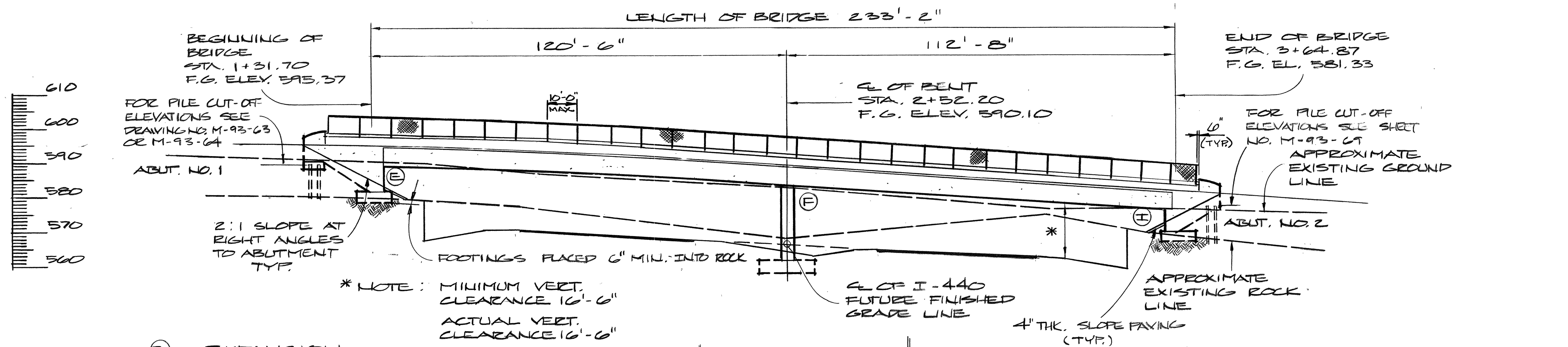


CONST. NO. 19015-3110-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	15

REVISIONS		
NO.	DATE	BRIEF DESCRIPTION
1	11-4-82	AMS ADDED FENCE & DWG. NO. M-93-71A
2	12-2-82	ELO Added Signs



- (E) = EXPANSION
- (F) = FIXED
- (I) = INTEGRAL

ELEVATION

AT RIGHT ANGLES TO CL OF SURVEY

NOTE: FOR FENCING DETAILS SEE DWG. NO. M-93-55 AND M-93-71A

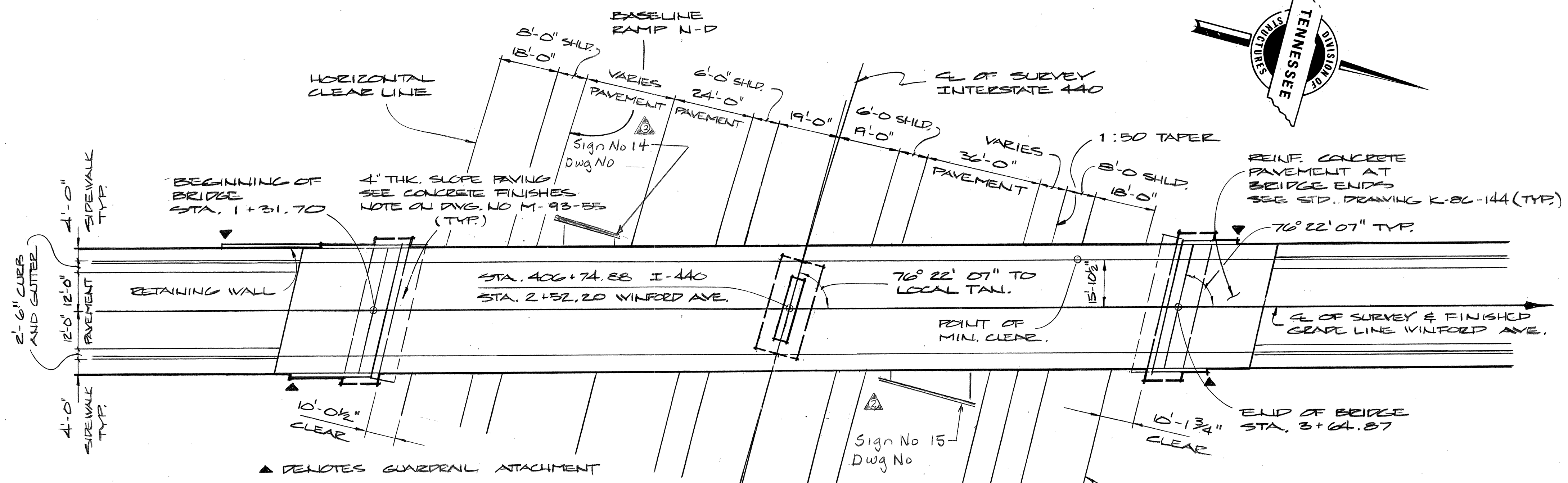
NOTE: THE CONTRACTOR SHALL SUPPORT THE ABUTMENTS UNTIL THE SUPERSTRUCTURE IS IN PLACE, FALSEWORK HAS BEEN REMOVED AND BACKFILLING COMPLETED.

NOTE: THE FILL AT THE END OF THE BRIDGE SHALL BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ANY ABUTMENT PILES ARE DRIVEN.

LIST OF DRAWINGS		
DRAWING	DRAWING NO.	LAST REVISION DATE
LAYOUT	M-93-54	11-4-82
GENERAL NOTES & ESTIMATED QUANT.	M-93-55	11-4-82
FOUNDATION DATA	M-93-56	
SUPERSTRUCTURE	M-93-57	11-4-82
SUPERSTRUCTURE DETAILS	M-93-58	9-25-81
SUPERSTRUCTURE DETAILS	M-93-59	2-10-82
SUPERSTRUCTURE DETAILS	M-93-60	1-20-82
SUPERSTRUCTURE DETAILS	M-93-61	1-20-82
ABUTMENT NO. 1	M-93-62	1-29-82
ABUTMENT NO. 1 DETAILS	M-93-63	1-20-82
ABUTMENT NO. 1 DETAILS	M-93-64	1-29-82
ABUTMENT NO. 1 DETAILS	M-93-65	1-20-82
ABUTMENT NO. 1 DETAILS	M-93-66	1-20-82
ABUTMENT NO. 1 DETAILS	M-93-67	1-20-82
ABUTMENT NO. 2	M-93-68	9-25-81
ABUTMENT NO. 2 DETAILS	M-93-69	9-25-81
BELT	M-93-70	2-10-82
RETAINING WALL @ ABUT. NO. 1	M-93-71	9-25-81
FENCING DETAILS	M-93-71A	11-4-82
BILL OF STEEL	M-93-72	2-10-82
BILL OF STEEL	M-93-73	1-20-82

LIST OF STANDARD DRAWINGS		
DRAWING	DRAWING NO.	LAST REV. DATE
STANDARD FILE DETAILS	H-5-111	11-27-73
STANDARD REINFORCING BAR SUPPORT	K-80-14	8-27-76
MISC. ABUTMENT & DRAINAGE DETAILS	K-85-150	1-9-75
REINFORCED CONCRETE PAVEMENT @ BRIDGE ENDS	K-86-144	11-8-79
BRIDGE RAILING-CONC. PARAPET W/ PEDESTRIAN RAIL	K-38-161	12-15-77
TENN. STANDARD PRECAST PRESTRESSED CONC. BRIDGE DECK PANELS	K-80-15A	
LIGHT STANDARD SUPPORT DETAILS	M-8-149	11-20-75

LIST OF SPECIAL PROVISIONS		
PROVISION	PROVISION NO.	LAST REVISION DATE
REGARDING SECTION 606 STEEL PILING	133	2-2-79
REGARDING HAULING OVER STRUCTURES	570	7-10-68
REGARDING PERMANENT STEEL BRIDGE DECK FORMS	450	9-19-77
REGARDING SECTION 604-CONC. STRUCTURES	130	12-17-79
REGARDING SECTION 606- PILING	131	10-1-75
REGARDING EPOXY COATED REINFORCING STEEL	471	2-15-79
REGARDING SUBSECTION 908.13 ELASTOMERIK BEARING PADS	210	12-2-76
REGARDING APPROVAL OF SHOP DRAWINGS	420	7-2-79
REGARDING EPOXY COATED REINFORCING STEEL	471	2-15-79
REGARDING SECTION 615- PRECAST - PRESTRESSED CONCRETE BRIDGE MEMBERS	555	7-01-77



CURVE DATA I-440

P.I. = 406+62.61

Δ = 29° 00' 27"

D_s = 3° 00' 00"

L_s = 300.00'

T_s = 644.53'

E_s = 64.93'

Y_c = 7.85'

θ_s = 4° 30' 00"

R_c = 1,909.86'

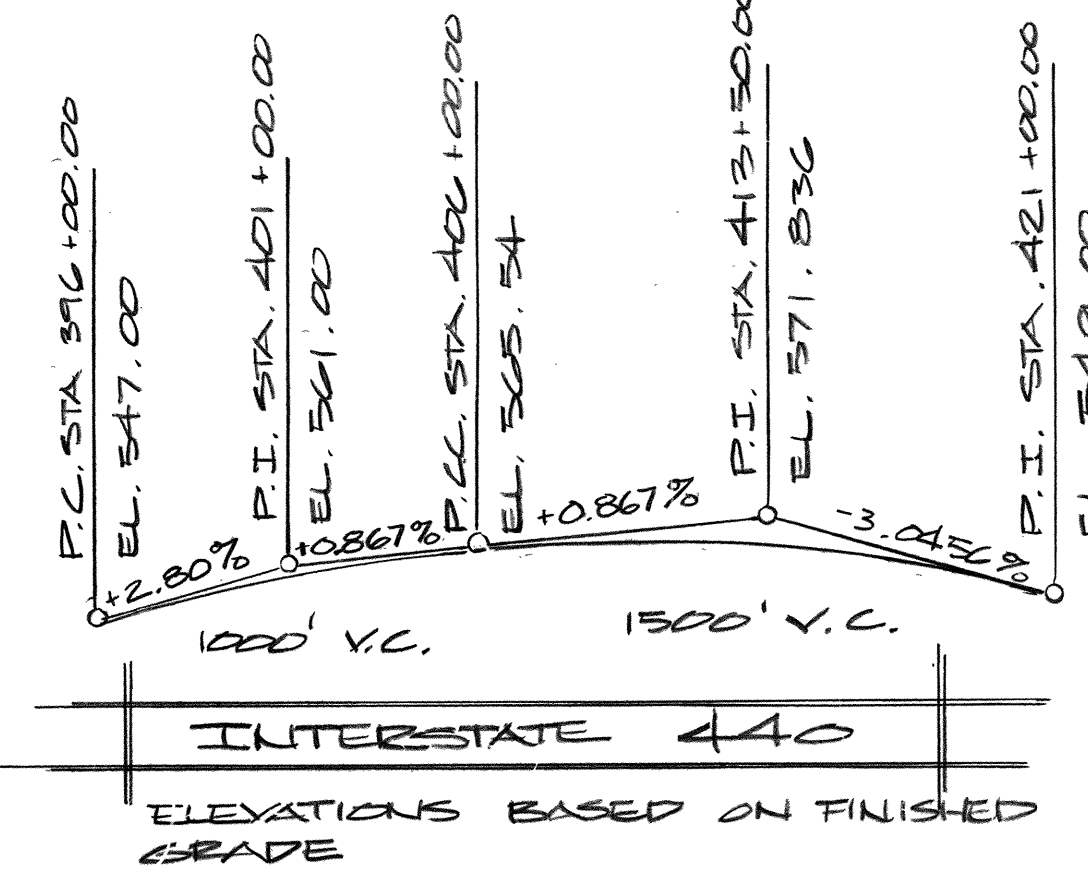
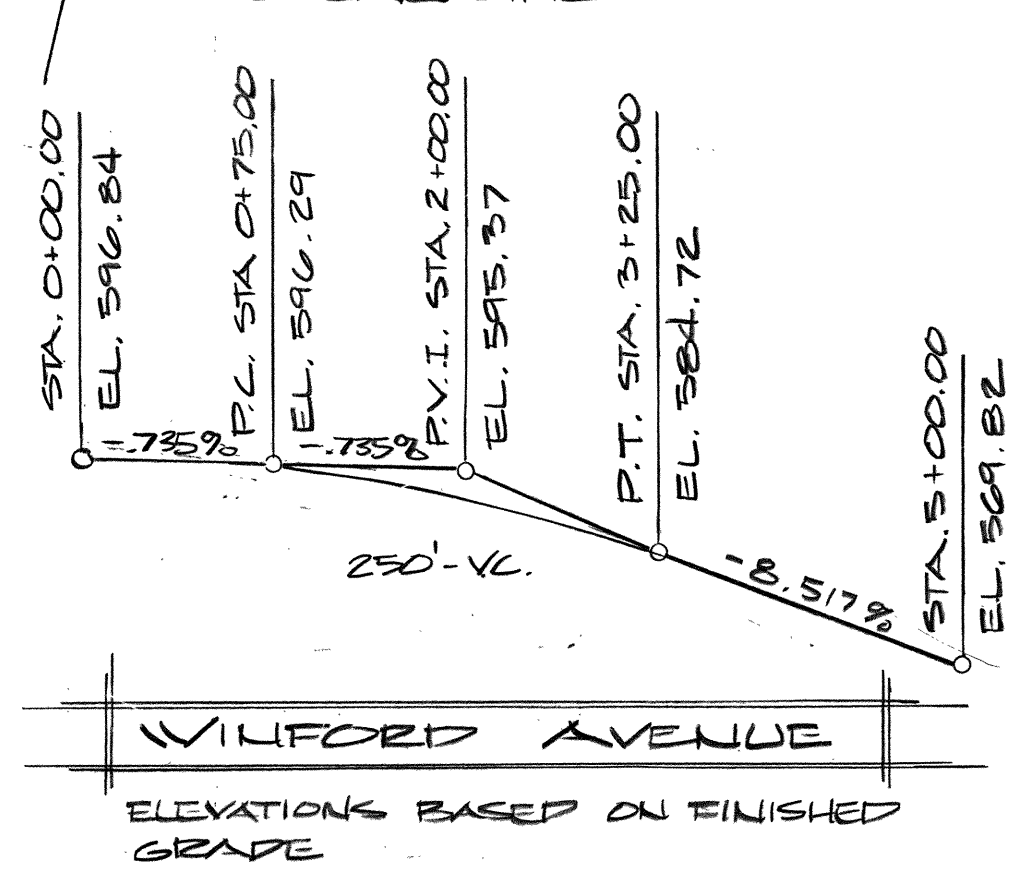
L_c = 666.92'

P.I. M 630,352,376

E 1,776,735,994

S.E. = 0.0341, V = 60 M.P.H.

PLAN



ROADWAY WIDTH 28'-0" WITH SIDEWALK & PEDESTRIAN RAIL

STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

BUREAU OF HIGHWAYS

LAYOUT OF BRIDGE NO. 1 WINFORD AVENUE OVER INTERSTATE 440 STATION 406+74.88 DAVIDSON COUNTY

1981

DESIGNED BY AL SMITH DATE 1-81

DRAWN BY SIM CURTIS DATE 2-81

SUPERVISED BY S. FIELDS DATE 2-81

CHECKED BY AL SMITH DATE 3-81

CORRECT *William L. Linnell* ENGINEER OF STRUCTURES

APPROVED *Louis Burns* DIRECTOR OF HIGHWAYS

M-93-54

CLASS. "A" GRADING "D" 430.0 C.V.

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	16

REVISONS		
NO.	DATE	BY
1	9-25-81	AMS
2	1-20-82	AMS
3	1-29-82	AMS
4	2-10-82	AMS
5	11-4-82	AMS

GENERAL NOTES

Specifications: Standard Road and Bridge Specifications of the Tennessee Department of Highways. (1968 EDITION)

Loading: HS20-44

Design Specifications: AASHTO 1977 Edition with addenda.

Concrete: To be Class "A"

$f'c = 3000$ psi. See Special Provision No. 130

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 Special Provision No. 450 and Standard Drawing K-80-15A. 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 detail drawings. The suffix E, for bars so marked, denotes epoxy coated reinforcement. See Special Provision 471.

Elastomeric Bearing Pad: See Special Provision No. 210

Linseed Oil Protective Treatment: Surfaces receiving Decorative or Class 2 Finish shall not receive a linseed oil treatment. See Special Provision No. 130, and Surface Finish Detail, this sheet.

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

Piles: To be HP10X42 driven to refusal on rock or a minimum bearing of 50 tons for the abutments.

Bridge Rail System: Build parapets according to Standard Drawing K-38-161, except as noted on DWG. NO. M-93-61 AND M-93-71A

Precast, Prestressed Bridge Members: See Special Provision No. 555.

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 form liner similar to Burke Formliner BG 30B, "Concrete Harp" or equal. Slope paving finish to be a striated (faked) finish with Times at approximately the same width and spacing to duplicate the Decorative Form Finish. Striations shall be oriented with the long axis up and down slope paving.

After stripping form liners, the Decorative Form Finished area shall be given a Class 1 ordinary finish according to 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. Cost of all concrete finishes to be included in the price bid for class "A" concrete (Bridges), Concrete Parapet (K-38-161), and Slope Paving.

NOTE: At the Contractor's option; Alternate bearing devices may be submitted for approval to the Engineer of Structures. The bearings shall be capable of providing the following minimum requirements under service loads.

BEARING	TOTAL MOVEMENT	DEAD LOAD REACTION	LIVE LOAD REACTION
M-93-62	1/4"	98.1 KIPS	60.9 KIPS

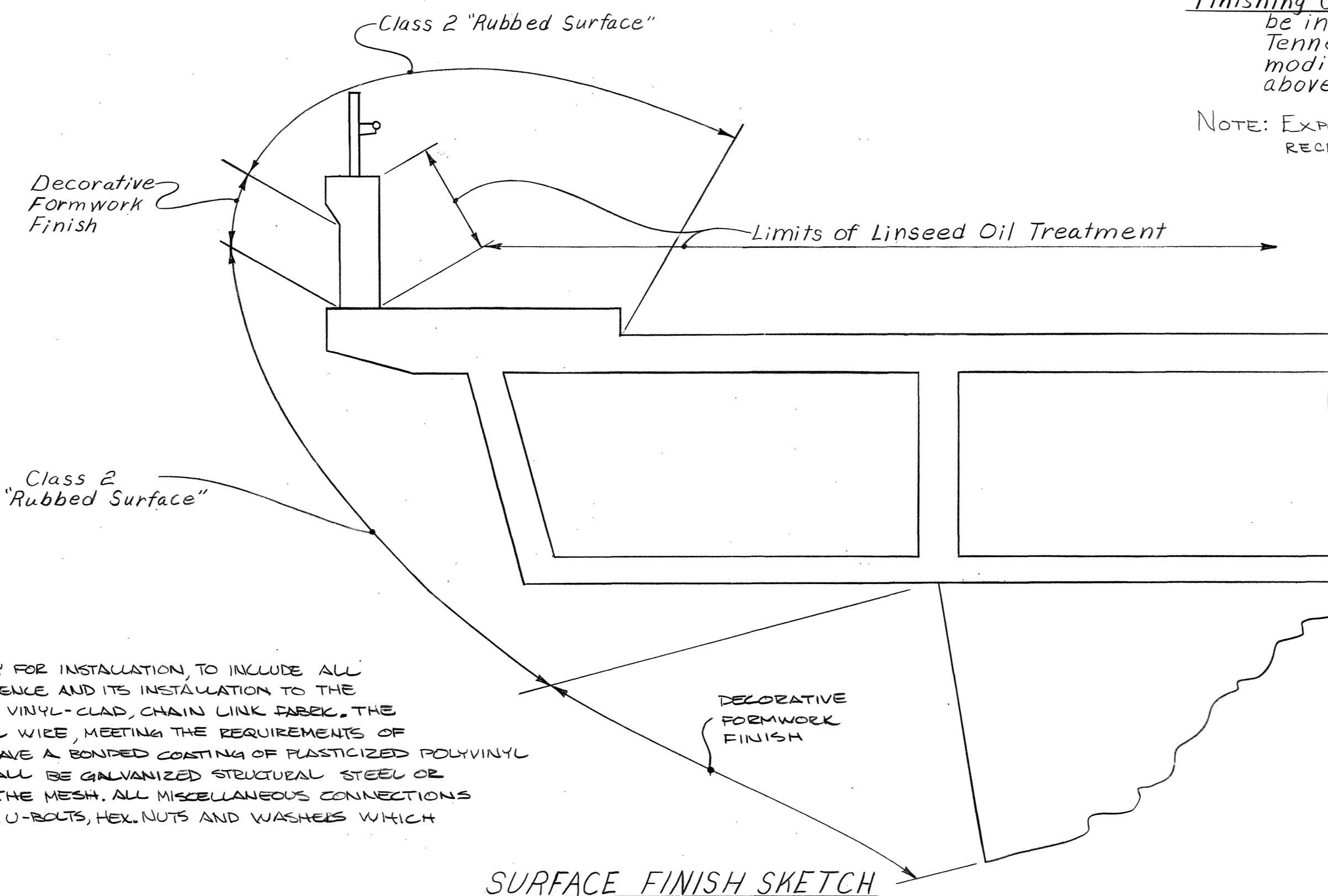
ESTIMATED QUANTITIES

ITEMS	707-07.01	204-02.01	204-04.01	604-03.01	604-03.02	604-03.03	604-02.03	606-22.03	606-32.03	606-42.03	204-05	616-08.02	710-10	710-11	908-21.02	920-01.11	714-01.01	604-01.07	
CHAIN LINK FENCE (BRIDGE) S.F. (C)																			
DRY EXCAVATION (BRIDGES) (C.Y.) (C)																			
ROCK EXCAVATION (BRIDGES) (C.Y.) (C)																			
CLASS "A" CONCRETE (BRIDGES) (C.Y.)				592.3	123,940														
STEEL BAR REINFORCEMENT (BRIDGES) (LBS.)																			
LINSEED OIL TREATMENT (S.Y.)																			
EPOXY-COATED REINFORCING STEEL (LBS.)																			
STEEL PILES (10" DRIVING) (L.F.) (C)																			
STEEL PILES (10" FURNISH DOMESTIC) (L.F.) (C)																			
STEEL PILES (10" FURNISH FOREIGN) (L.F.) (C)																			
ROCK DRILLING BRIDGES (L.F.)																			
CONCRETE PARAPET WITH PEDESTAL RAIL (K-38-161) (L.F.)																			
6" PERFORATED C.M. PIPE (18 GA) W/ POROUS BACKFILL (L.F.)																			
6" C.M. PIPE UNDERDRAINS (18 GA) (L.F.)																			
BEARINGS M-93-62 EA.																			
ROADWAY EXPANSION DEVICE L.F. (C)																			
STRUCTURE LIGHTING (Bridge No. 1) L.S.																			
CLASS "A" CONCRETE (FOUNDATION LEVELING) C.Y.																			
SUPERSTRUCTURE																			
ABUTMENT NO. 1		389.7	137.7	182.1	34,054			23	23	23			65	30					
BENT NO. 1			97.8	80.4	22,267														
ABUTMENT NO. 2		90.4	19.4	49.1	5,117		7,060	44	44	44	18		40	15					30
AVM @ BRIDGE ENDS				88.8	1,235		20,298	50	50	50									
RET. WALL @ ABUT. NO. 1				38.7	5,381														
TOTALS	3275	480.1	254.9	1031.4	191,994	1191	208,263	117	117	117	66	572	105	45	5	41.2	LUMP SUM		30

NOTES:

- Excavation based on lower road profile.
- Cost of bridge rail endpost is to be included in the cost of the bridge rail system. PEDESTAL RAIL TO BE DELETED WITH CHAIN LINK FENCE TO BE ADDED AND PAID FOR UNDER ITEM 707-07.01.
- Cost of polyethylene sheeting and all miscellaneous items necessary for installation to be included in cost of perforated C.M. Pipe.
- The cost of 1/2" threaded steel inserts and 1/2" 7/8" x 4" hex head bolts, (A307), to be included in bridge items bid on.
- All reinforcing steel in the traffic face of parapets shall be epoxy coated. Cost to be included in the price bid for item 616-08.02.
- Acceptable expansion devices are AS 200 by ACME; or-n-flex 25 by Old-North Mfg. Co; or Wabo-Maurer SA 200. Total required movement is 1/4".
- NOTE: THE COST OF BITUMINOUS-FIBERBOARD, INTERSTEPS, AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN BRIDGE ITEMS BID ON.
- Quantity to be included 620(2) L.F. of 2" Conduit with Pull wires, Four (4) Pull Boxes, 4 Anchor Bolts, and all incidental material and labor required to provide conduit and support. Further Lighting support location to be supplied by Nashville Electric Service.
- Steel piles for Pavement @ Bridge Ends are located at Abutment No. 1.

THE PRICE FOR ITEM NO. 707-07.01 SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY FOR INSTALLATION, TO INCLUDE ALL FITTINGS, BASE PLATES AND U-BOLTS REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP PLANS FOR THE FENCE AND ITS INSTALLATION TO THE ENGINEER OF STRUCTURES FOR APPROVAL. FENCING TO BE 2" BLACK DIAMOND MESH, THERMAL BONDED VINYL-CLAD, CHAIN LINK FABRIC, THE FENCING SHALL BE 3 GAGE, COMMERCIAL QUALITY, MEDIUM-HIGH CARBON, HOT DIPPED GALVANIZED STEEL WIRE, MEETING THE REQUIREMENTS OF ASTM A116, AND SHALL HAVE A MINIMUM TENSILE STRENGTH OF 75,000 PSI. THE WIRE SHALL HAVE A BONDED COATING OF PLASTICIZED POLYVINYL CHLORIDE, HAVING A MINIMUM THICKNESS OF 0.015". POSTS, RAILS AND FRAMEWORK FOR FENCE SHALL BE GALVANIZED STRUCTURAL STEEL OR SCHEDULE 40 PIPE, AS APPROPRIATE, CLAD IN A BONDED VINYL COATING MATCHING THE COLOR OF THE MESH. ALL MISCELLANEOUS CONNECTIONS FOR POSTS, RAILS AND FRAMEWORK SHALL BE VINYL CLAD AND GALVANIZED, EXCEPT BASE PLATES, U-BOLTS, HEX. NUTS AND WASHERS WHICH SHALL ONLY BE GALVANIZED.



Finishing Concrete Surfaces: Concrete finishing shall be in accordance with section 604.22 of the Tennessee Standard Specification except as modified by Special Provision No. 130. See note above regarding concrete finishes.

NOTE: EXPOSED FACE OF COLUMNS, ABUTMENTS, AND WINGWALLS TO RECEIVE DECORATIVE FORMWORK FINISH.

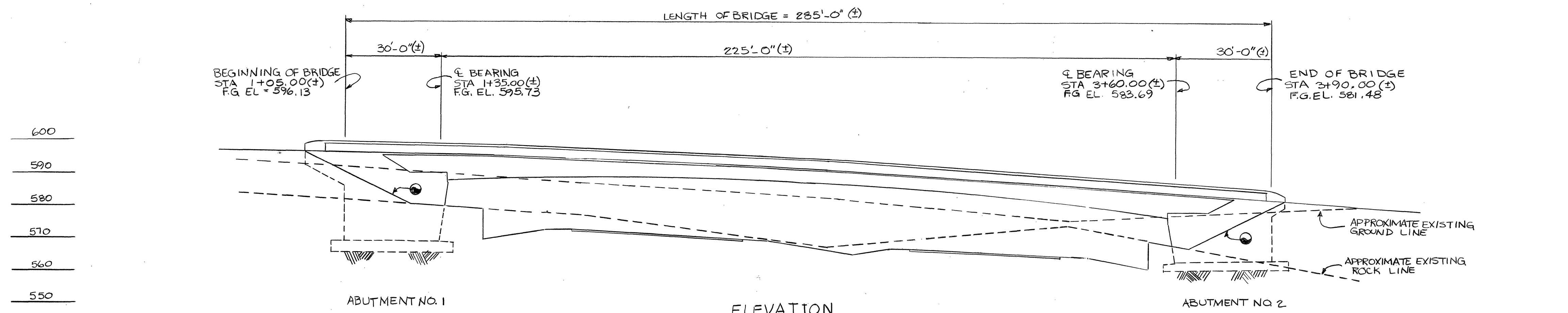
SURFACE FINISH SKETCH

DESIGNED BY A. M. SMITH DATE 1-81
 DRAWN BY T. LEWIS DATE 2-81
 SUPERVISED BY V. FIELDS DATE 2-81
 CHECKED BY A. M. SMITH DATE 3-81

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 BRIDGE NO. 1
 GENERAL NOTES AND ESTIMATED QUANTITIES
 WINFORD AVENUE OVER INTERSTATE 440
 STATION 406 + 74.88
 DAVIDSON COUNTY
 1981

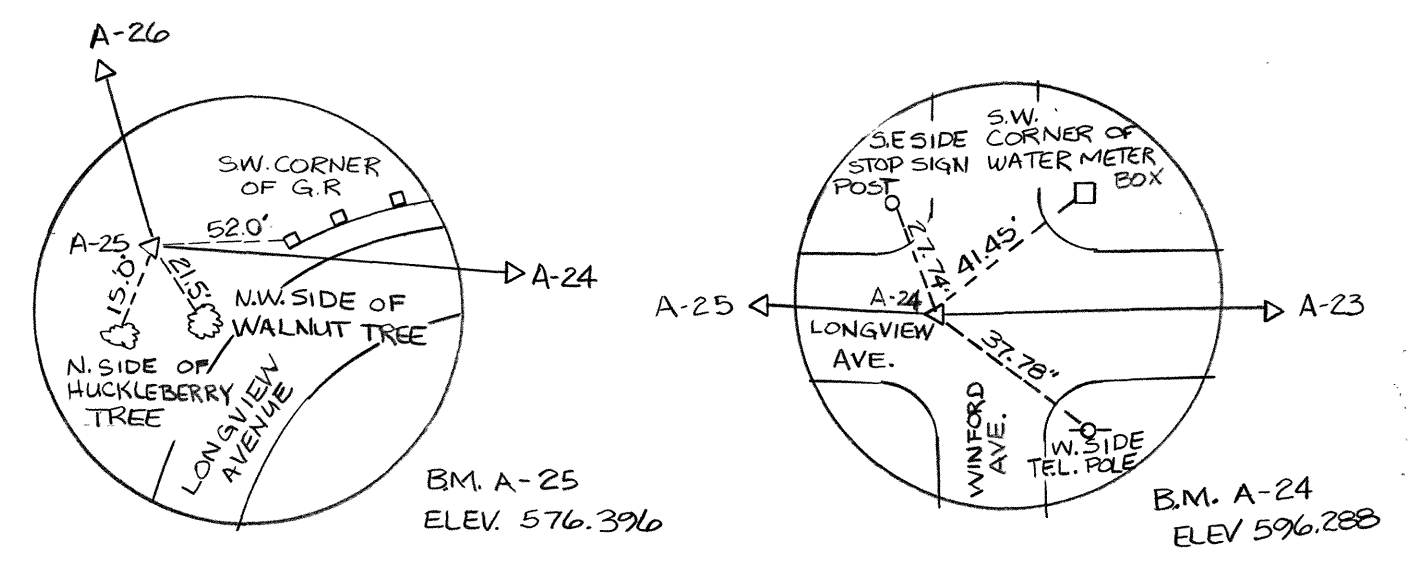
CORRECT Colleen L. Sewell
 ENGINEER OF STRUCTURES
 APPROVED Lewis Evans
 DIRECTOR OF HIGHWAYS

CONST. NO. 19015-3110-44			
PROJECT NO.	YEAR	SHEET NO.	
I-440 4(4) 212	1981	17	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



ELEVATION
(GIVEN AT RIGHT ANGLES TO ϕ SURVEY)

NOTE: 2:1 SLOPE AT RIGHT ANGLES TO ABUTMENT

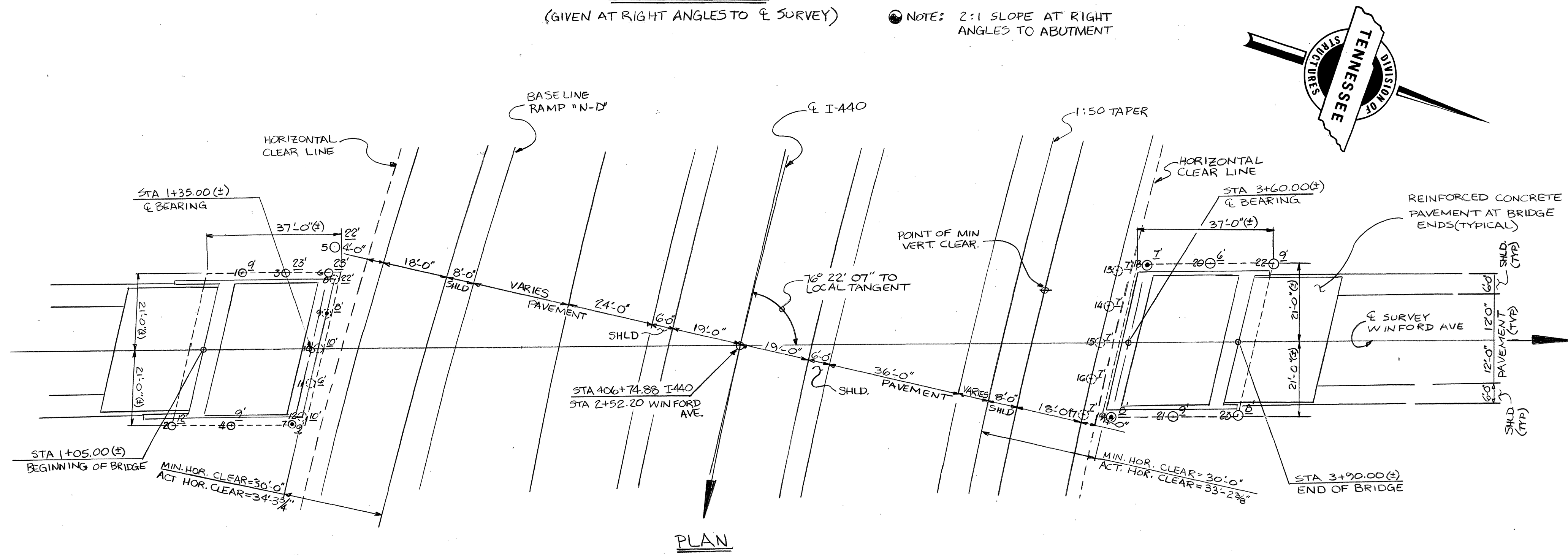


BENCH MARKS

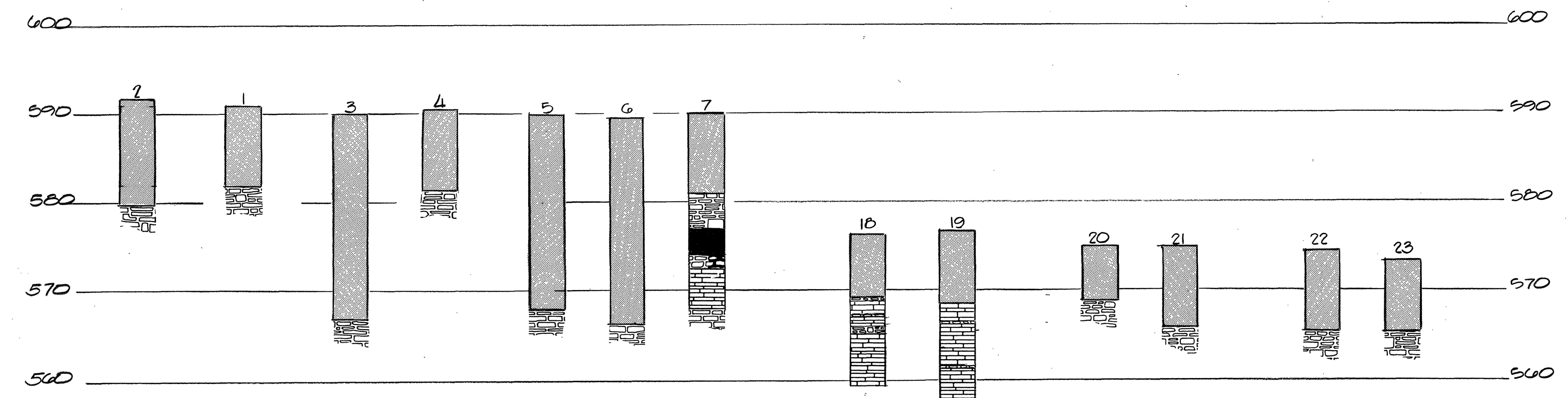
CURVE DATA (I-440)

PI = 406+62.61 $Y_c = 7.85'$
 $\Delta = 29^\circ 00' - 27''$ $\theta_s = 4^\circ 30'$
 $D_c = 3^\circ 00'$ $R_c = 1909.86'$
 $L_s = 300.00'$ $L_c = 666.92'$
 $T_s = 644.53'$ $S.E. = 0.054\%$
 $E_s = 64.93'$

- REQUIRED:
- 1) APPROXIMATE EXISTING GROUND LINE AND ROCK LINE
 - 2) SUFFICIENT GROUND, ROCK AND CORING INFORMATION FOR BRIDGE FOUNDATIONS.



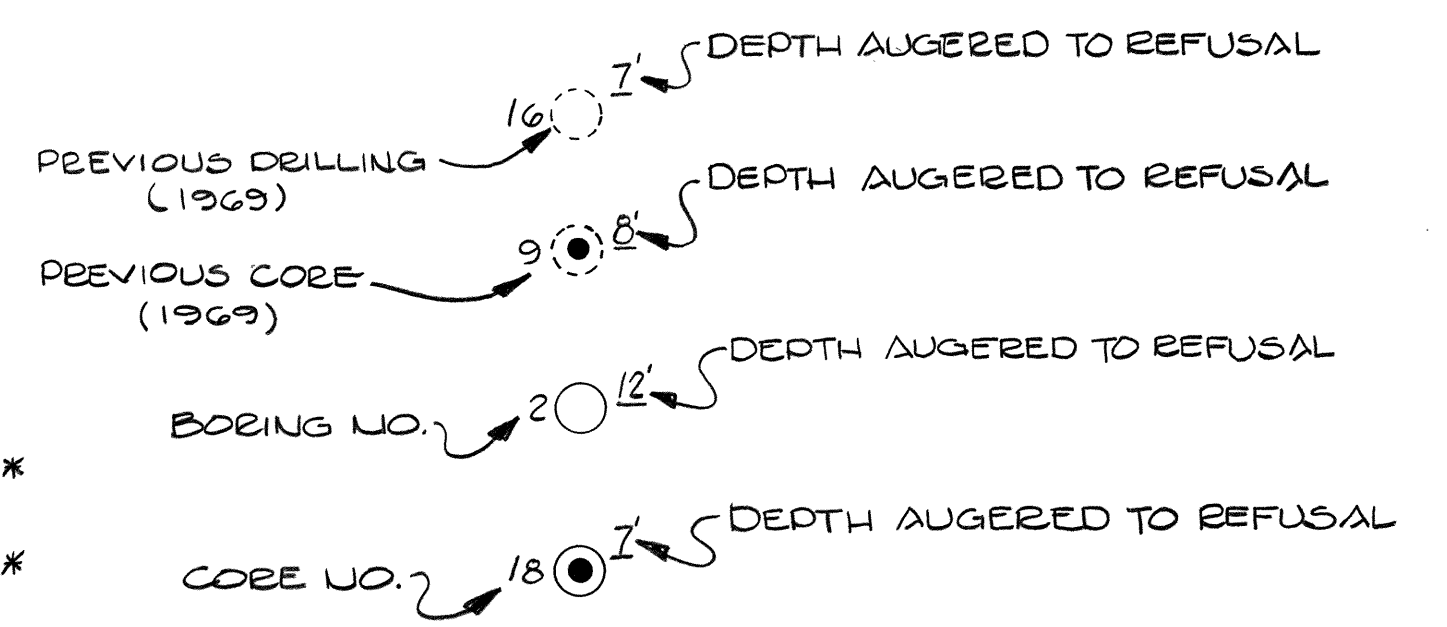
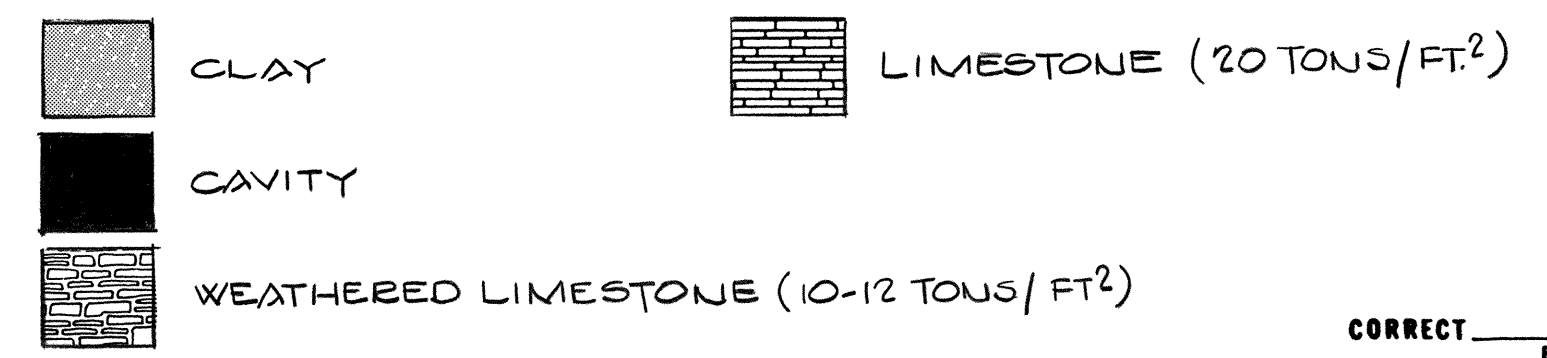
PLAN



GROUND AND ROCK ELEVATIONS

1	G 591.0*	G 590.0	**13	G 576.3	19	G 576.8
	E 587.0	E 581.0		E 569.3		E 568.8
2	G 591.9	G 589.7	**14	G 576.1	20	G 575.0*
	E 579.9	E 567.7		E 569.1		E 569.0
3	G 590.0*	G 590.1	**15	G 576.6	21	G 575.0*
	E 567.0	E 577.1		E 569.6		E 566.0
4	G 590.5*	G 590.2	**16	G 576.5	22	G 574.6
	E 581.5	E 580.2		E 569.5		E 565.6
5	G 590.0*	G 590.2	G 576.7	23	G 578.4	
	E 568.0	E 584.2	**17	E 569.7		E 569.4
6	G 589.6	G 590.0	18	G 576.3		
	E 566.6	E 580.0		E 569.3		

NOTE
 * APPROX. EL.
 ** PREVIOUS DRILLING (1969)



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS

FOUNDATION DATA
 WINFORD AVENUE OVER I-440
 STA 2+52.20
 DAVIDSON COUNTY
 1980

DESIGNED BY _____ DATE _____
 DRAWN BY A.M. SMITH DATE 1-80
 SUPERVISED BY _____ DATE _____
 CHECKED BY _____ DATE _____

CORRECT _____ ENGINEER OF STRUCTURES
 APPROVED _____ DIRECTOR OF HIGHWAYS

M-93-56

MICROFILMED

CONST. NO. 19015-3110-44			
PROJECT NO.	YEAR	SHEET NO.	
I-440-4(44)212	1981	18	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	A.M.S.	GENERAL REVISIONS
2	1-20-82	AMS	JOINT OPENING
3	2-10-82	AMS	EPOXY REIN. STEEL QUAL.
4	11-4-82	AMS	REVISED NOTES

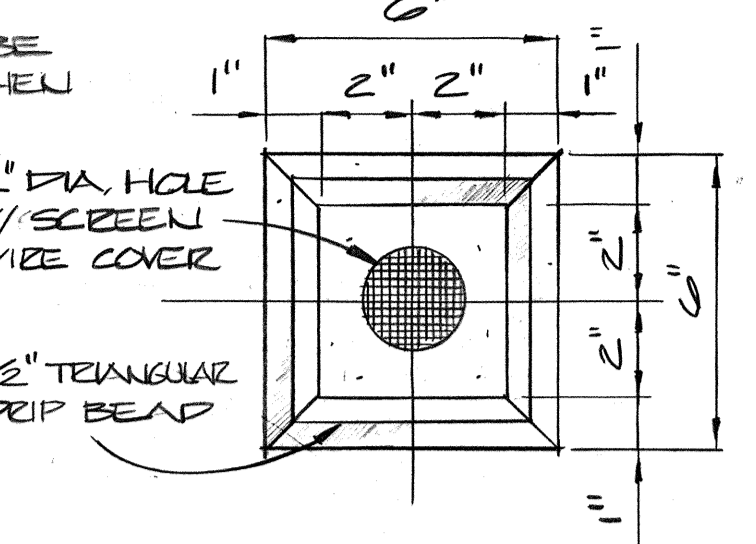
NOTE: IF THE CONTRACTOR ELECTS TO USE REMAIN IN PLACE FORMS, DETAILS FOR PROVIDING ACCESS TO ALL CELLS OF THE STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER OF STRUCTURES. SEE SPECIAL PROVISION NO. 450

NOTE: FOR BENT CAP DETAILS SEE DWG. NO. M-93-71.

NOTE: WHEN POURING SIDEWALK PROVISIONS SHALL BE MADE FOR SETTING (REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURER UNTIL THE SIDEWALK IS POURER AND CURED. WHEN POURING PARAPET PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS FOR CHAIN LINK FENCE POSTS.

NOTE: FOR DETAILS OF FENCE AND CONCRETE PARAPET SEE STANDARD DRAWING NO. K-28-161 & M-93-71A

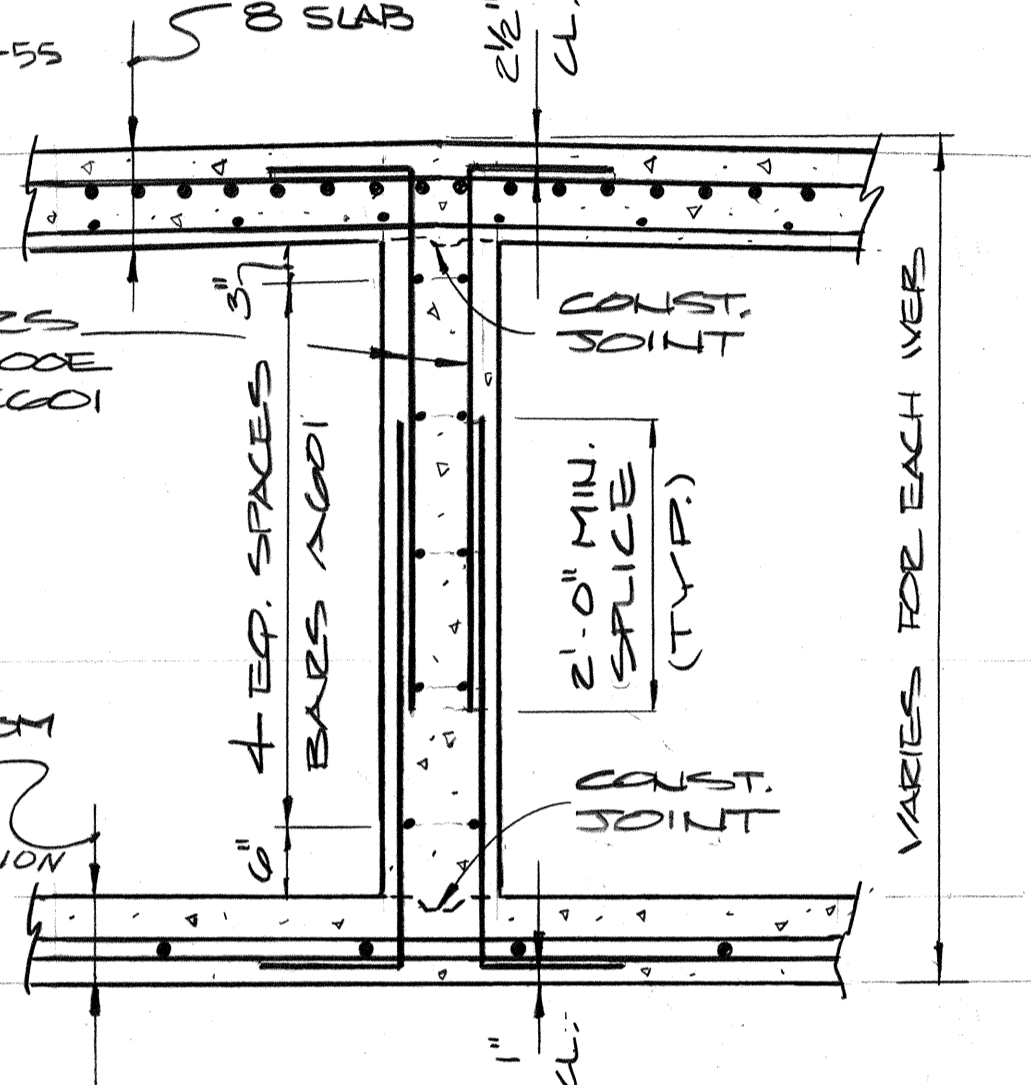
NOTE: THIS PORTION OF THE SIDEWALK AND THE PARAPET SHALL NOT BE POURER UNTIL THE SUPERSTRUCTURE IS COMPLETE & THE FALSEWORK REMOVED.



VEEPHOLE DETAIL

LOOKING UP AT BOTTOM OF SUPERSTRUCTURE

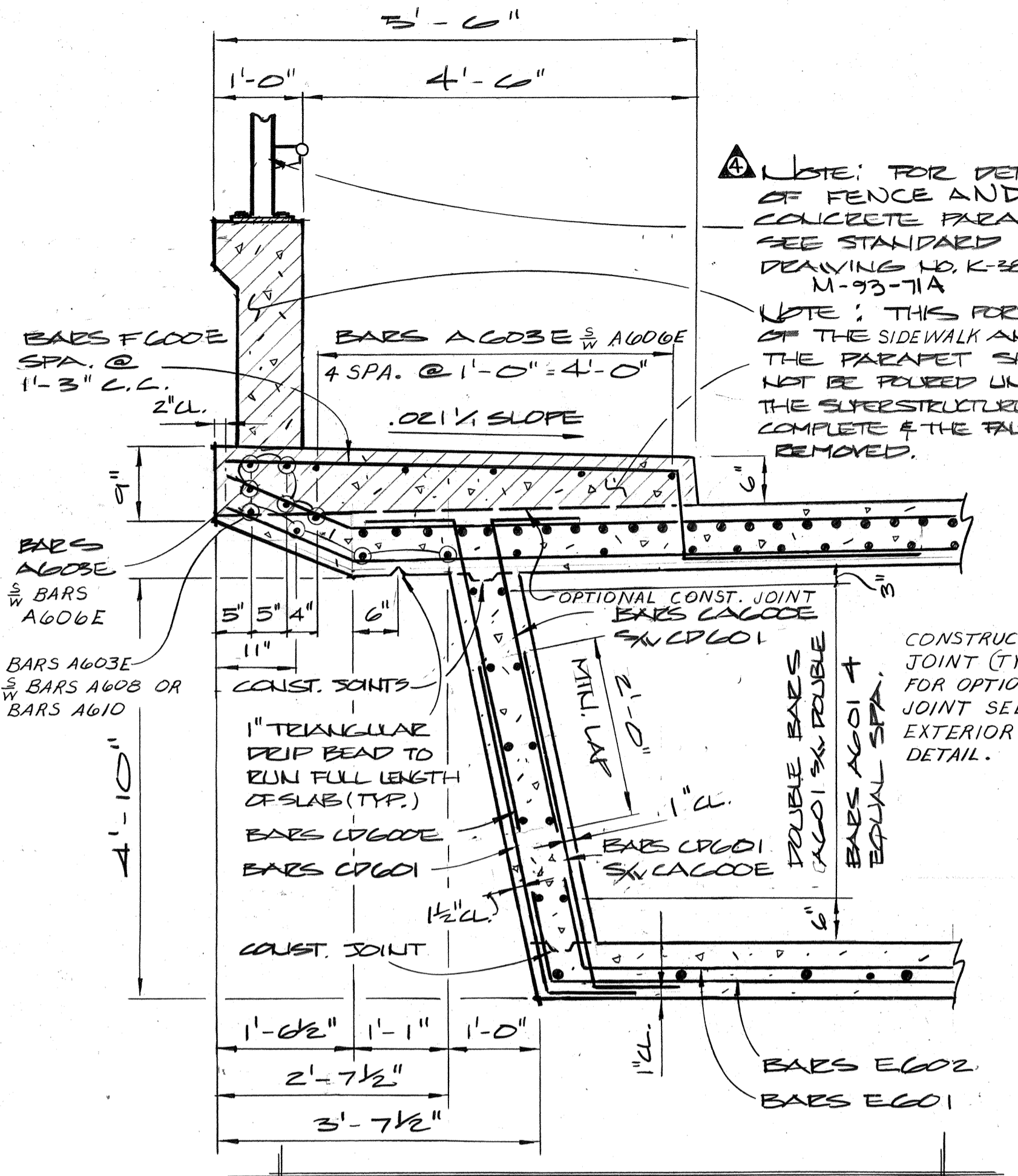
NOTE: FOR CHAIN LINK FENCE DETAILS SEE DWG. M-93-55 & M-93-71A (TYPICAL)



INTERMEDIATE WEB DETAIL

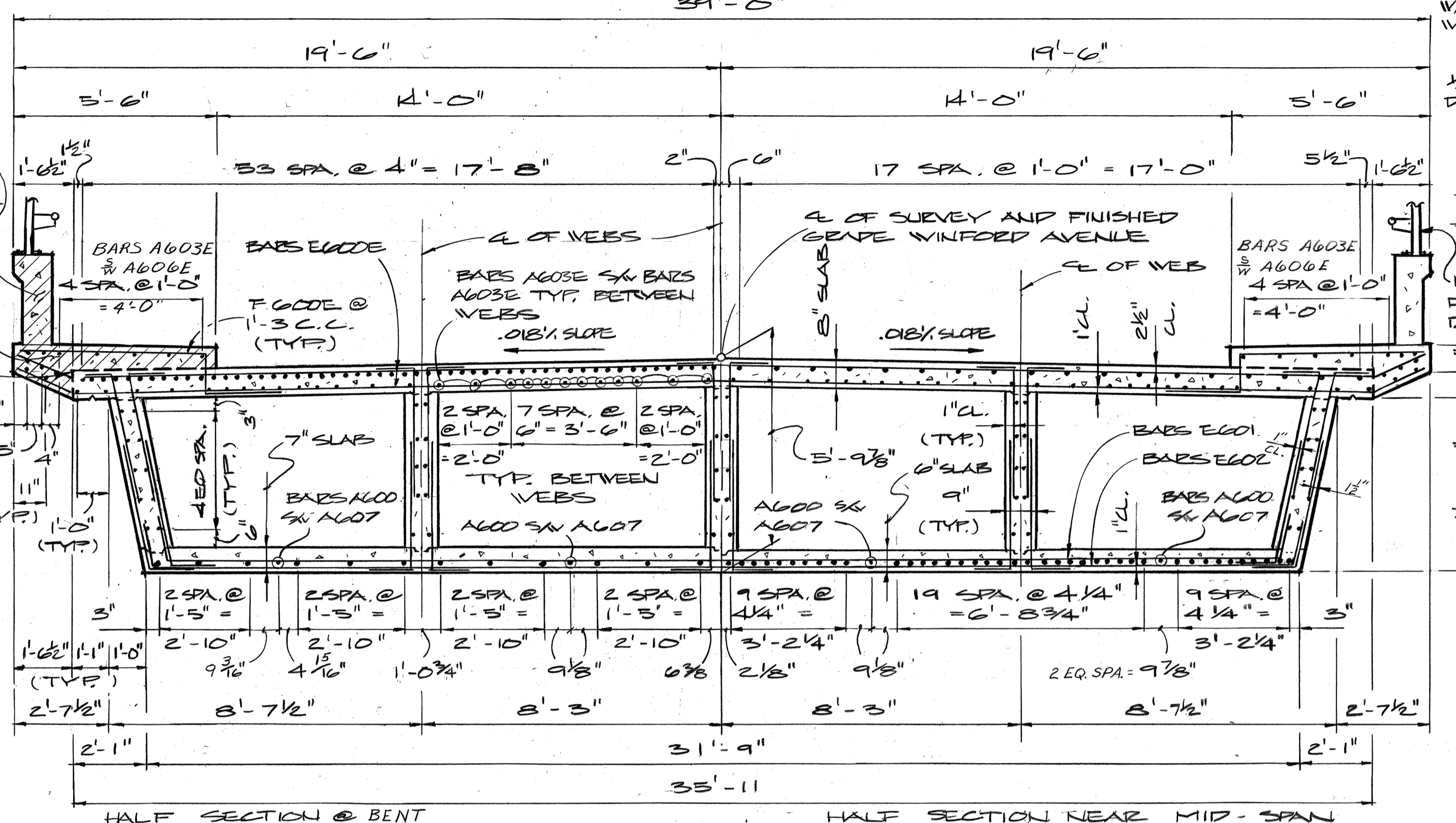
VARIABLES FROM 7" TO 6"

SEE LONGITUDINAL SECTION FOR LOCATION



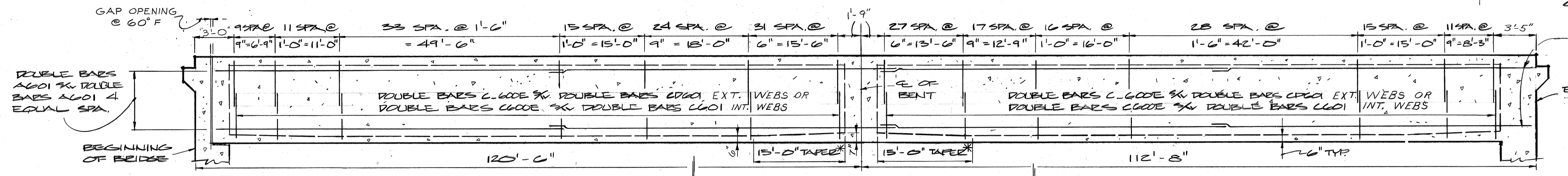
EXTERIOR WEB DETAIL

CUT @ SUPPORT DIAPHRAGM



TYPICAL CROSS SECTION

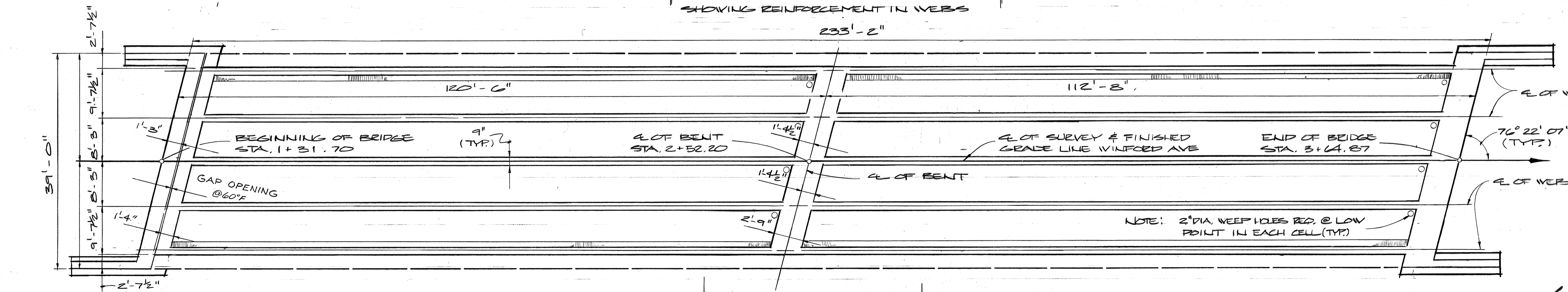
LOOKING FORWARD ON SURVEY



LONGITUDINAL SECTION

SHOWING REINFORCEMENT IN WEBS

SUPERSTRUCTURE ESTIMATED QUANTITIES		
EPOXY COATED REIN. STEEL LBS.	REINFORCING STEEL LBS.	CURB & CONCRETE C.Y.
180,905	123,940	592.3



FRAMING PLAN

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE WINFORD AVENUE OVER INTERSTATE - 440
STATION 406+74.88
DAVIDSON COUNTY
1981

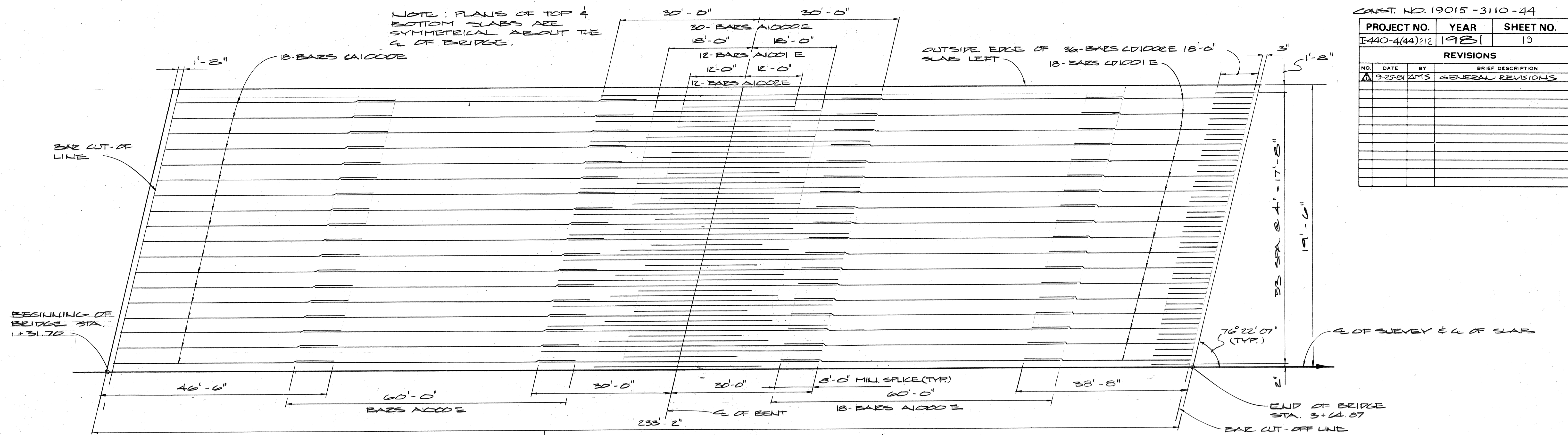
CORRECT *William L. Louell*
ENGINEER OF STRUCTURES
APPROVED *Louis Owens*
DIRECTOR OF HIGHWAYS

DESIGNED BY AL SMITH DATE 1/81
DRAWN BY SIM CURTIS DATE 2/81
SUPERVISED BY J. FIELDS DATE 2/81
CHECKED BY A.M. SMITH DATE 5/81

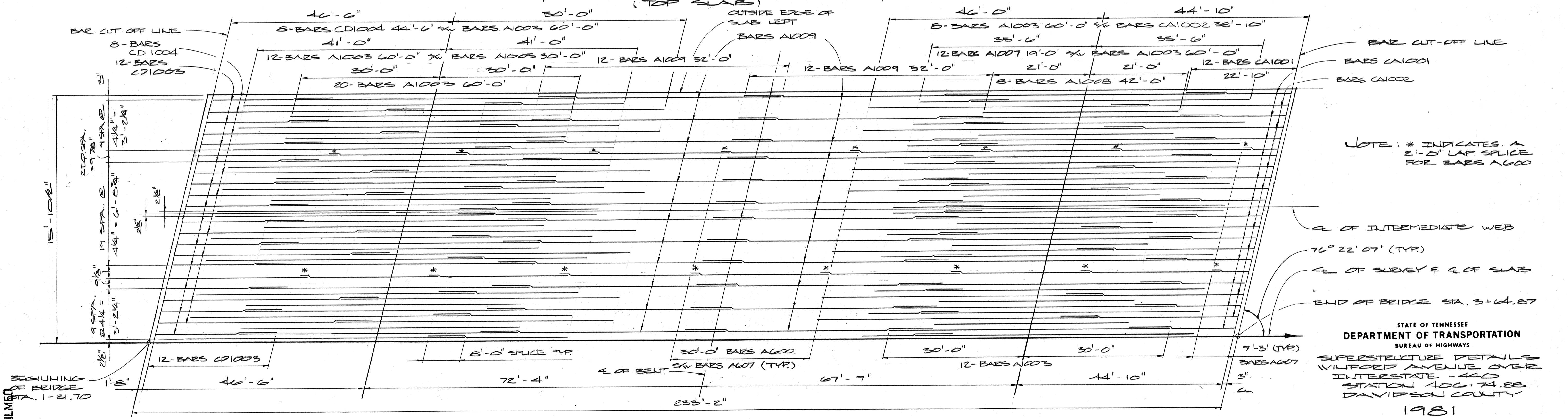
PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	19

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	AMS	GENERAL REVISIONS

NOTE: PLANS OF TOP & BOTTOM SLABS ARE SYMMETRICAL ABOUT THE C/L OF BRIDGE.



HALF PLAN OF MAIN REINFORCING (TOP SLABS)



HALF PLAN OF MAIN REINFORCING (BOTTOM SLABS)

NOTE: * INDICATES A 2'-0" LAP SPICE FOR BARS A1000

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 WINFORD AVENUE OVER
 INTERSTATE - 440
 STATION 406+74.88
 DAVIDSON COUNTY
 1981

CORRECTED *Robert L. Jovall*
 ENGINEER OF STRUCTURES
 APPROVED *James Lewis*
 DIRECTOR OF HIGHWAYS

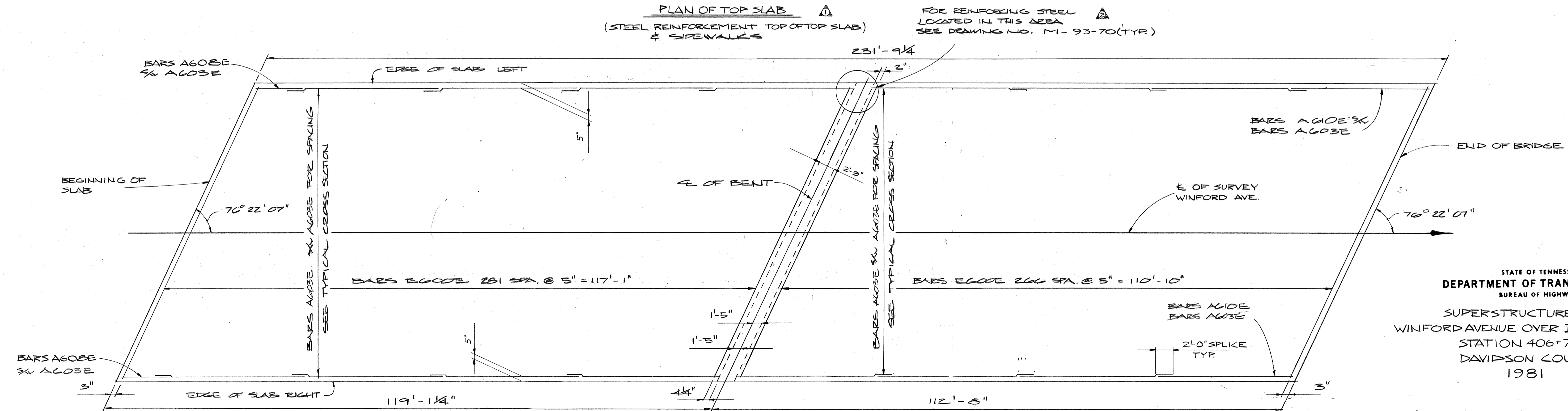
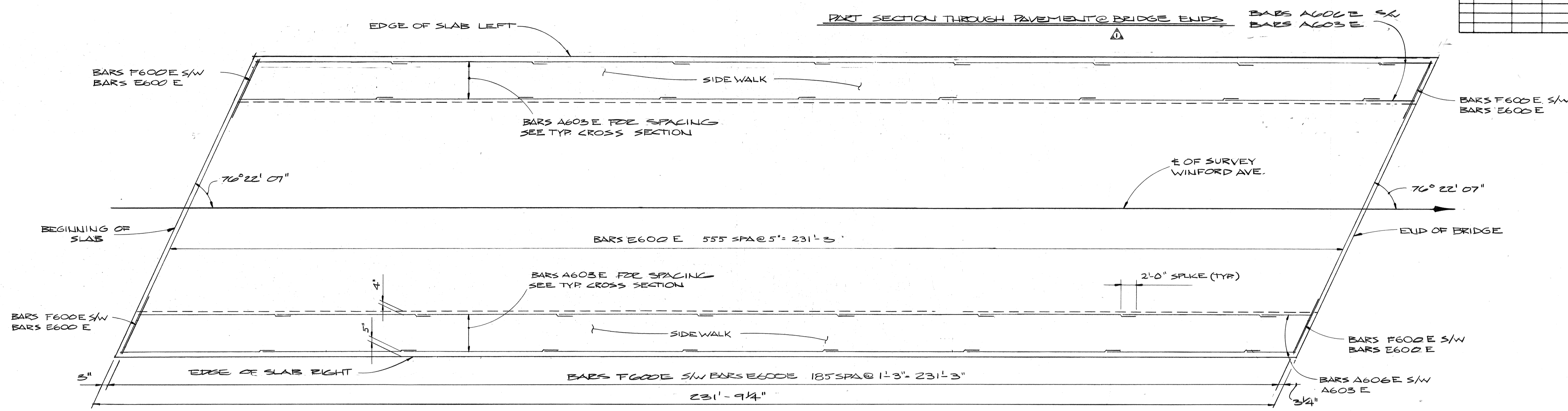
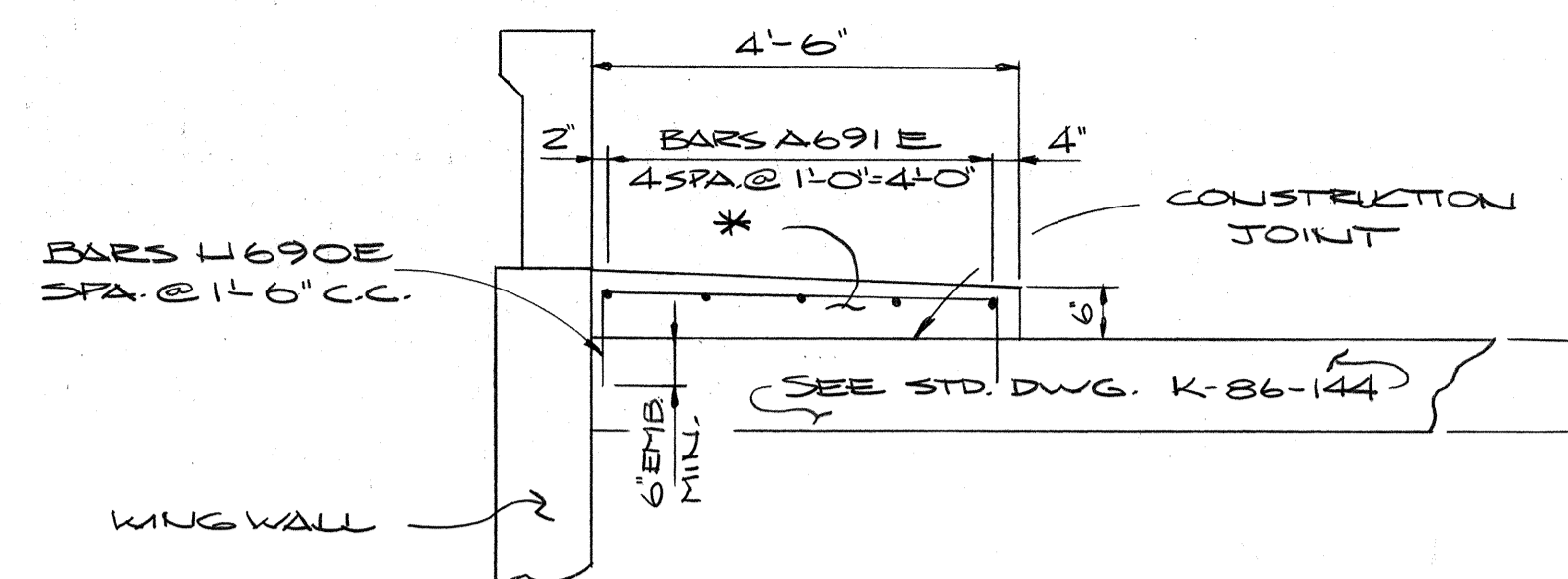
MICROFILMED

DESIGNED BY AL SMITH DATE 2/81
 DRAWN BY SIM CRETIS DATE 2/81
 SUPERVISED BY S. FIELDS DATE 2/81
 CHECKED BY A.M. SMITH DATE 5/81

PROJECT NO.	YEAR	SHEET NO.
I440-4(44)212	1981	20

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	AMS	GENERAL REVISIONS
2	2-10-82	AMS	ADDED NOTE

* NOTE: REINFORCING STEEL AND CONCRETE QUANTITIES INCLUDED IN QUANTITIES FOR PAVEMENT @ BRIDGE ENDS.



DESIGNED BY A.M. SMITH DATE 1-81
 DRAWN BY R.J. CHRISTY DATE 2-81
 SUPERVISED BY J. FIELDS DATE 2-81
 CHECKED BY A.M. SMITH DATE 5-81

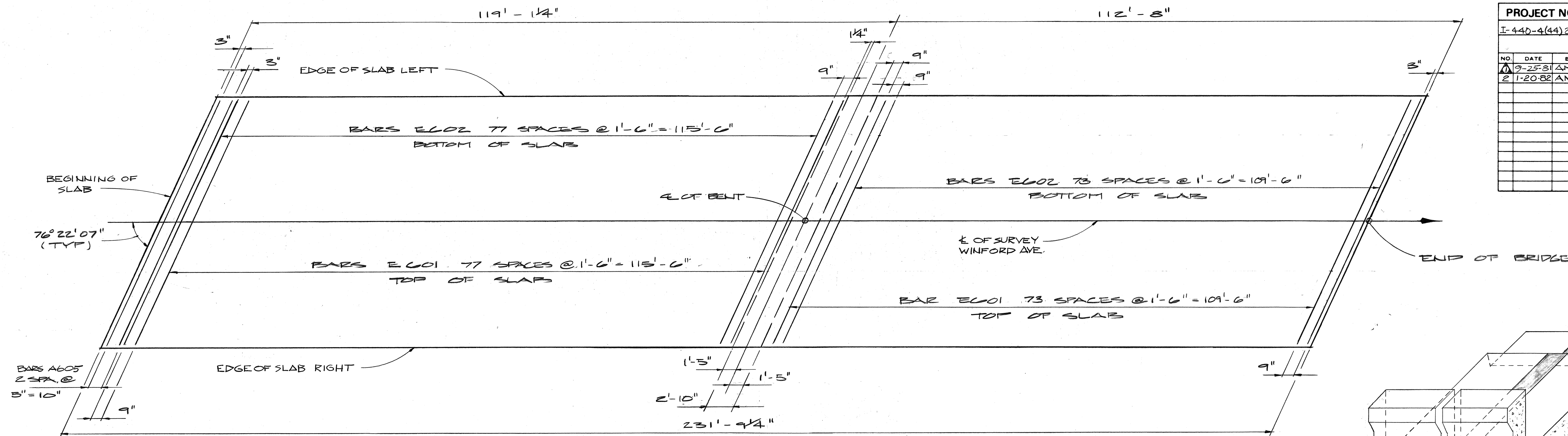
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 WINFORD AVENUE OVER INTERSTATE 440
 STATION 406+74.88
 DAVIDSON COUNTY
 1981

CORRECT *C. L. Lovell*
 ENGINEER OF STRUCTURES
 APPROVED *Lewis Evans*
 DIRECTOR OF HIGHWAYS

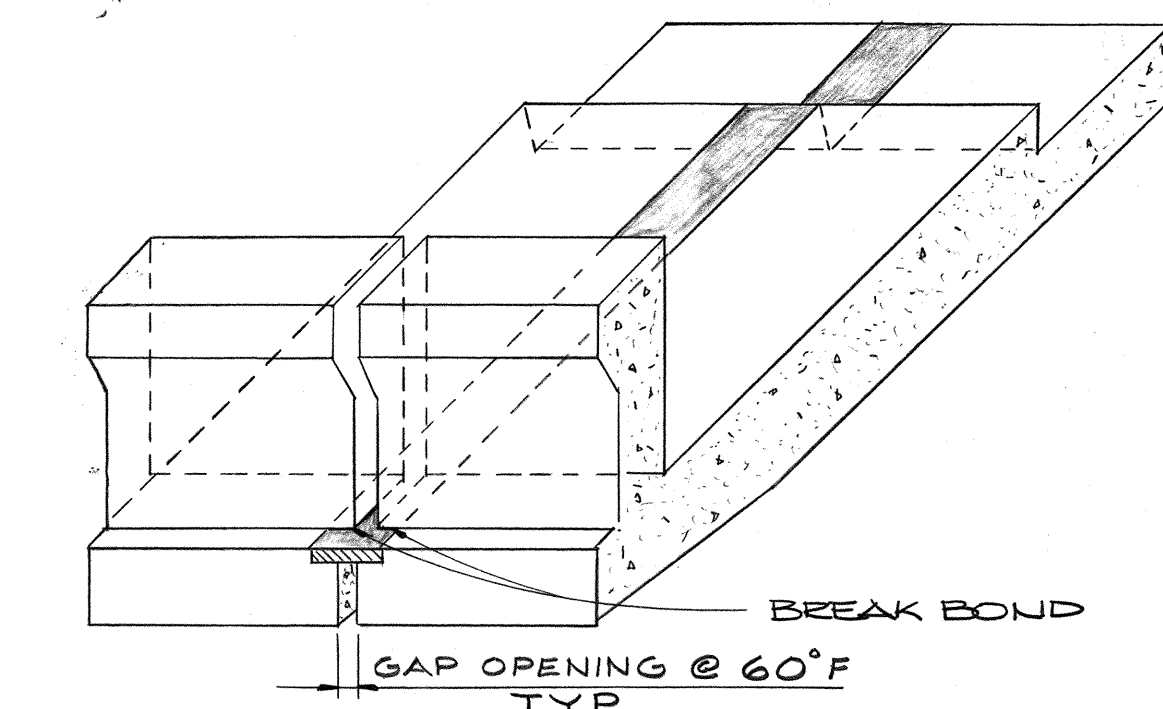
MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	21

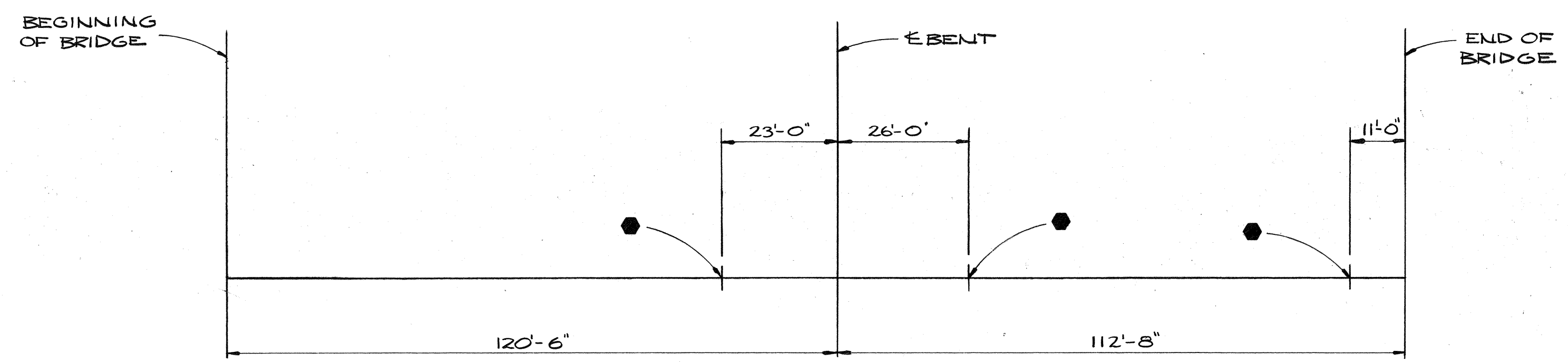
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	AMS	GENERAL REVISIONS
2	1-20-82	AMS	JOINT OPENING



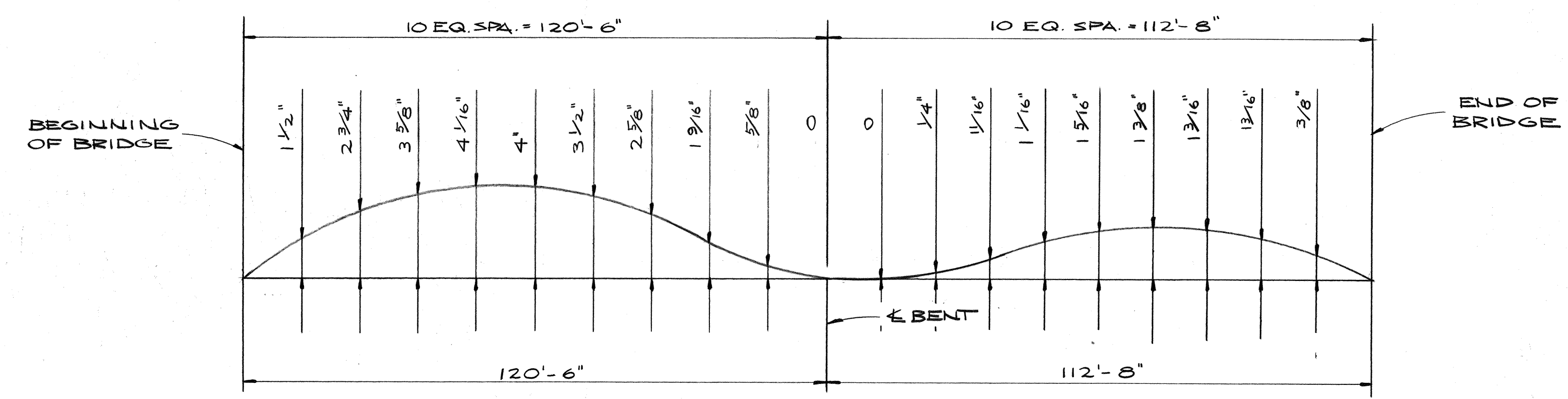
PLAN OF BOTTOM SLAB
SHOWING TRANSVERSE STEEL ONLY



ISOMETRIC SHOWING EXPANSION JOINT IN TOP SLAB



POURING SEQUENCE



DEAD LOAD CORRECTION CURVE

NOTE: FORMS AND SUPPORTS FOR THE ENTIRE BOTTOM SLAB SHALL BE IN PLACE PRIOR TO PLACEMENT OF SUPERSTRUCTURE CONCRETE. CONCRETE FOR THE TOP AND BOTTOM SLAB AND WALLS MAY BE PLACED IN ANY SEQUENCE, HOWEVER, CONSTRUCTION JOINTS WILL BE PERMITTED AT DESIGNATED LOCATIONS ONLY. NO TOP SLAB CONCRETE MAY BE PLACED UNTIL ALL WALLS HAVE BEEN COMPLETED.

● DENOTES OPTIONAL CONSTRUCTION JOINT SEE SPECIAL REINFORCING DETAIL AT CONSTRUCTION JOINT, ON DWG. NO. M-93-61.

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

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
SUPERSTRUCTURE DETAILS
WINFORD AVENUE OVER INTERSTATE 440
STATION 406+74.88
DAVIDSON COUNTY
1981

DESIGNED BY AM SMITH DATE 1-81
DRAWN BY RT CHRISTY DATE 2-81
SUPERVISED BY J. FIELDS DATE 2-81
CHECKED BY AM SMITH DATE 8-81

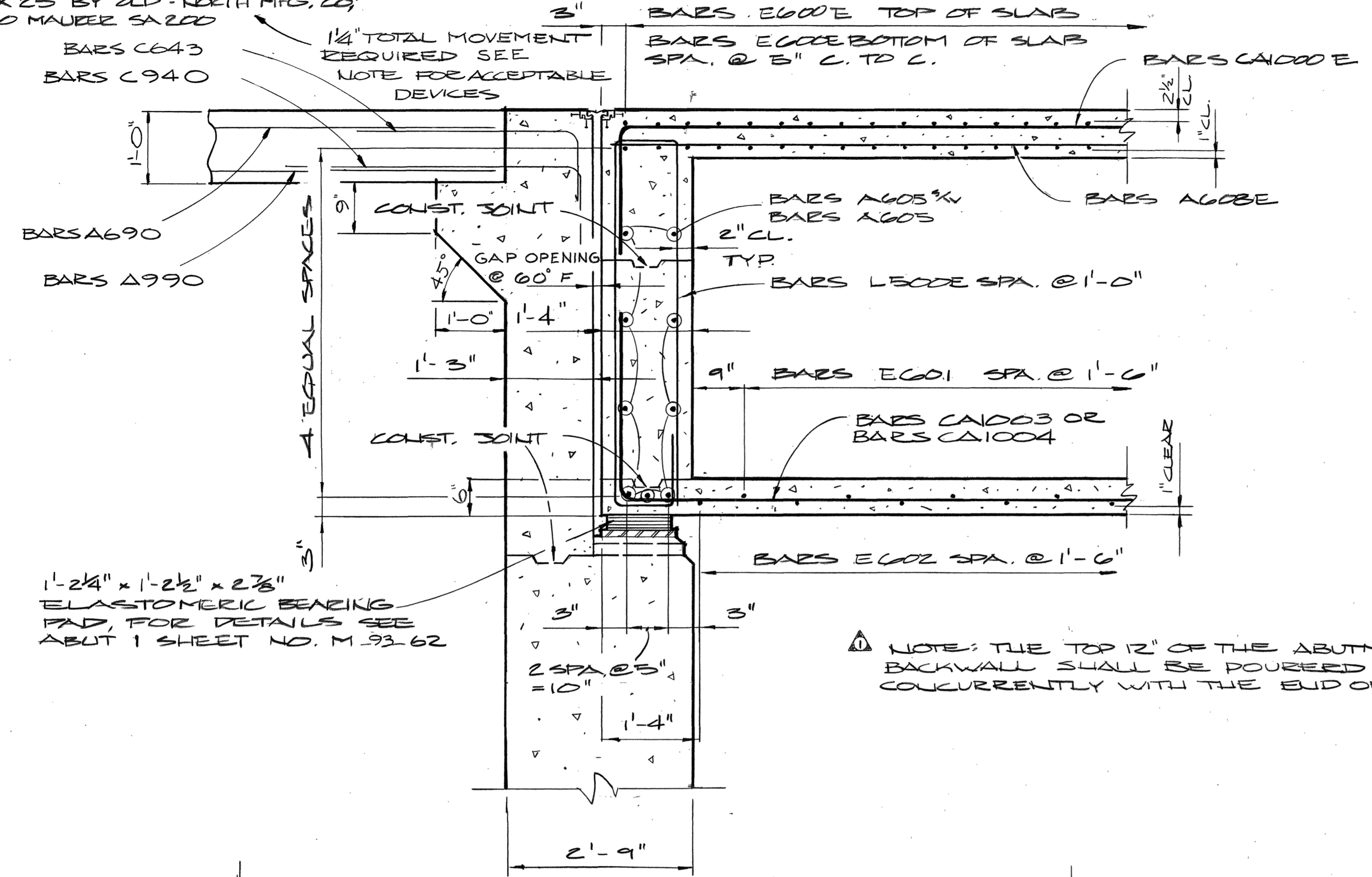
CORRECT *C. L. Lowell*
ENGINEER OF STRUCTURES
APPROVED *Louis Evans*
DIRECTOR OF HIGHWAYS

MICROFILMED

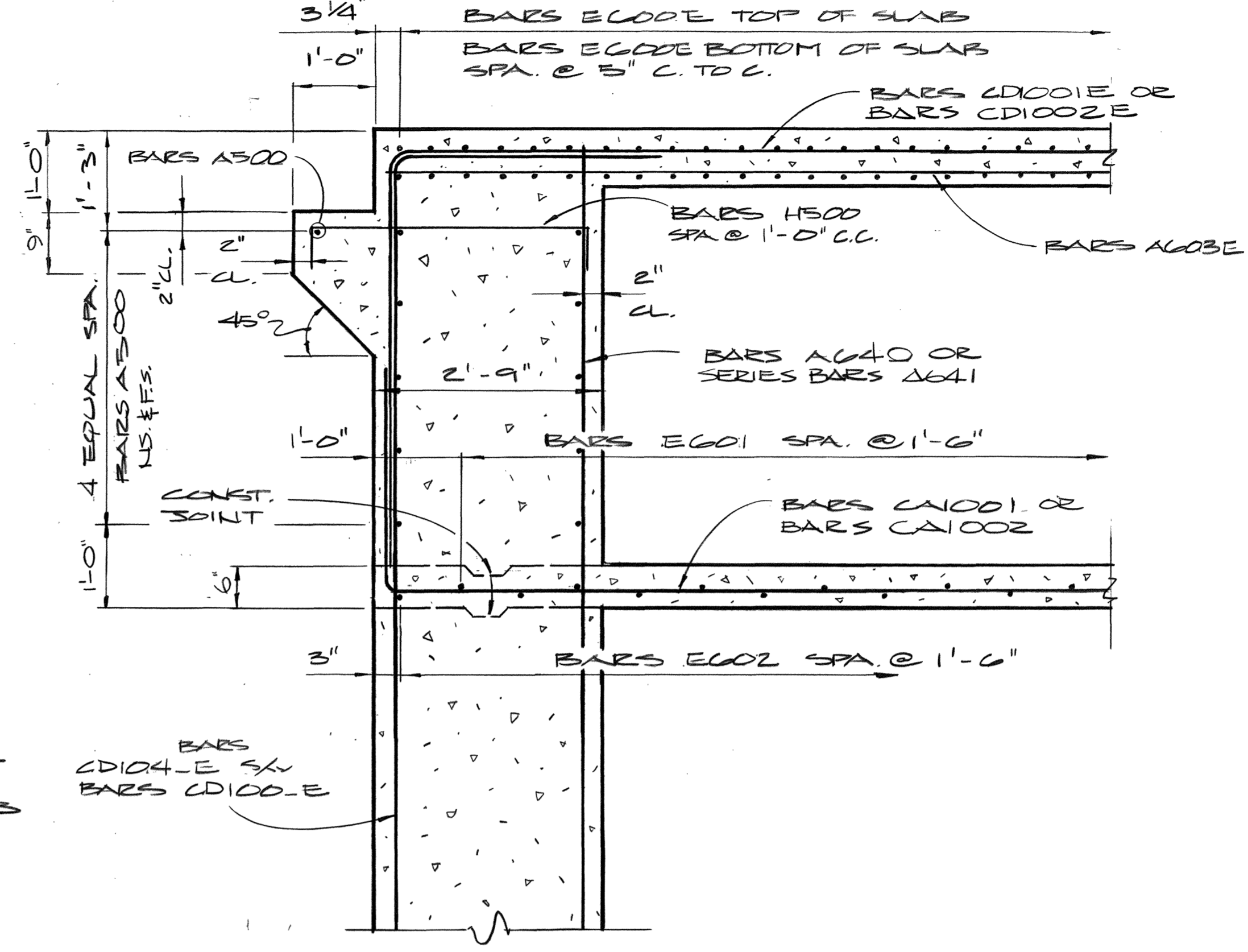
CONST. NO. 19015-3110-44			
PROJECT NO.	YEAR	SHEET NO.	
I440-4(44)212	1981	22	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	AMS	GENERAL REVISIONS
2	1-20-82	AMS	JOINT OPENING

NOTE: ACCEPTABLE EXPANSION DEVICES ARE AS200 BY ACME; ON-FLEX 25 BY OLD-NORTH MFG. CO; OR WABO MAUER SA200

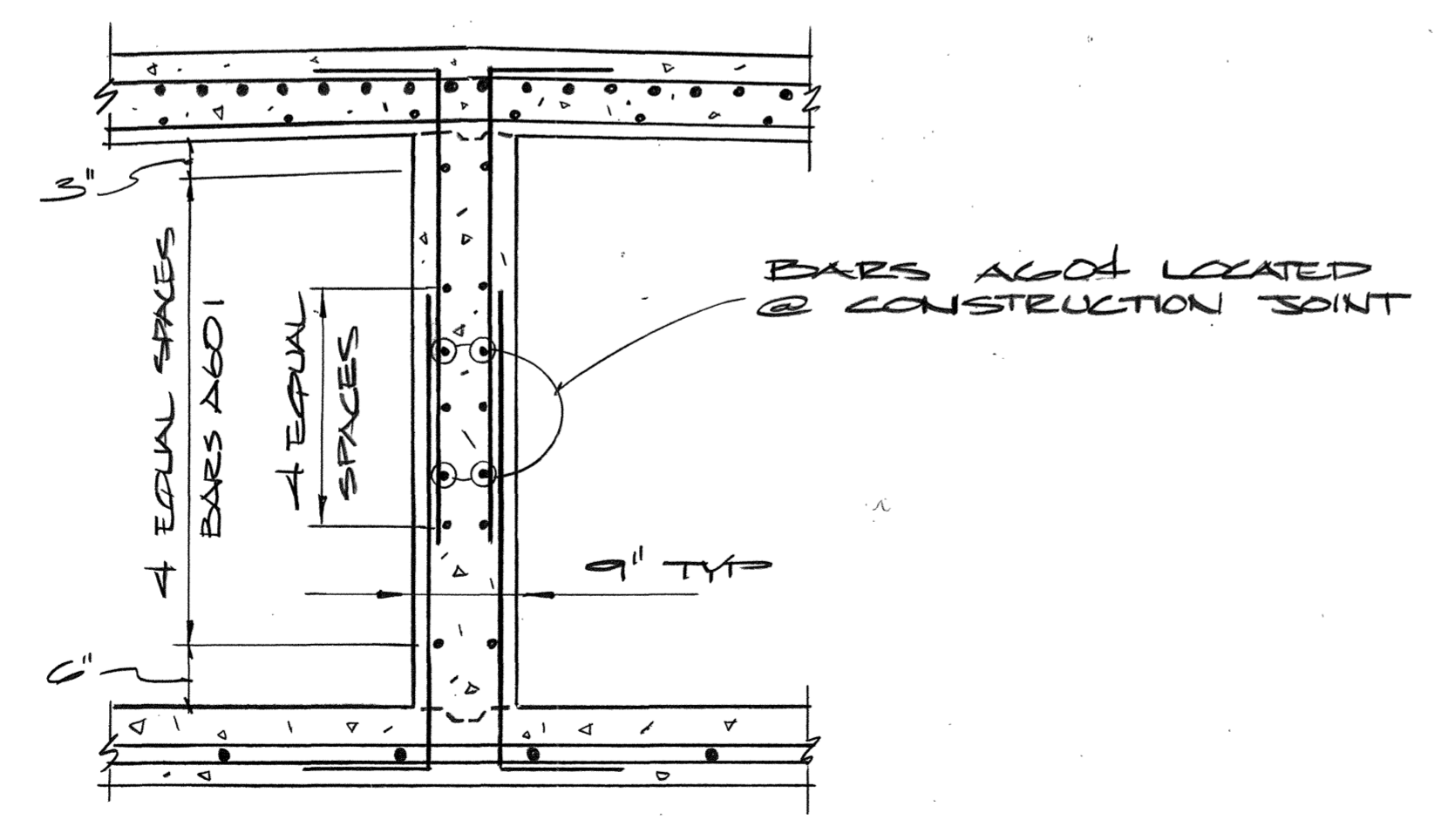
1/4" TOTAL MOVEMENT REQUIRED SEE NOTE FOR ACCEPTABLE DEVICES



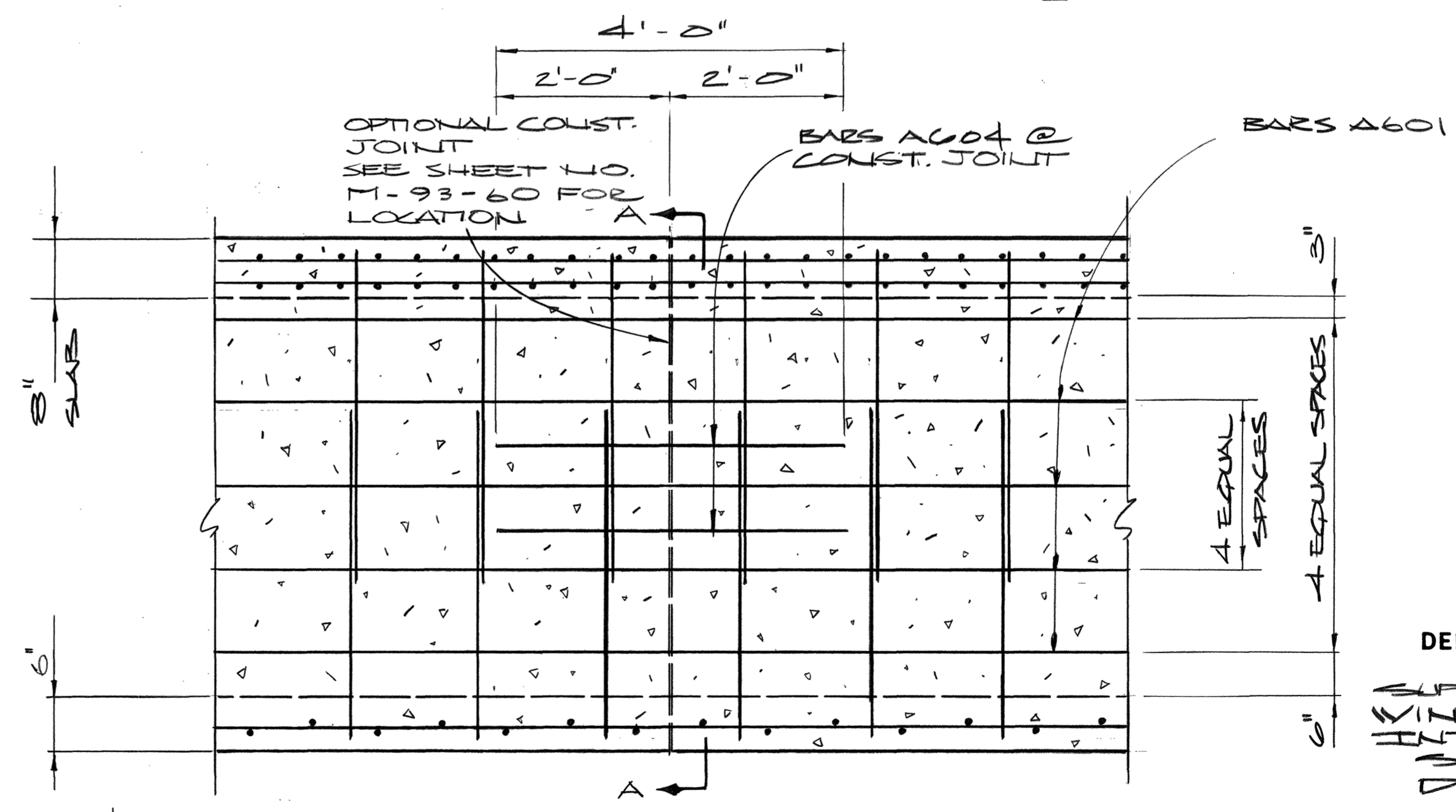
DIAPHRAGM DETAIL AT ABUTMENT NO. 1



BACKWALL DETAIL AT ABUTMENT NO. 2



SECTION A-A



DETAIL OF VEEB AT CONSTRUCTION JOINT

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 WINFORD AVENUE OVER
 INTERSTATE - 440
 STATION 40+74.88
 DAVIDSON COUNTY
 1981

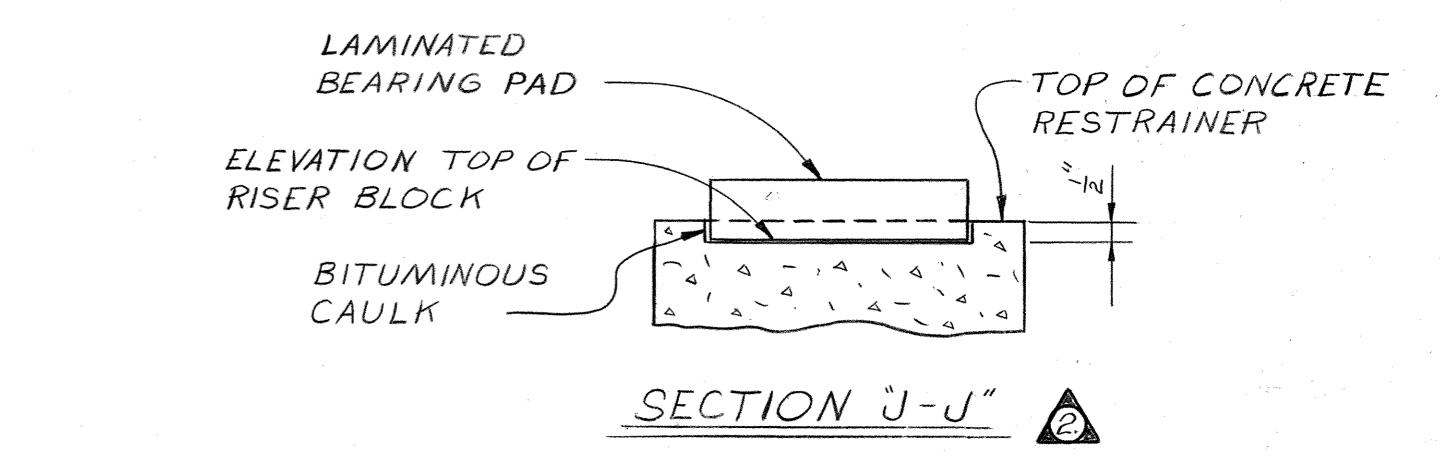
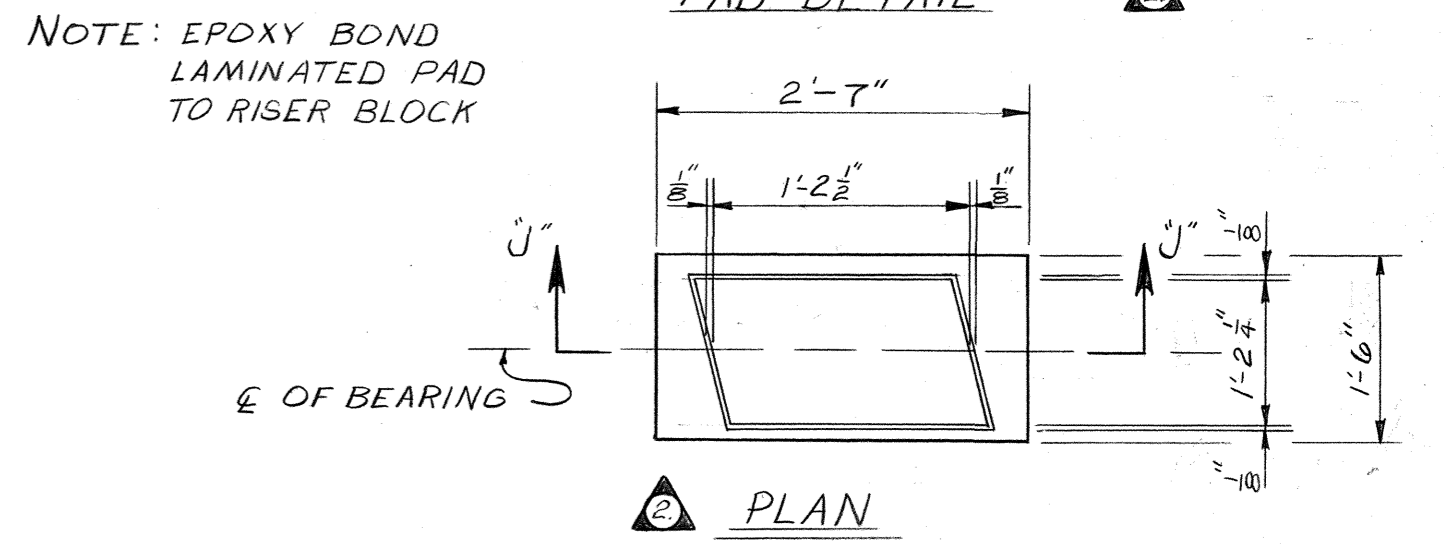
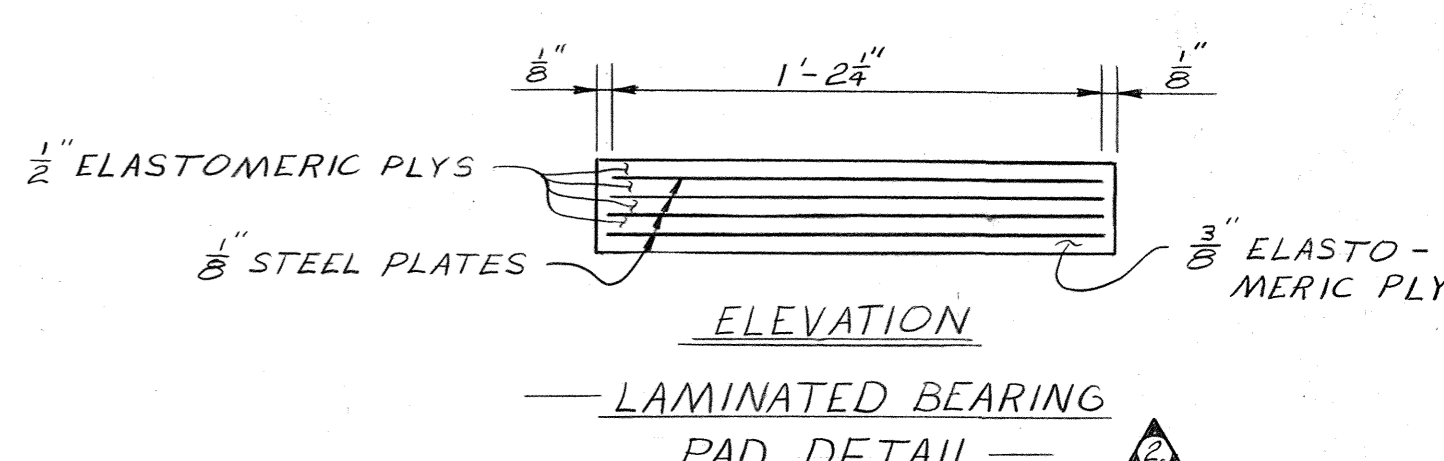
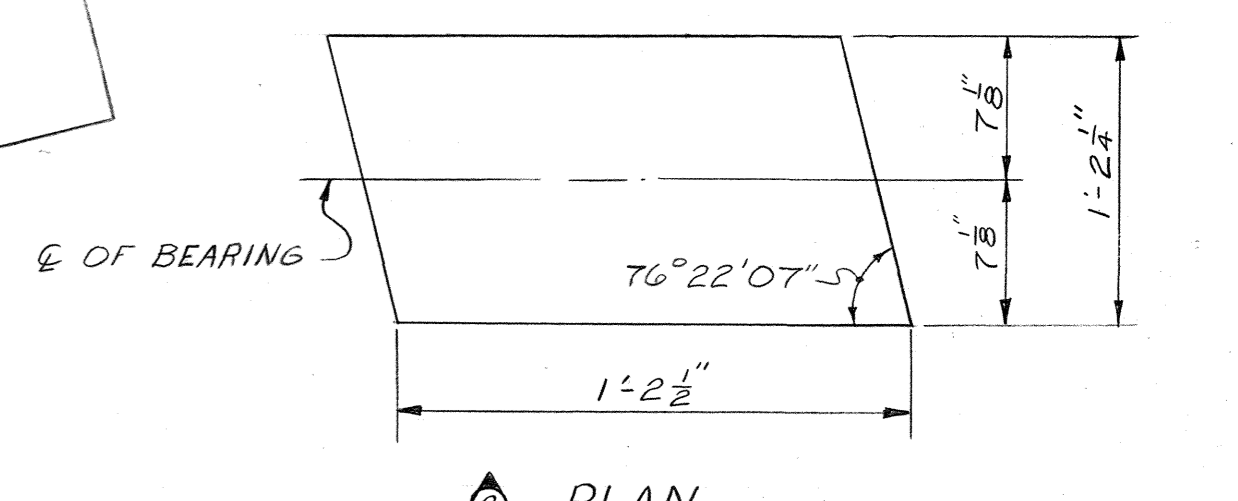
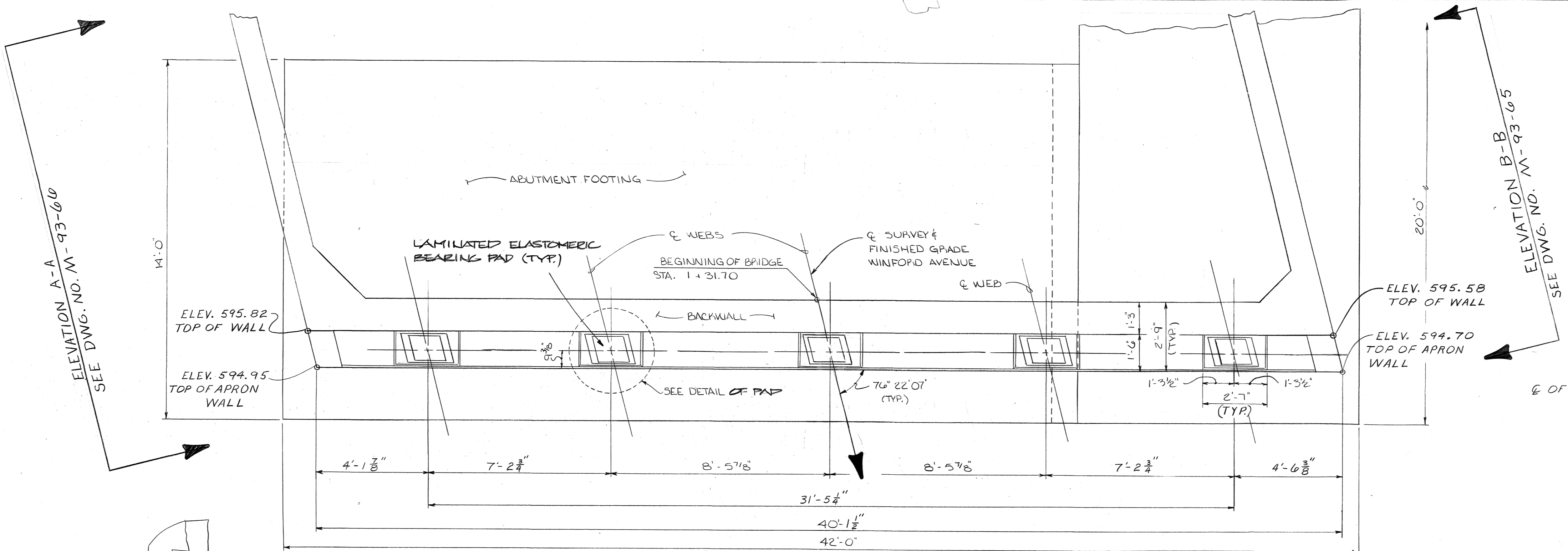
DESIGNED BY N. SMITH DATE 3/81
 DRAWN BY JIM CURTIS DATE 3/81
 SUPERVISED BY S. FIELDS DATE 3/81
 CHECKED BY A.M. SMITH DATE 3/81

CORRECT *William L. Lowell*
 ENGINEER OF STRUCTURES
 APPROVED *Paul Evans*
 DIRECTOR OF HIGHWAYS

M-93-61

PROJECT NO.	YEAR	SHEET NO.
I440-4(44)212	1981	23

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	A.M.S.	GENERAL REVISIONS
2	1-20-81	A.M.S.	FOOT, ELEV. DETAILS, BEAR. PAD, EST. QUANT.
3	1-29-82	AM3	REIN. STEEL QUANTITY



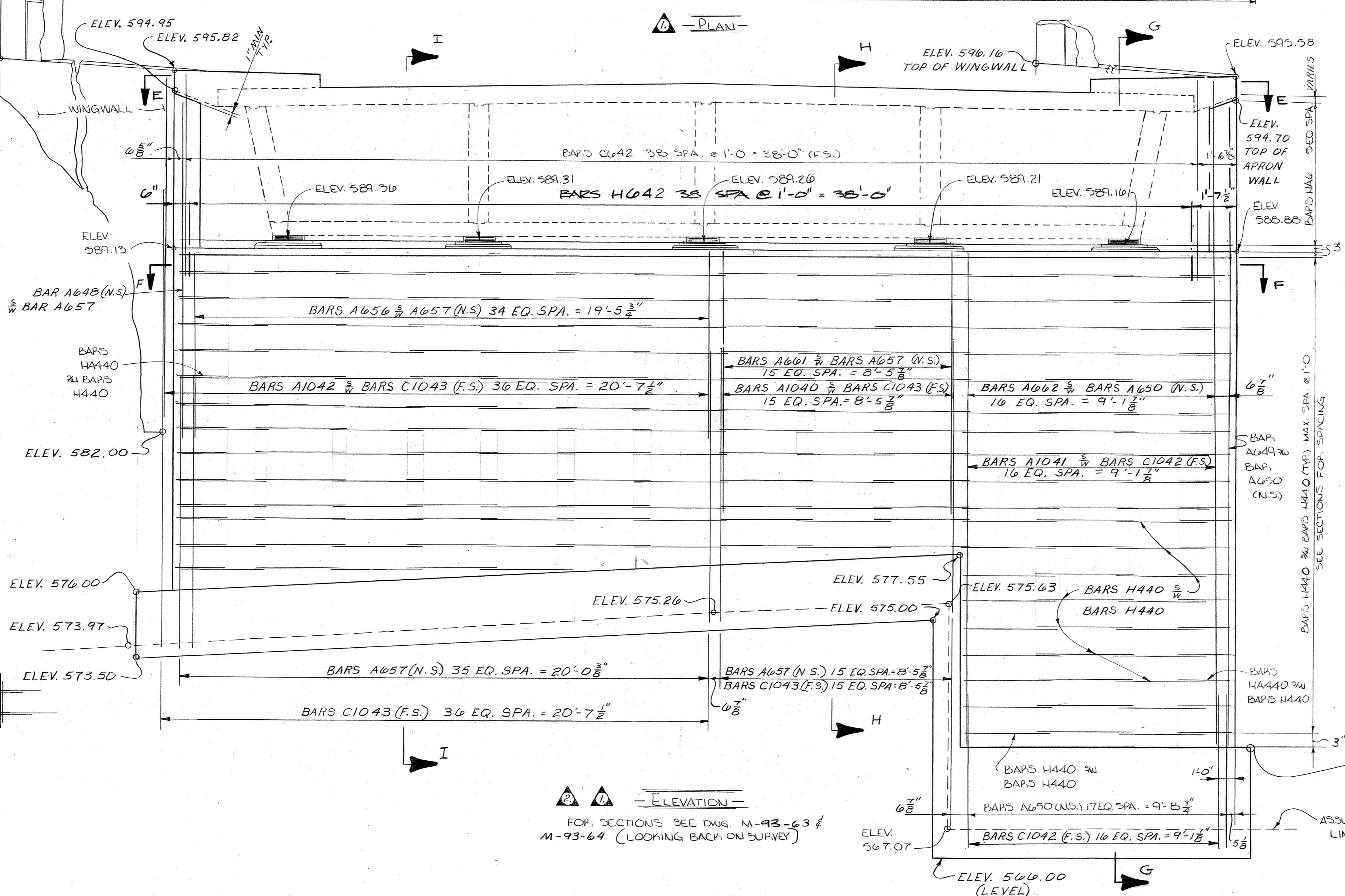
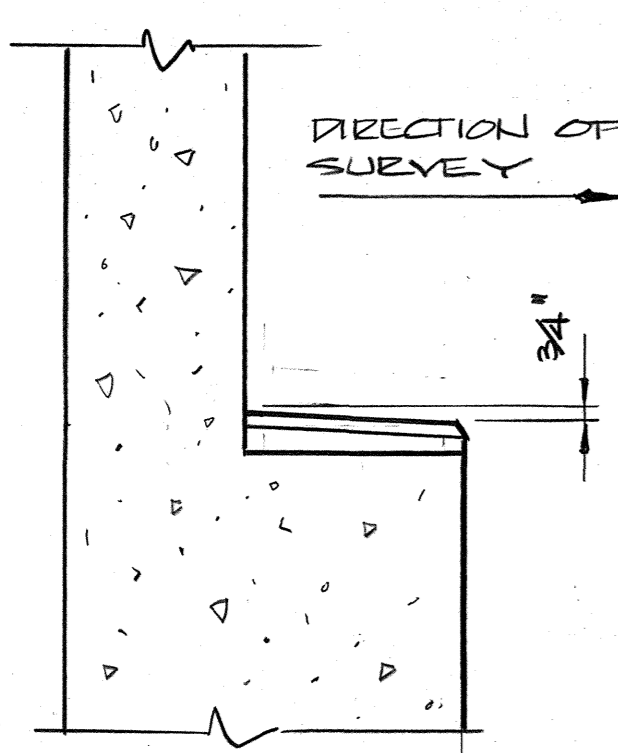
ESTIMATED QUANTITIES

ITEM	CLASS 'A' CONCRETE CY.	REINFORCING STEEL LBS.
ABUTMENT NO. 1	182.1	34,054

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 1 DETAILS
 WINFORD AVENUE OVER
 INTERSTATE 440
 STATION 2 + 52.20
 DAVIDSON COUNTY
 1981

CORRECT *Clifton L. Forewell*
 ENGINEER OF STRUCTURES
 APPROVED *Louis Evans*
 DIRECTOR OF HIGHWAYS

NOTE: RISER BLOCKS TO BE POURED MONOLITHICALLY WITH ABUTMENT BEAM.
 NOTE: RISER BLOCK BEARING PAD SURFACE TO CONFORM TO BOTTOM OF BEAM GRADE.
 NOTE: COST OF BRIDGE RAIL AND POST IS TO BE INCLUDED IN THE COST OF BRIDGE RAIL SYSTEM.

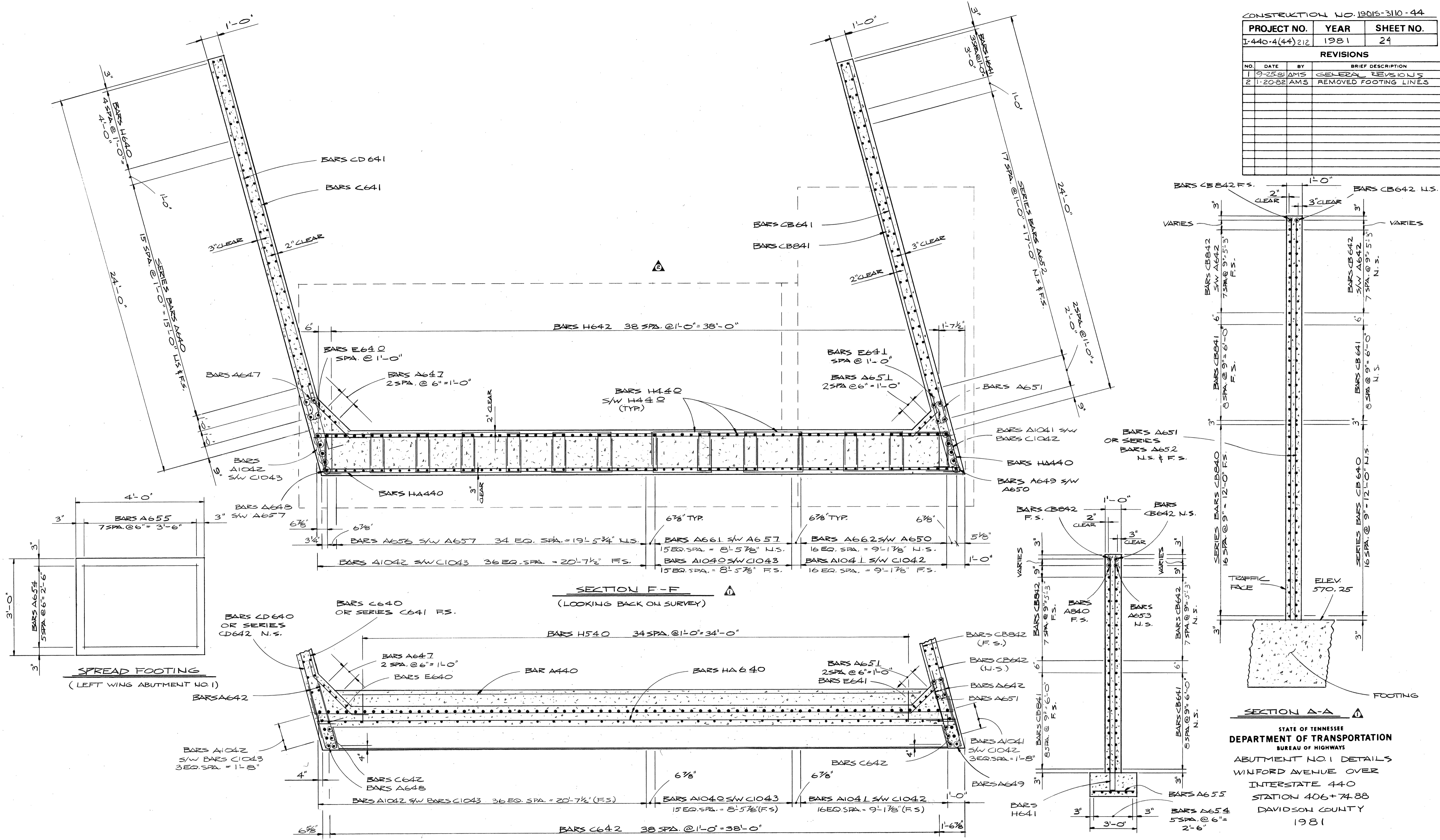


DESIGNED BY A. SMITH DATE 3-81
 DRAWN BY H. COLEMAN DATE 3-81
 SUPERVISED BY S. FIELDS DATE 3-81
 CHECKED BY A.M. SMITH DATE 8-81

ELEVATION
 FOR SECTIONS SEE DWG. M-93-63 & M-93-64 (LOOKING BACK ON SURVEY)

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	24

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	AMS	GENERAL REVISIONS
2	1-20-82	AMS	REMOVED FOOTING LINES



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 1 DETAILS
 WINFORD AVENUE OVER
 INTERSTATE 440
 STATION 406+74.88
 DAVIDSON COUNTY
 1981

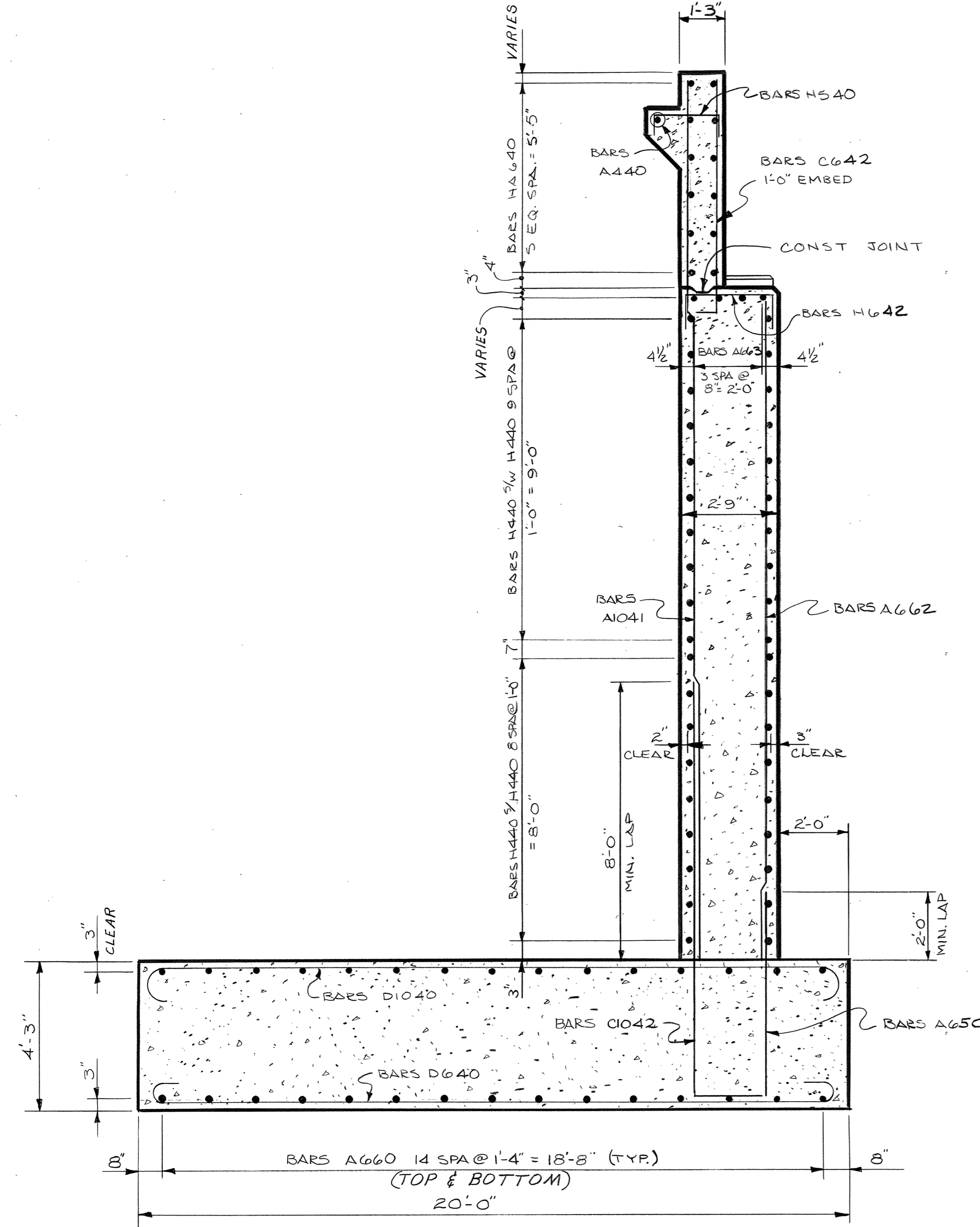
DESIGNED BY A.M. SMITH DATE 1-81
 DRAWN BY R.J. CHRISTY DATE 3-81
 SUPERVISED BY J. FIELDS DATE 3-81
 CHECKED BY A.M. SMITH DATE 3-81

CORRECT
 C. Ellison & Lovell
 ENGINEERS OF STRUCTURES
 APPROVED
 L. W. Evans
 DIRECTOR OF HIGHWAYS

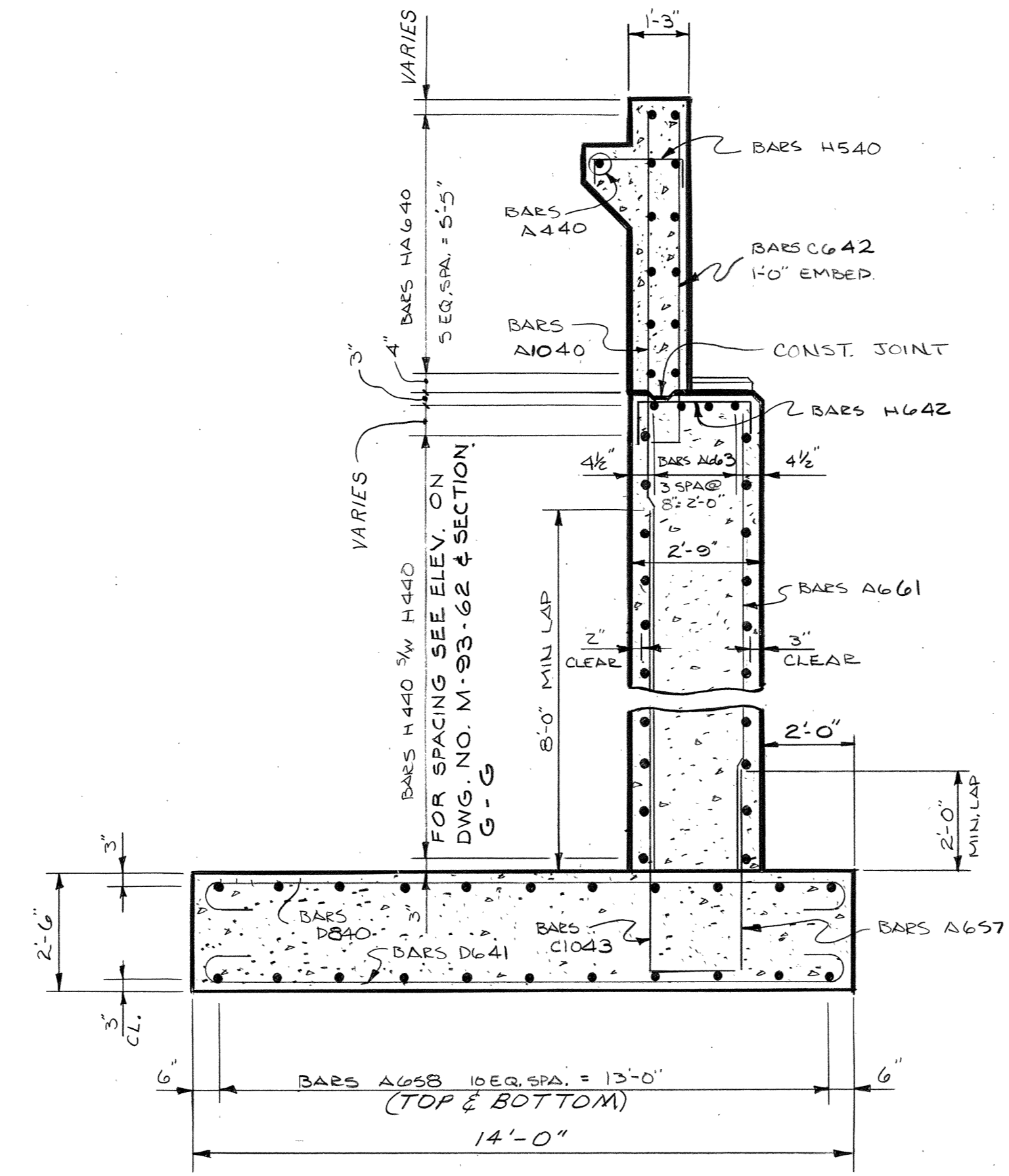
MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	25

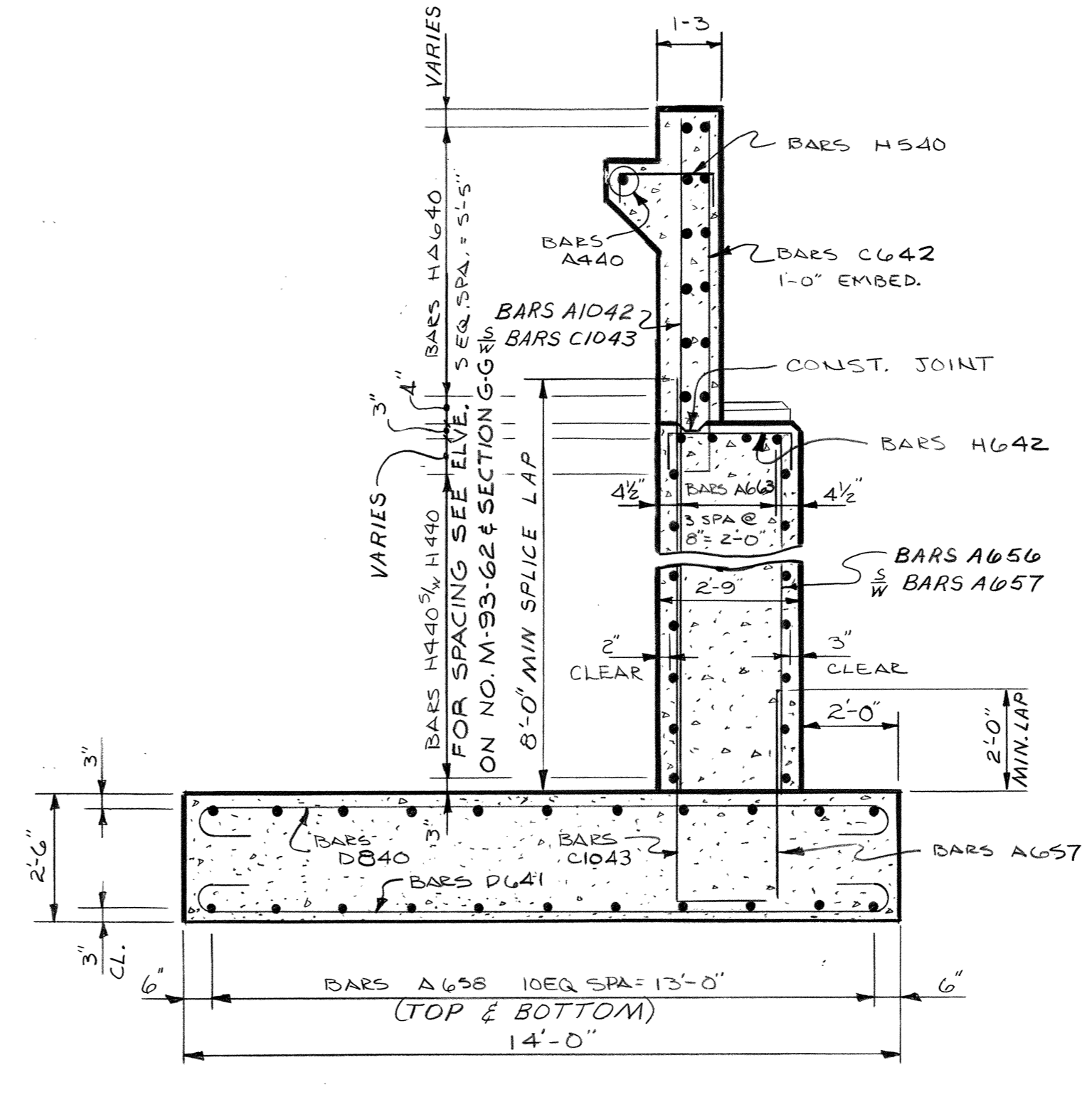
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	AM'S	GENERAL REVISIONS
2	1-20-82	AM'S	REVISED SECTIONS H-H & I-I
3	1-29-82	AM'S	BAR A659 TO A658



SECTION G'-G'



SECTION H'-H'



SECTION I'-I'

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
ABUTMENT 1 DETAILS
WINFORD AVENUE OVER
INTERSTATE 440
STATION 2+52.20
DAVIDSON COUNTY
1981

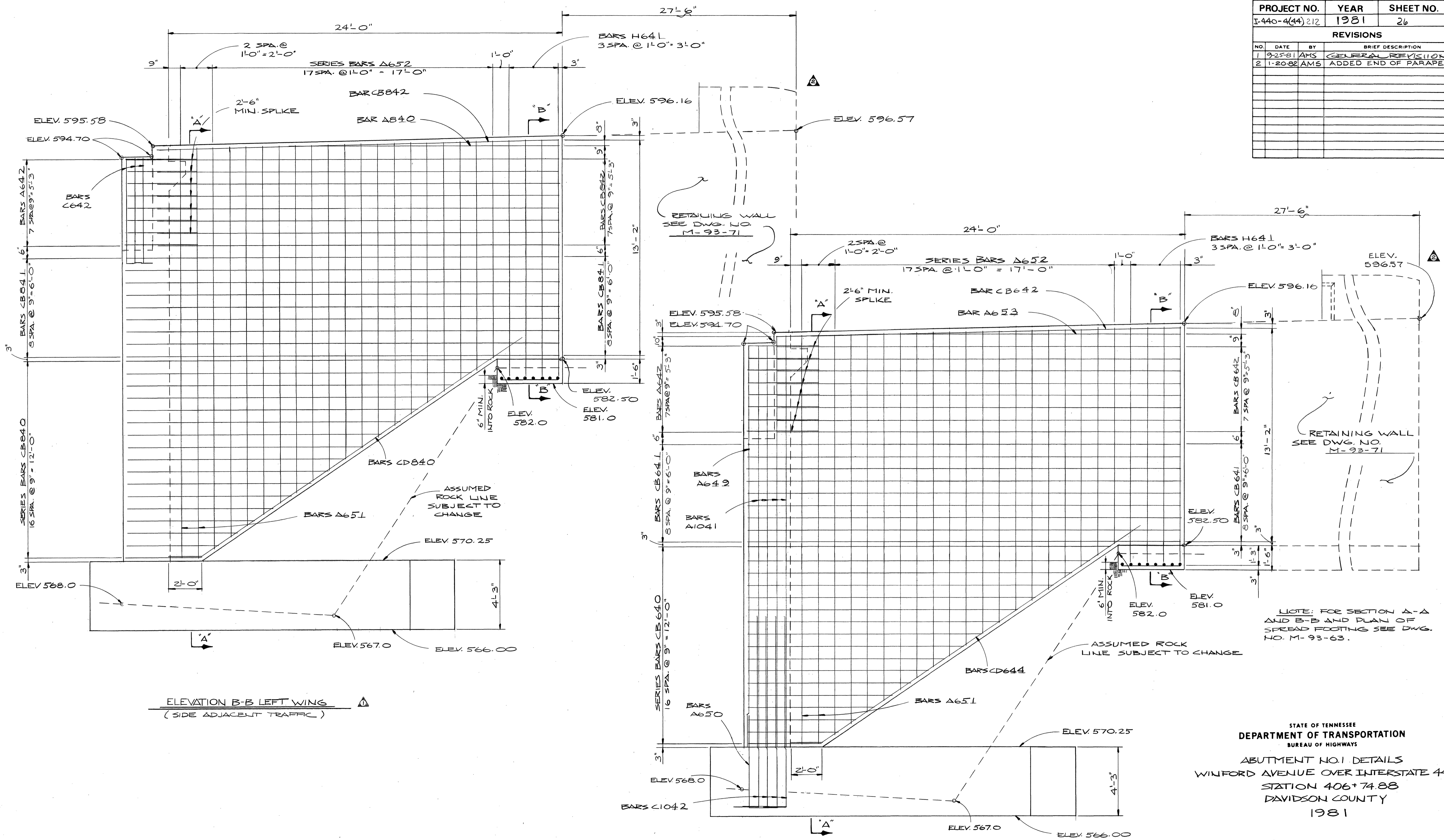
DESIGNED BY A.M. SMITH DATE 3-81
DRAWN BY KENNY FRANKENHORN DATE 4-81
SUPERVISED BY TIM FIELDS DATE 4-81
CHECKED BY A.M. SMITH DATE 8-81

CORRECT Colton L. Lovell
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-93-64

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	26

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	AMS	GENERAL REVISIONS
2	1-20-82	AMS	ADDED END OF PARAPET



ELEVATION B-B LEFT WING
(SIDE ADJACENT TRAFFIC)

ELEVATION B-B LEFT WING
(SIDE OPPOSITE TRAFFIC)

NOTE: FOR SECTION A-A AND B-B AND PLAN OF SPREAD FOOTING SEE DWG. NO. M-93-63.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
ABUTMENT NO. 1 DETAILS
WINFORD AVENUE OVER INTERSTATE 440
STATION 406+74.88
DAVIDSON COUNTY
1981

DESIGNED BY AM. SMITH DATE 1-81
DRAWN BY RJ. CHRISTY DATE 3-81
SUPERVISED BY J. FIELDS DATE 3-81
CHECKED BY A.M. SMITH DATE 9-81

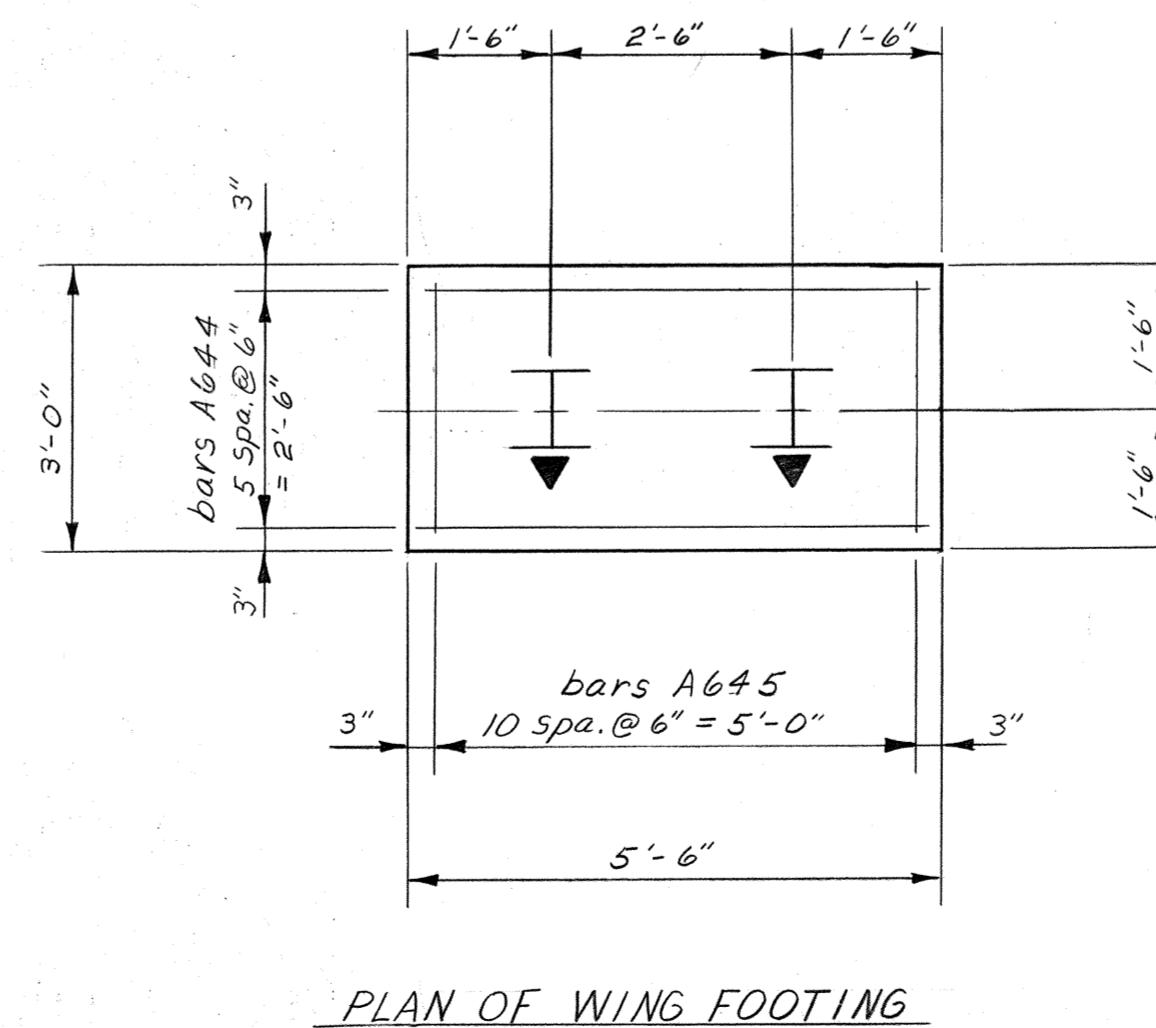
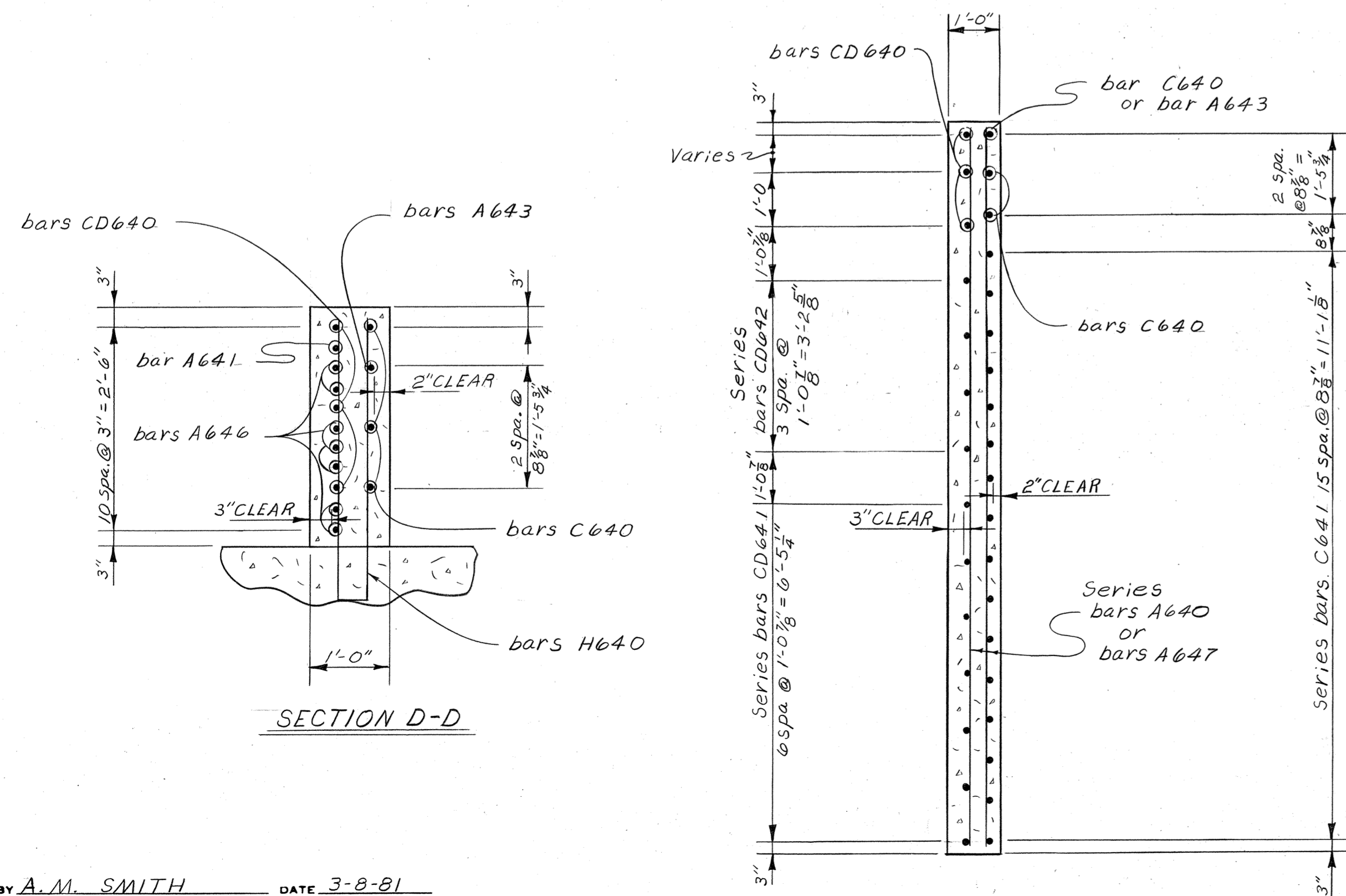
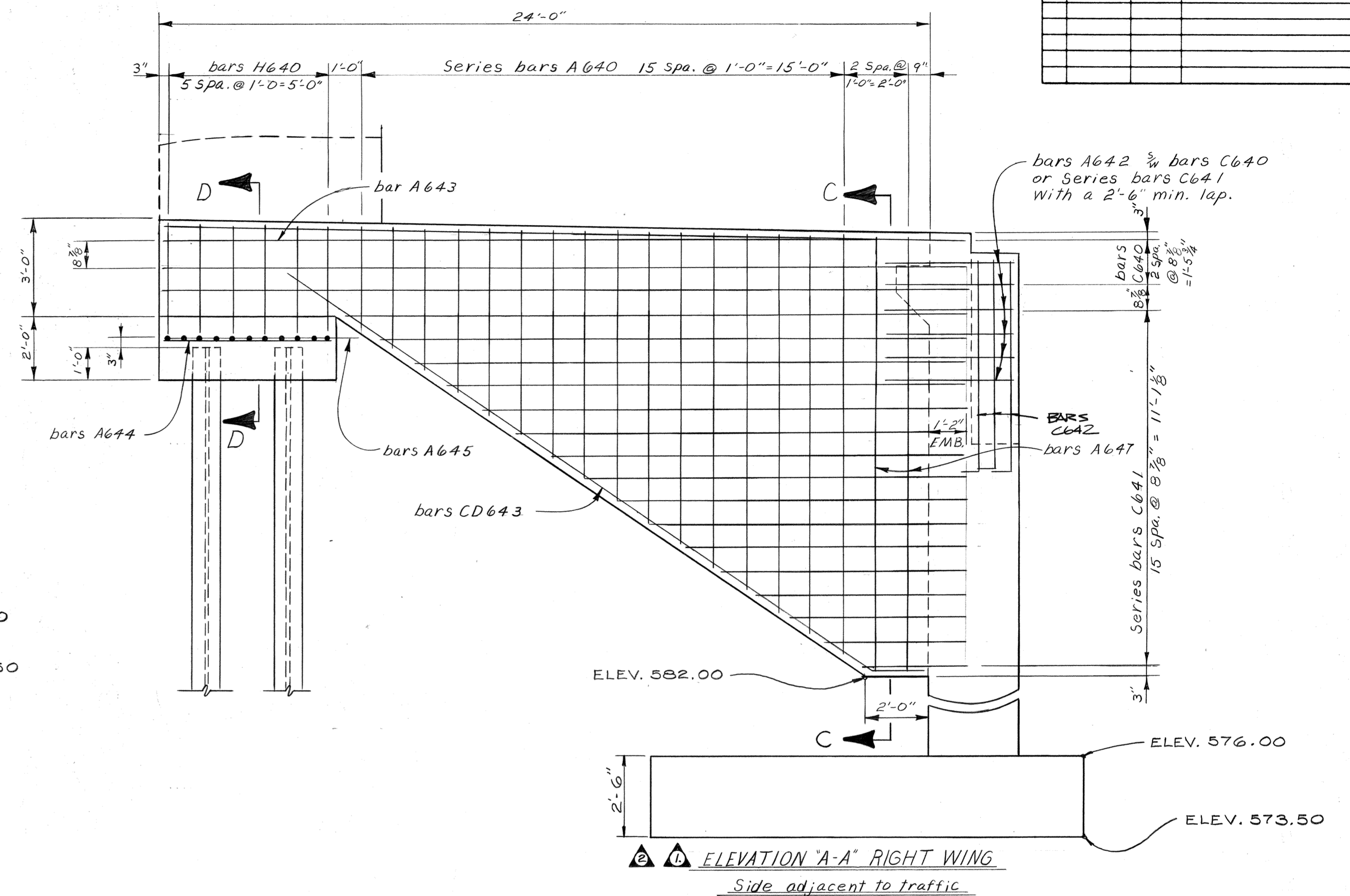
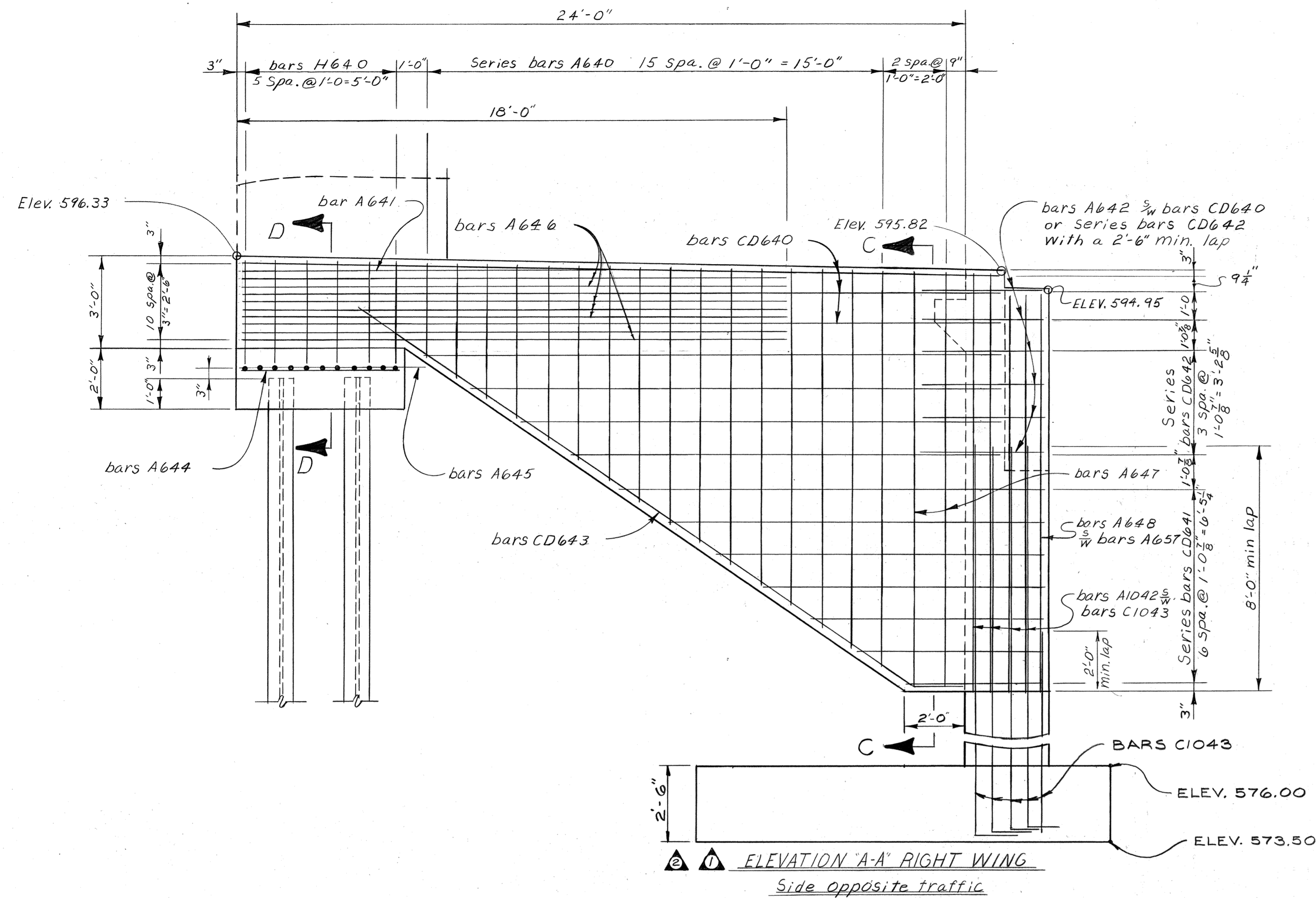
CORRECT *Colleen L. Lovell*
ENGINEER OF STRUCTURES
APPROVED *Lewis Evans*
DIRECTOR OF HIGHWAYS

M-93-65

MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
L-440-4(44)212	1981	27

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	A.M.S.	GENERAL REVISIONS
2	1-20-82	AMS	REVISED FOOTING ELEV.



HP 10 x 42 PILE BATTER
OUTWARD @ 2:12

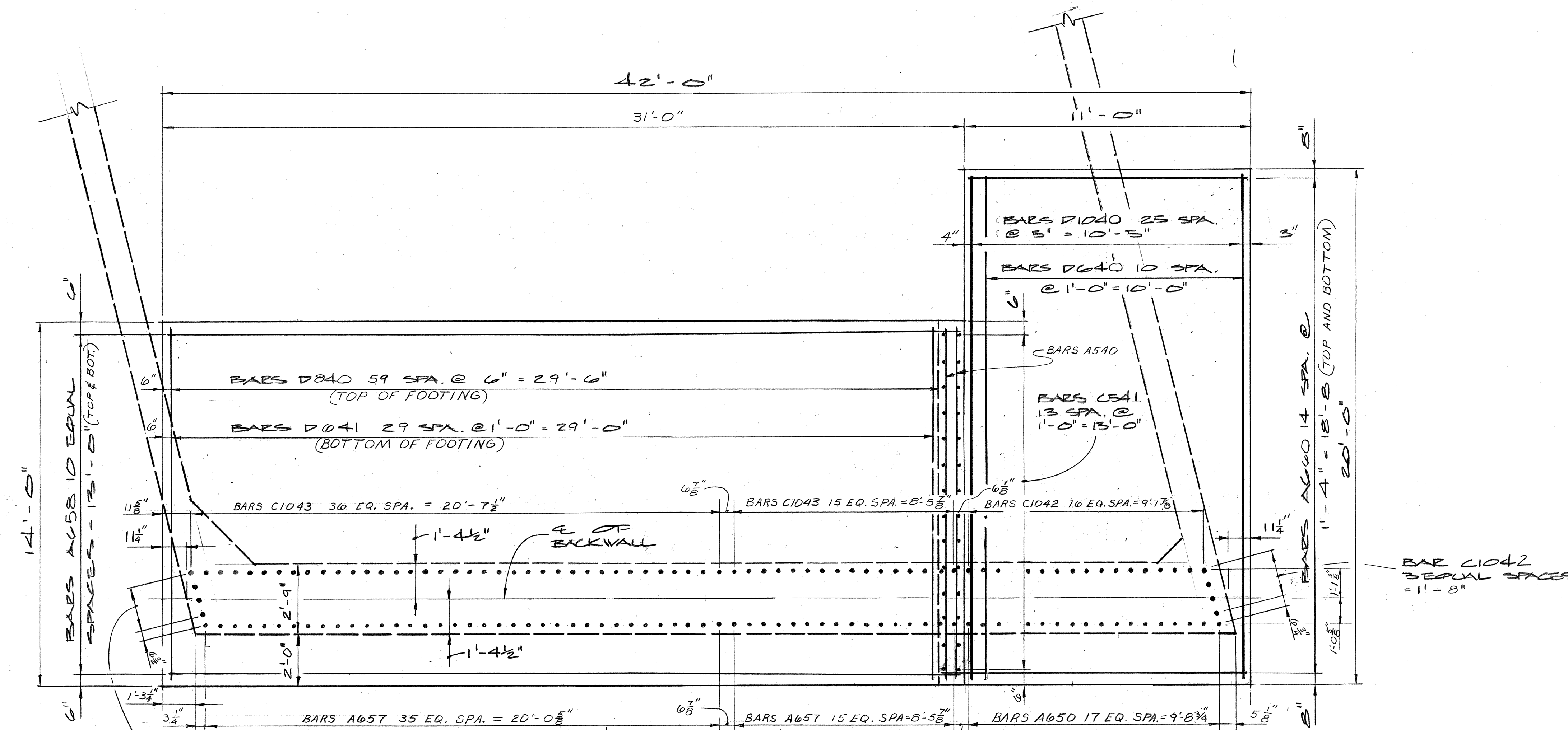
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
ABUTMENT NO. 1 DETAILS
WINFORD AVENUE OVER INTERSTATE 440
STATION 406+74.88
DAVIDSON COUNTY
1981

DESIGNED BY A.M. SMITH DATE 3-8-81
DRAWN BY T.L. LEWIS DATE 3-27-81
SUPERVISED BY J. FIELDS DATE 3-27-81
CHECKED BY A.M. SMITH DATE 9-81

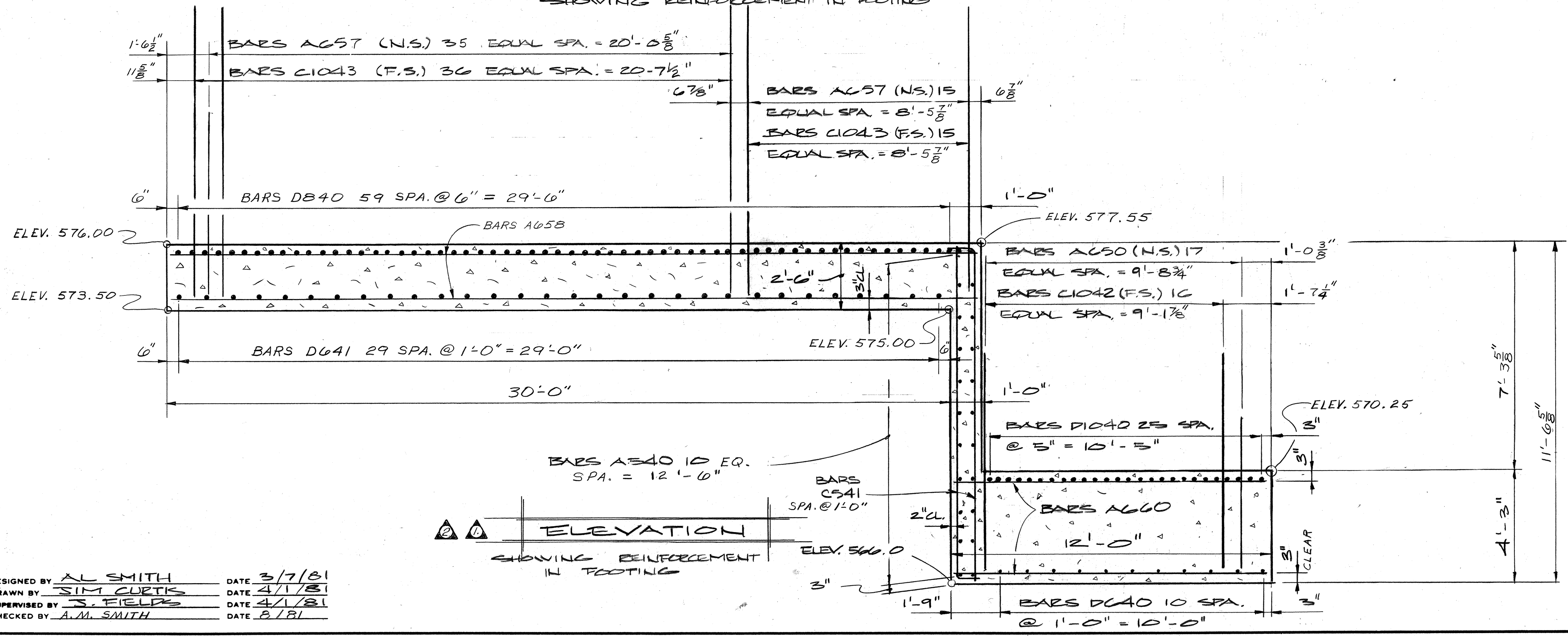
CORRECT *Colleen L. Forcell*
ENGINEER OF STRUCTURES
APPROVED *Lewis Evans*
DIRECTOR OF HIGHWAYS

PROJECT NO.	YEAR	SHEET NO.
T-440-4(44) 212	1981	28

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	A.M.S.	GENERAL REVISIONS
2	1-20-81	A.M.S.	REVISED FOOTING ELEV. & DETAILS



PLAN
SHOWING REINFORCEMENT IN FOOTING



ELEVATION
SHOWING REINFORCEMENT IN FOOTING

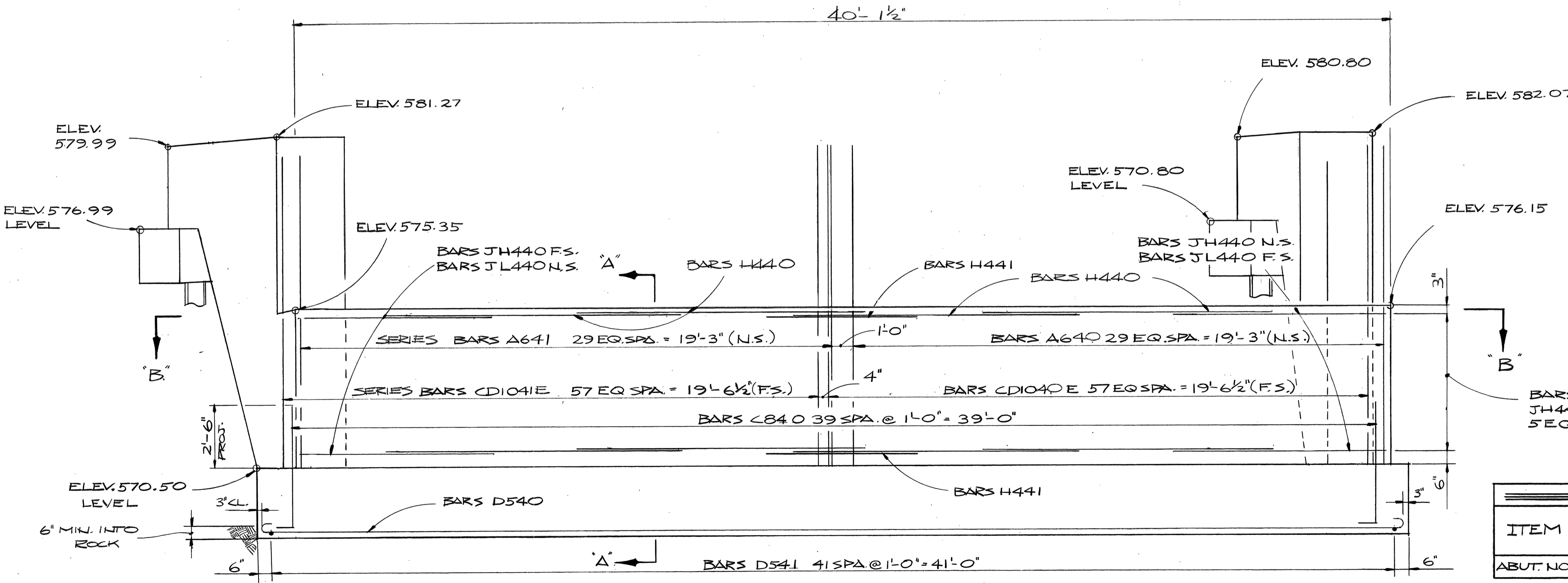
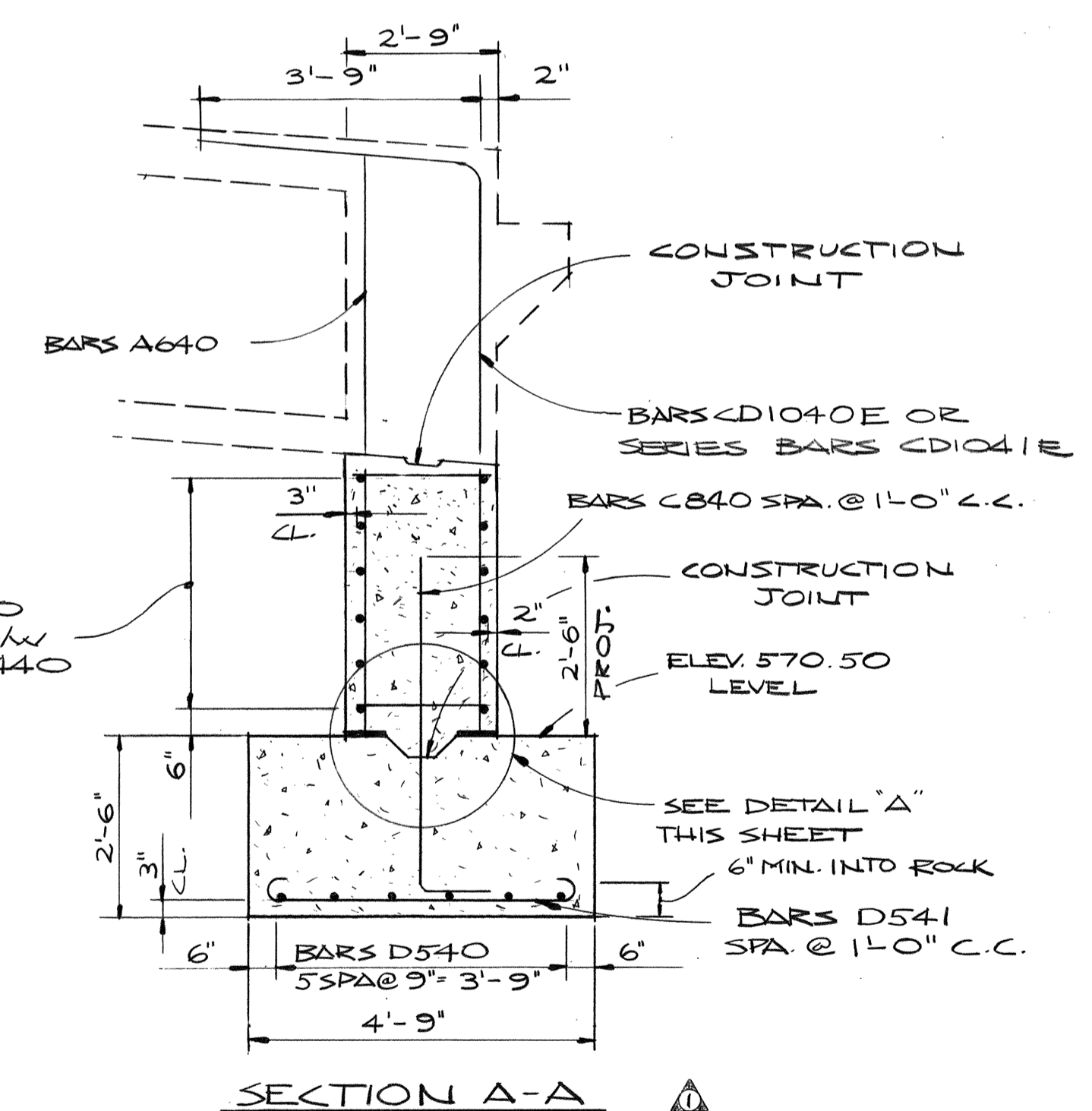
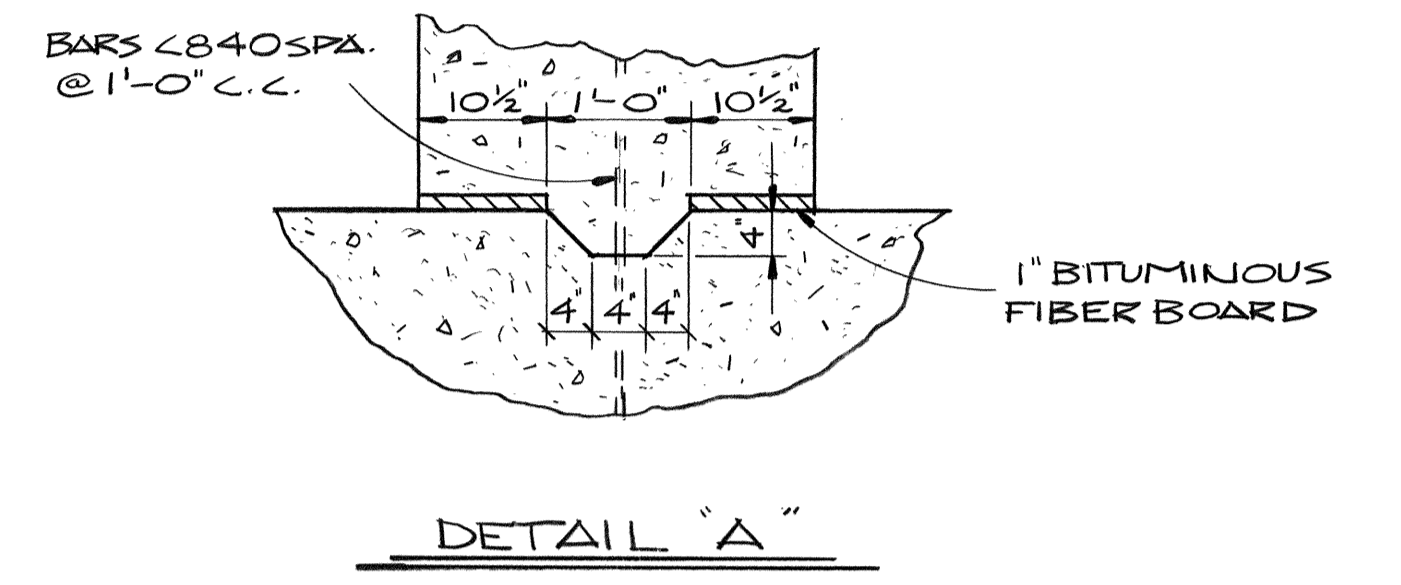
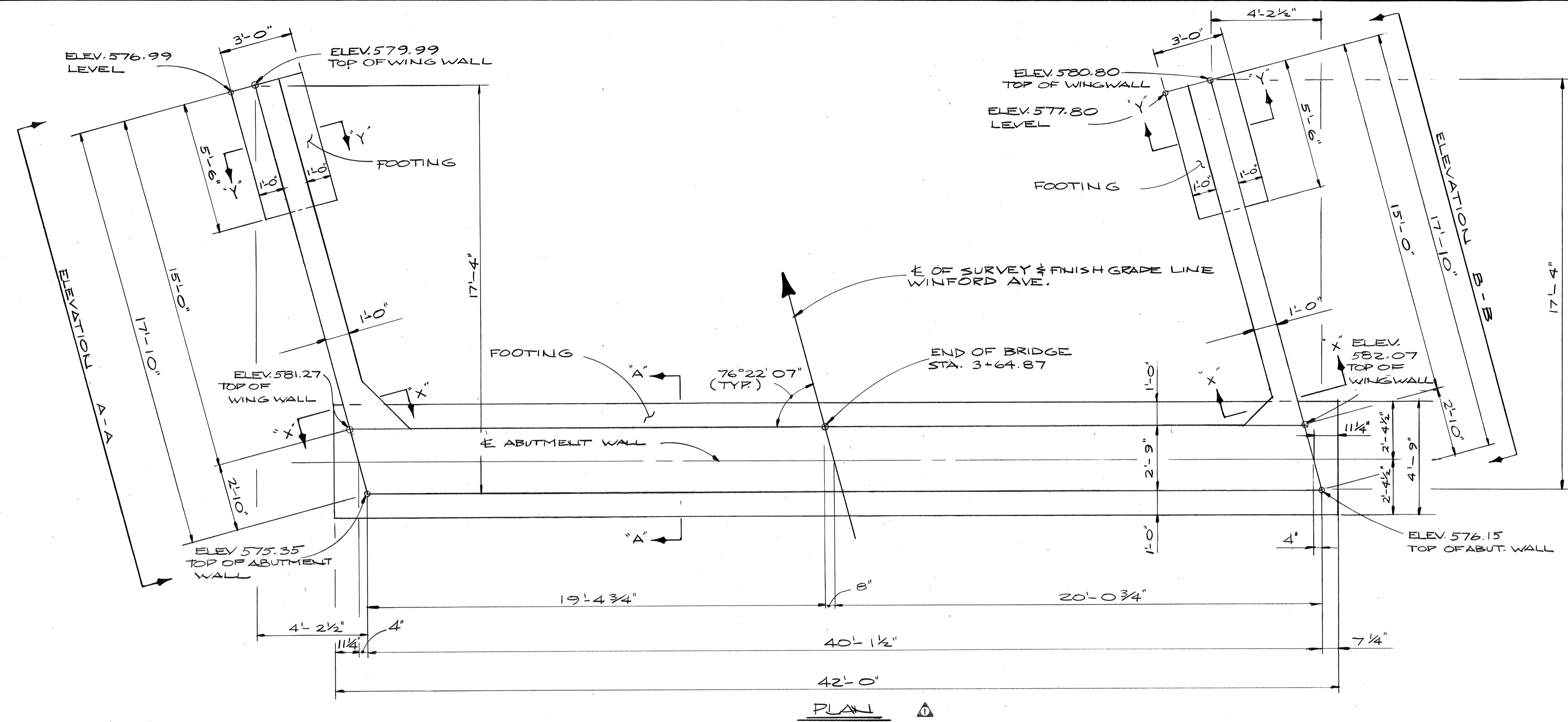
DESIGNED BY AL SMITH DATE 3/7/81
 DRAWN BY SIM CURTIS DATE 4/1/81
 SUPERVISED BY S. FIELDS DATE 4/1/81
 CHECKED BY A.M. SMITH DATE 8/1/81

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 1 DETAILS
 WILFORD AVENUE OVER
 INTERSTATE 440
 STATION 406+74.28
 DAVIDSON COUNTY
 1981

CORRECTED *Robert L. Brownell*
 ENGINEER OF STRUCTURES
 APPROVED *David Evans*
 DIRECTOR OF HIGHWAYS

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	29

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	AMS	GENERAL REVISIONS



ESTIMATED QUANTITIES			
ITEM	CLASS "A" CONCRETE (CY.)	REINFORCING STEEL (LBS.)	EPOXY COATED STEEL
ABUT. NO. 2	49.1	5,117	7,060

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 2
 WINFORD AVENUE OVER INTERSTATE 440
 STATION 406+74.88
 DAVIDSON COUNTY
 1981

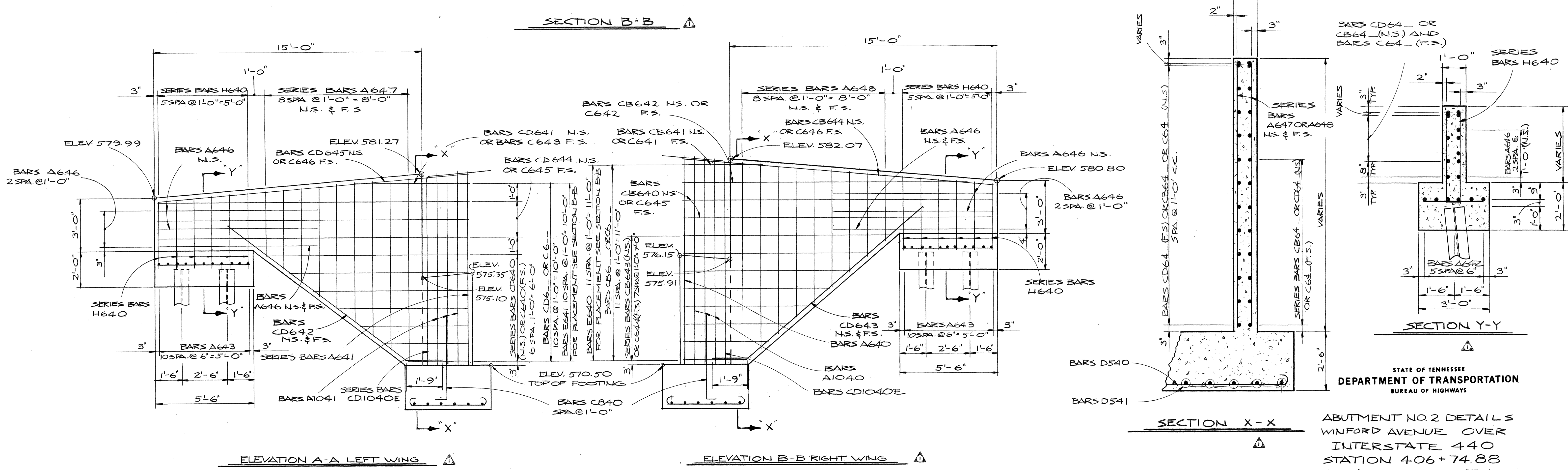
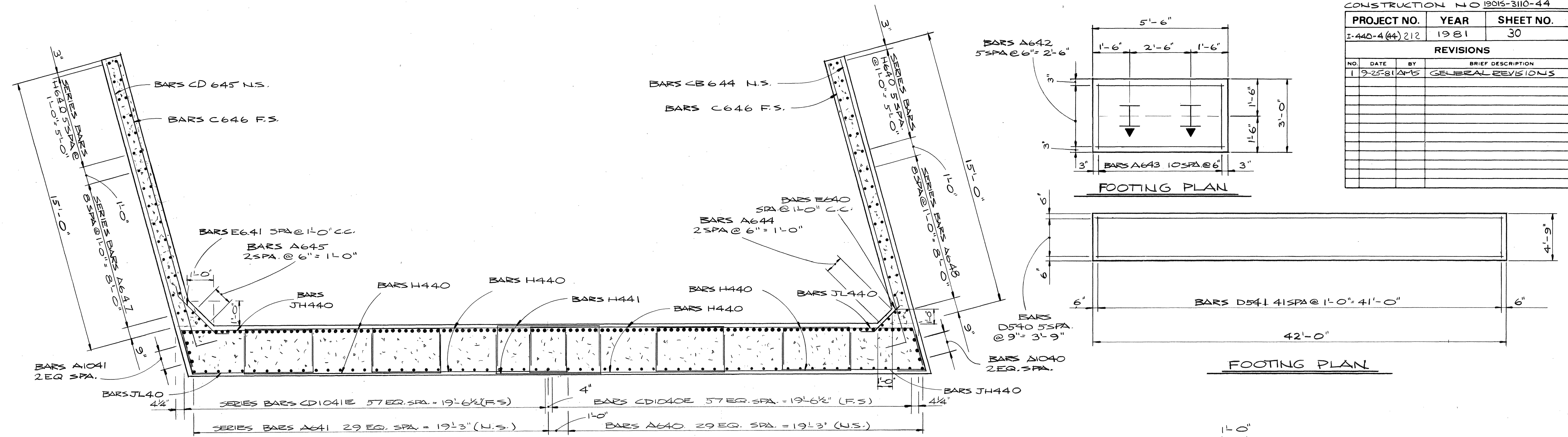
DESIGNED BY A.M. SMITH DATE 1-81
 DRAWN BY R.J. CHRISTY DATE 3-81
 SUPERVISED BY AMS & J. FIELDS DATE 3-81
 CHECKED BY A.M. SMITH DATE 5-81

ELEVATION
 (LOOKING FORWARD ON SURVEY)

CORRECT
 APPROVED
 ENGINEER OF STRUCTURES
 DIRECTOR OF HIGHWAYS

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	30

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	AMS	GENERAL REVISIONS



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO 2 DETAILS
WINFORD AVENUE OVER
INTERSTATE 440
STATION 406+74.88
DAVIDSON COUNTY
1981

CORRECT *Celilbor L Lovell*
ENGINEER OF STRUCTURES
APPROVED *Louis Ward*
DIRECTOR OF HIGHWAYS

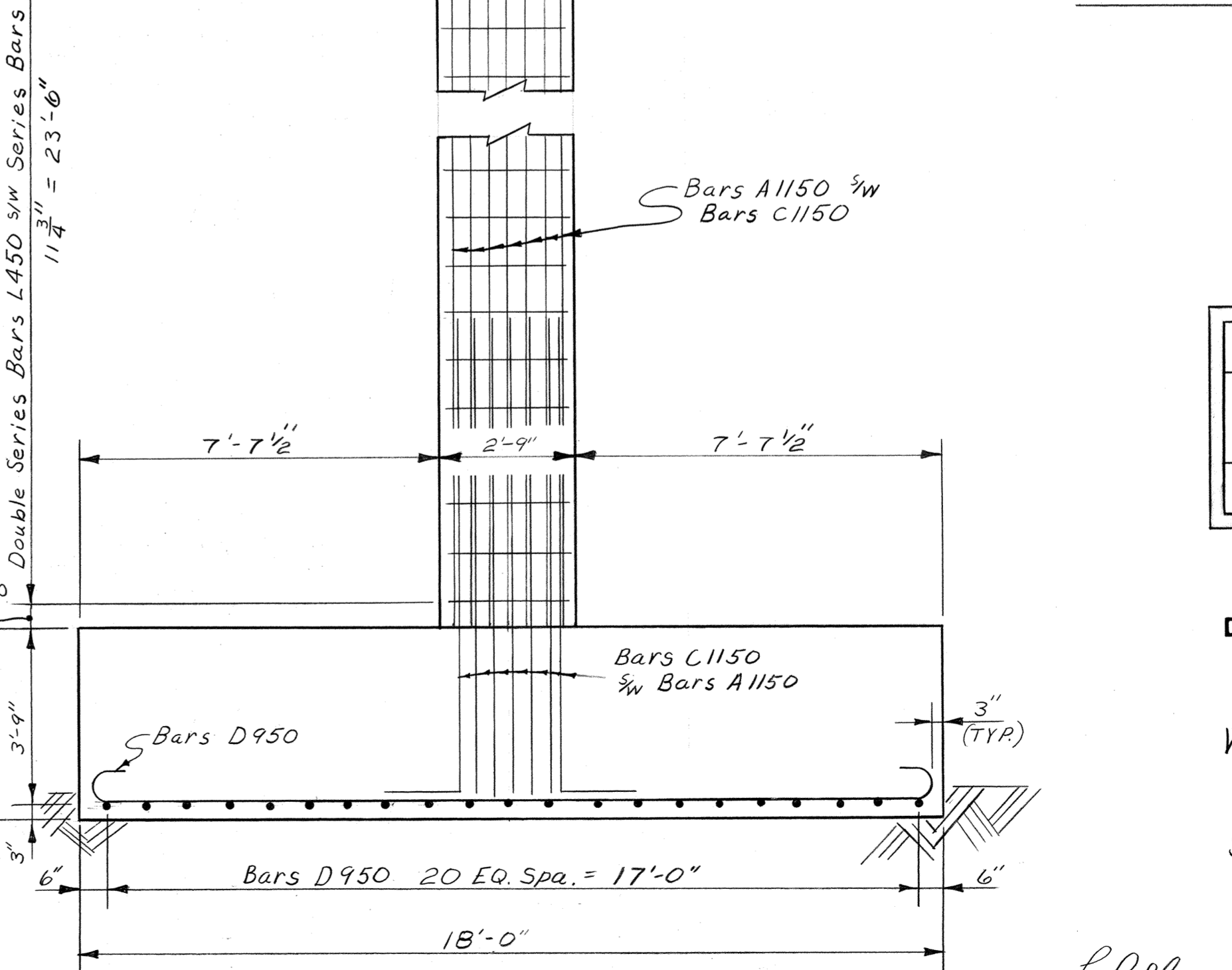
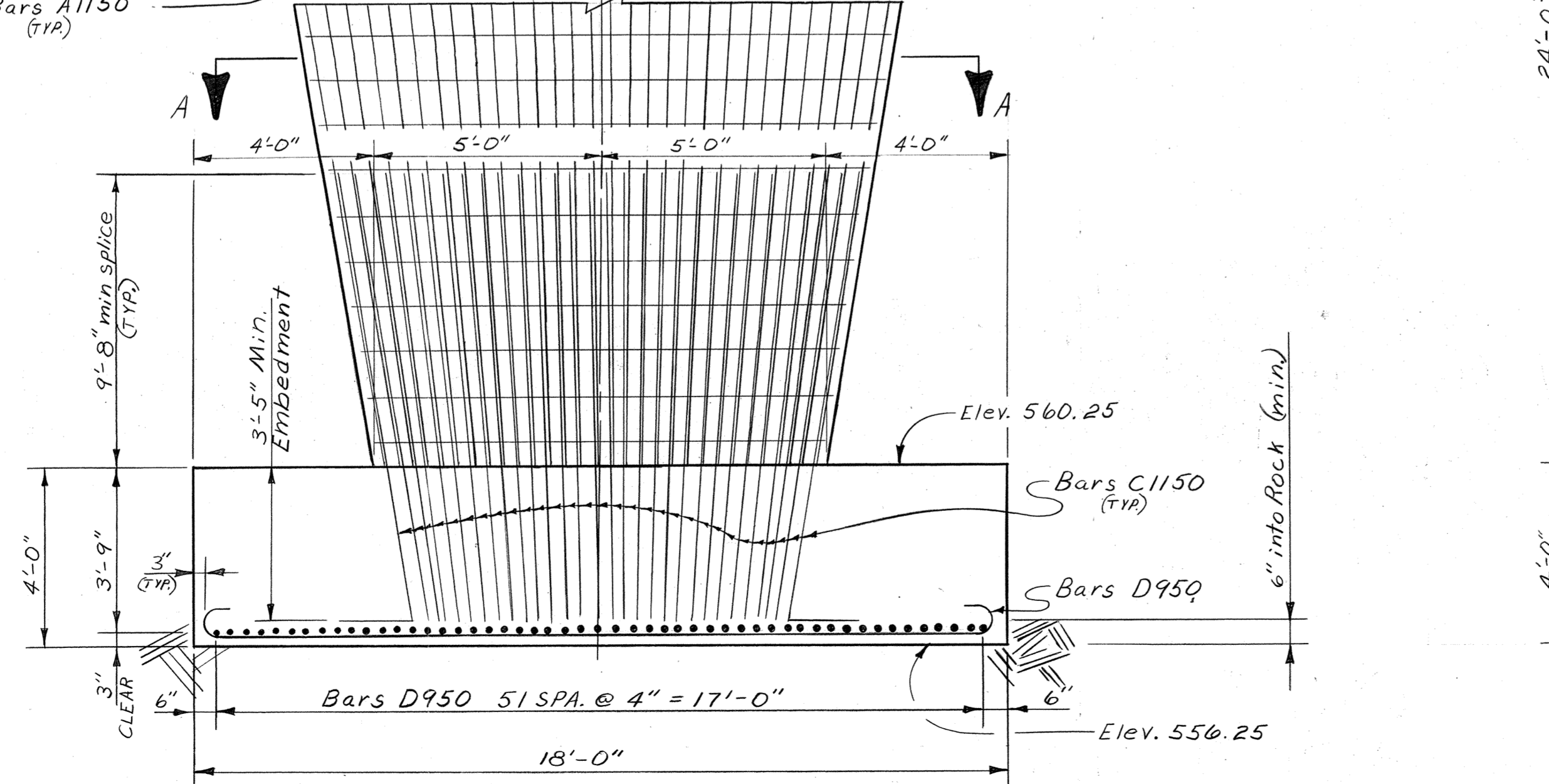
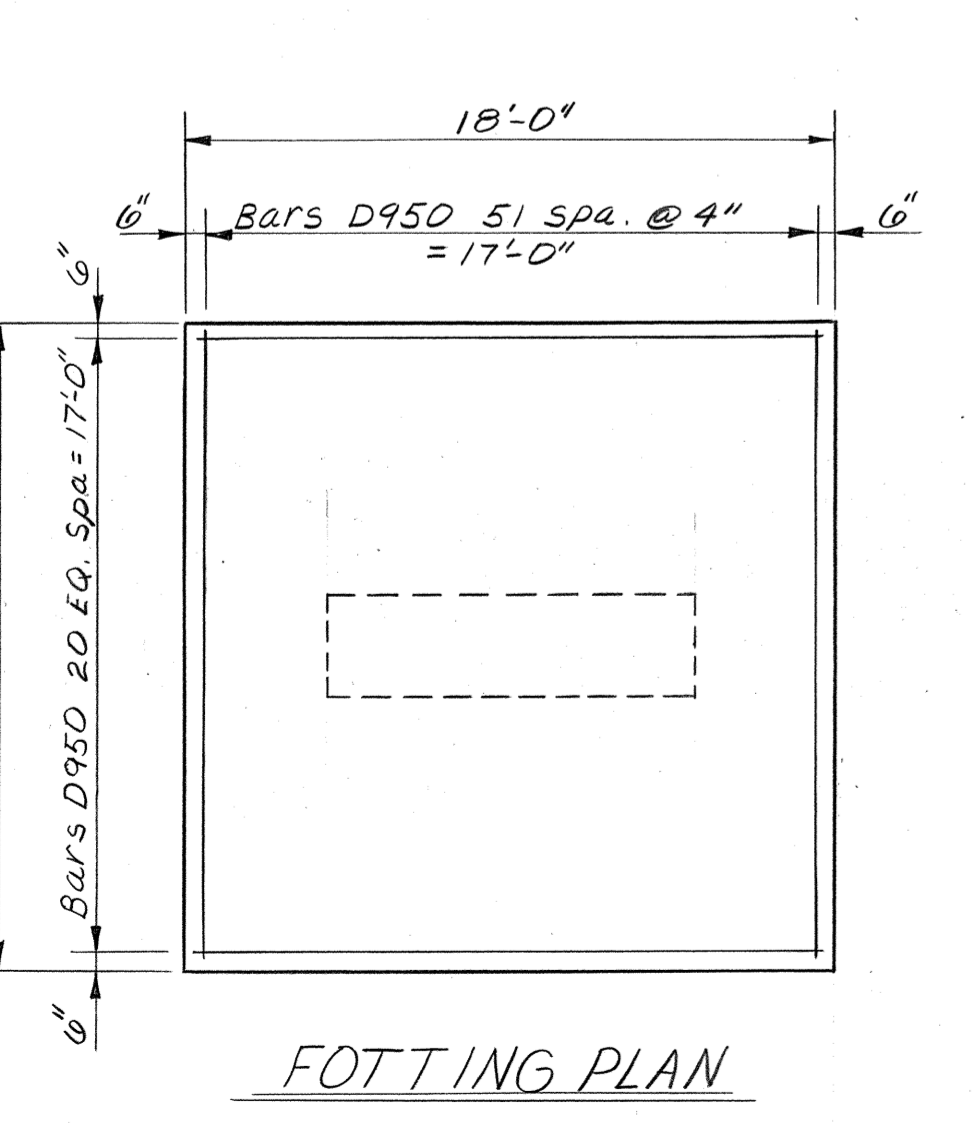
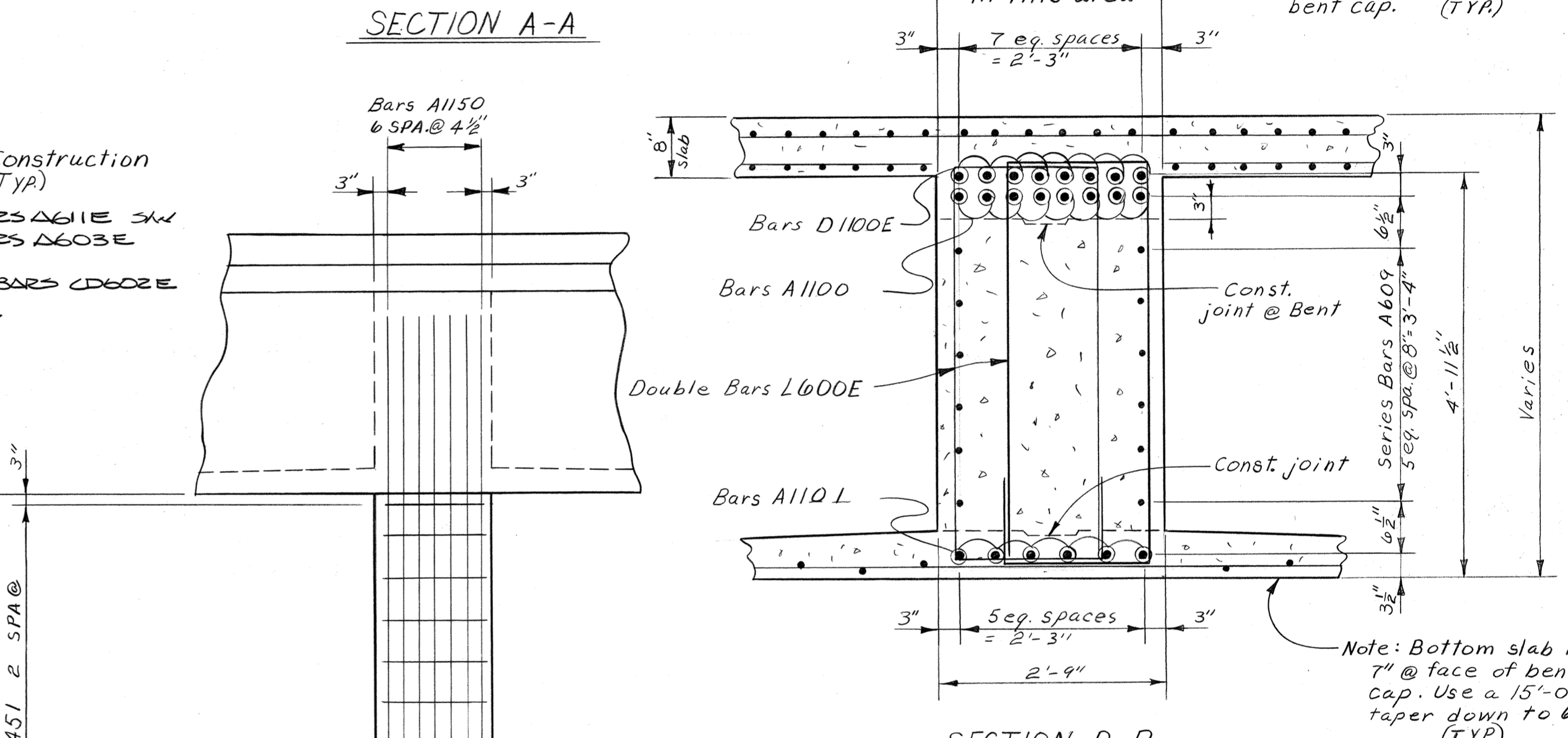
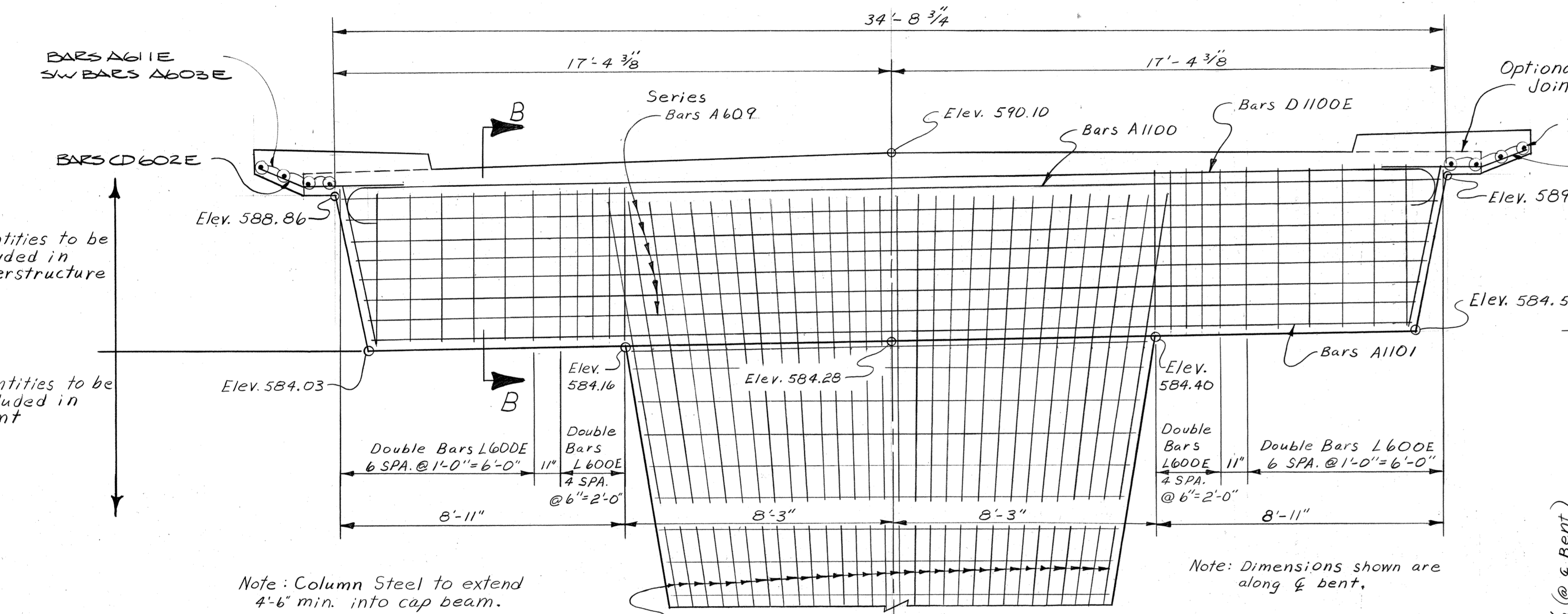
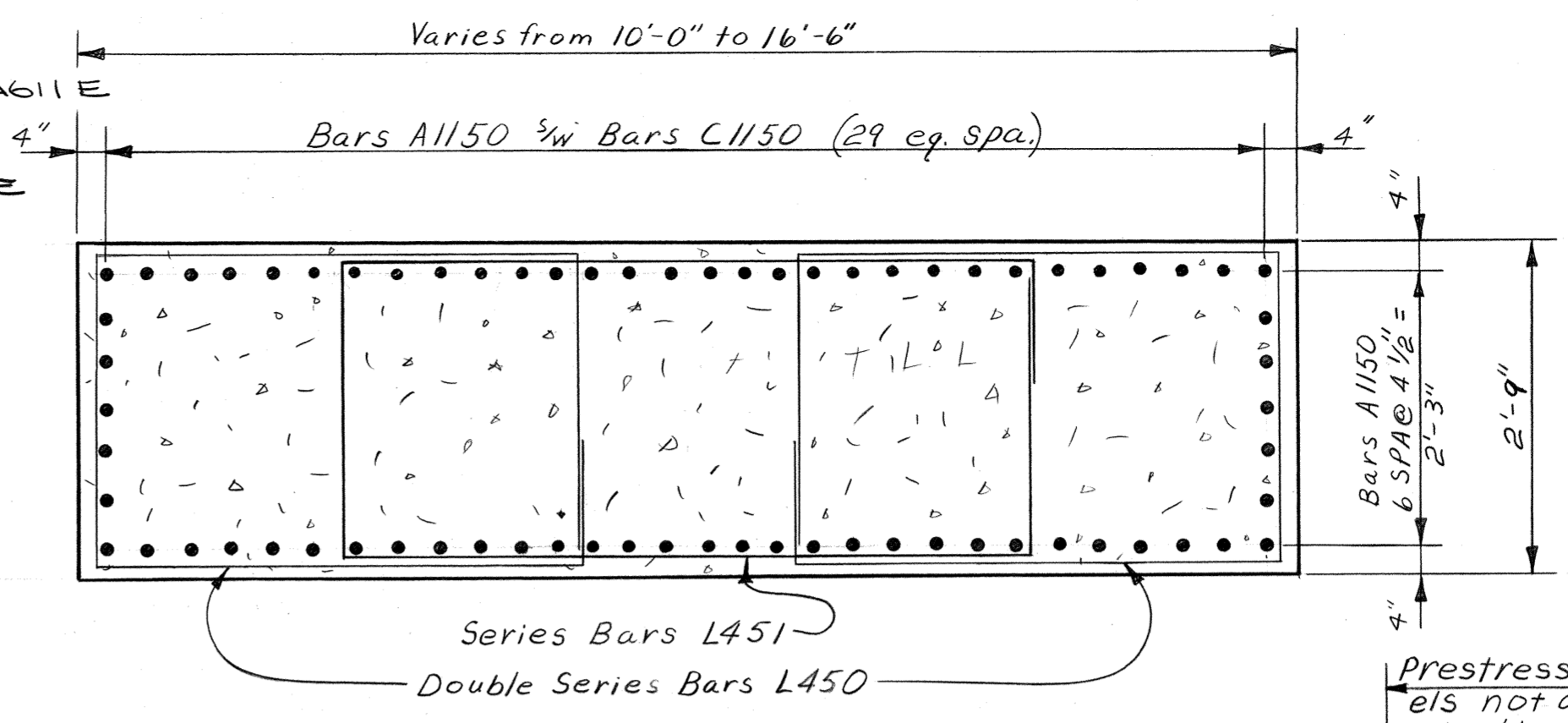
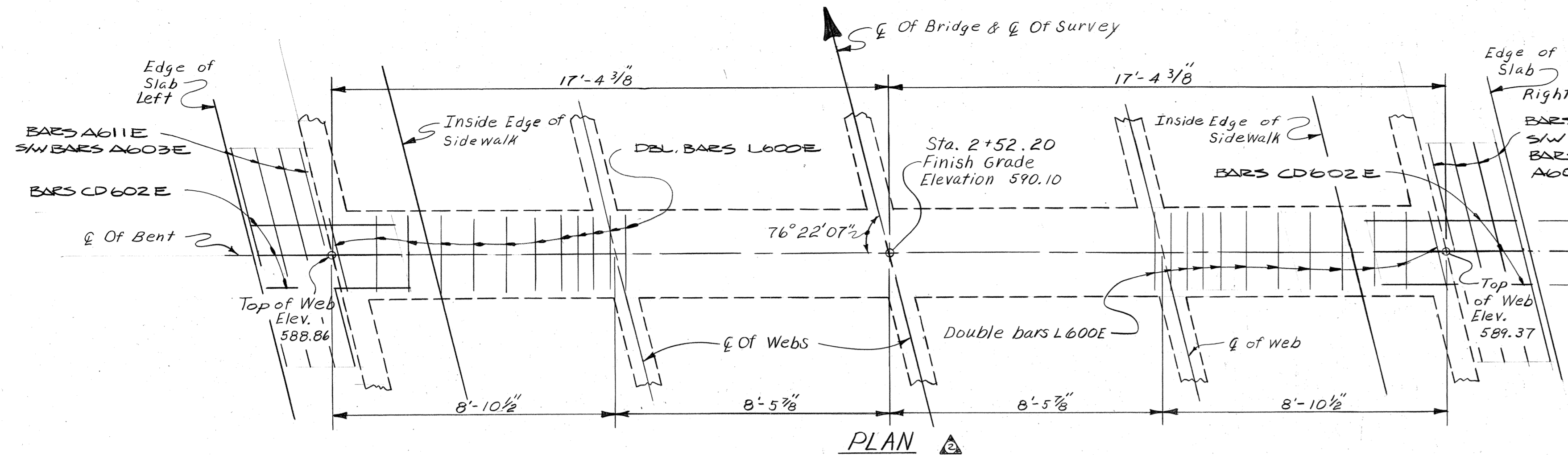
M-93-69

DESIGNED BY AM SMITH DATE 1-81
DRAWN BY RJ CHRISTY DATE 3-81
SUPERVISED BY AMS & J FIELDS DATE 3-81
CHECKED BY AM SMITH DATE 5-81

MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
I-440-4(4)212	1981	31

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	A.M.S.	GENERAL REVISIONS
2	2-10-82	A.M.S.	ADDED DETAIL SHOWING BARS A611E, CD602E.



ESTIMATED QUANTITIES	
Reinforcing Steel (lbs.)	Class "A" Concrete (c.y.)
22,267	80.4

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
BENT
 WINFORD AVENUE OVER
 INTERSTATE 440
 STATION 406 + 74.88
 DAVIDSON COUNTY
 1981

CORRECT *Colleen L. Fowall*
 ENGINEER OF STRUCTURES
 APPROVED *John B. Brans*
 DIRECTOR OF HIGHWAYS

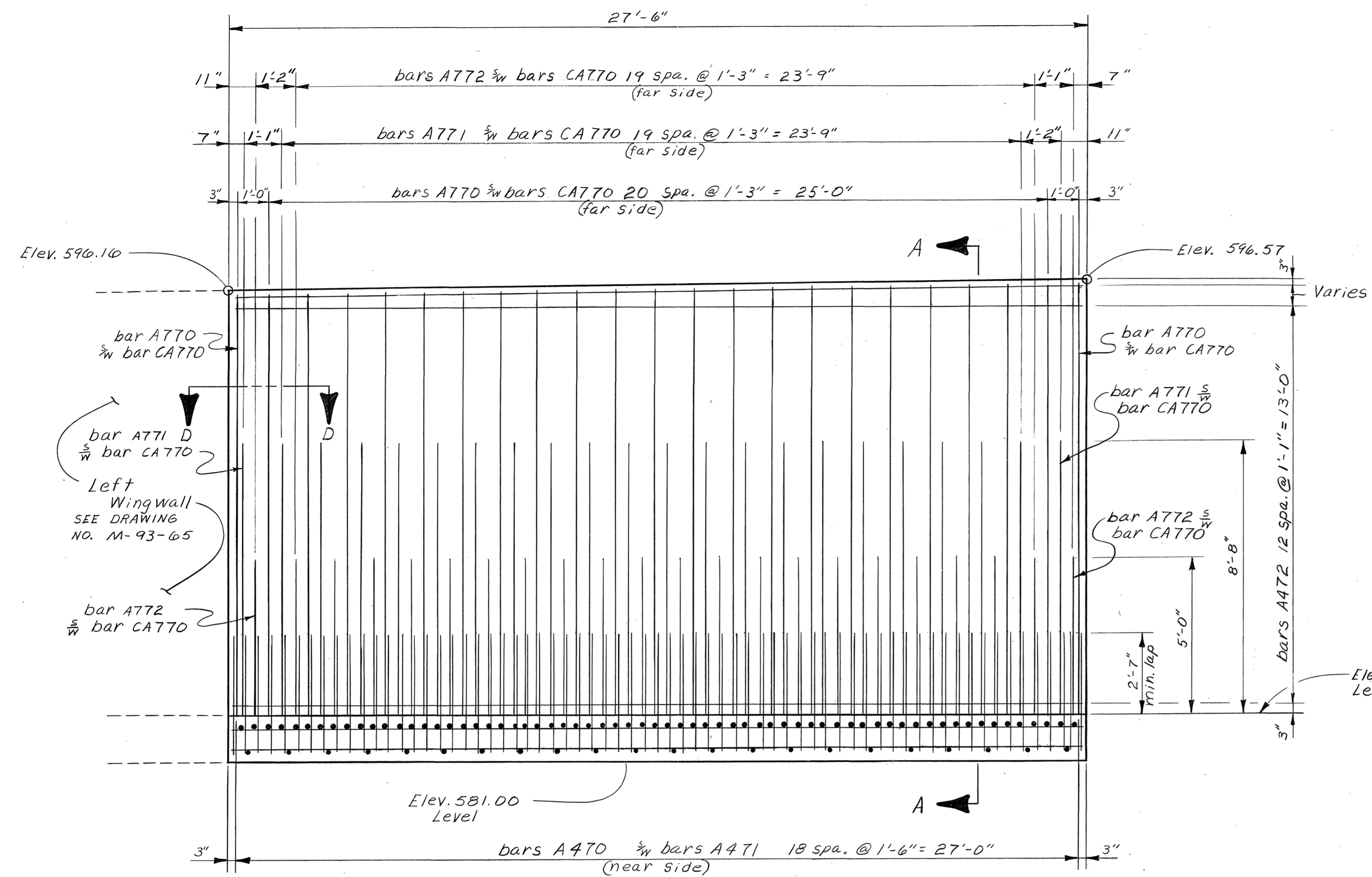
DESIGNED BY *A.M. Smith* DATE *2-81*
 DRAWN BY *T.L. Lewis* DATE *2-81*
 SUPERVISED BY *J. Fields* DATE *2-81*
 CHECKED BY *A.M. Smith* DATE *5-81*

ELEVATION
 (Looking forward on Survey @ 90° To Q of Bent)

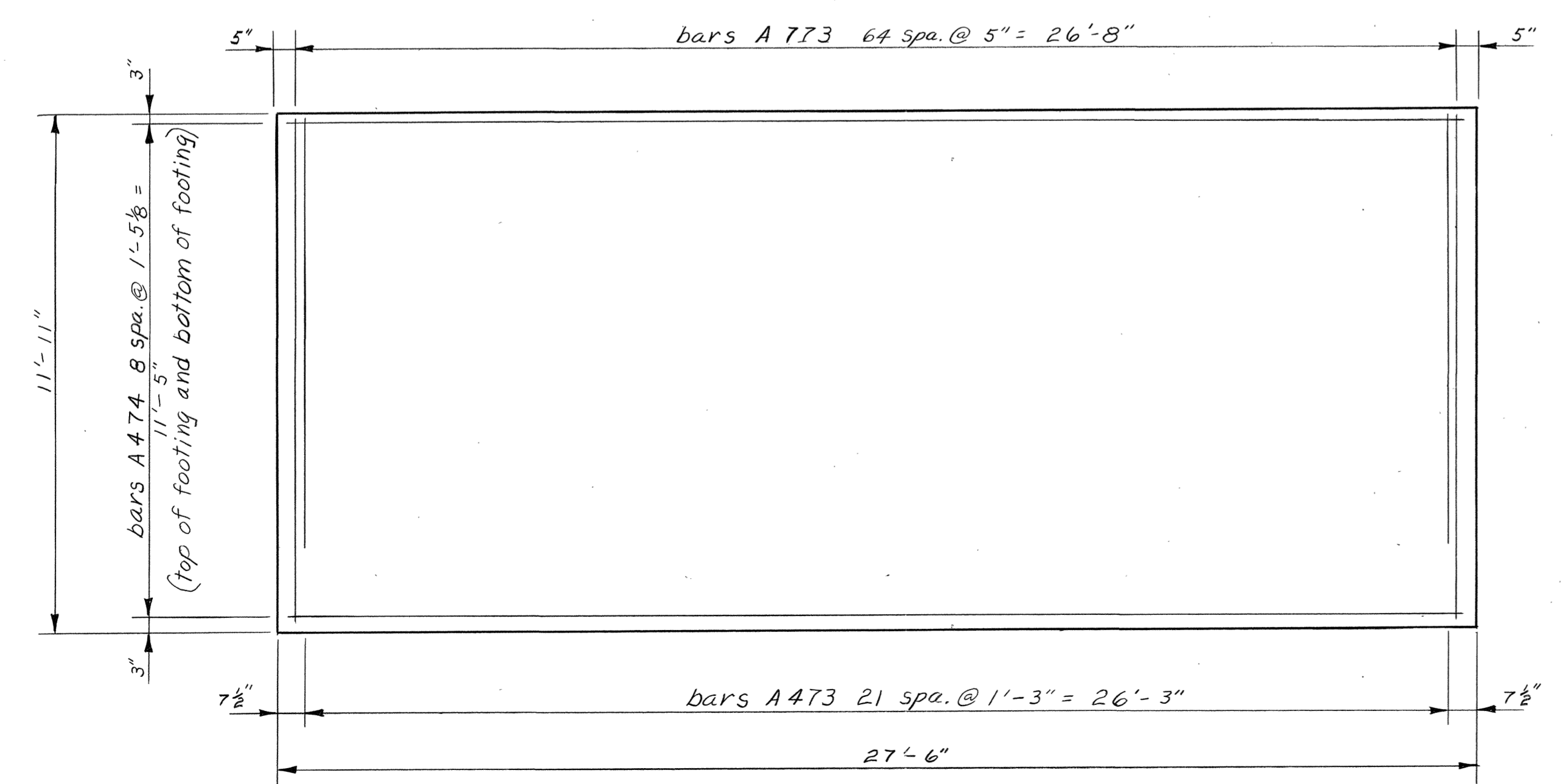
MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	32

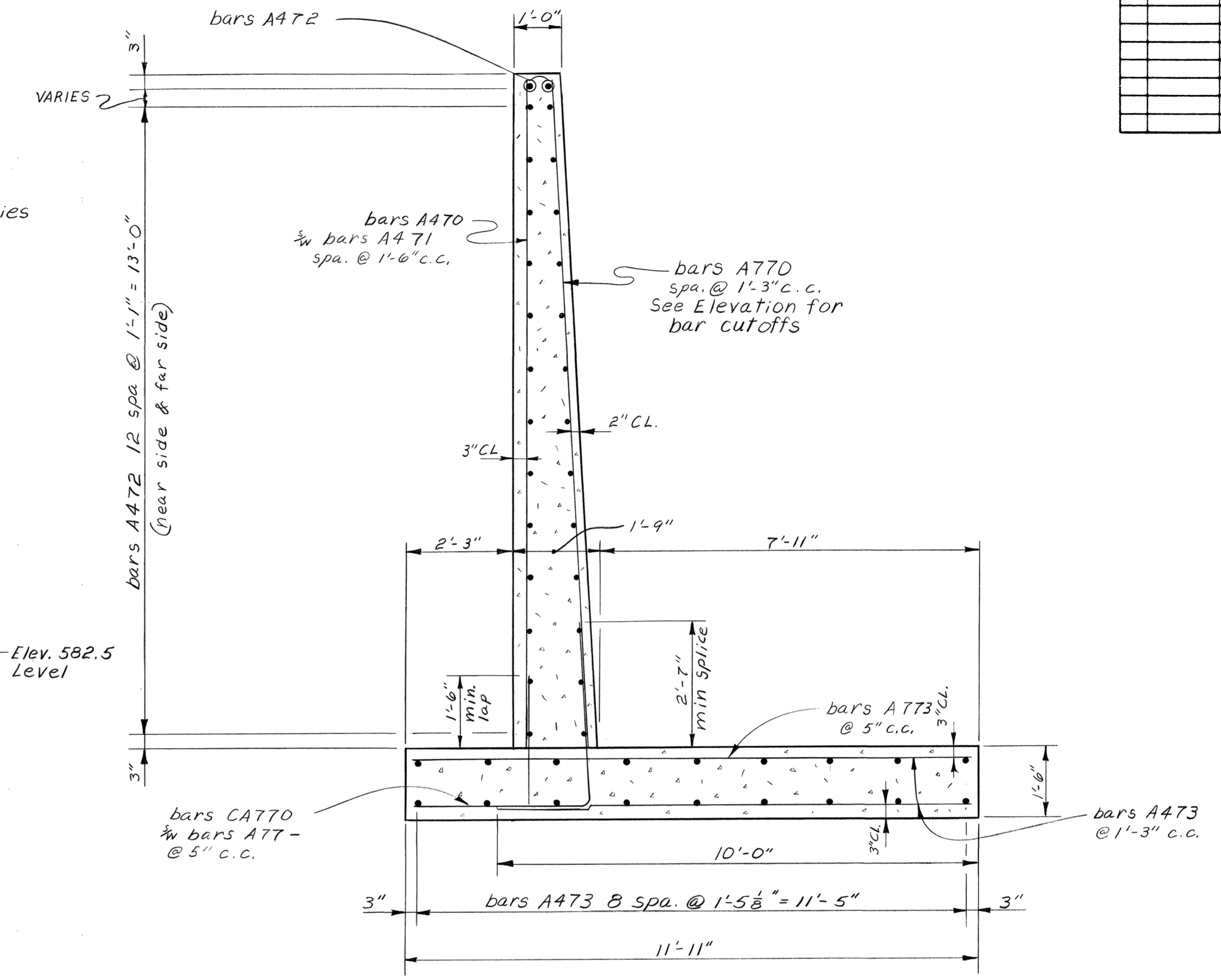
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-25-81	A.M.S.	GENERAL REVISIONS



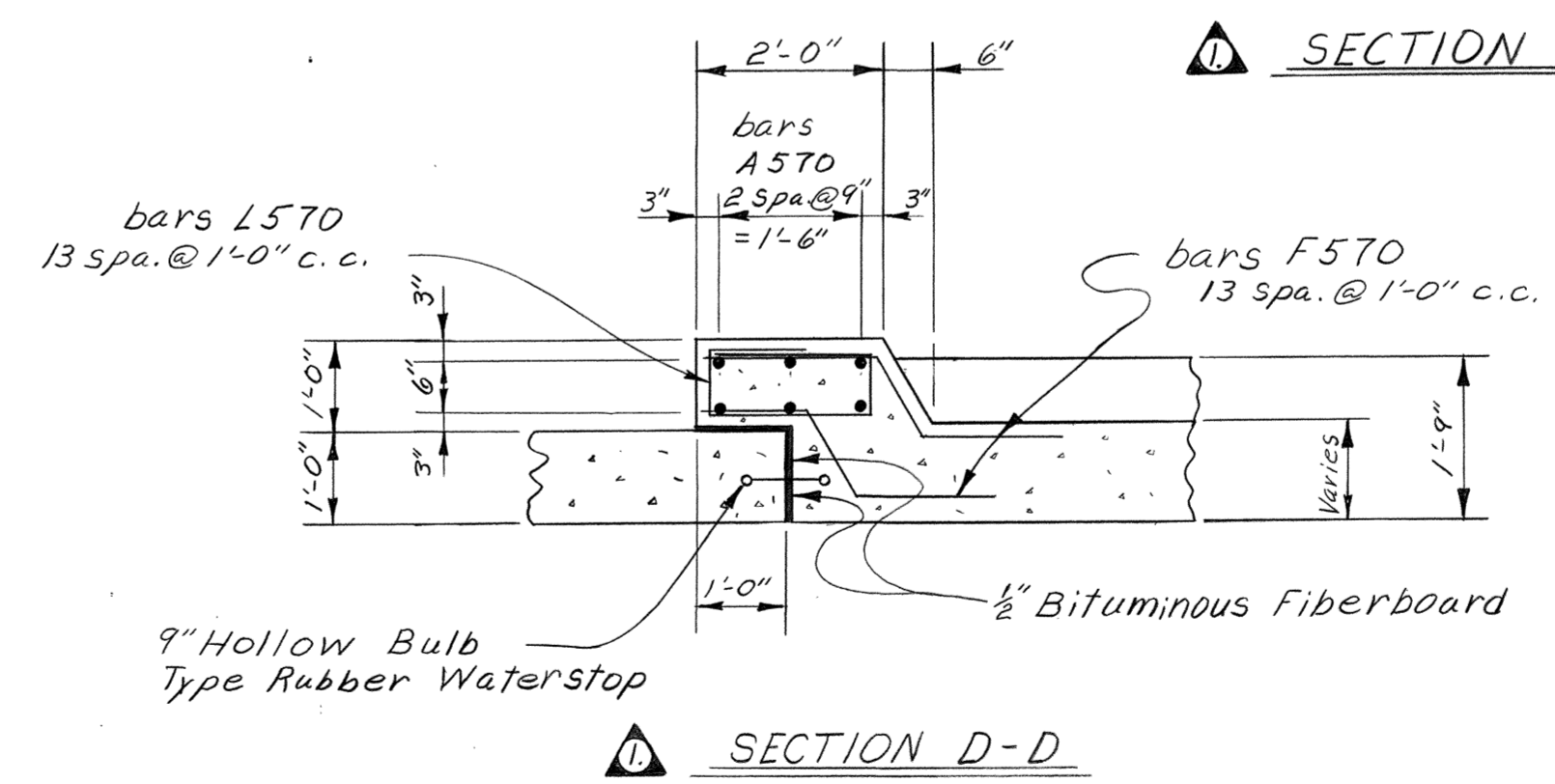
ELEVATION



PLAN OF FOOTING



SECTION A-A



SECTION D-D

ESTIMATED QUANTITIES	
CONCRETE CLASS A' (C.Y.)	REINFORCING STEEL (LBS.)
38.7	5,381

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 RETAINING WALL AT ABUTMENT NO 1
 WINFORD AVENUE OVER INTERSTATE 440
 STATION 406+74.88
 DAVIDSON COUNTY
 1981

CORRECT *Colleen L. Lonsell*
 ENGINEER OF STRUCTURES
 APPROVED *Lewis R. Beard*
 DIRECTOR OF HIGHWAYS

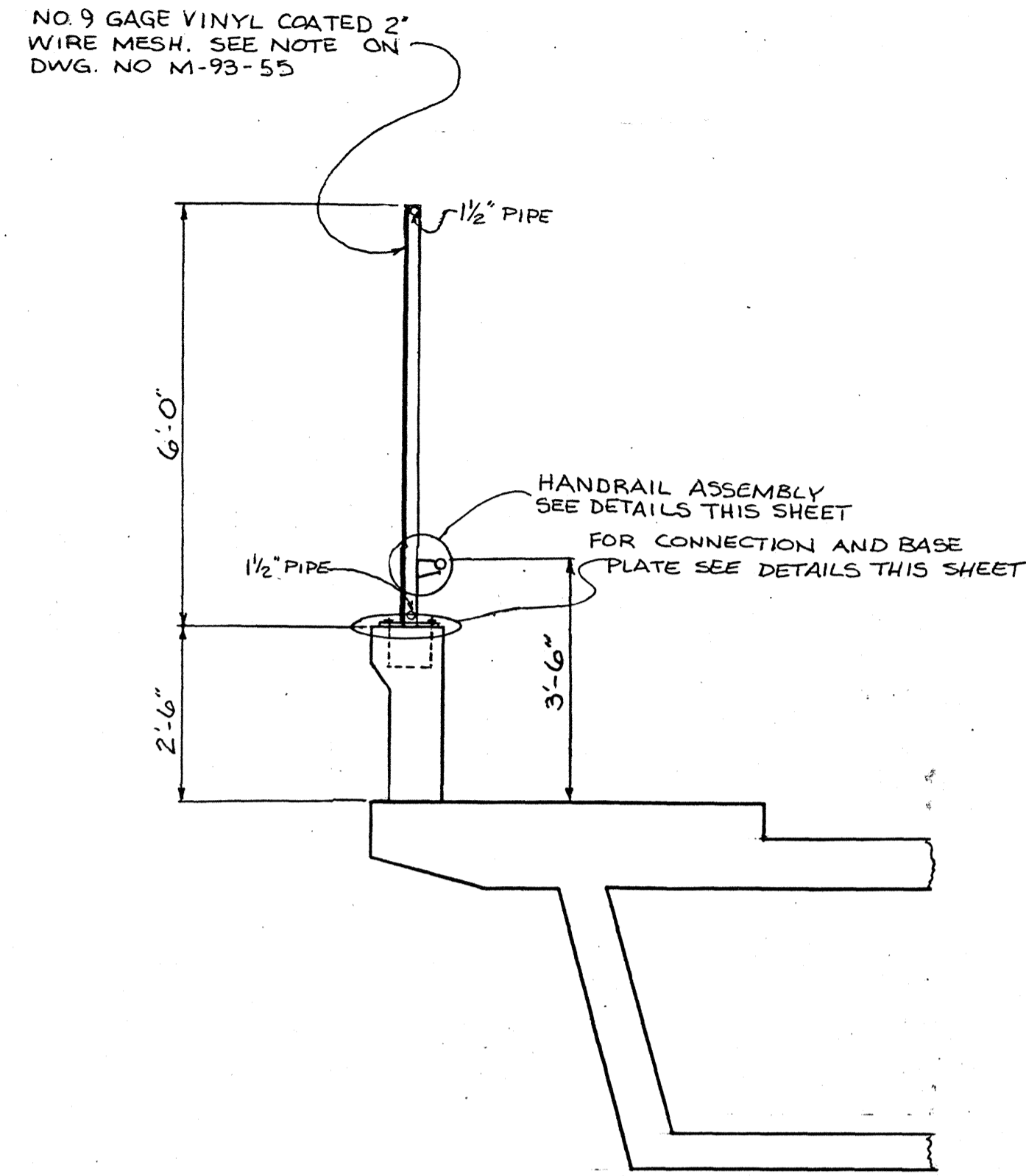
MICROFILMED

DESIGNED BY A.M. SMITH DATE 3-8-81
 DRAWN BY T.L. LEWIS DATE 3-31-81
 SUPERVISED BY J. FIELDS DATE 3-31-81
 CHECKED BY A.M. SMITH DATE 8-81

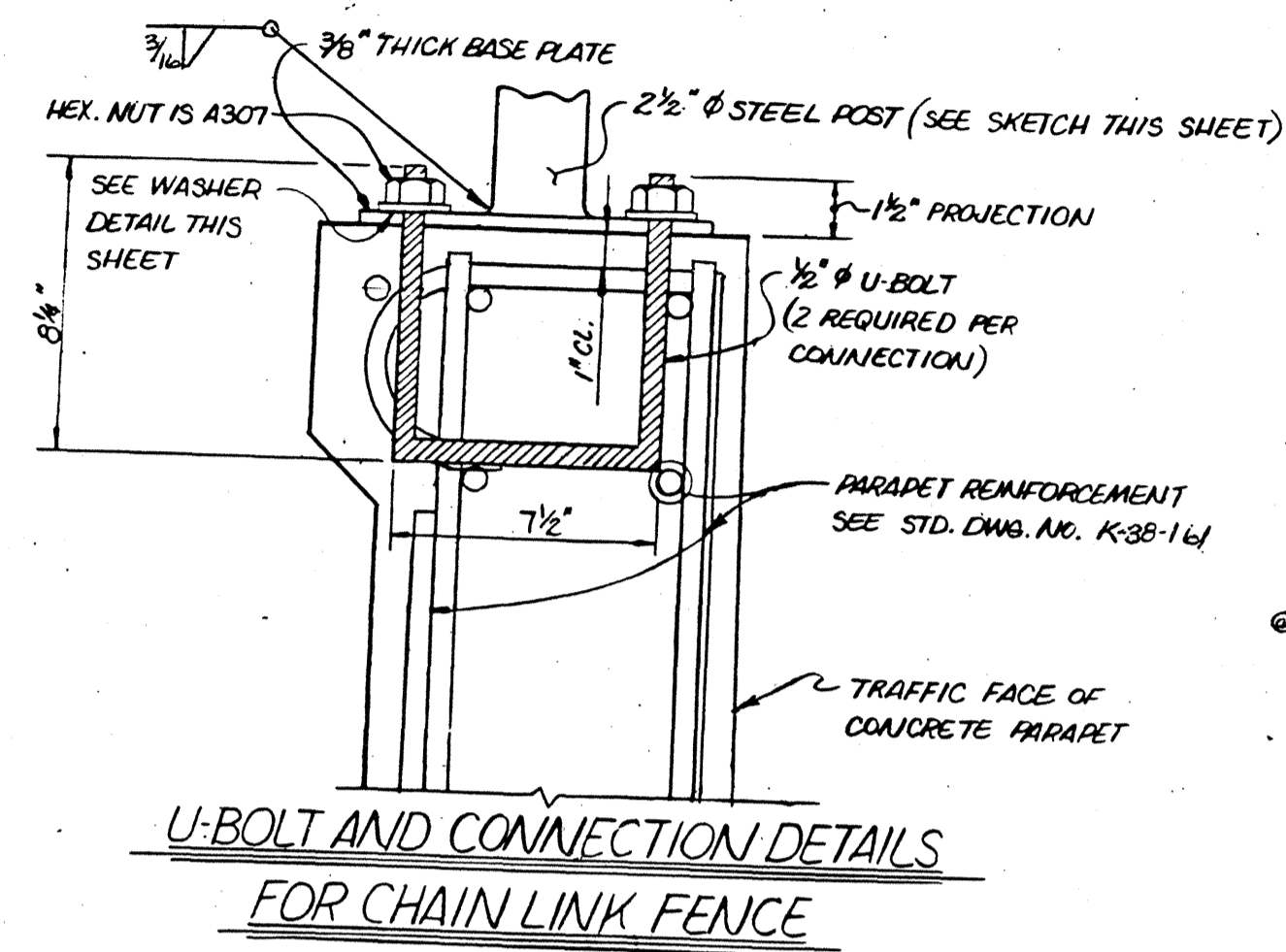
PROJECT NO.	YEAR	SHEET NO.
T-440-4(44)212	1981	

REVISIONS

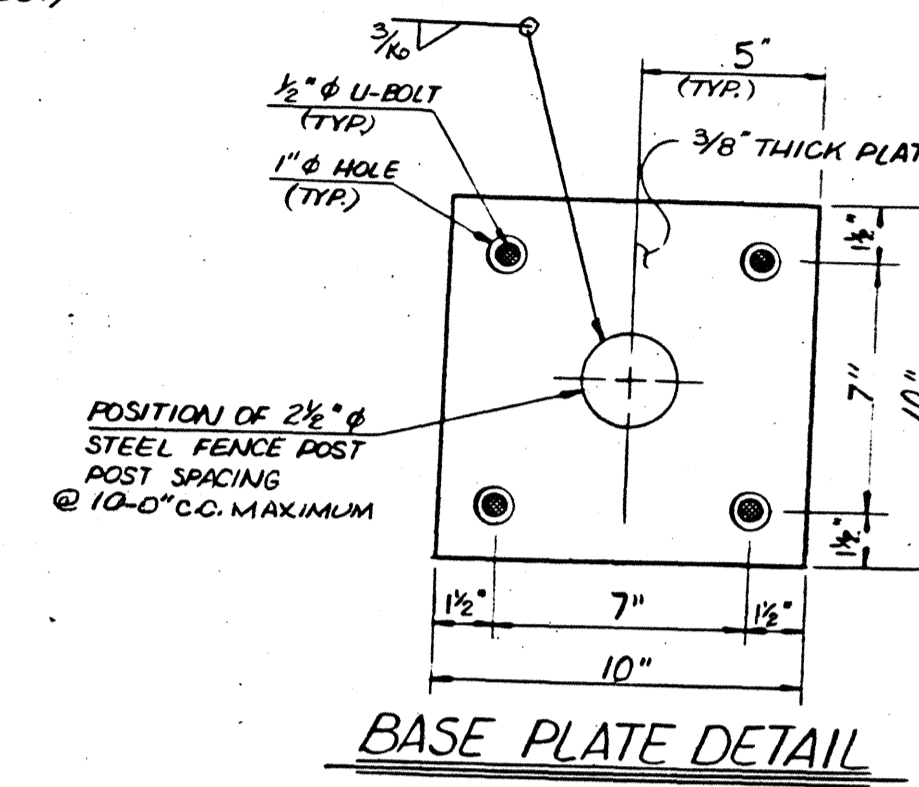
NO.	DATE	BY	BRIEF DESCRIPTION
1	11-4-82	AMS	ADDED THIS SHEET



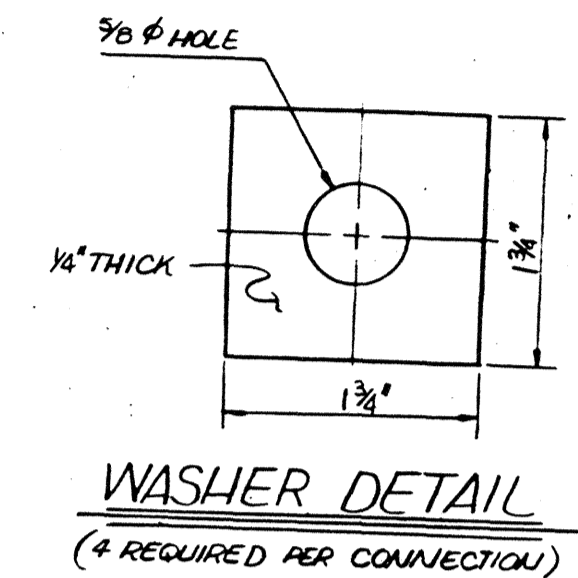
FENCING DETAILS



U-BOLT AND CONNECTION DETAILS FOR CHAIN LINK FENCE

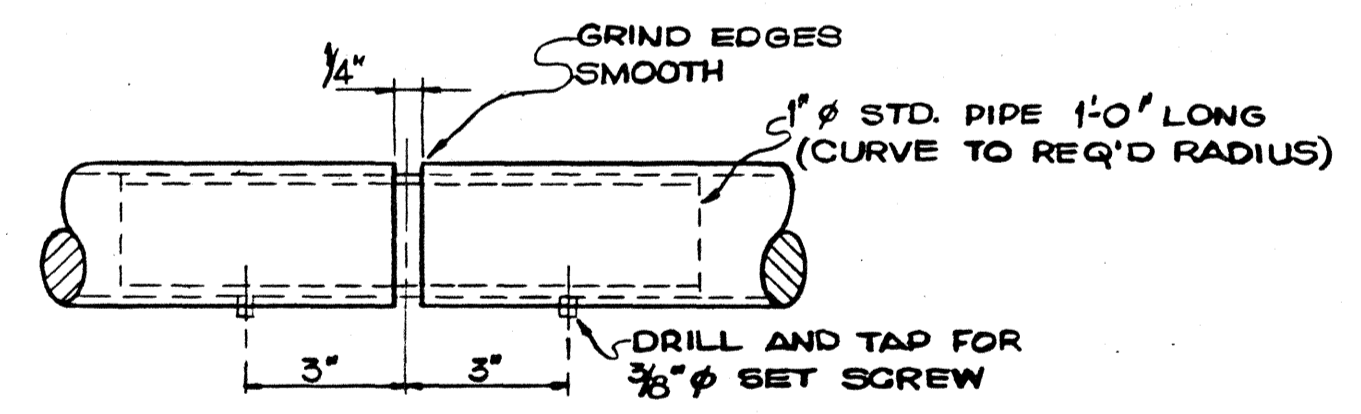


BASE PLATE DETAIL

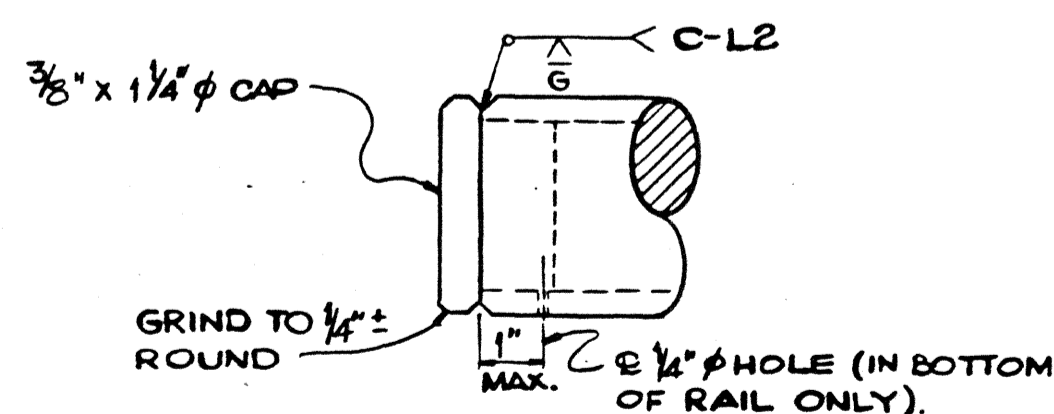


WASHER DETAIL (4 REQUIRED PER CONNECTION)

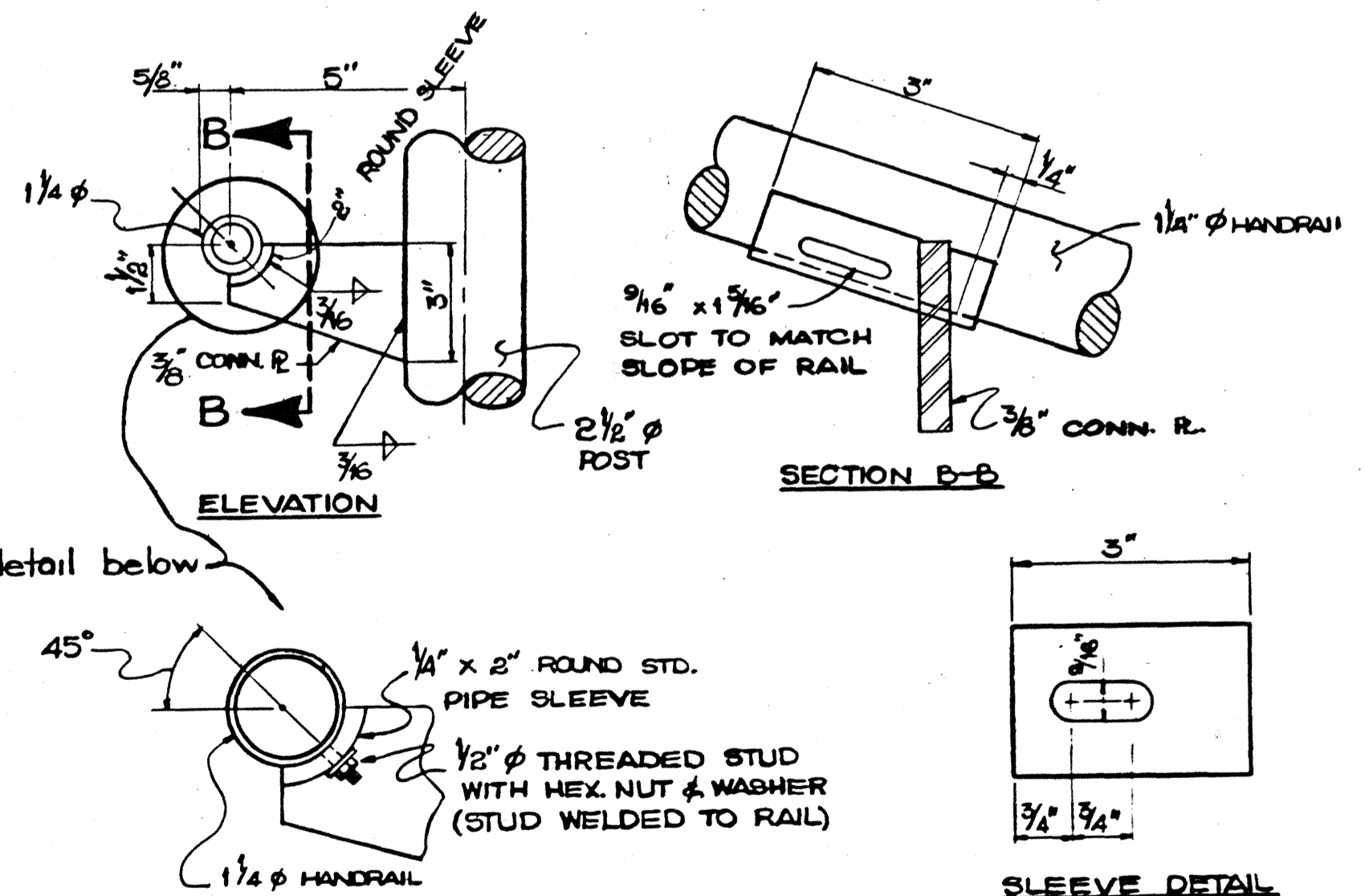
NOTE: AT ABUTMENT NO. 1 ALLOW FOR BRIDGE EXPANSION IN HANDRAIL AND UPPER AND LOWER LONGITUDINAL FENCE RAILS.



RAIL SPLICE DETAIL



RAIL END CAP DETAIL



HANDRAIL ASSEMBLY DETAILS

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 FENCING DETAILS
 WINFORD AVENUE OVER INTERSTATE 440
 STATION 406 + 74.88
 DAVIDSON COUNTY
 1981

CORRECTED: *Colleen L. Lunsell*
 ENGINEER OF STRUCTURES
 APPROVED: *David Evans*
 DIRECTOR OF HIGHWAYS

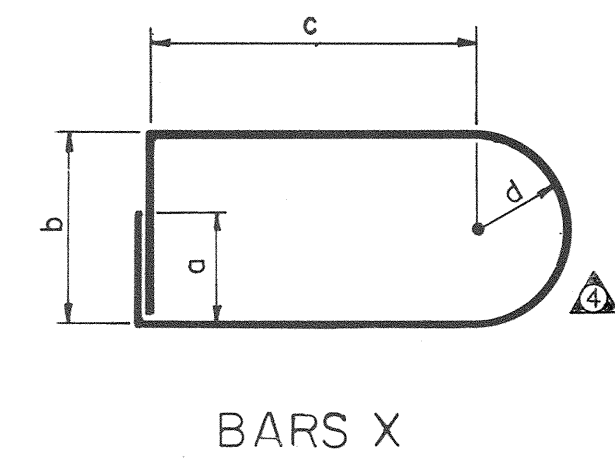
MICROFILMED

DESIGNED BY A. M. SMITH DATE 3-82
 DRAWN BY _____ DATE _____
 SUPERVISED BY _____ DATE _____
 CHECKED BY A. M. SMITH DATE 3-82

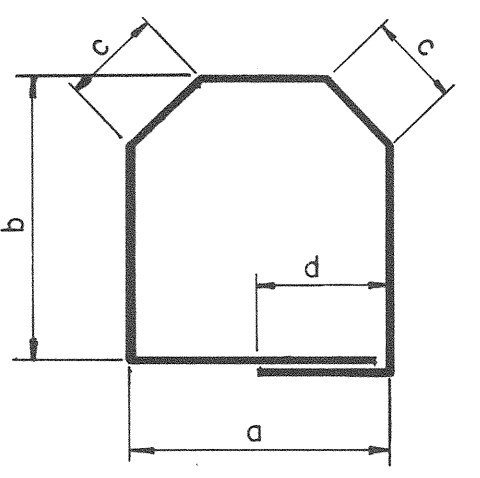
BILL OF STEEL

Main table with columns for SUPERSTRUCTURE (EPOXY-COATED), SUPERSTRUCTURE (CONT.), ABUTMENT NO. 1, and ABUTMENT NO. 1 (CONT.). Each column contains bar details like location, size, quantity, and dimensions.

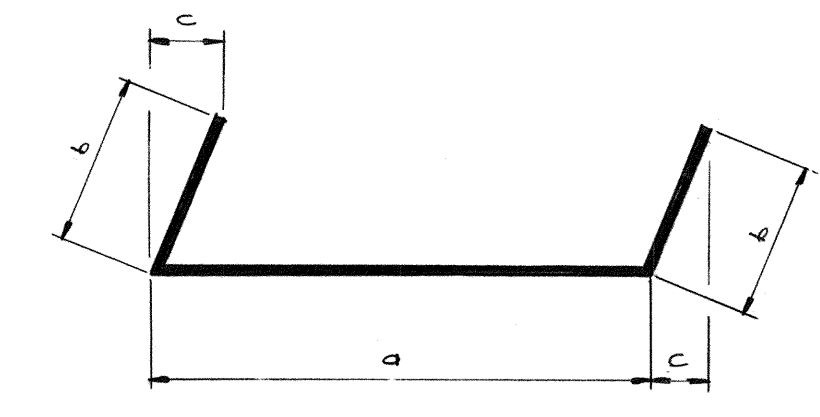
REVISIONS table with columns: NO., DATE, BY, BRIEF DESCRIPTION. Contains 4 revision entries.



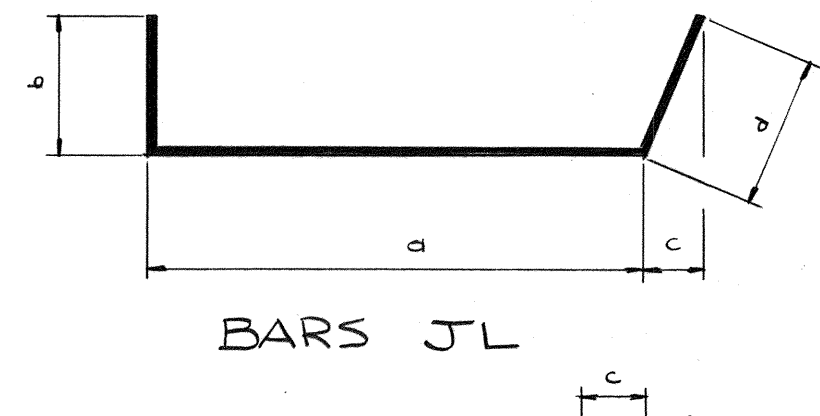
BARS X



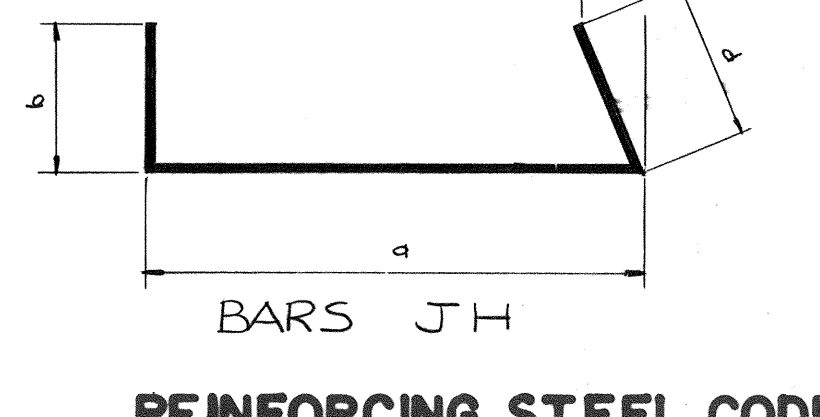
BARS M



BARS HA



BARS JL

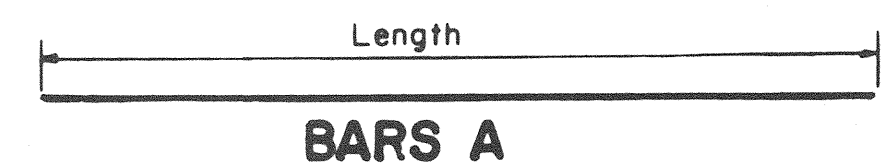


BARS JH

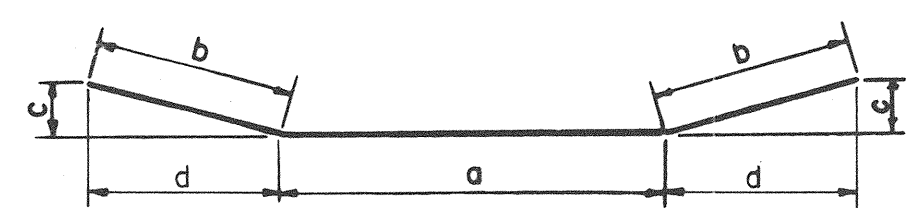
REINFORCING STEEL CODE

Table with columns: TYPE, SIZE, SERIES. Shows code A, size 5, series 06.

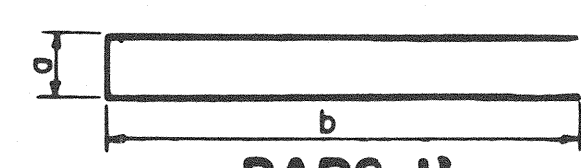
NOTE: Dimensions shown on this sheet are outside to outside of bar. Standard C R S. I. Hook Details Shall Apply, Except As Noted.



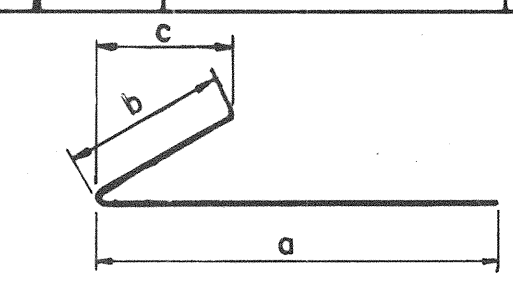
BARS A



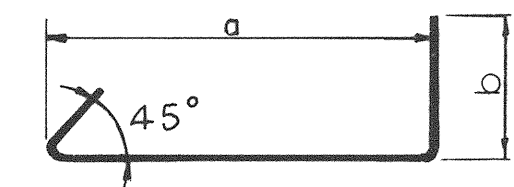
BARS E



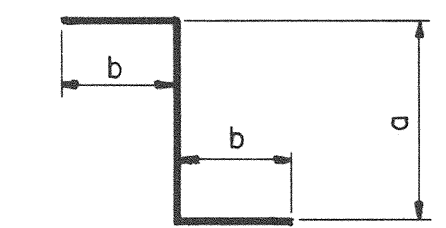
BARS H



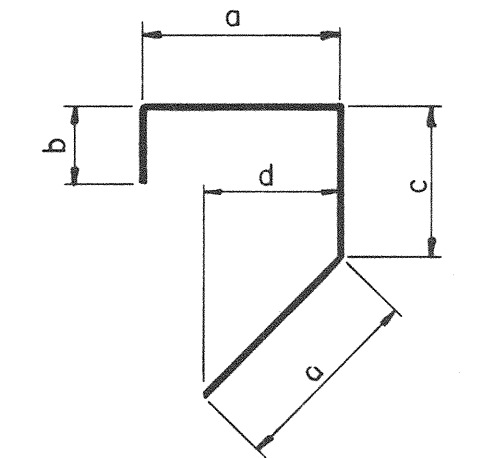
BARS CA OR CB



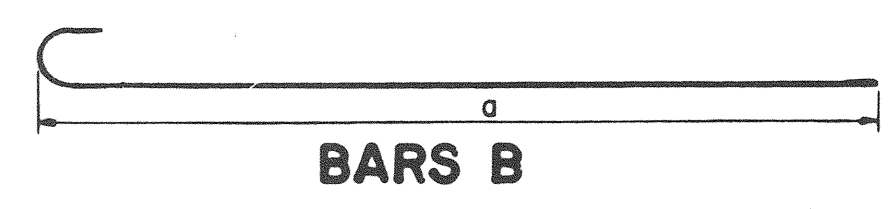
BARS YB



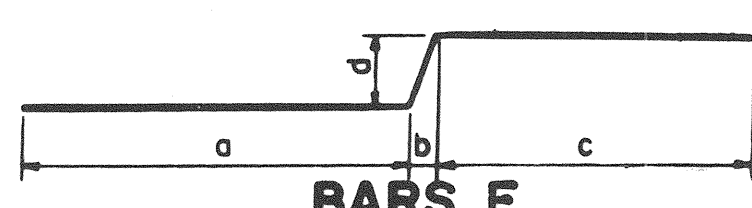
BARS Z



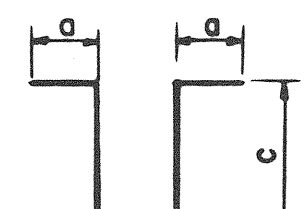
BARS J



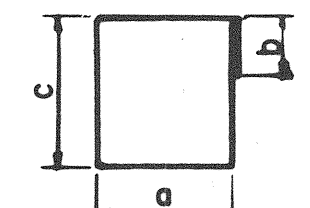
BARS B



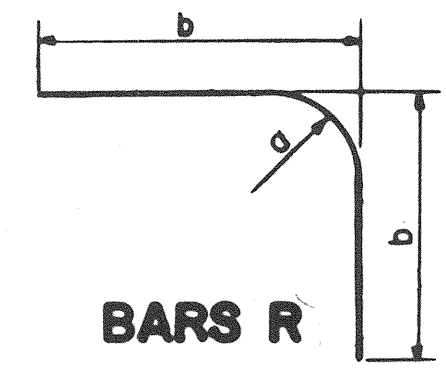
BARS F



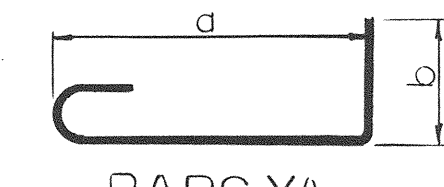
BARS K



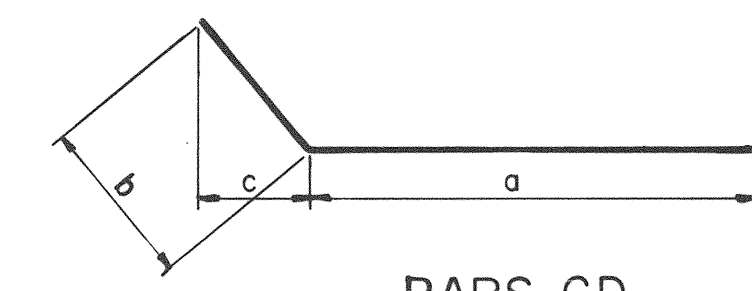
BARS L



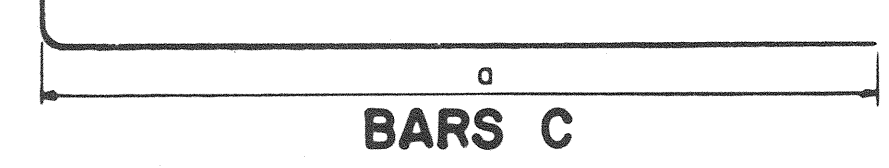
BARS R



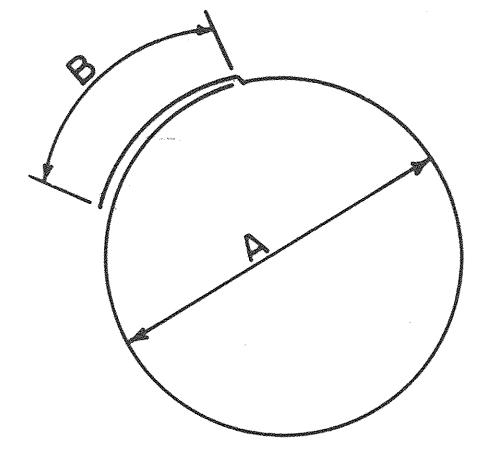
BARS YA



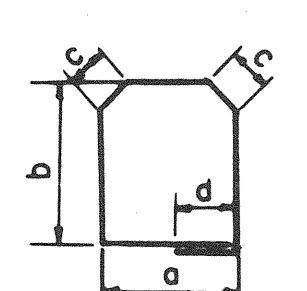
BARS CD



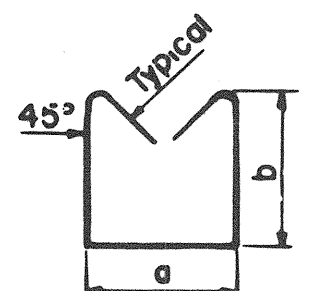
BARS C



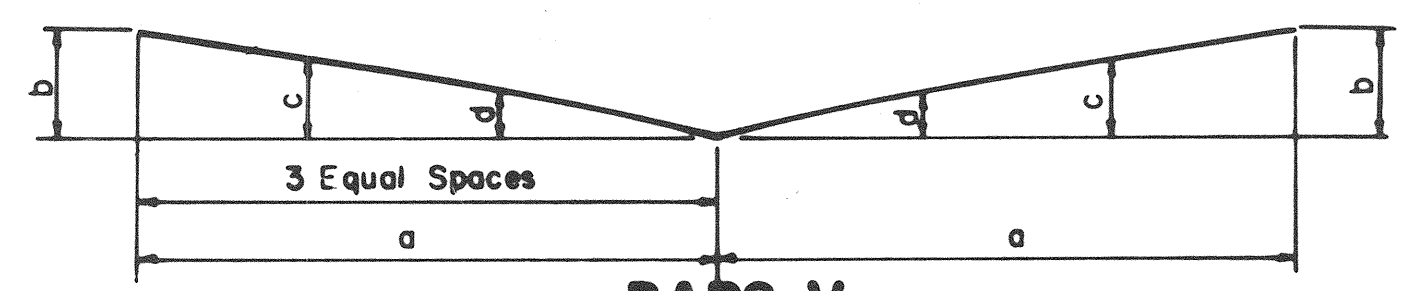
BARS T



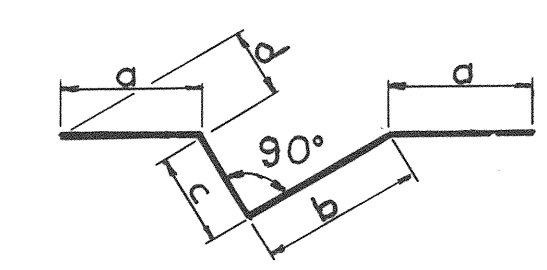
BARS M



BARS S



BARS V



BARS JX

DESIGNED BY AM. SMITH DATE 1-81
DRAWN BY RJ. CHRISTY DATE 4-81
SUPERVISED BY J. FIELDS DATE 4-81
CHECKED BY AM. SMITH DATE 9-81

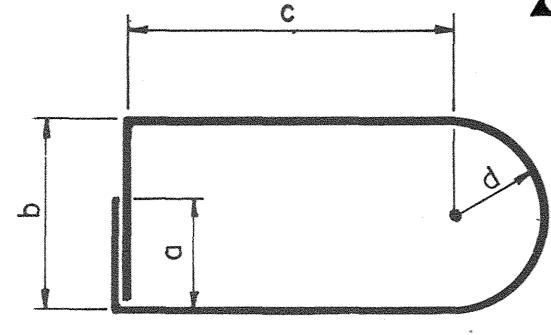
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
BILL OF STEEL
WINFORD AVENUE OVER INTERSTATE 440
STATION 406+74.88
DAVIDSON COUNTY
1981
CORRECT [Signature] ENGINEER OF STRUCTURES
APPROVED [Signature] DIRECTOR OF HIGHWAYS
M-93-72

BILL OF STEEL

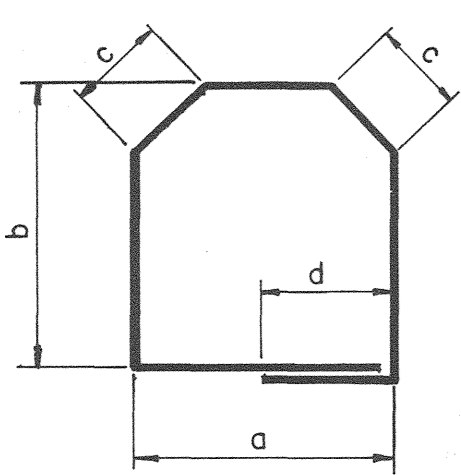
CON'T. NO. 18015-3110-44

Table with 5 columns: FED. ROAD DIST. NO., STATE, FED. AID PROJ. NO., FISCAL YEAR, SHEET NO. Values: 3, TENN., 1-440-(44)28, 1981, 39.

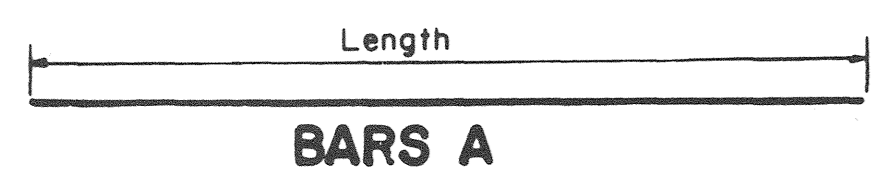
Main table with columns for ABUTMENT NO. 1 (CONT.), ABUTMENT NO. 2, ABUTMENT NO. 2 (CONT.), and PAVEMENT @ BRIDGE ENDS. Each column contains bar details like BAR, LOCATION, SIZE, NO. REQ'D, BENDING DIMENSIONS, and LENGTH.



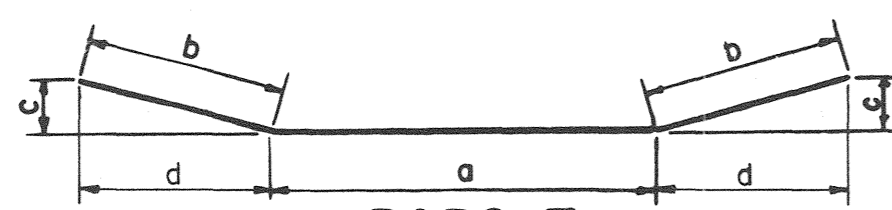
BARS X



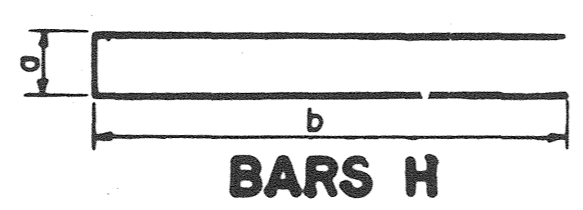
BARS M



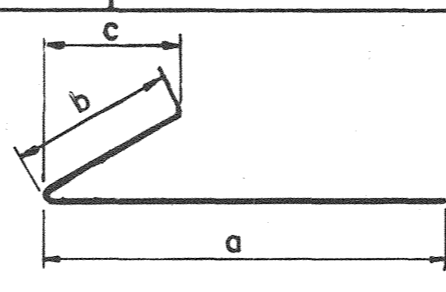
BARS A



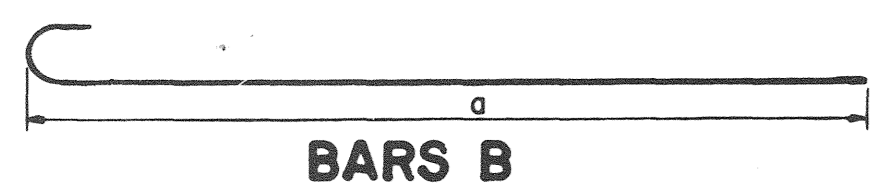
BARS E



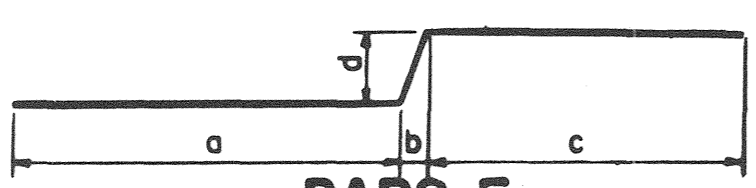
BARS H



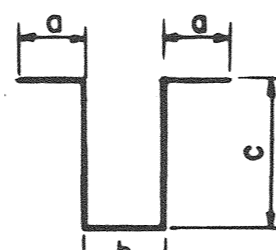
BARS CA



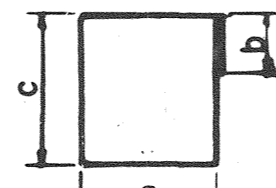
BARS B



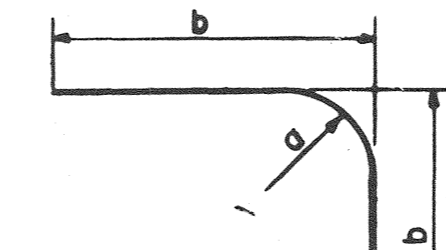
BARS F



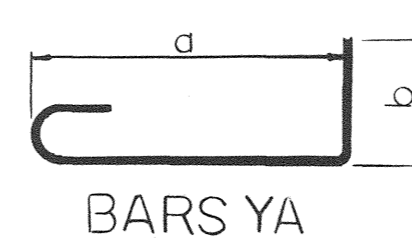
BARS K



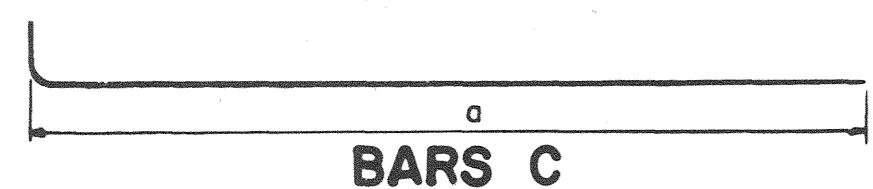
BARS L



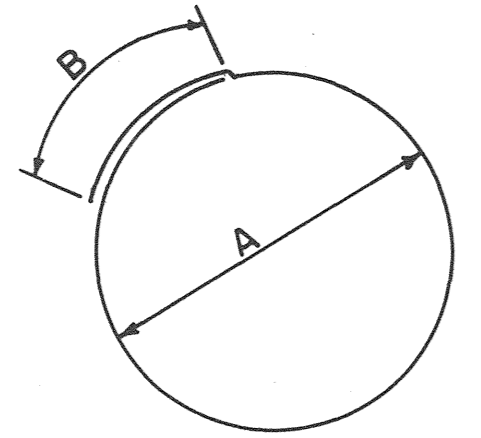
BARS R



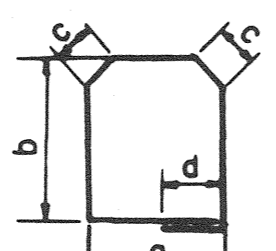
BARS YA



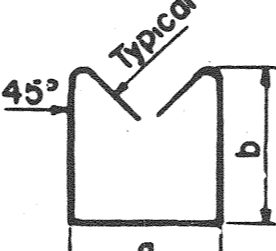
BARS C



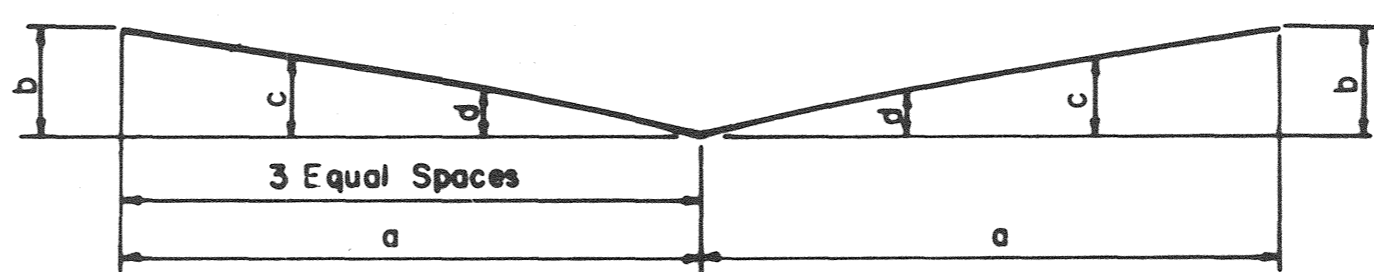
BARS T



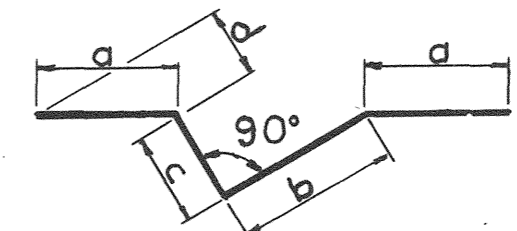
BARS M



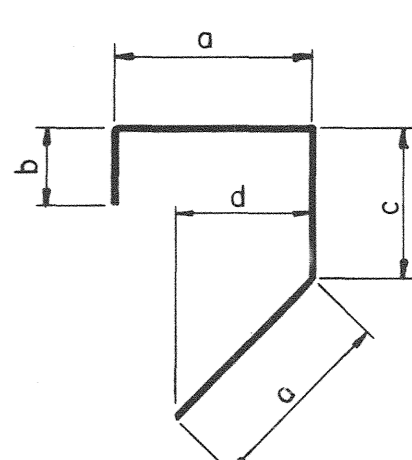
BARS S



BARS V



BARS JX



BARS J

REINFORCING STEEL CODE

Table with 3 columns: TYPE, SIZE, SERIES. Values: 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.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS

BILL OF STEEL

WILFORD AVENUE OVER INTERSTATE 440 STATION 406+74.88 DAVIDSON COUNTY 1981

CORRECT [Signature] ENGINEER OF STRUCTURES APPROVED [Signature] DIRECTOR OF HIGHWAYS

MICROFILMED

DESIGNED BY A.M. SMITH DATE 1-81 DRAWN BY RJ CHRISTY DATE 4-81 SUPERVISED BY J. FIELDS DATE 4-81 CHECKED BY A.M. SMITH DATE 3-81