL CONDITION: G
 (513) TEXTURE COAT RATING: N
 (514) PAINT CONDITION RATING: 2 05 1989
 (41) WEIGHT POSTING CODE: A

(36) TRAFFIC SAFETY
 FEATURES: 0 1 1 1
 (525) REPAIR LIST NO: N

COMMENTS

NO COMMENTS AT THIS TIME.

(502) SUFF. RATING:	86.6
(528) STR. DEFICIENT:	NO
(529) FUNC. OBSOLETE:	NO



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 08/28/2003

Bridge Number: 19I004000791
(Includes Item 5A)
Feature Intersected: I40 RL / 8TH AVE SR 6
Evaluation Status:

County: 19
Route: 10040
Special Case: 0
County Sequence: 1
Log Mile: 18.34

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	CONDITION CODING GUIDELINES (Values for Coding Items 58, 59, 60 and 62)
90	INSPECTION DATE	<u>10/22/2001</u> <u>12/1/03</u>	N NOT APPLICABLE
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. _____ FT. _____ IN.	9 EXCELLENT CONDITION
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. _____ FT. _____ IN.	8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
36	TRAFFIC SAFETY FEATURES Br. Rail Trans. Appr. Rail Terminal SPEED LIMIT 0 1 1 1 55		7 GOOD CONDITION - SOME MINOR PROBLEMS.
41	STRC OPEN/CLOSED/POSTED A K P	A _____	6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
58	DECK	7 _____	5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
59	SUPERSTRUCTURE	6 _____	4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
60	SUBSTRUCTURE	7 _____	3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
61	CHANL/CHANL PROTECTION	N _____	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.
62	CULVERT AND RETAIN WALL	N _____	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 IT BACK IN LIGHT SERVICE.
71	WATERWAY ADEQUACY	N _____	0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.
72	APPROACH RDWY ALIGNMENT	8 _____	
521	OVERALL CONDITION	GOOD _____	

J. Watts
TEAM LEADER SIGNATURE

12/1/03
REVIEW DATE



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

Revised 08/28/2003

Bridge Number: 19I004000792
(Includes Item 5A)

Feature Intersected: I40 RL /8TH AVE SR 6

County: 19

Route: SR006

Special Case: 0

County Sequence: 1

Log Mile: 7.99

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	UNDERPASS SAFETY FEATURES
90	INSPECTION DATE	<u>10/22/2001</u> <u>12/1/03</u>	515 (A) TYPE UNDERPASS BARRIER NONE NEEDED OR NOT APPLICABLE
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	<u>20</u> FT. <u>11</u> IN. _____ FT. _____ IN.	Revised Barrier Type
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	<u>20</u> FT. <u>11</u> IN. _____ FT. _____ IN.	(B) ADEQUACY OF BARRIER OR RAIL <u>N</u>
47	TOTAL HORIZONTAL UNDERCLEARANCE	<u>67</u> FT. <u>11</u> IN. _____ FT. _____ IN.	(C) ADEQUACY OF TRANSITIONS <u>N</u>
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS) Circle One: <u>(H)</u> R <u>20</u> FT. <u>11</u> IN.		(D) ADEQUACY OF TERMINALS <u>N</u>
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE Circle One: <u>(H)</u> R <u>10</u> FT. <u>00</u> IN.		554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING _____ FT. _____ IN. _____ FT. _____ IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	<u>10</u> FT. <u>00</u> IN.	
521	OVERALL CONDITION	<u>GOOD</u>	HEIGHT POSTED AT BOTH APPROACHES? YES [] <u>NO</u> [X] N/A []
555	COMMENTS		

J. W. Walls
TEAM LEADER SIGNATURE

12/1/03
REVIEW DATE

20'-11" → 6.38 m.

TENNESSEE BRIDGE INSPECTION PROGRAM
SUMMARY OF EVALUATION

DT-1449

REV. 05-22-00

(548) RATING BASED ON: CONCRETE DECKBridge No.: 19-I40-18.34-R(549) Evaluator: Alan Johnson(522) Eval. Date: 09 / 06 / 2000(29) ADT: 22400 (19 22) Yr (30)

(100) Strahnet Route Yes(X) No()

(19) Detour 2 km(53) Vert. Clearance Over Deck
 m(XX.XX) (X) NAINVENTORY 503 H 20 Tons 518B HS 36 TonsOPERATING 504 H 42 Tons 519 HS 76 TonsCONDITION RATING (Structural)APPRAISAL RATING (Relation to System)

	Culverts			Culverts	
58 Deck	N	7	67 Structural Evaluation		6
59 Superstructure	N	6	68 Deck Geometry		6
60 Substructure	N	6	69 Under Clearance	N	6
61 Chl & Chl Protection		N	70 Bridge Posting		5
62 Culv & Ret Walls		N	71 Waterway Adequacy		N
113A Scour Condition		N	72 Approach Rdwy Alignment		8
113B Scour Condition					

Overall Condition (521): G F P C

Texture Coat (513)

Paint (514 A, B, & C)

N							
2	0	5	1	9	8	9	

Traffic Safety

Features (36):

Repair List No. (525):

0	1	1	1	1
N				

Comments and Recommendations:

SIB's >> H20-HS36 REVIEWED-CAJ-03-22-2002

- * * Article 5.1.2 of Maint. Man. For Conc. Br. with unknown reinf.
 * * * Des. Std. or Des. Plans For H15 or HS20 Loading.

COMMENTARY (Condition)

- N NOT APPLICABLE
 9 EXCELLENT CONDITION
 8 VERY GOOD CONDITION - no problems noted
 7 GOOD CONDITION - some minor problems
 6 SATISFACTORY CONDITION - structural elements show some minor deterioration
 5 FAIR CONDITION - all primary structural elements are sound, but may have minor section loss, deterioration, spalling, or scour.
 4 POOR CONDITION - advanced section loss, deterioration, spalling, or scour
 3 SERIOUS CONDITION - loss of section, deterioration, spalling, or scour have 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 structure stability. Bridge is closed to traffic, but corrective action may put it back in light service.
 0 FAILED CODITION - Out of service, beyond corrective action.

COMMENTARY (Appraisal)

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

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

SUFFICIENCY RATING : _____

DATE OF SUFF. RATING : ____ / ____ / ____



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 06/15/2000

Bridge Number:
(Includes Item 5A)

191004000791

Feature Intersected:

140 RL / 8TH AVE SR 6

County:

19

Route:

10040

Special Case:

0

County Sequence:

01

Log Mile:

18.34

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	CONDITION CODING GUIDELINES (Values for Coding Items 58, 59, 60 and 62)
90	INSPECTION DATE	02/29/2000	
		10/22/01	N NOT APPLICABLE
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN.	9 EXCELLENT CONDITION
		FT. IN.	8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN.	7 GOOD CONDITION - SOME MINOR PROBLEMS.
		FT. IN.	6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
36	TRAFFIC SAFETY FEATURES		5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
	Br. Rail Trans. Appr. Rail Appr. Rail Ends		
	1 1 1 1		
	①		
41	STRC OPEN/CLOSED/POSTED	A	4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
	A K P		
58	DECK	7	3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
59	SUPERSTRUCTURE	6	
60	SUBSTRUCTURE	6	
		7	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.
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	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.
521	OVERALL CONDITION (Circle One)		
	GOOD FAIR POOR CRITICAL		
	GOOD		0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.
TEAM LEADER SIGNATURE		10/22/01	
		REVIEW DATE	



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

Revised 06/15/2000

Bridge Number: 191004000792
(Includes Item 5A)
Feature Intersected: 140 RL /8TH AVE SR 6

County: 19
Route: SR006
Special Case: 0
County Sequence: 01
Log Mile: 7.99

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	UNDERPASS SAFETY FEATURES
90	INSPECTION DATE	<u>02/29/2000</u> <u>10/22/01</u>	515 (A) TYPE UNDERPASS BARRIER None Needed or N/A
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	20 FT. 11 IN. ____ FT. ____ IN.	Revised Barrier Type
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	20 FT. 11 IN. ____ FT. ____ IN.	(B) ADEQUACY OF BARRIER OR RAIL N
47	TOTAL HORIZONTAL UNDERCLEARANCE	67 FT. 10 IN. ____ FT. ____ IN.	(C) ADEQUACY OF TRANSITIONS N
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS) Circle One: (H) R <u>20</u> FT. <u>11</u> IN.		(D) ADEQUACY OF TERMINALS N
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE Circle One: (H) R <u>10</u> FT. <u>0</u> IN.		554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING 99 FT. 99 IN. ____ FT. ____ IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	____ FT. ____ IN.	
521	OVERALL CONDITION (Circle One) <u>GOOD</u> FAIR POOR CRITICAL		HEIGHT POSTED AT BOTH APPROACHES? YES [] NO [X] N/A []
555	COMMENTS		

Kane Haggis
TEAM LEADER SIGNATURE

10/22/01
REVIEW DATE

CONCRETE DECK RATINGS
---- LOAD FACTOR ANALYSIS ----

BRIDGE NUMBER...: 19 - I40 - 18.31 - RL

NAME : ALAN JOHNSON

DATE : 09-04-1997

SPAN NUMBER...: TYPICAL

BAY NUMBER...: TYPICAL

COMMENTS...: THE DECK IS IN GOOD CONDITION.

INPUT DATA

CLEAR SPAN LENGTH(FEET)...: 7.75
 SLAB THICKNESS(INCH)...: 8
 CLEAR DISTANCE - BOTTOM STEEL TO BOTTOM DECK ..(INCH)...: 1
 NEW BAR SIZE NUMBER OF STEEL BAR.....(WHOLE NUMBER)...: 6
 IS THE BAR ROUND ?(Y-N)...: Y
 SPACING BETWEEN THE STEEL BARS(INCH)...: 6
 YIELD STRENGTH - STEEL(KSI)...: 40
 PERCENT OF STEEL EFFECTIVE FOR MOMENT..(WHOLE NUMBER)...: 100
 YIELD STRENGTH - CONCRETE(KSI)...: 3
 ASPHALT THICKNESS(IN.)...: 4
 SUPPORTING BEAM FLANGE OR WALL THICKNESS(IN)...: 12
 DECK CONT. OVER 3 OR MORE BEAMS OR SUPPORTS ?...(Y-N)...: Y
 IS THE DECK MONOLITHIC ?.....(Y-N)...: N
 IS THE DECK SUPPORTED BY LONGITUDINAL BEAMS ?...(Y-N)...: Y

OUTPUT DATA FOR LOAD FACTOR ANALYSIS

COMPUTED VALUES

NON-FACTORED
MOMENTS

A ----- (INCH) = 1.155

SPAN LENGTH ---- (FEET) = 8.25

MOM-CAP ----- (K-FT) = 16.03

MDL --- = 1.01

MOM-AVAIL-LL+I - (K-FT) = 14.72

H-LL+I = 4

W-DL ----- (K/FT) = .148

HS-LL+I = 5.33

H & HS RATINGS - (TONS)

H @ INV
25

H @ OPER
42

HS @ INV
46

HS @ OPER
76

BARS INPUT FILE DATA REPORT

=====

- General Data -

FILE NAME: 19- 292.DAT

REGION: 3

ROUTE: I0040

LOGMILE: 1831

SYSTEM BRIDGE?: YES

LANE (R/L): R

CROSSING: I40-RL / 8TH. AVE. SOUTH

- Specific Data -

STD. OVERLOAD BRIDGE?: NO

TIMBER SUBSTRUCTURE?: NO

STRUCTURE TYPE - I43: 402

ASPHALT DEPTH ON DECK: 4.

LAST REVISION DATE: 09/04/97

TYPE OF RATING ANALYSIS: LF

OVERALL CONDITION: F

TOTAL NUMBER OF SPANS: 3

IS BRIDGE POSTED?: NO

MAXIMUM SPAN LENGTH - I48: 72

YEAR BRIDGE WAS BUILT: 1970

BARS-PC R5.5-MOD 3.0

RECORD										REC.NO.
01	090497 ALAN JOHNSON	H15							*LF*	100
02CAJ292	ALAN JOHNSON		CSIB70	158 0 4						100
05CAJ292LM	18.313 19 I-40									200
06CAJ2921	THERE IS 4" OF ASPHALT ON THE DECK.									300
07CAJ29236000	3000									400
08CAJ292G01	3	37 0 0	71 6 0	46 0 0	OCSC			1.431		500
10CAJ292G01	01		W 556		37 0 0					600
10CAJ292G01	02		W 556		71 6 0					700
10CAJ292G01	03		W 556		46 0 0					800
11CAJ292G01	0101	32 6 001								900
11CAJ292G01	0102	4 6 002								1000
11CAJ292G01	0201	4 6 002								1100
11CAJ292G01	0202	9 9 001								1200
11CAJ292G01	0203	43 0 003								1300
11CAJ292G01	0204	9 9 001								1400
11CAJ292G01	0205	4 6 004								1500
11CAJ292G01	0301	4 6 004								1600
11CAJ292G01	0302	41 6 001								1700
12CAJ292G01			01	35.500112.00P0.812535.093	0.0					1800
12CAJ292G01			01	020.625 33.87517.750	0.0					1900
12CAJ292G01			01	0312.00 0.81250.4062	0.0					2000
12CAJ292G01			02	36.500113.50P0.500036.250	0.0					2100
12CAJ292G01			02	0212.00 0.812535.593	0.0					2200
12CAJ292G01			02	030.625 33.87518.250	0.0					2300
12CAJ292G01			02	0412.00 0.81250.9062	0.0					2400
12CAJ292G01			02	0513.50 0.50000.2500	0.0					2500
12CAJ292G01			03	35.8750112.00P0.937535.406	0.0					2600
12CAJ292G01			03	020.625 34.00017.937	0.0					2700
12CAJ292G01			03	0312.00 0.93750.4687	0.0					2800
12CAJ292G01			04	37.5000113.50P1.000037.000	0.0					2900
12CAJ292G01			04	0212.00 0.812536.093	0.0					3000
12CAJ292G01			04	030.625 33.87518.750	0.0					3100
12CAJ292G01			04	0412.00 0.81251.4062	0.0					3200
12CAJ292G01			04	0513.50 1.00000.5000	0.0					3300
14CAJ292G01	0101	32 6 ON 01		105.08.0018.01.8196.008.00	5.00					3400
14CAJ292G01	0102	4 6 ON 02		105.08.0018.02.3196.008.00	5.00					3500
14CAJ292G01	0201	4 6 ON 02								3600
14CAJ292G01	0202	9 9 ON 01								3700
14CAJ292G01	0203	7 1 8N 03		105.08.0018.01.9396.0 8.00	5.00					3800
14CAJ292G01	0204	28 9 OC 03								3900
14CAJ292G01	0205	7 1 8N 03								4000
14CAJ292G01	0206	9 9 ON 01								4100
14CAJ292G01	0207	4 6 ON 04		105.08.0018.02.8196.0 8.00	5.00					4200
14CAJ292G01	0301	4 6 ON 04								4300
14CAJ292G01	0302	41 6 ON 01								4400
16CAJ292G01	01T01	37 0 OC								4500
16CAJ292G01	01B01	37 0 OSPSP 2	18 6 0							4600
16CAJ292G01	02T01	71 6 OC								4700
16CAJ292G01	02B01	71 6 OSPSP 3	2310 0							4800
16CAJ292G01	03T01	46 0 OC								4900
16CAJ292G01	03B01	46 0 OSPSP 2	23 0 0							5000

THE FOLLOWING STRUCTURES WERE SELECTED

CAJ292

* STRUCTURE HEADER AND DESCRIPTION *

100-- 2 ALAN JOHNSON EA/I/O/P = FILE REQUESTS AND OUTPUT DATA EXCEPTIONS
 TYPE = CSIB YEAR = 70 LEN = 158.02 FT. WIDTH = 39.67 FT. 3 SPANS SP.LOAD =
 INV.LL.TRK.= OP.LL.TRK.=

* STRUCTURE LOCATION AND PERMANENT IDENTIFICATION FACTORS *

200-- 5 BRIDGE=LM 18.31 DIST./CO.= 3 19 CONST. ROUTE = I-40 CONST. SECT.= CONST. STA.= 0+ .
 MICROFILM REEL NO. DESIGN PLANS= COMPUTATIONS= CORRESPONDENCE=
 ROUTE I.D.= MARKED ROUTE =

* COMMENTS *

300-- 6 1 THERE IS 4" OF ASPHALT ON THE DECK.

* SPECIFICATIONS GENERALLY APPLICABLE TO STRUCTURE MEMBERS *

	STRUCT STEEL	REINF. CONCRETE	COMPOSITE STEEL/CONC	PRESTRESSED CONCRETE	IMPACT FACTOR				TIMBER	
					INV	OP	POST	SPEC		
400-- 7	FY=36000.	FY = 3000. F"C= 0.	FY = 0. F"C= 0.	LOSS = 0. EG/ES= .000	F"S = 0. F"C= 0.	MAX =.00	.00	.00	.00	FY = 0. FV = 0.

* MEMBER SPECIFICATIONS AND REQUIRED ANALYSIS-GIRDER, STRINGER AND FLOOR BEAM *

MEMBER ID	SPANS	STIFF. SYMM CODE	SPAN 1 (SPAN 4)	SPAN 2 (SPAN 5)	SPAN 3 (SPAN 6)	MATL CODE	ALLOWABLE STRESS				LL DIST. FACTOR	END THRU FL.BM DECK	MAX INV	IMPACT OP.	FACTOR POST SPEC
							FY	FB	FC*	FC**					
500-- 8	G 1	3	37.000	71.500	46.000	CSC	.00	.00	1.431		.00	.00	.00	.00	

* SUPERIMPOSED DEAD LOADS-GIRDERS, STRINGERS AND FLOOR BEAMS *

	MEMBER ID	SYMM.	SPAN NO.	DISTANCE FR. LEFT SUPP.		LOAD		LENGTH
				TYPE	P OR W(L)	W(R)		
600--10	G 1		1	.000FT.	W	556.0	.0	37.000FT.
700--10	G 1		2	.000FT.	W	556.0	.0	71.500FT.
800--10	G 1		3	.000FT.	W	556.0	.0	46.000FT.

* SECTION RANGE SPECIFICATIONS *

	MEMBER ID	SYMM.	SPAN NO.	RANGE NO.	RANGE LENGTH	SECTION NO.		SEC. VAR.	HINGE CODE	HINGE 1 DIST.	HINGE 2 DIST.	HYBRID GIRDER	
						LEFT	RIGHT					CODE	FY
900--11	G 1		1	1	32.500FT.	1	0			.000FT.	.000FT.	0.	0.
1000--11	G 1		1	2	4.500FT.	2	0			.000FT.	.000FT.	0.	0.
1100--11	G 1		2	1	4.500FT.	2	0			.000FT.	.000FT.	0.	0.
1200--11	G 1		2	2	9.750FT.	1	0			.000FT.	.000FT.	0.	0.
1300--11	G 1		2	3	43.000FT.	3	0			.000FT.	.000FT.	0.	0.
1400--11	G 1		2	4	9.750FT.	1	0			.000FT.	.000FT.	0.	0.
1500--11	G 1		2	5	4.500FT.	4	0			.000FT.	.000FT.	0.	0.
1600--11	G 1		3	1	4.500FT.	4	0			.000FT.	.000FT.	0.	0.
1700--11	G 1		3	2	41.500FT.	1	0			.000FT.	.000FT.	0.	0.

* SECTION PROPERTIES (STEEL OR TIMBER) - GIRDERS STRINGERS, FLOOR BEAMS *

	MEMBER ID	SEC.	NON-DETAILED DESCRIPTION				DETAILED DESCRIPTION						
			A	I	S	CODE	SAME	ADR	H	ELE	A	IX	DY
1800--12	G 1	0	.00	.0	.0	1	0	35.50	1	12.00P	.8	35.1	.0
1900--12	G 1	0	.00	.0	.0	1	0	.00	2	.63	33.9	17.8	.0
2000--12	G 1	0	.00	.0	.0	1	0	.00	3	12.00	.8	.4	.0
2100--12	G 1	0	.00	.0	.0	2	0	36.50	1	13.50P	.5	36.3	.0
2200--12	G 1	0	.00	.0	.0	2	0	.00	2	12.00	.8	35.6	.0
2300--12	G 1	0	.00	.0	.0	2	0	.00	3	.63	33.9	18.3	.0
2400--12	G 1	0	.00	.0	.0	2	0	.00	4	12.00	.8	.9	.0
2500--12	G 1	0	.00	.0	.0	2	0	.00	5	13.50	.5	.3	.0
2600--12	G 1	0	.00	.0	.0	3	0	35.88	1	12.00P	.9	35.4	.0
2700--12	G 1	0	.00	.0	.0	3	0	.00	2	.63	34.0	17.9	.0
2800--12	G 1	0	.00	.0	.0	3	0	.00	3	12.00	.9	.5	.0
2900--12	G 1	0	.00	.0	.0	4	0	37.50	1	13.50P	1.0	37.0	.0
3000--12	G 1	0	.00	.0	.0	4	0	.00	2	12.00	.8	36.1	.0
3100--12	G 1	0	.00	.0	.0	4	0	.00	3	.63	33.9	18.8	.0
3200--12	G 1	0	.00	.0	.0	4	0	.00	4	12.00	.8	1.4	.0
3300--12	G 1	0	.00	.0	.0	4	0	.00	5	13.50	1.0	.5	.0

* SECTION PROPERTIES (COMPOSITE) - GIRDERS, STRINGERS, FLOOR BEAMS *

	MEMBER ID	SYMM.	SPAN RANGE	RANGE LENGTH	COMP N SECT			A	WIDTH	THICK	FILLET WIDTH	FILLET THICK.	EFFECT. WIDTH	EFFECT. THICK.	DIST TO TOP SECT.
					CODE	N	SECT								
3400--14	G 1	1	1	32.500FT.	N	0	1	0	105.00	8.00	18.00	1.81	96.00	8.00	5.00
3500--14	G 1	1	2	4.500FT.	N	0	2	0	105.00	8.00	18.00	2.31	96.00	8.00	5.00
3600--14	G 1	2	1	4.500FT.	N	0	2	0	.00	.00	.00	.00	.00	.00	.00

3700--14	G 1	2	2	9.750FT. N	0	1	0	.00	.00	.00	.00	.00	.00	.00
3800--14	G 1	2	3	7.125FT. N	0	3	0	105.00	8.00	18.00	1.93	96.00	8.00	5.00
3900--14	G 1	2	4	28.750FT. C	0	3	0	.00	.00	.00	.00	.00	.00	.00
4000--14	G 1	2	5	7.125FT. N	0	3	0	.00	.00	.00	.00	.00	.00	.00
4100--14	G 1	2	6	9.750FT. N	0	1	0	.00	.00	.00	.00	.00	.00	.00
4200--14	G 1	2	7	4.500FT. N	0	4	0	105.00	8.00	18.00	2.81	96.00	8.00	5.00
4300--14	G 1	3	1	4.500FT. N	0	4	0	.00	.00	.00	.00	.00	.00	.00
4400--14	G 1	3	2	41.500FT. N	0	1	0	.00	.00	.00	.00	.00	.00	.00

 * BRACING LENGTH SPECIFICATIONS - LOAD FACTOR ANALYSIS *

	MEMBER ID	SPAN SYMM	RANGE T/B	RANGE LENGTH	SUPPORT COND.		SPACES	SPACING DISTANCE	STIFF SPACING
					LEFT	RIGHT			
4500--16	G 1	1	T 1	37.000FT.C			0	.000FT.	.000IN.
4600--16	G 1	1	B 1	37.000FT.SP	SP		2	18.500FT.	.000IN.
4700--16	G 1	2	T 1	71.500FT.C			0	.000FT.	.000IN.
4800--16	G 1	2	B 1	71.500FT.SP	SP		3	23.833FT.	.000IN.
4900--16	G 1	3	T 1	46.000FT.C			0	.000FT.	.000IN.
5000--16	G 1	3	B 1	46.000FT.SP	SP		2	23.000FT.	.000IN.

SUMMARY OF RATING CALCULATIONS-----STRUCTURE MEMBER G 1
INVENTORY AND/OR OPERATING ANALYSIS

BARS-PC RELEASE 5.5

INPUT CODING --

STRUCTURE LM 18.31

D/P STR. I.D.-- CAJ-292

DATE 9/ 4/97

BY ALAN JOHNSON

INVENTORY

LIVE LOAD RATING

H15 H 34.90

OPERATING

LIVE LOAD RATING

HS20 HS 49.28

STRUCTURE DESCRIPTION --

IDENTIFICATION LM 18.31
TYPE CSIB
YEAR OF CONSTR. 1970
LENGTH 158.02 FEET
ROADWAY WIDTH 39.67 FEET
NUMBER OF SPANS 3

LOCATION --

DISTRICT 3
COUNTY 19
CONSTR. RTE. I-40
CONSTR. SEC.
CONSTR. STA. 0+
KEY RTE.
MARKED RTE.

MICROFILM REEL NUMBERS --

DESIGN PLANS
COMPUTATIONS
CORRESPONDENCE

ANALYST REMARKS --

THERE IS 4" OF ASPHALT ON THE DECK.

INVENTORY RATING SUMMARY --

MEMBER ID. G 1
SPAN 2
CRITICAL C.P. DIST. .0 FEET
LIVE LOAD DESIGNATION H15

MOMENT
(FT. KIPS)
MEMBER CAPACITY 930.6
DL EFFECT -545.6

CAPACITY FOR (LL+I) -603.2
ACTUAL (LL+I) -259.3

INVENTORY RATING H 34.90

OPERATING RATING SUMMARY --

MEMBER ID. G 1
SPAN 2
CRITICAL C.P. DIST. 35.8 FEET
LIVE LOAD DESIGNATION HS20

MOMENT
(FT. KIPS)
MEMBER CAPACITY 2293.9
DL EFFECT 442.4

CAPACITY FOR (LL+I) 1523.6
ACTUAL (LL+I) 618.4

OPERATING RATING HS 49.28

*** FINAL SUMMARY OF RATING RESULTS FOR --- STRUCTURE ID. CAJ-292 BARS-PC RELEASE 5.5
INVENTORY AND/OR OPERATING ANALYSIS

INPUT CODING--

STRUCTURE LM 18.31

D/P STR. ID-- CAJ-292

		INVENTORY		OPERATING	
DATE	9/ 4/97	LIVE LOAD	RATING	LIVE LOAD	RATING
BY	ALAN JOHNSON	H15	H 34.9	HS20	HS 49.3

STRUCTURE DESCRIPTION--

LOCATION--

MICROFILM REEL NUMBERS--

IDENTIFICATION	LM 18.31	DISTRICT	3	DESIGN PLANS
TYPE	CSIB	COUNTY	19	COMPUTATIONS
YEAR OF CONSTR.	1970	CONSTR. RTE.	I-40	CORRESPONDENCE
LENGTH	158.02 FEET	CONSTR. SEC.		
ROADWAY WIDTH	39.67 FEET	CONSTR. STA.	0+ .	
NUMBER OF SPANS	3	KEY RTE.		
		MARKED RTE.		

ANALYST REMARKS--

THERE IS 4" OF ASPHALT ON THE DECK.

INVENTORY RATING SUMMARY

MEMBER I.D. G 1
SPAN 2
CRITICAL C.P. DIST. .0 FEET
LIVE LOAD DESIGNATION H15

	MOMENT (FOOT-KIPS)
MEMBER CAPACITY	930.6
DL EFFECT	-545.6

CAPACITY FOR (LL+I) -603.2
ACTUAL (LL+I) -259.3

INVENTORY RATING H 34.90

OPERATING RATING SUMMARY

MEMBER I.D. G 1
SPAN 2
CRITICAL C.P. DIST. 35.8 FEET
LIVE LOAD DESIGNATION HS20

	MOMENT (FOOT-KIPS)
MEMBER CAPACITY	2293.9
DL EFFECT	442.4

CAPACITY FOR (LL+I) 1523.6
ACTUAL (LL+I) 618.4

OPERATING RATING HS 49.28

DETAIL DATA FOR FLEXURAL MEMBER

DATE 09/04/97

NO. SPANS = 3
NOT SYMMETRICAL

D/P STRUCTURE I.D. CAJ-292

MEMBER I.D.--G01

MATERIAL--CSC

LL DIST. FACT. = 1.431

SUPERIMPOSED CONCENTRATED DL(S)

DIST. FROM LT SUPPORT****

VAR										SUPERIMPOSED DISTRIBUTED DL(S)					SUPERIMPOSED CONCENTRATED DL				
CODE										LENGTH DISTRIBUTED*****					DIST. FROM LT SUPPORT***				
S										DIST. FROM LT SUPPORT***									
DL DUE TO																			
MEM. WEIGHT																			
W(LT) W(RT)																			
LBS/FT LBS/FT																			
SPAN	LENGTH	RNG.	LENGTH	SEC.	NO.	T	T			SPAN	W(LT)	W(RT)	*	*	STIFF	SPAN	P	*	
NO.	FT.	NO.	FT.	LT	RT	P	B			NO.	LBS/FT	LBS/FT	FT.	FT.	TRANS.	LONG.	NO.	KIPS	
1	37.000	1	32.500	01	01			138.4	138.4	1	556.0	556.0	.000	37.000					
		2	4.500	02	02			184.3	184.3	2	556.0	556.0	37.000	71.500					
2	71.500	1	4.500	02	02			184.3	184.3	3	556.0	556.0	108.500	46.000					
		2	9.750	01	01			138.4	138.4										
		3	43.000	03	03			148.9	148.9										
		4	9.750	01	01			138.4	138.4										
		5	4.500	04	04			230.3	230.3										
3	46.000	1	4.500	04	04			230.3	230.3										
		2	41.500	01	01			138.4	138.4										

CHECK POINTS RATED--

SPAN DIS FRM FUNC SPAN DIS FRM FUNC
NO. LT SPRT M VL VR NO. LT SPRT M VL VR
FT. FT.

1 .000 X X
1 14.800 X X X
2 .000 X X X
2 35.750 X X X
3 .000 X X X
3 27.600 X X X
3 46.000 X X

BARS RELEASE 5.5

D/P STRUCTURE I.D. CAJ-292
MEMBER I.D.--G01
C.P. LOCATION

1.00

***** INFLUENCE LINE (SIMPLE SPAN)

***** ULTIMATE STRENGTH ***** MOMENT CAPACITY

***** ORDINATES OF AND AREAS UNDER INFLUENCE LINE (CONTINUOUS SPAN)

***** LIVE LOAD AND RATING CALCULATIONS (IMPACT FACTOR = .300 FOR +BEND AND = .300 FOR -BEND)

[illegible]

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER

BARS RELEASE 5.5

DATE 09/04/97

D/P STRUCTURE I.D. CAJ-292
MEMBER I.D.--G01
C.P. LOCATION

1.40

***** SECTION PROPERTIES IN COMPOSITE RANGE 1 OF SPAN 1

	---NET AREA---				SECTION MODULUS-----					
	H	GROSS	+	-	IX	IX	C	TOP	TOP	BOTTOM
	IN.	AREA	BEND	BEND	+ BEND	- BEND	(BOT)	+ BEND	- BEND	+ BEND
		SQ.IN.	SQ.IN.	SQ.IN.	IN**4	IN**4	IN.	IN**3	IN**3	IN**3
NON-COM	.00	.00	.00	.00	.0	.0	.00	.0	.0	.0
COM (N=N)					7891.1		17.75	444.6		444.6
COM (N=3N)					7891.1		17.75	444.6		444.6

(AS)C = .0 SQ. IN. , (DS)C = .0 SQ. IN. BRACE LENGTH = 18.50 , YBAR = .00

***** INFLUENCE LINE (SIMPLE SPAN)

***** ULTIMATE STRENGTH *****

MOMENT CAPACITY
TOP TOP BOTTOM BOTTOM
+ BEND - BEND + BEND - BEND
FT-KIPS FT-KIPS FT-KIPS FT-KIPS

***** ORDINATES OF AND AREAS UNDER INFLUENCE LINE (CONTINUOUS SPAN)

	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	SPAN 6
T 0	.000	.000	.000	.000	.000	.000
E 1	1.865	-1.369	.207	.000	.000	.000
N 2	3.753	-2.098	.355	.000	.000	.000
T 3	5.684	-2.267	.444	.000	.000	.000
H 4	7.680	-2.184	.479	.000	.000	.000
5	6.064	-1.968	.468	.000	.000	.000
P 6	4.556	-1.650	.420	.000	.000	.000
O 7	3.180	-1.263	.342	.000	.000	.000
I 8	1.957	-.829	.241	.000	.000	.000
N 9	.906	-.382	.124	.000	.000	.000
T 0	.000	.000	.000	.000	.000	.000
POS AREA	131.9	.0	14.2	.0	.0	.0
NEG AREA	.0	100.2	.0	.0	.0	.0

INVENTORY

OPERATING	1.0
POST VEH1	.0
POST VEH2	.0
POST VEH3	.0
POST SPEC	.0

***** DL MOMENT EFFECT

DL	SDL
FT-KIPS	FT-KIPS
19.9	25.5

***** AVAIL. CAPAC. FOR LL+IMPACT

	TOP	TOP	BOT	BOT
	+BEND	-BEND	+BEND	-BEND
	F-KIPS	F-KIPS	F-KIPS	F-KIPS
INVENTORY	1254.5	-642.8	1254.5	-642.8
OPERATING	2090.8	-1071.3	2090.8	-1071.4
VEH. 1	.0	.0	.0	.0
VEH. 2	.0	.0	.0	.0
VEH. 3	.0	.0	.0	.0
SPECIAL	.0	.0	.0	.0

***** LIVE LOAD AND RATING CALCULATIONS (IMPACT FACTOR = .300 FOR +BEND AND = .254 FOR -BEND)

-----TRUCK LOAD-----				-----LANE LOAD-----			
LIVE	LL+IMP	LL	LOC.NO.	DIR	LL+IMP	LL	LOC.CONC
LOAD			1 WHEEL				
	FT-KIPS	FT-KIPS	FT.		FT-KIPS	FT-KIPS	FT.
INV H15	+BEND	183.8	141.4	28.800	R	.0	161.6
	-BEND	59.5	47.4	72.450	R	.0	71.1
OPER HS20	+BEND	297.7	229.0	.800	L	.0	215.4
	-BEND	135.1	107.7	79.593	R	.0	94.8
POST	+BEND	.0	.0	.000			
	-BEND	.0	.0	.000			
POST	+BEND	.0	.0	.000			
	-BEND	.0	.0	.000			
POST	+BEND	.0	.0	.000			
	-BEND	.0	.0	.000			
POST SPEC	+BEND	.0	.0	.000			
	-BEND	.0	.0	.000			

RATING	SAFE LOAD	RATING
FACT.	CAPACITY	VALUE
	TONS	
3.987	59.8	H 59.8
4.103	147.7	HS 82.1
.000	.0	
.000	.0	
.000	.0	
.000	.0	

BARS RELEASE 5.5

D/P STRUCTURE I.D. CAJ-292
MEMBER I.D.--G01
C.P. LOCATION

2.00

-----SECTION MODULUS-----

***** ULTIMATE STRENGTH ***** MOMENT CAPACITY

		TOP	TOP	BOTTOM	BOTTOM
M1/M2	M1/M2	+ BEND	- BEND	+ BEND	- BEND
TOP	BOTTOM	FT-KIPS	FT-KIPS	FT-KIPS	FT-KIPS

INVENTORY	-.3	.0
OPERATING	.0	
POST VEH1	.0	
POST VEH2	.0	
POST VEH3	.0	
POST SPEC	.0	

***** DL MOMENT *****		***** AVAIL.CAPAC.FOR LL+IMPACT *****			
EFFECT		TOP	TOP	BOT	BOT
DL	SDL	+BEND	-BEND	+BEND	-BEND
FT-KIPS	FT-KIPS	F-KPS	F-KPS	F-KPS	F-KPS
-381.0	-164.6	INVENTORY	1997.5	-603.2	1997.5
		OPERATING	3329.2	-1005.4	3329.2
EA		VEH. 1	.0	.0	.0
ALS		VEH. 2	.0	.0	.0
35.4		VEH. 3	.0	.0	.0
31.4		SPECIAL	.0	.0	.0

LOC.CONC LOAD FT.	LOC.CONC LOAD 2 FT.	RATING FACT.	SAFE LOAD CAPACITY TONS	RATING VALUE
126.900 58.450	22.200	2.326	34.9	H 34.9
126.900 58.450	22.200	2.908	104.7	HS 58.2
		.000	.0	
		.000	.0	
		.000	.0	
		.000	.0	

BARS RELEASE 5.5

D/P STRUCTURE I.D. CAJ-292
MEMBER I.D.--G01
C.P. LOCATION

3.00

(AS)C = .0 SQ. IN. , (DS)C = .0 SQ. IN. BRACE LENGTH = 23.83 , YBAR = .52

***** ULTIMATE STRENGTH ***** MOMENT CAPACITY

M1/M2	M1/M2	+ BEND	- BEND	+ BEND	- BEND
TOP	BOTTOM	FT-KIPS	FT-KIPS	FT-KIPS	FT-KIPS

INVENTORY	.0	.0
OPERATING	.0	
POST VEH1	.0	
POST VEH2	.0	
POST VEH3	.0	
POST SPEC	.0	

***** DL MOMENT *****		***** AVAIL.CAPAC.FOR LL+IMPACT *****			
EFFECT		TOP	TOP	BOT	BOT
DL	SDL	+BEND	-BEND	+BEND	-BEND
FT-KIPS	FT-KIPS	F-KIPS	F-KIPS	F-KIPS	F-KIPS
-437.8	-198.0	INVENTORY	2432.8	-865.5	-865.5
		OPERATING	4054.7	-1442.5	-1442.5
EA		VEH. 1	.0	.0	.0
ALS		VEH. 2	.0	.0	.0
18.2		VEH. 3	.0	.0	.0
74.2		SPECIAL	.0	.0	.0

[illegible]

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER

BARS RELEASE 5.5

DATE 09/04/97

D/P STRUCTURE I.D. CAJ-292
MEMBER I.D.--G01
C.P. LOCATION

3.60

***** SECTION PROPERTIES IN COMPOSITE RANGE 2OF SPAN 3

	---NET AREA---				IX		C		SECTION		MODULUS	
	H	GROSS	+	-	IX	IX	(BOT)	TOP	TOP	TOP	BOTTOM	BOTTOM
	IN.	AREA	BEND	BEND	+ BEND	- BEND	IN.	+ BEND	- BEND	+ BEND	- BEND	- BEND
		SQ.IN.	SQ.IN.	SQ.IN.	IN**4	IN**4	IN.	IN**3	IN**3	IN**3	IN**3	IN**3
NON-COM	.00	.00	.00	.00	.0	.0	.00	.0	.0	.0	.0	.0
COM (N=N)					7891.1		17.75	444.6			444.6	
COM (N=3N)					7891.1		17.75	444.6			444.6	

(AS)C = .0 SQ. IN. , (DS)C = .0 SQ. IN. BRACE LENGTH = 23.00 , YBAR = .00

***** INFLUENCE LINE (SIMPLE SPAN)

***** ULTIMATE STRENGTH *****

MOMENT CAPACITY

	M1/M2	M1/M2	TOP	TOP	BOTTOM	BOTTOM
	TOP	BOTTOM	+ BEND	- BEND	+ BEND	- BEND
			FT-KIPS	FT-KIPS	FT-KIPS	FT-KIPS

***** ORDINATES OF AND AREAS UNDER INFLUENCE LINE (CONTINUOUS SPAN)

	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	SPAN 6	INVENTORY
T 0	.000	.000	.000	.000	.000	.000	.0
E 1	.080	-.328	.979	.000	.000	.000	.0
N 2	.154	-.730	2.198	.000	.000	.000	.0
T 3	.219	-1.130	3.671	.000	.000	.000	.0
H 4	.270	-1.489	5.364	.000	.000	.000	.0
5	.300	-1.786	7.247	.000	.000	.000	.0
P 6	.306	-1.990	9.288	.000	.000	.000	.0
O 7	.283	-2.070	6.855	.000	.000	.000	.0
I 8	.225	-1.915	4.517	.000	.000	.000	.0
N 9	.129	-1.239	2.243	.000	.000	.000	.0
T 0	.000	.000	.000	.000	.000	.000	.0

AREA

POS AREA	7.3	.0	194.9	.0	.0	.0	202.1
NEG AREA	.0	90.6	.0	.0	.0	.0	90.6

TOTALS

***** DL MOMENT *****

EFFECT

DL SDL

FT-KIPS FT-KIPS

91.1 62.0

INVENTORY

1189.8 -707.4 1189.8 -707.4

OPERATING

1983.1 -1179.0 1983.1 -1179.1

VEH. 1

.0 .0 .0 .0

VEH. 2

.0 .0 .0 .0

VEH. 3

.0 .0 .0 .0

SPECIAL

.0 .0 .0 .0

***** LIVE LOAD AND RATING CALCULATIONS (IMPACT FACTOR = .292 FOR +BEND AND = .254 FOR -BEND)

LIVE LOAD	-----TRUCK LOAD-----				-----LANE LOAD-----				LOC.CONC LOAD 2	RATING FACT.	SAFE LOAD CAPACITY TONS	RATING VALUE
	LL+IMP	LL	LOC.NO.	DIR	AXLE	LL+IMP	LL	LOC.CONC				
	FT-KIPS	FT-KIPS	1 WHEEL		SPACE	FT-KIPS	FT-KIPS	FT.				
INV H15	+BEND	226.1	175.0	122.100	L	.0	205.4	159.0	136.100	2.956	44.3	H 44.3
	-BEND	54.3	43.2	73.050	L	.0	64.6	51.5	87.050			
OPER HS20	+BEND	397.4	307.5	150.100	R	.0	273.9	211.9	136.100	2.803	100.9	HS 56.1
	-BEND	123.1	98.2	66.176	L	.0	86.1	68.6	87.050			
POST	+BEND	.0	.0	.000						.000	.0	
	-BEND	.0	.0	.000								
POST	+BEND	.0	.0	.000						.000	.0	
	-BEND	.0	.0	.000								
POST	+BEND	.0	.0	.000						.000	.0	
	-BEND	.0	.0	.000								
POST SPEC	+BEND	.0	.0	.000						.000	.0	
	-BEND	.0	.0	.000								

D/P STRUCTURE I.D. CAJ-292

MEMB. ID	SPAN MATL	DIS NO.	FRM LT	L SPRT	R FT.	DL SHEAR KIPS	SDL SHEAR KIPS	---INVENTORY---		---OPERATING---		--VEH. 1 --		--VEH. 2 --		--VEH. 3 --		--SPECIAL--	
								LL+I MAX.V KIPS	T L MIN.V KIPS	LL+I MAX.V KIPS	T L MIN.V KIPS	LL+I MAX.V KIPS	LL+I MAX.V KIPS	LL+I MAX.V KIPS	LL+I MAX.V KIPS	LL+I MAX.V KIPS	LL+I MAX.V KIPS		
G01	CSC	1	.000	L		9.1	5.8	25.8	L	5.8	L	47.2	T	9.5	T				
		1	14.800	L		6.4	2.4	12.4	T	13.4	L	19.4	T	17.9	L				
		2	.000	L		37.3	19.4	37.0	L	2.7	L	59.8	T	4.8	T				
		2	35.750	L		.8	.5	14.6	L	14.7	L	23.9	T	23.1	T				
		3	.000	L		34.0	17.1	33.1	L	.5	L	56.7	T	.8	T				
		3	27.600	L		4.7	1.7	13.3	L	12.4	T	18.4	T	20.8	T				
		3	46.000	L		14.6	8.5	4.2	L	27.0	L	6.9	T	50.0	T				

DATE 9/ 4/97

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

BARS-PC RELEASE 5.5

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION - 1.00

PAGE 1

***** SECTION PROPERTIES IN COMPOSITE RANGE 1 OF SPAN 1 *****

-- STRUCTURAL STEEL PROPERTIES --														
H	Tweb	H/Tweb	D	D/Tweb	- B' (IN) -		- B'/t -		Lb (FT)	Ry (IN)		- Lb / Ry		HYBRID RATIO, R
(IN.)	(IN.)		(IN.)		TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT
35.50	.63	56.80	33.88	54.20	5.69	5.69	7.00	7.00	CONT	18.50	3.46	3.46	.00	64.09

-- COMPOSITE CONCRETE PROPERTIES --									
EFF.WIDTH	EFF.THICK.	VALUE	(AS)C	(DS)C	VALUE	VALUE	Atf	Abf	Aw
(IN.)	(IN.)	N	(SQ.IN.)	(IN.)	a	Y	(SQ.IN.)	(SQ.IN.)	(SQ.IN.)
96.0	8.0	9	.00	.00	5.98	.0	9.75	9.75	21.17

-- SECTION PROPERTIES --										SECTION MODULUS				PLASTIC SECTION MODULUS			
	GROSS AREA	NET AREA	IX	IX	C	TOP	TOP	BOTT	BOTT	TOP	TOP	BOTT	BOTT				
	AREA	+BEND	-BEND	+BEND	-BEND	(BOT)	+BEND	-BEND	+BEND	-BEND	+BEND	-BEND	+BEND				
	SQ.IN.	SQ.IN.	SQ.IN.	IN.**4	IN.**4	IN.	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3				
NON-COM	40.67	40.67	40.67	7891.1	7891.1	17.75	444.6	444.6	444.6	444.6	517.49	517.49	517.49				
COM(N=N)				7891.1	.0	17.75	444.6	.0	444.6	444.6							
COM(N=3N)				7891.1	.0	17.75	444.6	.0	444.6	444.6							

-- ULTIMATE STRENGTH --										-- YIELD STRESS, Fy (PSI) --		
Fy (PSI)	f'c (PSI)	Fy (PSI)	2055/(SQRT Fy)	2200/(SQRT Fy)								
STEEL	CONC.	REBAR	TOP	BOT	TOP	BOT	BOT	TOP	WEB			
			FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE				
36000.	3000.	3000.	10.83	10.83	11.60	11.60	36000.	36000.	36000.			

***** SECTION QUALIFICATION *****									
STIFFENED		UNSTIFFENED	COMPACT	BRACED	UNBRACED	REDUCTION	SYMMETRICAL UNSYMMETRICAL		
LONG	TRANV			NON-COMPACT	NON-COMPACT	FACTOR			
+BEND		X	X			1.0000		X	
-BEND		X	X			1.0000	X		

***** SECTION CAPACITY *****									
		ML =	.00 FT-KIPS,	MR =	.00 FT-KIPS				
		ML =	.00 FT-KIPS,	MR =	.00 FT-KIPS				
--- NON-COMPOSITE MOMENT CAPACITY (FT-KIPS) ---						--- COMPOSITE MOMENT CAPACITY (FT-KIPS) ---		--- SHEAR CAPACITY (KIPS) ---	

	TOP	TOP	BOTT	BOTT	MU	MAX. CAP.	MAX. CAP.	MU	VU	VU
	+BEND	-BEND	+BEND	-BEND		STEEL	CONC.		LEFT	RIGHT
INV.	1281.71	716.52	1281.71	615.57	1552.46	517.49	2259.54	2777.03	442.07	442.07
OPER.	2136.18	1194.20	2136.18	1025.94	1552.46	517.49	2259.54	2777.03	442.07	442.07

***** MOMENT (FT-KIPS) AND SHEAR (KIPS) *****					
-- DEAD LOAD --					
M (DL)	M (SDL)	REDIS.	REDIS.	V (DL)	V (SDL)
		M-(DL)---	M-(SDL)		
.00	.00	.00	.00	9.10	5.84

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 1.00

PAGE 2

***** LIVE LOAD CALCULATIONS (IMPACT FACTOR = .300 FOR +BEND AND = .300 FOR -BEND)

		-- LIVE LOAD --															
LIVE LOAD		-----TRUCK MOMENT-----					-----LANE MOMENT-----					-----FIXED-----		-----MAX-----			
		REDIS	LL+IMP	LL	LOC.NO.	DIR	LL+IMP	LL	LOC.CONC.	LOC.CONC.	SHEAR		SHEAR				
		LL+I			1 WHEEL				LOAD #1	LOAD #2	+V	-V	+V	-V			
		FT-KIPS	FT-KIPS	FT-KIPS	FT.		FT-KIPS	FT-KIPS	FT.	FT.	KIPS	KIPS	KIPS	KIPS			
INV.	H15	+BEND	.00	.0	.0	.000	L	.0	.0	.000	.000	.00	.00				
		-BEND	.00	.0	.0	.000	L	.0	.0	.000	.000	.00	.00				
														.00	25.84		
OPER.	HS20	+BEND	.00	.0	.0	73.050	L	.0	.0	.000	.000	.00	.00				
		-BEND	.00	.0	.0	.000	L	.0	.0	.000	.000	.00	.00				
														.00	47.20		

***** ORDINATES OF AND AREAS UNDER MOMENT INFLUENCE LINE (CONTINUOUS SPAN) *****

	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	SPAN 6
T 0	.000	.000	.000	.000	.000	.000
E 1	.000	.000	.000	.000	.000	.000
N 2	.000	.000	.000	.000	.000	.000
T 3	.000	.000	.000	.000	.000	.000
H 4	.000	.000	.000	.000	.000	.000
5	.000	.000	.000	.000	.000	.000
P 6	.000	.000	.000	.000	.000	.000
O 7	.000	.000	.000	.000	.000	.000
I 8	.000	.000	.000	.000	.000	.000
N 9	.000	.000	.000	.000	.000	.000
T 0	.000	.000	.000	.000	.000	.000

	AREA						TOTALS
POS AREA	.0	.0	.0	.0	.0	.0	.0
NEG AREA	.0	.0	.0	.0	.0	.0	.0

***** MOMENT INFLUENCE LINE (SIMPLE SPAN)

X-DIST (FT.)	.00	.00	.00	POS AREA =	.00
Y-ORDINATE	.00	.00	.00		

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 1.00

PAGE 3

***** RATING FACTOR *****

		-- RATING FACTOR FOR MOMENT --									
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)				RATING FACTOR - MOMENT					
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	RATING VALUE	SAFE LOAD CAP. (TONS)
INV.	H15	1281.7	.0	1281.7	.0	999.0000	999.0000	999.0000	999.0000		
OPER.	HS20	2136.2	707.4	2136.2	707.4	999.0000	999.0000	999.0000	999.0000		
		-- RATING FACTOR FOR SERVICEABILITY --									
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)				RATING FACTOR -SERVICEABILITY					
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	RATING VALUE	SAFE LOAD CAP. (TONS)
INV.	H15	760.2	884.9	760.2	884.9	999.0000	999.0000	999.0000	999.0000		
OPER.	HS20	1267.0	1474.8	1267.0	1474.8	999.0000	999.0000	999.0000	999.0000		
		-- RATING FACTOR FOR SHEAR --									
		AVAILABLE CAPACITY (KIPS)				RATING FACTOR - SHEAR					
		LEFT	RIGHT			LEFT	RIGHT			RATING VALUE	SAFE LOAD
INV.	H15	195.07	195.07			7.5484	7.5484			H 113.2	113.2
OPER.	HS20	325.12	325.12			6.8880	6.8880			HS137.8	248.0

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

BARS-PC RELEASE 5.5

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION - 1.40

PAGE 1

***** SECTION PROPERTIES IN COMPOSITE RANGE 1 OF SPAN 1 *****

-- STRUCTURAL STEEL PROPERTIES --																	
H (IN.)	Tweb (IN.)	H/Tweb	D (IN.)	D/Tweb	- B' (IN) -		- B'/t -		Lb (FT)		Ry (IN)		- Lb / Ry		HYBRID RATIO, R		
					TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	+BEND	-BEND	
35.50	.63	56.80	33.88	54.20	5.69	5.69	7.00	7.00	CONT	18.50	3.46	3.46	.00	64.09	1.0000	1.0000	
-- COMPOSITE CONCRETE PROPERTIES --																	
EFF.WIDTH (IN.)	EFF.THICK. (IN.)	VALUE N	(AS)C (SQ.IN.)	(DS)C (IN.)	VALUE a	VALUE Y	Atf (SQ.IN.)	Abf (SQ.IN.)	Aw (SQ.IN.)								
96.0	8.0	9	.00	.00	5.98	.0	9.75	9.75	21.17								
-- SECTION PROPERTIES --																	
GROSS		NET AREA		IX		IX		C		TOP		TOP		BOTT		BOTT	
AREA	+BEND	-BEND	+BEND	-BEND	(BOT)	+BEND	-BEND	+BEND	-BEND	+BEND	-BEND	+BEND	-BEND	+BEND	-BEND	+BEND	-BEND
SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.	SQ.IN.
NON-COM	40.67	40.67	40.67	7891.1	7891.1	17.75	444.6	444.6	444.6	444.6	444.6	444.6	444.6	517.49	517.49	517.49	517.49
COM(N=N)				7891.1	.0	17.75	444.6	.0	444.6	444.6							
COM(N=3N)				7891.1	.0	17.75	444.6	.0	444.6	444.6							
-- ULTIMATE STRENGTH --																	
Fy (PSI)		f'c (PSI)		Fy (PSI)		2055/(SQRT Fy)		2200/(SQRT Fy)		-- YIELD STRESS, Fy (PSI) --							
STEEL	CONC.	REBAR	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	WEB		
36000.	3000.	3000.	10.83	10.83	11.60	11.60	36000.	36000.	36000.	36000.	36000.	36000.	36000.	36000.	36000.		
***** SECTION QUALIFICATION *****																	
STIFFENED		UNSTIFFENED		COMPACT		BRACED		UNBRACED		REDUCTION		SYMMETRICAL		UNSYMMETRICAL			
LONG		TRANV				NON-COMPACT		NON-COMPACT		FACTOR							
+BEND				X						1.0000				X			
-BEND				X				X		1.0000		X					
***** SECTION CAPACITY *****																	
+BEND		ML =		.00 FT-KIPS,		MR =		.00 FT-KIPS									
-BEND		ML =		.00 FT-KIPS,		MR =		-87.00 FT-KIPS,		M1/M2 = 1.0000		CB = 1.0					
--- NON-COMPOSITE MOMENT CAPACITY (FT-KIPS) ---																	
--- COMPOSITE MOMENT CAPACITY (FT-KIPS) ---																	
--- SHEAR CAPACITY (KIPS) ---																	
TOP		TOP		BOTT		BOTT		MU		MAX. CAP.		MAX. CAP.		MU		VU	
+BEND		-BEND		+BEND		-BEND				STEEL		CONC.				LEFT	
RIGHT																	
INV.	1281.71	615.55	1281.71	615.57	1552.46	517.49	2259.54	2777.03	442.07	442.07							
OPER.	2136.18	1025.92	2136.18	1025.94	1552.46	517.49	2259.54	2777.03	442.07	442.07							
***** MOMENT (FT-KIPS) AND SHEAR (KIPS) *****																	
-- DEAD LOAD --																	
M (DL)		M (SDL)		REDIS.		REDIS.		V (DL)		V (SDL)							
				M-(DL)---		M-(SDL)											
19.91		25.52		19.91		25.52		-6.41		-2.39							

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.F. LOCATION -- 1.40

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***** LIVE LOAD CALCULATIONS (IMPACT FACTOR = .300 FOR +BEND AND = .254 FOR -BEND)

		-- LIVE LOAD --													
		-----TRUCK MOMENT-----					-----LANE MOMENT-----					-----FIXED-----		-----MAX-----	
LIVE LOAD		REDIS	LL+IMP	LL	LOC.NO.	DIR	LL+IMP	LL	LOC.CONC.	LOC.CONC.		SHEAR		SHEAR	
		LL+I			1 WHEEL				LOAD #1	LOAD #2		+V	-V	+V	-V
		FT-KIPS	FT-KIPS	FT-KIPS	FT.		FT-KIPS	FT-KIPS	FT.	FT.		KIPS	KIPS	KIPS	KIPS
INV.	H15 +BEND	183.84	183.8	141.4	28.800	R	161.6	124.3	14.800	.000		1.25	9.90		
	-BEND	71.12	59.5	47.4	72.450	R	71.1	56.7	58.450	.000		1.21	1.21		
														13.40	13.40
OPER.	HS20 +BEND	297.70	297.7	229.0	.800	L	215.4	165.7	14.800	.000		9.46	10.05		
	-BEND	135.12	135.1	107.7	79.593	R	94.8	75.6	58.450	.000		9.13	9.13		
														19.35	19.35

***** ORDINATES OF AND AREAS UNDER MOMENT INFLUENCE LINE (CONTINUOUS SPAN) *****

	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	SPAN 6
T 0	.000	.000	.000	.000	.000	.000
E 1	1.865	-1.369	.207	.000	.000	.000
N 2	3.753	-2.098	.355	.000	.000	.000
T 3	5.684	-2.267	.444	.000	.000	.000
H 4	7.680	-2.184	.479	.000	.000	.000
5	6.064	-1.968	.468	.000	.000	.000
P 6	4.556	-1.650	.420	.000	.000	.000
O 7	3.180	-1.263	.342	.000	.000	.000
I 8	1.957	-.829	.241	.000	.000	.000
N 9	.906	-.382	.124	.000	.000	.000
T 0	.000	.000	.000	.000	.000	.000

	AREA					
	TOTALS					
POS AREA	131.9	.0	14.2	.0	.0	.0
NEG AREA	.0	100.2	.0	.0	.0	.0

***** MOMENT INFLUENCE LINE (SIMPLE SPAN)

X-DIST (FT.)	.00	.00	.00	POS AREA =	.00
Y-ORDINATE	.00	.00	.00		

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 1.40

PAGE 3

***** RATING FACTOR *****

		-- RATING FACTOR FOR MOMENT --				RATING FACTOR - MOMENT				RATING VALUE	SAFE LOAD CAP. (TONS)
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)									
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND		
INV.	H15	1254.5	642.8	1254.5	642.8	6.8237	9.0380	6.8237	9.0382		
OPER.	HS20	2090.8	1071.3	2090.8	1071.4	7.0231	7.9287	7.0231	7.9289		
		-- RATING FACTOR FOR SERVICEABILITY --				RATING FACTOR -SERVICEABILITY				RATING VALUE	SAFE LOAD CAP. (TONS)
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)									
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND		
INV.	H15	733.0	787.5	733.0	787.5	3.9870	11.0719	3.9870	11.0721	H 59.8	59.8
OPER.	HS20	1221.6	1312.4	1221.6	1312.5	4.1035	9.7129	4.1036	9.7131	HS 82.1	147.7
		-- RATING FACTOR FOR SHEAR --				RATING FACTOR - SHEAR				RATING VALUE	SAFE LOAD
		AVAILABLE CAPACITY (KIPS)									
		LEFT	RIGHT			LEFT	RIGHT				
INV.	H15	198.75	209.31			14.8346	14.8346				
OPER.	HS20	348.85	348.85			18.0247	18.0247				

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION - 2.00

***** SECTION PROPERTIES IN COMPOSITE RANGE 1 OF SPAN 2 *****

-- COMPOSITE CONCRETE PROPERTIES --									
EFF.WIDTH	EFF.THICK.	VALUE	(AS)C	(DS)C	VALUE	VALUE	Atf	Abf	Aw
(IN.)	(IN.)	N	(SQ.IN.)	(IN.)	a	Y	(SQ.IN.)	(SQ.IN.)	(SQ.IN.)
96.0	8.0	9	.00	.00	7.97	.0	16.50	16.50	21.17

-- ULTIMATE STRENGTH --									
Fy (PSI)	f'c (PSI)	Fy (PSI)	2055/(SQRT Fy)		2200/(SQRT Fy)		-- YIELD STRESS, Fy (PSI) --		
STEEL	CONC.	REBAR	TOP	BOT	TOP	BOT	BOT	TOP	WEB
			FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	
36000.	3000.	3000.	10.83	10.83	11.60	11.60	36000.	36000.	36000.

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***** SECTION CAPACITY *****
+END      ML =      .00 FT-KIPS, MR =      .00 FT-KIPS
-BEND     ML =    274.85 FT-KIPS, MR =   -804.86 FT-KIPS,  M1/M2 =  -.3415      CB = 1.0
--- NON-COMPOSITE MOMENT CAPACITY (FT-KIPS) ---  -- COMPOSITE MOMENT CAPACITY (FT-KIPS) --  -- SHEAR CAPACITY (KIPS) --

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***** MOMENT (FT-KIPS) AND SHEAR (KIPS) *****
              -- DEAD LOAD --
      M (DL)   M (SDL)   REDIS.   REDIS.   V (DL)   V (SDL)
              M-(DL)---M-(SDL)
      -380.99  -164.56   -380.99   -164.56   37.25   19.41

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DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 2.00

PAGE 2

***** LIVE LOAD CALCULATIONS (IMPACT FACTOR = .292 FOR +BEND AND = .279 FOR -BEND)

		-- LIVE LOAD --												
LIVE LOAD		-----TRUCK MOMENT-----			LOC.NO. 1 WHEEL FT.	DIR	-----LANE MOMENT-----		LOC.CONC. LOAD #1 FT.	LOC.CONC. LOAD #2 FT.	-----FIXED-----		-----MAX-----	
		REDIS	LL+IMP	LL			LL+IMP	LL			SHEAR		SHEAR	
		FT-KIPS	FT-KIPS	FT-KIPS			FT-KIPS	FT-KIPS			+V KIPS	-V KIPS	+V KIPS	-V KIPS
INV.	H15 +BEND	31.24	31.2	24.2	140.900	R	30.8	23.8	126.900	.000	13.44	2.26		
	-BEND	259.30	151.6	118.5	72.450	R	259.3	202.7	58.450	22.200	13.30	13.30		
OPER.	HS20 +BEND	65.82	65.8	50.9	150.094	R	41.1	31.8	126.900	.000	17.92	4.76	37.04	35.74
	-BEND	345.74	344.4	269.3	79.593	R	345.7	270.3	58.450	22.200	17.73	17.73	59.83	57.73

***** ORDINATES OF AND AREAS UNDER MOMENT INFLUENCE LINE (CONTINUOUS SPAN) *****

	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	SPAN 6
T 0	.000	.000	.000	.000	.000	.000
E 1	-.886	-3.421	.516	.000	.000	.000
N 2	-1.718	-5.244	.888	.000	.000	.000
T 3	-2.441	-5.668	1.109	.000	.000	.000
H 4	-3.000	-5.460	1.197	.000	.000	.000
5	-3.341	-4.919	1.171	.000	.000	.000
P 6	-3.409	-4.124	1.051	.000	.000	.000
O 7	-3.150	-3.156	.855	.000	.000	.000
I 8	-2.509	-2.071	.601	.000	.000	.000
N 9	-1.435	-.956	.310	.000	.000	.000
T 0	.000	.000	.000	.000	.000	.000

	AREA						AREA
	TOTALS						
POS AREA	.0	.0	35.4	.0	.0	.0	35.4
NEG AREA	81.0	250.4	.0	.0	.0	.0	331.4

***** MOMENT INFLUENCE LINE (SIMPLE SPAN)

X-DIST (FT.)	.00	.00	.00	POS AREA =	.00
Y-ORDINATE	.00	.00	.00		

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 2.00

PAGE 3

***** RATING FACTOR *****

		-- RATING FACTOR FOR MOMENT --									
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)				RATING FACTOR - MOMENT					
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	RATING VALUE	SAFE LOAD CAP. (TONS)
INV.	H15	1997.5	603.2	1997.5	603.2	63.9344	2.3264	63.9344	2.3264	H 34.9	34.9
OPER.	HS20	3329.2	1005.4	3329.2	1005.4	50.5814	2.9079	50.5814	2.9080	HS 58.2	104.7
		-- RATING FACTOR FOR SERVICEABILITY --									
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)				RATING FACTOR -SERVICEABILITY					
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	RATING VALUE	SAFE LOAD CAP. (TONS)
INV.	H15	1476.6	821.9	1476.6	821.9	47.2608	3.1697	47.2614	3.1698		
OPER.	HS20	2461.0	1369.9	2461.0	1369.9	37.3901	3.9621	37.3906	3.9622		
		-- RATING FACTOR FOR SHEAR --									
		AVAILABLE CAPACITY (KIPS)				RATING FACTOR - SHEAR					
		LEFT	RIGHT			LEFT	RIGHT			RATING VALUE	SAFE LOAD
INV.	H15	170.03	170.03			4.5910	4.5910				
OPER.	HS20	283.39	283.39			4.7369	4.7369				

DATE 9/ 4/97

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

BARS-PC RELEASE 5.5

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION - 2.50

PAGE 1

***** SECTION PROPERTIES IN COMPOSITE RANGE 4 OF SPAN 2 *****

-- STRUCTURAL STEEL PROPERTIES --																
H (IN.)	Tweb (IN.)	H/Tweb	D (IN.)	D/Tweb	- B' (IN) -		- B'/t -		Lb (FT)		Ry (IN)		- Lb / Ry		HYBRID RATIO, R	
					TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	+BEND	-BEND
35.88	.63	57.40	34.00	54.40	5.69	5.69	6.07	6.07	CONT	23.83	3.46	3.46	.00	82.56	1.0000	1.0000

-- COMPOSITE CONCRETE PROPERTIES --									
EFF.WIDTH (IN.)	EFF.THICK. (IN.)	VALUE N	(AS)C (SQ.IN.)	(DS)C (IN.)	VALUE a	VALUE Y	Atf (SQ.IN.)	Abf (SQ.IN.)	Aw (SQ.IN.)
96.0	8.0	9	.00	.00	6.43	.0	11.25	11.25	21.25

-- SECTION PROPERTIES --										----- SECTION MODULUS -----				---- ELASTIC SECTION MODULUS ----			
	GROSS AREA	NET AREA +BEND -BEND	IX +BEND -BEND	IX +BEND -BEND	C (BOT)	TOP +BEND -BEND	TOP +BEND -BEND	BOTT +BEND -BEND	BOTT +BEND -BEND	TOP +BEND -BEND	TOP +BEND -BEND	BOTT +BEND -BEND	BOTT +BEND -BEND				
	SQ.IN.	SQ.IN.	SQ.IN.	IN.**4	IN.**4	IN.	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3				
NON-COM	43.75	43.75	43.75	8914.7	8914.7	17.94	497.0	497.0	497.0	497.0	573.66	573.66	573.66				
COM(N=N)				24586.9	.0	33.10	8862.4	2282.0	742.8	742.8							
COM(N=3N)				18135.7	.0	26.97	2037.6	1073.1	672.3	672.3							

-- ULTIMATE STRENGTH --										-- YIELD STRESS, Fy (PSI) --		
Fy (PSI)	f'c (PSI)	Fy (PSI)	2055/(SQRT Fy)	2200/(SQRT Fy)								
STEEL	CONC.	REBAR	TOP	BOT	TOP	BOT	BOT	TOP	WEB			
			FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE				
36000.	3000.	3000.	10.83	10.83	11.60	11.60	36000.	36000.	36000.			

***** SECTION QUALIFICATION *****									
STIFFENED		UNSTIFFENED		COMPACT	BRACED	UNBRACED	REDUCTION	SYMMETRICAL UNSYMMETRICAL	
LONG	TRANV				NON-COMPACT	NON-COMPACT	FACTOR		
+BEND		X		X			1.0000		X
-BEND		X				X	1.0000	X	

***** SECTION CAPACITY *****									
+BEND		ML =		.00 FT-KIPS, MR =		.00 FT-KIPS			
-BEND		ML =		221.53 FT-KIPS, MR =		274.85 FT-KIPS, M1/M2 =		.8060 CB = 1.0	
--- NON-COMPOSITE MOMENT CAPACITY (FT-KIPS) ---									
--- COMPOSITE MOMENT CAPACITY (FT-KIPS) ---									
--- SHEAR CAPACITY (KIPS) ---									

	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	MU	MAX. CAP. STEEL	MAX. CAP. CONC.	MU	VU LEFT	VU RIGHT
INV.	1376.35	688.12	1376.35	688.15	1720.97	573.66	2408.43	2982.09	443.70	443.70
OPER.	2293.91	1146.87	2293.91	1146.91	1720.97	573.66	2408.43	2982.09	443.70	443.70

***** MOMENT (FT-KIPS) AND SHEAR (KIPS) *****					
-- DEAD LOAD --					
M (DL)	M (SDL)	REDIS.	REDIS.	V (DL)	V (SDL)
M-(DL)	---M-(SDL)				
268.33	174.04	268.33	174.04	-.78	-.47

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 2.50

PAGE 2

***** LIVE LOAD CALCULATIONS (IMPACT FACTOR = .254 FOR +BEND AND = .292 FOR -BEND)

		-- LIVE LOAD --													
		-----TRUCK MOMENT-----					-----LANE MOMENT-----					-----FIXED-----		-----MAX-----	
LIVE LOAD		REDIS	LL+IMP	LL	LOC.NO.	DIR	LL+IMP	LL	LOC.CONC.	LOC.CONC.		SHEAR		SHEAR	
		LL+I			1 WHEEL				LOAD #1	LOAD #2		+V	-V	+V	-V
		FT-KIPS	FT-KIPS	FT-KIPS	FT.		FT-KIPS	FT-KIPS	FT.	FT.		KIPS	KIPS	KIPS	KIPS
INV.	H15 +BEND	334.80	320.0	255.1	86.750	R	334.8	266.9	72.750	.000		3.57	8.51		
	-BEND	62.89	49.5	38.3	140.900	R	62.9	48.7	126.900	.000		3.68	3.68		
														14.71	14.71
OPER.	HS20 +BEND	618.37	618.4	492.9	58.747	L	446.4	355.8	72.750	.000		4.62	8.13		
	-BEND	104.29	104.3	80.7	150.094	R	83.9	64.9	126.900	.000		4.76	4.76		
														23.88	23.88

***** ORDINATES OF AND AREAS UNDER MOMENT INFLUENCE LINE (CONTINUOUS SPAN) *****

	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	SPAN 6
T 0	.000	.000	.000	.000	.000	.000
E 1	-.344	1.455	-.818	.000	.000	.000
N 2	-.666	3.615	-1.408	.000	.000	.000
T 3	-.946	6.479	-1.757	.000	.000	.000
H 4	-1.163	9.709	-1.897	.000	.000	.000
5	-1.295	13.183	-1.856	.000	.000	.000
P 6	-1.322	9.751	-1.665	.000	.000	.000
O 7	-1.221	6.559	-1.354	.000	.000	.000
I 8	-.973	3.720	-.953	.000	.000	.000
N 9	-.556	1.548	-.492	.000	.000	.000
T 0	.000	.000	.000	.000	.000	.000

	AREA					
	TOTALS					
POS AREA	.0	400.5	.0	.0	.0	400.5
NEG AREA	31.4	.0	56.1	.0	.0	87.5

***** MOMENT INFLUENCE LINE (SIMPLE SPAN)

X-DIST (FT.)	.00	.00	.00	POS AREA =	.00
Y-ORDINATE	.00	.00	.00		

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 2.50

PAGE 3

***** RATING FACTOR *****

		-- RATING FACTOR FOR MOMENT --				RATING FACTOR - MOMENT				RATING VALUE	SAFE LOAD CAP. (TONS)
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)									
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND		
INV.	H15	1110.9	953.5	1110.9	953.6	3.3182	15.1617	3.3182	15.1621		
OPER.	HS20	1851.5	1589.2	1851.5	1589.3	2.9942	15.2385	2.9942	15.2389		
		-- RATING FACTOR FOR SERVICEABILITY --				RATING FACTOR -SERVICEABILITY				RATING VALUE	SAFE LOAD CAP. (TONS)
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)									
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND		
INV.	H15	11829.6	1115.3	914.2	1115.3	35.3336	17.7330	2.7306	17.7335	H 41.0	41.0
OPER.	HS20	19716.0	1858.8	1523.6	1858.8	31.8837	17.8228	2.4640	17.8232	HS 49.3	88.7
		-- RATING FACTOR FOR SHEAR --				RATING FACTOR - SHEAR				RATING VALUE	SAFE LOAD
		AVAILABLE CAPACITY (KIPS)									
		LEFT	RIGHT			LEFT	RIGHT				
INV.	H15	204.04	205.53			13.8698	13.8698				
OPER.	HS20	342.56	342.56			14.3422	14.3422				

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION - 3.00

PAGE 1

***** SECTION PROPERTIES IN COMPOSITE RANGE 1 OF SPAN 3 *****

-- STRUCTURAL STEEL PROPERTIES --																
H	Tweb	H/Tweb	D	D/Tweb	- B' (IN) -		- B'/t -		Lb (FT)		Ry (IN)		- Lb / Ry	HYBRID RATIO, R		
(IN.)	(IN.)		(IN.)		TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	+BEND	-BEND
37.50	.63	60.00	33.88	54.20	6.44	6.44	3.55	3.55	CONT	23.83	3.72	3.72	.00	76.85	1.0000	1.0000

-- COMPOSITE CONCRETE PROPERTIES --									
EFF.WIDTH	EFF.THICK.	VALUE	{AS}C	{DS}C	VALUE	VALUE	Atf	Abf	Aw
(IN.)	(IN.)	N	(SQ.IN.)	(IN.)	a	Y	(SQ.IN.)	(SQ.IN.)	(SQ.IN.)
96.0	8.0	9	.00	.00	.00	.5	23.25	23.25	21.17

	-- SECTION PROPERTIES --						----- SECTION MODULUS -----				----- PLASTIC SECTION MODULUS -----				
	GROSS AREA		NET AREA		IX	IX	C	TOP	TOP	BOTT	BOTT	TOP	TOP	BOTT	BOTT
		+BEND	-BEND	+BEND	-BEND	(BOT)	+BEND	-BEND	+BEND	-BEND	+BEND	-BEND	+BEND	-BEND	-BEND
	SQ. IN.	SQ. IN.	SQ. IN.	IN. **4	IN. **4	IN.	IN. **3	IN. **3	IN. **3	IN. **3	IN. **3	IN. **3	IN. **3	IN. **3	IN. **3
NON-COM	67.67	67.67	67.67	16886.1	16886.1	18.75	900.6	900.6	900.6	900.6	1010.24	1010.24	1010.24	1010.24	
COM(N=N)				16886.1	.0	18.75	900.6	.0	900.6	900.6					
COM(N=3N)				16886.1	.0	18.75	900.6	.0	900.6	900.6					

-- ULTIMATE STRENGTH --									
Fy (PSI)	f'c (PSI)	Fy (PSI)	2055/(SQRT Fy)		2200/(SQRT Fy)		-- YIELD STRESS, Fy (PSI) --		
STEEL	CONC.	REBAR	TOP	BOT	TOP	BOT	BOT	TOP	WEB
			FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	FLANGE	
36000.	3000.	3000.	10.83	10.83	11.60	11.60	36000.	36000.	36000.

***** SECTION QUALIFICATION *****								
	STIFFENED	UNSTIFFENED	COMPACT	BRACED	UNBRACED	REDUCTION	SYMMETRICAL	UNSYMMETRICAL
	LONG	TRANSV		NON-COMPACT	NON-COMPACT	FACTOR		
+BEND		X	X			1.0000		X
-BEND		X		X		1.0000	X	

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***** SECTION CAPACITY *****
+ BEND      ML =      .00 FT-KIPS,  MR =      .00 FT-KIPS
- BEND      ML =    25.86 FT-KIPS,  MR =   -925.90 FT-KIPS
--- NON-COMPOSITE MOMENT CAPACITY (FT-KIPS) ---  -- COMPOSITE MOMENT CAPACITY (FT-KIPS) --  -- SHEAR CAPACITY (KIPS) --

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	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	MU	MAX. CAP. STEEL	MAX. CAP. CONC.	MU	VU LEFT	VU RIGHT
INV.	2051.36	1246.96	2051.36	1246.98	3030.71	1010.24	3434.38	4444.62	442.07	442.07
OPER.	3418.94	2078.27	3418.94	2078.30	3030.71	1010.24	3434.38	4444.62	442.07	442.07

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***** MOMENT (FT-KIPS) AND SHEAR (KIPS) *****
              -- DEAD LOAD --
M (DL)      M (SDL)      REDIS.      REDIS.      V (DL)      V (SDL)
M-(DL)----M-(SDL)
-437.79     -197.96     -437.79     -197.96      33.97      17.09

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DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 3.00

PAGE 2

***** LIVE LOAD CALCULATIONS (IMPACT FACTOR = .300 FOR +BEND AND = .272 FOR -BEND)

		-- LIVE LOAD --													
LIVE LOAD		-----TRUCK MOMENT-----					-----LANE MOMENT-----					-----FIXED-----		-----MAX-----	
		REDIS	LL+IMP	LL	LOC.NO.	DIR	LL+IMP	LL	LOC.CONC.	LOC.CONC.		SHEAR		SHEAR	
		LL+I FT-KIPS	FT-KIPS	FT-KIPS	1 WHEEL FT.		FT-KIPS	FT-KIPS	LOAD #1 FT.	LOAD #2 FT.		+V KIPS	-V KIPS	+V KIPS	-V KIPS
INV.	H15 +BEND	19.45	19.4	15.0	8.200	L	17.8	13.7	22.200	.000		8.77	.42		
	-BEND	290.15	137.5	108.1	73.050	L	290.1	228.1	87.050	126.900		8.58	8.58		
OPER.	HS20 +BEND	38.20	38.2	29.4	-2.099	L	23.8	18.3	22.200	.000		11.69	.83	32.16	33.14
	-BEND	386.86	312.2	245.4	66.176	L	386.9	304.1	87.050	126.900		11.44	11.44	55.08	56.75

***** ORDINATES OF AND AREAS UNDER MOMENT INFLUENCE LINE (CONTINUOUS SPAN) *****

	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	SPAN 6
T 0	.000	.000	.000	.000	.000	.000
E 1	.199	-.819	-2.153	.000	.000	.000
N 2	.386	-1.825	-3.704	.000	.000	.000
T 3	.548	-2.824	-4.623	.000	.000	.000
H 4	.674	-3.723	-4.990	.000	.000	.000
5	.751	-4.465	-4.883	.000	.000	.000
P 6	.766	-4.974	-4.381	.000	.000	.000
O 7	.708	-5.175	-3.563	.000	.000	.000
I 8	.564	-4.789	-2.507	.000	.000	.000
N 9	.322	-3.098	-1.293	.000	.000	.000
T 0	.000	.000	.000	.000	.000	.000

	AREA						AREA
	TOTALS						
POS AREA	18.2	.0	.0	.0	.0	.0	18.2
NEG AREA	.0	226.6	147.6	.0	.0	.0	374.2

***** MOMENT INFLUENCE LINE (SIMPLE SPAN)

X-DIST (FT.)	.00	.00	.00	POS AREA =	.00
Y-ORDINATE	.00	.00	.00		

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 3.00

PAGE 3

***** RATING FACTOR *****

		-- RATING FACTOR FOR MOMENT --				RATING FACTOR - MOMENT				RATING VALUE	SAFE LOAD CAP. (TONS)
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)									
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND		
INV.	H15	2432.8	865.5	2432.8	865.5	125.0918	2.9830	125.0918	2.9831	H 44.7	44.7
OPER.	HS20	4054.7	1442.5	4054.7	1442.5	106.1570	3.7288	106.1570	3.7289	HS 74.6	134.2
		-- RATING FACTOR FOR SERVICEABILITY --				RATING FACTOR -SERVICEABILITY				RATING VALUE	SAFE LOAD CAP. (TONS)
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)									
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND		
INV.	H15	1921.5	1158.6	1921.5	1158.6	98.7982	3.9930	98.7992	3.9931		
OPER.	HS20	3202.4	1930.9	3202.4	1930.9	83.8434	4.9913	83.8443	4.9913		
		-- RATING FACTOR FOR SHEAR --				RATING FACTOR - SHEAR				RATING VALUE	SAFE LOAD
		AVAILABLE CAPACITY (KIPS)									
		LEFT	RIGHT			LEFT	RIGHT				
INV.	H15	173.39	173.39			5.2327	5.2327				
OPER.	HS20	288.99	288.99			5.0925	5.0925				

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

BARS-PC RELEASE 5.5

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION - 3.60

PAGE 1

***** SECTION PROPERTIES IN COMPOSITE RANGE 2 OF SPAN 3 *****

-- STRUCTURAL STEEL PROPERTIES --																
H (IN.)	Tweb (IN.)	H/Tweb	D (IN.)	D/Tweb	- B' (IN) -		- B'/t -		Lb (FT)		Ry (IN)		- Lb / Ry		HYBRID RATIO, R	
					TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	+BEND	-BEND
35.50	.63	56.80	33.88	54.20	5.69	5.69	7.00	7.00	CONT	23.00	3.46	3.46	.00	79.67	1.0000	1.0000
-- COMPOSITE CONCRETE PROPERTIES --																
EFF.WIDTH (IN.)	EFF.THICK. (IN.)	VALUE N	(AS)C (SQ.IN.)	(DS)C (IN.)	VALUE a	VALUE Y	Atf (SQ.IN.)	Abf (SQ.IN.)	Aw (SQ.IN.)							
96.0	8.0	9	.00	.00	5.98	.0	9.75	9.75	21.17							
-- SECTION PROPERTIES --																
GROSS		NET AREA	IX	IX	C	TOP	SECTION MODULUS		SECTION MODULUS		PLASTIC SECTION MODULUS					
AREA	+BEND	-BEND	+BEND	-BEND	(BOT)	+BEND	TOP	BOTT	BOTT	TOP	TOP	BOTT	BOTT	TOP	TOP	BOTT
SQ.IN.	SQ.IN.	SQ.IN.	IN.**4	IN.**4	IN.	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3	IN.**3
NON-COM	40.67	40.67	40.67	7891.1	7891.1	17.75	444.6	444.6	444.6	444.6	517.49	517.49	517.49	517.49	517.49	517.49
COM(N=N)				7891.1	.0	17.75	444.6	.0	444.6	444.6						
COM(N=3N)				7891.1	.0	17.75	444.6	.0	444.6	444.6						
-- ULTIMATE STRENGTH --																
Fy (PSI)	f'c (PSI)	Fy (PSI)	2055/(SQRT Fy)		2200/(SQRT Fy)		-- YIELD STRESS, Fy (PSI) --									
STEEL	CONC.	REBAR	TOP	BOT	TOP	BOT	BOT	TOP	WEB							
36000.	3000.	3000.	10.83	10.83	11.60	11.60	36000.	36000.	36000.							
***** SECTION QUALIFICATION *****																
STIFFENED		UNSTIFFENED		COMPACT		BRACED		UNBRACED		REDUCTION		SYMMETRICAL UNSYMMETRICAL				
LONG		TRANV				NON-COMPACT		NON-COMPACT		FACTOR						
+BEND		X		X				X		1.0000		X				
-BEND		X								1.0000		X				
***** SECTION CAPACITY *****																
+BEND		ML =		.00 FT-KIPS,		MR =		.00 FT-KIPS								
-BEND		ML =		.00 FT-KIPS,		MR =		25.86 FT-KIPS,		M1/M2 =		.0000		CB = 1.0		
--- NON-COMPOSITE MOMENT CAPACITY (FT-KIPS) ---																
--- COMPOSITE MOMENT CAPACITY (FT-KIPS) ---																
--- SHEAR CAPACITY (KIPS) ---																
TOP		TOP	BOTT	BOTT	MU	MAX. CAP.	MAX. CAP.	MU	VU	VU						
+BEND	-BEND	+BEND	-BEND			STEEL	CONC.		LEFT	RIGHT						
INV.	1281.71	615.55	1281.71	615.57	1552.46	517.49	2259.54	2777.03	442.07	442.07						
OPER.	2136.18	1025.92	2136.18	1025.94	1552.46	517.49	2259.54	2777.03	442.07	442.07						
***** MOMENT (FT-KIPS) AND SHEAR (KIPS) *****																
-- DEAD LOAD --																
M (DL)		M (SDL)		REDIS.	REDIS.	V (DL)	V (SDL)									
				M-(DL)	M-(SDL)											
				91.12	62.00	4.68	1.75									

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 3.60

PAGE 2

***** LIVE LOAD CALCULATIONS (IMPACT FACTOR = .292 FOR +BEND AND = .254 FOR -BEND)

		-- LIVE LOAD --										-----FIXED-----		-----MAX-----	
LIVE LOAD		-----TRUCK MOMENT-----					-----LANE MOMENT-----					SHEAR		SHEAR	
		REDIS	LL+IMP	LL	LOC.NO.	DIR	LL+IMP	LL	LOC.CONC.	LOC.CONC.		+V	-V	+V	-V
		LL+I FT-KIPS	FT-KIPS	FT-KIPS	1 WHEEL FT.		FT-KIPS	FT-KIPS	LOAD #1 FT.	LOAD #2 FT.		KIPS	KIPS	KIPS	KIPS
INV.	H15 +BEND	226.13	226.1	175.0	122.100	L	205.4	159.0	136.100	.000		1.27	12.29		
	-BEND	64.57	54.3	43.2	73.050	L	64.6	51.5	87.050	.000		1.24	1.24		
OPER.	HS20 +BEND	397.42	397.4	307.5	150.100	R	273.9	211.9	136.100	.000		6.89	19.83	13.28	13.28
	-BEND	123.13	123.1	98.2	66.176	L	86.1	68.6	87.050	.000		6.69	6.69	20.83	20.83

***** ORDINATES OF AND AREAS UNDER MOMENT INFLUENCE LINE (CONTINUOUS SPAN) *****

	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	SPAN 6	
T 0	.000	.000	.000	.000	.000	.000	
E 1	.080	-.328	.979	.000	.000	.000	
N 2	.154	-.730	2.198	.000	.000	.000	
T 3	.219	-1.130	3.671	.000	.000	.000	
H 4	.270	-1.489	5.364	.000	.000	.000	
5	.300	-1.786	7.247	.000	.000	.000	
P 6	.306	-1.990	9.288	.000	.000	.000	
O 7	.283	-2.070	6.855	.000	.000	.000	
I 8	.225	-1.915	4.517	.000	.000	.000	
N 9	.129	-1.239	2.243	.000	.000	.000	
T 0	.000	.000	.000	.000	.000	.000	
							AREA
							TOTALS
POS AREA	7.3	.0	194.9	.0	.0	.0	202.1
NEG AREA	.0	90.6	.0	.0	.0	.0	90.6

***** MOMENT INFLUENCE LINE (SIMPLE SPAN)

X-DIST (FT.)	.00	.00	.00	POS AREA =	.00
Y-ORDINATE	.00	.00	.00		

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 3.60

PAGE 3

***** RATING FACTOR *****

		-- RATING FACTOR FOR MOMENT --				RATING FACTOR - MOMENT				RATING VALUE	SAFE LOAD CAP. (TONS)
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)									
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND		
INV.	H15	1189.8	707.4	1189.8	707.4	5.2617	10.9556	5.2617	10.9558		
OPER.	HS20	1983.1	1179.0	1983.1	1179.1	4.9898	9.5754	4.9898	9.5755		
		-- RATING FACTOR FOR SERVICEABILITY --				RATING FACTOR -SERVICEABILITY				RATING VALUE	SAFE LOAD CAP. (TONS)
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)									
		TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND	TOP +BEND	TOP -BEND	BOTT +BEND	BOTT -BEND		
INV.	H15	668.3	852.1	668.4	852.1	2.9555	13.1958	2.9556	13.1961	H 44.3	44.3
OPER.	HS20	1113.9	1420.1	1113.9	1420.2	2.8028	11.5334	2.8029	11.5336	HS 56.1	100.9
		-- RATING FACTOR FOR SHEAR --				RATING FACTOR - SHEAR				RATING VALUE	SAFE LOAD
		AVAILABLE CAPACITY (KIPS)									
		LEFT	RIGHT			LEFT	RIGHT				
INV.	H15	200.17	200.17			15.0751	15.0751				
OPER.	HS20	346.48	333.62			16.6334	16.6334				

BARS-PC RELEASE 5.5

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION - 4.00

***** SECTION PROPERTIES IN COMPOSITE RANGE 2 OF SPAN 3 *****

-- COMPOSITE CONCRETE PROPERTIES --									
EFF.WIDTH (IN.)	EFF.THICK. (IN.)	VALUE N	{AS}C (SQ.IN.)	{DS}C (IN.)	VALUE a	VALUE Y	Atf (SQ.IN.)	Abf (SQ.IN.)	Aw (SQ.IN.)
96.0	8.0	9	.00	.00	5.98	.0	9.75	9.75	21.17

-- ULTIMATE STRENGTH --						-- YIELD STRESS, Fy (PSI) --			
Fy (PSI)	f'c (PSI)	Fy (PSI)	2055/(SQRT Fy)	2200/(SQRT Fy)		BOT	TOP	WEB	
STEEL	CONC.	REBAR	TOP	BOT		FLANGE	FLANGE		
36000.	3000.	3000.	10.83	10.83	11.60	11.60	36000.	36000.	36000.

```

***** SECTION CAPACITY *****
+BEND      ML =      .00 FT-KIPS,  MR =      .00 FT-KIPS
-BEND      ML =      .00 FT-KIPS,  MR =      .00 FT-KIPS
--- NON-COMPOSITE MOMENT CAPACITY (FT-KIPS) ---  -- COMPOSITE MOMENT CAPACITY (FT-KIPS) --  -- SHEAR CAPACITY (KIPS) --

```

```

***** MOMENT (FT-KIPS) AND SHEAR (KIPS) *****
              -- DEAD LOAD --
      M (DL)   M (SDL)   REDIS.   REDIS.   V (DL)   V (SDL)
      M-(DL)---M-(SDL)
      .00      .00      .00      .00      -14.59   -8.48

```

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 4.00

PAGE 2

***** LIVE LOAD CALCULATIONS (IMPACT FACTOR = .292 FOR +BEND AND = .292 FOR -BEND)

		-- LIVE LOAD --										-----FIXED-----		-----MAX-----	
LIVE LOAD		-----TRUCK MOMENT-----				-----LANE MOMENT-----				SHEAR		SHEAR			
		REDIS	LL+IMP	LL	LOC.NO.	DIR	LL+IMP	LL	LOC.CONC.	LOC.CONC.	+V	-V	+V	-V	
		LL+I	FT-KIPS	FT-KIPS	1 WHEEL		FT-KIPS	FT-KIPS	LOAD #1	LOAD #2	KIPS	KIPS	KIPS	KIPS	
		FT-KIPS			FT.				FT.	FT.					
INV.	H15 +BEND	.00	.0	.0	135.900	L	.0	.0	.000	.000	.00	.00			
	-BEND	.00	.0	.0	.000	L	.0	.0	.000	.000	.00	.00	26.98	.00	
OPER.	HS20 +BEND	.00	.0	.0	121.900	L	.0	.0	.000	.000	.00	.00			
	-BEND	.00	.0	.0	.000	L	.0	.0	.000	.000	.00	.00	49.96	.00	

***** ORDINATES OF AND AREAS UNDER MOMENT INFLUENCE LINE (CONTINUOUS SPAN) *****

	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	SPAN 6
T 0	.000	.000	.000	.000	.000	.000
E 1	.000	.000	.000	.000	.000	.000
N 2	.000	.000	.000	.000	.000	.000
T 3	.000	.000	.000	.000	.000	.000
H 4	.000	.000	.000	.000	.000	.000
5	.000	.000	.000	.000	.000	.000
P 6	.000	.000	.000	.000	.000	.000
O 7	.000	.000	.000	.000	.000	.000
I 8	.000	.000	.000	.000	.000	.000
N 9	.000	.000	.000	.000	.000	.000
T 0	.000	.000	.000	.000	.000	.000

	AREA						AREA
	TOTALS						
POS AREA	.0	.0	.0	.0	.0	.0	.0
NEG AREA	.0	.0	.0	.0	.0	.0	.0

***** MOMENT INFLUENCE LINE (SIMPLE SPAN)

X-DIST (FT.)	.00	.00	.00	POS AREA =	.00
Y-ORDINATE	.00	.00	.00		

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE STEEL AND CONCRETE FLEXURAL MEMBER - LOAD FACTOR RATING

DATE 9/ 4/97

D/P STRUCTURE I.D. = CAJ-292
MEMBER I.D. -- G 1
C.P. LOCATION -- 4.00

PAGE 3

***** RATING FACTOR *****

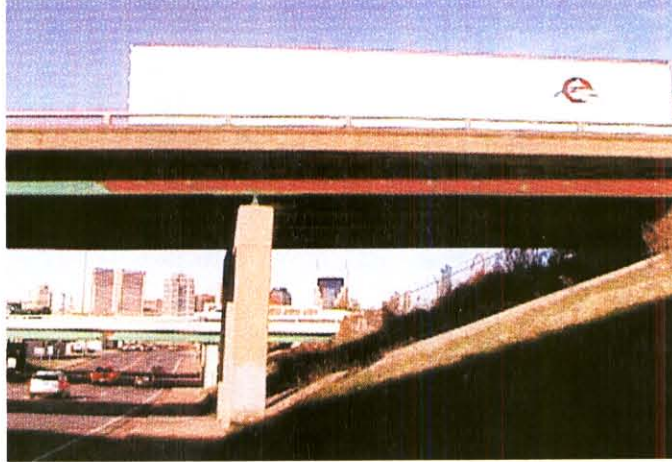
		-- RATING FACTOR FOR MOMENT --								RATING VALUE	SAFE LOAD CAP. (TONS)
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)				RATING FACTOR - MOMENT					
		TOP	TOP	BOTT	BOTT	TOP	BOTT	TOP	BOTT		
		+BEND	-BEND	+BEND	-BEND	+BEND	-BEND	+BEND	-BEND		
INV.	H15	1281.7	707.4	1281.7	707.4	999.0000	999.0000	999.0000	999.0000		
OPER.	HS20	2136.2	1179.0	2136.2	1179.1	999.0000	999.0000	999.0000	999.0000		
		-- RATING FACTOR FOR SERVICEABILITY --								RATING VALUE	SAFE LOAD CAP. (TONS)
		AVAILABLE (LL+I) CAPACITY (FT-KIPS)				RATING FACTOR -SERVICEABILITY					
		TOP	TOP	BOTT	BOTT	TOP	BOTT	TOP	BOTT		
		+BEND	-BEND	+BEND	-BEND	+BEND	-BEND	+BEND	-BEND		
INV.	H15	760.2	884.9	760.2	884.9	999.0000	999.0000	999.0000	999.0000		
OPER.	HS20	1267.0	1474.8	1267.0	1474.8	999.0000	999.0000	999.0000	999.0000		
		-- RATING FACTOR FOR SHEAR --								RATING VALUE	SAFE LOAD
		AVAILABLE CAPACITY (KIPS)				RATING FACTOR - SHEAR					
		LEFT	RIGHT			LEFT	RIGHT				
INV.	H15	190.19	217.87			7.0494	7.0494			H 105.7	105.7
OPER.	HS20	316.98	363.12			6.3449	6.3449			HS126.9	228.4

Bridge No.: 00019 — I40 — [18.34 RT](#)
Crossing:: [0](#)
Federal No.: 0

Date:

[December 1, 2003](#)

PIC1



[PAINT PEELING OFF BEAMS, SPAN #3 TYPICAL](#)

Bridge No.: 19 — I40 18-34 RT
Crossing: 0
Federal N 0

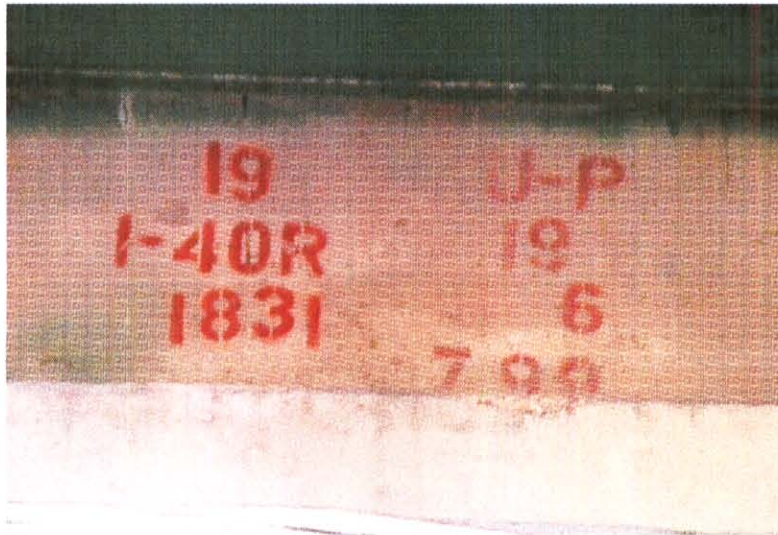
Date: December 1, 2003

PIC2



ELEVATION RIGHT SIDE

PIC3



BRIDGE NO

Bridge No.: 19 — I40 18.34 RT
Crossing:: 0
Federal No. 0

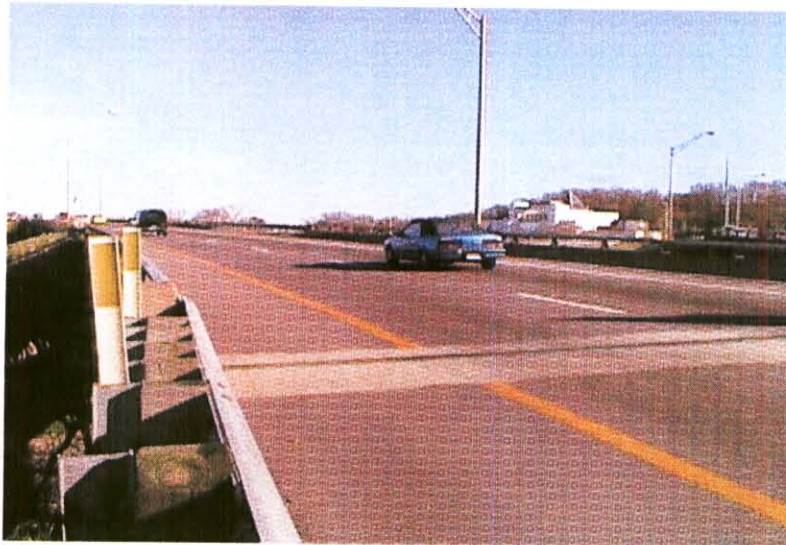
Date: December 1, 2003

PIC4



BOLT MISSING FROM BEARING "A" SPAN #1

PIC5



VIEW ACROSS DECK

Bridge No.: 00019 — I40 — 18.34 RT
Crossing: I40 RL / 8TH AVE SR 6 *
Federal No.: 19I00400079

Date:

October 22, 2001

PIC1



VIEW ACROSS DECK

Bridge No.: 19 — I40 48:34 RT
Crossing:: I40 RL / 8TH AVE SR 6 *
Federal No 19I00400079

Date:

October 22, 2001

PIC2



BRIDGE NO. AT ABUTMENT # 1

PIC3



MISSING ANCHOR BOLT AT BEARING "A" ABUTMENT #1

Bridge No.: 19 — I40 16.34 RT
Crossing:: I40 RL / 8TH AVE SR 6 *
Federal No.: 19I00400079

Date:

October 22, 2001

PIC4



ELEVATION RIGHT VIEW

Bridge No.: 19 — 10040 — 1831
Crossing:: 140 RL / 8TH AVE SR 6 *
Federal No.: 19100400079

Date:

February 29, 2000

PIC1



BRIDGE NO. AT ABUTMENT # 1

Bridge No.: 19 — 10040 — 1831
Crossing:: I40 RL / 8TH AVE SR 6 *
Federal No 19I00400079

Date: February 29, 2000

PIC2



ABUTMENT TYPICAL

PIC3



DEBRIS ON CAP COVERING BEARINGS ABUTMENT #1

Bridge No.: 19 — 10040 — 1831
Crossing:: I40 RL / 8TH AVE SR 6 *
Federal No.: 19I00400079

Date: February 29, 2000

PIC4



BROKEN BEARING BOLT BEAM "A" ABUTMENT #1

PIC5



BENT TYPICAL

Bridge No.: 19 — I0040 — 1831
Crossing:: I40 RL / 8TH AVE SR 6 *
Federal No.: 19I00400079

Date: February 29, 2000

PIC6



BOTTOM OF DECK

PIC7

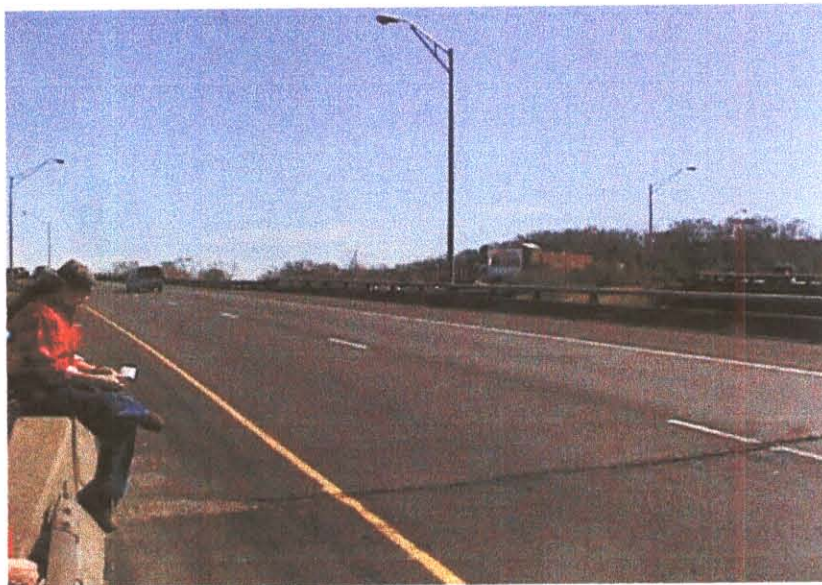


RUST BEAM "C" SPAN #3-TYPICAL

Bridge No.: 19 — I0040 — 1831
Crossing: I40 RL / 8TH AVE SR 6 *
Federal No.: 19I00400079

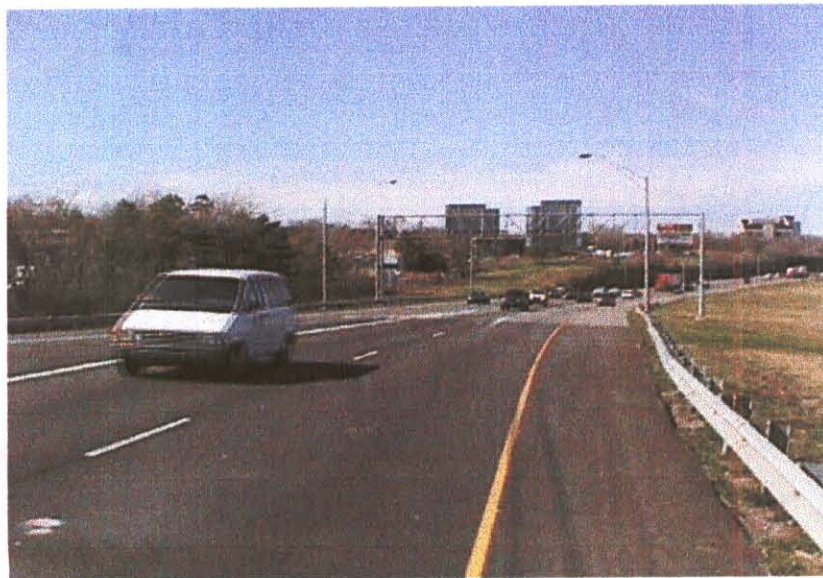
Date: February 29, 2000

PIC8



VIEW ACROSS DECK

PIC9

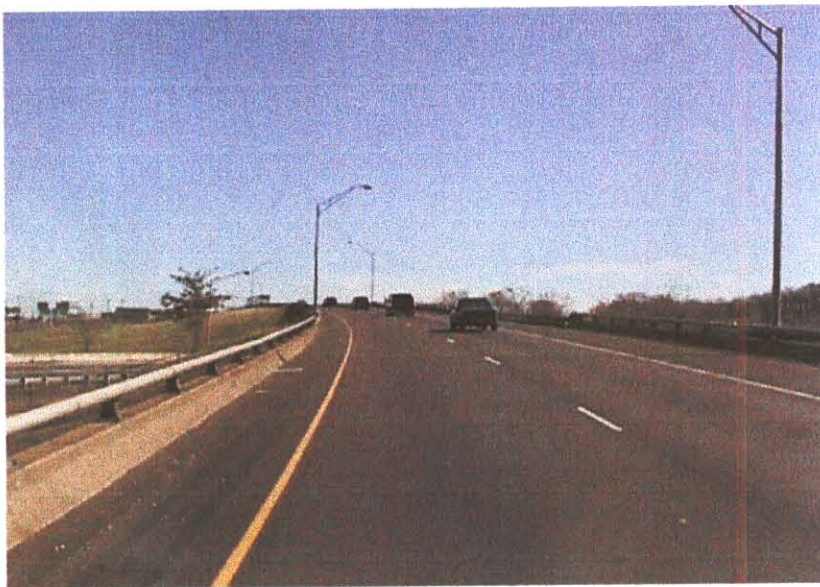


APPROACH # 1

Bridge No.: 19 — I0040 — 1831
Crossing:: I40 RL / 8TH AVE SR 6 *
Federal No.: 19I00400079

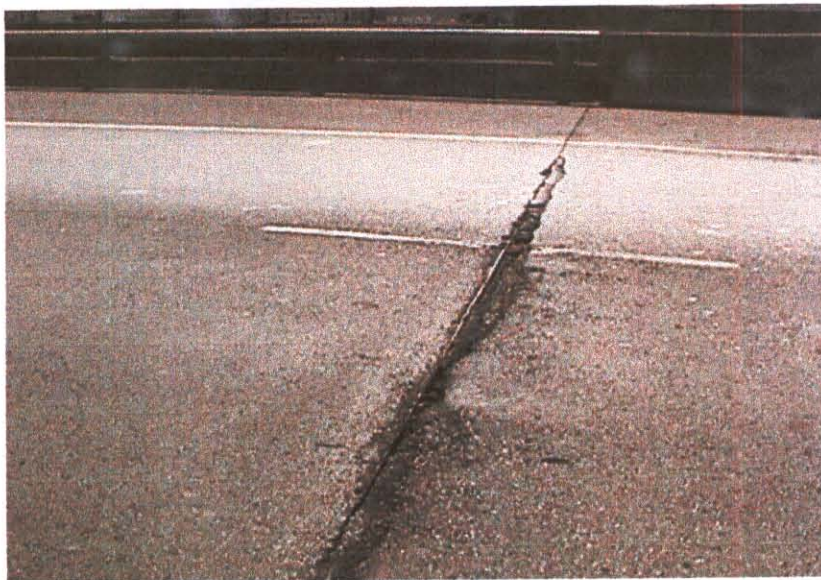
Date: February 29, 2000

PIC10



APPROACH # 2

PIC11



PAVEMENT RAVELING AT JOINT "A" APPROACH

Bridge No.: 19 — 10040 — 1831
Crossing:: I40 RL / 8TH AVE SR 6 *
Federal No.: 19I00400079

Date: February 29, 2000

PIC12



BREAKOUT WITH EXPOSED REBAR AT GUARDRAIL POST LEFT SIDE SPAN #

PIC13



LEFT SIDE VIEW

ROUTINE BRIDGE INSPECTION REPORT

Page No. _____

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

15: 12.1.03 ————— Field Report No. 14

Date 10/22/2001

14: 10.22.01 ————— Previous Report No. 13

Date 2/29/2000

Plans: DESIGN

Bridge No. 19I00400079

Bridge Location No. 19 - I0040 - 18.34 R

Eleven Digit No.

I40 RL

over 155 / 8TH AVE SR 6 *

Co. Route Log Mile

Indepth Insp. Req'd: NO

Road Name

Crossing

(If yes itemize limits under comments)

Structure Type WPG

FRACTURE CRITICAL: NO

FEATURE CHANGES:

Wearing Surface NO

Type ASPHALT

Depth 3" (in.)

Bridge Rail NO

Describe changes:

Approach Rail NO

CLEARANCE CHANGES:

(If yes make changes below)

Vertical Clearance over deck _____ (ft.-in.)

Vertical Under Clearance 20'11" (ft.-in.)

Horizontal Under Clearance _____ (*.* ft.)

Deck Width Curb/Curb 38' (*.* ft.)

Deck Width Rail/Rail _____ (*.* ft.)

Sidewalk Width Rt. _____ Lt. _____

INSPECTORS

WATTS

CLACK

LONE

Condition: GOOD (If change describe in comments)

Comments

Approaches

Deck Condition (Item 58)

Superstructure (Item 59)

a. Beams

b. Bearings

c. Diaphragms

Substructure (Item 60)

a. Caps/Bridge Seats

b. Columns/Piles

c. Footings

d. Wing W./Breast W.

Scour/Erosion

Channel (Item 61)

<u>G</u>	
<u>G</u>	
<u>G</u>	
<u>G</u>	
<u>P</u>	<u>Bearing "A" Missing Anchor Bolt</u>
<u>G</u>	
<u>G</u>	
<u>G</u>	
<u>G</u>	
<u>NO</u>	
<u>G</u>	
<u>G</u>	

UNDERWATER INSPECTION

To Be Performed By: NONE REQUIRED

Date Underwater Insp. _____

BRIDGE is: OPEN

COMMENTS:

Weight Limit Posted NO

Gross..... Tons

2 Axle..... Tons

3 or more Axles.. Tons

Supervising Bridge Inspector:

J. Watts

BRIDGE RATING: GOOD

INSPECTION REPORT FOR UNDERPASS ROUTE

Page No. _____

Field Report No. 15 Date 12-1-03
Previous Report No. 14 Date 10-22-01

Bridge No. 19I00400079
Eleven Digit No.

Underpass Location No. 19 - SR6 - 7.99

I40 or - SR6 - over -
Railroad/Walkway Co. Route Log Mile Co. Route Log Mile

County DAVIDSON

Structure Name (If Named) _____

Year Constructed 72

Year Widened _____

Year Rehabilitated _____

GEOMETRIC FEATURES UNDER BRIDGE

(* ft. unless otherwise noted)

Divided Highway NA

Type of Wearing Surface Asphalt

Width of Approach Traveled Roadway 48 ft. (Does Not Include Shoulders)

Width of Median if Divided Highway - ft.

Approach Shoulder Width 2.0 ft. Right 2.0 ft. Left

*Horizontal Clearance Under Bridge 68.0 ft.

*Distance Between Pier Protection
Guardrail and Substructure - ft. Right - ft. Left

*Width of Sidewalk Under Bridge 8.0 ft. Right 8.0 ft. Left

*Minimum Vertical Clearance: 20 ft. 11 in. (ft.-in.)

*Show on Sketch

TRAFFIC SAFETY FEATURES

Pier Protection Railing or Parapet

Approach Guardrail Terminals

Approach Guardrail

Approach Guardrail Terminal

Rating	Standard/ SubStandard Non Exist
	<u>NA</u>
	<u>S</u>
	<u>S</u>

SIGNING

Yes/ No/ Needed

Paddleboards

Vertical Clearance (<14'-6")

Narrow Passage

One Lane Passage

Other Underpass Signs Needed

<u>No</u>
<u>No</u>
<u>No</u>
<u>No</u>

INSPECTORS

- WATTS
- CLARK
- LOVE
-
-
-

Form BIR 3.0A (Continued)
(Rev. 9-22-98)
DT-1443

Date 12.1.03

Underpass Location No. 19 - SRL - 7.99
Co. Route Log Mile

Other Signs or Plaques:

Comments Regarding any
Problems with Signing:

BRIDGE FEATURES (*.ft.)

Bridge Skew 84° RT Number of Lanes/Tracks on Bridge 2
Structure Type (Main Span) WPG No. Main Spans 3
Structure Type (Appr. Spans) — No. Appr. Spans —
Maximum Span Length 71.5 (ft.) Total Length 158.0 (ft.)
Width of Bridge Out-to-Out 42.0 (ft.) Right Angle to Centerline of Bridge
Width of Bridge Along Skew — (ft.) (If Unable to Measure at Right
Angle to Centerline of Bridge)

BRIDGE CONDITION: Fair

Does Potential Exist for Elements from Bridge Falling on Roadway Beneath?

No

Does Potential Exist Because of Deteriorated Condition or Failure of Major Members?

No

Comment on any Conditions of Bridge that would Effect Roadway Beneath:

Note: If Underpass Route is Divided Highway, Use Two 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

SUMMARY
19-I40-18.34 RT
12/1/03

I40/SR 6
3 Span/W.P.G.

This bridge was inspected and found to be in good condition. Bridge alignment, embankment, and pavement are good. Bridge railing is substandard. Approach rails are standard type and good.

Wearing surface is good with an asphalt overlay. Parapet is fair with in place breakouts and moderate pitting and a breakout with exposed steel 6' deep span #1 left side. Expansion joint at "B" end is paved over. Joint at "A" end is a new strip seal and is fair with light to moderate debris buildup.

Bottom deck is good. Superstructure elements are in good condition. Paint is peeling off of beams showing light corrosion. There was a small 2" deep breakout in bent #2 column but good. Abutment backwall at #1 is fair due to scale and map cracks. Bearings are fair on abutments due to moderate corrosion, flaking and also impacted rust. However, bearing "A" abutment #1 is poor with heavy corrosion, section loss and missing anchor bolts. Bearing "A" at abutment #1 has a missing anchor bolt. Underpass pier protection is not in place. The minimum distance to the nearest bent is 10'.

Jim Watts

ROUTINE BRIDGE INSPECTION REPORT

Page No. _____

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

Field Report No. 14 Date 10-22-01
Previous Report No. 13 Date 2/29/00
Plans: DESIGN

Bridge No. 19100400079
Eleven Digit No.

Bridge Location No. 19 - 10040 - 18.31 ⁴ R
Co. Route Log Mile

I40 RL over 14TH / 8TH AVE SR 6 *
Road Name Crossing

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

Structure Type WPG

FRACTURE CRITICAL: NO

FEATURE CHANGES:

Wearing Surface NO Type ASPHALT Depth 3" (in.)

Bridge Rail NO Describe changes:

Approach Rail YES NEW APPROVED GUARDRAILING, TRANS. & TERM'S

CLEARANCE CHANGES: (If yes make changes below)

Vertical Clearance over deck _____ (ft.-in.)
Vertical Under Clearance 20'11" (ft.-in.)
Horizontal Under Clearance _____ (*. ft.)
Deck Width Curb/Curb 38' (*. ft.)
Deck Width Rail/Rail _____ (*. ft.)
Sidewalk Width Rt. _____ Lt. _____

INSPECTORS

HEGGIE CLARK
CARVER
LOVE
HONEA

Condition: GOOD (If change describe in comments)

Comments

- Approaches
- Deck Condition (Item 58)
- Superstructure (Item 59)
 - a. Beams
 - b. Bearings
 - c. Diaphragms
- Substructure (Item 60)
 - a. Caps/Bridge Seats
 - b. Columns/Piles
 - c. Footings
 - d. Wing W./Breast W.

<u>G</u>	
<u>G</u>	
<u>G</u>	
<u>G</u>	
<u>F</u>	
<u>G</u>	
<u>G</u>	
<u>G</u>	
<u>G</u>	
<u>NV</u>	
<u>G</u>	

Scour/Erosion

Channel (Item 61)

UNDERWATER INSPECTION

To Be Performed By: NONE REQUIRED

Date Underwater Insp. _____

BRIDGE is: OPEN

Weight Limit Posted NO

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

COMMENTS:

Supervising Bridge Inspector: Hebbie Clark BRIDGE RATING: GOOD

SUMMARY
19-I40-18.34 RT
10/22/01

I40/SR 6
3 Span/W.P.G.

This bridge was inspected and found to be in fair condition. Bridge alignment, embankment, and pavement are good. Bridge railing is substandard. Approach rails are standard type and good.

Wearing surface is good with an asphalt overlay. Parapet is fair with in place breakouts and moderate pitting and a breakout with exposed steel 6' deep span #1 left side. Expansion joint at "B" end is paved over. Joint at "A" end is a new compression seal and is fair with light to moderate debris build up.

Bottom deck is good. Superstructure elements are in good condition. Paint is peeling off of beams showing light corrosion. There was a small 2" deep breakout in bent #2 column but good. Abutment backwall at #1 is fair due to scale and map cracks. Bearings are fair on abutments due to moderate corrosion, flaking and also impacted rust. Bearing "A" at abutment #1 has a missing anchor bolt. Underpass pier protection is not in place. The minimum distance to the nearest bent is 10'.

Karen Heggie Clark

BRIDGE INSPECTION REPORT

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

FIELD REPORT NO. 13 DATE 2-29-2000
REVIOUS REPORT NO. 12 DATE 2-25-98
PLANS ---- YES ☒ NO ☐

BRIDGE NO. 19I00400079
ELEVEN DIGIT NO.

BRIDGE LOC. NO. 19-I40-18.31⁴
CO. ROUTE LOG MILE

I40 OVER 8th Ave (SR6)
ROAD NAME FEATURE INTERSECTED STRUCTURE NAME (IF NAMED)
YEAR CONSTRUCTED 72 COUNTY Davidson MAINTENANCE DISTRICT NO. 31
(ESTIMATED OR ACTUAL) ☐ ☒
YEAR WIDENED _____ YEAR REHABILITATED _____
ESTIMATED OR ACTUAL ESTIMATED OR ACTUAL
☐ ☐ ☐ ☐

FEATURES

WEARING SURFACE-- CONCRETE ☐ TIMBER ☐ ASPHALT ☒ (DEPTH= 3")
FLARED WIDTH ----- YES ☐ NO ☒
NAVIGATIONAL CONTROL-- YES ☐ NO ☒
MEDIAN WIDTH ----- OPEN ☒ NONE ☐ CLOSED ☐

BRIDGE SKEW 84° LT ☐ RT ☒

INSPECTORS

STRUCTURE TYPE WPG NO. SPANS 3
Main Span Main Span

STRUCTURE TYPE _____ NO. SPANS _____
Approach Spans Approach Spans

MAXIMUM SPAN LENGTH 71.5 TOTAL LENGTH 158

WIDTHS

CLEARANCES

DECK OUT-TO-OUT 42 MIN. VERTICAL OVER DECK _____
ROADWAY CURB/CURB 38 MIN. VERTICAL UNDER CL 20' 11"
SIDEWALK _____ RT _____ LT MIN. LATERAL UNDER CL 10' RT _____
*APPROACH ROADWAY 24 _____ LT _____
APPR. SHLD. 7 RT 7 LT
*DOES NOT INCLUDE SHOULDER

UNDERWATER INSPECTION

INSPECTION PERFORMED BY:

DOT FIELD TEAM ☐ DATE _____
CONTRACT DIVERS ☐ DATE _____
NONE REQUIRED ☒

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

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

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

COMMENTS: _____

Willbert Wayne Hunter

SUPERVISING BRIDGE INSPECTOR

BRIDGE RATING ☐ ☒ ☐ ☐
GOOD FAIR POOR CRITICAL

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

BRIDGE LOC. NO. 19 - I40 - 18.31 R
CO. ROUTE L.M.

DATE: 2-29-2000

PERFORMANCE EVALUATION

Time of day inspected 11:30 Weather conditions SUNNY 65°

Vehicles observed All types

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

APPROACH

	G	F	P	C	
Alignment	(G)	F	P	C	
Slab	G	F	P	C	<u>NU</u>
Joints	G	F	P	C	<u>NA</u>
Pavement	(G)	F	P	C	
Embankment	(G)	F	P	C	
Drains	G	(F)	P	C	<u>2" settlement "A" and E.T. side</u>

TRAFFIC SAFETY FEATURES

	G	F	P	C	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]	[]	WEIGHT LIMIT POSTED
				YES [] NO [X]
Vertical Clearance (< 14') - - - -	[]	[X]	[]	
Narrow [] One Lane Bridge [] - []	[]	[]	[]	GROSS _____ TONS
				2 AXLE _____ TONS
				3 OR MORE
				AXLES _____ TONS

Other Signs or Plaques _____

Comments Regarding Any Problems With Signing _____

Other Recommendations _____

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

BRIDGE LOC. NO. 19. I40. 18.31 R
CO. ROUTE L.M.

DATE: 2-29-2000

DECK

COMMENTS

WEARING SURFACE	(G)	F	P	C	
DECK - STRUCTURAL	(G)	F	P	C	
CONDITION					
CURBS	G	F	P	C	NA
MEDIAN	G	F	P	C	NA
SIDEWALKS	G	F	P	C	NA
PARAPET	(G)	F	P	C	Breakout w. exposed rebar #1 span LT. side
RAILING	(G)	F	P	C	
PAINT	G	F	P	C	NA
DRAINS	G	F	P	C	NA
LIGHTING STD'S	G	F	P	C	NA
UTILITIES	G	F	P	C	NA
JOINT LEAKAGE	G	(F)	P	C	mod staining
EXPANSION JOINTS	G	(F)	P	C	paved over & raveling "A" end

SUPERSTRUCTURE

COMMENTS

BEARING DEVICES	G	F	(P)	C	Broken bolt beam "A" "A" end
GIRDERS OR BEAMS	(G)	F	P	C	3/8" vertical deflection & lateral movement observed 1/8"
FLOOR BEAMS	G	F	P	C	NA
STRINGERS	G	F	P	C	NA
DIAPHRAGMS	(G)	F	P	C	
BRACING	G	F	P	C	NA
TRUSSES - GENERAL	G	F	P	C	
- PORTALS	G	F	P	C	
- BRACING	G	F	P	C	
PAINT	G	(F)	P	C	Random peeling w. light corr.
ALIGNMENT OF	(G)	F	P	C	
MEMBERS					

TEXTURE COAT

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

NEEDS SPOT PAINTING? YES [] NO []
NEEDS REPAINTING? YES [] NO []

COMMENTS: _____

RECOMMENDATIONS: _____

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

BRIDGE LOC. NO. 19-I40 - 18.31 R
CO. ROUTE L.M.

DATE: 2-29-2000

SUBSTRUCTURE

ABUTMENTS

COMMENTS

CAPS	G	(F)	P	C	
BREASTWALL	G	F	P	C	<u>NA</u>
WINGS	(G)	F	P	C	
BACKWALL	G	(F)	P	C	<u>heavy map cracking</u>
PLUMB	(G)	F	P	C	
FOOTING	G	F	P	C	<u>NV</u>
PILES	G	F	P	C	<u>NV</u>
EMBANKMENT	(G)	F	P	C	
BEARING SURFACE	(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	

BENTS

CAPS	(G)	F	P	C	
COLUMNS	(G)	F	P	C	
PLUMB	(G)	F	P	C	
FOOTINGS	G	F	P	C	<u>NV</u>
PILES	G	F	P	C	<u>NV</u>
BEARING SURFACE	(G)	F	P	C	

SCOUR CONDITION NONE (X)

RECOMMENDATIONS: _____

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

CURRENT FIELD REPORT NO. 13
PREVIOUS FIELD REPORT NO. 12

DATE 2-29-2000
DATE 2-25-98

INSPECTION REPORT FOR UNDERPASS ROUTE

BRIDGE NO. 19100400079
ELEVEN DIGIT NUMBER

UNDERPASS LOC. NO. 19 - SR6 - 7.99
CO. RTE. L.M.

- I40 - OVER - SR6 -
CO. RTE. L.M. CO. RTE. L.M.

STRUCTURE NAME (IF NAMED)

COUNTY Davidson

YEAR CONSTRUCTED 72 YEAR WIDENED _____ YEAR REHABILITATED _____
ESTIMATED [] ACTUAL ☒

GEOMETRIC FEATURES UNDER BRIDGE

DIVIDED HIGHWAY - - - - LEFT RDWY [] RIGHT RDWY [] N.A. ☒
TYPE OF WEARING SURFACE - - - - CONCRETE [] ASPHALT ☒ GRAVEL []
WIDTH OF APPROACH TRAVELED ROADWAY 48 FT. (DOES NOT INCLUDE SHOULDERS)
WIDTH OF MEDIAN IF DIVIDED HIGHWAY - FT.
APPROACH SHOULDER WIDTH 2 FT. (RT.) 2 FT. (LT.)
*HORIZONTAL CLEARANCE UNDER BRIDGE 68 FT. 0 IN.
*DISTANCE BETWEEN PIER PROTECTION GUARDRAIL AND
SUBSTRUCTURE - FT. (RT.) - FT. (LT.)
*WIDTH OF SIDEWALK UNDER BRIDGE 8 FT. (RT.) 8 FT. (LT.)
*MINIMUM VERTICAL CLEARANCE 20 FT. 11 IN.

*SHOW ON SKETCH

TRAFFIC SAFETY FEATURES FOR UNDERPASS ROUTE STANDARD SUB-STANDARD

PIER PROTECTION RAILING								
OR PARAPET	G	F	P	C	[]	[]	NON EXIST	☒
APPROACH GUARDRAIL								
TRANSITIONS	G	F	P	C	[]	[]	NON EXIST	☒
APPROACH GUARDRAIL	G	F	P	C	[]	[]	NON EXIST	☒
APPROACH GUARDRAIL								
TERMINAL	G	F	P	C	[]	[]	NON EXIST	☒

SIGNING FOR UNDERPASS ROUTE

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

INSPECTORS

1. Hunter
2. Daniel
3. Crutcher
4. Waller
5. Cey
6. _____

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

UNDERPASS LOC. NO. 19 - SR 6 - 7.99
 CO. RTE. L.M.

OTHER SIGNS OR PLAQUES _____

COMMENTS REGARDING ANY PROBLEM WITH SIGNING _____

BRIDGE FEATURES

BRIDGE SKEW 84° RT
 STRUCTURE TYPE WPG NO. SPANS 3
 MAIN SPAN MAIN TYPE
 STRUCTURE TYPE APPROACH SPAN NO. SPANS APPROACH TYPE
 MAXIMUM SPAN LENGTH 71.5 FT. TOTAL LENGTH 158 FT.
 WIDTH OF BRIDGE OUT-TO-OUT 42 FT. (RT. < TO L OF BRIDGE)
 WIDTH OF BRIDGE ALONG SKEW — FT. (IF UNABLE TO MEASURE AT RT. > TO L OF BRIDGE)
 NUMBER OF LANES/TRACKS ON BRIDGE 2

BRIDGE CONDITION

G (F) P C

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

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

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

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

MINIMUM PICTURES REQUIRED

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

SUMMARY
19-I40-18.31 RT
2-29-00

I40/SR 6
3 Span/W.P.G.

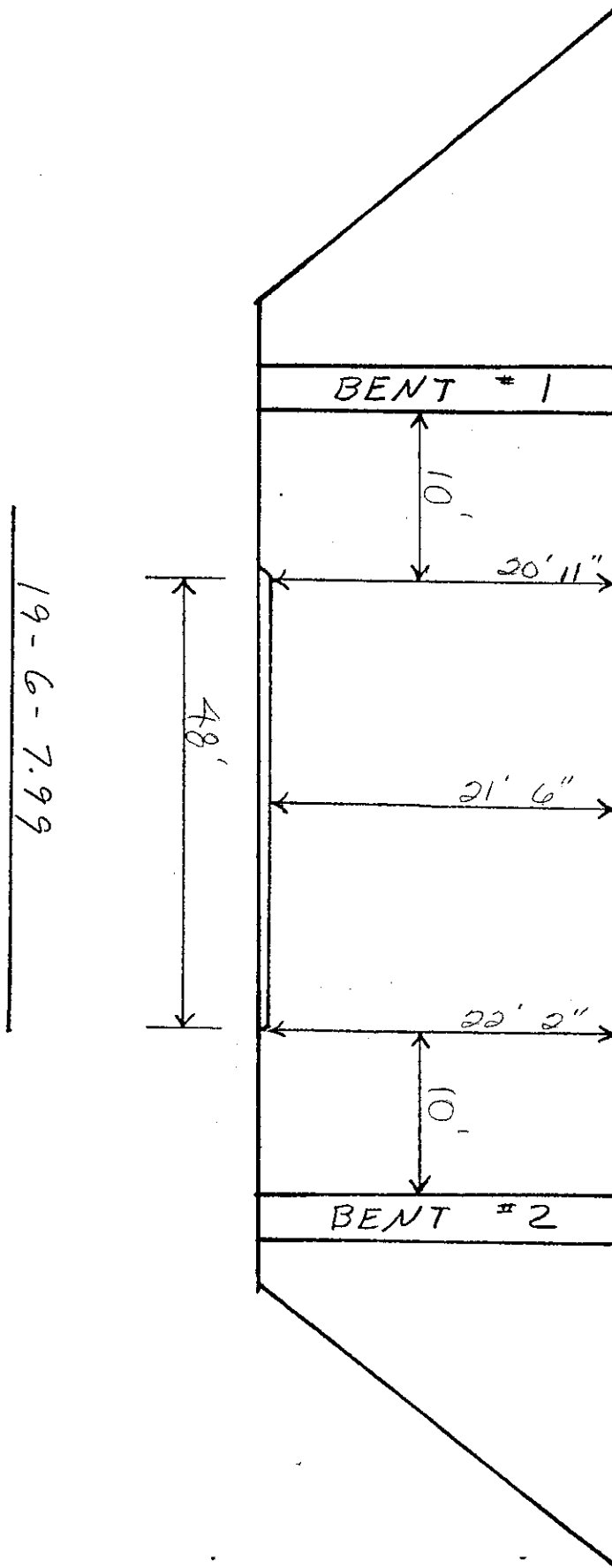
This bridge was inspected and found to be in good condition. Bridge alignment is good, along with the embankment. Approach pavement is fair due to breakouts and raveling at [A] end. Approach [B] has slight settlement with raveling. Drains are fair with a 2" settlement on the "A" end, left side. There is also erosion around the wings at this point due to the misalignment of the drains. Bridge railing and approach rails are standard type. Bridge railing is good. Approach guardrail has minor collision damage on the "A" end, left side.

Wearing surface is good with an asphalt overlay. Parapets have small collision damage breakouts on the top, right side. Expansion joints are paved over. Joint at [A] end is poor due to missing plate section. Joint leakage is good. Bottom deck is good. Superstructure elements are in good condition. Paint is peeling off of beams showing light corrosion. There was a small 2" deep breakout in bent #2, column, but good. Abutments are fair due to delamination on backwall. Bearings are fair on abutments due to moderate corrosion, flaking, and also impacted rust. Underpass pier protection is not in place. The minimum distance to the nearest bent is 9'.

Gilbert Wayne Hunter

10-22-01 RL
2-25-98 MD
AUG 08 1991

5-18-93 MD
3-27-96 MD
12-1-03 JW



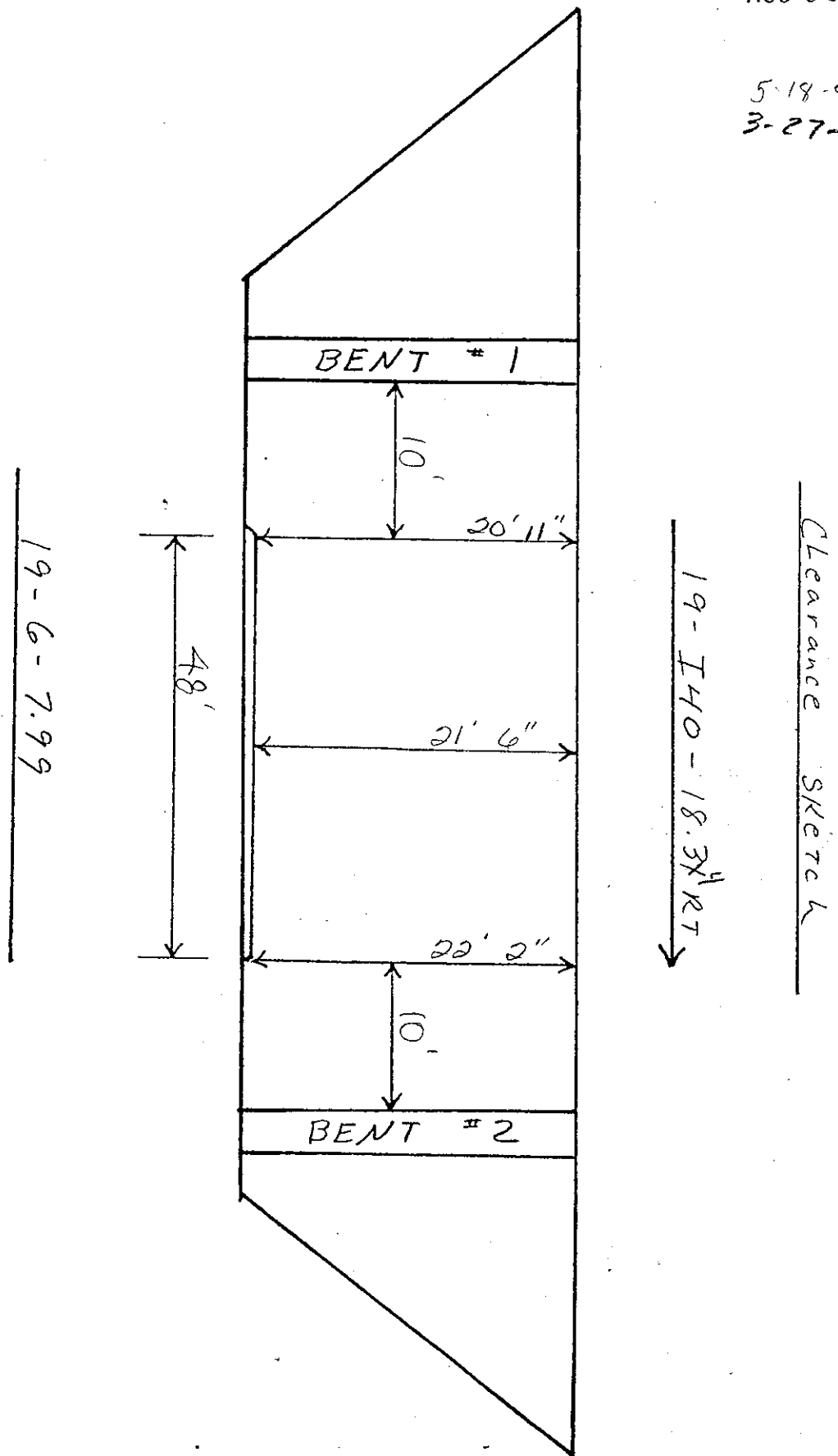
Clearance Sketch

19-I40-18.3xRT

19-6-7.99

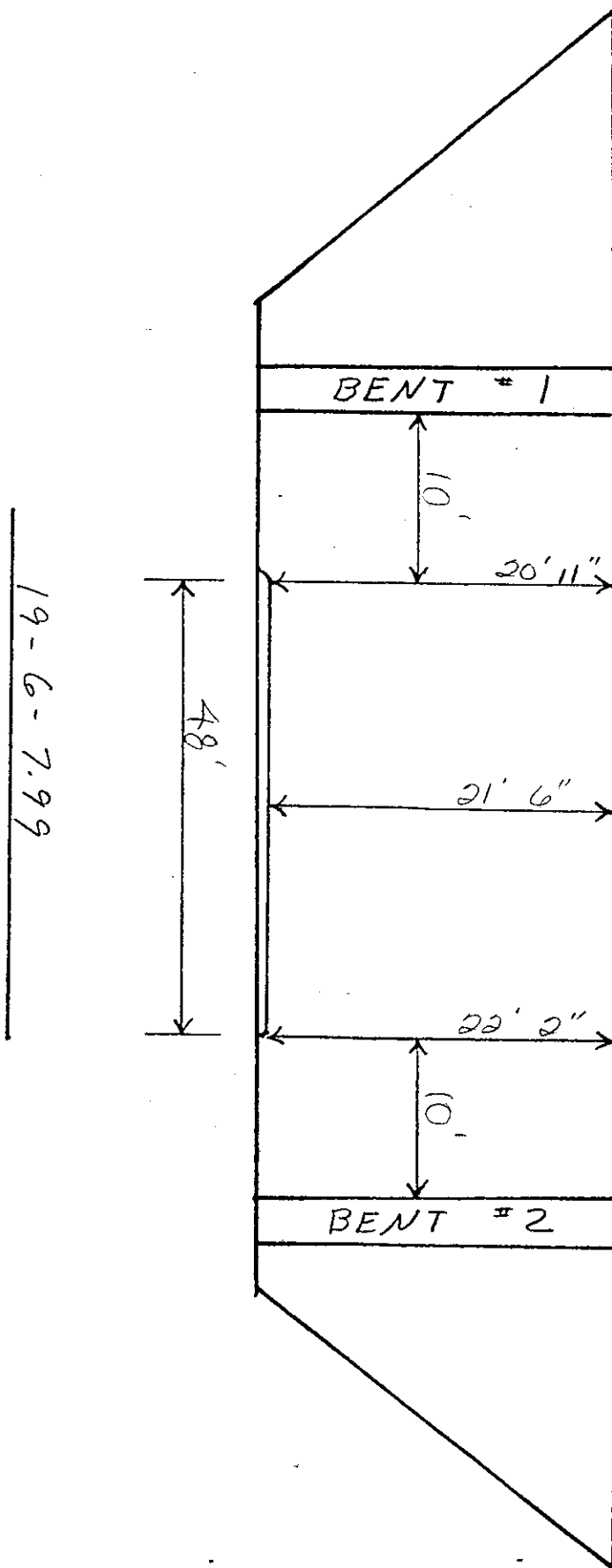
10-22-01 RL
2-25-98 MD
AUG 08 1991

5-18-93 MD
3-27-96 MD



2-25-98MD
AUG 08 1991

5-18-93 "D"
3-27-96 JH



Clearance Sketch

19-I40-18.3/RT

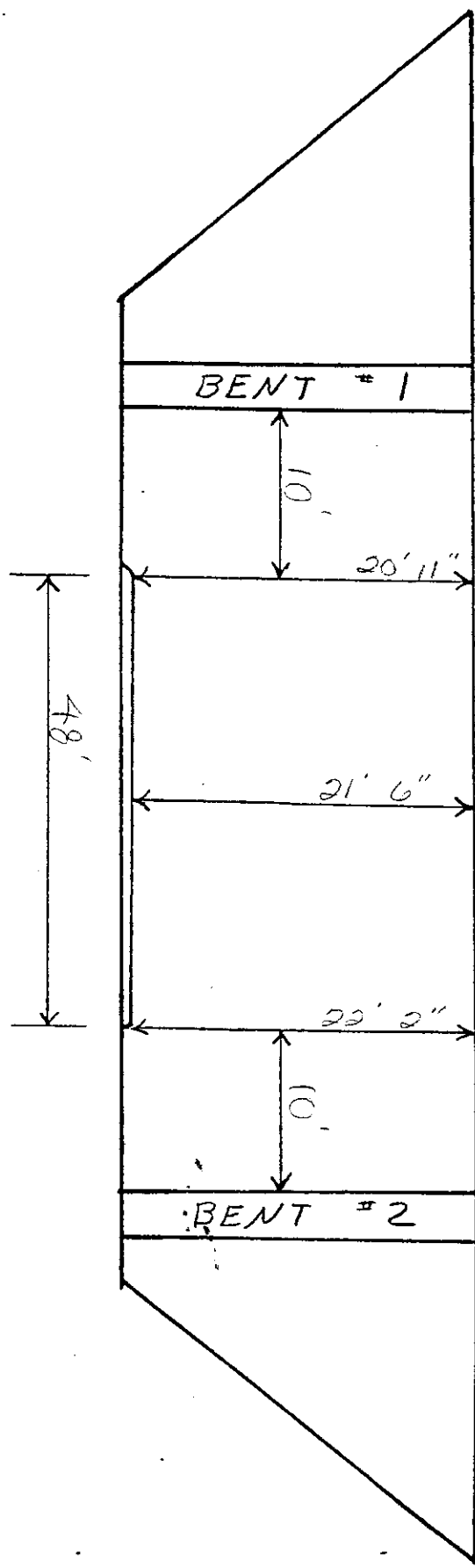
2-25-98MD

AUG 08 1991

5 18.93 MD

3-27-96MD

19-6-7.99



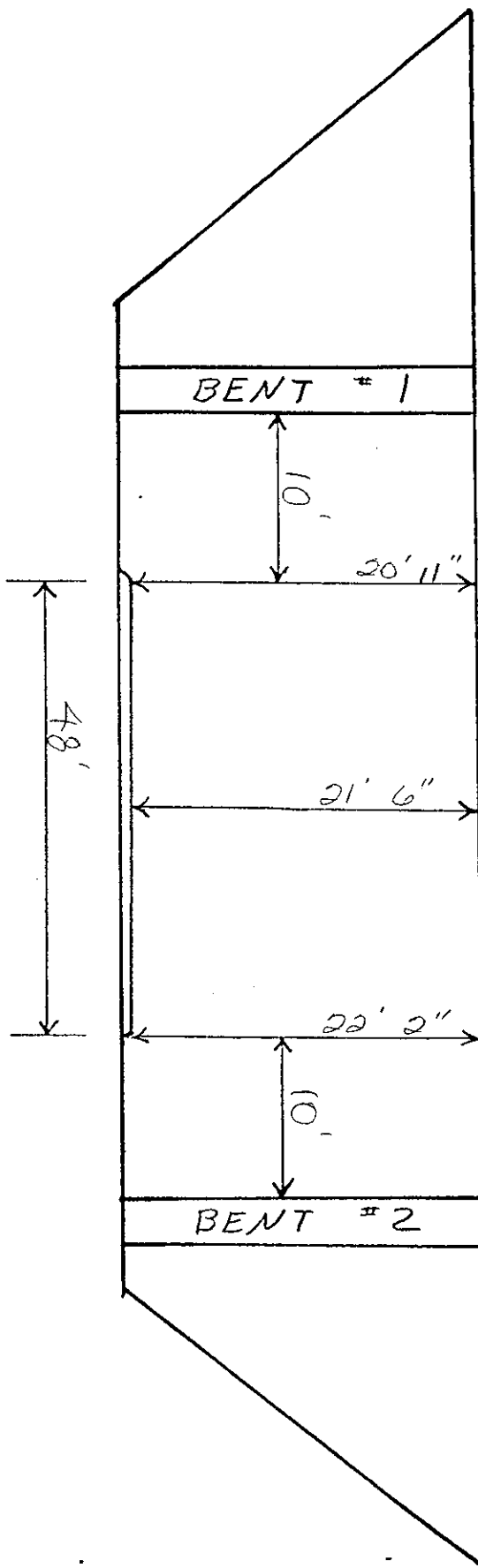
19-I40-18.3/RT

Clearance Sketch

AUG 08 1991

Clearance Sketch

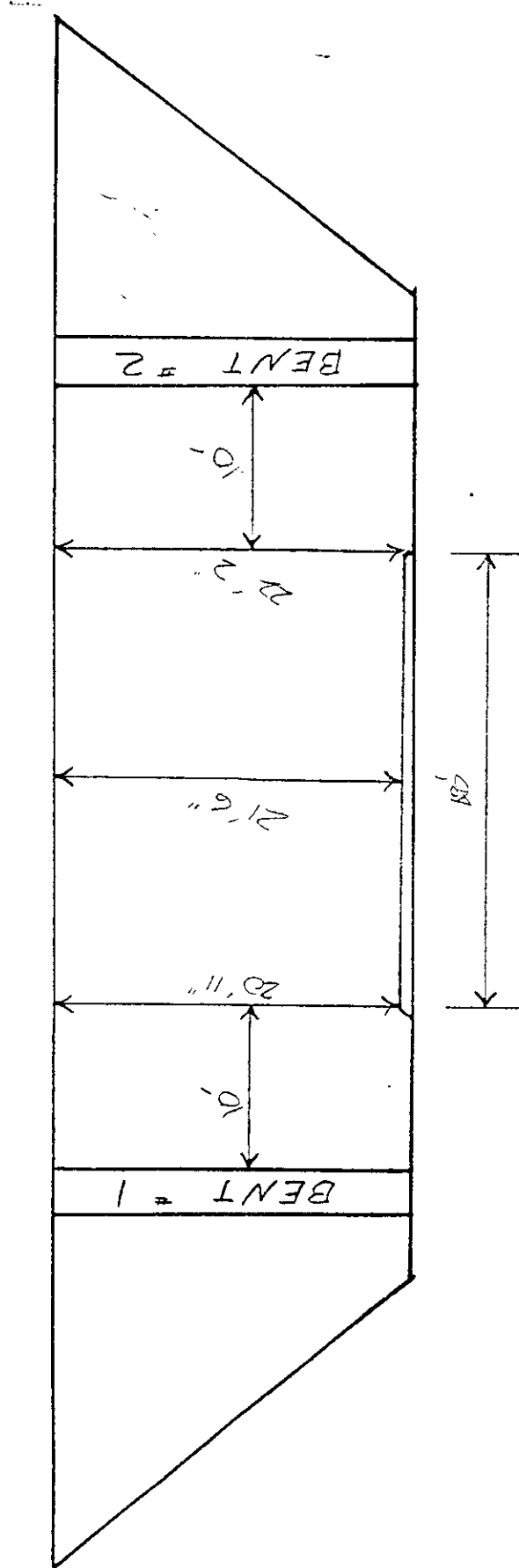
19-I40-18.3/RT →



19-6-7.99

Clearance sketch

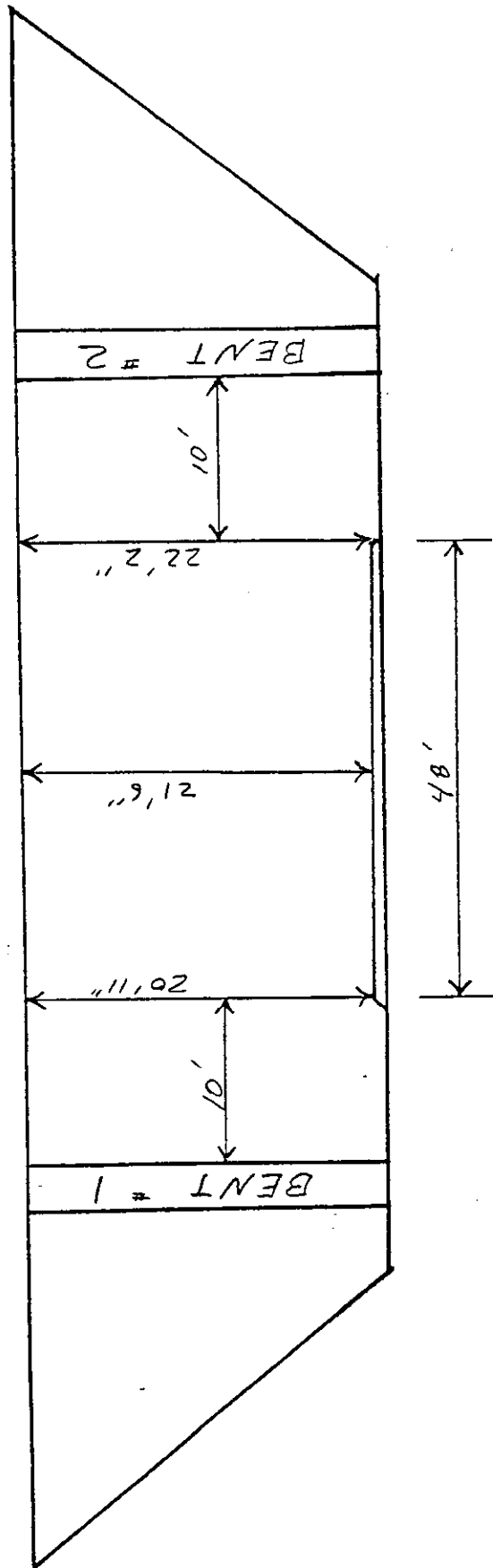
19-I40-18.31 RT



19-6-7.99

JUN 01 1987

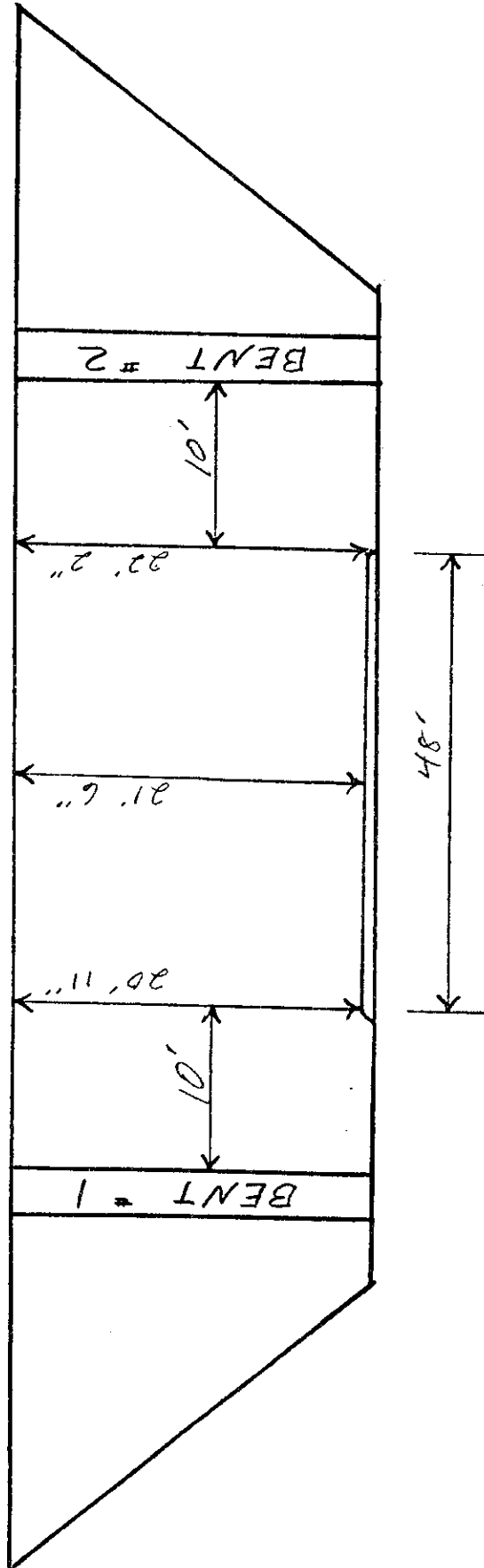
19-I40-18.31 RT



19-6-7.99

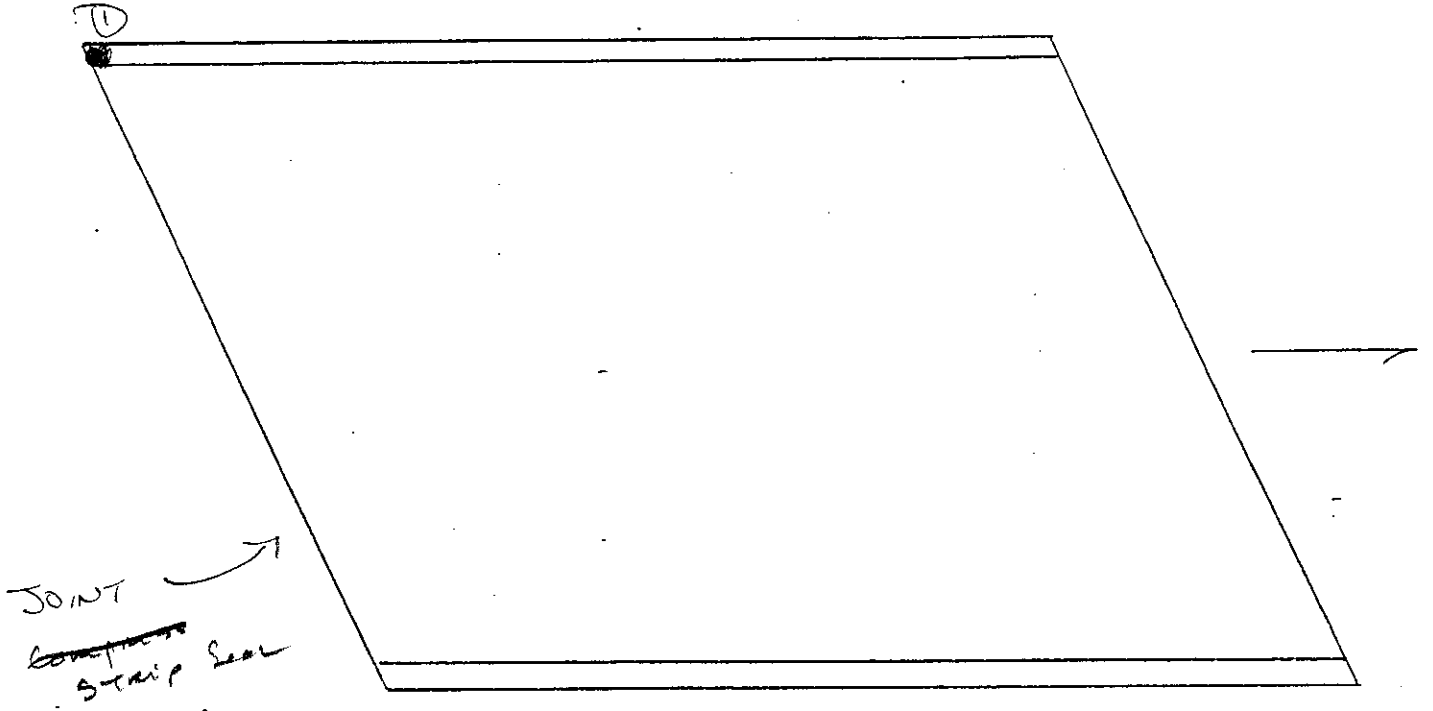
AUG 19 1985

19-I40-18.31 RT.



19-G-7.99

2-29-00MD
10-22-01KHE
12.1.03JW

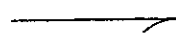


Top Slab = 1

Br. ^{II} 19-I40-18.3X⁴ Rt.

Deck	N/V	AC wearing surface is good
Parapet	Good	
	F	① B.O.W/EXP ST 1.3' H X 1' W X 6" Dp & Substandard
Joints	poor	paved over / approach asphalt is raveling @ joint
	F	LGT-MOD DEGRS BUILDING - NEW ^{Grp} GRP SEAL
Rails	Good	

12.1.03 مل



Top Slab ± 2

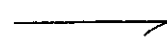
Br. II 19-I40-18.3⁴X Rt.

Deck	N/A	
Parapet	Good	
	F	IN-PLACE G.O.'S, MOD PITTING
Joints	N/A	
Rails	Good	

2-29-00#1

10-22-01 KHE

12.1.03 JW



Top Slab ± 3

Br. ^{II} 19-I40-18.3X⁴ Rt

Deck	N/V	AC overlay is good
Parapet	B F	IN-PLACE B.O.'S, MOD PITTING
Joints	G	
Rails	G	

X

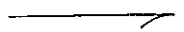
A hand-drawn diagram of a parallelogram. A horizontal line is drawn near the top edge. The top-left vertex is labeled 'D' in a circle. An arrow points to the left side of the parallelogram with the label 'INT'.

Br. II 19-I40-18.3X⁴ Rt.



α-69-00MD

10-22-01 KHE

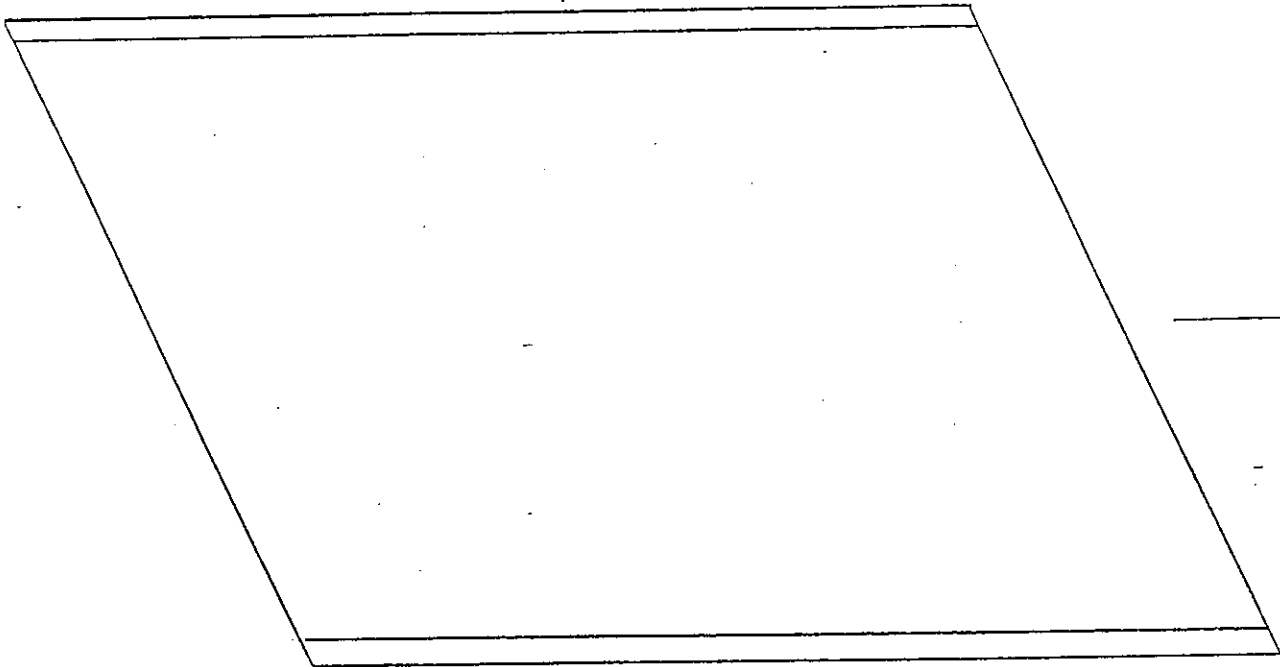


Top Slab #2

Br. # 19-I40-18.3⁴X Rt.

Deck	N/A	
Parapet	Good	
	F	IN-PLACE B.O.'S, MOD PITTING
Joints	N/A	
Rails	Good	

Br. ^{II} 19-I40-18.3X⁴ Rt



TOP Slab #1

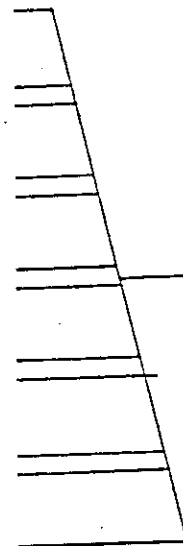
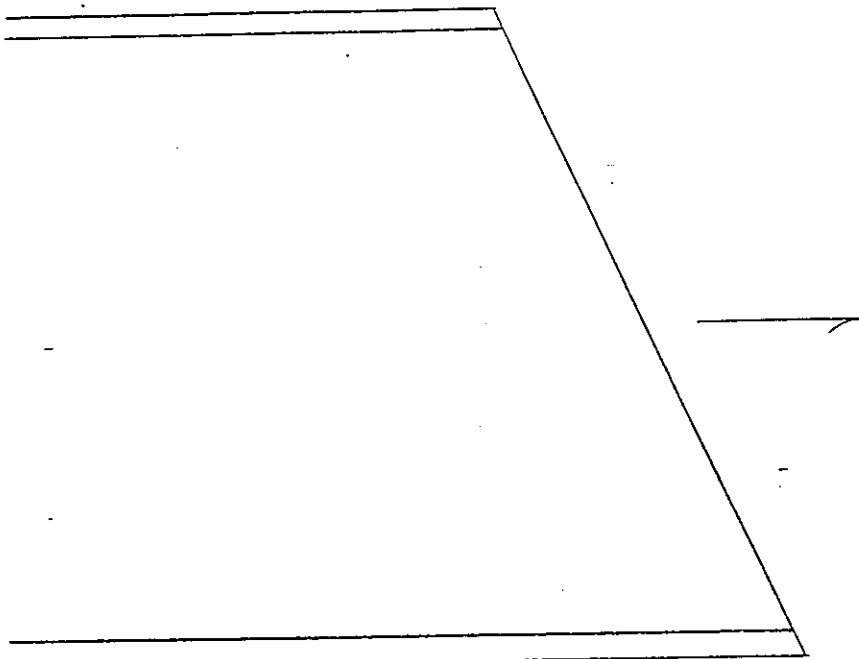
Br. # 19-140-18.31 Rt.

CHK	NIV	AC wearing surface is good
-----	-----	----------------------------

apet	Good
------	------

NTS	Poor paved over / approach asphalt is raveling @ joint
-----	--

S	Good
---	------



-18.31 RT_{op}

RT_{mp}

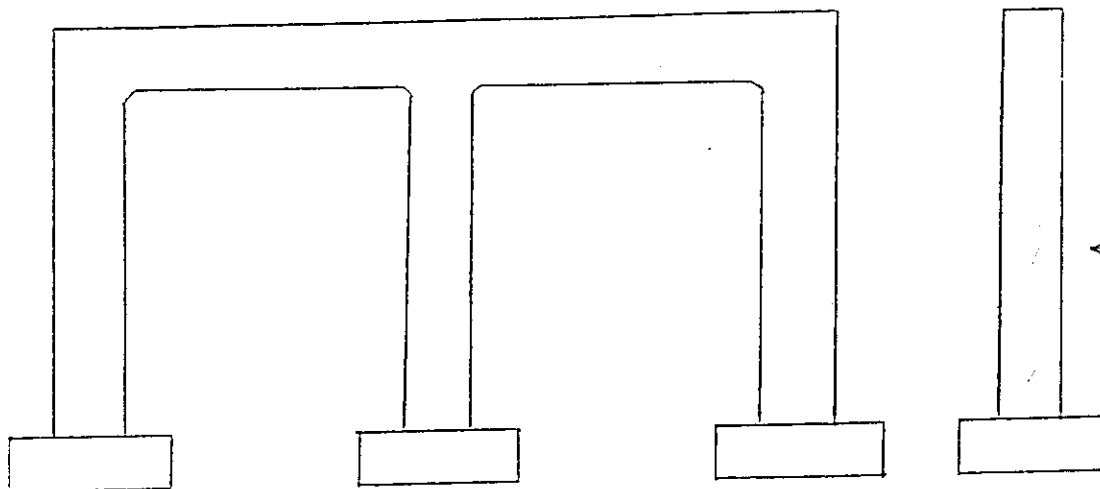
Br. # 19-I40-18.31 Rt

s good

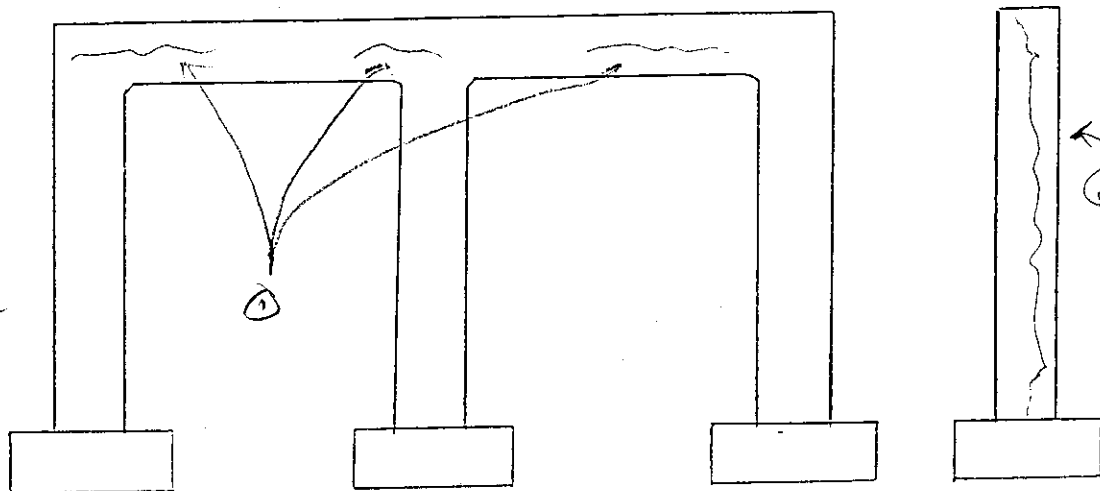
Br. = 19-I40-18.31 RT

BACK		
Wall	F	SCRE / RANDOM MAP CRACKING
CAP	G	
wings	G	
Bearings	P	$\frac{1}{16} - \frac{1}{4}$ " VERTICAL MOVEMENT BEARING TO BLIPPING PAD @ BEAM A

FRONT



BACK



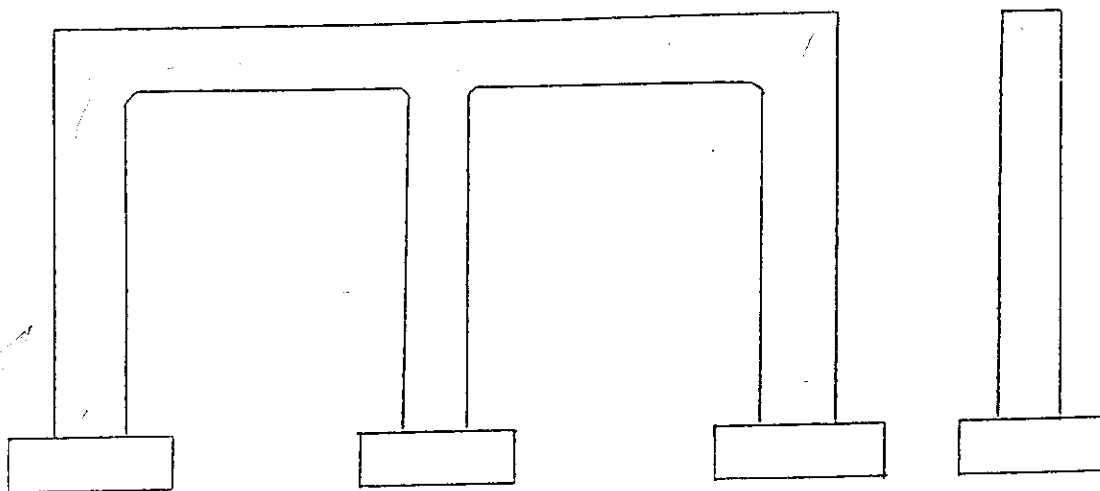
Bent = 1 @

Br. = 19-I40-18.31 RT

CAP	G	HORIZONTAL HAIR CRACK
Column	G	VERTICAL HAIR CRACK ALL COLUMNS / FULL LENGTH
Footings	NV	
Bearings	G	

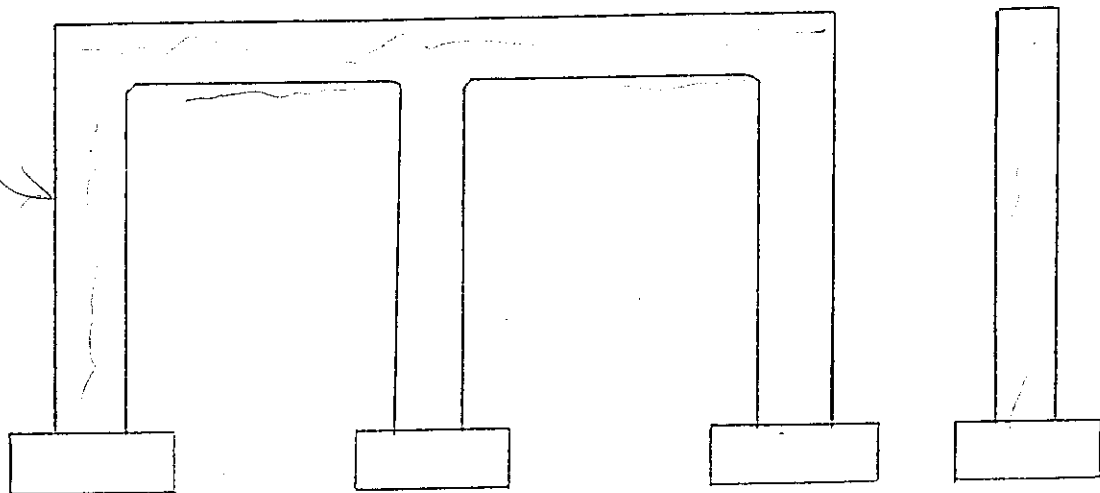
2-21-00
D

BACK



FRONT

①



Bent = 2

Br. = 19-I40-18.31 RT

CAP	G	① RANDOM HAIR CRACKS
Column	G	
Footing	NV	
Bearings	G	

Br. = 19-140-18.31 25

BACK

wait

G

SCALE / LEACHING

CAP

G

WINGS

G

Bearings

6



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE INSPECTION AND REPAIR OFFICE
NASHVILLE, TENNESSEE 37243-0338

March 10, 2000

Mr. Rick Pack
Program Scheduling Section
Suite 600, J.K. Polk Bldg.
Nashville, Tn. 37243

Re: Bridge Repair Project - In House
Const. No. 19958-4190-04
P.E. No. 19958-4126-04
Bridge No. 19-I40(EBL)-18.31
Bridge No. 19-I40(Ramp)-18.31
Bridge No. 19-I40(EBL)-18.36
Bridge No. 19-I40(EBL)-18.44
Bridge No. 19-I40(WBL)-18.55
Bridge No. 19-I40(EBL)-18.55
Bridge No. 19-I40(WBL)-18.67
Bridge No. 19-I40(EBL)-18.67
Davidson County

Dear Mr. Pack:

We would like to remove this project from the May 12th, 2000 letting. We will notify you when we plan to re-schedule for a future letting.

If you have any questions please call Terry Mackie at 741-6048.

Yours very truly,

Terry D. Mackie

(for)

Hollis Tackitt
Civil Engineering Manager II
Bridge Inspection and Repair

TDM:tdm

cc: Mr. Terry Leatherwood ✓
File



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE INSPECTION AND REPAIR OFFICE
NASHVILLE, TENNESSEE 37243-0338

February 1, 2000

Mr. Rick Pack
Program Scheduling Section
Suite 600, J.K. Polk Bldg.
Nashville, Tn. 37243

Re: Bridge Repair Project - In House
Const. No. 19958-4190-04
P.E. No. 19958-4126-04
Bridge No. 19-I40(EBL)-18.31
Bridge No. 19-I40(Ramp)-18.31
Bridge No. 19-I40(EBL)-18.36
Bridge No. 19-I40(EBL)-18.44
Bridge No. 19-I40(WBL)-18.55
Bridge No. 19-I40(EBL)-18.55
Bridge No. 19-I40(WBL)-18.67
Bridge No. 19-I40(EBL)-18.67
Davidson County

Dear Mr. Pack:

We would like to request re-scheduling of the above referenced repair project. We would like to move this project to the May 12th, 2000 letting instead of the March 31st, 2000 letting.

If you have any questions please call Terry Mackie at 741-6048.

Yours very truly,

Terry D. Mackie

(for)

Hollis Tackitt

Civil Engineering Manager II

Bridge Inspection and Repair

TDM:tdm

cc: Mr. Terry Leatherwood ✓
File

*Rec'd
2-1-00
JES*



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE INSPECTION AND REPAIR OFFICE
NASHVILLE, TENNESSEE 37243-0338

July 14, 1999

Mr. Rick Pack
Program Scheduling Section
Suite 600, J.K. Polk Bldg.
Nashville, Tn. 37243

Re: Bridge Repair Project - In House
Const. No. 19958-4190-04
P.E. No. 19958-4126-04
Bridge No. 19-I40(EBL)-18.31
Bridge No. 19-I40(Ramp)-18.31
Bridge No. 19-I40(EBL)-18.36
Bridge No. 19-I40(EBL)-18.44
Bridge No. 19-I40(WBL)-18.55
Bridge No. 19-I40(EBL)-18.55
Bridge No. 19-I40(WBL)-18.67
Bridge No. 19-I40(EBL)-18.67
Davidson County

Dear Mr. Pack:

We would like to request re-scheduling of the above referenced repair project. We would like to move this project to the February, 2000 letting instead of the Sept. 3rd, 1999 letting.

If you have any questions please call Terry Mackie at 741-6048.

Yours very truly,

Terry D. Mackie
(for)

Hollis Tackitt
Civil Engineering Manager II
Bridge Inspection and Repair

TDM:tdm

cc: Mr. Terry Leatherwood
File



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE INSPECTION AND REPAIR OFFICE
NASHVILLE, TENNESSEE 37243-0338

June 22, 1999

Mr. Rick Pack
Program Scheduling Section
Suite 600, J.K. Polk Bldg.
Nashville, Tn. 37243

Re: Bridge Repair Project - In House
Const. No. 19958-4190-04
P.E. No. 19958-4126-04
Bridge No. 19-I40(EBL)-18.31
Bridge No. 19-I40(Ramp)-18.31
Bridge No. 19-I40(EBL)-18.36
Bridge No. 19-I40(EBL)-18.44
Bridge No. 19-I40(WBL)-18.55
Bridge No. 19-I40(EBL)-18.55
Bridge No. 19-I40(WBL)-18.67
Bridge No. 19-I40(EBL)-18.67
Davidson County

Dear Mr. Pack:

We request scheduling for the above referenced repair project for the Sept. 3rd, 1999 letting.

If you have any questions please call Terry Mackie at 741-6048.

Yours very truly,

A handwritten signature in cursive script that reads "Terry D. Mackie".

(for)

Hollis Tackitt
Civil Engineering Manager II
Bridge Inspection and Repair

TDM:tdm

cc: Mr. Terry Leatherwood ✓
Mr. Tom Quinn
File

November 14, 1989

which
Briggs

Contract No. 7576
Project No. 19-946-4120-04
Reference No. same
County: Davidson

Please be advised that the above project was completed 11-4-89. The final records will be submitted on or before 12-4-89. The history of the project is as follows:

Length: 0.00 Miles

Contract Amount: \$164,799.94

Proposal Received: 5-5-89

Contract Time: on/before 11-30-89 S

Notice of Award: 5-17-89

Time Began: 6-29-89

Contract Executed: 6-9-89

Work Began: 7-18-89

Contract Accepted: 6-15-89

Work Completed: 11-4-89

Contract Effective: 6-29-89

Time Consumed: 129 cal. Days

Contractor: Kazanas Industrial Maintenance

Surety: Contractor's Bonding & Insurance Co.

Civil Engineering Supervisor 1: Joe Epley

You are requested to advertise this project for final settlement.

Yours truly,

L H Estep

Loyd H. Estep

C. E. Spec. III (Construction)

c: State Mtls. & Test Division

Mr. N. E. Christianson

Comm. Dept. of Labor

Mr. Don Hailey

Mr. Clarence Elkins

Mr. Larry Ahleit

Mr. Bill Wilson

Mr. Alvin Zager

Dept. of Employment Security

Mr. Jim Norris

Contractor

Surety

Engineering Director

Materials Engineer

Utilities Engineer

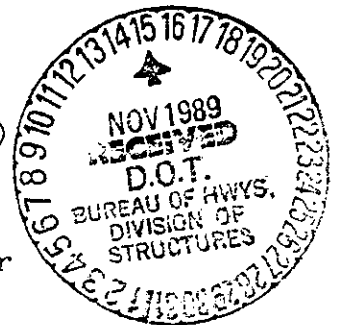
Mr. Ed Wasserman

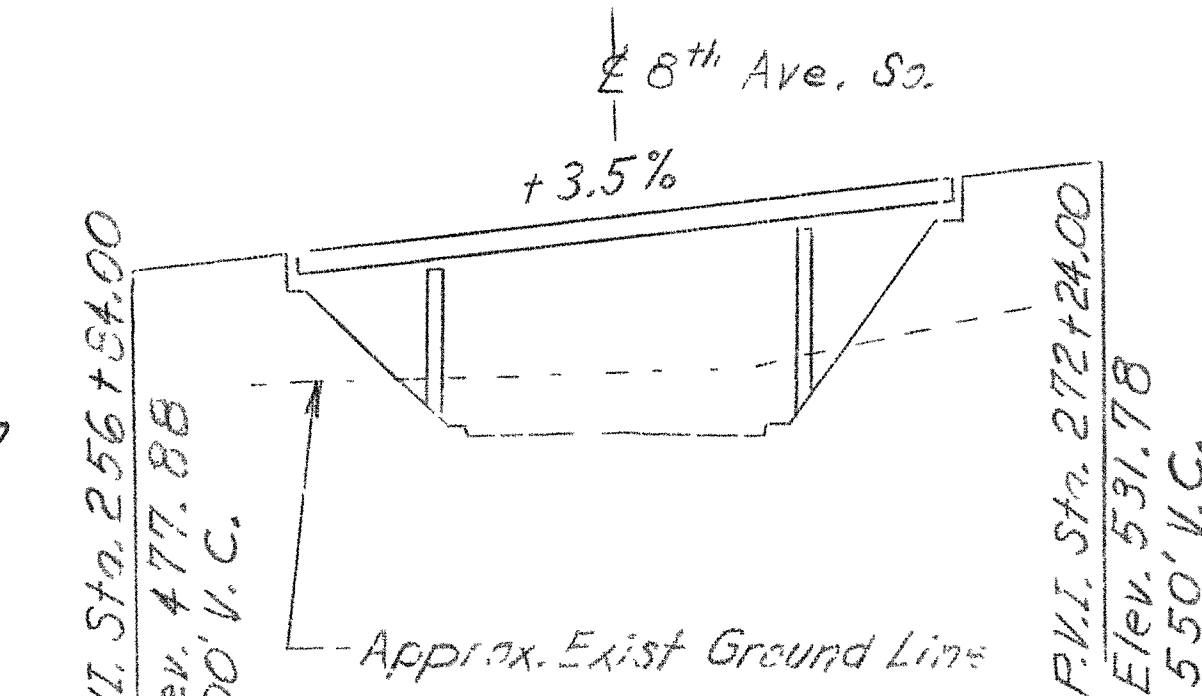
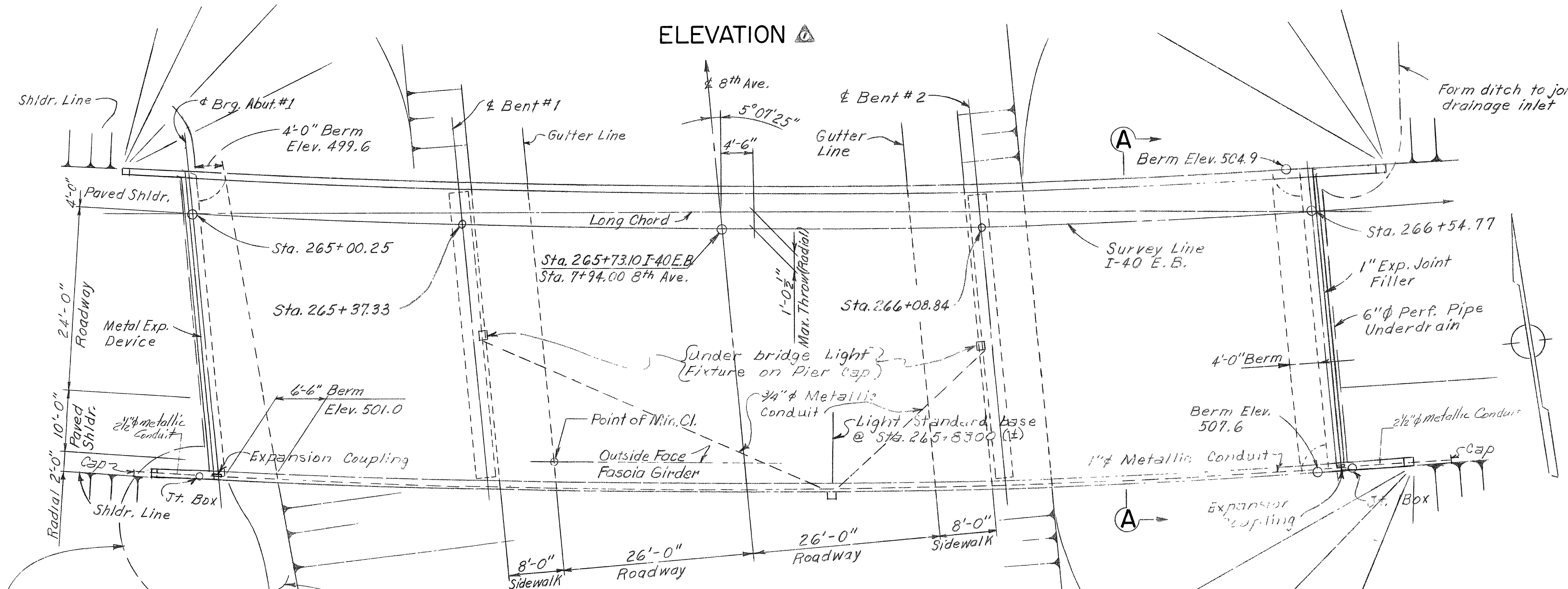
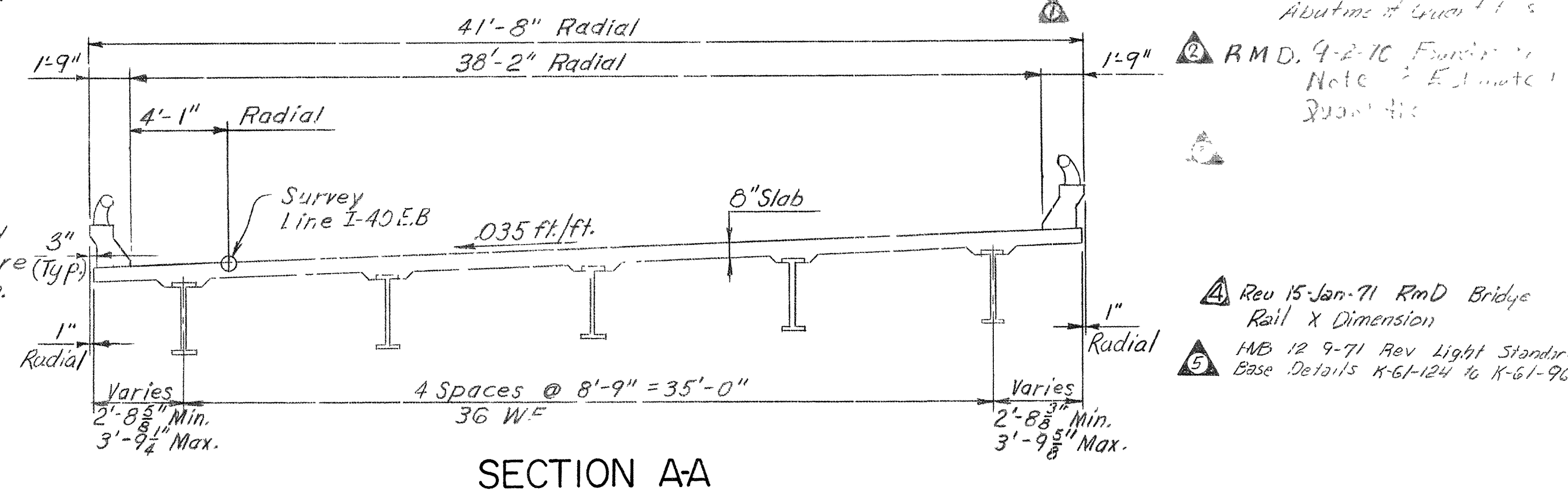
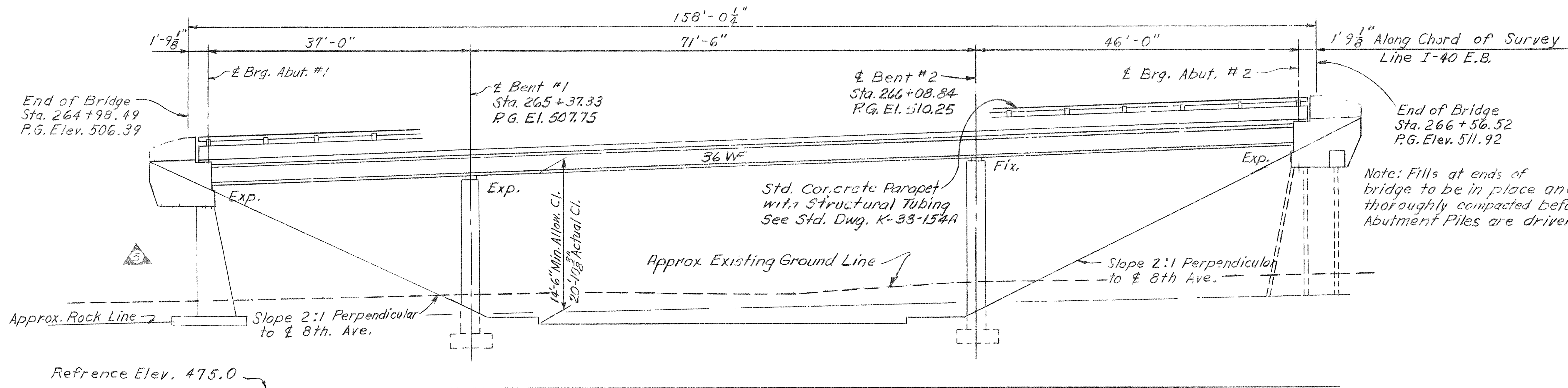
Harris Tucker

Civil Engineering Supervisor 1

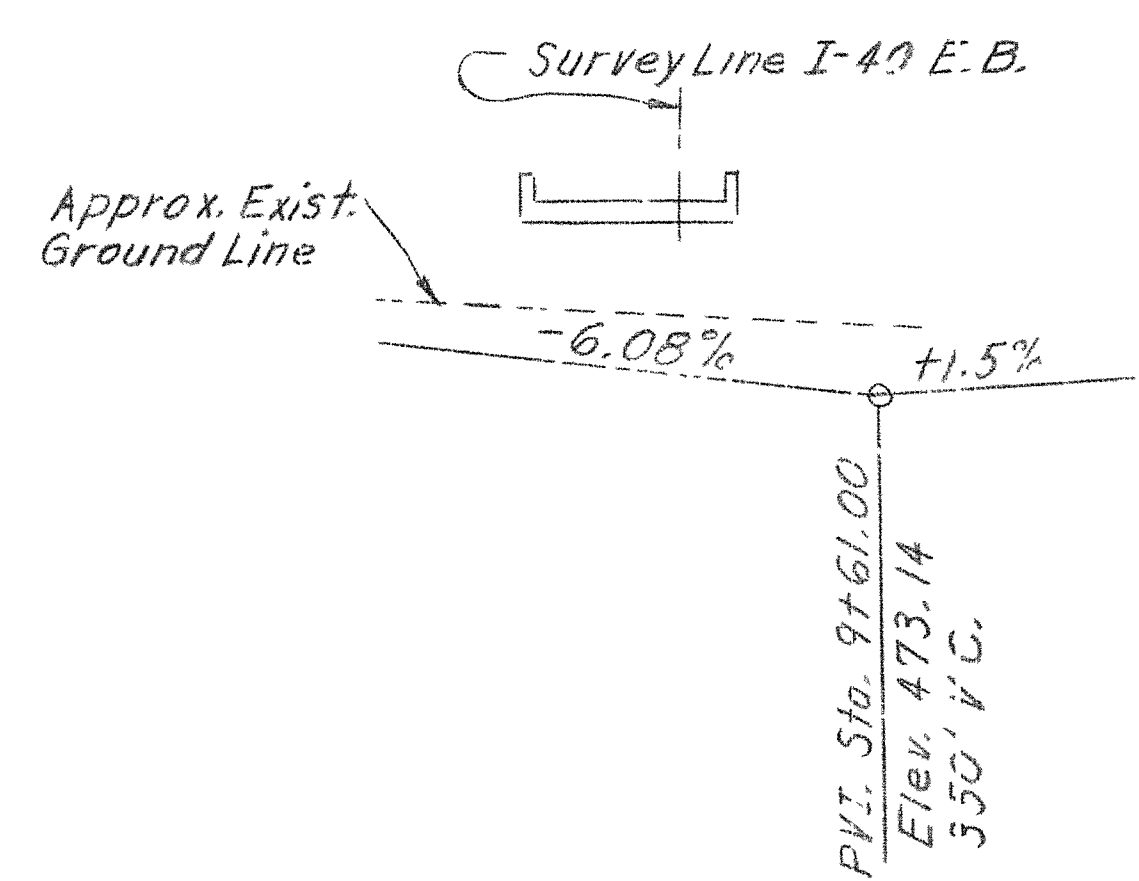
District Engineer: Johnny Woosley

Ben Teague (Bridge Inspection)

[illegible]



I-40 E.B. PROFILE



8TH AVE. PROFILE

BRIDGERAIL NOTE

Use Standard Concrete Parapet with Structural Tubing Railing. See Standard Dwg. K-33-154A.
 North Side: N=16 L=9'-7" X=1'-1 1/2"
 South Side: N=16 L=9'-7" X=1'-2 1/2"
 Dimension shown are measured along centerline of base plate.

GENERAL NOTES

SPECIFICATIONS: Standard Road and Bridge Specifications of the Tennessee Department of Highways (1968 Edition).
DESIGN SPECIFICATIONS: 1969 Edition of A.A.S.H.O. Standard Specifications for Highway Bridges (with addenda).
LOADING: HS-20-44 & Alternate Military CONCRETE: To be Class A' f'c = 3000 psi see special provision regarding finishing concrete surface.
STEEL STRUCTURE: See Tennessee Standard Specifications Section 602 & notes on Dwg. No. K-61-38.
SHOP INSPECTION OF STEEL STRUCTURES: The contractor, as soon as he receives his work orders, shall notify the Bridge Engineer, in writing, who will supply the Structural Steel and the location of the plant where it is to be fabricated.
APPROVAL OF MATERIALS: No fabrication shall be started until the materials involved have been approved by the Tennessee Highway Division of Tests.
IDENTITY OF MAIN MATERIALS: Heat numbers on main material must be preserved or transferred during fabrication and shop painting so that they will be identifiable in the field.
WELDING: See Tenn. Std. Spec. Sec. 602.13 & notes on Dwg. K-61-38.
HIGH STRENGTH BOLTS: See Tennessee Standard Specification Section 602.12 & notes on Dwg. K-61-38.
RADIOGRAPHIC AND MAGNETIC PARTICLE INSPECTION: See Special Provisions regarding Welded Structures and notes on Dwg. K-61-38.
PAINT: System B-Silico Chromate. See Tennessee Standard Specification Section 603.
JOINT SEALER: See Special Provisions, Type II Class A' or B'.
REINFORCING STEEL: To be ASTM A615 Std. hoop detail as recommended by C.R.S.I. shall apply unless otherwise noted on Bill of Steel. Bending Dimensions shown are based on Grade 40.
PILES: To be 108P42 and driven to refusal or a min. brr. of 40 tons.

FOUNDATION NOTES

When the foundation for the Bents has been excavated, holes & test clear shall be drilled into rock at points designated by the Engineer.
 From the results obtained the Engineer shall determine the final footing elevation. No reinforcing steel for bent columns shall be ordered until footing elevation has been determined.
 Abutment Piles shall be driven to refusal on rock or a minimum bearing of 40 Tons.
 When excavating for rock foundations, rock shall be line drilled and pre-split. The contractor shall use extreme care so as not to excavate rock below elevations shown on plans. Any additional expense caused by undercutting rock below plans elevations shall be borne by the contractor. See Tennessee Highway Specs. 1968 Edition, Section 604.08, 604.09 & 604.10A.

LIST OF DRAWINGS

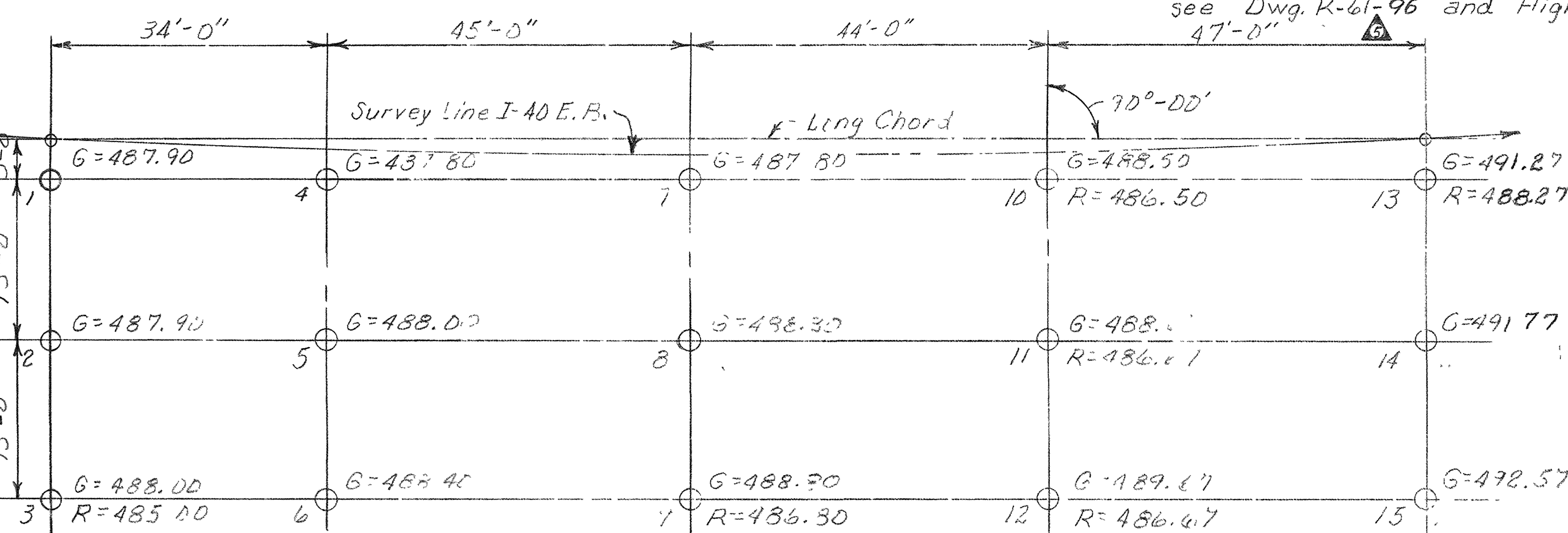
Layout of Bridge	Std. Dwg. K-61-36
Superstructure Details	Std. Dwg. K-61-37
Structural Steel Details	Std. Dwg. K-61-38
Abutment No 1 Details	Std. Dwg. K-61-39A
Abutment No 2 Details	Std. Dwg. K-61-40
Bent Details	Std. Dwg. K-61-41
Bill of Steel	Std. Dwg. K-61-42
Bridge Rail	Std. Dwg. K-33-154A
Roadway Expansion Device & Pile Splice Details	Std. Dwg. K-56-39
Light Standard Base Details	Std. Dwg. K-61-96
Standard Reinforcing Bar Support Details for Concrete Slabs	Std. Dwg. K-80-14

ESTIMATED QUANTITIES

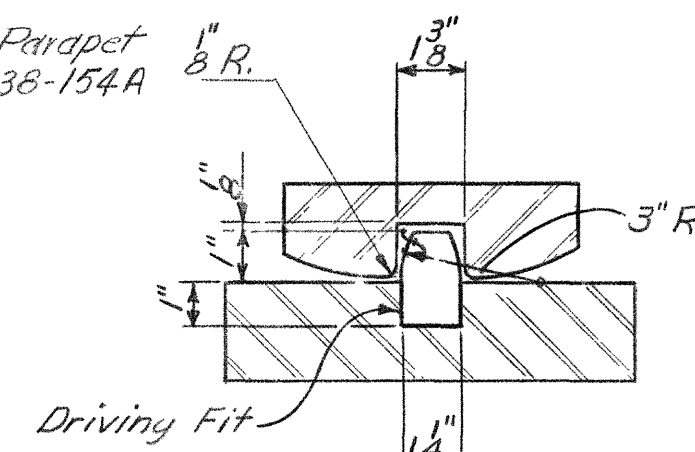
ITEM NO.	604-02.03	604-02.04	604-02.05	604-03.01	604-03.02	604-04.05	616-06	604-03.03	204-05	710-10	710-11	714-01
ITEM	Steel Files Lin. ft.	Encasement Yds.	Div. Yds.	Concrete Class "A" Cu. Yds.	Reinforcing Steel Lbs.	Steel Structures Lin. ft.	Bridgeway Treatment Sq. Yds.	Rock Drilling Lin. ft.	Rock Drilling Cu. ft.	Gravel 1/2" to 3/4" 100 cu. yd. bank	Gravel 3/4" to 1 1/2" 100 cu. yd. bank	Rdwy & St. Lighting
Superstructure				163.5	60,195		311	662				
Abutment #1		42	4	2.33	1,294			47		50	18	
Bent #1		5	31	5.77	3,251			18				
Bent #2		5	68	39.3	1,564			18				
Abutment #2	147			3	2,589			18		50	17	
Total	147	52	63	304.8	90,295	Lump Sum	311	957	36	100 **	35	** (warp corr.)

Total estimated weight of steel structures = 135,920 LBS. includes bearing devices, roadway expansion device, shear connectors, weld metal etc. For the bridge also see Tennessee Standard Specification Section 602.27 & 602.28.
 NOTE: The cost of 16 threaded steel inserts and 16 7/8" x 4" hex head bolts (A307) to be included in bridge items bid on.
 EXCAVATION: Based on Lower Road Profile. Bents and Existing Ground for Abutments.
 NOTE: Cost of polythene sheeting and all miscellaneous items necessary for installation to be included in cost of perforated O.M. pipe.
 NOTE: The cost of miscellaneous joint material to be included in bridge items bid on.

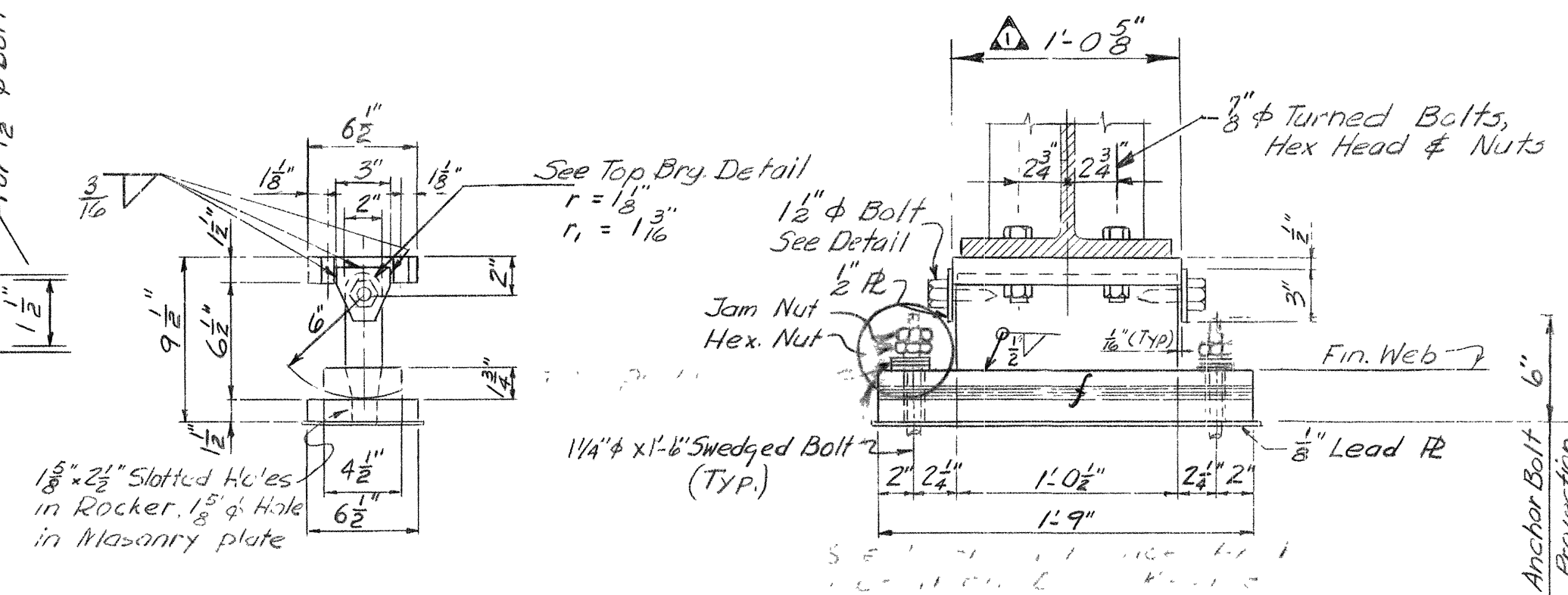
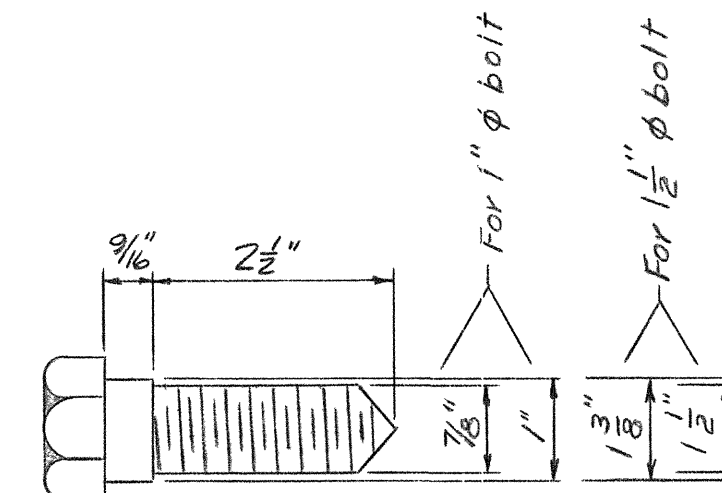
SOUNDING SKETCH



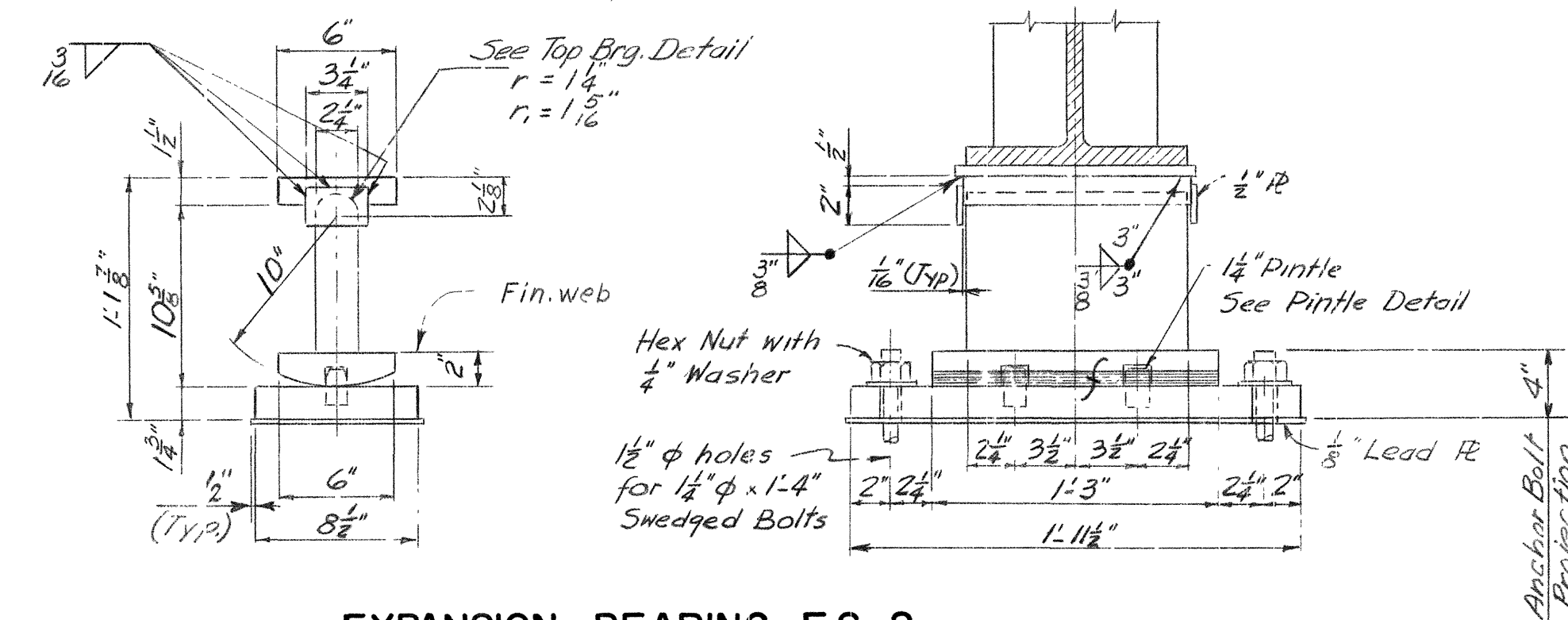
DESIGNED BY: C.H. DATE: 12-2-68
 DRAWN BY: F.R. DATE: Jan. 29
 TRACED BY: J.E.K. DATE: Jan. 29
 CHECKED BY: J.E.K. DATE: Jan. 29



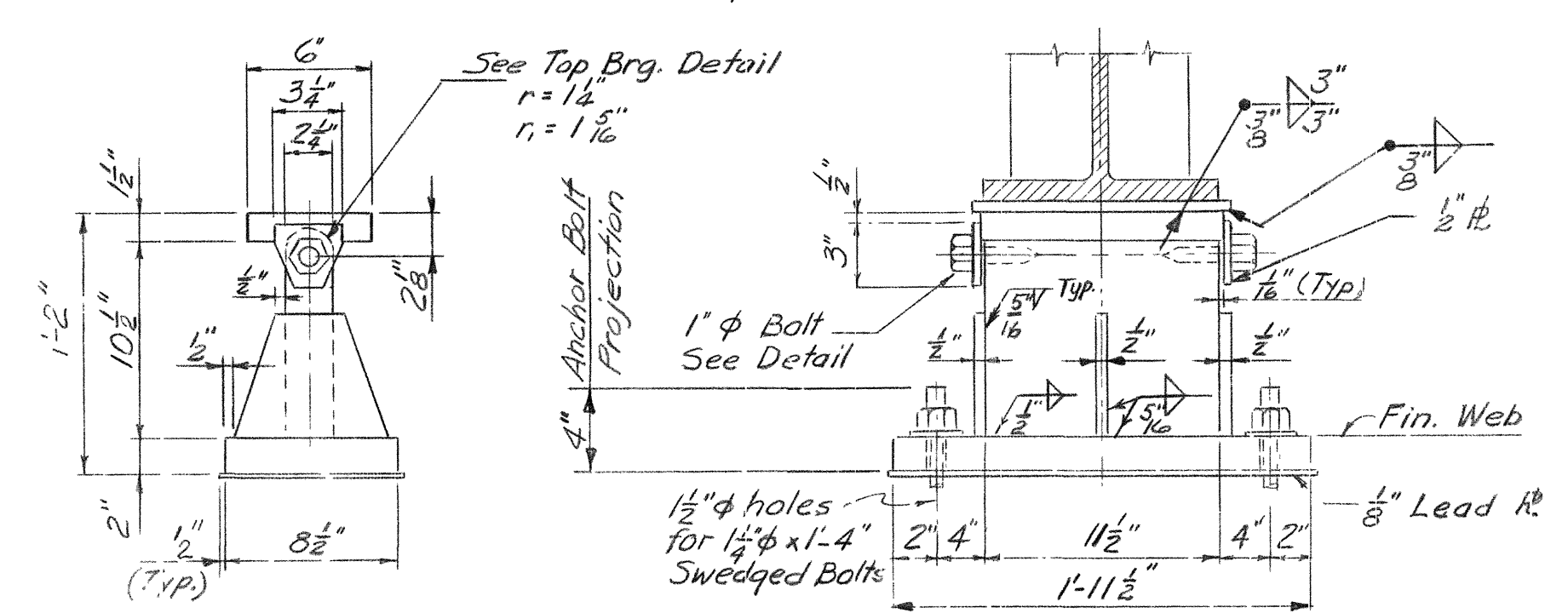
BOLT DETAIL.



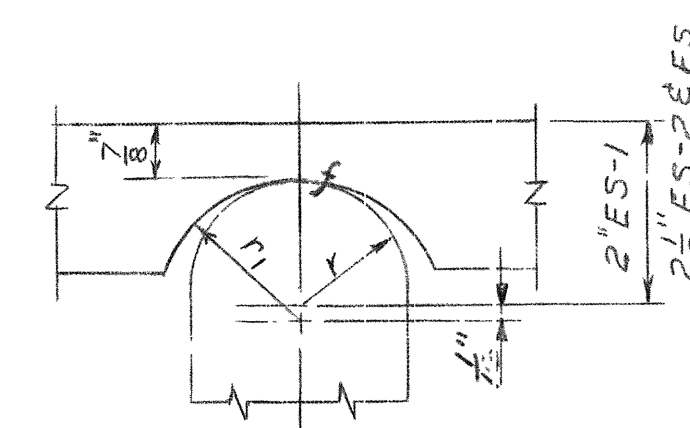
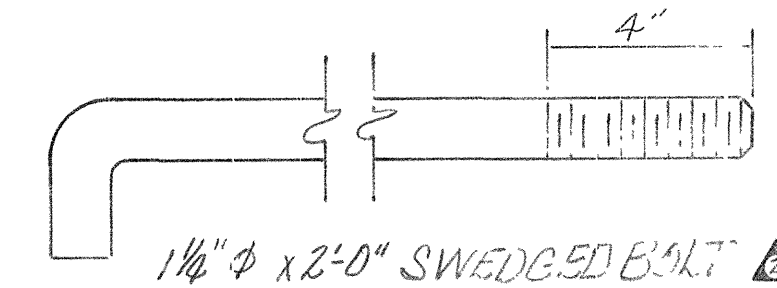
Abuts. only 10 Req'd



Bent #1 5 Reg'd

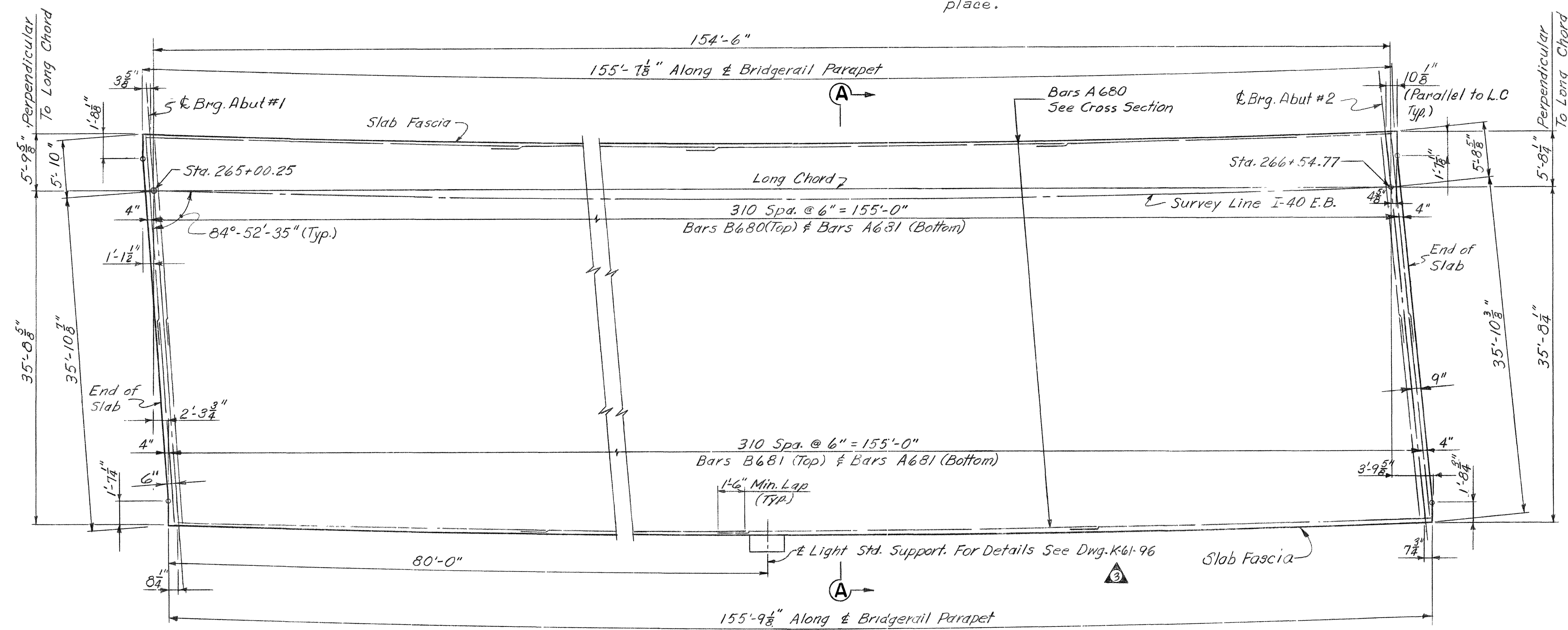


Bent #2 5 Reg'd.



NOTE: "f" denotes ASA125 Finish unless noted.

NOTES: When pouring slab provision shall be made for setting reinforcing steel for parapet. For location see Std. Bridgerail Dwg. K-38-154A. The concrete deck shall not be poured until all structural steel is erected and all welding or bolting complete. The outside edge of slab and parapet to conform to horizontal curve. No portion of the parapet shall be poured until entire slab is in place.



SLAB PLAN

Item	Concrete - Class "A" Cu. Yd.	Reinforcing Steel Lbs.
Superstructure	163.5	60,195

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

INTERSTATE 40 E.B. OVER 8TH AVE.

1970

APPROVED _____

K-61-37

① R.M.D. 9-2-70 Added Dimension
Section A'-A'

Structural Steel shall conform to ASTM-A36 except as noted.

Field Connections shall be $\frac{1}{2}$ " ϕ High Tensile Strength Bolts
ASTM-A325 unless otherwise shown. See AASHTO Specifications
Art. 2.10.20. All high strength bolted connections are friction type.

Welding and Radiographic Inspection: See AWS Current Specs. and Tennessee Standard Specification Section 402.13 The cost of Radiographic and Magnetic Particle Inspection is to be included in the price bid for structural steel.

Paint System B-Silico Chromate. See Tenn. Std. Spec. Section 603
No shop paint shall be applied to the top surfaces of the top
flanges or at any point of field welded or bolted connection.
Splices and other field connections shall be cleaned and primed
before forming slab.

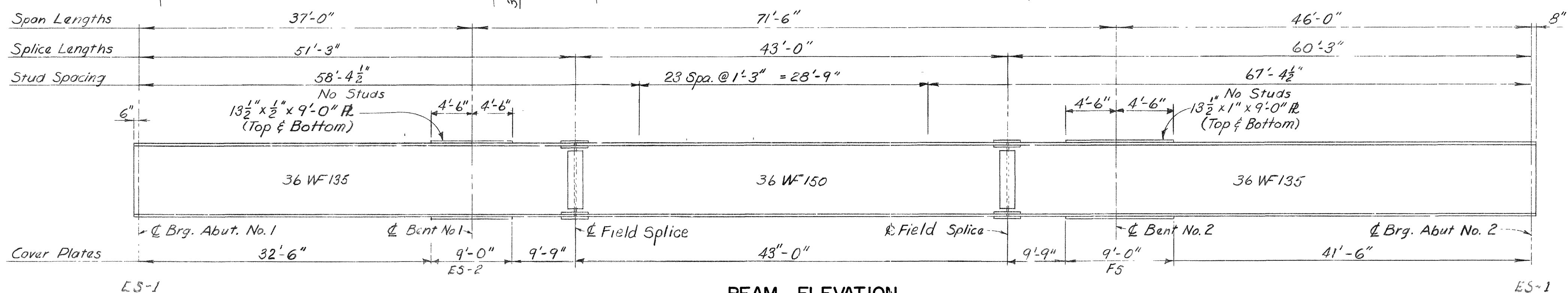
Camber: Beams shall be cambered to compensate for dead load deflection and vertical curve.

Dimensions shown are for a normal temperature of 70°F with dead load on the structure. Layout dimensions are horizontal dimensions.

Stud Shear Connectors: See Tennessee Standard Specifications
Section 602.14.

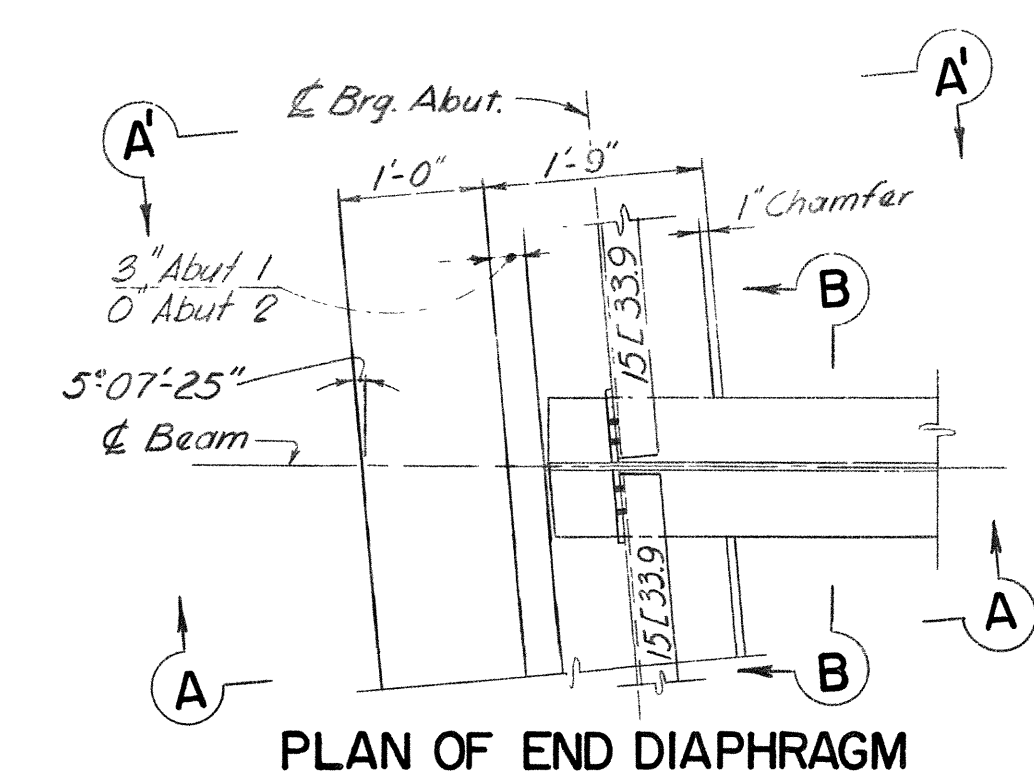
Approval of Material: No fabrication shall be started until material involved have been approved by the Tennessee Highway Division of Tests.

Additional Shop Splice Note: Shop splices necessary due to length or size of material involved may be located by the fabricator, subject to approval by the Engineer.

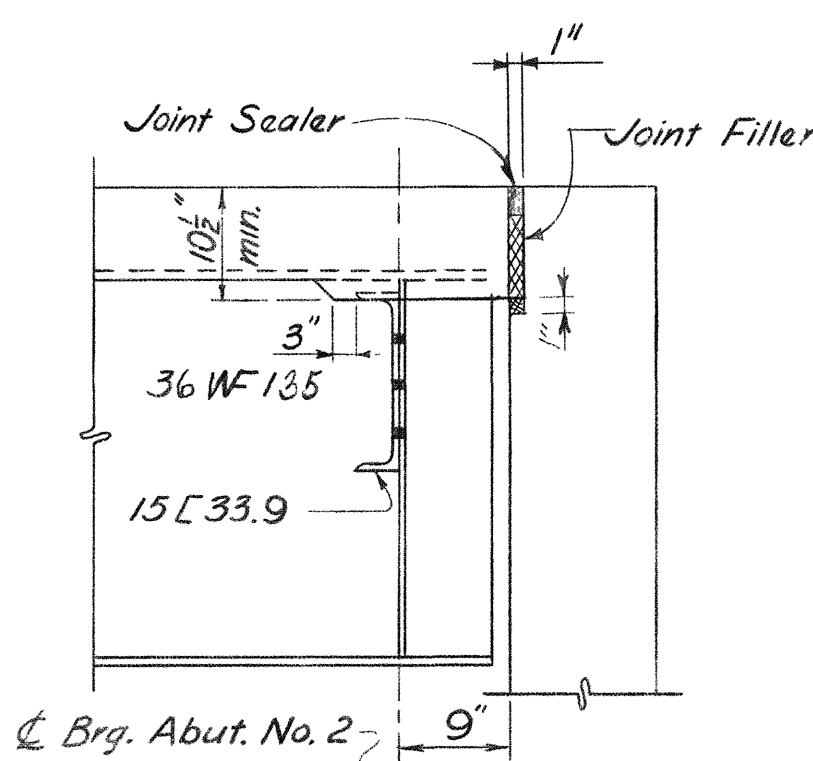


Note:
Ends of girders and bearing stiffeners to be vertical in final position under full dead load.

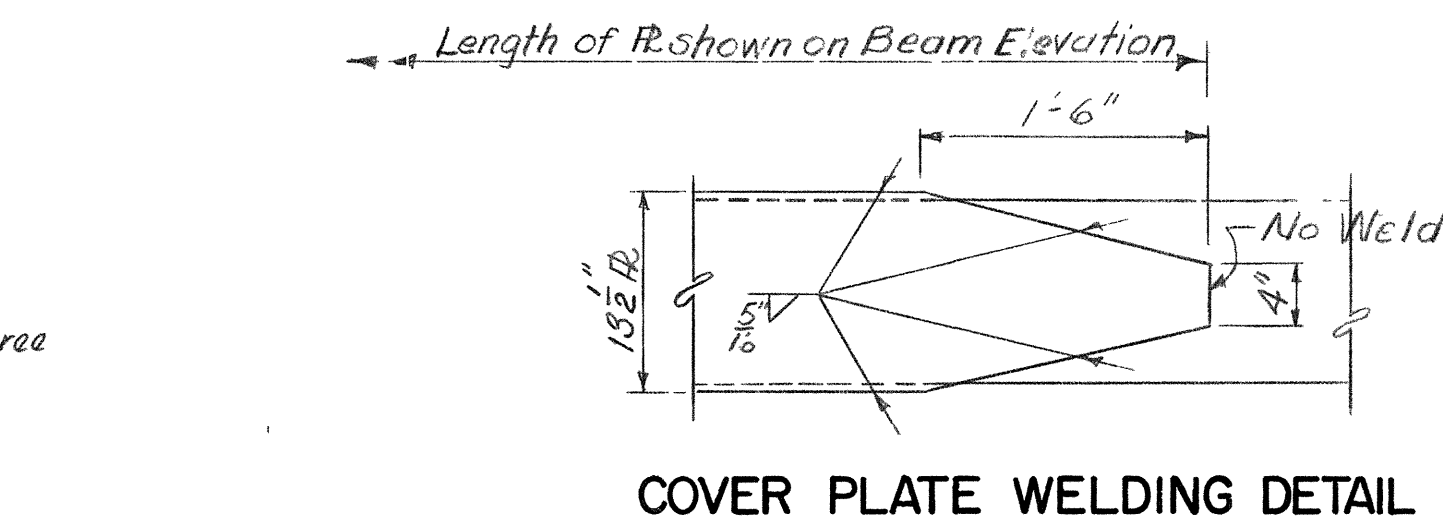
Same for all bears



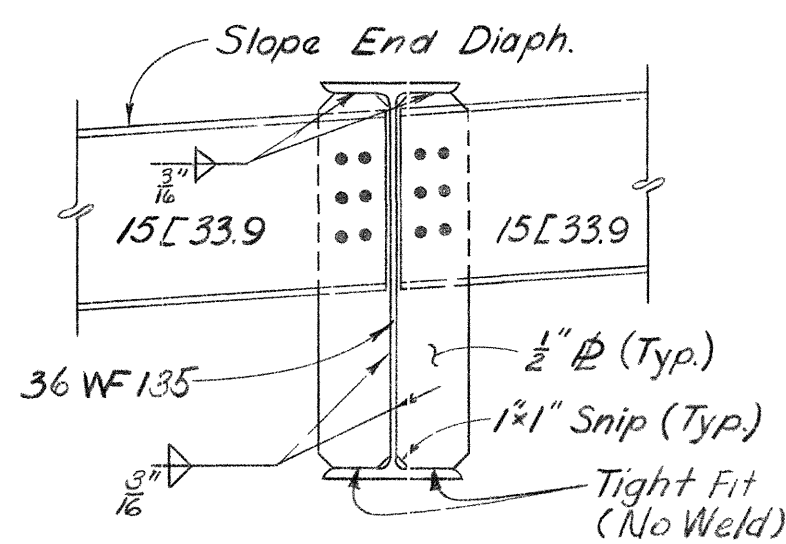
NOTE: Studs shall be placed in sets of three and spaced as shown on this sheet.



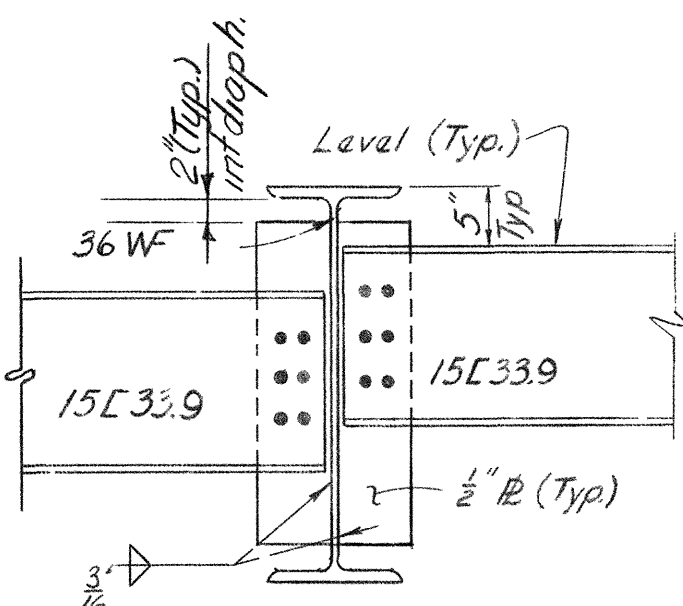
SECTION A'-A'



COVER PLATE WELDING DETAIL

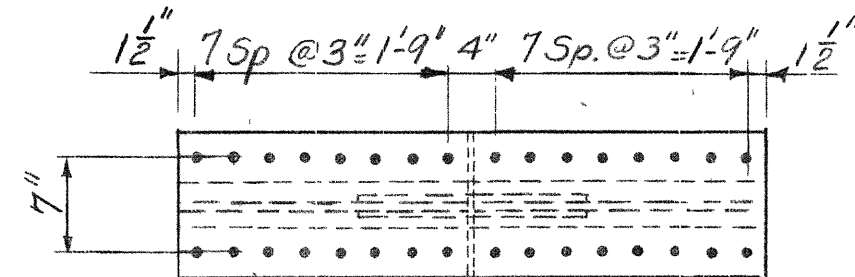


SECTION B-B



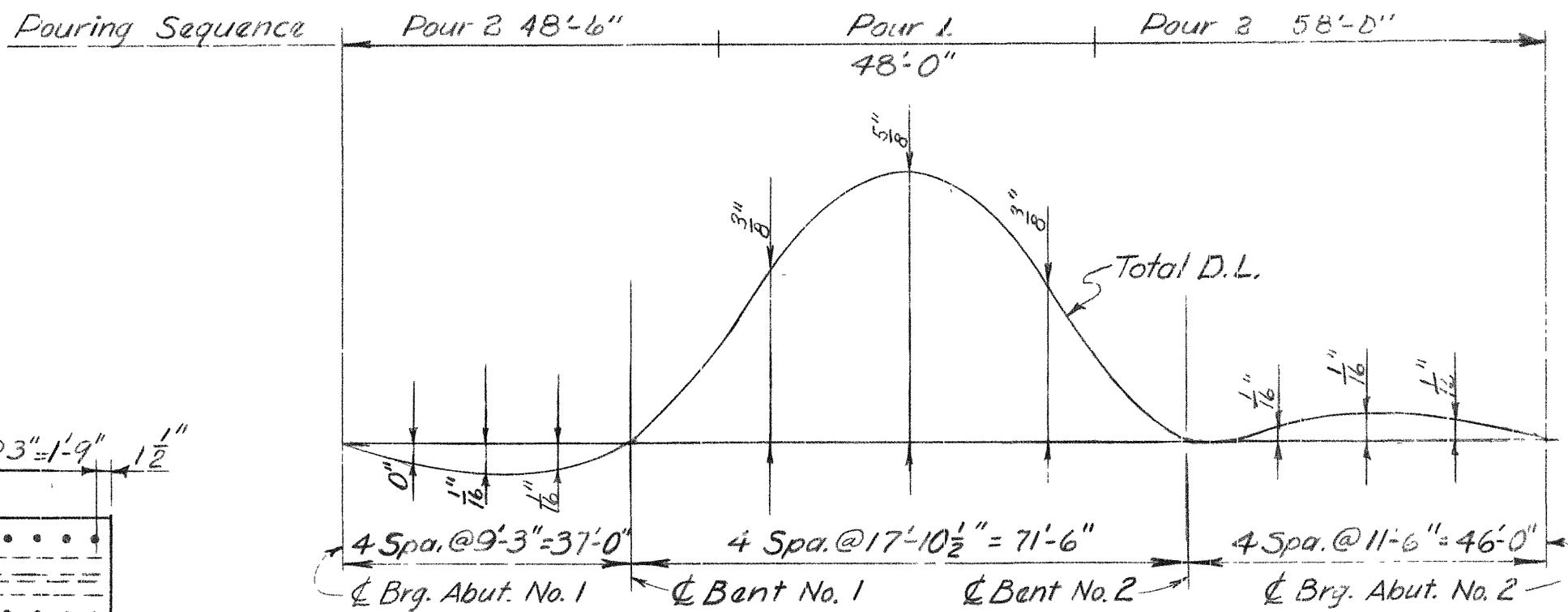
INTERMEDIATE DIAPHRAGM

Connection R's to be cut 2" Clear
of flange top & bottom.



SPLICE DETAIL

NOTE: Holes to be sub-punched or sub-drilled $\frac{1}{4}$ " smaller, reamed to size and match-marked while assembled in the snop.



DEAD LOAD CORRECTION & POURING SEQUENCE

Dead Load Correction Same for all Beams

All pours to be made in numerical sequence. Pours with the same number designation may be made simultaneously. Dimensions shown for pouring limits are on lines parallel to the Abutments & Bents.

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

STRUCTURAL STEEL DETAILS

INTERSTATE 40 E.B. OVER 8TH AVE.

STATION 265+73.10

DAVIDSON COUNTY

1970

APPROVED _____

BRIGHTON ENGINEERING COMPANY

K-61-38

DESIGNED BY J.C.D. DATE Mar. 66
DRAWN BY J.C.D. DATE Apr. 66
TRACED BY _____ DATE _____
CHECKED BY RWH DATE June '66

Note: For Details of
Roadway Exp. Device
See Divg. K-56-34

25 Spd @ 1'-6" - 37'-6"
Bars #502 Back Face, Bars #500 Pavmt Spt, Bars #501 Cap

Top of Backwall to
to Roadway Slope

Note: Top 12" of Backwall to be poured concurrently with end of Slab. Top of backwall shall conform to Roadway slope & grade.

11'-6"

Varies

20'0"

11'-6"

11'6" @ 9'5" 6" Bors Red Top & Bottom

Column Outline of Top Footing

11'6" @ 1'0" : 11'0" Bors A600 (Top & Bottom)

FOOTING PLAN

WING POST DETAIL

4 threaded steel inserts to
fit 1/8" x 4" Hex Head Bolt (R30W)
For additional details see Std
Dwg No RD-R-6R Cost to be in-
cluded in cost of bid items

CORRECT 4200 truck

APPROVED [Signature]
STATE HIGHWAY ENGINEER

K-61-39A

[illegible]

THREADED INSERTS

Step 1. Set & bolt to be cast in place.

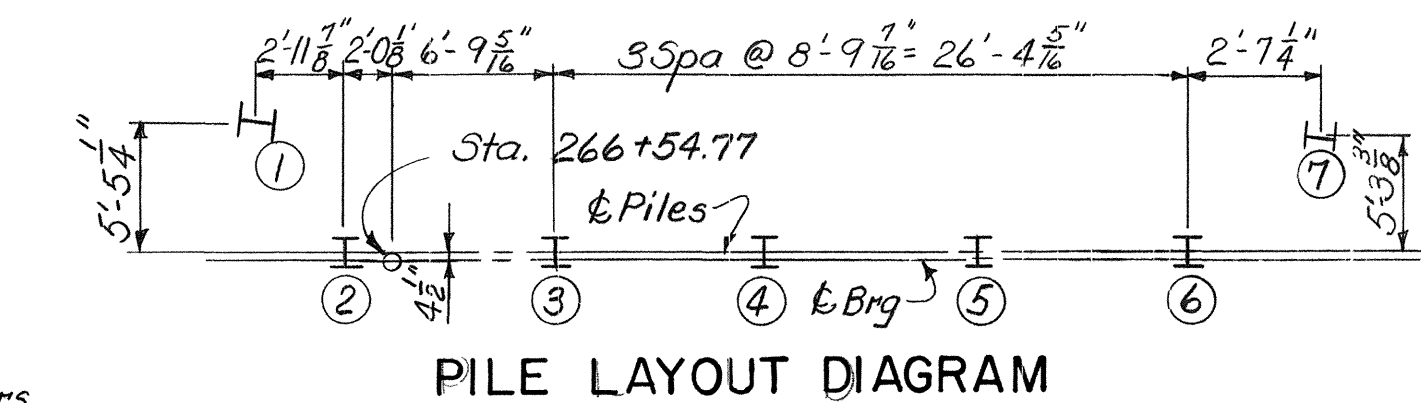
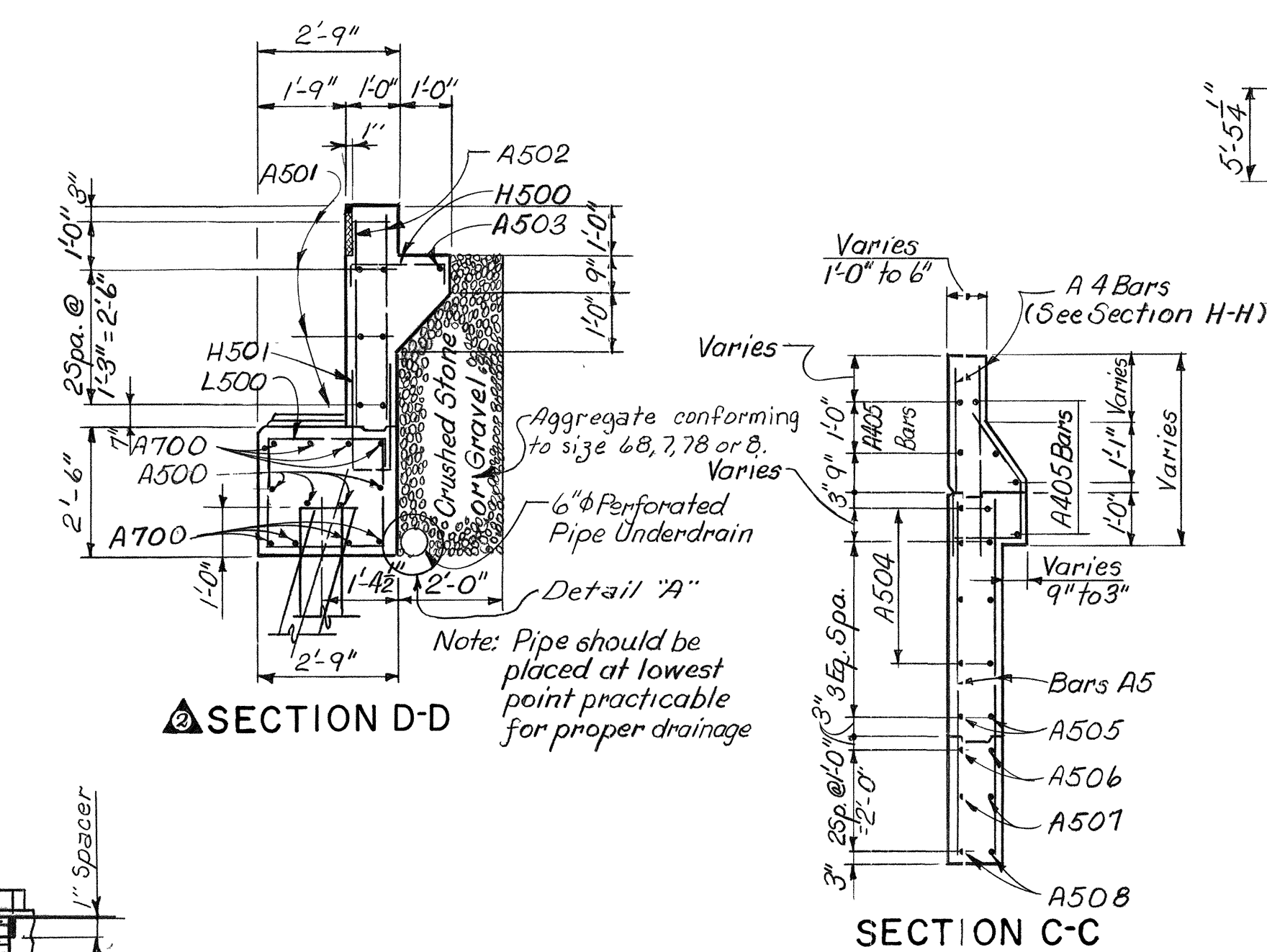
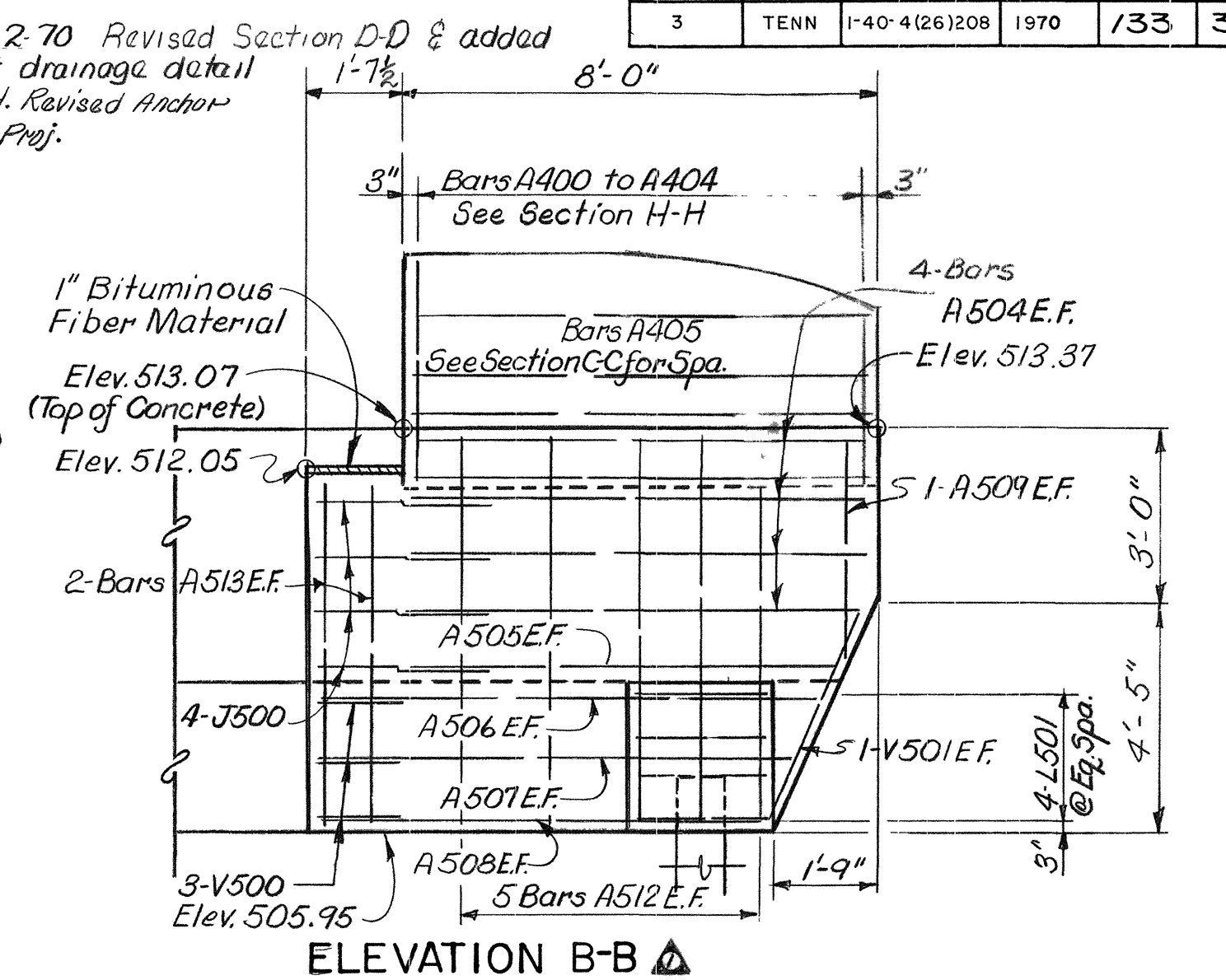
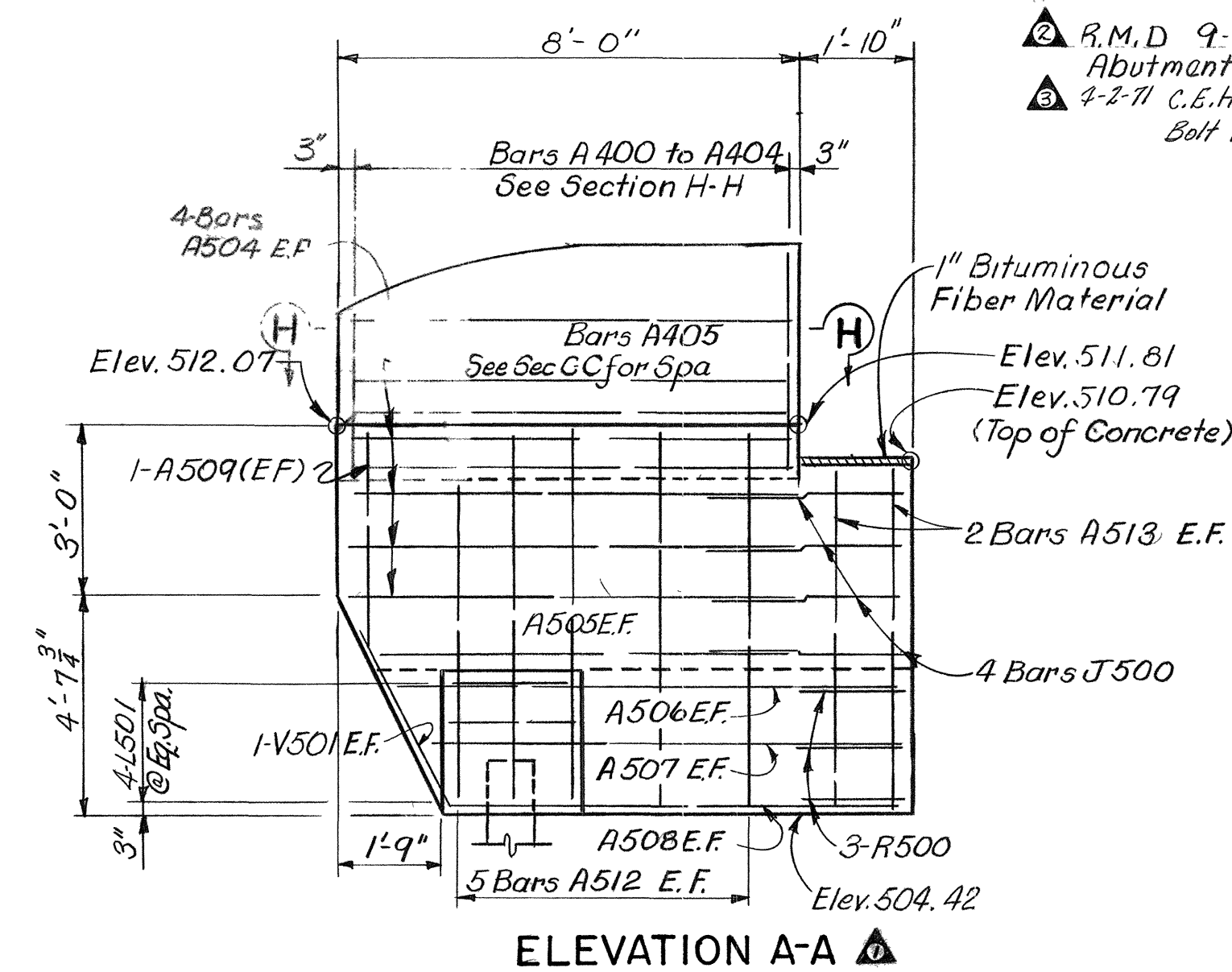
ESTIMATED QUANTITIES
CONCRETE CLASS A 57.5 Cu Yds
REINFORCING STEEL 594 LBS.

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

ABUTMENT NO. 1 DETAILS
INTERSTATE 40 E.B. OVER 844 AVENUE
STATION 265+73.10
DAWSON COUNTY
1970

STATE HIGHWAY ENGINEER K-61-39A

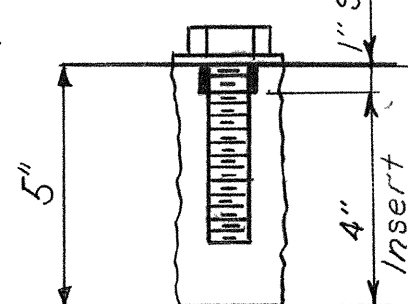
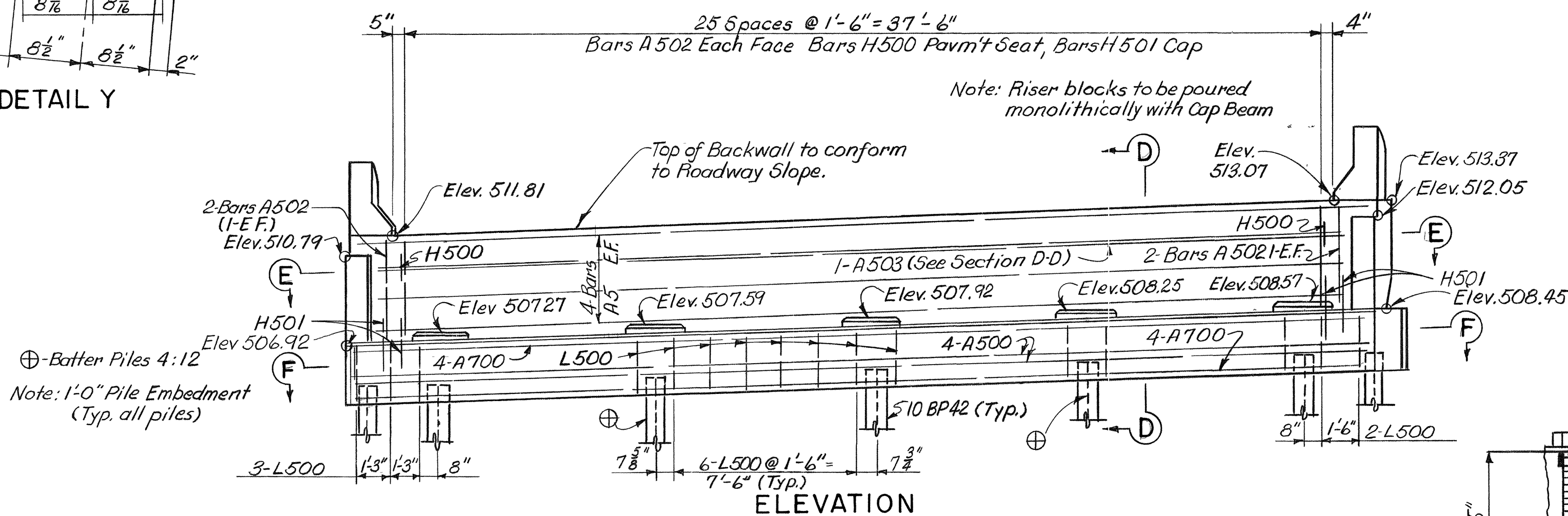
FED ROAD DIST NO	STATE	FED AID PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
3	TENN	1-40-4(26)208	1970	133	305



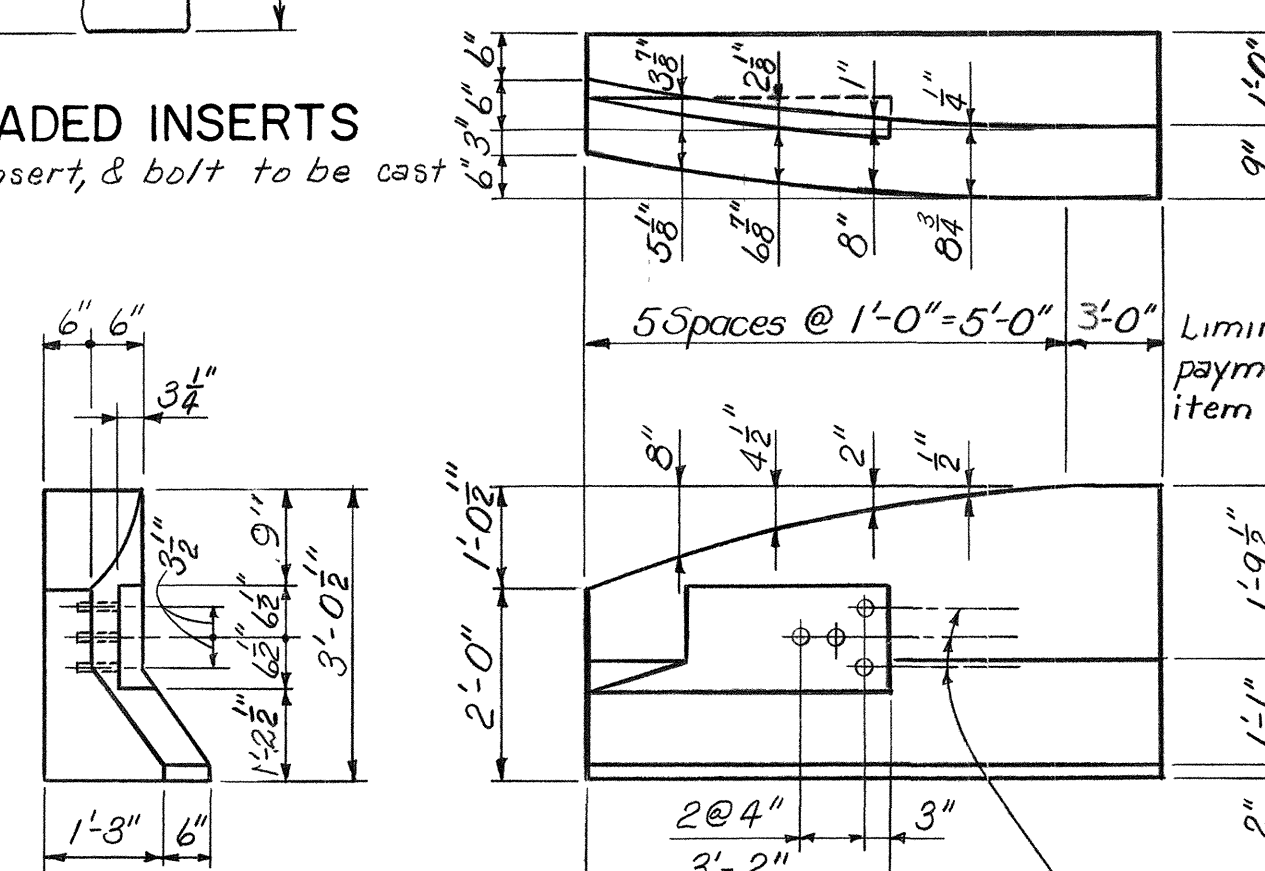
PILE CUTOFF ELEVATIONS

PILE NO	CUTOFF ELEVATION	PILE NO	CUTOFF ELEVATION
①	505.42	⑤	506.54
②	505.56	⑥	506.86
③	505.88	⑦	506.95
④	506.21		

ESTIMATED QUANTITIES 		
ITEM	CONCRETE CLASS H-C.Y.	REINFORCING STEEL-LBS.
ABUTMENT 2	260	2,569

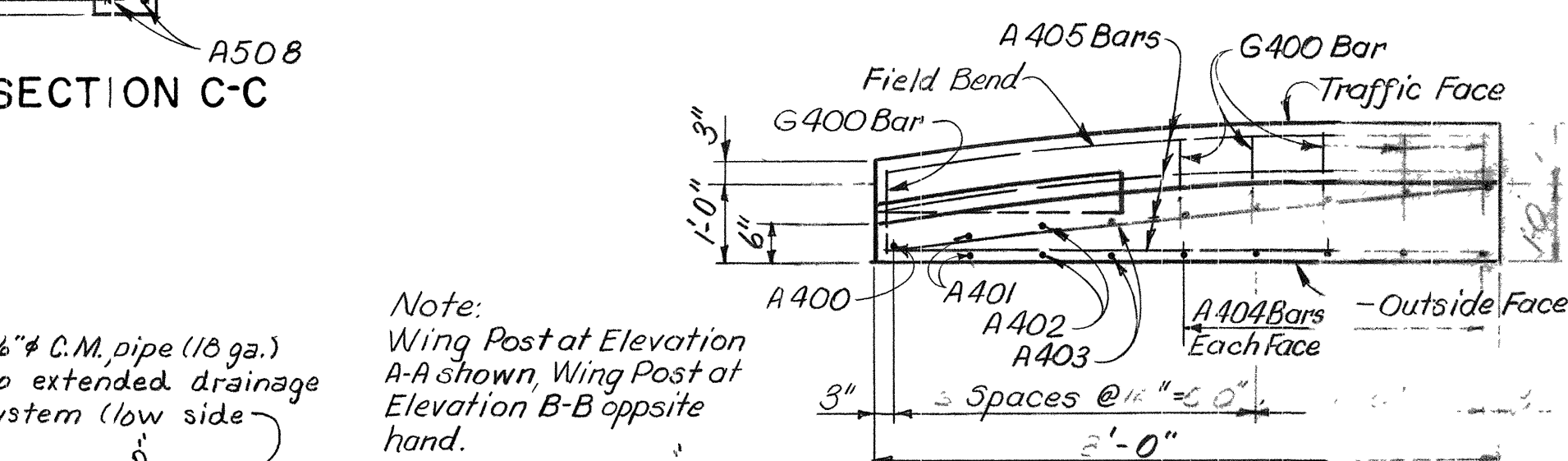


THREADED INSERTS
NOTE: Spacer, insert, & bolt to be
in place.



WING POST DETAIL 

4 threaded steel inserts to fit 8" x 4" Hex Head bolt (A307). For additional details see Std. Dwg RD-R-6A. Cost to be included in cost of bid items.



SECTION H-H 
Beginning of pipe and limits of
payment for item No. 710-10.

ABUTMENT NO.2 DETAILS
INTERSTATE 40 E.B. OVER 8TH AVE.

STATION 265+73.10

DAVIDSON COUNTY

1970

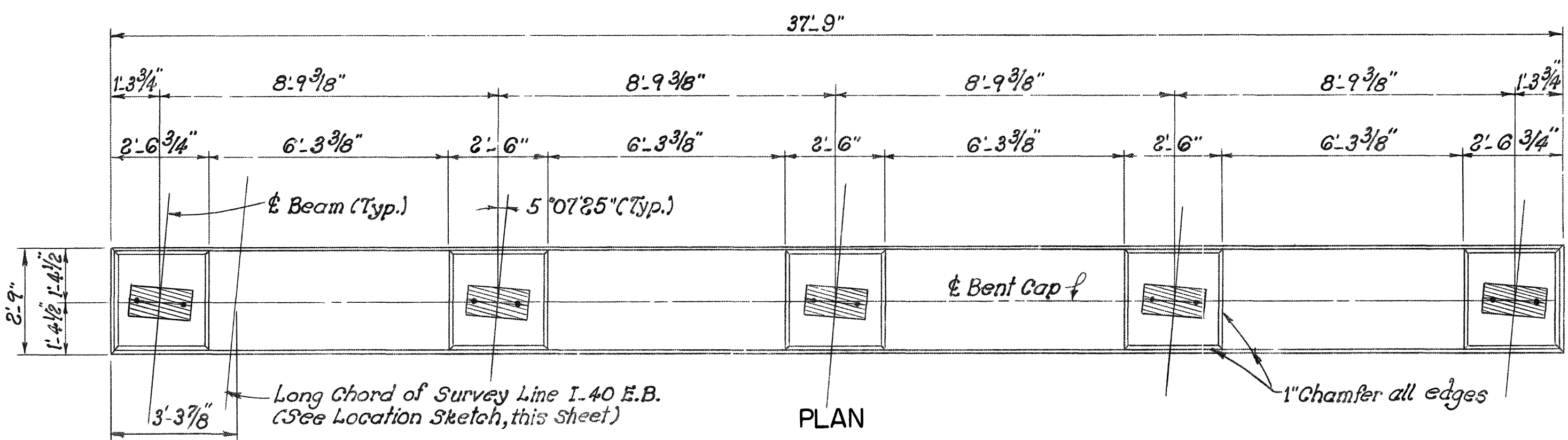
APPROVED _____

BRIGHTON ENGINEERING COMPANY

K-61-40

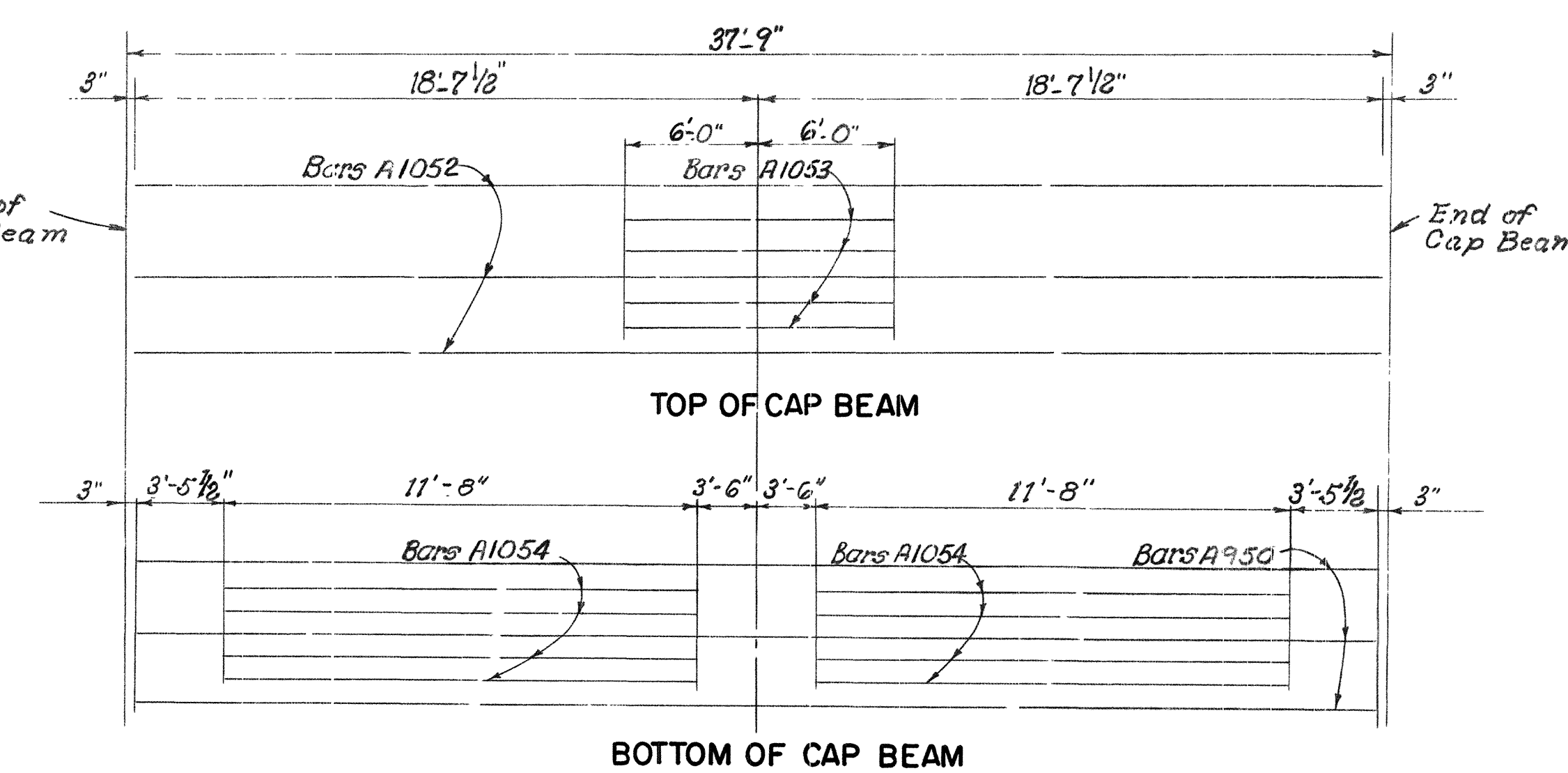
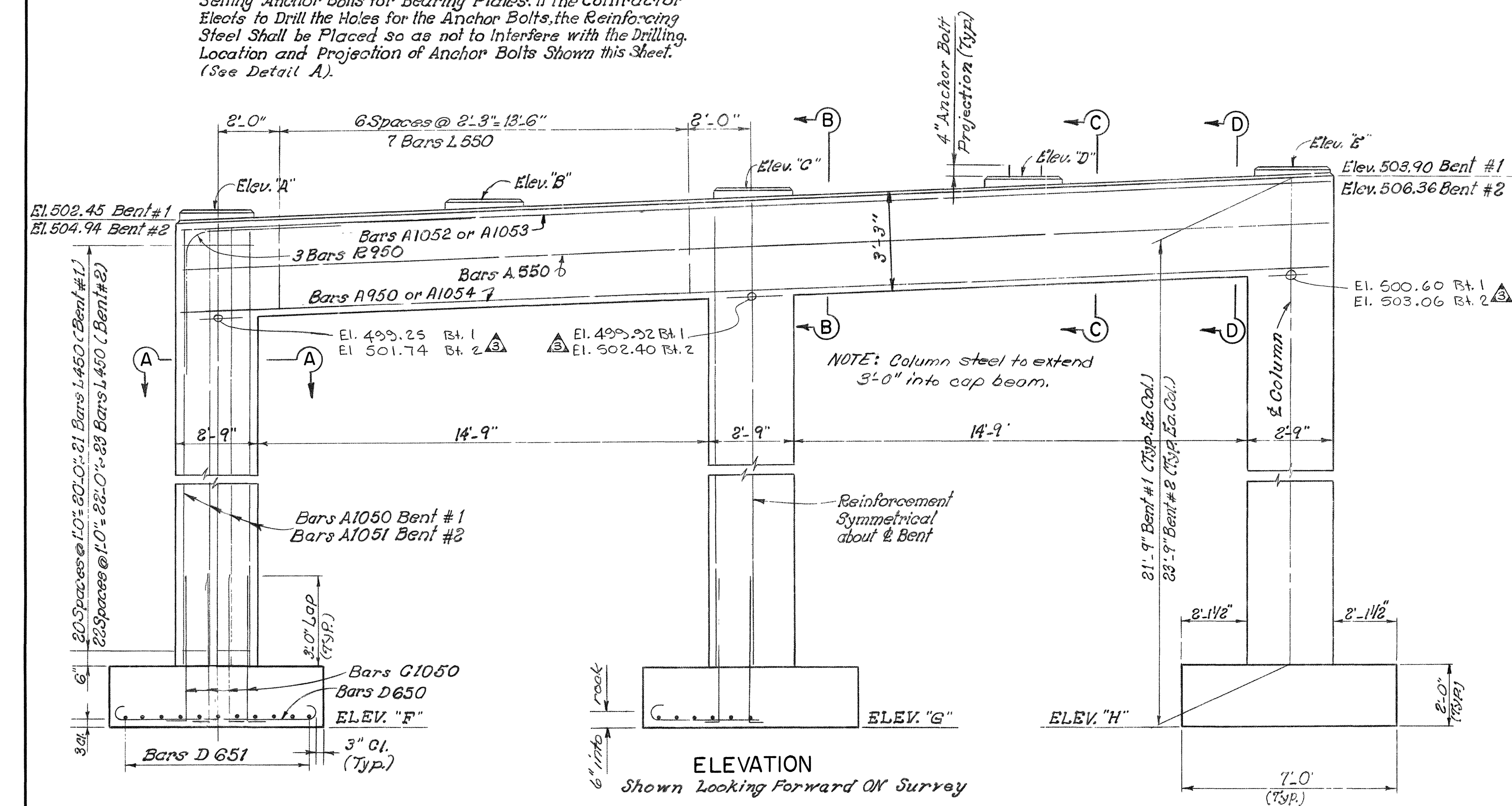
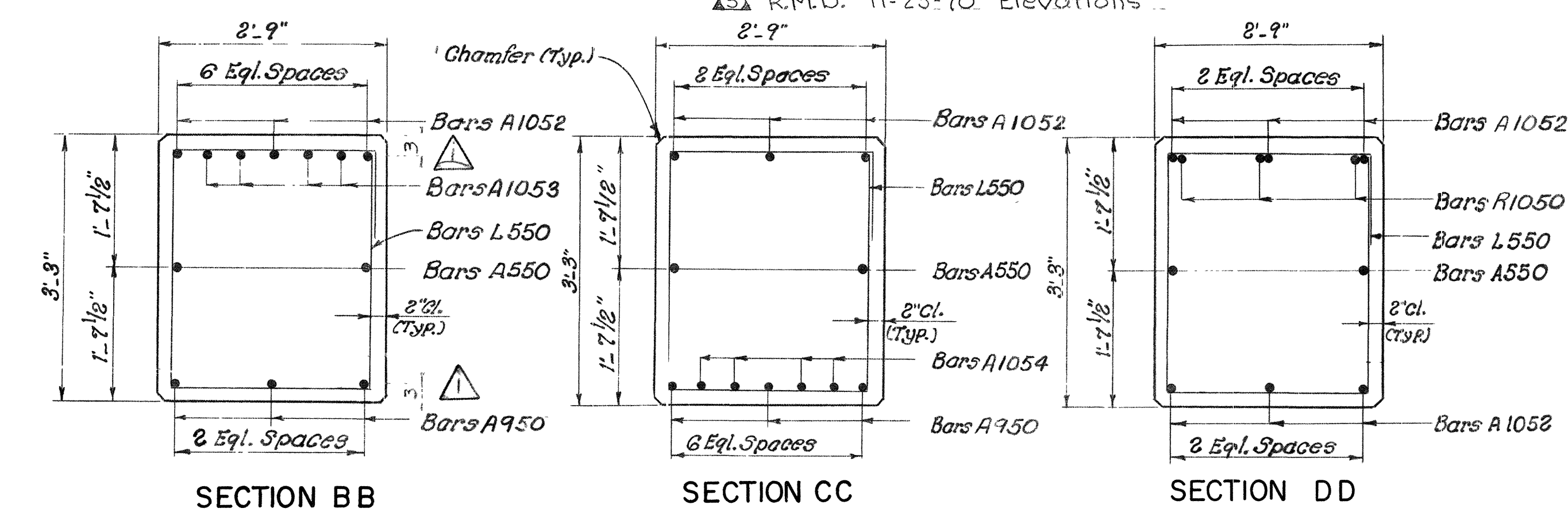
DESIGNED BY A.L.K DATE Nov, 1966
 DRAWN BY Habib DATE Dec, 1966
 TRACED BY Habib DATE "
 CHECKED BY J.C.D DATE Jan, 1967

R.M.D. - Dimensions Added
2 Revised 9-2-70 RMD Section A-A and Quantities
3 R.M.D. 11-23-70 Elevations



Note:
When Pouring Cap Beams Provisions shall be made for setting Anchor Bolts for Bearing Plates. If the Contractor Elects to Drill the Holes for the Anchor Bolts, the Reinforcing Steel shall be Placed so as not to interfere with the Drilling. Location and Projection of Anchor Bolts Shown this Sheet. (See Detail A).

NOTE: Riser Blocks to be poured monolithic with cap beam.



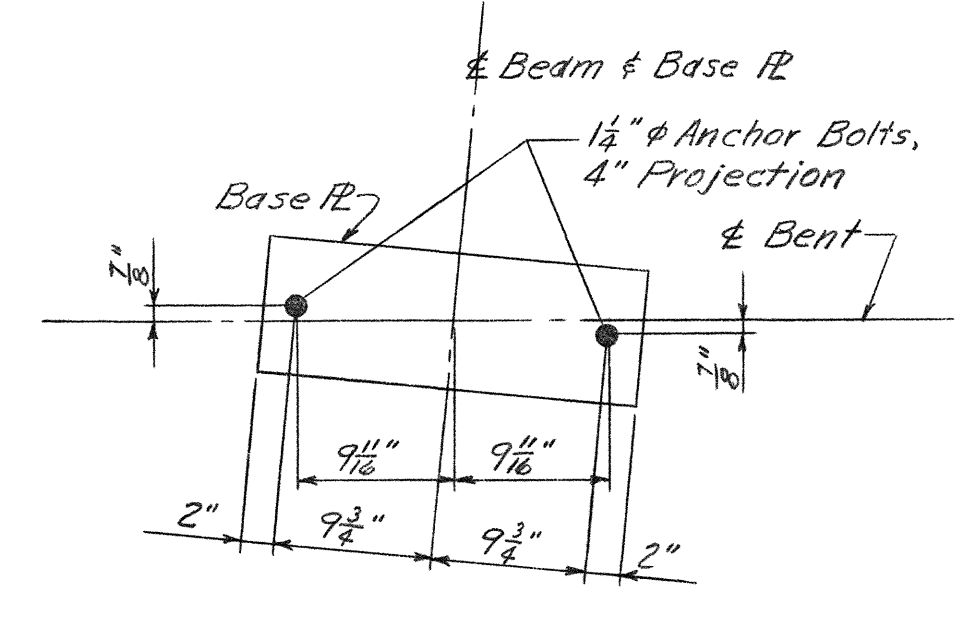
PLAN OF MAIN REINFORCEMENT CAP BEAM

ESTIMATED QUANTITIES

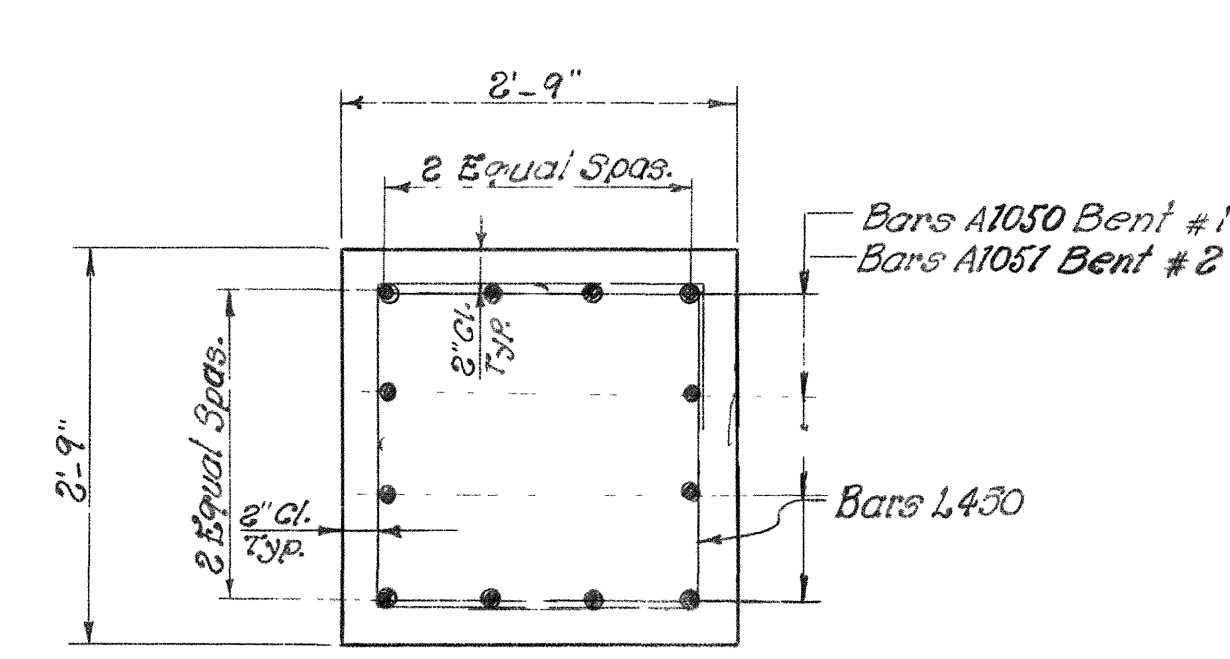
ITEM	Concrete Class "A" Cu. Yds.	Reinforcing Steel Lbs.
Bent No. 1	37.7	7351
Bent No. 2	393	7,566

TABLE OF ELEVATIONS

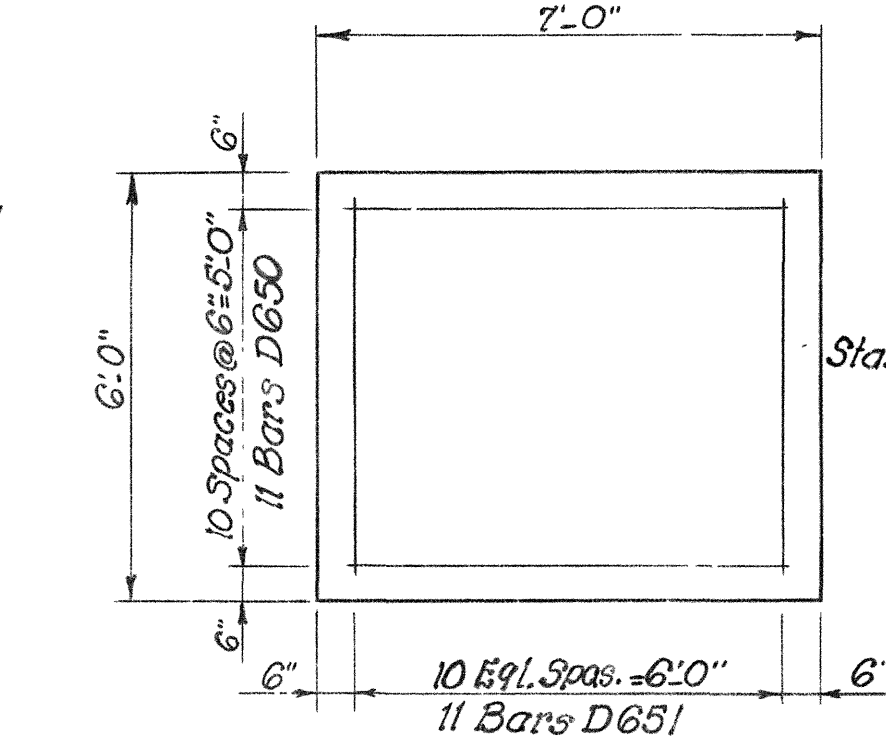
ITEM	ELEVATIONS							
	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
Bent No. 1	502.72	503.06	503.39	503.73	504.07	478.75	479.41	480.09
Bent No. 2	505.17	505.50	505.83	506.16	506.49	479.24	479.90	480.56
	③	③	③	③	③			



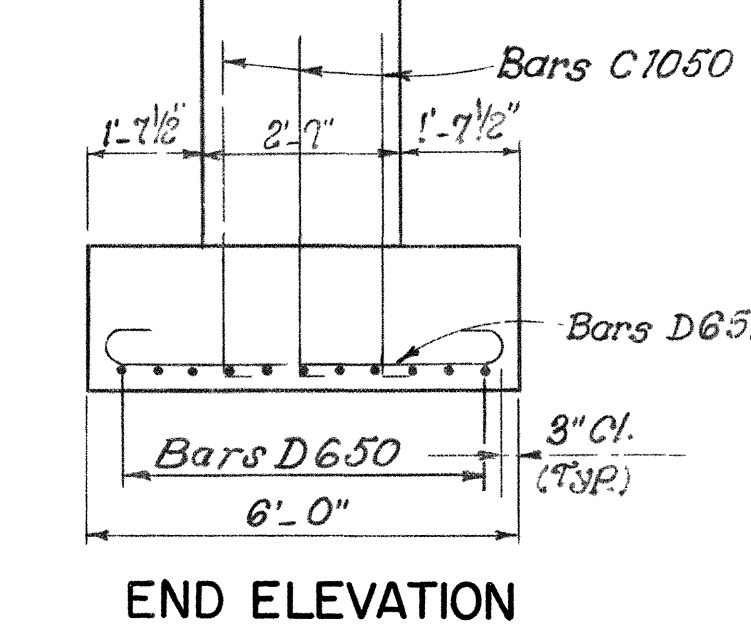
DETAIL A



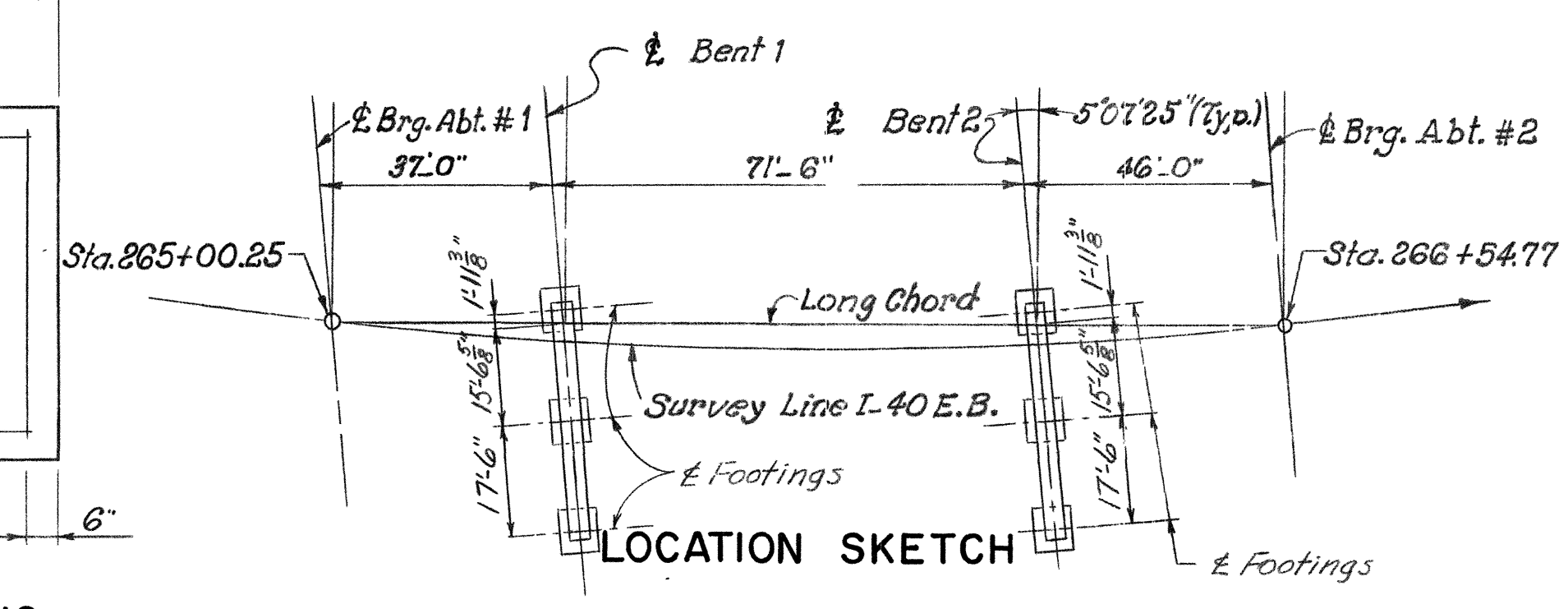
SECTION A A



PLAN OF FOOTING



END ELEVATION



STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

BENT DETAILS

INTERSTATE 40 E.B. OVER 8TH AVE.

STATION 265 + 73.10

DAVIDSON COUNTY

1970

APPROVED

K-61-41

BRIGHTON ENGINEERING COMPANY

DESIGNED BY J.C.L. DATE Nov. 1966
DRAWN BY Habi DATE Jan. 1967
TRACED BY DATE
CHECKED BY J.F.K. DATE Jan. 1967

BILL OF STEEL

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	I-40-4(26)208	1970	135	305

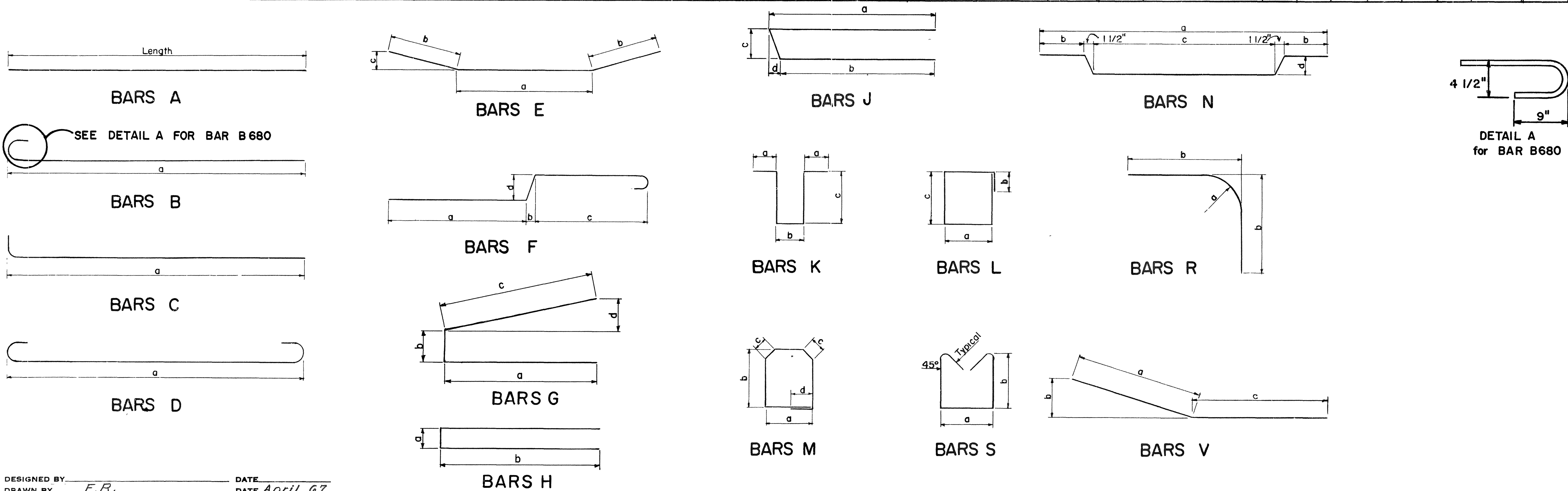
ABUTMENTS										BENTS										SUPERSTRUCTURE																	
BAR	LOCATION	NO. REQD.		BENDING DIMENSIONS				LENGTH	BAR	LOCATION	SIZE	NO. REQD.		BENDING DIMENSIONS				LENGTH	BAR	LOCATION	SIZE	NO. REQD.	BENDING DIMENSIONS				LENGTH	BAR	LOCATION	SIZE	NO. REQD.	BENDING DIMENSIONS				LENGTH	
		ABUT1	ABUT2	a	b	c	d					BENT 1	BENT 2	e	f	g	h						a	b	c	d											
A400	Wing Post	4	2	2				2'-10"	A550	Cap	5	2	2					37'-3"	A680	Slab	6	308					40'-0"										
A401	Wing Post	4	4	4				3'-2"											A681	Slab	6	622					21'-9"										
A402	Wing Post	4	4	4				3'-5"	A950	Cap	9	3	3					37'-3"																			
A403	Wing Post	4	4	4				3'-8"											B680	Slab	6	311	26'-3"			27'-3"											
A404	Wing Post	4	20	20				3'-9"	A1050	Column	10	36	0	2				21'-6"	B681	Slab	6	311	17'-6"			18'-6"											
A405	Wing Post	4	12	12				7'-8"	A1051	"	10	0	36					23'-6"																			
A500	Cap	5	2	4				41'-6"	A1052	Cap	10	3	3					37'-3"																			
A501	Backwall	5	8	8				41'-0"	A1053	"	10	4	4					12'-0"																			
A502	Backwall	5	30	30				4'-6"	A1054	Cap	10	8	8					11'-8"																			
A503	Backwall	5	1	1				39'-9"	C1050	Col. Dowels	10	36	36	4'-9"	2			5'-10"																			
A504	Wingwalls	5	16	16				7'-9"																													
A505	"	5	4	4				7'-3"	D650	Footings	6	33	33	6'-6"				7'-10"																			
A506	"	5	4	4				8'-6"	D651	"	6	33	33	5'-6"				6'-10"																			
A507	"	5	4	4				8'-0"																													
A508	"	5	4	4				7'-6"	L450	Col. Ties	4	63	69	2'-5"	1'-0"	2'-5"		10'-8"																			
A509	"	5	4	4				3'-6"																													
A510	"	5	20	0				6'-6"	L550	Cap Stirrups	5	14	14	2'-5"	1'-0"	2'-11"		11'-8"																			
A511	"	5	8	0				6'-0"																													
A512	"	5	0	4				7'-1"	R1050	Cap	9	6	6	2'-0"	6'-0"			11'-2"																			
A513	Wingwalls	5	0	4				5'-9"																													
A700	Cap	7		8				41'-5"																													
G400	Wing Post	4	12	12	11"	11"	1'-8"	1'-5"	3'-6"	ABUTMENTS CON'T																											
H500	Backwall	5	26	26	1'-8"	6"		2'-8"	R1104	Column	11	9	3					20'-1"																			
H501	Cap	5	28	28	8"	2'-6"		5'-8"	Series Bars L501		5	1		1'-8 3/4"	1'-0"	Dim. C'Varas																					
J500	Wingwall	5	8	8	3'-6"	8"	1"	7'-8"	Column #1							from 2'-6 1/4"																					
L500	Cap	5	36	29	2'-5"	6"	2'-2"	9'-8"								to 5'-4 1/4" inc. of 2"																					
L501	Wingwall	5		8	2'-2"	6"	2'-2"	9'-2"																													
R500	Wingwall	5	3	3	1'-8"	1'-6"		3'-0"	Series Bars L502		5	1		1'-8 3/4"	1'-0"	Dim. C'Varas																					
V500	Wingwall	5	3	3	1'-6"	2"	1'-6"	3'-0"	Column #2							from 2'-6 1/4"																					
V501	Wingwall	5	4	4	4'-3"	1'-9"	3'-10"	6'-0"								to 5'-4 1/4" inc. of 2"																					
R600	Footings	6	72					5'-8"	Series Bars L503		5	1		1'-8 3/4"	1'-0"	Dim. C'Varas																					
R601	Footings	6	72					11'-2"	Column #3							from 2'-6 1/4"																					
R1100	Cap	11	8					41'-5"								to 5'-6 1/4" inc. of 2"																					
R1101	Column	11	27					19'-9"	C1100	Column & Footings	11	48		6'-9 3/4"				7'-9"																			
R1102	Column	11	6					12'-8"																													
R1103	Column	11	6					6'-7"																													

- Revised 6-2-70 Bars A404 - A405 And B400
- Revised 9-2-70 RMD
Bars A1050 & A1051, BARS C1050
- Revised 11-19-70 RMD
Revision due to addition of padistals.

REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	50

Note: Dimensions on this Sheet are Outside to Outside of Bars.



DESIGNED BY: F.R. DATE: April 67
DRAWN BY: J.E.H. DATE: April 67
CHECKED BY: J.E.H. DATE: April 67

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

BILL OF STEEL
INTERSTATE 40 E.B. OVER 8TH AVE.
STATION 265+73.10
DAVIDSON COUNTY
1970

APPROVED: BRIGHTON ENGINEERING COMPANY

K-61-42