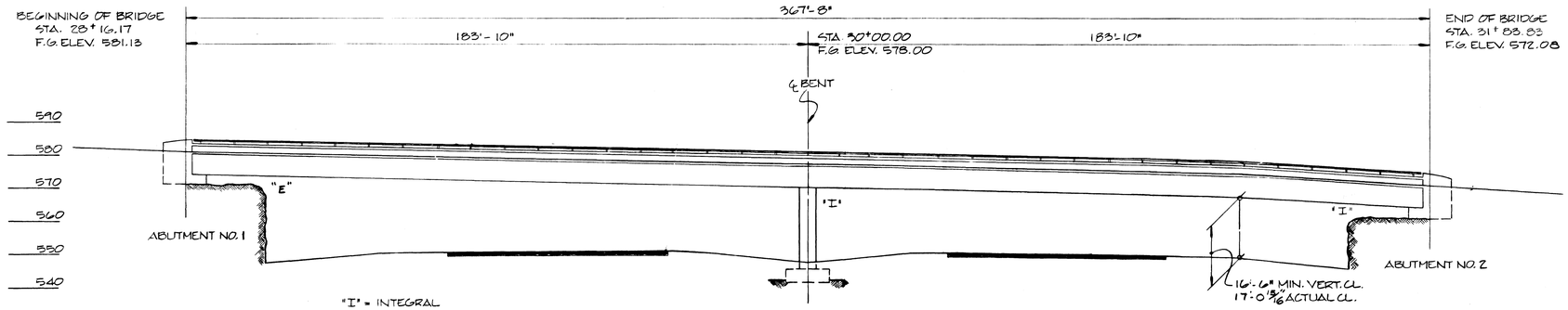
CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-1(63) 206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1		SM	Added Lighting Details & Stations.
2	1-13-84	EZO	Added Sign
3	1-26-85	SM	Added Utilities Location Notes.



ELEVATION @ RT & TO SHARONDALE DRIVE

NOTE: ALL EXPOSED SURFACES OF THE ABUTMENT, BENT AND PARAPET INSET SHALL RECEIVE A DECORATIVE FORM FINISH. SEE SURFACE FINISH SKETCH ON DRAWING NO. M-94-2.

STATE OF TENNESSEE DIVISION OF STRUCTURES

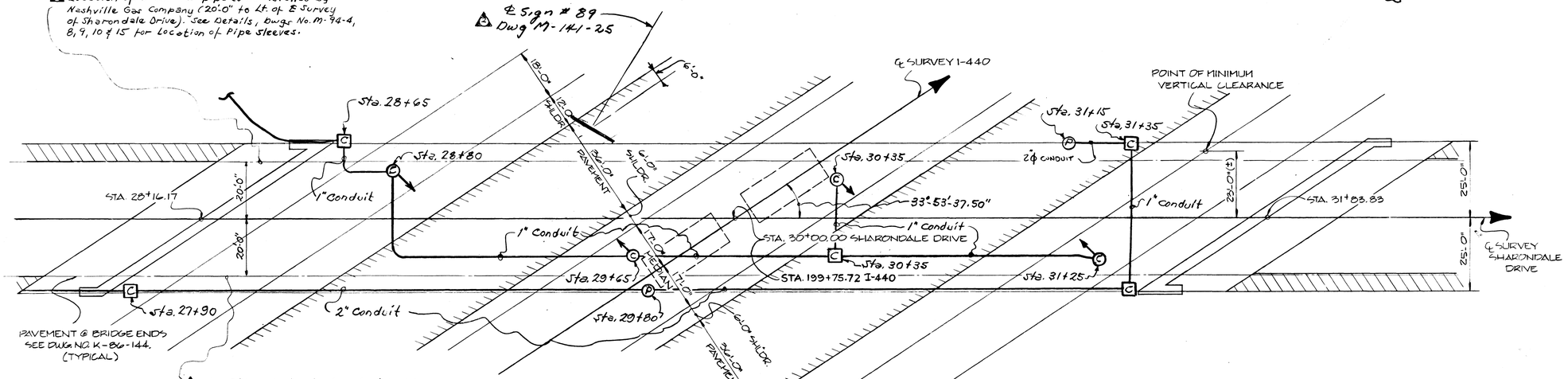
LIST OF DRAWINGS	DWG. NO.	LAST REV. DATE
LAYOUT	M-94-1	
GENERAL NOTES & EST. QUANTITIES	M-94-2	
FOUNDATION DATA	M-94-3	
SUPERSTRUCTURE	M-94-4	
SUPERSTRUCTURE DETAILS	M-94-5	
SUPERSTRUCTURE DETAILS	M-94-6	
SUPERSTRUCTURE DETAILS	M-94-7	
SUPERSTRUCTURE DETAILS @ ABUT. NO. 1	M-94-8	
SUPERSTRUCTURE DETAIL @ ABUT. NO. 2	M-94-9	
ABUTMENT NO. 1	M-94-10	
ABUTMENT NO. 1 DETAILS	M-94-11	
ABUTMENT NO. 1 DETAILS	M-94-12	
ABUTMENT NO. 1 DETAILS	M-94-13	
ABUTMENT NO. 2	M-94-14	
BENT	M-94-15	
BILL OF STEEL	M-94-16	
BILL OF STEEL	M-94-17	

DRAWINGS TO BE PRINTED WITH PLANS	DWG. NO.	LAST REV DATE
BRIDGE RAILING - CONCRETE PARAPET WITH STRUCTURAL TUBING	K-38-162	11-82
TENN. STD. PRECAST, PRESTRESSED BRIDGE DECK PANELS	M-103-149 & M-103-150	7-7-82

— LIST OF — STANDARD DWG'S.	DWG. NO.	— LAST REV — DATE
STD. REINF. BAR SUPPORT	K-80-14	8-27-76
MISC. ABUTMENT & DRAINAGE DETAILS	K-85-150	1-9-75
REINF. CONCRETE PAVEMENT AT BRIDGE ENDS	K-86-144	7-17-81
▲ LIGHT STANDARD SUPPORT DETAILS	M-8-149	11-20-75

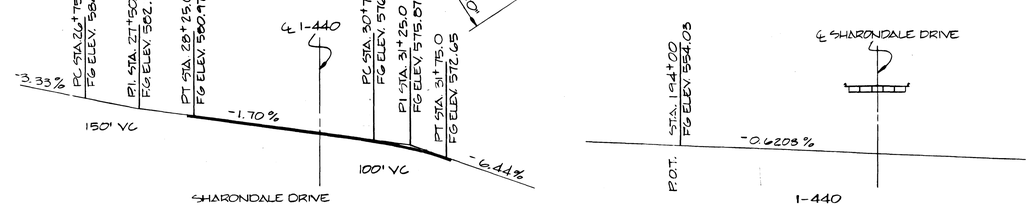
LIST OF SPECIAL PROVISIONS	PROV. NO.	LAST REV DATE
REGARDING EPOXY COATED REINF-ORCING STEEL	907A	9-8-81
REGARDING APPROVAL OF SHOP DRAWING	105A	9-8-81

▲ Location of 8" carrier pipe to be installed by Nashville Gas Company (20'-0" to Lt. of ℄ Survey of Sharondale Drive). See Details, Dwgs No. M-94-4, 8, 9, 10 & 15 for location of Pipe sleeves.



PLAN ▲

▲ Location of 6" waterline installed in a 14" ID x 3/16" thick carrier pipe (20'-0" to Rt. of ℄ Survey of Sharondale Drive). See Details, Dwg's No. M-94-4, 7, 8, 9, 10 & 15 for location of Pipe sleeves. The pipe sleeves to be supplied (or installed) by Utility.



GRADE SKETCHES

2,001 ADT
50'-0" ROADWAY W/
PARAPET & RAILING
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

LAYOUT OF BRIDGE No. 9
SHARONDALE DRIVE
OVER I-440
STATION 199+75.72
DAVIDSON COUNTY
1982

DESIGNED BY S. UPCHURCH DATE
DRAWN BY D.F. BRILEY DATE 10-81
SUPERVISED BY J. FIELDS & M. HOLLORAN DATE 10-81
CHECKED BY DATE

CORRECT Edward L. Fancett
ENGINEER OF STRUCTURES
APPROVED Louis Guess
DIRECTOR OF HIGHWAYS

M-94-1

CLASS 'A' GRADING 'D' 861.2 C.Y.

MICROFILMED

Construction no. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4 (53) 206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	4-5-83	SW	Added PILING Item, Quant. & Note.
2		MH	LIGHTING DETAILS
3	10-9-85	SK	Quant. Rev. & Note No. 6

General Notes

Specifications: Standard Road and Bridge Specifications of the TENNESSEE DEPARTMENT OF TRANSPORTATION. (MARCH, 1981 EDITION)

Loading: (HS20-44)

Design: AASHTO 1977 Edition with Addenda

Bridge Deck Forms: Bridge Deck Forms for concrete decks shall be constructed using either removal forms or permanent forms. Permanent forms may be either remain-in-place steel or precast, prestressed concrete panels. In either case, forms shall be attached by means other than welding to support members. See Standard Drawing K-80-19A. The contractor shall take steps to assure the stability of the exterior girder against twisting or overturning during slab pouring operations.

Reinforcing Steel: To be ASTM A615 Grade 60. Standard CRSI hook details apply unless otherwise noted on Bill of Steel. Bending dimensions shown are based on Grade 60. Spacing dimensions are center to center unless otherwise noted on drawings. The suffix E, for bars so marked, denotes epoxy coated reinforcement

CONCRETE: TO BE CLASS "A". f'c TO BE 5000 PSI FOR SUPERSTRUCTURE CONCRETE AND 3000 PSI FOR SUBSTRUCTURES AND PARAPETS.

Bridge Rail System: Build parapets according to Standard Drawing K-38-162.

Linseed Oil Protective Treatment: Surfaces receiving Applied Texture Finish (and decks with LSDC or PMC alt.) shall not receive a linseed oil treatment. See Applied Texture Detail, this sheet.

SPECIAL NOTE FOR UTILITIES: IT IS INTENDED THAT THE COST OF MATERIALS AND LABOR NECESSARY FOR THE COMPLETE INSTALLATION OF UTILITIES SHALL BE BORNE BY OTHERS AND SHALL NOT BE PAID FOR AS A PART OF THIS CONTRACT. THE CONTRACTOR SHALL COOPERATE WITH OTHERS IN THE INSTALLATION OF UTILITIES WITH NO ADDITIONAL COMPENSATION ALLOWED THE CONTRACTOR AS A RESULT.

SHOP DRAWINGS: SEE SPECIAL PROVISION NO. 105A

Special Note - Footing for Bents: After excavation to rock for footing has been completed, holes 6' deep shall be drilled at points designated by the Engineer. From the results obtained, the Engineer shall determine the final footing elevations. No reinforcing steel for bent column shall be ordered until final footing elevations have been determined.

△1 PILES: To be HP10X42 driven to refusal on rock or a minimum bearing of 55 tons for Abutment No. 1.

△1 Estimated Quantities (Cont.)

	606-22.03	606-32.03	606-42.03	714-01.09 △6
	STEEL PILES (10-INCH) (DRIVING) L.F.	STEEL PILES (10-INCH) (FURNISH DOMESTIC) LF	STEEL PILES (10-INCH) (FURNISH FOREIGN) LF	STRUCTURE LIGHTING (BRIDGE NO. 9) L.S. (8)
Abutment No. 1	40	40	40	
	40	40	40	1

Estimated Quantities

Item	204-02.01 Dry Excavation (bridges) (c.y.) (1)	204-04.01 Rock Excavation (bridges) (c.y.) (1)	204-05 Rock Drilling (bridges) (L.F.)	604-03.01 Class 'A' Concrete (bridges) (c.y.)	604-03.02 Steel Bar Reinforcement (bridges) (lbs.)	604-02.03 Epoxy Coated Reinforcing Steel (lbs.)	620-14 Concrete Parapet with STRUCTURAL TUBING (Dwg. K-38-162) (L.F.) (3)(5)	710-10 6" Φ Perforated C.M. Pipe (18 ga.) w/porous backfill (L.F.) (4)	710-11 6" Φ C.M. Pipe Underdrains (18 ga.) (L.F.)	604-08.03 Linseed Oil Treatment (S.Y.)	920-01-11 ROADWAY EXPANSION DEVICE L.F. (7)	615-05 POST-TENSIONING (L.S.)	908-21.06 BEARINGS (Dwg. M-94-11) (EA) (2)
Superstructure				1,482.6	92,180	178,929							
Abutment No. 1	547	329	18	195.6	17,475			139	21		96		
Bent No. 1		107	12	136.0	31,612								
Abutment No. 2	112	147	18	43.5	5,449			112	21				
Pav'mt @ Bridge Ends △6 (6)				△1 118.0		32,405							
Total	659	583	48	1,975.7	146,716	211,334	847	251	42	2,361	96	1	6

(1) Excavation based on lower road profile.

(3) The cost of bituminous fiberboard, and all miscellaneous joint material to be included in bridge items bid on.

(4) The cost of polyethylene sheeting and all miscellaneous items necessary for installation to be included in cost of perforated C.M. Pipe.

(5) All reinforcing steel in the traffic face of parapets shall be epoxy coated. Cost to be included in the price bid for item 620-10.

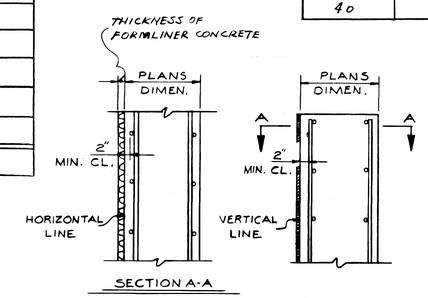
(6) PAVEMENT AT BRIDGE END QUANTITIES ARE INCLUDED AS AN ITEM IN QUANTITY BOX UNDER ABUTMENT NO. 2 AND LISTED AS "PAV'MT @ BRIDGE ENDS".

(7) ACCEPTABLE EXPANSION DEVICES INCLUDE: A) ON-FLEX 25 BY ACCESSORIES, INC. B) AS200 BY ACME HIGHWAY PRODUCTS, INC. C) WABO-MAURER SB200 BY WATSON BOWMAN ASSOCIATES, INC. OR EQUAL. TOTAL REQUIRED MOVEMENT 2".

(2) BEARING DEVICES SHALL BE IN ACCORDANCE WITH THE DETAILS AND DIMENSIONS SHOWN ON DRAWING M-94-11. THE CONTRACTOR MAY ALSO SUBMIT ALTERNATE DETAILS FOR APPROVAL.

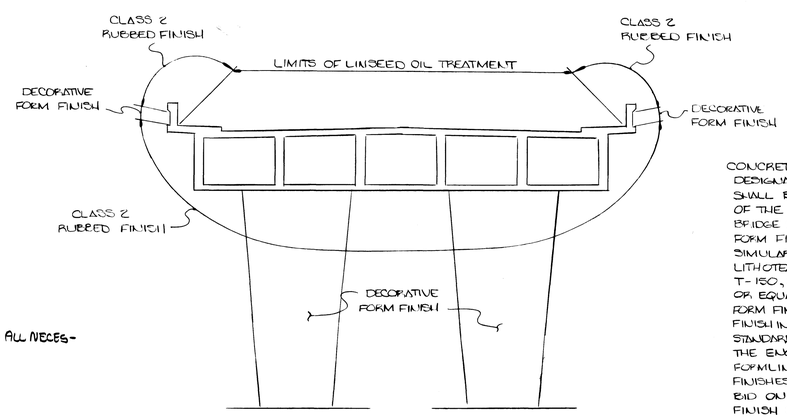
BEARING	TOTAL MOVEMENT	DEAD LOAD REACTION	LIVE LOAD REACTION
ABUT. NO. 1	2"	256 KIPS	54 KIPS

(8) LUMP SUM FOR STUCTURAL LIGHTING INCLUDES 405 FT. OF 1"Φ CONDUIT WITH PULL WIRES, 435 FT. OF 2"Φ CONDUIT WITH PULL WIRES, 9 PULL BOXES, 8 ANCHOR BOLTS AND ALL NECESSARY MATERIALS FOR INSTALLATION OF STUCTURE LIGHTING.



TYPICAL FORMING DETAILS

NOTE: THESE DETAILS ARE TYPICAL FOR ALL STRUCTURAL ELEMENTS REQUIRING DECORATIVE FORM LINERS EXCEPT CONCRETE PARAPETS. PARAPET DIMENSIONS MAY BE REDUCED BY THE THICKNESS OF THE FORM LINERS IN ORDER TO UTILIZE STANDARD PARAPET FORMS - REINFORCING BAR BENDING DIMENSIONS SHALL BE REDUCED ACCORDINGLY.



SURFACE FINISH SKETCH

CONCRETE FINISHES: PORTIONS OF THE BRIDGE SURFACE DESIGNATED TO RECEIVE A CLASS 2 "RUBBED FINISH" SHALL BE FINISHED ACCORDING TO SUBSECTION 604-22 OF THE STANDARD SPECIFICATIONS. PORTIONS OF THE BRIDGE SURFACE DESIGNATED TO RECEIVE A DECORATIVE FORM FINISH SHALL BE FORMED USING A FORMLINER, SIMULAR TO BURKE FORMLINER B630B CONCRETE HARP, LITHOTEX FORMLINER, FRACTURED FINISH GROOVED T-150, SYMOUS 3/4" NARROW FRACTURED FIN P/C 30909-9 OR EQUAL. AFTER STRIPPING FORMLINERS, THE DECORATIVE FORM FINISHED AREAS SHALL RECEIVE A CLASS 1, ORDINARY FINISH IN ACCORDANCE WITH SUBSECTION 604.22 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A SAMPLE CASTING USING THE FORMLINER TO BE FURNISHED. THE COST OF ALL CONCRETE FINISHES SHALL BE INCLUDED IN THE UNIT PRICE OF ITEMS BID ON. SURFACES RECEIVING A DECORATIVE OR CLASS 2 FINISH SHALL NOT RECEIVE A LINSEED OIL TREATMENT. SEE SURFACE FINISH SKETCH THIS SHEET.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

General Notes & Estimated Quantities
Sharondale Drive over I-440
Station 199+74.00
Davidson County
1982

CORRECT Charles L. Trovillion
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-94-2

DESIGNED BY S. Upchurch DATE
DRAWN BY R. Pope DATE 10-81
SUPERVISED BY J. Fields DATE 10-81
CHECKED BY DATE

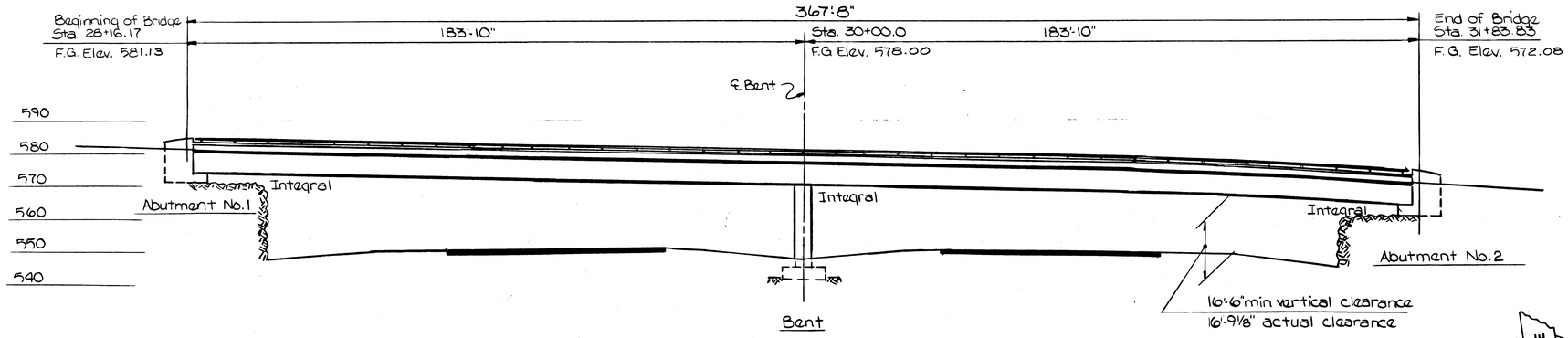
MICROFILMED

Const. No. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

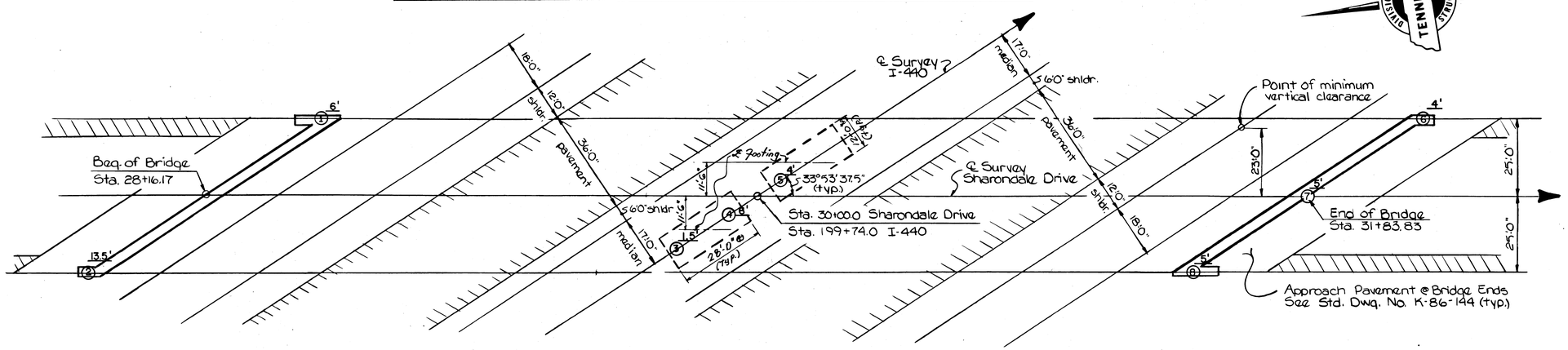
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



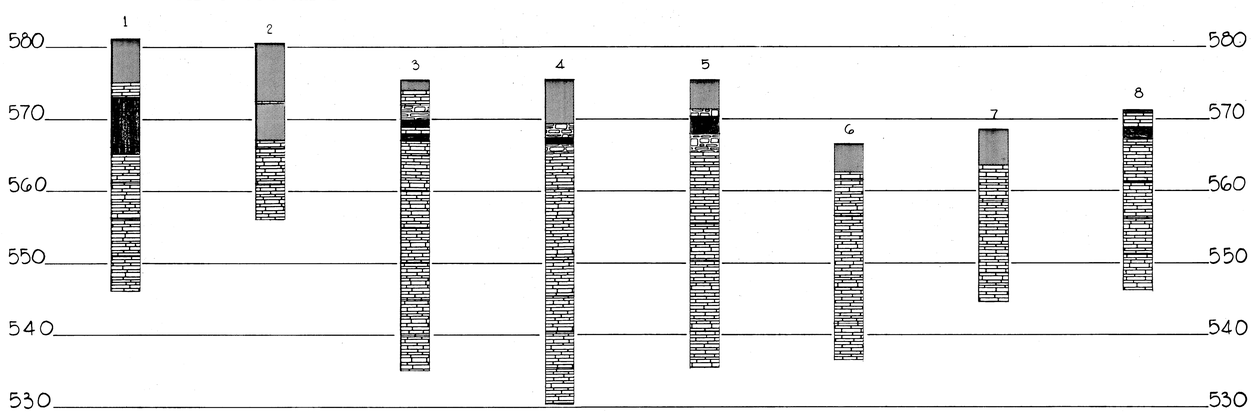
Elevation @ Right Angles to Sharondale Drive

Required: (1) Approximate existing ground line and rock line.
(2) Sufficient ground, rock, and coring information for bridge foundations.



Plan

NOTE: CORE SAMPLES TAKEN AT ALL BORING LOCATIONS



-Legend-

- SILTY CLAY
- CAVITY
- WEAT. LIMESTONE
- LIMESTONE (10 TONS/FT.^{2})

CORE LOCATION → 1 ← 6' DEPTH AUGERED TO REFUSAL

HOLE NO. → 1

1. G. 581.22 / R. 575.22	5. G. 575.5 / R. 571.5
2. G. 581.60 / R. 568.1±	6. G. 566.63 / R. 562.63
3. G. 575.6 / R. 574.1	7. G. 568.76 / R. 563.76
4. G. 575.5 / R. 569.5	8. G. 571.22 / R. 570.72

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

Foundation Data
Sharondale Drive over I-440
Station 199+74.0
Davidson County
1982

DESIGNED BY Stan Upchurch DATE 6-81
DRAWN BY Rhonda Bible DATE 6-81
SUPERVISED BY Fields DATE 6-81
CHECKED BY DATE

CORRECT Gladson L. Lovvorn ENGINEER OF STRUCTURES
APPROVED Louis Evans DIRECTOR OF HIGHWAYS

M-94-3

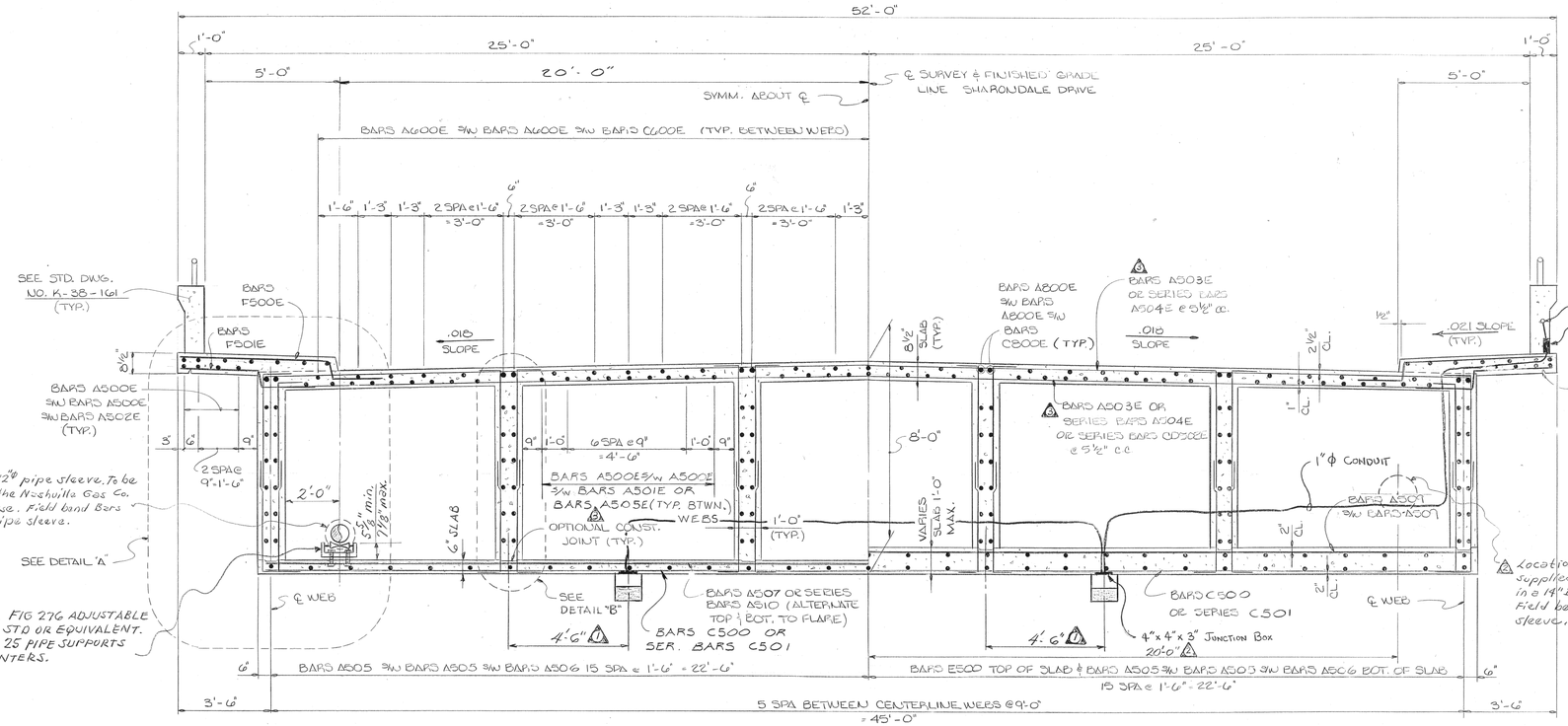
MICROFILMED

COUST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1		SW	Added Lighting Details & Dims.
2	1-25	SW	Added Waterline Support Det. & Notes, Centerline location.
3	3-21-85	SW	Bar Nos.



UTILITY NOTE: The 12" ϕ & 18" ϕ pipe sleeves shall not be extended across Expansion Joint.
The 12" ϕ & 18" ϕ pipe sleeves shall be cut flush with concrete face on each side of 2" Expansion Joint.
The space between the 8" ϕ carrier pipe and 12" ϕ sleeve & the 14" ϕ carrier pipe and 18" ϕ sleeve shall be sealed to prevent water from entering the bridge or Expansion Joint area.

General Notes

CONCRETE: TO BE CLASS "A". F'c = 5,000 PSI. STRESSING OPERATIONS SHALL NOT BEGIN UNTIL THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF 4,000 PSI AS INDICATED BY TEST SPECIMENS. SEE SECTION 615-09 OF THE TENNESSEE STANDARD SPECIFICATIONS.

FRICTION COEFFICIENTS: U = 0.25 K = 0.0002

STRESSING SEQUENCE: AT NO TIME DURING STRESSING OPERATIONS SHALL MORE THAN 1/6th OF THE TOTAL PRESTRESSING FORCE BE ECCENTRIC ABOUT THE CENTERLINE OF THE BRIDGE.

TENDON PATH: THE TENDON PATH SHALL BE PARABOLIC BETWEEN CONTROL POINTS.

CLEARANCES FOR POST-TENSIONING DUCTS: HORIZONTAL CLEARANCE BETWEEN DUCTS = 2 1/2" MINIMUM. DUCTS MAY BE BUNDLED VERTICALLY IN GROUPS OF 3 MAXIMUM. VERTICAL BETWEEN BUNDLED DUCTS = 3" MINIMUM.

BAR REINFORCEMENT INTERFERING WITH DUCT ALIGNMENT SHALL BE ADJUSTED BY THE ENGINEER. DUCTS WILL NOT BE PERMITTED IN THE BOTTOM SLAB.

ANCHORAGE DETAILS: ANCHORAGE DETAILS ARE TO BE DETERMINED BY THE FABRICATOR. DETAILS SHALL BE SHOWN ON THE SHOP DRAWINGS AND SUBMITTED TO THE ENGINEER.

TENSIONING FORCE: THE MAXIMUM REQUIRED TENSIONING FORCE AT THE JACK IS 2500 KIPS PER WEB WHICH IS 75 PERCENT OF THE SPECIFIED MINIMUM ULTIMATE TENSILE STRENGTH OF THE PRE-STRESSING STEEL. TENDONS SHALL BE JACKED TO THE ABOVE VALUE AND ANCHORED AT AN EQUIVALENT ANCHOR SET OF 5/8".

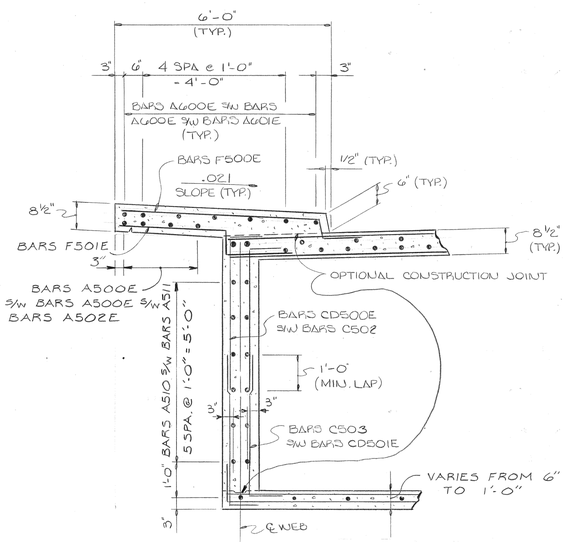
DUCT VENTS: DUCTS ARE TO BE PROVIDED AT BOTH ENDS OF TENDONS, AND WHERE DUCTS EXCEED 400 FEET IN LENGTH, SHALL BE VENTED WITHIN 6 FEET OF THE HIGH POINTS OF THE CABLE PATH.

NOTE: WHEN POURING SLAB, PROVISION SHALL BE MADE FOR SETTING RE-INFORCING STEEL FOR BRIDGE RAIL. THE PARAPET SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED. WHEN POURING PARAPET, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS FOR PARAPET RAILS. ALSO SEE DRAWING NO. K-38-161

NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR (WINGPOST AND) PARAPET FOR DETAILS OF (WINGPOST AND) PARAPET SEE STANDARD DRAWING NO. K-38-162

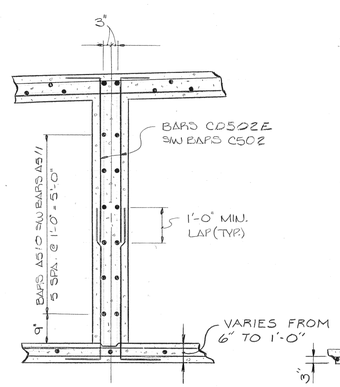
NOTE: IF THE CONTRACTOR ELECTS TO USE PERMANENT STEEL BRIDGE DECK FORMS DETAILS FOR PROVIDING ACCESS TO ALL CELLS OF THE STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER.

Section Near Mid-Span



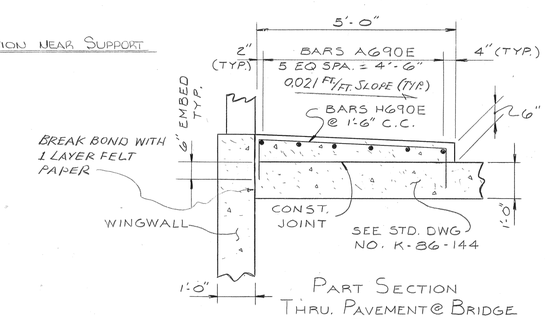
— Detail "A" —
(TYP. SECTION EXTERIOR WEBS)

— Typical Cross-Section —
(Looking forward on Survey)

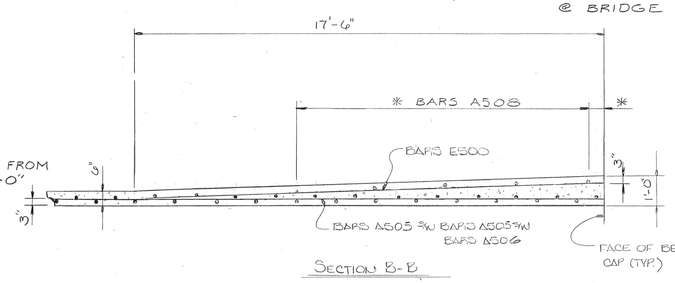


— Detail "B" —
(TYP. SECTION INTERIOR WEBS)

Section Near Support



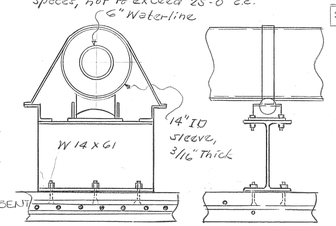
Part Section Thru. Pavement @ Bridge Ends
(SHOWING REINFORCING IN SIDEWALK @ PAVEMENT @ BRIDGE ENDS)



Section B-B
(TYPICAL TAPER FROM BOTH FACES OF BENT CAP.)

* SEE DETAIL "C", DWG. M-94-6 FOR SPACING.

NOTE: Supports shall be spaced @ Equal spaces, not to exceed 25'-0" c.c.



Waterline Support

— Estimated Quantities —

	Class "A" Concrete C.Y.	Reinforcing Steel Lbs.	Epoxy-Steel Lbs.
Superstructure	1482.6	92,180	178,929

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

Superstructure
Sharondale Drive over
Interstate-440
Station 199+75.72
Davidson County
1982

DESIGNED BY STAN UPCHURCH DATE
DRAWN BY K. COLEMAN DATE 10-81
SUPERVISED BY J. FEILDS DATE 10-81
CHECKED BY DATE

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

M-94-4

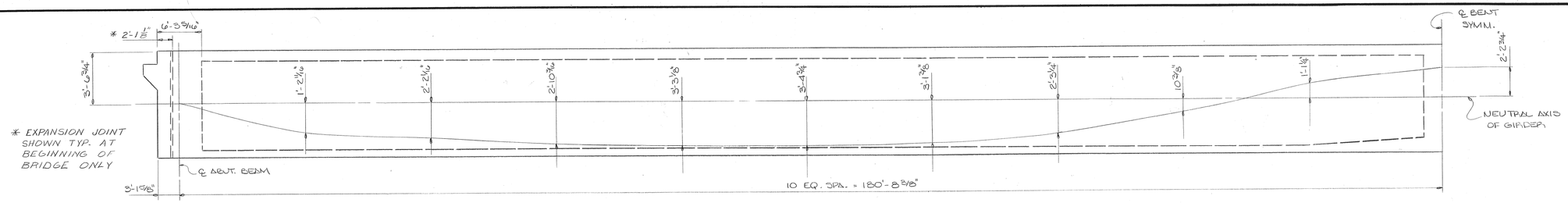
SCANNED
MICROFILMED

CONST. NO. 19014-3111-44

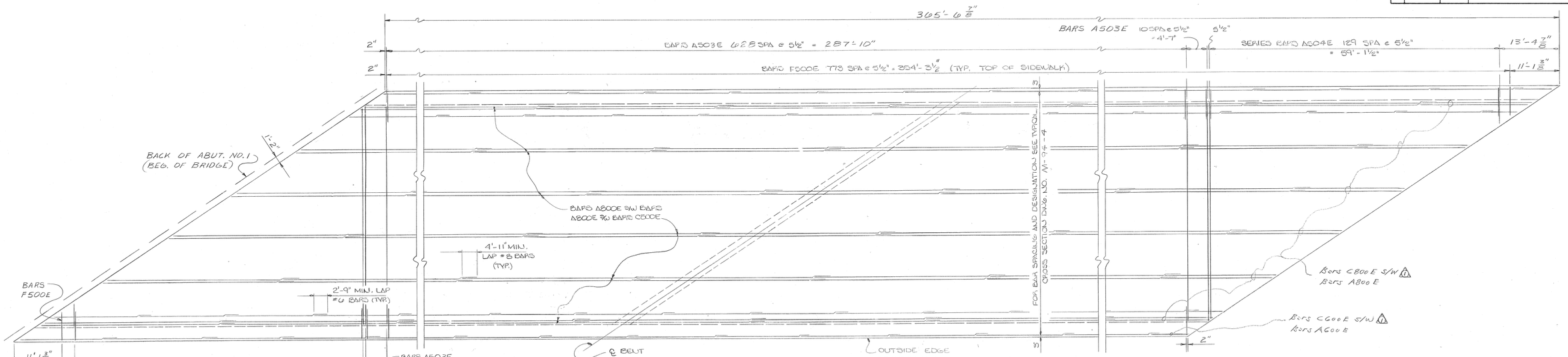
PROJECT NO.	YEAR	SHEET NO.
I-440-1(23)206	1982	

REVISIONS

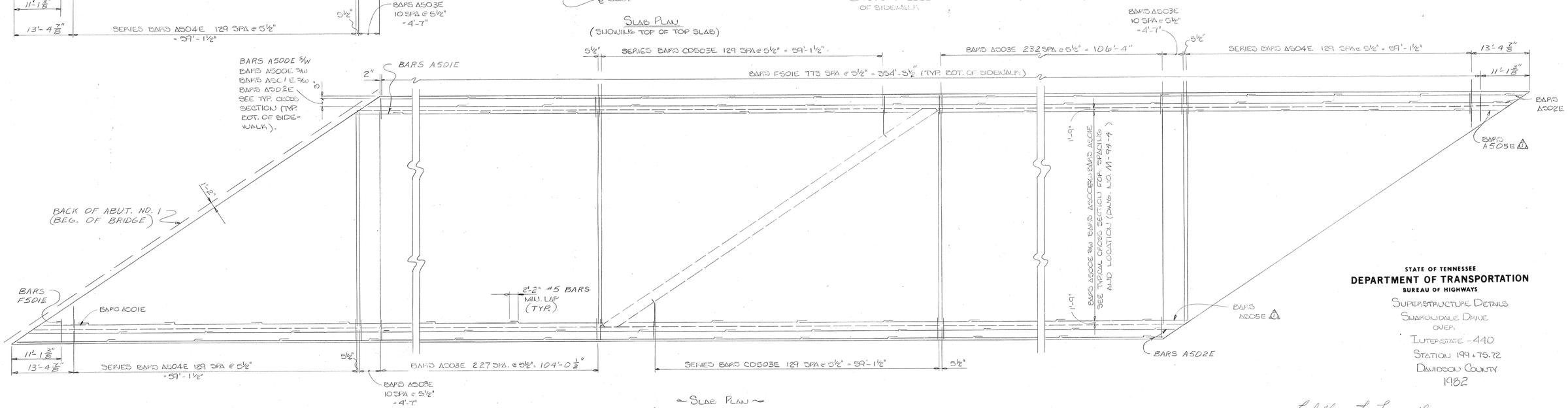
NO.	DATE	BY	BRIEF DESCRIPTION
1	8-21-85	SW	Bar A505E & C-Bars added



ELEVATION SHOWING CABLE PATH



SLAB PLAN
(SHOWING TOP OF TOP SLAB)



~ SLAB PLAN ~
(SHOWING BOTTOM OF TOP SLAB)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS
SHADYDALE DRIVE
OVER
INTERSTATE - 440
STATION 199+75.72
DAVIDSON COUNTY
1982

DESIGNED BY S. UPCHURCH DATE
DRAWN BY K. COLEMAN DATE 12-80
SUPERVISED BY J. FIELDS & M. HOLLORAN DATE 12-80
CHECKED BY DATE

CORRECT Lakellon L Forwall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-94-5

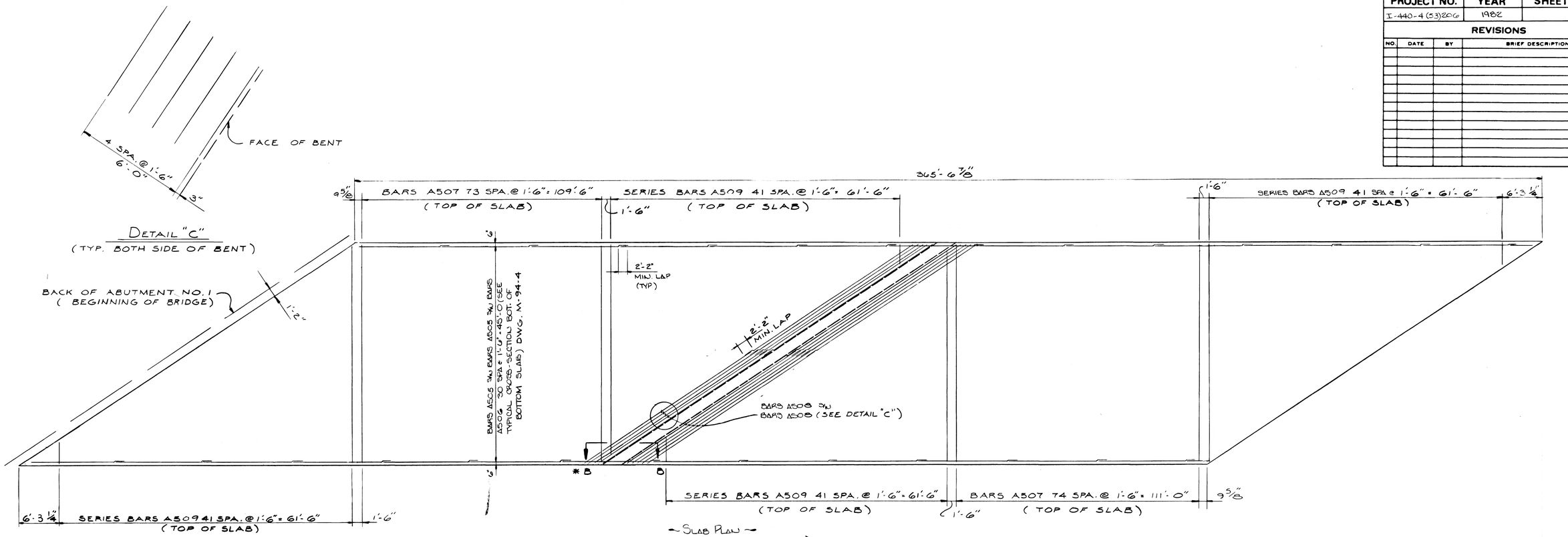
SCANNED
MICROFILMED

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



SLAB PLAN
(SHOWING BOTTOM OF BOTTOM OF SLAB)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS
SHAFORD HALE DRIVE OVER
INTERSTATE-440
STATION 191+75.72
DAVIDSON COUNTY
1982

DESIGNED BY S. UPCHURCH DATE
DRAWN BY K. COLEMAN DATE 1-82
SUPERVISED BY J. FIELDS & M. HOLLOWAY DATE 1-82
CHECKED BY DATE

CORRECT Clifton L. Foreall
ENGINEER OF STRUCTURES
APPROVED Louis Brown
DIRECTOR OF HIGHWAYS

M-94-6

MICROFILMED

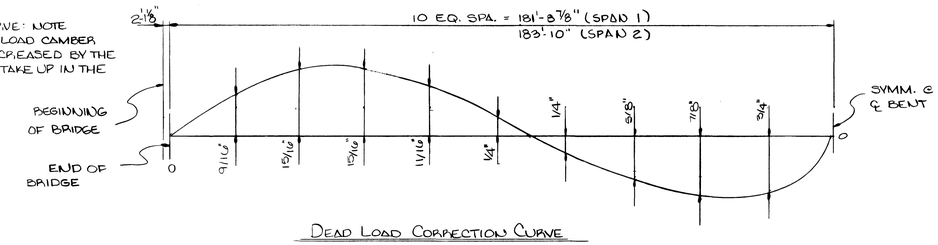
CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4-(63)206	1986	

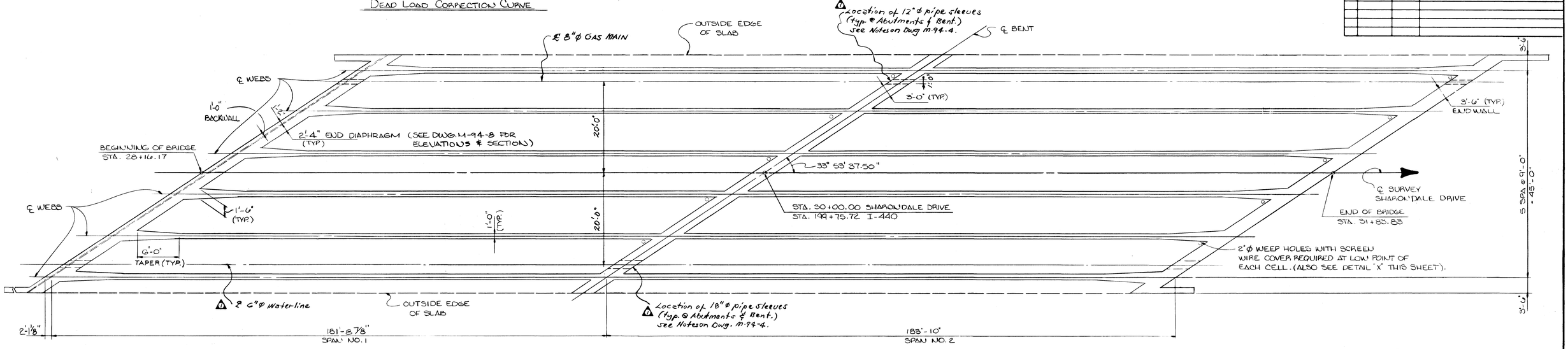
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	1-25-86	PM	Gas & Water line details & notes added.

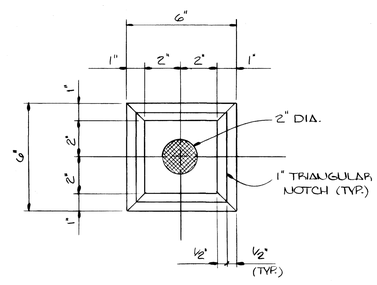
DEAD LOAD CORRECTION CURVE: NOTE THIS CURVE IS FOR DEAD LOAD CAMBER ONLY AND SHOULD BE INCREASED BY THE AMOUNT OF ANTICIPATED TAKE UP IN THE FALSEWORK.



DEAD LOAD CORRECTION CURVE

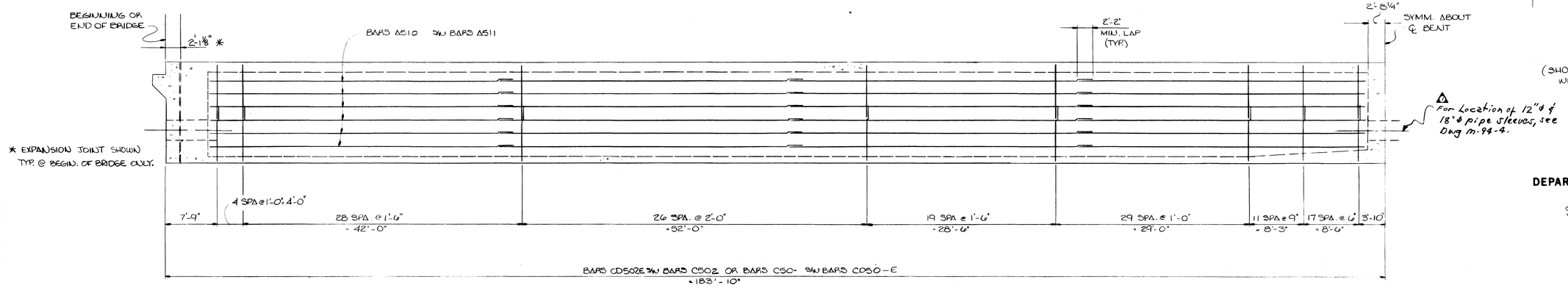


— FRAMING PLAN —



DETAIL 'X'

(SHOWING 2" DIA. WEEP HOLES WITH WIRE SCREEN COVER)



— ELEVATION —

(TYPICAL BOTH SPANS EACH WEB)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS
SHAROLDALE DRIVE
OVER
INTERSTATE-440
STATION 199+75.72
DAVIDSON COUNTY
1986

DESIGNED BY S. UPCHURCH DATE
DRAWN BY K. COLEMAN DATE 11-86
SUPERVISED BY J. FIELDS & M. HOLLORAN DATE 11-86
CHECKED BY DATE

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

M-94-7

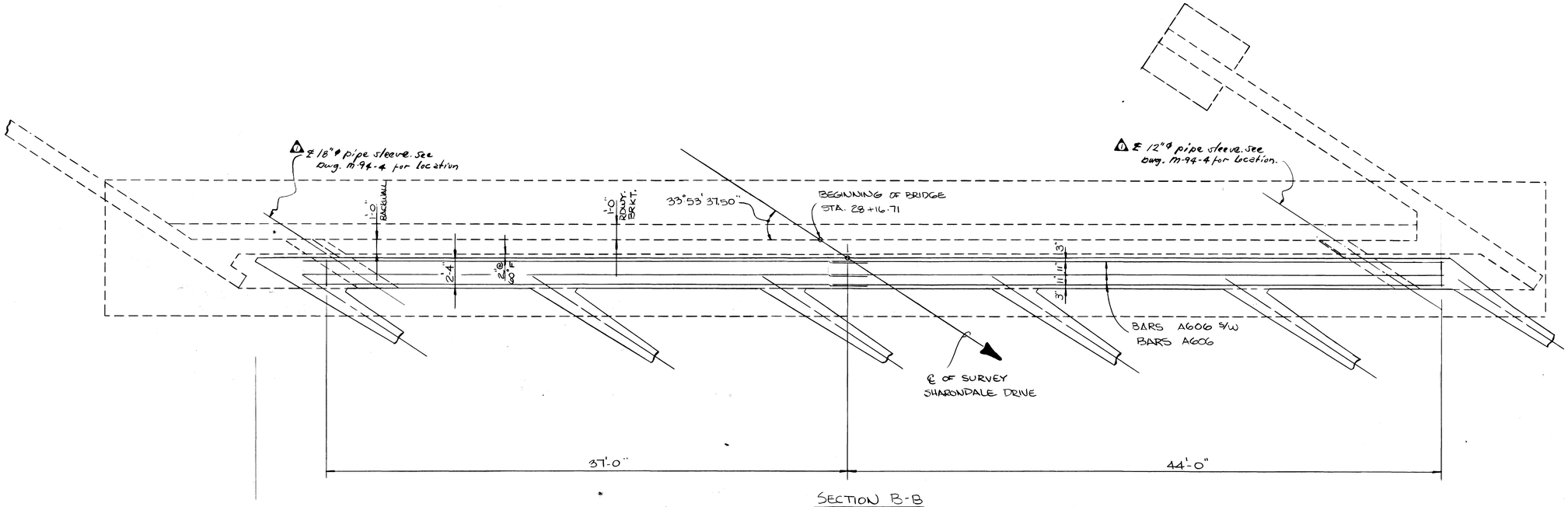
MICROFILMED

CONST. NO 19014-3111-44

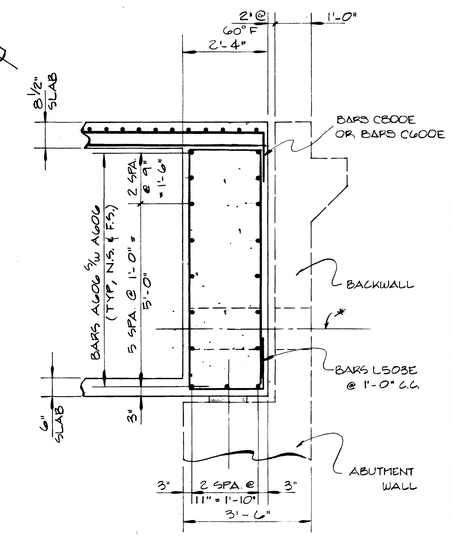
PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	1-28-85	PW	Gas & Water line location & Notes added.

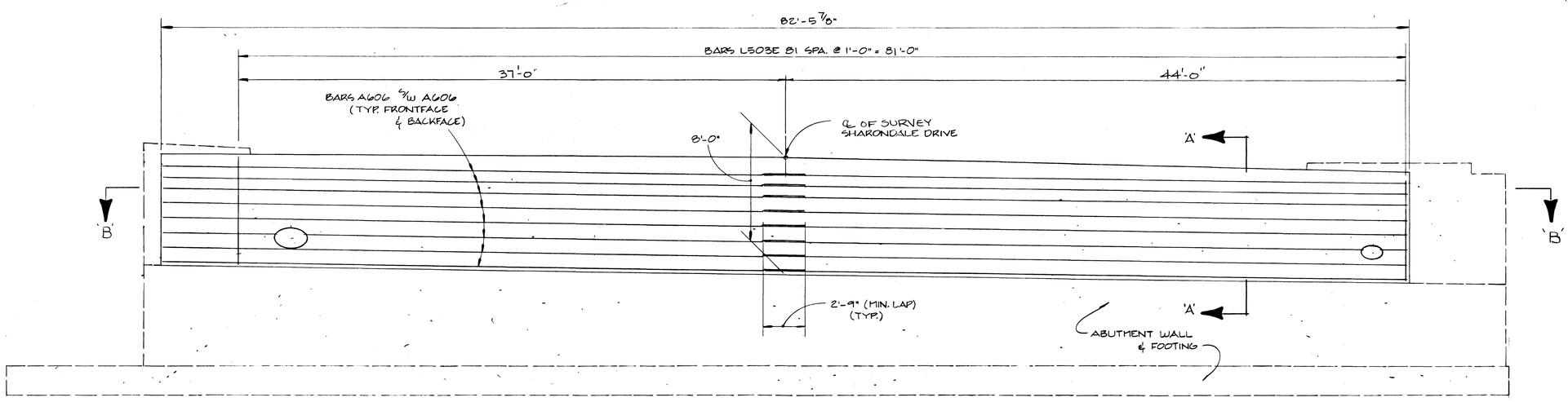


SECTION B-B



SECTION "A-A"

Δ1 * For location of 12"ϕ & 18"ϕ pipe sleeves, see Dwg. No. M-94-4. Field bend (or move) bars around pipe sleeves. Do not cut bars.



Δ1 END DIAPHRAGM ELEVATION
TYPICAL @ ABUTMENT 1 ONLY
(LOOKING BACK ON SURVEY)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS @ ABUT. 1
SHARONDALE DRIVE OVER
INTERSTATE 440
STATION 199+75.72
DAVIDSON COUNTY
1982

DESIGNED BY S. UPCHURCH DATE
DRAWN BY D. BRILEY DATE 2-82
SUPERVISED BY J. FIELDS & M. HOLLOMAN DATE 2-82
CHECKED BY DATE

CORRECT Clellon L. Forrest
ENGINEER OF STRUCTURES
APPROVED Lewis Blevins
DIRECTOR OF HIGHWAYS

M-94-8

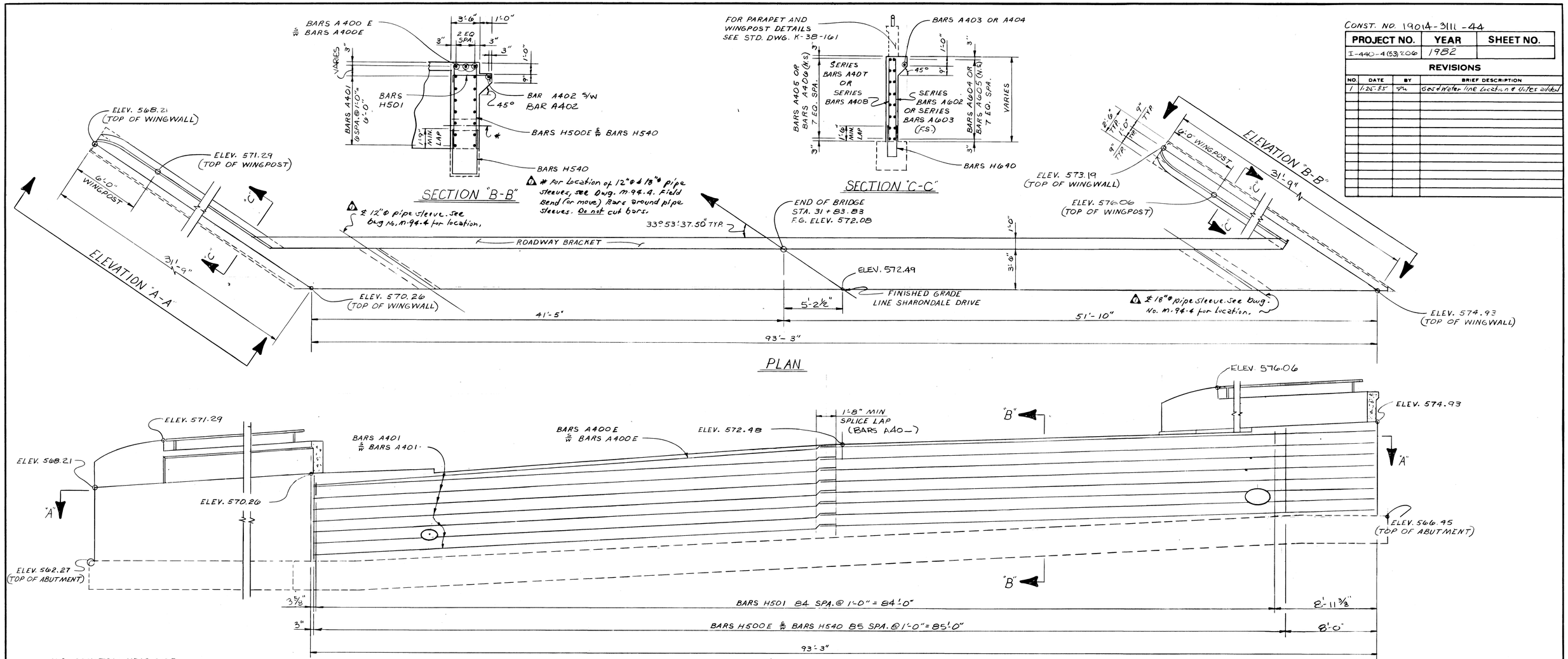
MICROFILMED

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	1-25-85	SPU	Gas & Water line Location & Utes added



NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOST AND PARAPET. FOR DETAILS OF WINGPOST AND PARAPET SEE STANDARD DRAWING NO. M-28-1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS
AT ABUTMENT NO. 2
SHARONDALE DRIVE OVER
INTERSTATE 440
STATION 199+75.72
DAVIDSON COUNTY
1982

DESIGNED BY	STAN UPCHURCH	DATE	9-81
DRAWN BY	TONY LEWIS	DATE	10-28-81
SUPERVISED BY	JIM FIELDS	DATE	10-28-81
CHECKED BY		DATE	

CORRECT Clellon L. Loveall
ENGINEER OF STRUCTURES
APPROVED Louis Brown
DIRECTOR OF HIGHWAYS

M-94-9

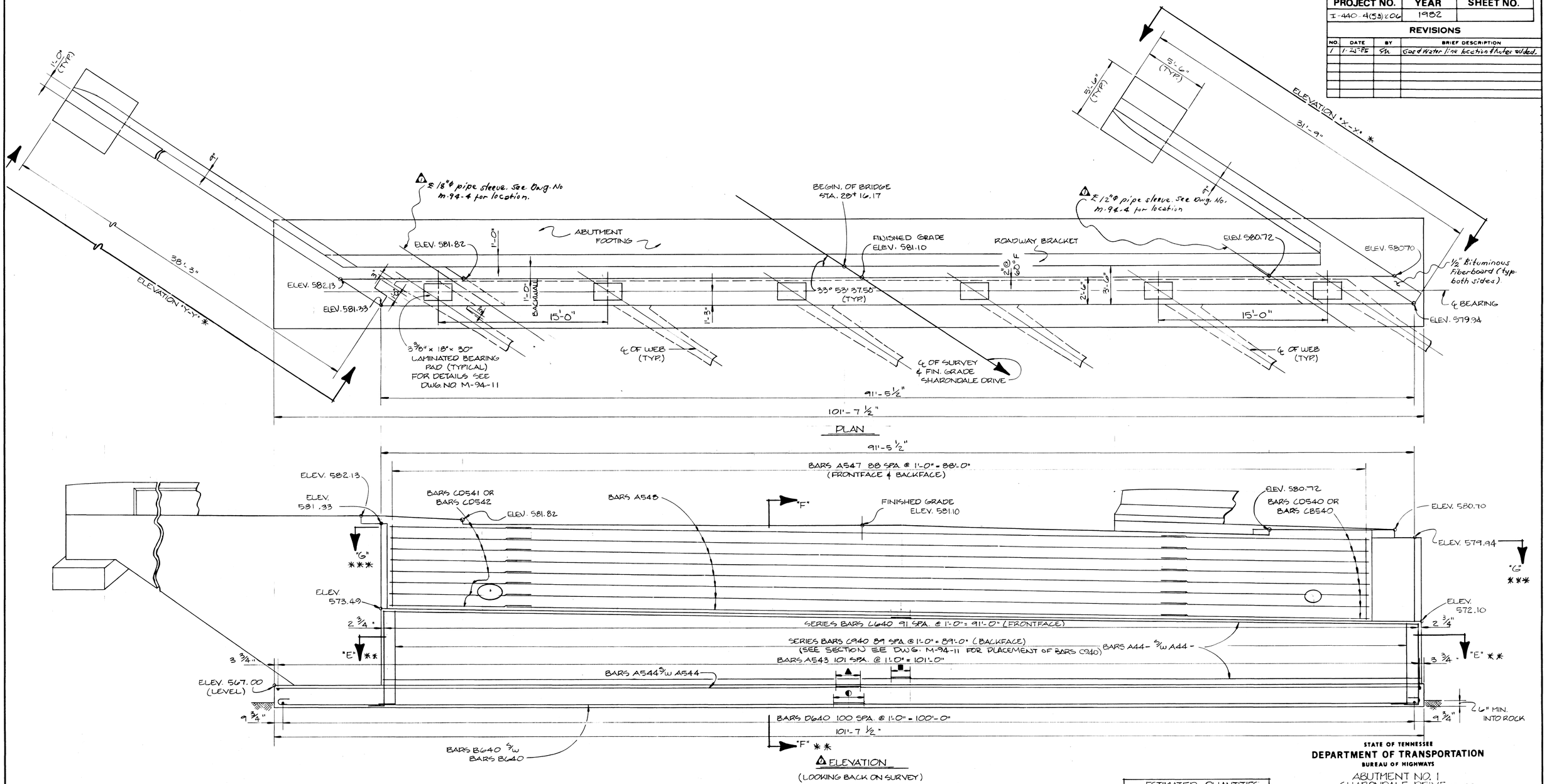
MICROFILMED

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	1-23-85	SA	Gas & Water line location & Notes added.



NOTE: FOR FURTHER BAR DESIGNATIONS AND SECTIONS, SEE ABUTMENT DETAIL SHEETS.

* SEE DWG M-94-12

** SEE DWG. M-94-11

*** SEE DWG. M-94-13

■ DENOTES: 1'-8" SPLICE.
▲ DENOTES: 2'-2" SPLICE.
◐ DENOTES: 2'-9" SPLICE.

ESTIMATED QUANTITIES	
CLASS 'A' CONCRETE (C.Y.)	REINFORCING STEEL LBS.
195.6	17,475

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 1
SHARONDALE DRIVE OVER
INTERSTATE 440
STATION 199+75.72
DAVIDSON COUNTY
1982

DESIGNED BY S. UPCHURCH DATE
DRAWN BY DONNA B. DATE 2-82
SUPERVISED BY FIELDS & HOLLORAN DATE
CHECKED BY DATE

CORRECT Lillian L. Lowell
ENGINEER OF STRUCTURES
APPROVED Louis Shaw
DIRECTOR OF HIGHWAYS

M-94-10

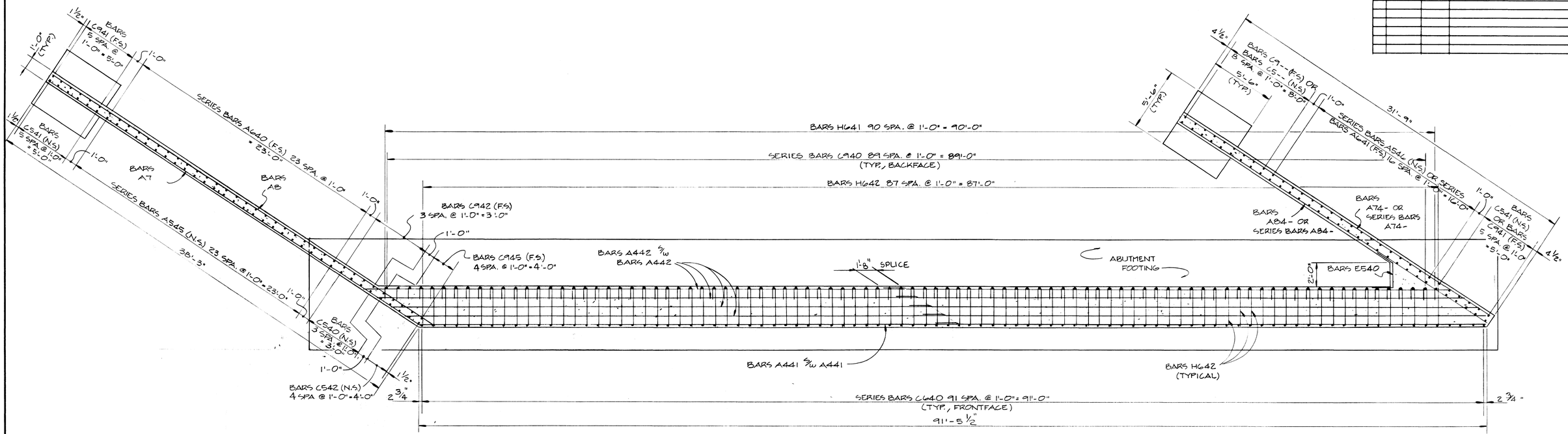
MICROFILMED

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(5)206	1982	

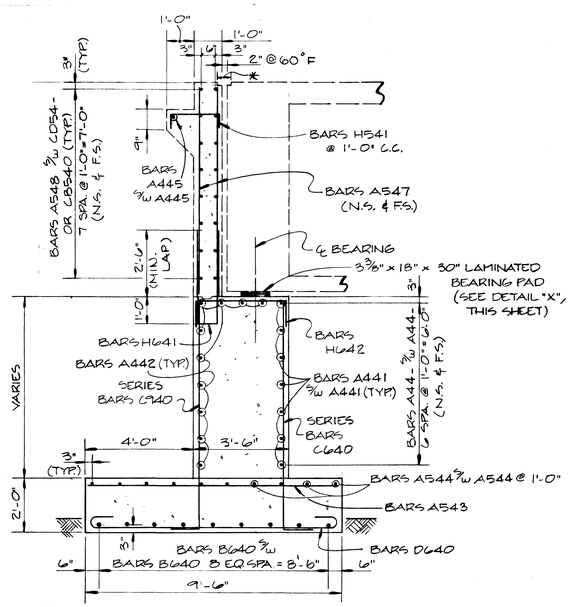
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



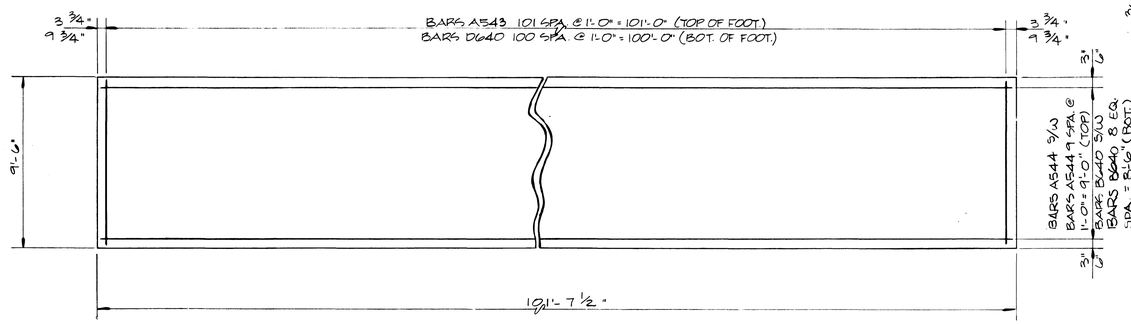
SECTION "E-E"

N.S. DENOTES NEAR SIDE.
F.S. DENOTES FAR SIDE.

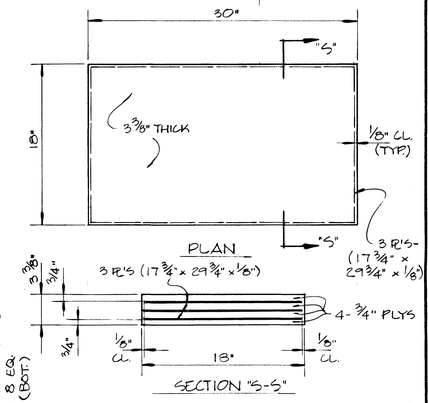


SECTION "F-F"

* DIMENSION TO BE DETERMINED BY THE SUPPLIER OF EXPANSION JOINT.



PLAN OF ABUTMENT FOOTING



PLAN

SECTION "S-S"

DETAIL "X"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 1 DETAILS
SHARONDALE DRIVE OVER
INTERSTATE 440
STATION 199 + 75.72
DAVIDSON COUNTY
1982

DESIGNED BY S. UPCHURCH DATE
DRAWN BY DONNA BRILEY DATE FEB '82
SUPERVISED BY FIELDS & HOLLORAN DATE
CHECKED BY DATE

CORRECT Edwin L. Fowler
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-94-11

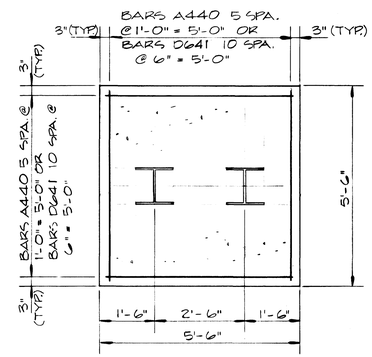
MICROFILMED

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(8:)206	1982	

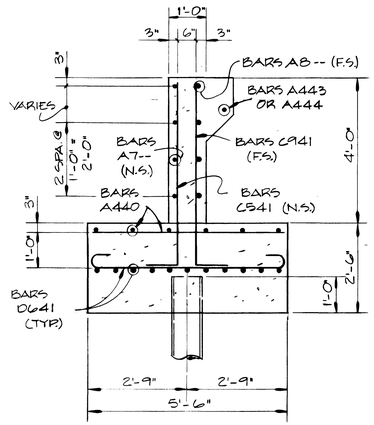
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

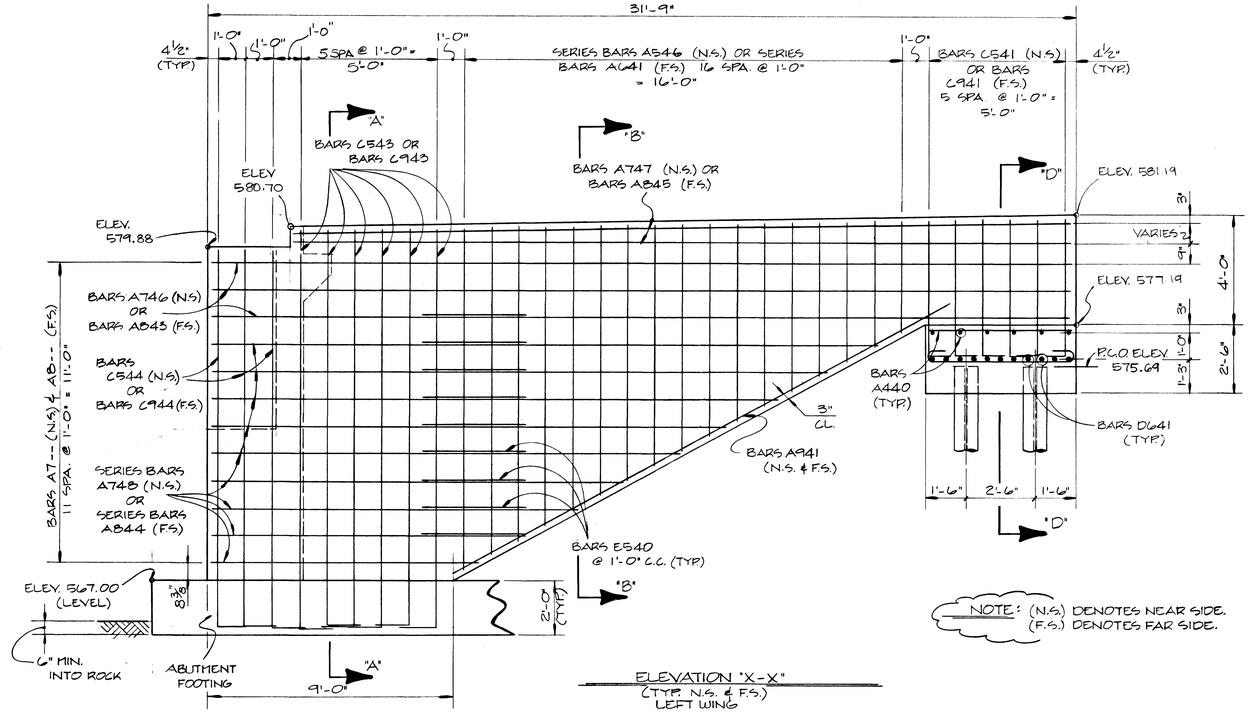


PLAN OF WING FOOTING

NOTE: USE HP10 x 42 PILES IN WING FOOTING.

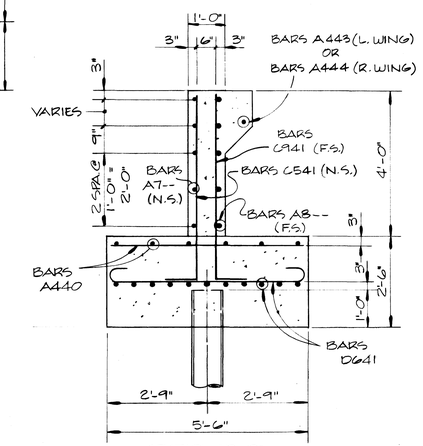


SECTION "C-C"

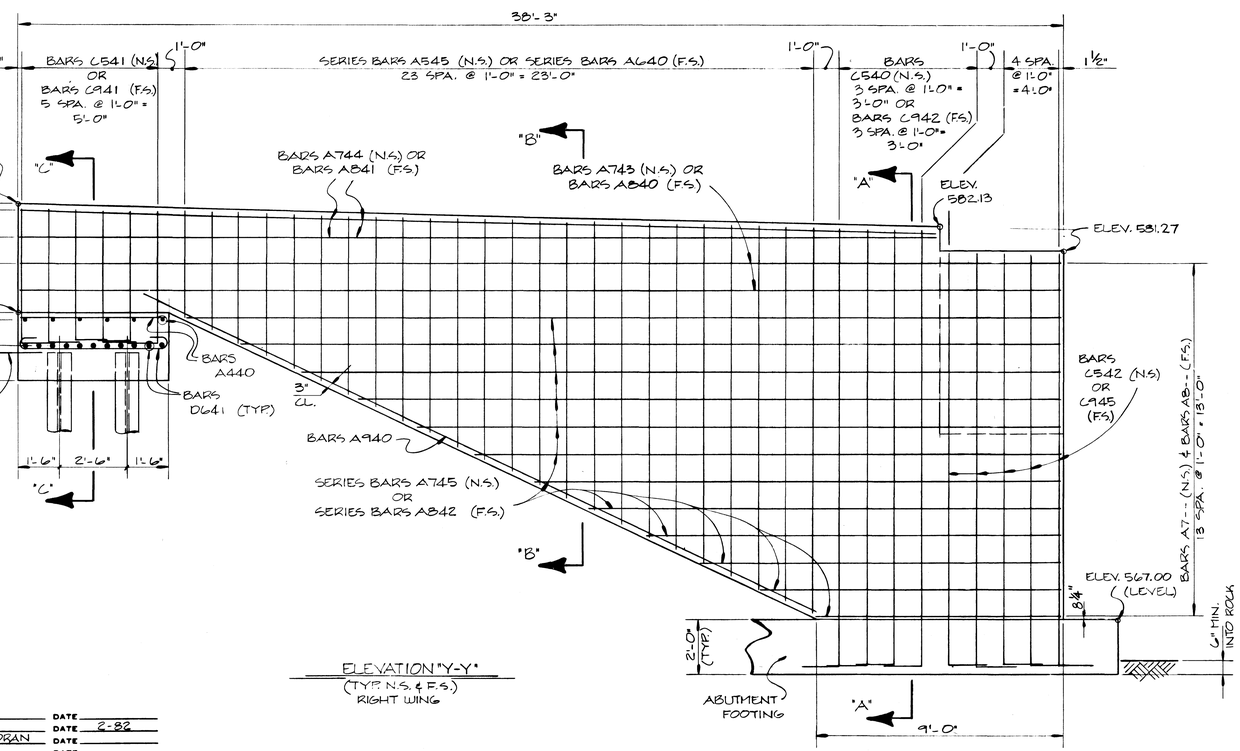


ELEVATION "X-X"
(TYP. N.S. & F.S.)
LEFT WING

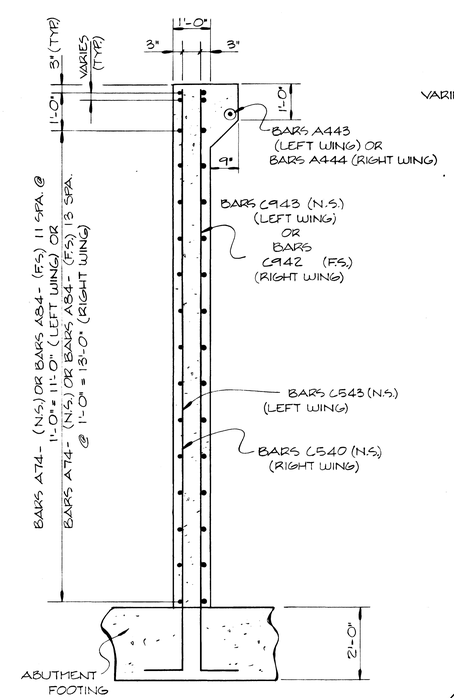
NOTE: (N.S.) DENOTES NEAR SIDE.
(F.S.) DENOTES FAR SIDE.



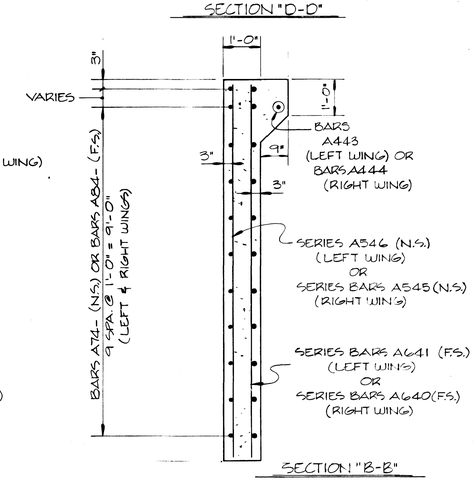
SECTION "D-D"



ELEVATION "Y-Y"
(TYP. N.S. & F.S.)
RIGHT WING



SECTION "A-A"



SECTION "B-B"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO 1 DETAILS
SHARONDALE DRIVE
OVER INTERSTATE 440
STATION 199+75.72
DAVIDSON COUNTY
1982

DESIGNED BY S. UPCHURCH DATE
DRAWN BY D. BRILEY DATE 2-82
SUPERVISED BY FIELDS & HOLLORAN DATE
CHECKED BY DATE

CORRECT Clellon L. Bunch
ENGINEER OF STRUCTURES
APPROVED Lewis Brown
DIRECTOR OF HIGHWAYS

M-94-12

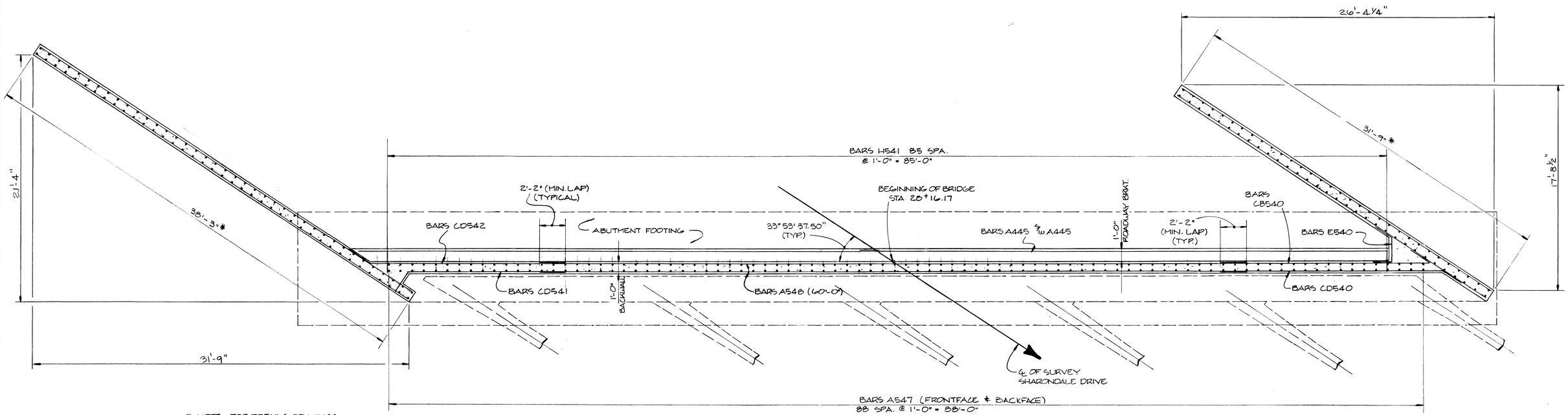
MICROFILMED

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)246	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



* NOTE: FOR DETAILS OF WINGS SEE DWG. NO M-94-12

SECTION "G-G"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 1 DETAILS
SHARONDALE DRIVE OVER
INTERSTATE 440
STATION 199+75.72
DAVIDSON COUNTY
1982

DESIGNED BY S. UPCHURCH DATE
DRAWN BY DONNA B. DATE 2-82
SUPERVISED BY FIELDS & HOLLORAN DATE
CHECKED BY DATE

CORRECT Ellen L. Russell
ENGINEER OF STRUCTURES
APPROVED Louis Evans
DIRECTOR OF HIGHWAYS

M-94-13

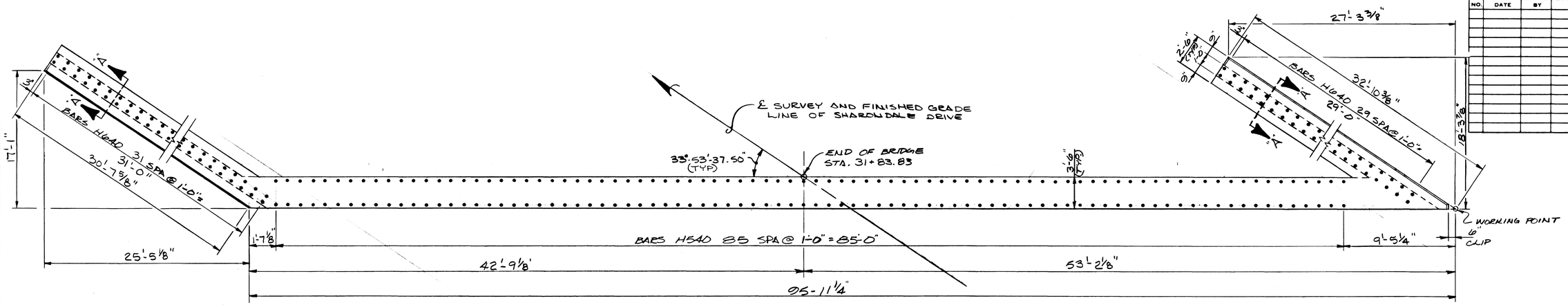
MICROFILMED

CONST. NO. 19014-3111-44

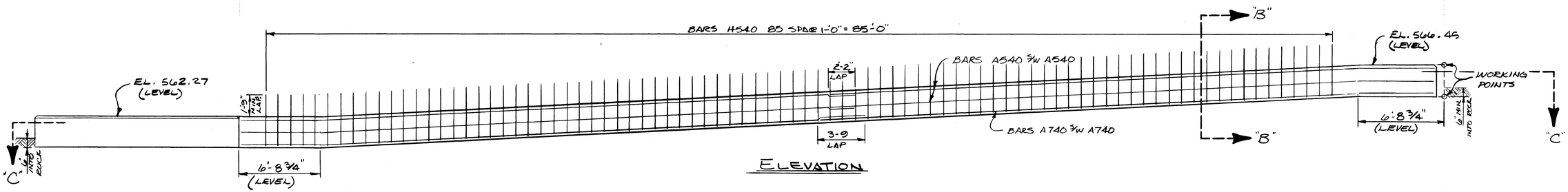
PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

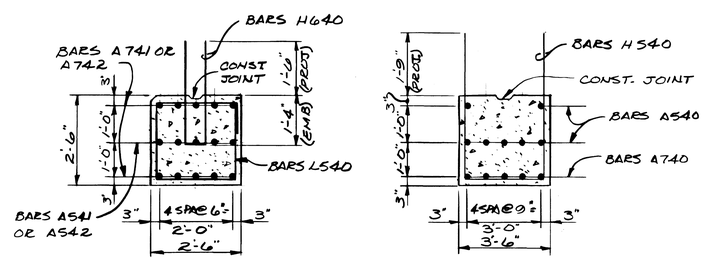
NO.	DATE	BY	BRIEF DESCRIPTION



PLAN

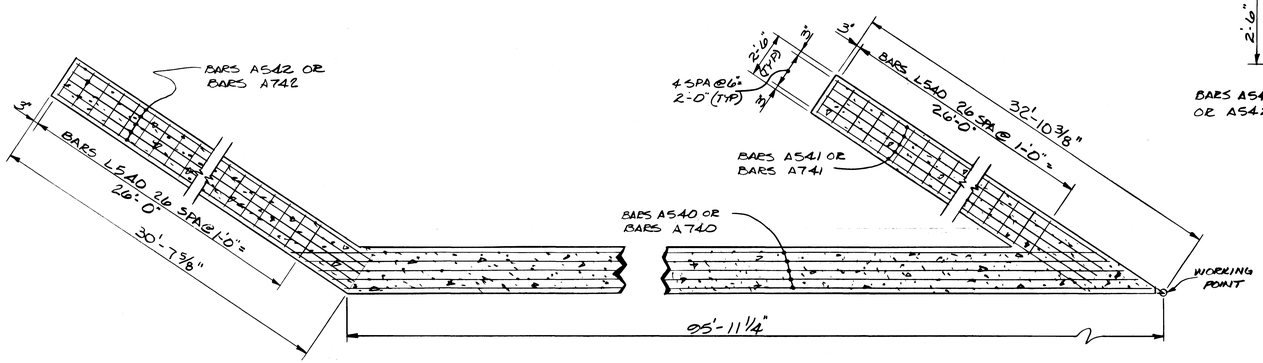


ELEVATION



SECTION "A"-"A"

SECTION "B"-"B"



SECTION "C"-"C"

NOTE:
COST OF BRIDGE RAIL AND POST IS TO BE INCLUDED IN THE COST OF BRIDGE RAIL SYSTEM.

ESTIMATED QUANTITIES

ITEM	REINFORCING STEEL LBS.	CONCRETE CLASS "A" (C.Y.)
ABUTMENT No. 2	5,449	43.5

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT No. 2
SHARONDALE DRIVE OVER
INTERSTATE I-440
STATION 199+75.72
DAVIDSON COUNTY
1982

DESIGNED BY STAN UPCHURCH DATE
DRAWN BY KENNY FRANKENFIELD DATE 10-26-81
SUPERVISED BY SAM FIELDS DATE 10-26-81
CHECKED BY DATE

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Louis Guard
DIRECTOR OF HIGHWAYS

M-94-14

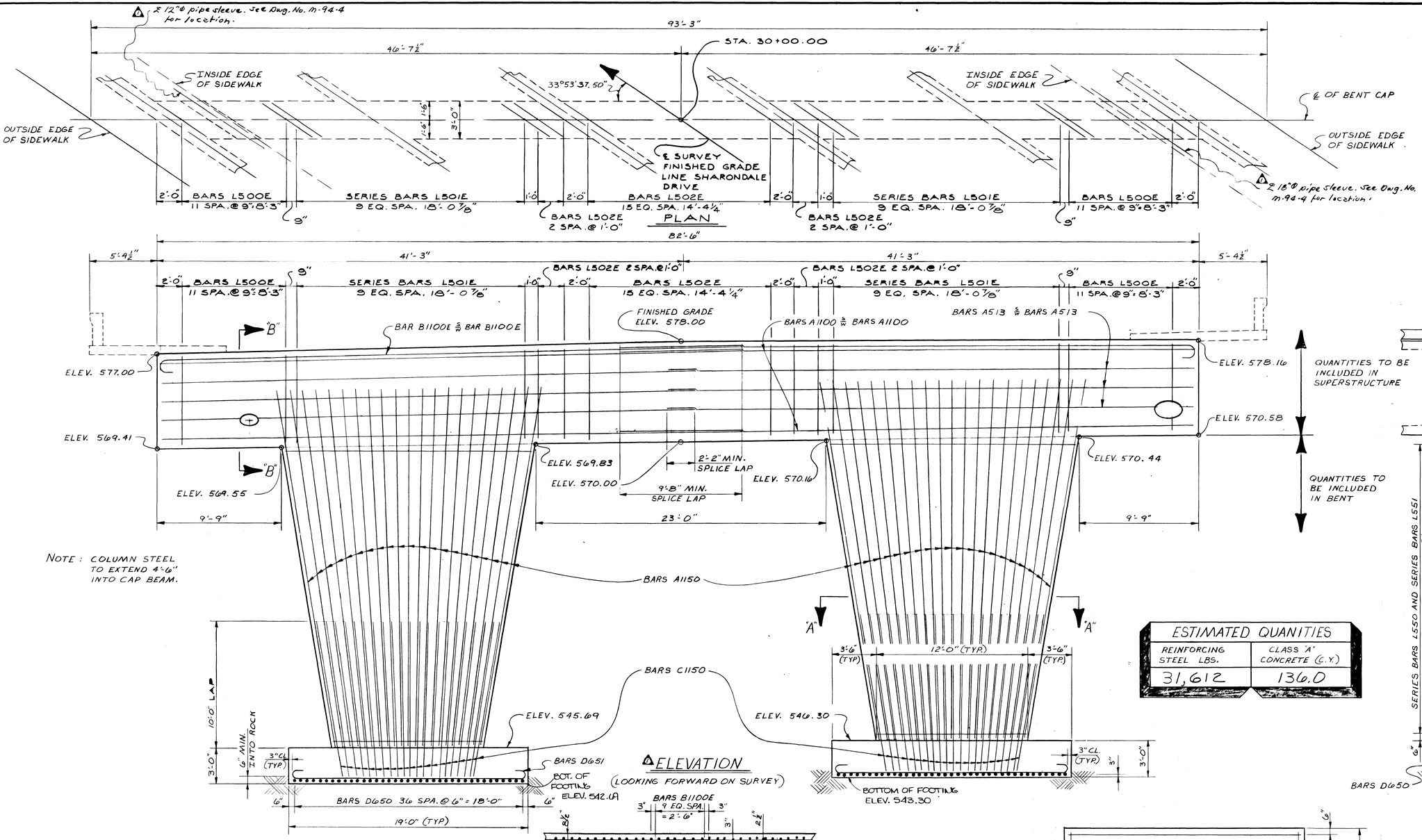
MICROFILMED

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	1-28-85	PA	Gas & Water line location & Notes added.



△ 12"ϕ pipe sleeve. See Dwg. No. M-94-4 for location.

△ 18"ϕ pipe sleeve. See Dwg. No. M-94-4 for location.

△ * For location of 12"ϕ & 18"ϕ pipe sleeves, see Dwg. No. M-94-4. Field bend (or move) Bars around pipe sleeves, do not cut bars.

NOTE: COLUMN STEEL TO EXTEND 4'-6" INTO CAP BEAM.

NOTE: STOP BOTTOM MAT OF STEEL IN TOP SLAB AT FACE OF BENT.

ESTIMATED QUANITIES	
REINFORCING STEEL LBS.	CLASS "A" CONCRETE (C.Y.)
31,612	136.0

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BENT
SHARONDALE DRIVE OVER
INTERSTATE 440
STATION 199+75.72
DAVIDSON COUNTY

CORRECT Calellon L Lovelace 1982
ENGINEER OF STRUCTURES
APPROVED Louis Guard
DIRECTOR OF HIGHWAYS

DESIGNED BY	S. UPCHURCH	DATE 12-81
DRAWN BY	T. LEWIS	DATE 12-81
SUPERVISED BY	J. FIELDS	DATE 12-81
CHECKED BY		DATE

M-94-15

MICROFILMED

CONST. NO. 19014-3111-44

BILL OF STEEL

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	I-440-4(53)206	1982		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	3-21-85	PAL	Bar Nos., Size & Dimensions.

SUPERSTRUCTURE (EPOXY-COATED)

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A400E	@ ABUT. NO. 2	4	6					47'-3"
A500E	BOT. OF TOP SLAB & CURB	5	318					60'-0"
A501E	BOT. OF TOP SLAB	5	45				△1	31'-3"
A502E	BOT. OF CURB	5	8					18'-3"
△1 A505E	TOP SLAB	5	45				△1	5'-4"
△1 A503E	TOP SLAB	5	1124	△1				45'-8"
△1 SER. A504E	TOP SLAB	5	4	BARS VARY 45'-0" TO 4'-9" IN INC. OF 0'-3¾" (130 BARS)				3233'-9"
A600E	SLAB & SIDEWALK	6	234					60'-0"
A601E	SIDEWALK	6	14					21'-9"
A800E	TOP OF SLAB	8	72					60'-0"
B1100E	CAP & BENT	11	20					47'-6"
C600E	SLAB	6	50	12'-3"				13'-3"
C800E	TOP OF SLAB	8	24	19'-10"				21'-2"
CD500E	EXTERIOR WEBS	5	540	4'-1"	10"	1/8"		4'-11"
CD501E	EXTERIOR WEBS	5	540	3'-7"	10"	1/8"		4'-5"
CD502E	INTERIOR WEBS	5	2160	4'-5"				5'-3"
SER. CD503E	BOT. OF TOP SLAB	5	2		8'-4"	10"		3342'-1"
				DIM. "A" VARIES 45'-0" TO 4'-9" IN INC. OF 0'-3¾" (130 BARS)				
F500E	TOP OF SIDEWALK	5	1548	5'-7"	1/2"	1'-6"	8"	7'-8"
F501E	BOT. OF SIDEWALK	5	1548	2'-9"	1/2"	1'-6"	8"	4'-10"
H500E	@ ABUT. NO. 2	5	86	3'-2"	7'-4"			17'-10"

SUPERSTRUCTURE (EPOXY-COATED) (CONT.)

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
L500E	BENT CAP	5	48	3'-2½"	1'-0"	6'-7"		20'-7"
SER. L501E	BENT CAP	5	4	3'-2½"	1'-0"			
				DIM. "C" VARIES 6'-7¾" TO 6'-10" IN INC. 0'-0¼" (10 BARS)				208'-11"
SER. L502E	BENT CAP	5	44	3'-2½"	1'-0"	6'-10"		21'-1"
L503E	END DIAPHRAGM	5	82	2'-0"	1'-0"	6'-11"		18'-8"

SUPERSTRUCTURE

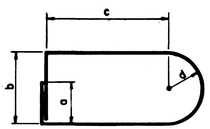
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A401	ABUT. WALL	4	28					47'-3"
A402	R. BRACKET	4	2					45'-9"
A403	PARAPET SUPPORT	4	1					17'-7"
A404	PAR. SUPP.	4	1					13'-5"
A405	WINGWALL	4	8					31'-5"
A406	WINGWALL	4	8					29'-11"
SER. A407	WINGWALL	4	1	BARS VARY 5'-9⅜" TO 7'-9" IN INC. OF 0'-0¾" (32 BARS)				217'-0"
SER. A408	WINGWALL	4	1	BARS VARY 8'-3" TO 6'-5⅛" IN INC. OF 0'-0¾" (30 BARS)				220'-4"
A505	BOT. SLAB	5	186					60'-0"
A506	BOT. SLAB	5	31					18'-3"
A507	TOP OF BOT. SLAB	5	149					45'-8"
A508	BOT. SLAB @ FLARES	5	20					42'-0"
SER. A509	BOT. SLAB	5	4	BARS VARY 45'-0" TO 4'-0" IN INC. OF 1'-0" (42 BARS)				1029'-0"
A510	WEBS	5	432					60'-0"
A511	WEBS	5	72					18'-3"
A604	WINGWALL	6	8					31'-5"
A605	WINGWALL	6	8					29'-11"
A606	END DIAPHRAGM	6	34					45'-6"

SUPERSTRUCTURE (CONT.)

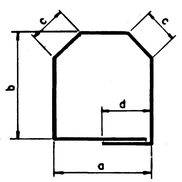
BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
SER. A602	WINGWALL	6	1	BARS VARY 5'-9⅜" TO 7'-9" IN INC. 0'-0¾" (32 BARS)				217'-0"
SER. A603	WINGWALL	6	1	BARS VARY 8'-3" TO 6'-5⅛" IN INC. OF 0'-0¾" (30 BARS)				220'-4"
B1100	BENT CAP	11	12					45'-11"
C500	BOT. OF BOT. SLAB	5	398	23'-11"				24'-9"
SER. C501	BOT. OF BOT. SLAB	5	2	DIM. "A" VARIES FROM 45'-6" TO 4'-6" IN INC. OF 1'-0" (42 BARS)				1085'-0"
C502	WEBS	5	2700	4'-2"				5'-0"
C503	WEBS	5	540	3'-11"				4'-9"
E500	TOP OF BOT. SLAB	5	31	5'-4½"	17'-6"	4"	17'-6"	40'-4"
H501	ABUT. WALL	5	85	6"	4'-2"			5'-1"

ABUTMENT NO. 1

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A440	WING FOOTING	4	24					5'-2"
A441	ABUT. WALL	4	14					46'-5"
A442	ABUT. WALL	4	20					47'-3"
A443	PAR. SUPP. (L)	4	1					21'-7"
A444	PAR. SUPP. (R)	4	1					31'-8"
A445	R.WY. BRACKET	4	2					44'-0"
A543	ABUT. FOOTING	5	102					9'-2"
A544	ABUT. FOOTING	5	20					51'-9"
SER. A545	RIGHT WING	5	1	BARS VARY 14'-10¼" TO 3'-10" IN INC. OF 5¾" (24 BARS)				224'-3"
SER. A546	LEFT WING	5	1	BARS VARY 13'-3" TO 4'-1" IN INC. OF 0 7/8" (17 BARS)				147'-4"
A547	BACKWALL	5	178					7'-7"
A548	BACKWALL	5	16					60'-0"
SER. A640	RIGHT WING	6	1	BARS VARY 14'-10¼" TO 3'-10" IN INC. OF 0'-5¾" (24 BARS)				224'-3"
SER. A641	LEFT WING	6	1	BARS VARY 13'-3" TO 4'-1" IN INC. OF 0'-0 7/8" (17 BARS)				147'-4"
A743	R. WING	7	2					37'-11"
A744	R. WING	7	2					33'-5"
SER. A745	R. WING	7	1	BARS VARY 8'-9" TO 32'-0" IN INC. OF 2'-1⅜" (12 BARS)				244'-6"
A746	L. WING	7	3					31'-5"
A747	L. WING	7	2					28'-5"
SER. A748	L. WING	7	1	BARS VARY 9'-8" TO 24'-1" IN INC. OF 1'-9⅝" (9 BARS)				151'-10"
A840	R. WING	8	2					37'-11"
A841	R. WING	8	2					33'-5"



BARS X

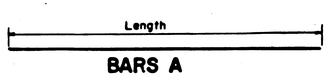


BARS M

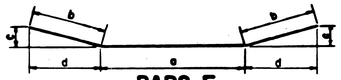
REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

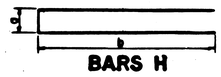
NOTE Dimensions shown on this sheet are outside to outside of bar. Standard C.R.S.I. Hook Details Shall Apply, Except As Noted.



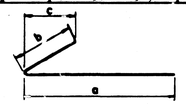
BARS A



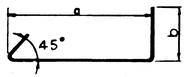
BARS E



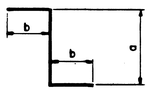
BARS H



BARS CB



BARS YB



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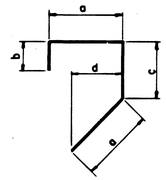
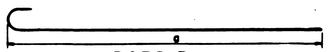


BARS J



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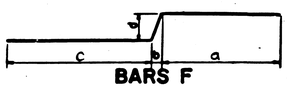
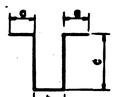
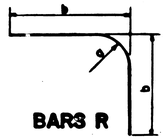


BARS F

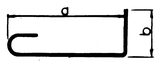


BARS K

BARS L



BARS R



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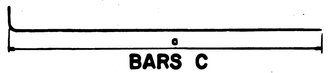

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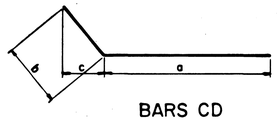
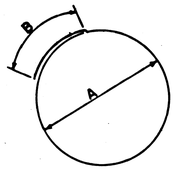
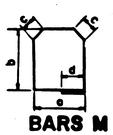


BARS CD

BARS D

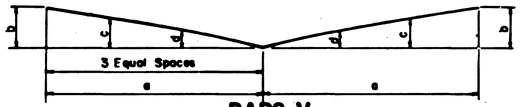


BARS T

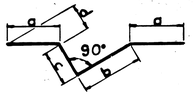


BARS M

BARS S



BARS V



BARS JX

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL

SHARONDALE DRIVE OVER INTERSTATE-440
STATION 199+75.72
DAVIDSON COUNTY
1982

DESIGNED BY S. UPCHURCH DATE
DRAWN BY K. MOODY DATE 3-82
SUPERVISED BY J. FIELDS & A. HOLLOWAY DATE 3-82
CHECKED BY DATE

CORRECT Roberton L. Fowlkes
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-94-16

5-0-2

MICROFILMED

CONST. NO. 1001d-3111-44

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	I-440-4(53)20(c)	1982		

BILL OF STEEL

Abutment No. 1 (cont.)

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
SER.								
A842	R. WING	8	1	BARS VARY 8'-9" TO 32'-0" IN INC. OF 2'-1 3/8" (12 BARS)				244'-6"
A843	L. WING	8	3					31'-5"
SER.								
A844	L. WING	8	1	BARS VARY 9'-8" TO 24'-1" IN INC. OF 1'-9 5/8" (9 BARS)				151'-10"
A845	L. WING	8	2					28'-5"
A940	R. WING	9	2					27'-3"
A941	L. WING	9	2					20'-9"
B640	ABUT. FOOTING	6	18	52'-0"				52'-8"
C540	R. WING	5	4	16'-10"				17'-8"
C541	L. & R. WING	5	12	4'-11"				5'-8"
C542	R. WING	5	5	15'-11"				16'-9"
C543	L. WING	5	6	15'-3"				16'-1"
C544	L. WING	5	3	14'-6"				15'-4"
SER.								
C640	A. WALL	6	1	DIM. "A" VARIES 8'-2" TO 6'-9" IN INC. OF 0'-0 3/16" (92 BARS)				686'-2"
SER.								
C940	A. WALL	9	1	DIM. "A" VARIES 8'-1 3/4" TO 6'-9" IN INC. OF 0'-0 3/16" (90 BARS)				670'-4"
C941	L. & R. WINGS	9	12	4'-11"				6'-5"
C942	R. WING	9	4	16'-10"				18'-4"
C943	L. WING	9	6	15'-3"				16'-9"
C944	L. WING	9	3	14'-6"				16'-0"
C945	R. WING	9	5	15'-11"				17'-5"
CD640	BACKWALL	5	8	17'-9"	2'-0"	1'-8"		19'-9"
CD540	BACKWALL	5	8	18'-10"	2'-0"	1'-8"		20'-10"
CD541	BACKWALL	5	8	13'-4"	2'-0"	1'-1 1/2"		15'-4"
CD542	BACKWALL	5	8	16'-6"	2'-0"	1'-8"		18'-6"

Abutment No. 1 (cont.)

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
D640	ABUT. FOOTING	6	101	9'-0"				10'-4"
D641	WING FOOTING	6	44	5'-0"				6'-4"
E540	A. WALL & BACKWALL	5	9	2'-2"	1'-6"	10"	1'-0"	5'-1"
H541	BACKWALL	5	86	1'-8"	5"			2'-5"
H641	A. WALL	6	91	9"	3'-9"			8'-2"
H642	A. WALL	6	88	3'-2"	1'-0"			5'-1"

Abutment No. 2

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A540	A. BEAM	5	14					48'-11"
A541	WINGS	5	5					28'-8"
A542	WINGS	5	5					30'-3"
A740	A. BEAM	7	10					49'-8"
A741	WING	7	10					28'-8"
A742	WING	7	10					30'-3"
H540	A. BEAM	5	86	3'-2"	4'-6"			12'-2"
H640	WINGS	6	62	8"	2'-10"			6'-3"
L540	WINGS	5	54	2'-2"	1'-0"	2'-2"		9'-6"

Bent

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A150	COLUMNS	11	112					28'-6"
C150	COL. & FOOTINGS	11	112	12'-8"				14'-7"
D650	FOOTINGS	6	74	11'-6"				12'-10"
D651	FOOTINGS	6	46	18'-6"				19'-10"
SER.					1'-0"	2'-8"		
L550	COLUMNS	5	2	DIM. "A" VARIES 7'-2 3/4" TO 11'-9 7/8" IN INC. 2 3/8" (24 BARS)				606'-6"
SER.					1'-0"	2'-8"		
L551	COLUMNS	5	4	DIM. "A" VARIES 4'-10 3/4" TO 7'-11 3/4" IN INC. OF 0'-1 3/8" (28 BARS)				458'-6"

Pavement @ Bridge Ends - Abut. No. 1 & 2 (Epoxy)

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A910E	SLAB	4	200					45'-6"
A610E	SLAB & CURB	6	124					24'-2"
A710E	FOOTING & SLAB	7	32					46'-7"
A910E	SLAB	9	99					24'-2"
A1210E	SLAB (DRAINS)	11	8					6'-0"
H690E	SLAB & CURB	6	100	7'-8 1/4"	1'-2"			9'-11"
L590E	FOOTING & SLAB	5	200	1'-2"	1'-0"	2'-2"		7'-6"
A691E	SLAB @ ABUT. 1	6	50					10'-0"
C690E	SLAB @ ABUT. 2	6	50	3'-0"				4'-0"
C990E	SLAB @ ABUT. 2	9	99	4'-0"				5'-7"
F990E	SLAB @ ABUT. 1	9	99	3'-2"	6'-3"	3'-8"	2 1/2"	13'-1"

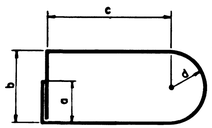
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

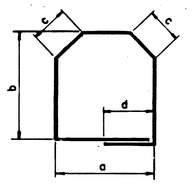
REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

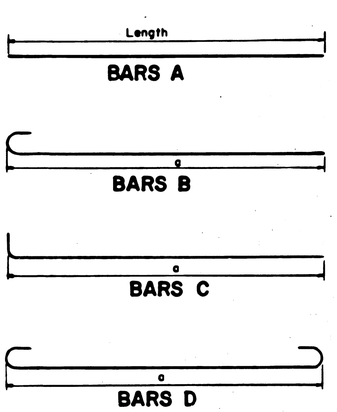
NOTE Dimensions shown on this sheet are outside to outside of bar. Standard C R S I. Hook Details Shall Apply, Except As Noted.

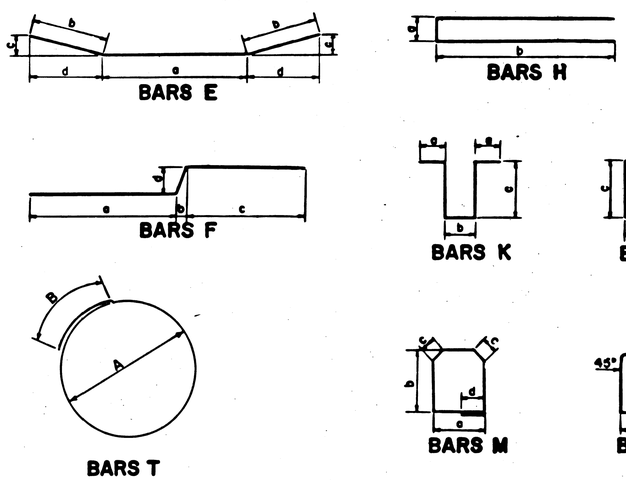


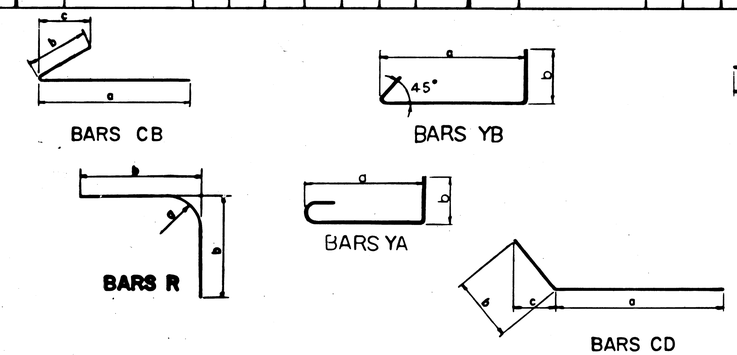
BARS X

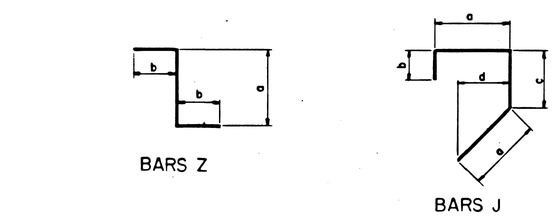


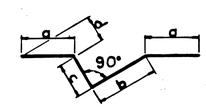
BARS M











STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL

SHARONDALE DRIVE OVER
INTERSTATE - 440
STATION 199+75.72
DAVIDSON COUNTY
1982

DESIGNED BY S. URQHURQH DATE
DRAWN BY K. MOODY DATE 3-82
SUPERVISED BY J. FIELDS & M. HOLLOMAN DATE 3-82
CHECKED BY DATE

CORRECT Gilbert L. Lovell
ENGINEER OF STRUCTURES
APPROVED Louis Evans
DIRECTOR OF HIGHWAYS

M-94-17

5-0-2

MICROFILMED