

CONST. NO. 19014-3111-44

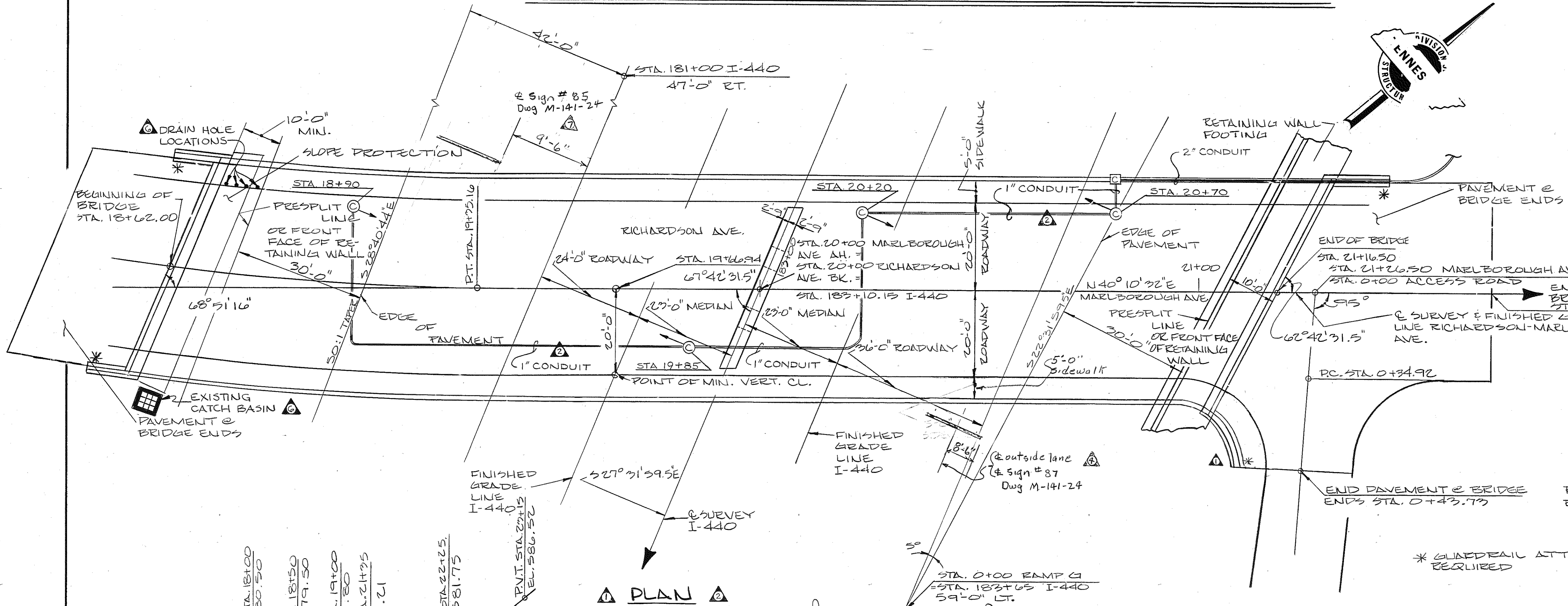
PROJECT NO.	YEAR	SHEET NO.
I-440(53)206	1983	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	2-7-83	CMD	REV. SIDEWALK @ ABUT. 2. REV. DIMS. ADDED SHEET FOOTING DEPTHS
2	4-7-83	AMS	STRUCT. LIGHTING DETAILS
3	5-6-83	CMD	ADDED SHEET
4	10-12-84	CMD	REV. DATE
5	1-24-85	CMD	REV. ABUT. 1. NOTE, REV. DATES DELETED DWG'S. M-119-48&49
			ADDED SHT. M-119-47 IN PLACE OF EXIST. SHT.
6	3-22-86	CMD	ADDED DRAINAGE DETAILS
7	3-17-87	ELD	Changed Sign Location

ELEVATION AT RIGHT ANGLES TO & SURVEY RICHARDSON-MARLBOROUGH AVE.

NOTE: THE CONTRACTOR SHALL SUPPORT ABUT. NO. 2 UNTIL THE SUPERSTRUCTURE IS IN PLACE, FALSEWORK HAS BEEN REMOVED AND BACKFILLING HAS BEEN COMPLETED.



LIST OF DRAWINGS

DRAWINGS	DWG. NO.	LAST REV. DATE
LAYOUT OF BRIDGE	M-119-37	3-22-86
EST. QUANTITIES & GENERAL NOTES	M-119-38	3-22-86
FOUNDATION DATA	M-119-39	
SUPERSTRUCTURE	M-119-40	3-22-86
SUPERSTRUCTURE DETAILS	M-119-41	2-7-83
SUPERSTRUCTURE DETAILS	M-119-42	2-7-83
SUPERSTRUCTURE DETAILS	M-119-43	2-7-83
SUPERSTRUCTURE DETAILS	M-119-44	10-12-84
SUPERSTRUCTURE DETAILS	M-119-45	2-7-83
ABUTMENT NO. 1	M-119-46	1-24-85
ABUTMENT NO. 1 DETAILS	M-119-47	1-24-85
ABUTMENT NO. 2	M-119-50	2-7-83
ABUTMENT NO. 2 DETAILS	M-119-51	2-7-83
ABUTMENT NO. 2 DETAILS	M-119-52	2-7-83
ABUTMENT NO. 2 DETAILS	M-119-53	2-7-83
ABUTMENT NO. 2 DETAILS	M-119-54	2-7-83
PAVEMENT @ BRIDGE ENDS ABUTMENT NO. 2	M-119-55A	2-7-83
BENT	M-119-55	2-7-83
SELL OF STEEL	M-119-56	3-22-86
SELL OF STEEL	M-119-57	2-7-83

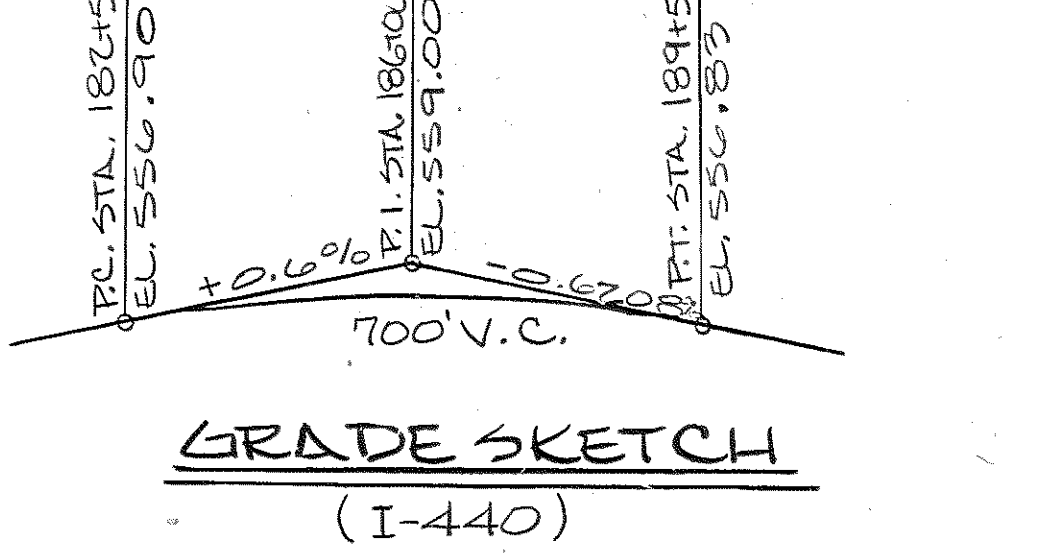
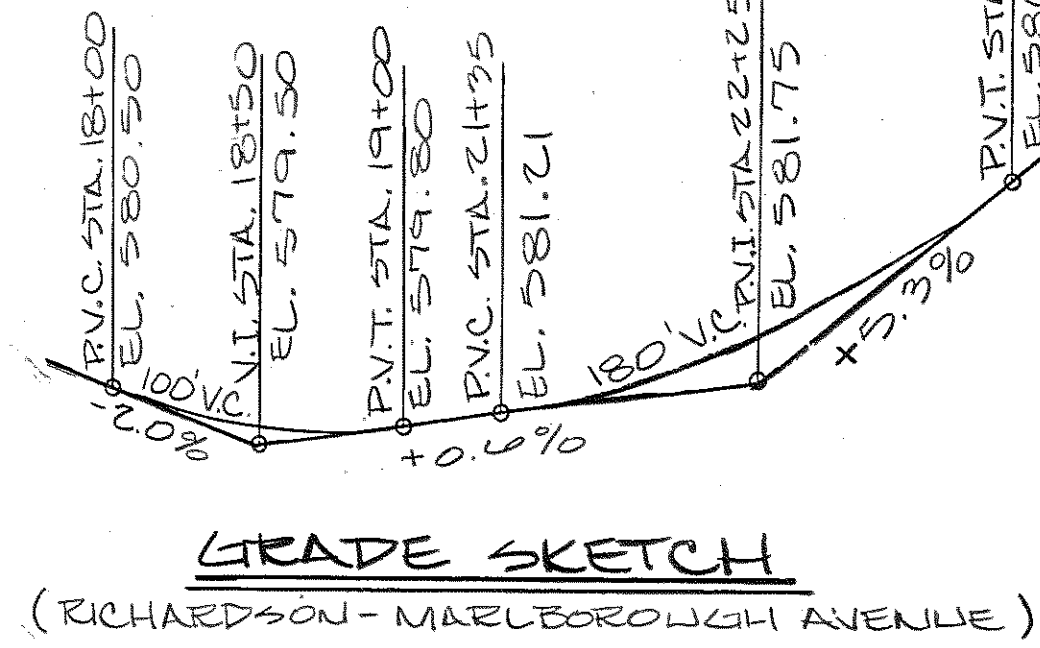
LIST OF STANDARD DRAWINGS

DRAWINGS	DWG. NO.	REV. DATE
STANDARD PILE DETAILS	H-5-111	12-82
STD. REINF. BAR SUPPORT	K-80-14	8-27-76
REINF. CONCRETE PAVT @ BR. ENDS	K-86-144	7-17-81
BRIDGE RAILING & CONCRETE PARAPET	K-98-162	11-82
W/STRUCTURAL TUBING		
MIN. ABUT. & DRAINAGE DETAILS	K-85-150	1-9-75
TENN. STD. PRECAST PRESTRESSED	M-103-149	7-7-82
BRIDGE DECK PANELS	M-103-150	
SLOPE PROTECTION	ED-5A-1	1-11-82

LIST OF SPECIAL PROVISIONS

REGARDING EPOXY COATED REINFORCING STEEL 907A-9-881

REGARDING APPROVAL OF SHOP DRAWING-105A-9-881



CURVE DATA (RICHARDSON AVE.)

P.I. = STA. 17+36.95

Δ = 41° 34' 01"

D = 10° 00'

R = 572.96'

L = 415.67'

T = 217.46'

E = 79.88'

S.E. = REVERSE CROWN

TRANS. LENGTH = 100'

CURVE DATA (ACCESS ROAD)

P.I. = STA. 0+69.70

Δ = 14°

R = 280'

L = 68.42'

T = 34.38'

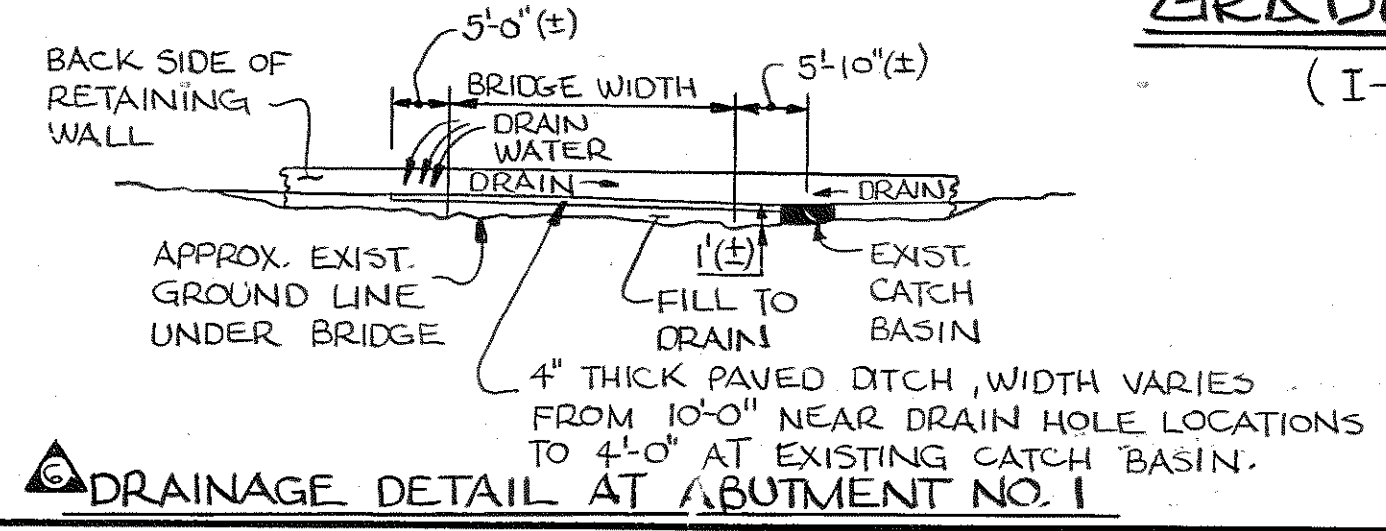
E = 2.10'

S.E. = NORMAL CROWN

40'-0" ROADWAY W/ SIDEWALKS AND K-38-162 STD. RAIL

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 LAYOUT OF BRIDGE B
 RICHARDSON-MARLBOROUGH AVE. OVER I-440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983

DESIGNED BY C. DIETERS DATE 6-82
 DRAWN BY J.A. HILLJE DATE 11-82
 SUPERVISED BY FIELDS & SMITH DATE 11-82
 CHECKED BY C. DIETERS DATE 11-82



CLASS "A" GRADING "D" 1924 C.F.

PROJECT NO.	YEAR	SHEET NO.	
I-440 (53) 206	1983		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-7-83	CMD	GENERAL REVISIONS
2	4-7-83	A.M.S.	STRUCT. LIGHTING DETAILS
3	1-24-85	CMD	GENERAL REVISIONS
4	5-8-85	CMD	EPOXY STEEL QUANT.
5	3-22-86	CMD	REV. QUANTITIES ITEM NO. 5.
			604-01.12 AND 604-02.03;
			ADDED FOOTNOTE (7)

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

LOADING: HS 20-44

DESIGN SPECIFICATIONS: AASHTO 1977 EDITION WITH ADDENDA.

CONCRETE: TO BE CLASS "A", F'C = 3000 PSI. (EXCEPT IN SLAB)

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

REINFORCING STEEL: TO BE ASTM A615 GRADE 60. STANDARD 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 907A.

SPECIAL NOTE - FOOTING FOR BENTS & ABUTTS: AFTER EXCAV. 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 AND ABUTMENTS SHALL BE ORDERED UNTIL FINAL FOOTING ELEVATIONS HAVE BEEN DETERMINED.

BRIDGE RAIL SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DRAWING K-38-162.

SHOP DRAWINGS: SEE SPECIAL PROVISION NO. 105 A.

BEARING DEVICES SHALL BE IN ACCORDANCE WITH THE DETAILS AND DIMENSIONS SHOWN ON DRAWING M-119-50. THE CONTRACTOR MAY ALSO SUBMIT ALTERNATE DETAILS FOR APPROVAL.

DWG. NO.	D.L. REAC.	L.L. REAC.	TOTAL MOVEMENT
M-119-50	258	22	1 1/4"

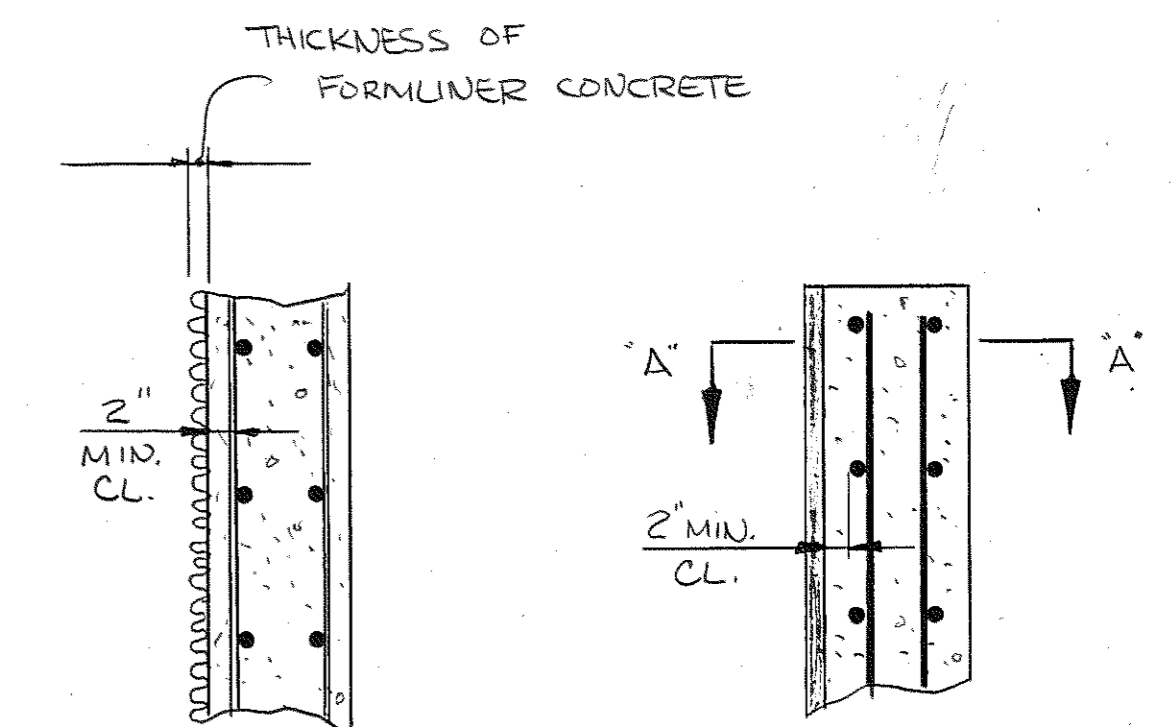
MACHINED RIP-RAP FOR SLOPE PROTECTION SHALL BE 3" TO 6" IN SIZE AND MEET THE QUALITY REQUIREMENT OF SUBSECTION 918-10 AND PAID FOR UNDER ITEM 709-05.04 c.y.

SEE STANDARD DRAWING NO. RD-5A-1.

CLASS A CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS EXCEPT AS FOLLOWS:

MINIMUM 28 DAY COMPRESSIVE STRENGTH 4500 p.s.i.
 MAXIMUM WATER/CEMENT 5.0 gal./sack of cement

AIR CONTENT 6% ± 2%
 PAYMENT WILL BE UNDER ITEM 604-01.12



SECTION A-A

TYPICAL FORMING DETAILS.

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

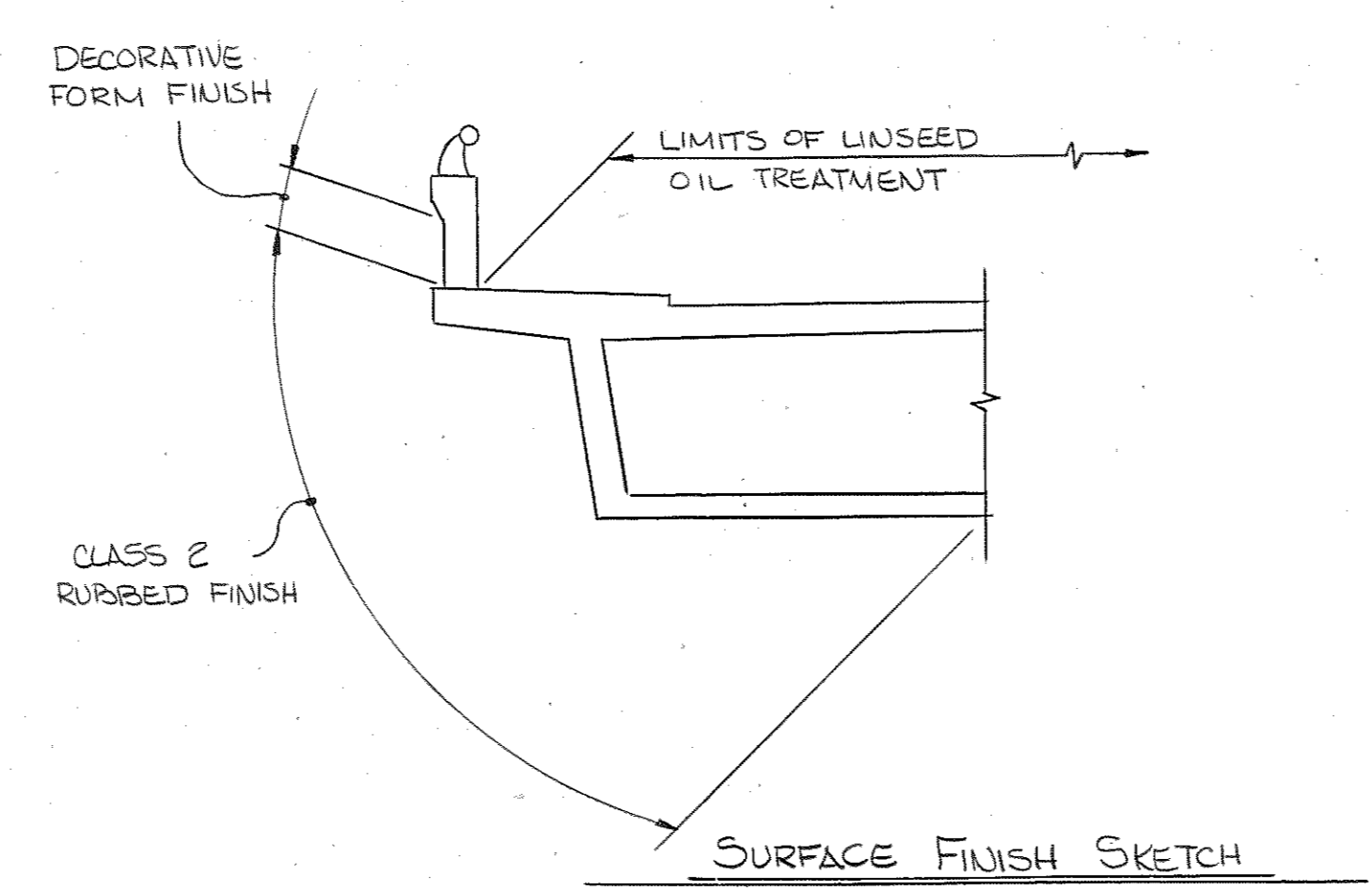
NOTE: ALL EXPOSED SURFACES OF THE ABUTMENTS, RETAINING WALLS, BENTS, AND PARAPET INSET SHALL RECEIVE A DECORATIVE FORM FINISH. SEE SURFACE FINISH SKETCH THIS SHEET.

ESTIMATED QUANTITIES

ITEM NUMBERS	204-02.01	204-04.01	204-05	604-01.12	604-02.03	604-03.02	604-03.03	620-14	710-10	710-11	604-03.01	606-22.03	606-32.03	606-42.03	908-21.05	709-05.04
ITEMS	DRY EXCAVATION (BRIDGES) C.Y. (1)	ROCK EXCAVATION (BRIDGES) C.Y. (1)	ROCK DRILLING (BRIDGES) L.F.	CLASS "A" CONCRETE (BRIDGE DECK) C.Y. (7)	EPOXY COATED REINFORCING STEEL LBS. (3)	STEEL BAR REINFORCEMENT (BRIDGES) LBS. (3)	LINSEED OIL TREATMENT S.Y.	CONCRETE PARAPET WITH STRUCTURAL TUBING (K-38-162) L.F. (2)	6" PERF. C.M. PIPE (18 GA.) W/POROUS BACKFILL L.F. (2)	6" C.M. PIPE UNDERDRAINS (18 GA.) L.F.	CLASS "A" CONCRETE (BRIDGES) C.Y. (2)	STEEL PILES (10 INCH) (DRIVING) L.F.	STEEL PILES (10 INCH) (FURNISH DOMESTIC) L.F.	STEEL PILES (10 INCH) (FURNISH FOREIGN) L.F.	BEARINGS M-119-50 Ea.	MACHINED RIP-RAP (3IN-6IN) C.Y. (2)
SUPERSTRUCTURE				401.8	266,684	126,704.					506.8					
ABUTMENT NO. 1	177	37	30		1,498	7,871			82	20	52.8				5	7
BENT NO. 1	76	246	12			18,646					189.6					
ABUTMENT NO. 2	213	754	42		3,233	47,923			94	32	329.0				5	
P'MENT@BR.END. ABUT. NO. 1					4,100	10,038					52.5	70	70	70		
P'MENT@BR.END. ABUT. NO. 2					8,035	21,563					63.0	60	60	60		
TOTAL	466	1037	84	401.8	283,550	232,751	1,966	589	176	52	1200.7	130	130	130	10	7

NOTES

- EXCAVATION BASED ON LOWER ROAD PROFILE.
- COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN COST OF PERFORATED C.M. PIPE.
- ALL REINFORCING STEEL IN THE TRAFFIC FACE OF PARAPETS SHALL BE EPOXY-COATED. COST TO BE INCLUDED IN THE PRICE BID FOR ITEM 620-14.
- NOTE: THE COST OF 16 THREADED STEEL INSERTS AND 16 7/8" Ø X 4" HEX HEAD BOLTS, A307, TO BE INCLUDED IN BRIDGE ITEMS BID ON.
- THE EXPANSION JOINT AT ABUTMENTS 1 & 2 SHALL BE EITHER ON-FLEX 25" BY ACCESSORIES, INC.; AS 200 BY ACME HIGHWAY PRODUCTS, INC.; WABO-MAURER SB200 BY WATSON BOWMAN ASSOCIATES, INC.; OR EQUAL. TOTAL REQUIRED MOVEMENT IS 1 1/4".
- ⊙ LUMP SUM FOR STRUCTURAL LIGHTING, ITEM NO. 714-01.08 INCLUDES 260 FT. 1" Ø CONDUIT WITH PULL WIRES, 85 FT. 2" Ø CONDUIT WITH PULL WIRES, 5 PULL BOXES, AND ALL NECESSARY MATERIALS FOR INSTALLATION OF STRUCTURE LIGHTING.
- ⊙ COST OF FOUR BRIDGE DECK DRAINS TO BE INCLUDED IN THE UNIT PRICE BID FOR CLASS "A" CONCRETE (BRIDGE DECK).



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 SIMILAR TO BURKE FORMLINER B6308 CONCRETE HARD LITHOTEX FORMLINER FRACTURED FINISH GROOVED T-150, SYMONS 3/4" NARROW FRACTURED FIN P/C 30909-908 EQUAL. AFTER STRIPPING FORMLINERS, THE DECORATIVE FORM FINISHED AREAS SHALL RECEIVE A CLASS 1 ORDINARY FINISH IN ACCORDANCE WITH SUBSECTION 604-23 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.

	920-01.11	714-01.08
ROADWAY EXPANSION DEVICE L.F. (2)		STRUCTURE LIGHTING (BRIDGE NO. 8) L.S. (2)
ABUT. 1	54	
ABUT. 2	61	
TOTAL	115	1

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS

GENERAL NOTES & ESTIMATED QUANTITIES
 RICHARDSON-MARLBOROUGH AVE.
 OVER I-440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983

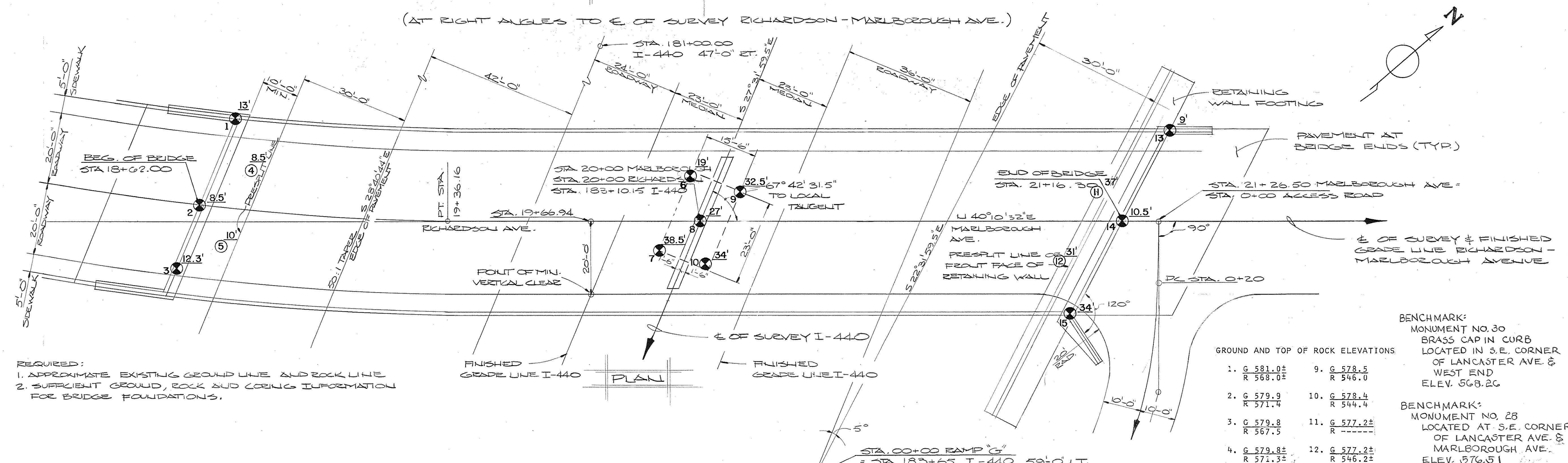
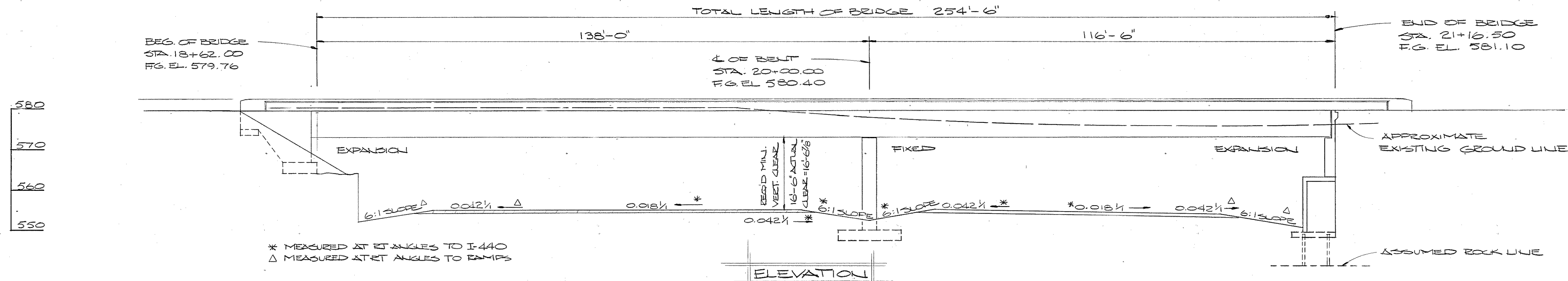
CORRECT *Chilton L. Lovell*
 ENGINEER OF STRUCTURES
 APPROVED *Louis Evans*
 DIRECTOR OF HIGHWAYS

DESIGNED BY C. DIETERS DATE 9-82
 DRAWN BY S. SHULTZ DATE 11-82
 SUPERVISED BY FIELDS & SMITH DATE 11-82
 CHECKED BY C. DIETERS DATE 1-83

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440(53)206	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



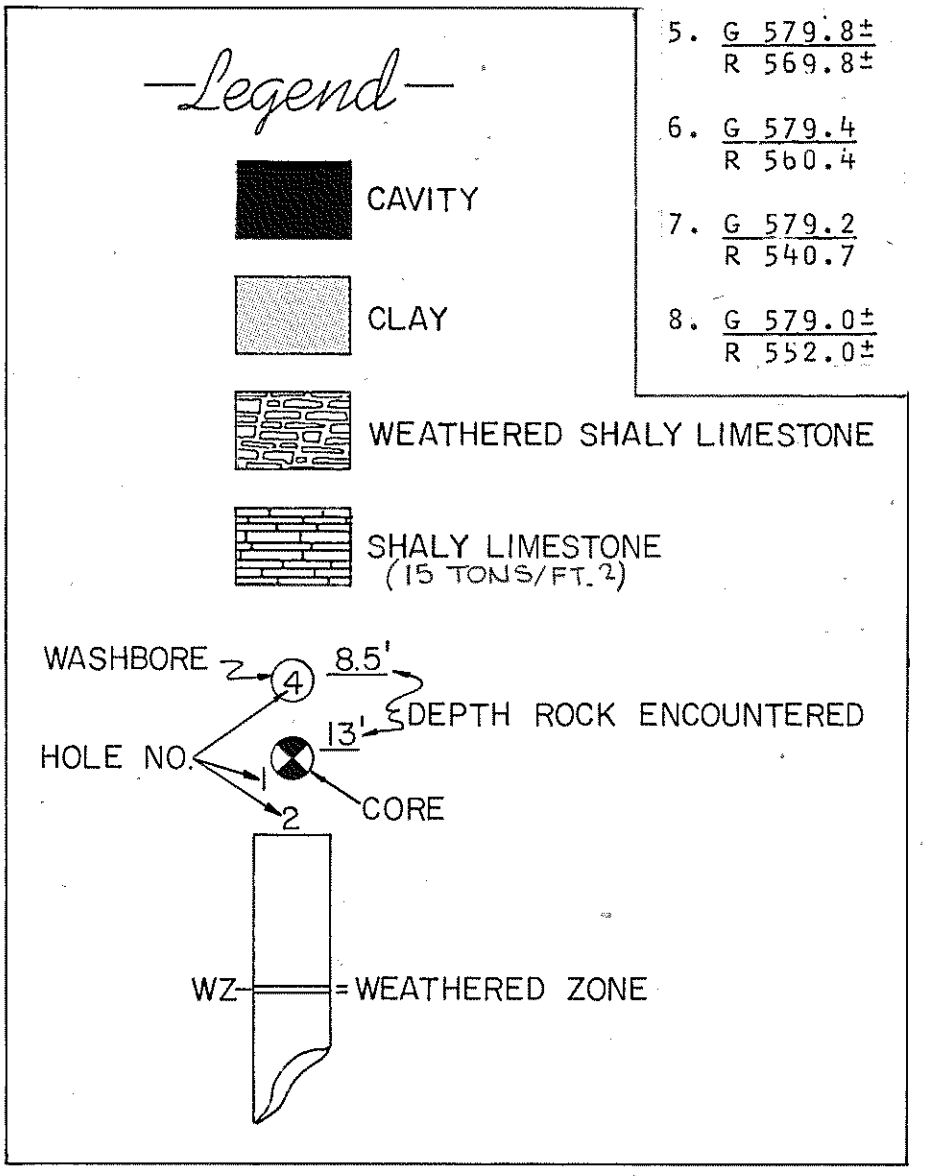
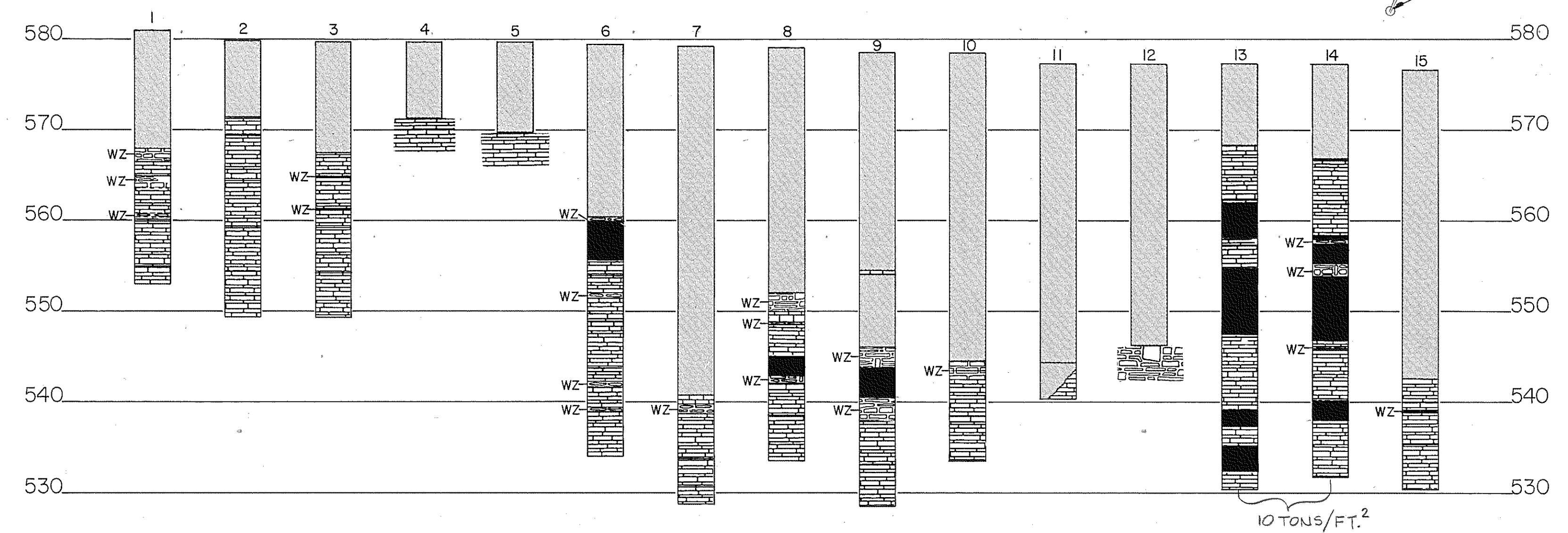
REQUIRED:
 1. APPROXIMATE EXISTING GROUND LINE AND ROCK LINE
 2. SUFFICIENT GROUND, ROCK AND CORING INFORMATION FOR BRIDGE FOUNDATIONS.

GROUND AND TOP OF ROCK ELEVATIONS

1. G 581.0±	9. G 578.5
R 568.0±	R 546.0
2. G 579.9	10. G 578.4
R 571.4	R 544.4
3. G 579.8	11. G 577.2±
R 567.5	R -----
4. G 579.8±	12. G 577.2±
R 571.3±	R 546.2±
5. G 579.8±	13. G 577.3
R 569.8±	R 578.3
6. G 579.4	14. G 577.2
R 560.4	R 577.7
7. G 579.2	15. G 576.7
R 540.7	R 542.7
8. G 579.0±	
R 552.0±	

BENCHMARK:
 MONUMENT NO. 30
 BRASS CAP IN CURB
 LOCATED IN S.E. CORNER
 OF LANCASTER AVE. &
 WEST END
 ELEV. 568.26

BENCHMARK:
 MONUMENT NO. 28
 LOCATED AT S.E. CORNER
 OF LANCASTER AVE. &
 MARLBOROUGH AVE.
 ELEV. 576.51



DESIGNED BY C. DIETERS DATE 6-82
 DRAWN BY R. CHESTY DATE 9-82
 SUPERVISED BY N. SMITH DATE 9-82
 CHECKED BY C. DIETERS DATE 1-83

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS

FOUNDATION DATA
 RICHARDSON - MARLBOROUGH
 AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY
 1982

CORRECT
 APPROVED

CECELION L. LOVELL
 ENGINEER OF STRUCTURES

APPROVED
 DIRECTOR OF HIGHWAYS

NOTES FOR BRIDGE DECK DRAINS

NOTE: OUTSIDE EDGE OF SLAB AND BRIDGE RAIL TO CONFORM TO HORIZONTAL CURVE.

NOTE: WHEN POURING SIDEWALK, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. 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-38-162.

2" ϕ WEEP HOLES WITH SCREEN WIRE COVER REQUIRED AT LOW POINT OF EACH CELL.

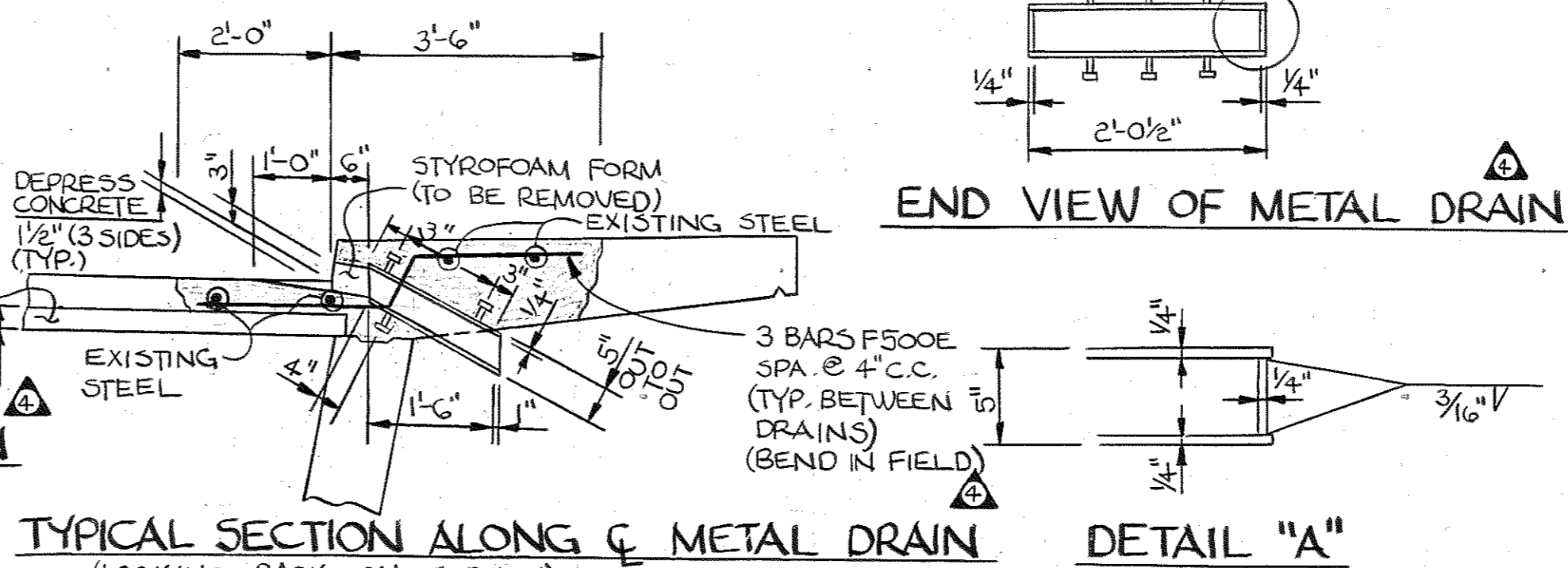
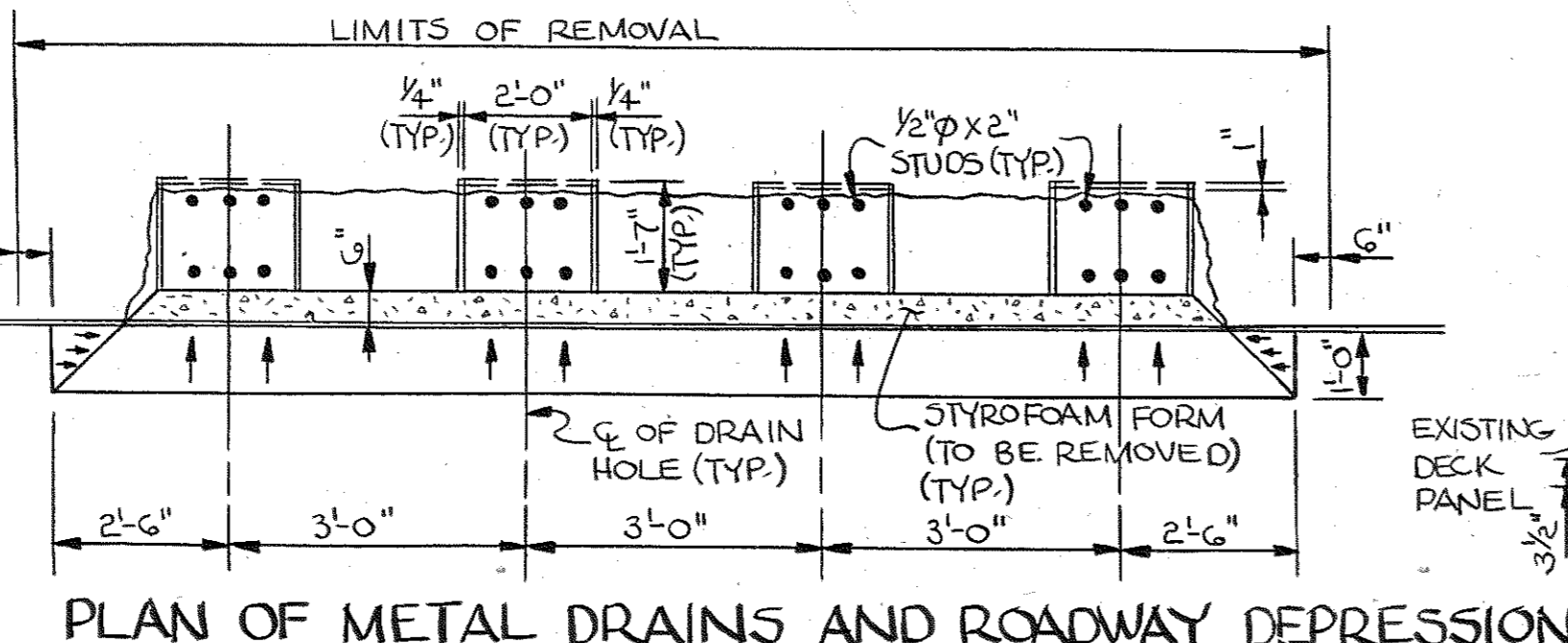
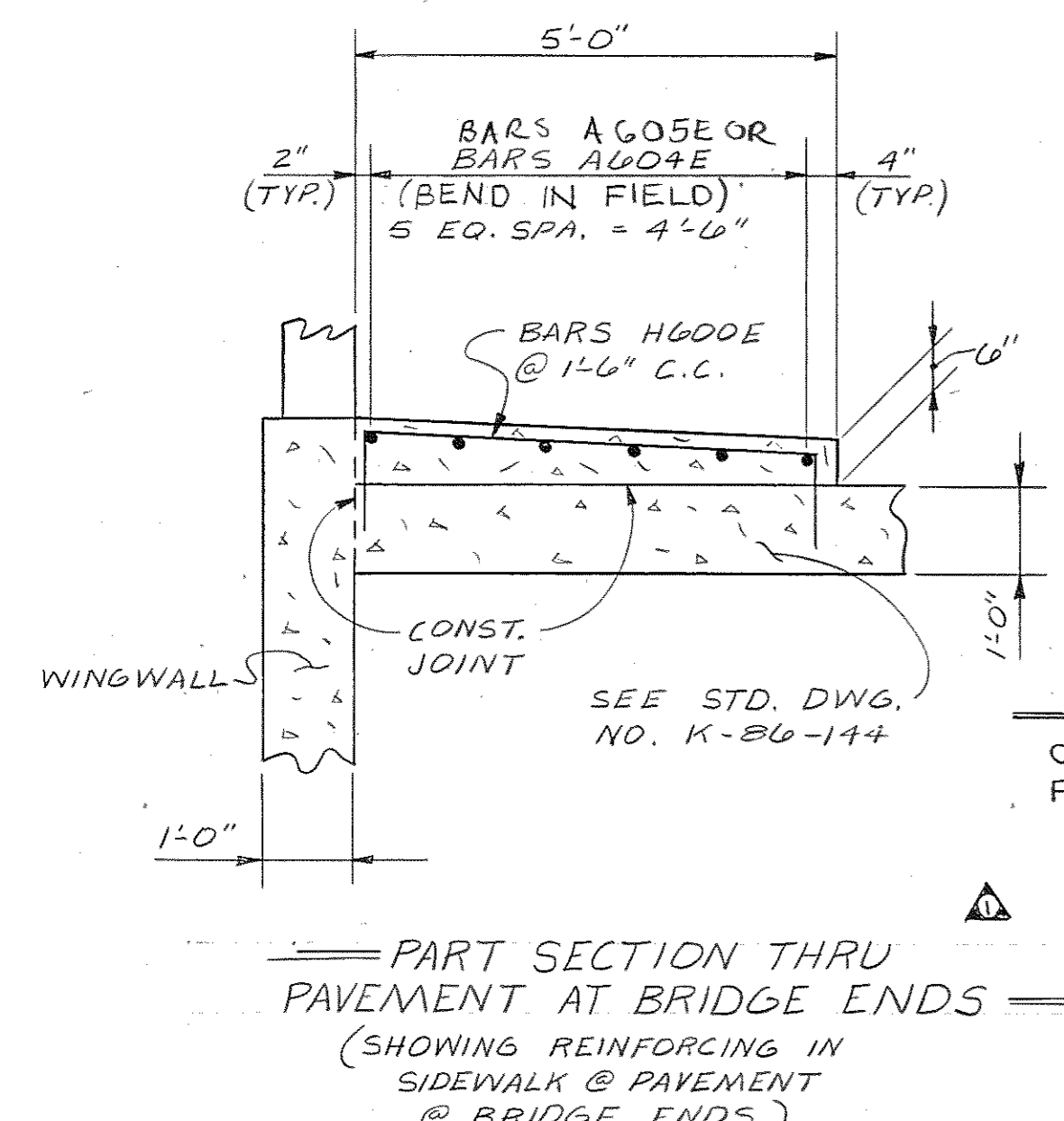
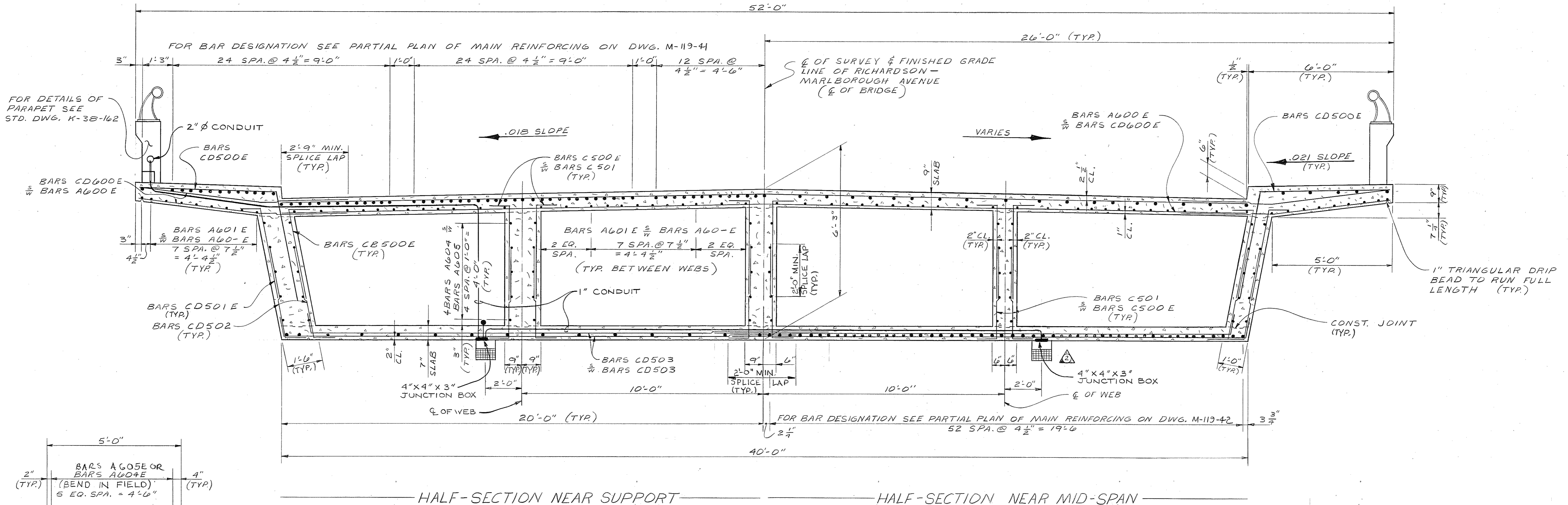
THE METAL DRAINS SHALL BE FABRICATED FROM A36 STEEL PLATE. ALL WELDING INCLUDING STUDS SHALL BE COMPLETED PRIOR TO HOT DIP GALVANIZING TO ASTM STANDARD A-123.

THE CONTRACTOR MAY SUBSTITUTE A WHITE PVC MATERIAL FOR THE METAL PORTION OF THE DRAIN. PVC MATERIAL USED SHALL HAVE ENOUGH STRENGTH TO MAINTAIN ITS SHAPE FOR THE OVERHANG. SHEAR CONNECTORS SHALL BE ATTACHED TO PREVENT SEPARATION OF THE PVC FROM THE CONCRETE. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

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.

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.	
T-440(53)206	1983		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-7-83	CMD	GENERAL REVISIONS
2	4-7-83	A.M.S.	STRUCT. LIGHTING DETAILS
3	5-8-83	CMD	EPXY STEEL QUANT.
4	9-22-83	CMD	ADDED METAL DRAIN DETAILS; REVISED QUANTITIES



ESTIMATED QUANTITIES			
CONCRETE CLASS "A" (BRIDGE DECK) (C.Y.)	EPOXY COATED REINFORCING STEEL LBS.	CONCRETE CLASS "A" (BRIDGES) (C.Y.)	REINFORCING STEEL LBS.
401.8	266,684	506.8	126,704

DESIGNED BY C. DIETERS
 DRAWN BY T. LEWIS
 SUPERVISED BY J. FIELDS
 CHECKED BY C. DIETERS

DATE 11-82
 DATE 11-82
 DATE 11-82
 DATE 1-83

NOTE: CARE SHALL BE TAKEN WHEN REMOVING PORTIONS OF EXISTING SIDEWALK AND SLAB FOR METAL DRAIN PLACEMENT SO AS TO AVOID UNNECESSARY DAMAGE TO EXISTING REINFORCEMENT AND EXISTING DECK PANELS.

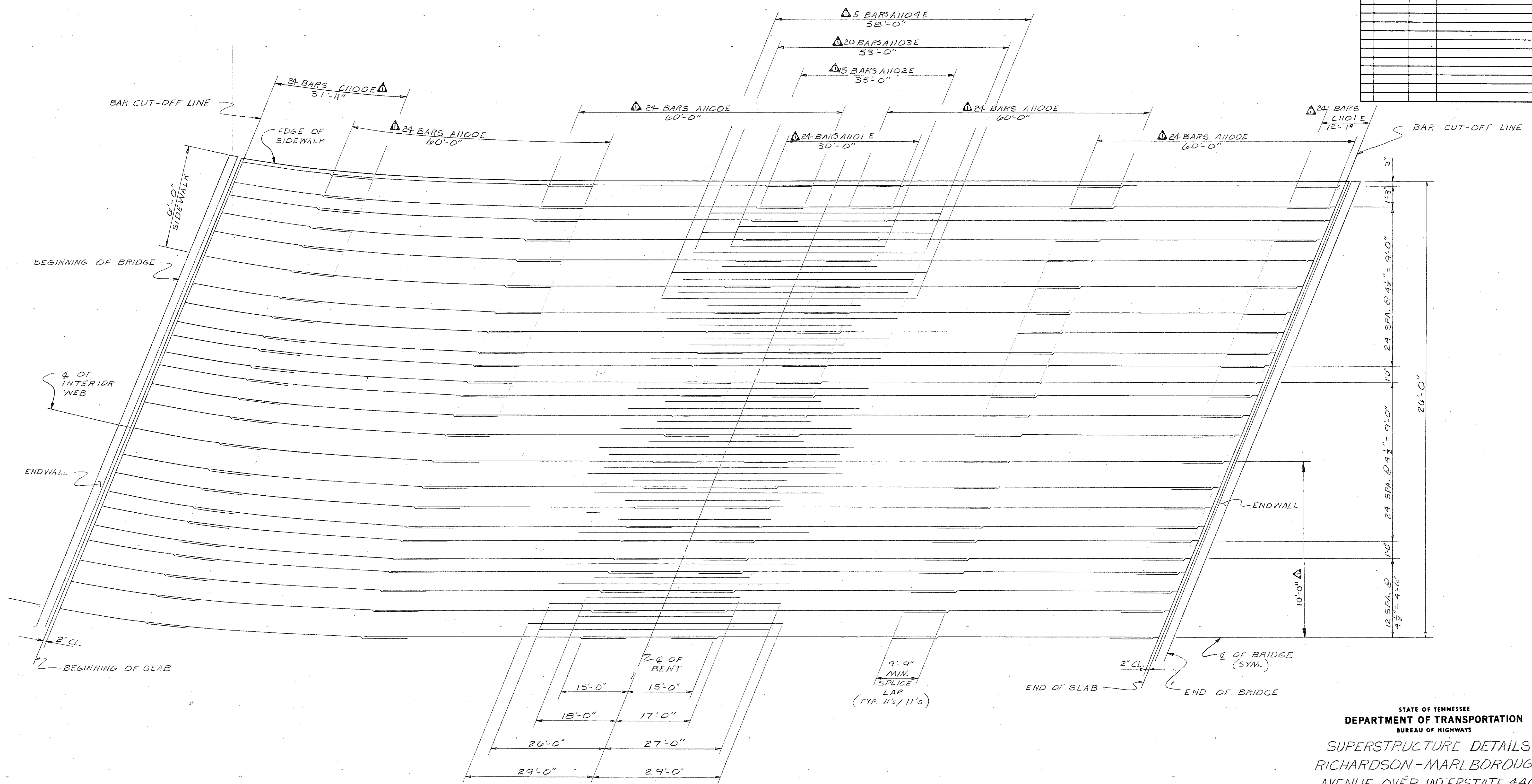
NOTE: SHADED AREA DENOTES EXISTING CONCRETE TO BE REMOVED AND REPOURED.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE
 RICHARDSON - MARLBOROUGH AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983
 CORRECTED BY *William L. Forewell*
 ENGINEER OF STRUCTURES
 APPROVED BY *Louis Evans*
 DIRECTOR OF HIGHWAYS

CONST. NO. 19014-311-44

PROJECT NO.	YEAR	SHEET NO.
I-440(53)206	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
Δ	2-7-83	CMD	GENERAL REVISIONS



PARTIAL PLAN OF MAIN REINFORCING
(TYPICAL TOP SLAB)

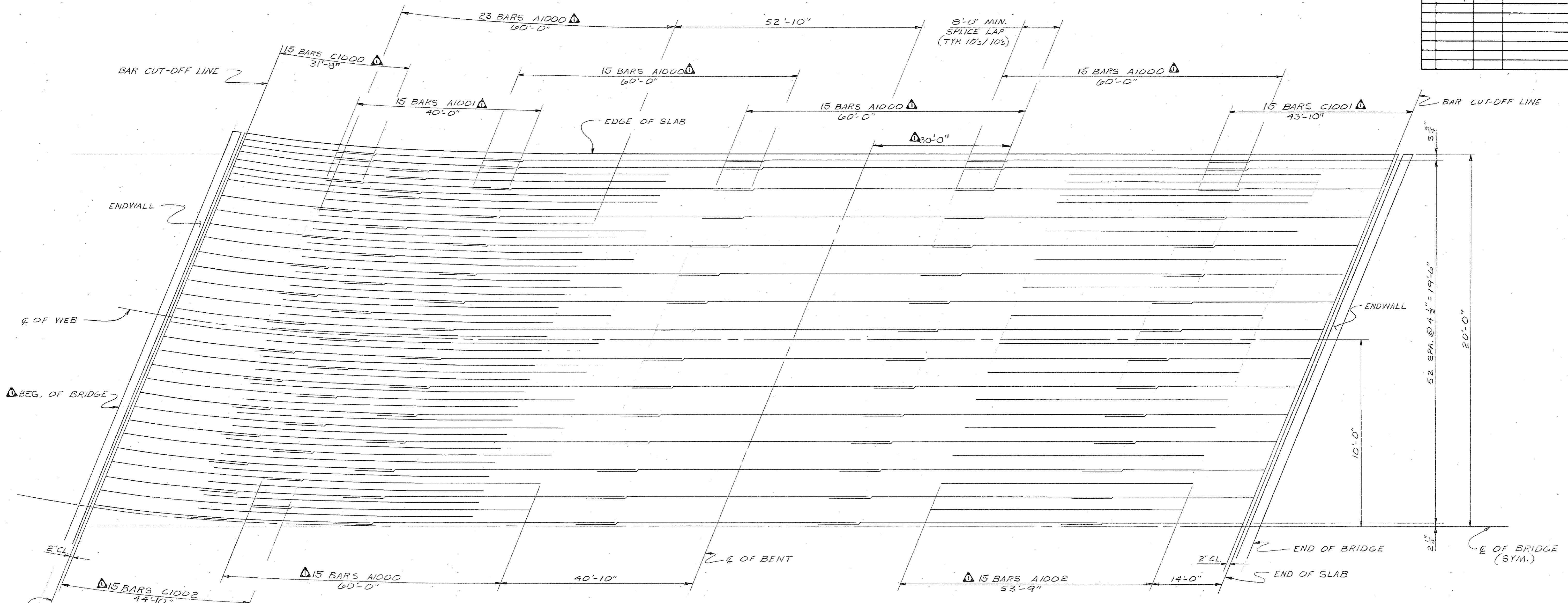
DESIGNED BY C. DIETERS DATE 11-'82
 DRAWN BY T. LEWIS DATE 11-'82
 SUPERVISED BY U. FIELDS DATE 11-'82
 CHECKED BY C. DIETERS DATE 1-'83

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 RICHARDSON-MARLBOROUGH
 AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983
 CORRECT *William L. Forwall*
 ENGINEER OF STRUCTURES
 APPROVED *Kevin Guard*
 DIRECTOR OF HIGHWAYS

M-119-41

PROJECT NO.	YEAR	SHEET NO.
I-440(53)206	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
Δ	2-7-83	CMD	GENERAL REVISIONS

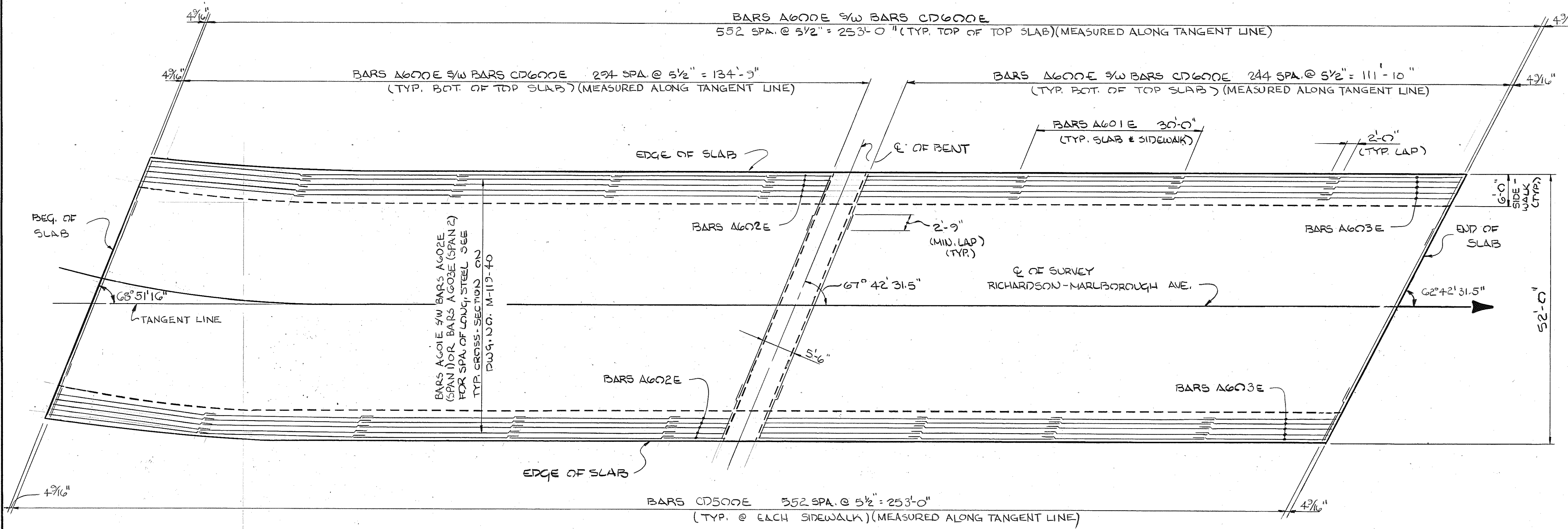


PARTIAL PLAN OF MAIN REINFORCING
(TYPICAL BOTTOM SLAB)

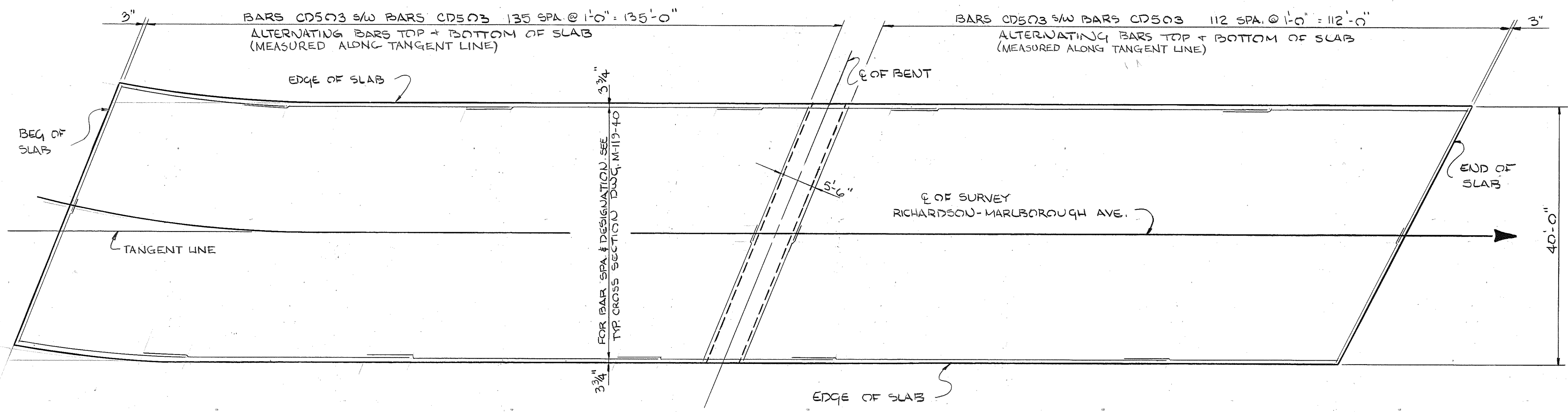
DESIGNED BY C. DIETERS DATE 11-'82
 DRAWN BY T. LEWIS DATE 11-'82
 SUPERVISED BY J. FIELDS DATE 11-'82
 CHECKED BY C. DIETERS DATE 1-'83

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 RICHARDSON - MARLBOROUGH
 AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983
 CORRECT *Colleen L. Forcell*
 ENGINEER OF STRUCTURES
 APPROVED *Louis Evans*
 DIRECTOR OF HIGHWAYS

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
Δ	2-7-83	CMD	GENERAL REVISIONS



TOP SLAB PLAN Δ



BOTTOM SLAB PLAN Δ

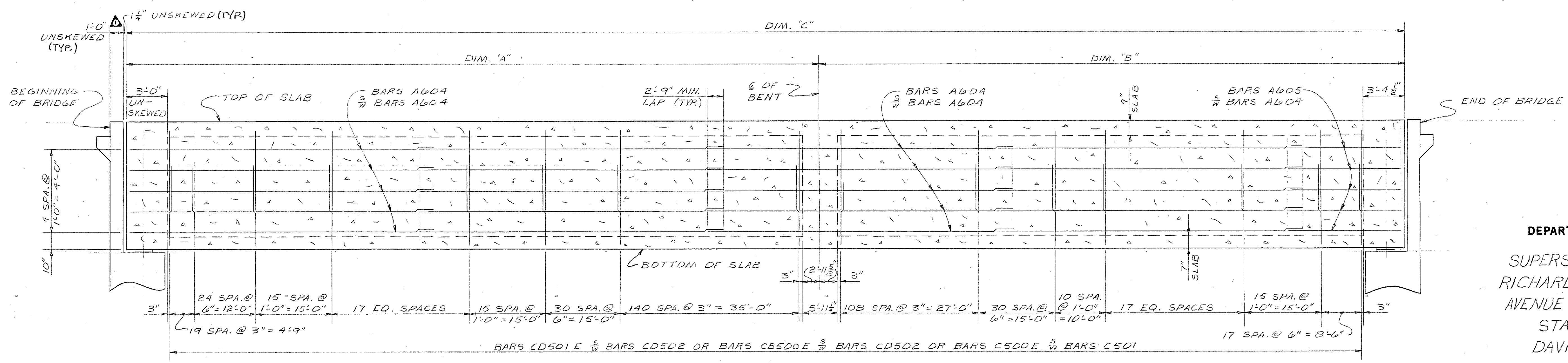
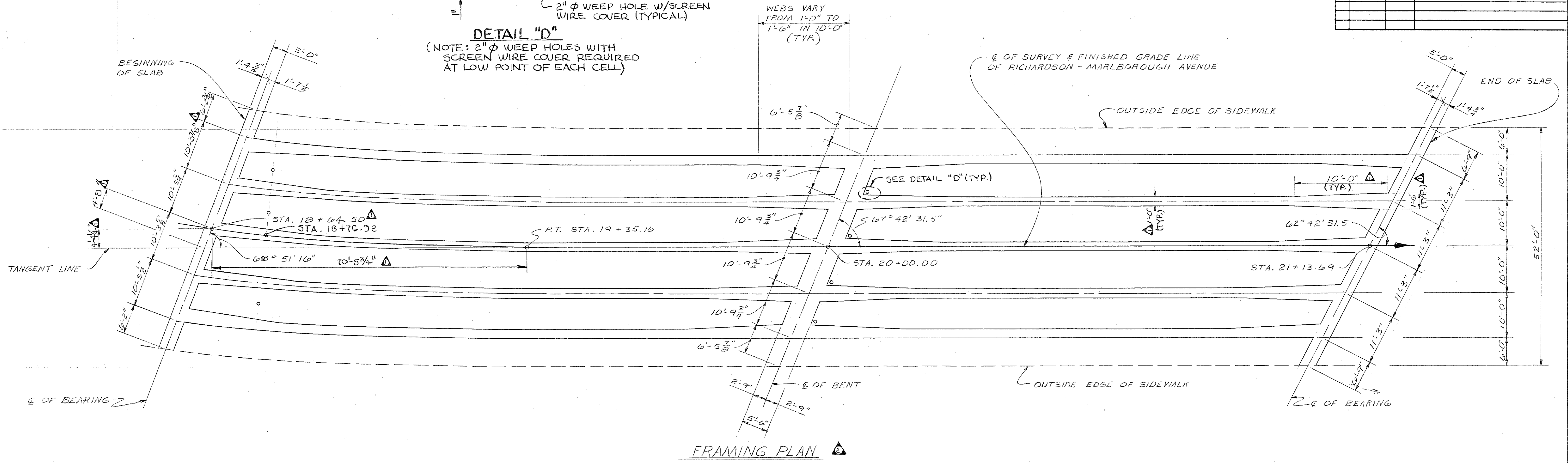
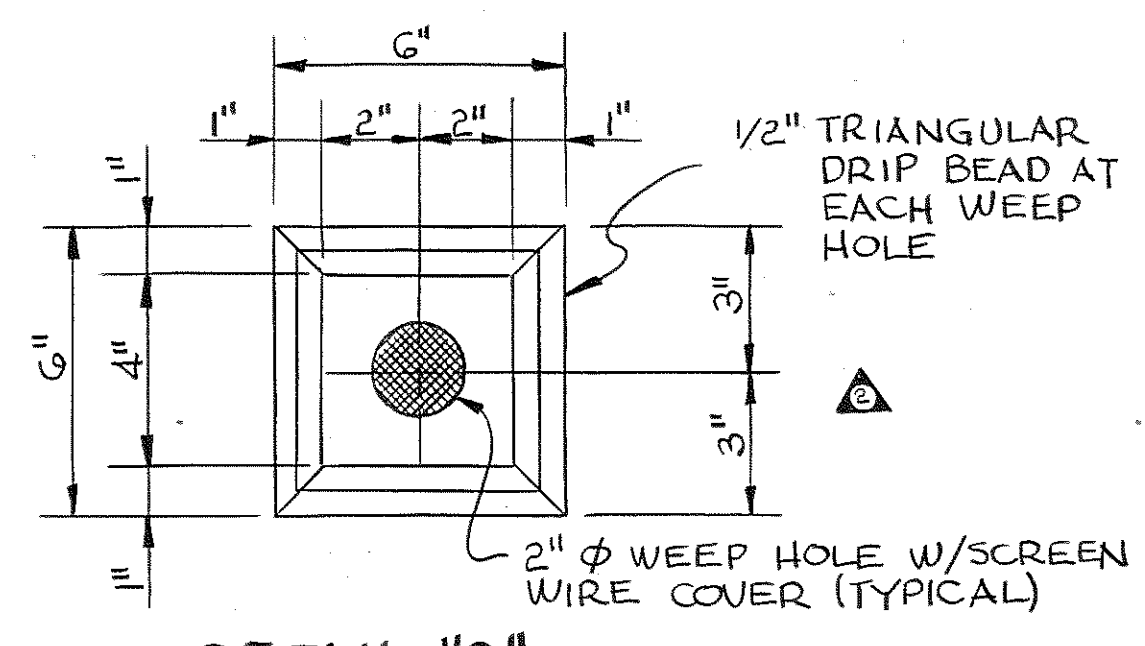
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 RICHARDSON-MARLBOROUGH
 AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983

DESIGNED BY C. DIETERS DATE 11/82
 DRAWN BY J. FIELDS DATE 11-23-82
 SUPERVISED BY J. FIELDS DATE 11/82
 CHECKED BY C. DIETERS DATE 1/83

CORRECT *William A. Lovell*
 ENGINEER OF STRUCTURES
 APPROVED *James H. Brown*
 DIRECTOR OF HIGHWAYS

CONST. NO. 1901A-3111-44			
PROJECT NO.	YEAR	SHEET NO.	
I-440 (SS) 206	1983		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-7-83	CMD	GENERAL REVISIONS
2	10-12-84	CMD	ADDED WEEP HOLES

BEAM	DIM. A	DIM. B	DIM. C
1	137'-7 1/8"	117'-4 1/2"	254'-11 1/8"
2	137'-3"	116'-3 3/4"	253'-6 3/4"
3	136'-10 3/8"	115'-3 1/8"	252'-1 7/8"
4	136'-6 3/8"	114'-2 1/8"	250'-8 1/8"
5	136'-2"	113'-1 1/8"	249'-3 1/8"



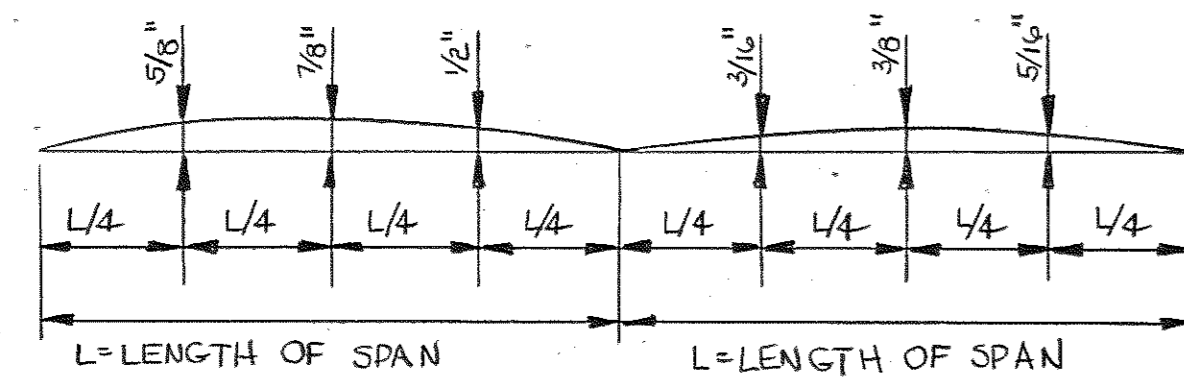
DESIGNED BY C. DIETERS DATE 11-'82
 DRAWN BY T. LEWIS DATE 11-'82
 SUPERVISED BY J. FIELDS DATE 11-'82
 CHECKED BY C. DIETERS DATE 1-'83

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 RICHARDSON - MARLBOROUGH
 AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983
 CORRECT *William L. Lovell*
 ENGINEER OF STRUCTURES
 APPROVED *Lewis Swann*
 DIRECTOR OF HIGHWAYS

M-119-44

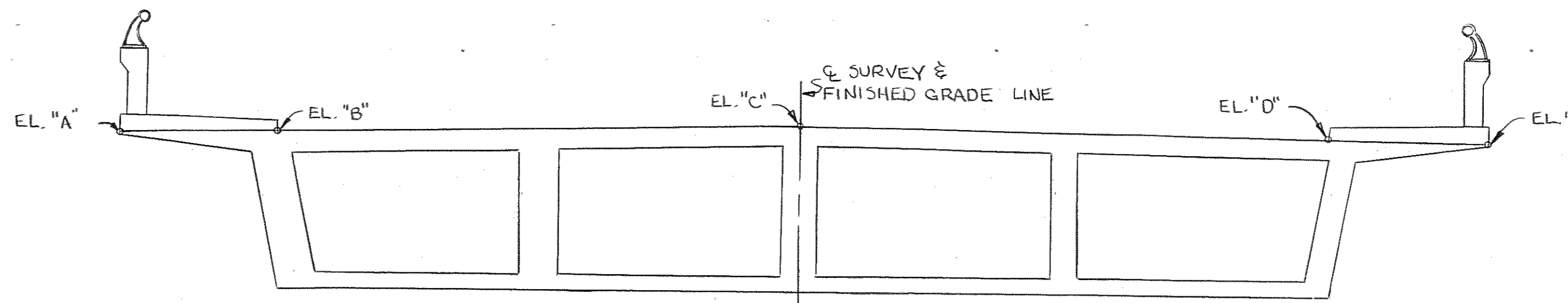
PROJECT NO.	YEAR	SHEET NO.
I-440(53)206	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	6-6-83	CMO	ADDED SHEET

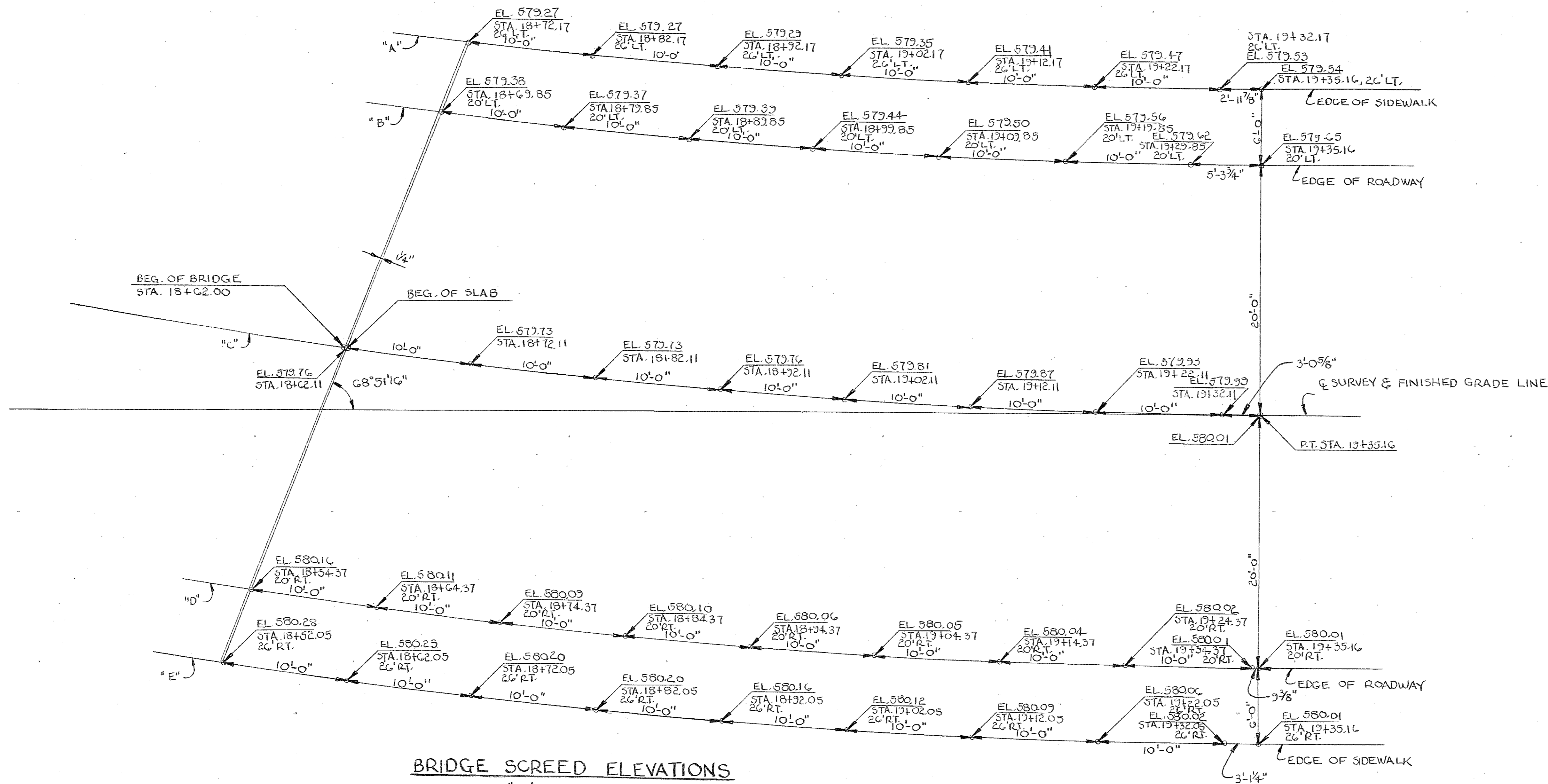


DEAD LOAD CORRECTION CURVE

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



SECTION SHOWING LOCATION OF BRIDGE SCREED ELEVATIONS



BRIDGE SCREED ELEVATIONS

SCALE: 1"=5'

DESIGNED BY C. DIETERS DATE 5-83
 DRAWN BY C. DIETERS DATE 5-83
 SUPERVISED BY A.M. SMITH DATE 5-83
 CHECKED BY C. DIETERS DATE 5-83

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS
 RICHARDSON-MARLBOROUGH
 AVENUE OVER I-440
 STATION 183+10.15
 DAVIDSON COUNTY

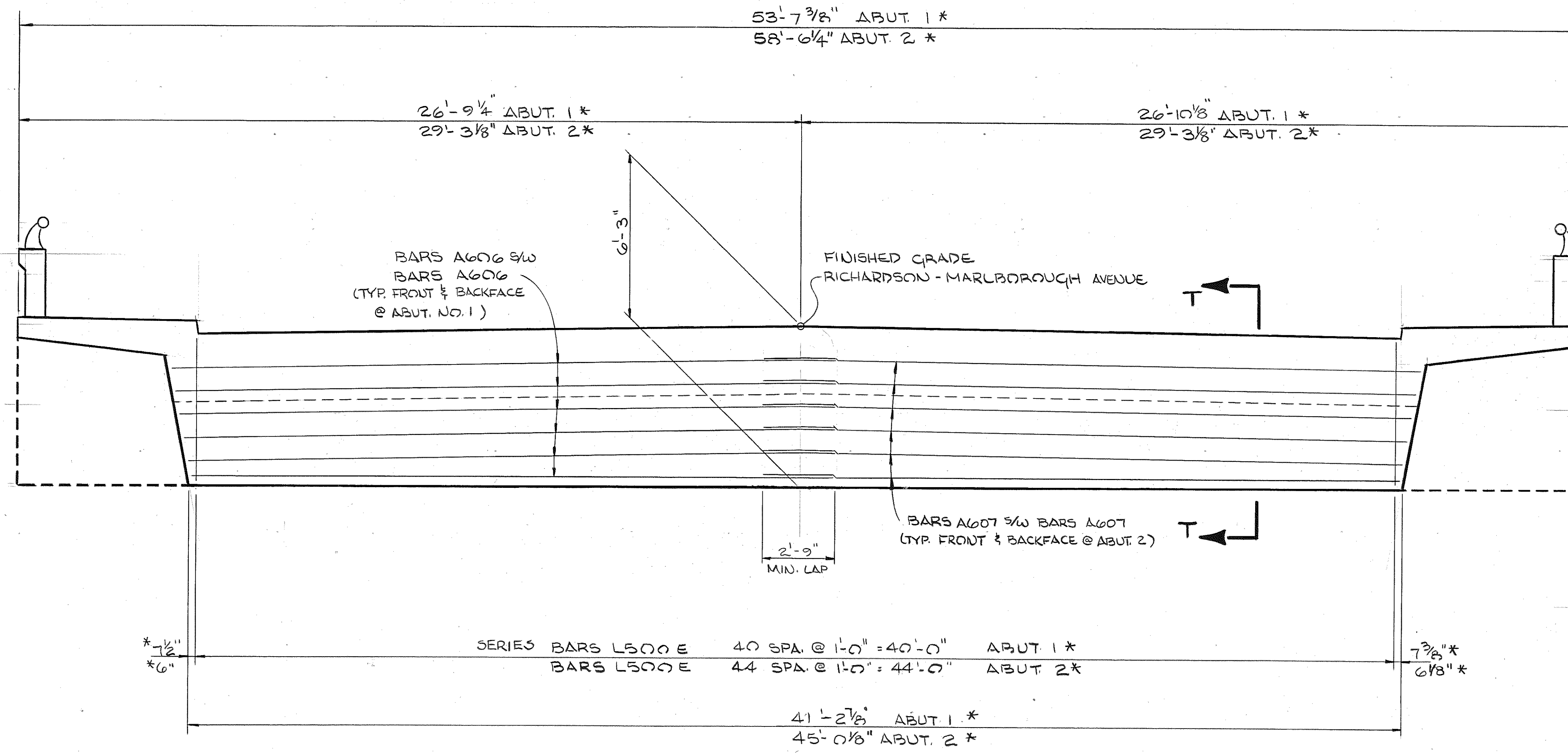
1983

CORRECT *Levellon L. Howell*
 ENGINEER OF STRUCTURES
 APPROVED *Louis Evans*
 DIRECTOR OF HIGHWAYS

M-119-44A

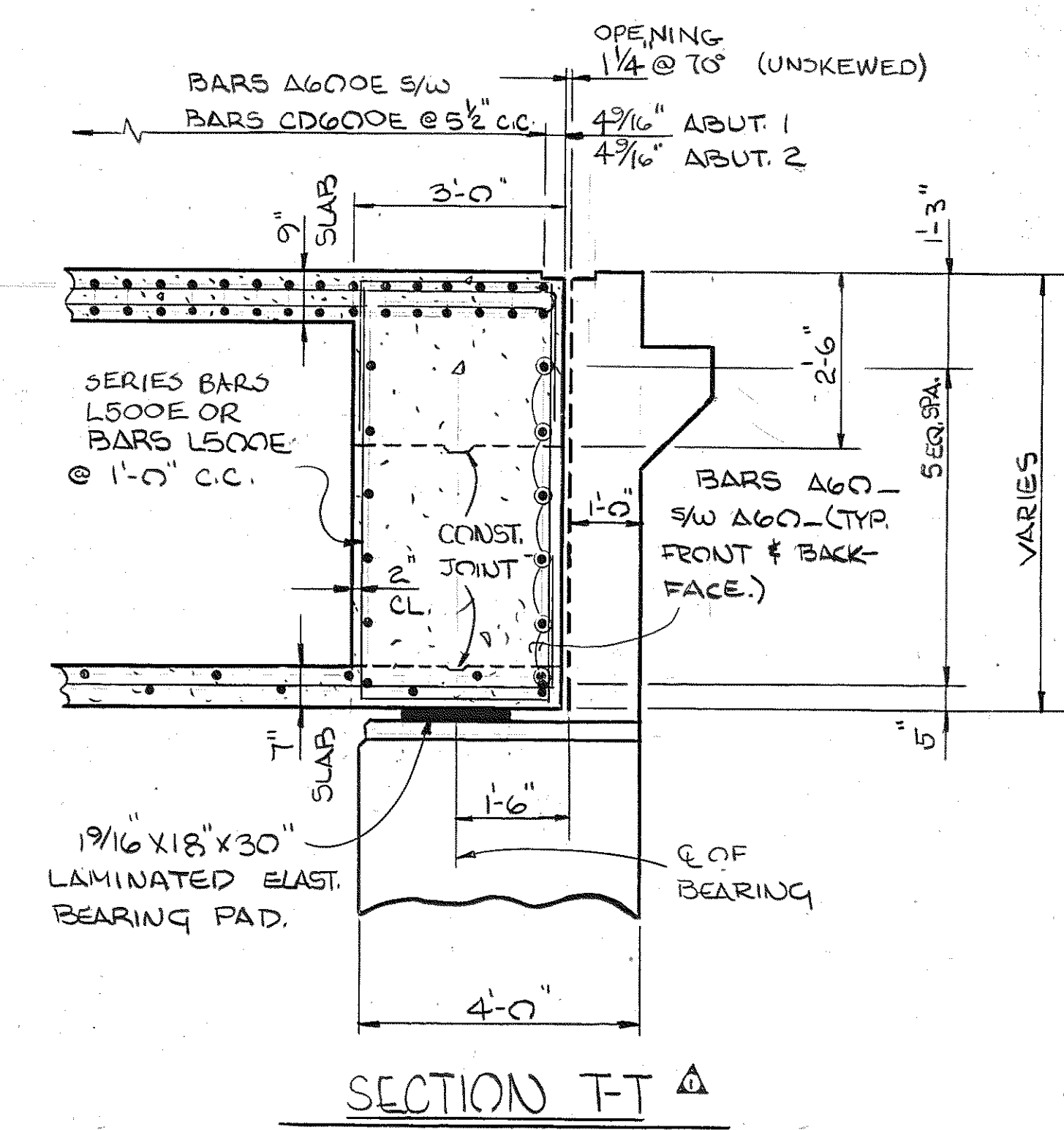
PROJECT NO.	YEAR	SHEET NO.
I-440(53)200	1983	

REVISIONS		
NO.	DATE	BRIEF DESCRIPTION
Δ	2-7-83	CMD GENERAL REVISIONS



END DIAPHRAGM ELEVATION Δ
 (LOOKING BACK ON SURVEY @ ABUT. NO. 1)
 (LOOKING FORWARD ON SURVEY @ ABUT. NO. 2)

* DENOTES MEASURED ALONG Q OF BEARING



DESIGNED BY C. DIETERS DATE 11-82
 DRAWN BY [Signature] DATE 12-3-82
 SUPERVISED BY T. FIELDS DATE 12-3-82
 CHECKED BY C. DIETERS DATE 1-83 Δ

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 RICHARDSON-MARLBOROUGH AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983

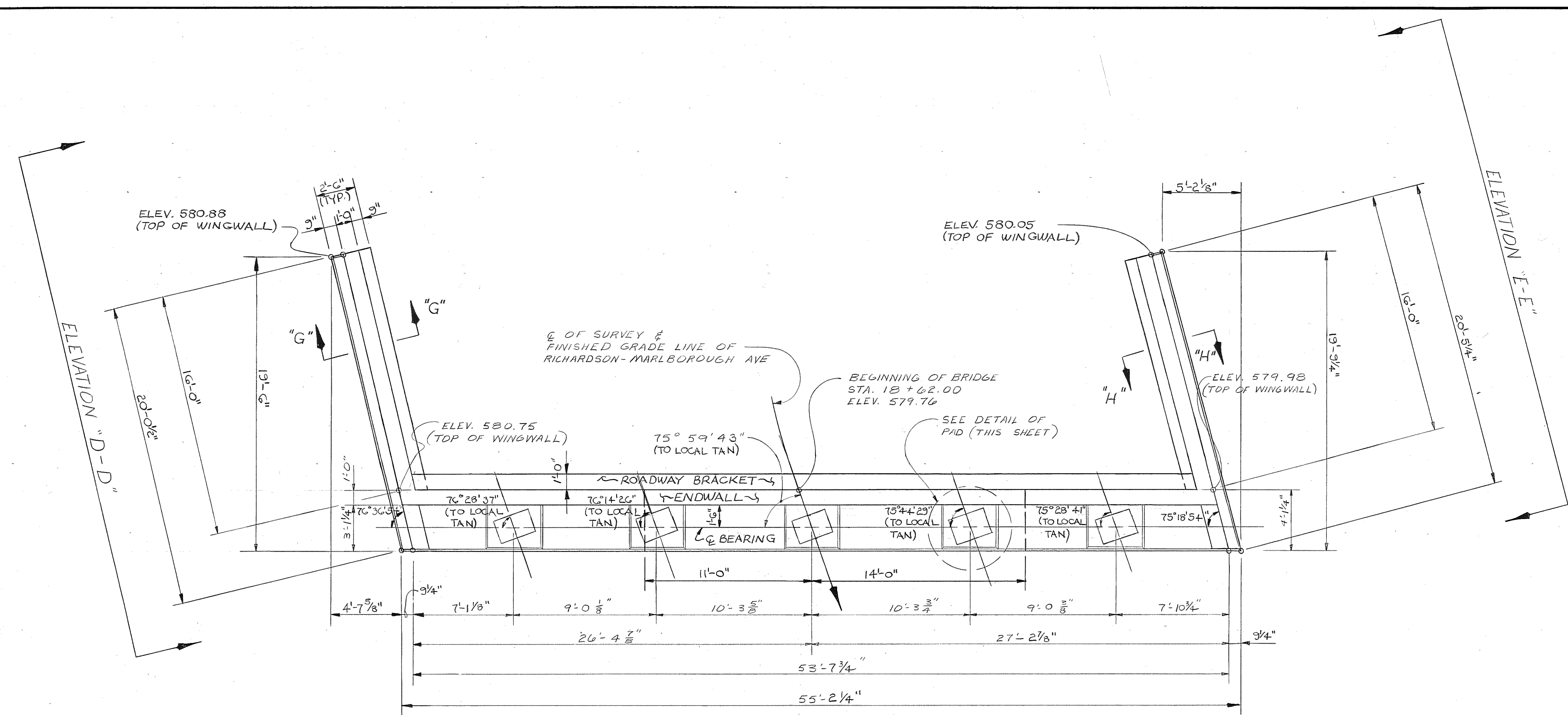
CORRECT [Signature]
 ENGINEER OF STRUCTURES

APPROVED [Signature]
 DIRECTOR OF HIGHWAYS

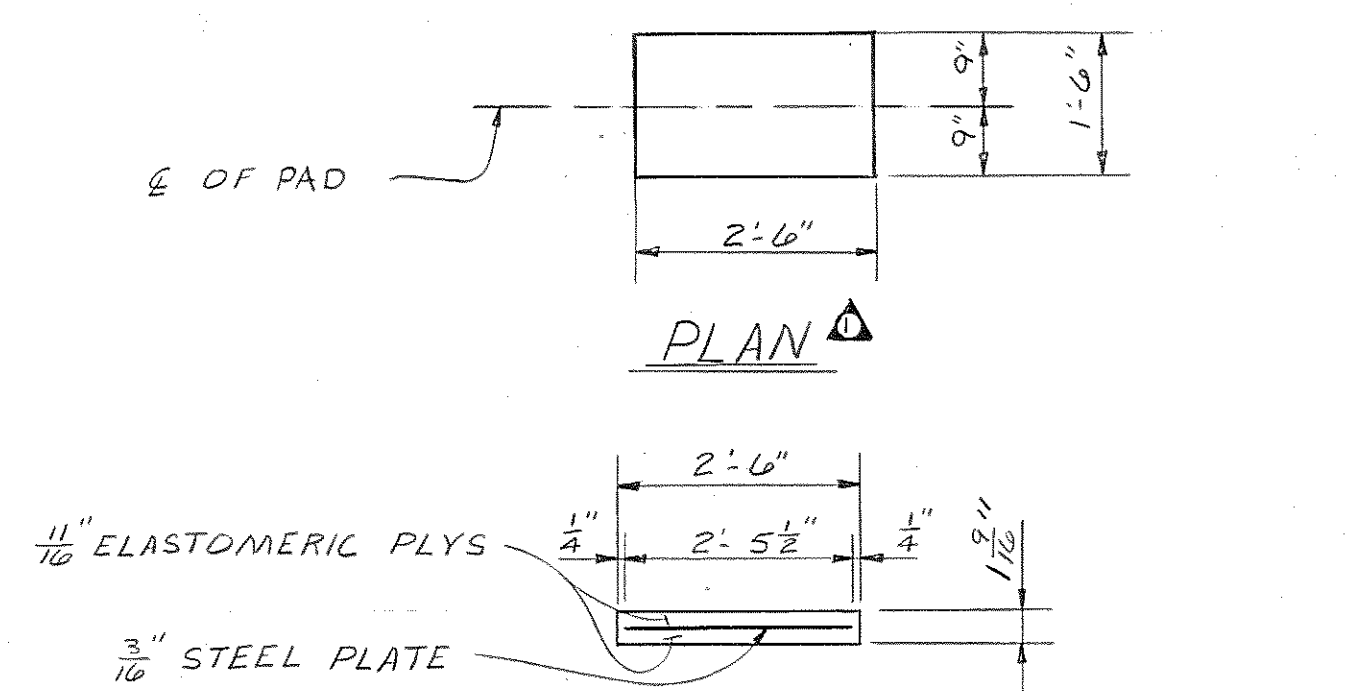
M-119-45

PROJECT NO.	YEAR	SHEET NO.
I-440(53)206	1983	

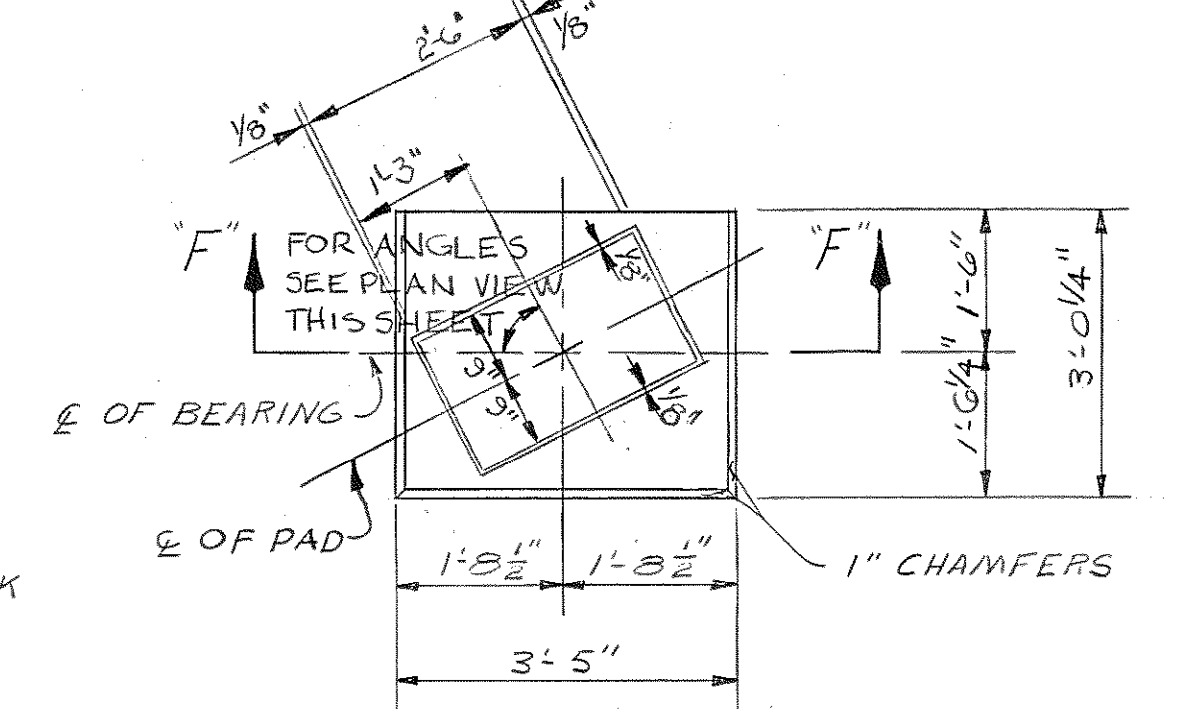
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
2	7-83	CMD	GENERAL REVISIONS
1	24-85	CMD	GENERAL REVISIONS



PLAN

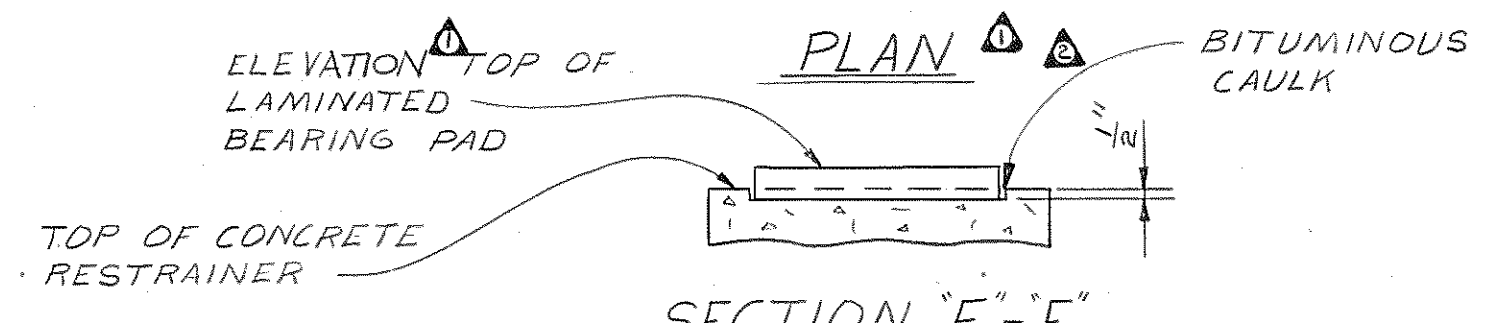


ELEVATION LAMINATED BEARING PAD DETAIL

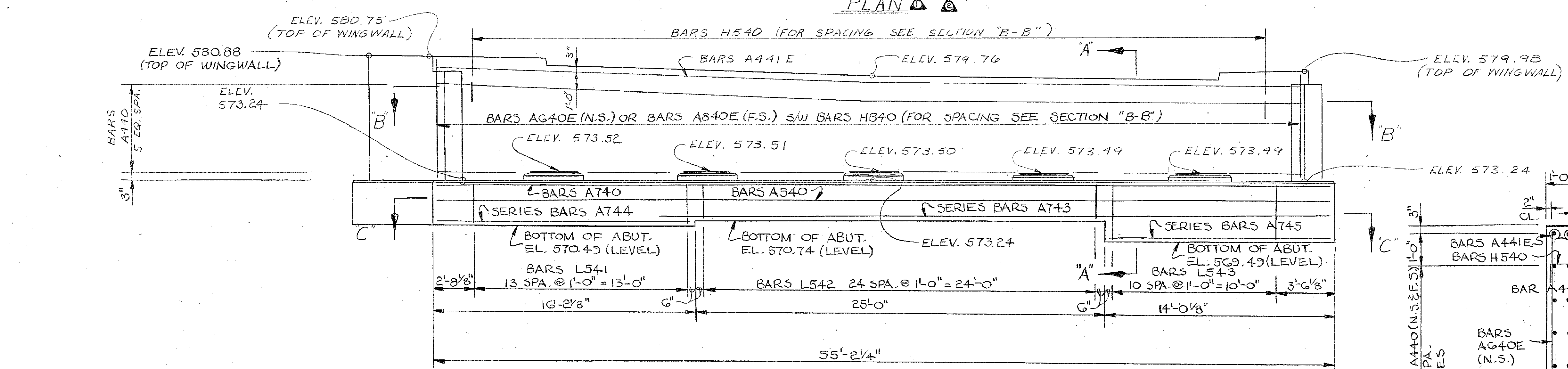


PLAN

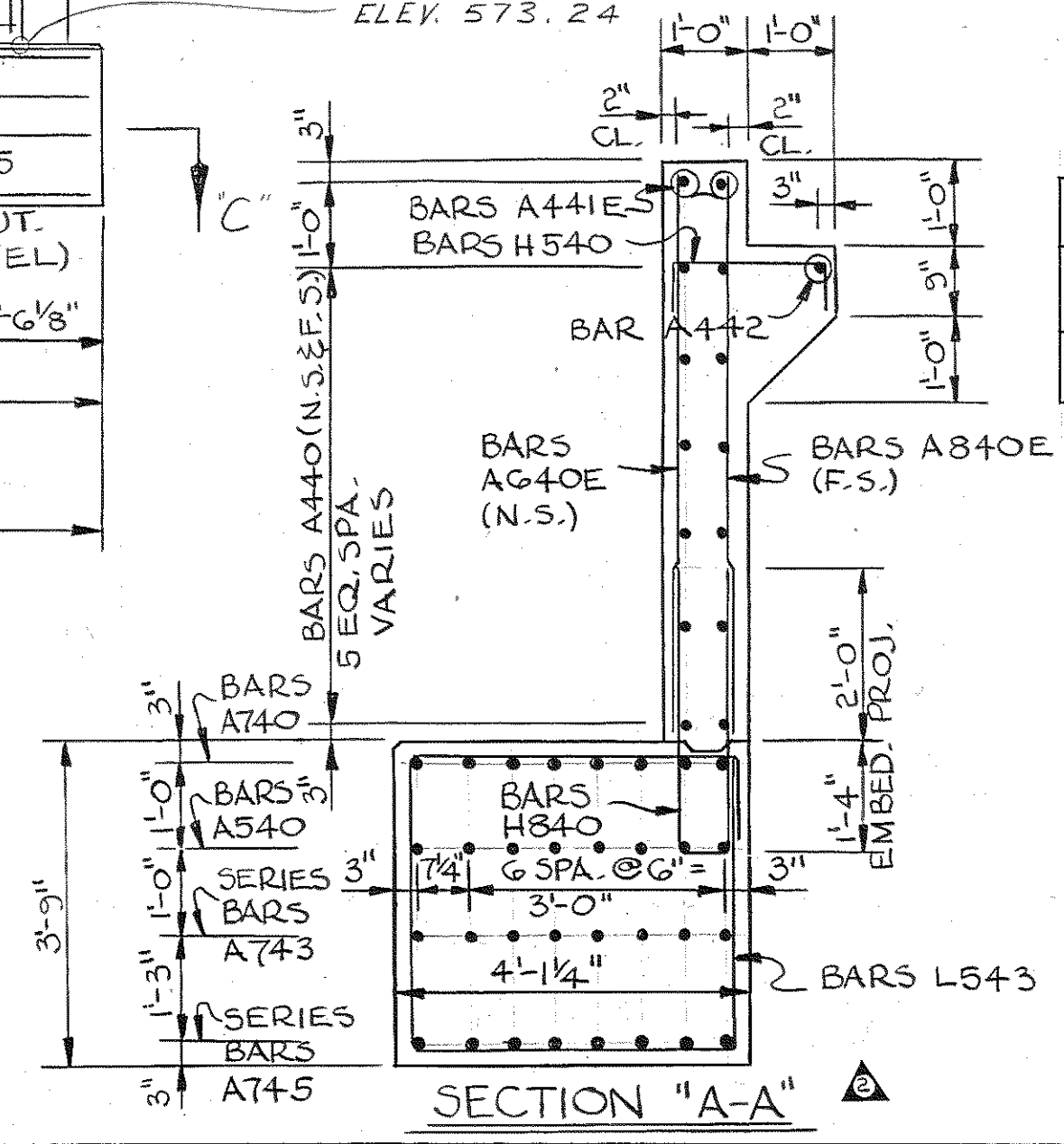
NOTE: EPOXY BOND LAMINATED PAD TO RISER BLOCK



SECTION "F-F"



ELEVATION (LOOKING BACK ON SURVEY)



SECTION "A-A"

ESTIMATED QUANTITIES		
EPOXY COATED REINFORCING STEEL LBS.	CLASS "A" CONCRETE (C.Y.)	REINFORCING STEEL LBS.
1498	59.8	7871

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 1
 RICHARDSON - MARLBOROUGH
 AVENUE OVER INTERSTATE 440
 STATION 183 + 10.15
 DAVIDSON COUNTY

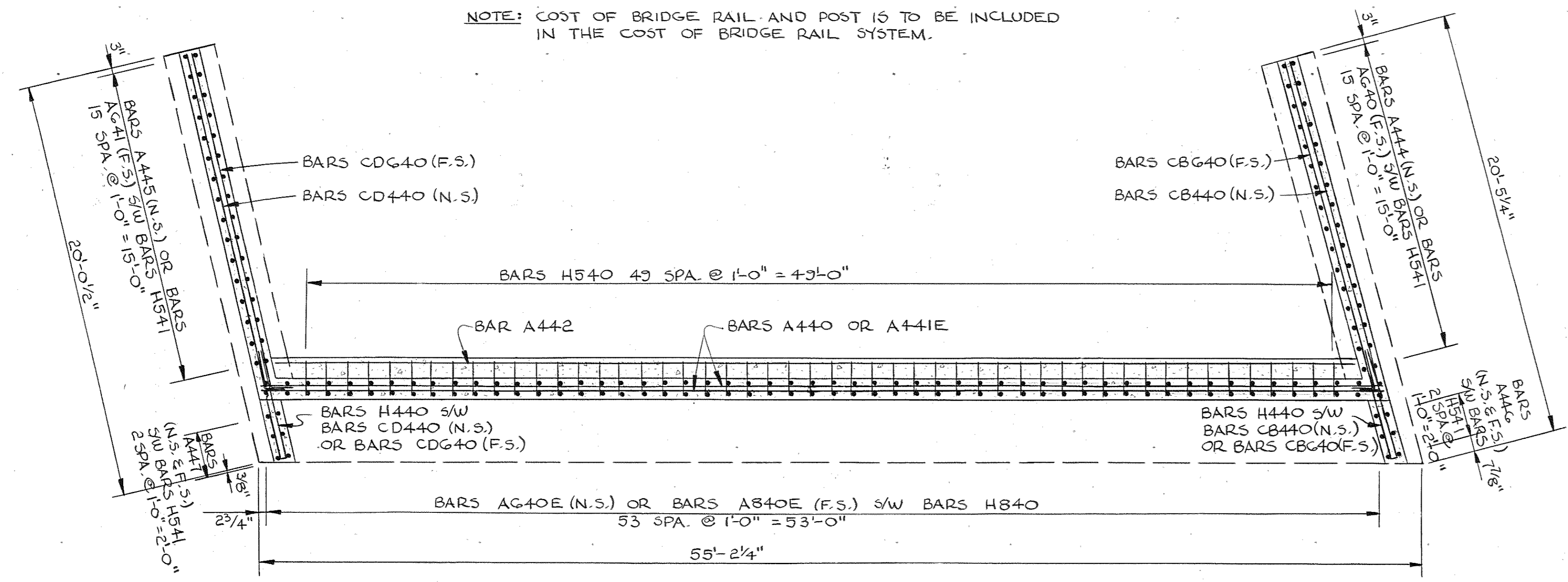
1983
 CORRECT *William L. Sewell*
 ENGINEER OF STRUCTURES
 APPROVED *Lewis Beers*
 DIRECTOR OF HIGHWAYS

DESIGNED BY C. DIETERS DATE 11-'82
 DRAWN BY T. LEWIS DATE 12-'82
 SUPERVISED BY J. FIELDS DATE 12-'82
 CHECKED BY C. DIETERS DATE 1-'83

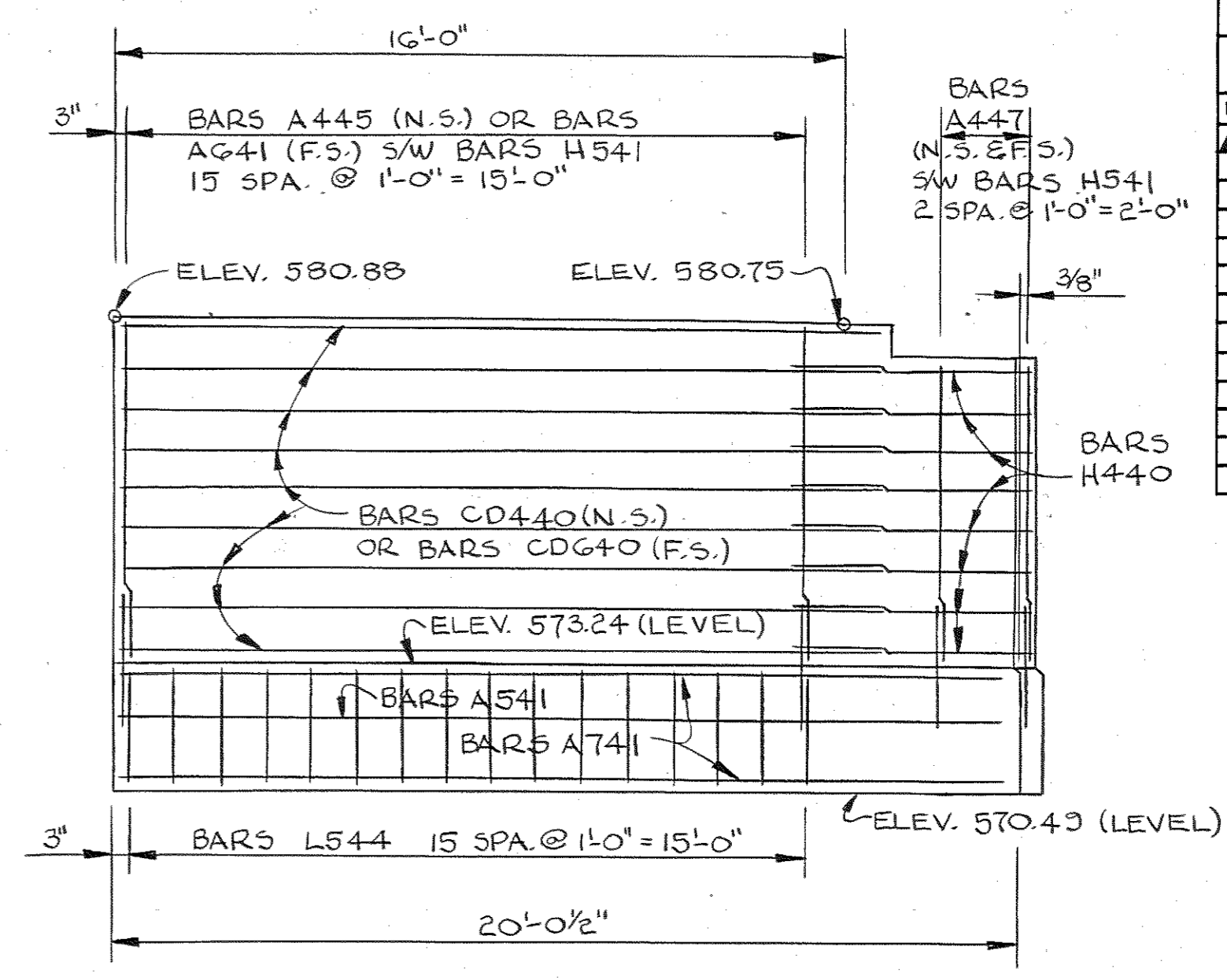
PROJECT NO.	YEAR	SHEET NO.
I-440(53)206	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	1-24-85	CMD	ADDED THIS SHEET IN PLACE OF EXISTING SHEET

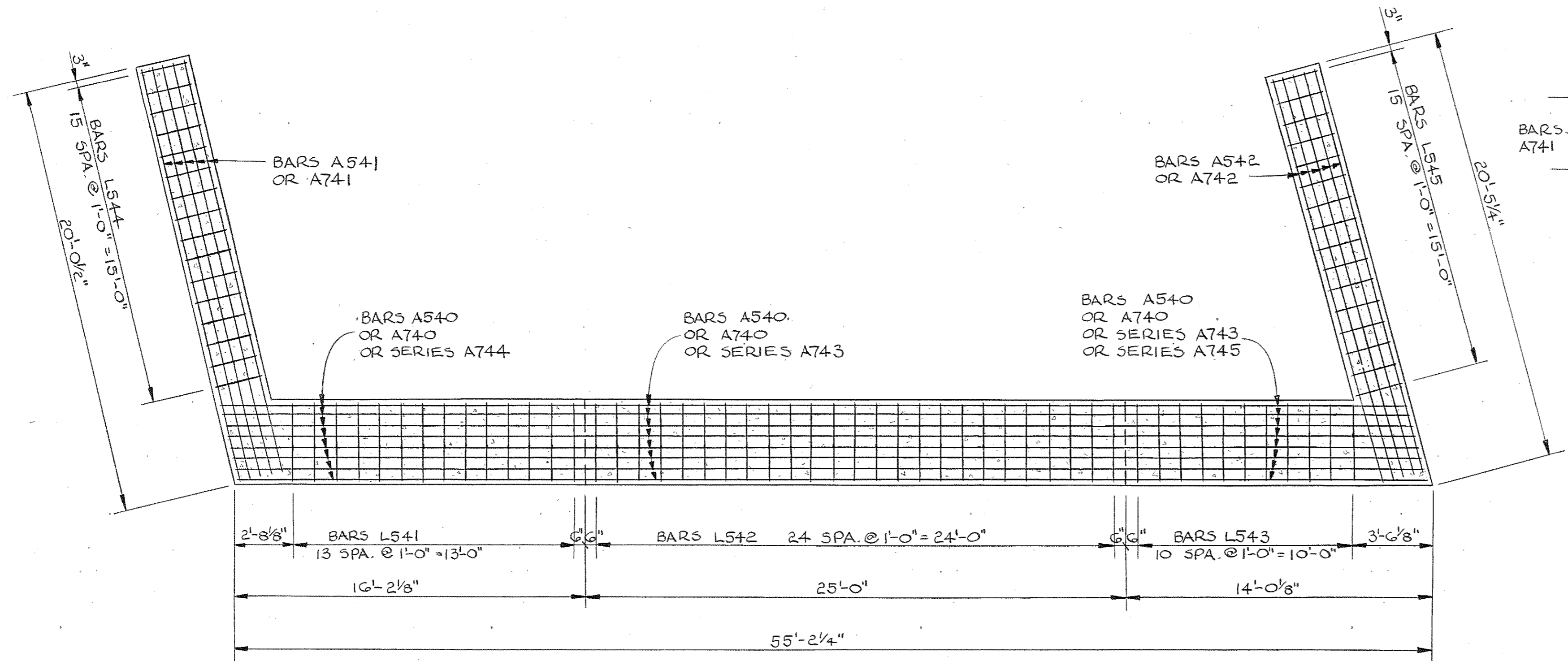
NOTE: WINGWALLS TO CONFORM WITH EDGE OF SIDEWALK.
 NOTE: TOP OF APRON WALL TO CONFORM TO BOTTOM OF ROADWAY SLAB.
 NOTE: RISER BLOCKS TO BE POURED MONOLITHICALLY WITH ABUTMENT BEAM.
 NOTE: COST OF BRIDGE RAIL AND POST IS TO BE INCLUDED IN THE COST OF BRIDGE RAIL SYSTEM.



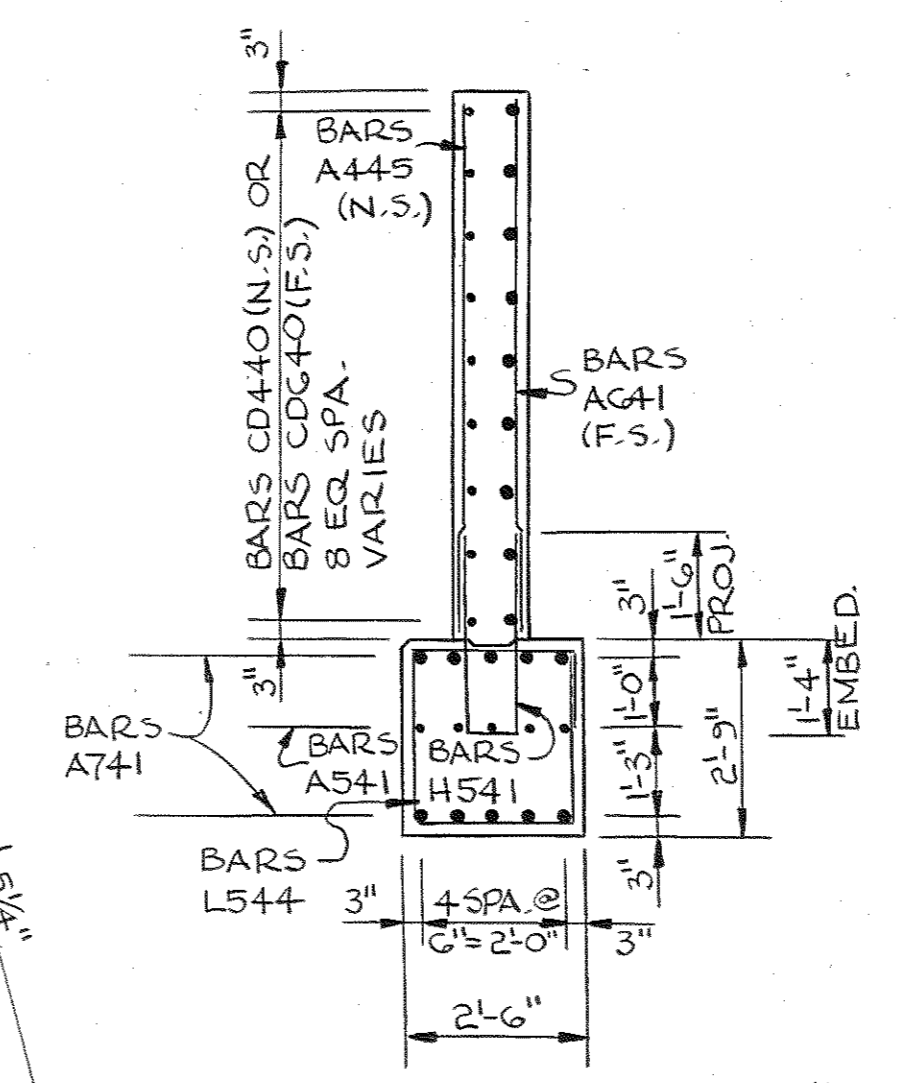
SECTION "B-B"



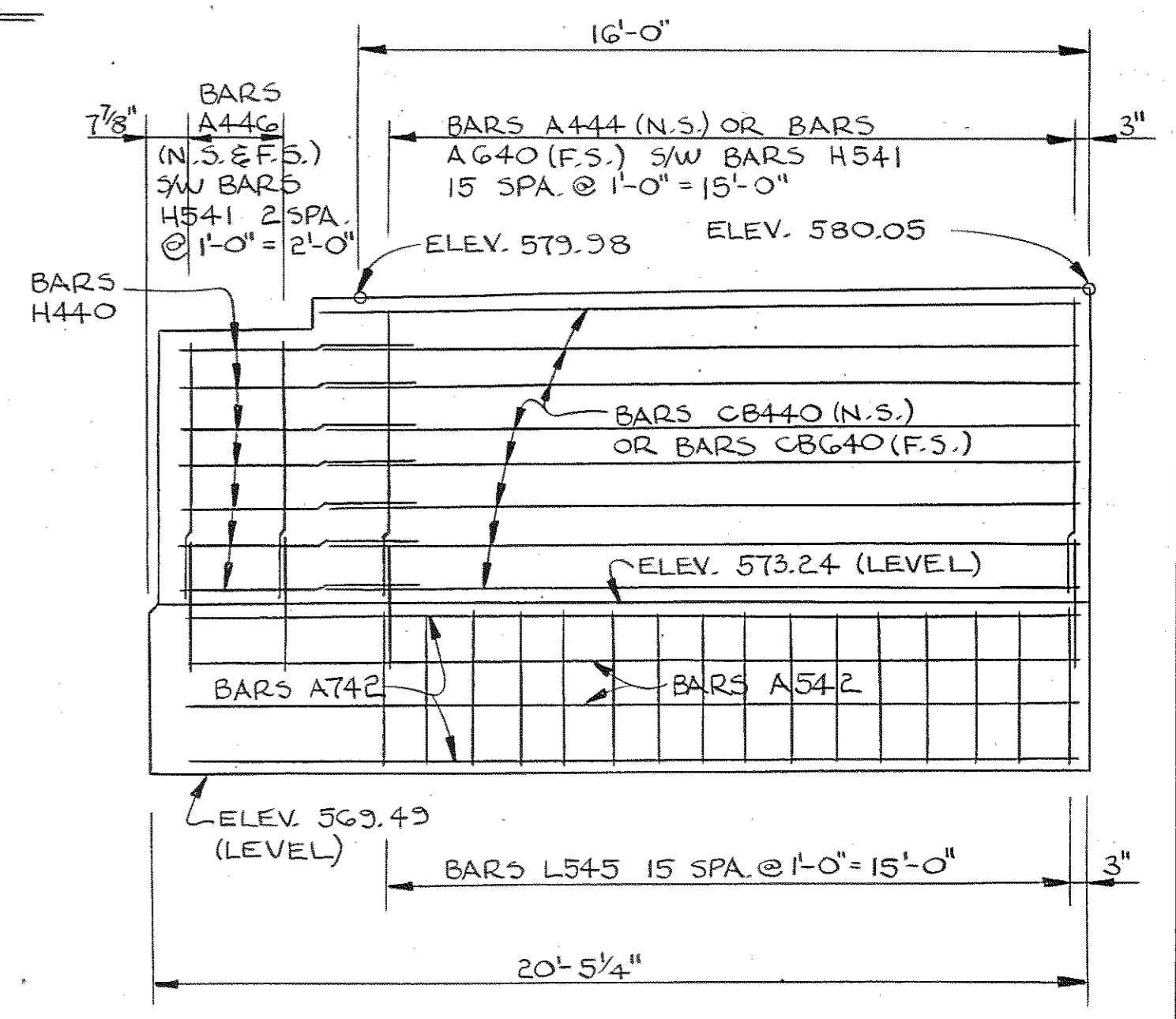
ELEVATION "D-D"



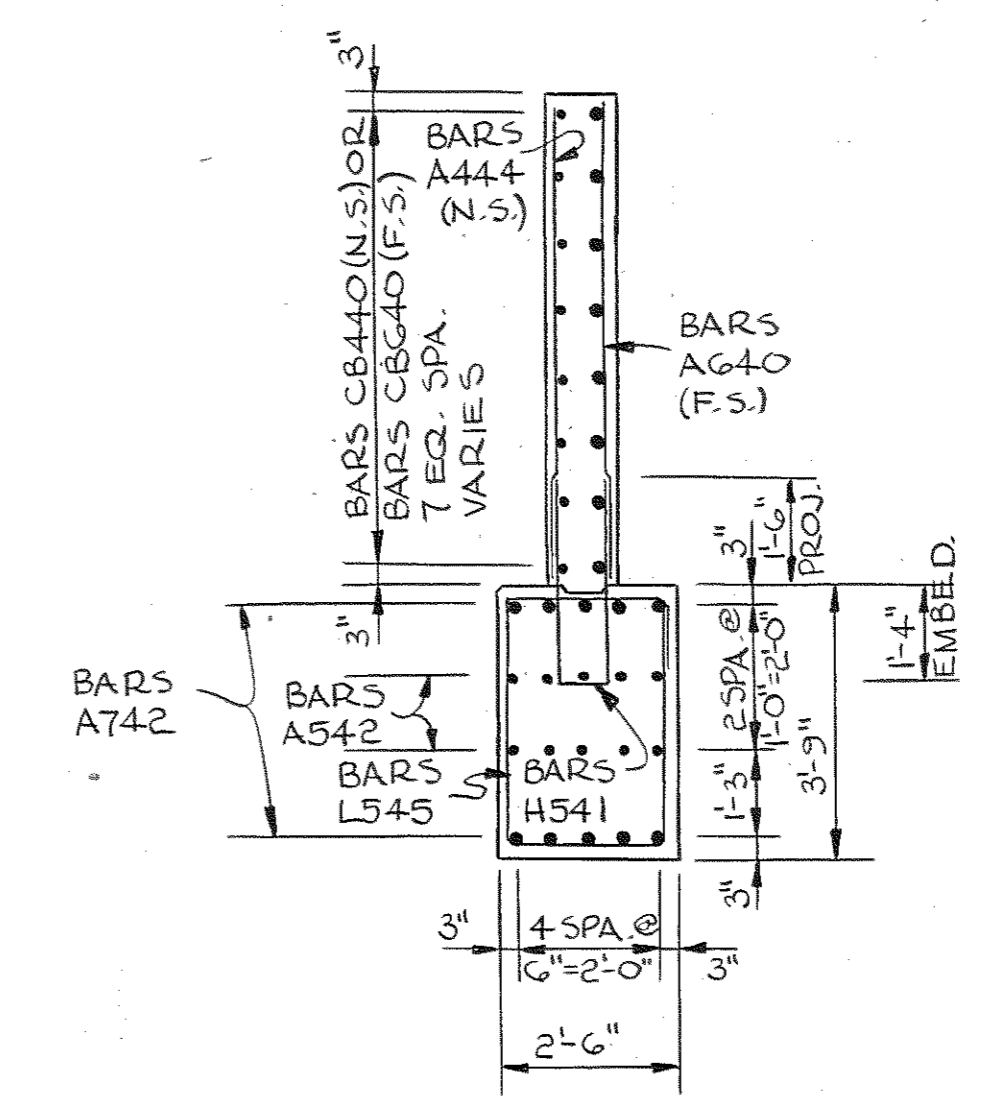
SECTION "C-C"



SECTION "G-G"



ELEVATION "E-E"



SECTION "H-H"

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS

ABUTMENT NO. 1 DETAILS
 RICHARDSON-MARLBOROUGH
 AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983

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

DESIGNED BY C. DIETERS DATE 1-85
 DRAWN BY C. DIETERS DATE 1-85
 SUPERVISED BY J. PRINCE DATE 1-85
 CHECKED BY C. DIETERS DATE 1-85

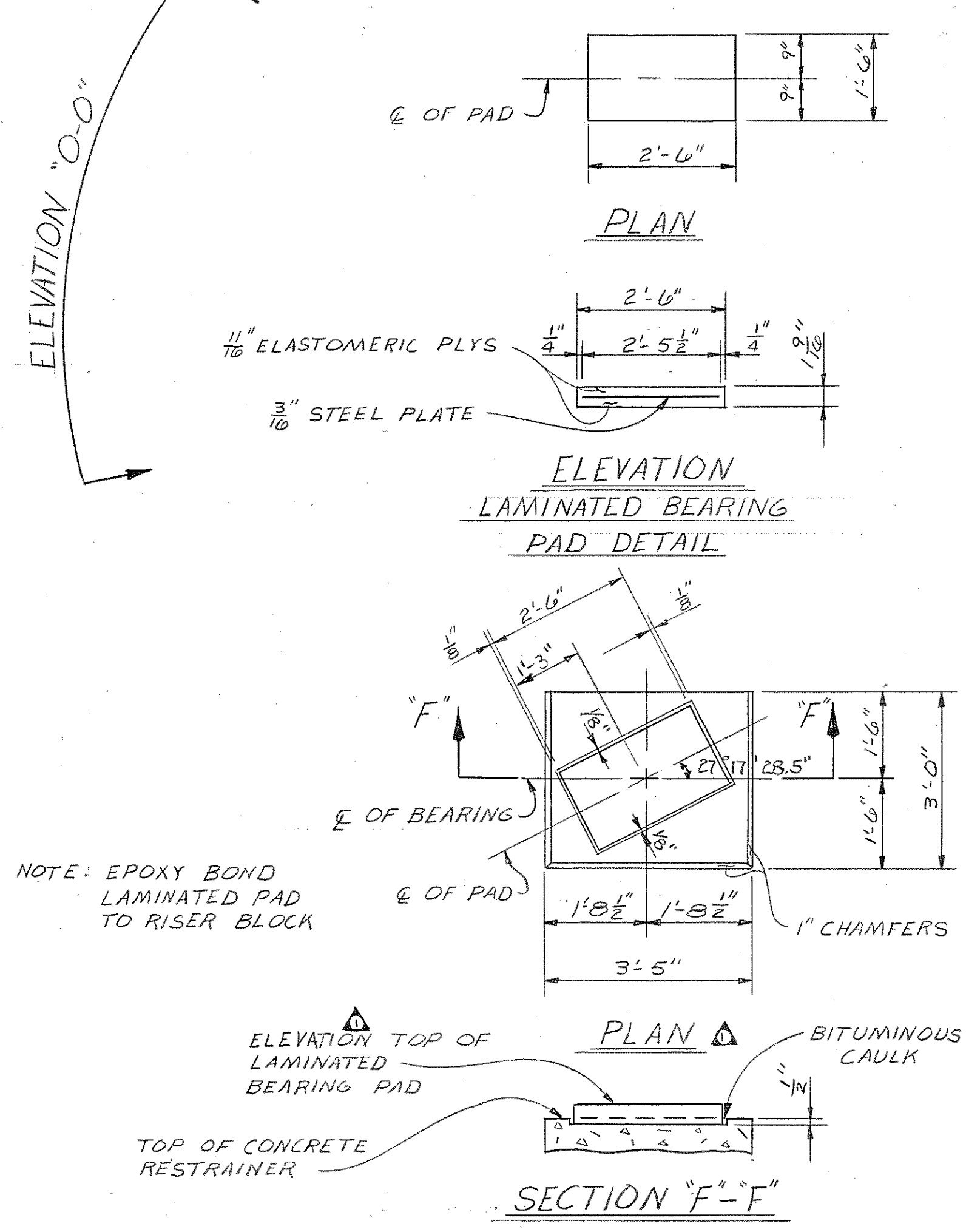
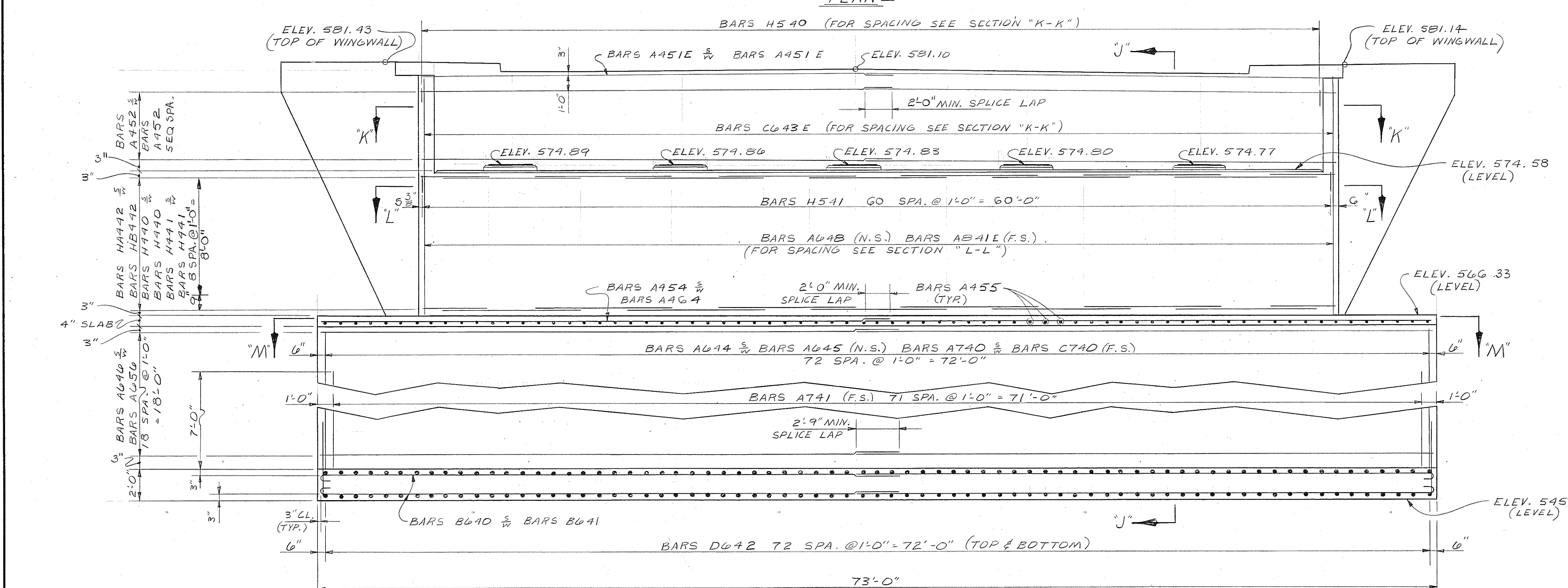
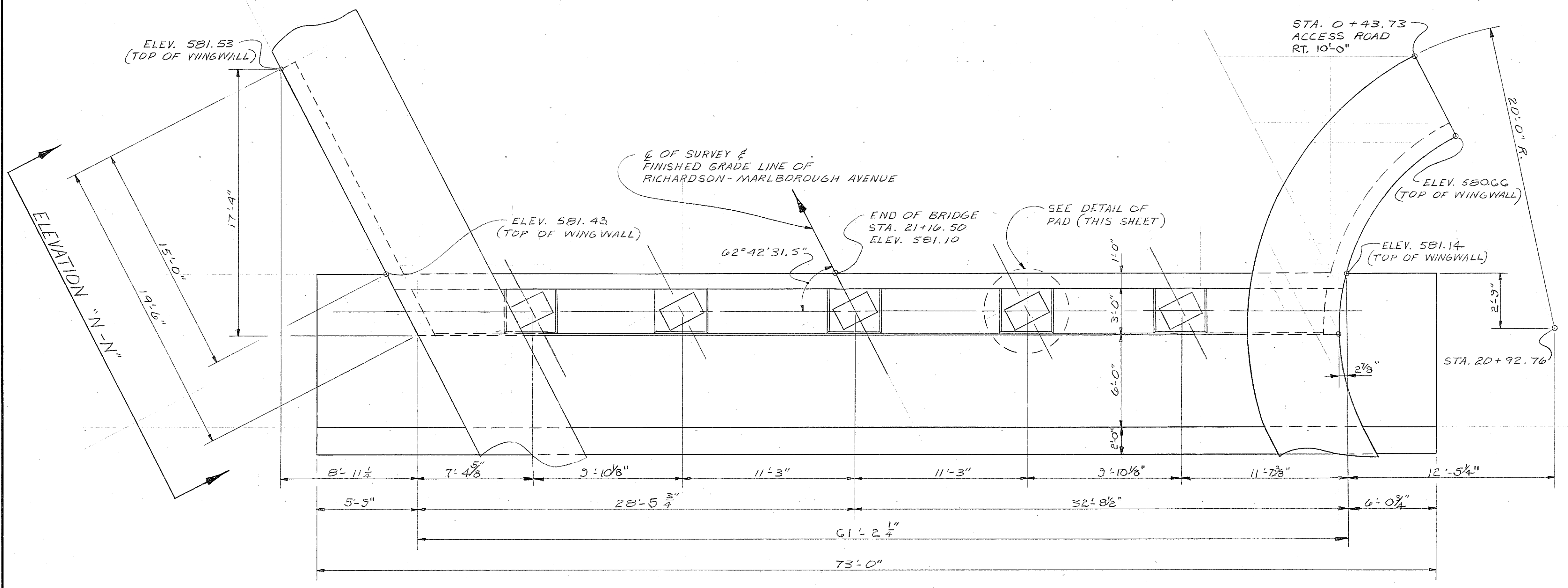
BRUNING 44-141 61318

**NOT HERE
AT THE
OF SCAM**

**NOT HERE
AT THIS
OF SCAN**

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.	
I-440(53)206	1983		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-7-83	CMD	GENERAL REVISIONS



NOTE: EPOXY BOND LAMINATED PAD TO RISER BLOCK

ESTIMATED QUANTITIES		
EPOXY COATED REINFORCING STEEL LBS.	CLASS "A" CONCRETE (C.Y.)	REINFORCING STEEL LBS.
3,233	329.0	47,929

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 2
 RICHARDSON - MARLBOROUGH AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY

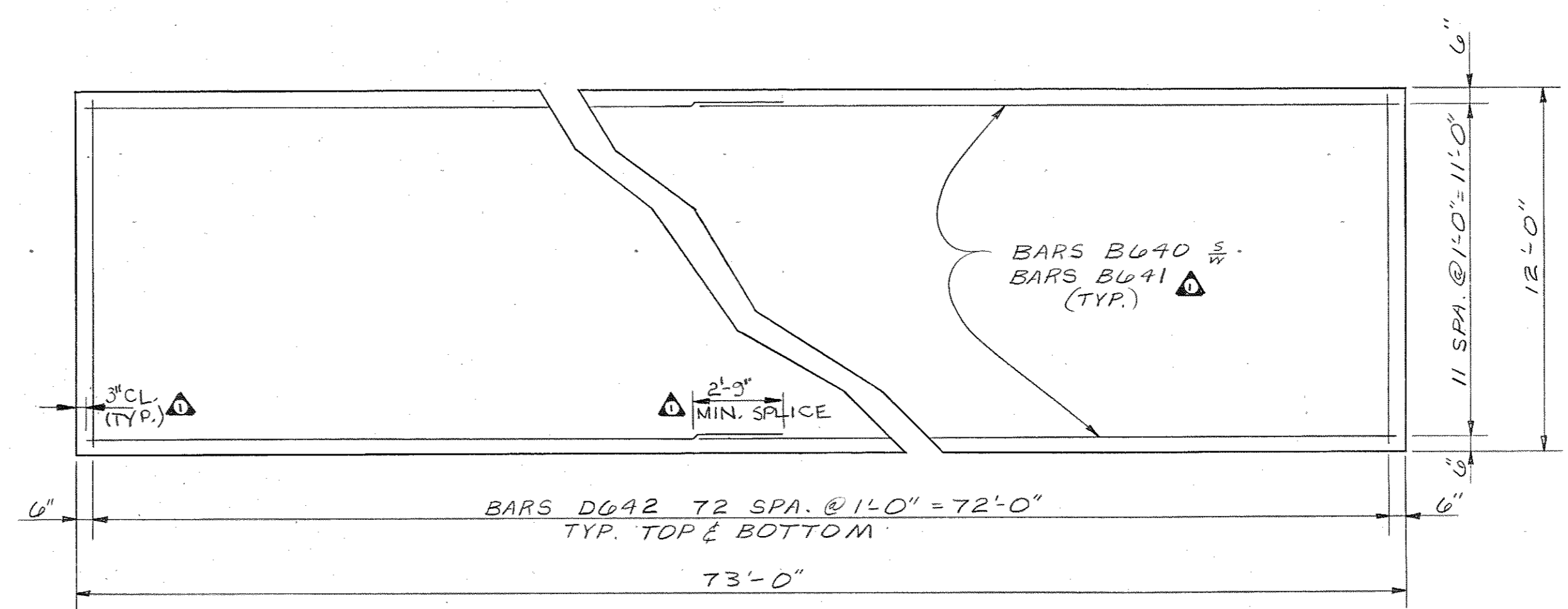
1983
 CORRECT *Colleen L. Forevall*
 ENGINEER OF STRUCTURES
 APPROVED *Lewis Evans*
 DIRECTOR OF HIGHWAYS

DESIGNED BY C. DIETERS DATE 12-'82
 DRAWN BY T. LEWIS DATE 12-'82
 SUPERVISED BY J. FIELDS DATE 12-'82
 CHECKED BY C. DIETERS DATE 1-'83

ELEVATION (LOOKING FORWARD ON SURVEY)

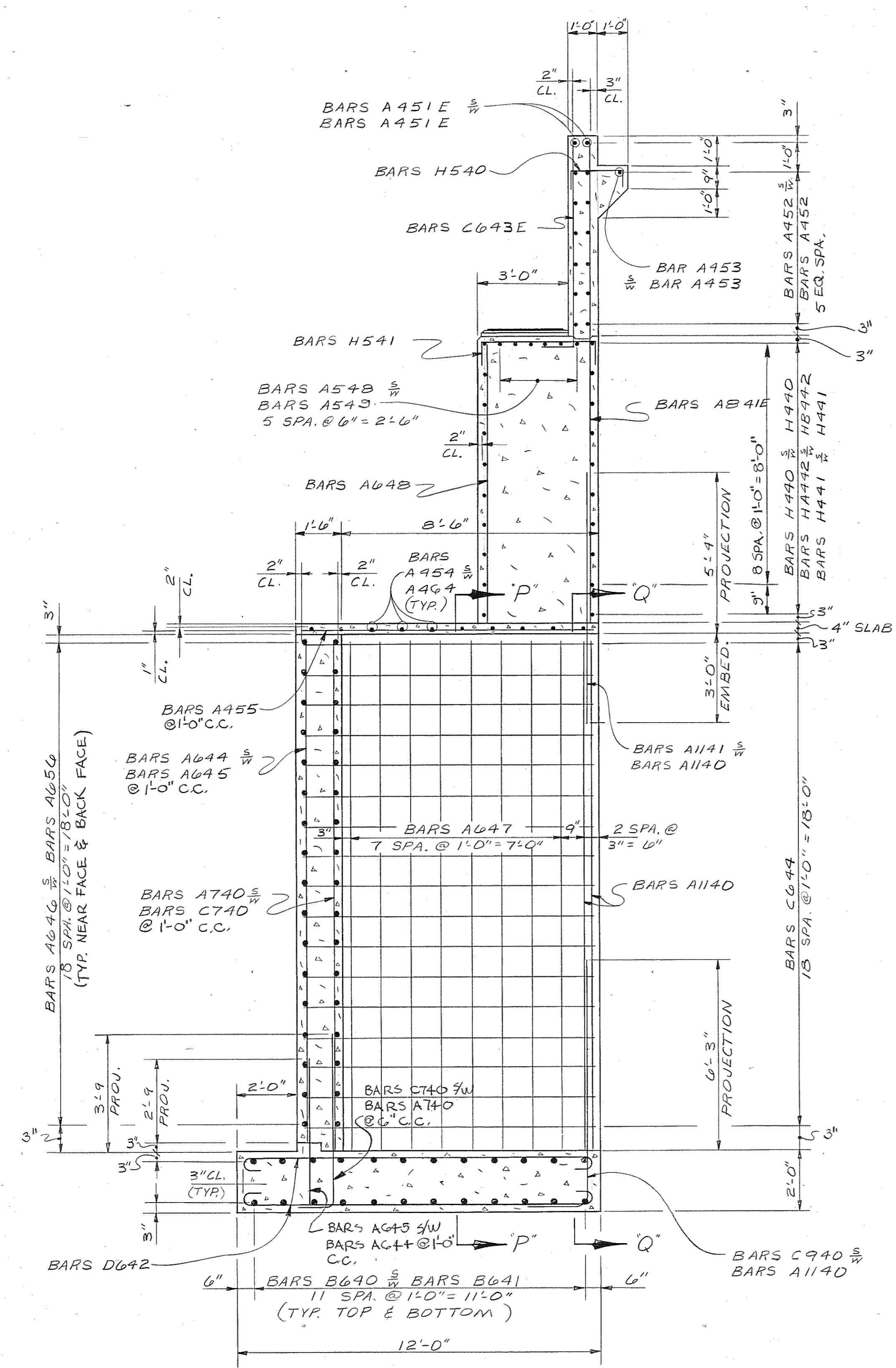
PROJECT NO.	YEAR	SHEET NO.
I-440(53)200	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
Δ	2-7-83	CMD	GENERAL REVISIONS

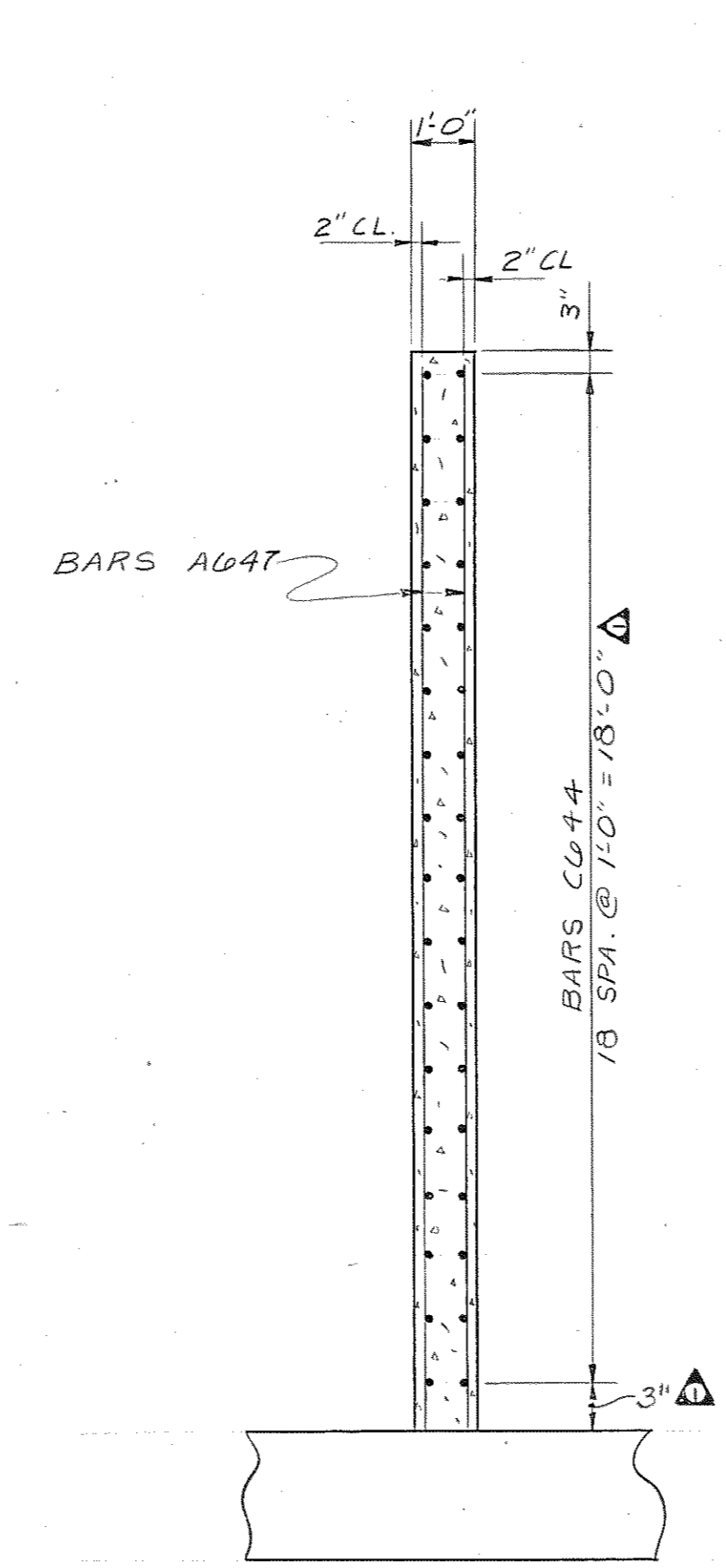


PLAN OF FOOTING

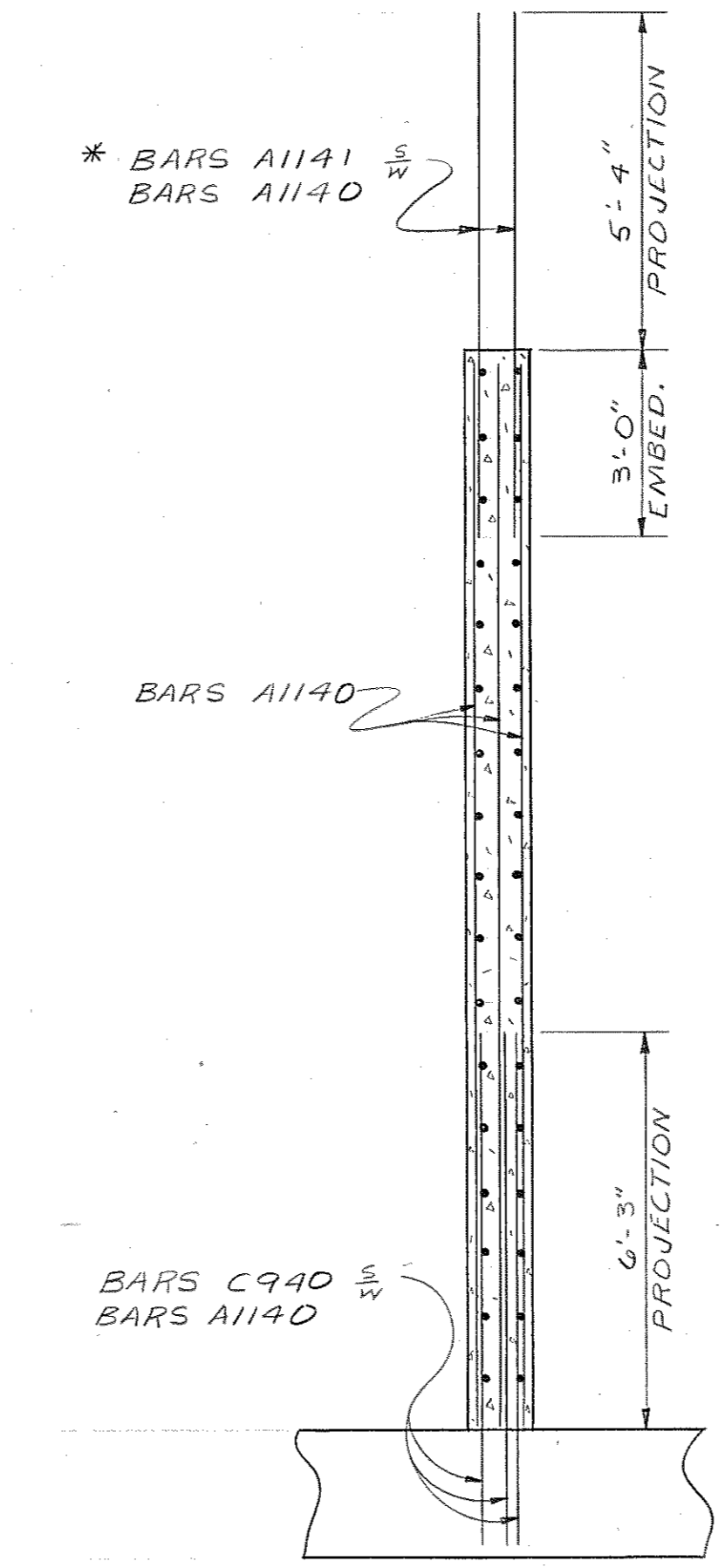
NOTE: RISER BLOCKS TO BE POURED MONOLITHICALLY WITH ABUTMENT BEAM.
 NOTE: COST OF BRIDGE RAIL AND POST IS TO BE INCLUDED IN THE COST OF BRIDGE RAIL SYSTEM.
 NOTE: THE CONTRACTOR SHALL SUPPORT THE ABUTMENTS UNTIL THE SUPERSTRUCTURE IS IN PLACE, FALSEWORK HAS BEEN REMOVED AND BACKFILLING HAS BEEN COMPLETED



SECTION "J-J"



SECTION "P-P" (TYP. FOR EACH WEB)



SECTION "Q-Q" (TYP. FOR EACH WEB)

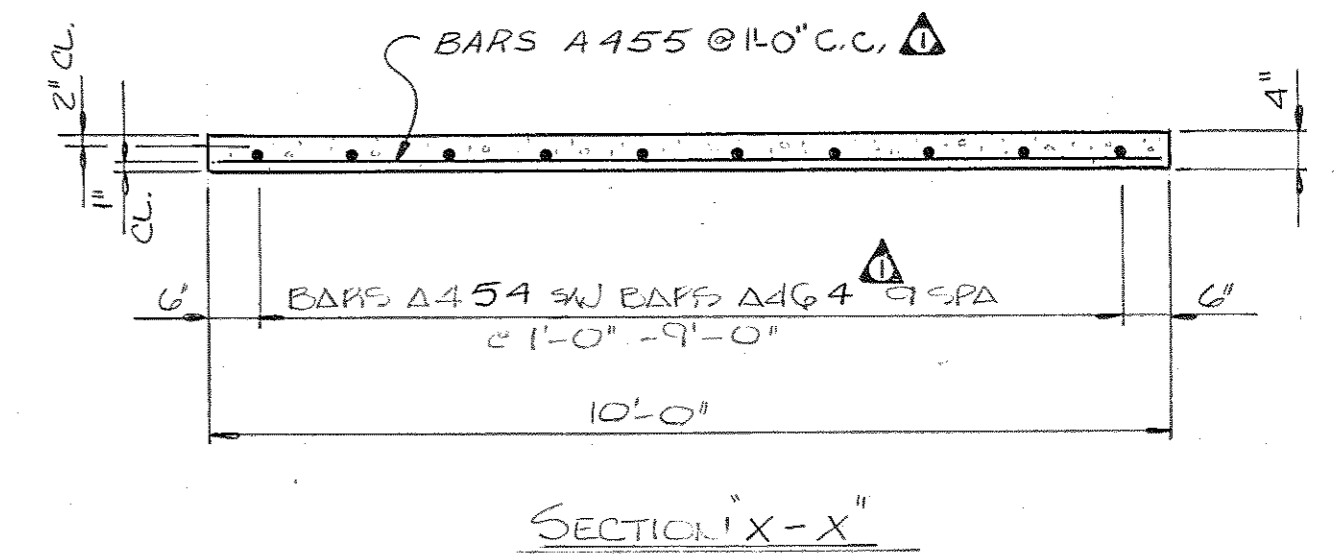
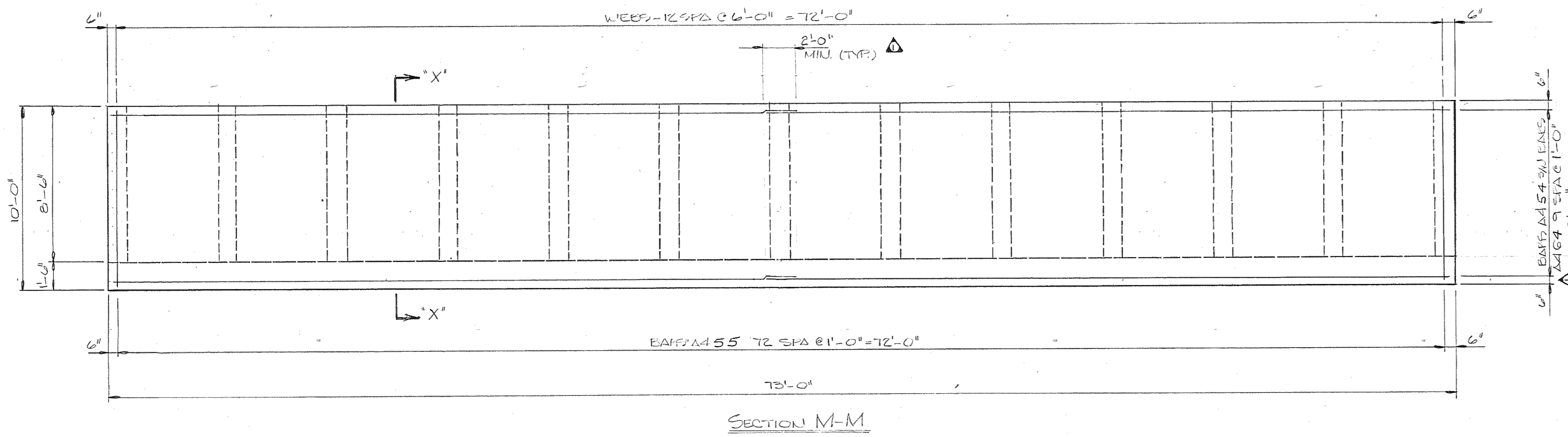
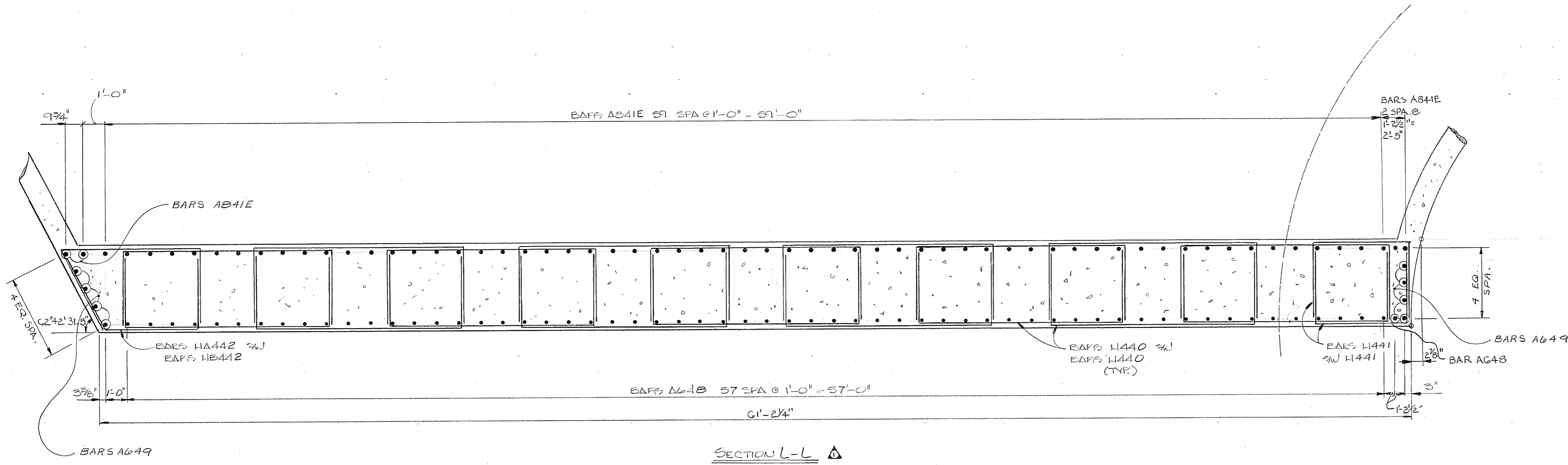
* OMIT BARS A1141 IN THE TWO EXTERIOR WEBS ON EACH END

DESIGNED BY C. DIETERS DATE 12-'82
 DRAWN BY T. LEWIS DATE 1-'83
 SUPERVISED BY J. FIELDS DATE 1-'83
 CHECKED BY C. DIETERS DATE 1-'83

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 2 DETAILS
 RICHARDSON - MARLBOROUGH
 AVENUE OVER INTERSTATE 440
 STATION 183 + 10.15
 DAVIDSON COUNTY
 1983
 CORRECT *Colleen L. Sewell*
 ENGINEER OF STRUCTURES
 APPROVED *Amis Evans*
 DIRECTOR OF HIGHWAYS

PROJECT NO.	YEAR	SHEET NO.
E-440(53)206	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-7-83	CMD	GENERAL REVISIONS



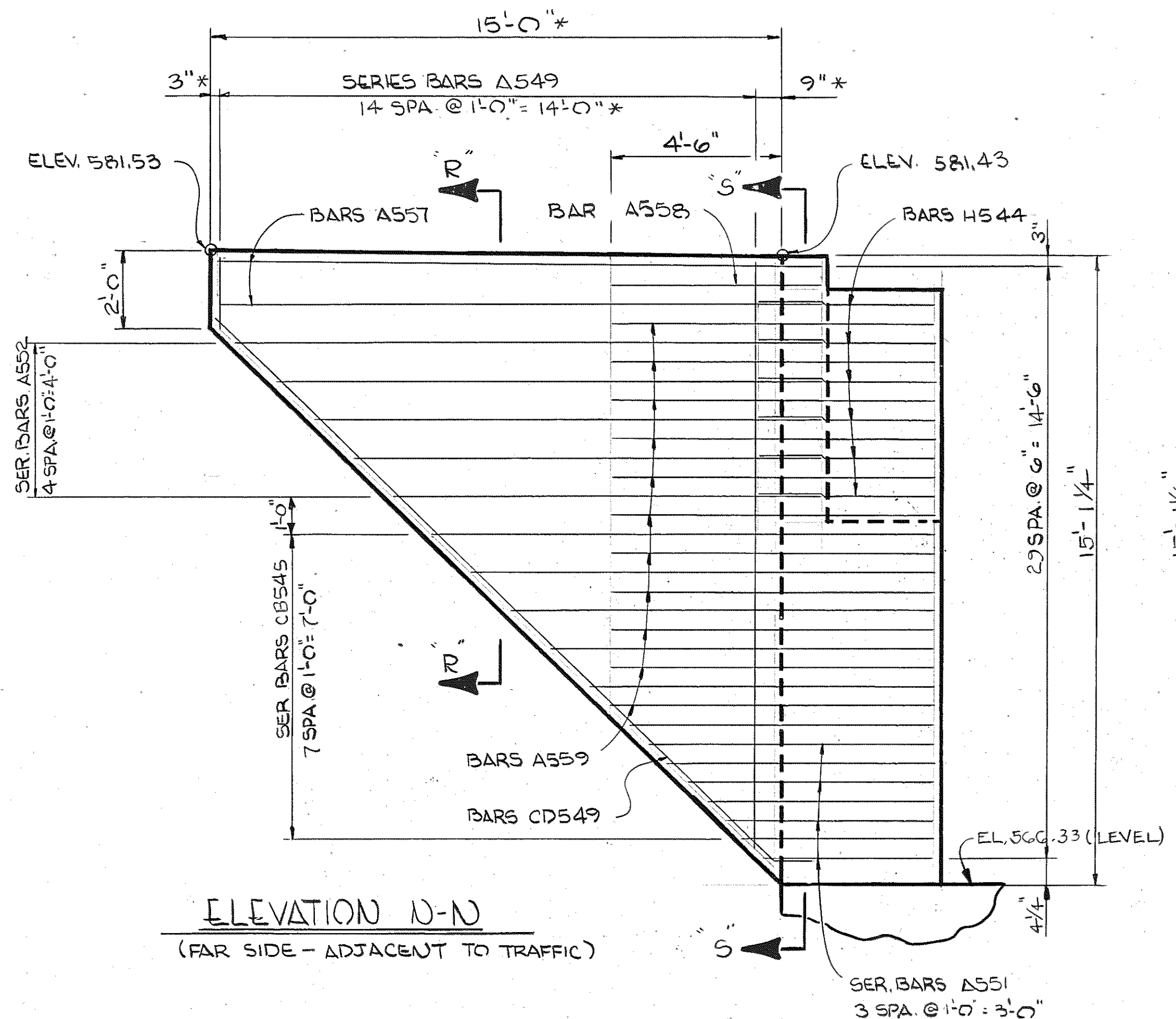
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 DETAIL NO. 2
 RICHARDSON - MAPLEBOROUGH
 AVENUE OVER INTERSTATE - 440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983

DESIGNED BY C. DIETERS DATE 12-82
 DRAWN BY J. MCCOY DATE 1-83
 SUPERVISED BY A. SMITH & S. BELLS DATE 1-83
 CHECKED BY C. DIETERS DATE 1-83

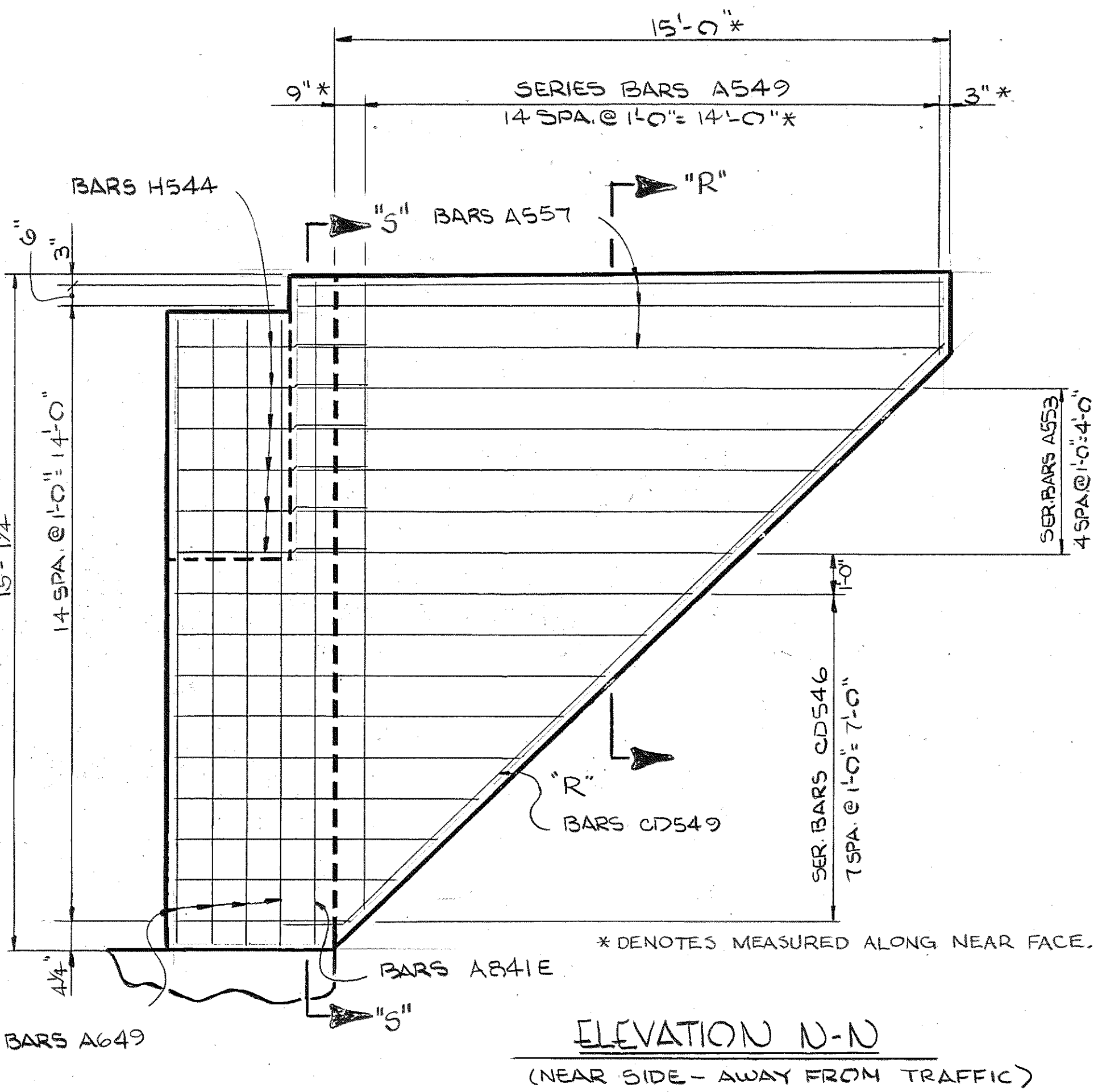
CORRECT *Calvin L. Fournell*
 ENGINEER OF STRUCTURES
 APPROVED *Ronald Burns*
 DIRECTOR OF HIGHWAYS

CONST. NO. 19014-3111-44	PROJECT NO. I-440(53) 206	YEAR 1983	SHEET NO.
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REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

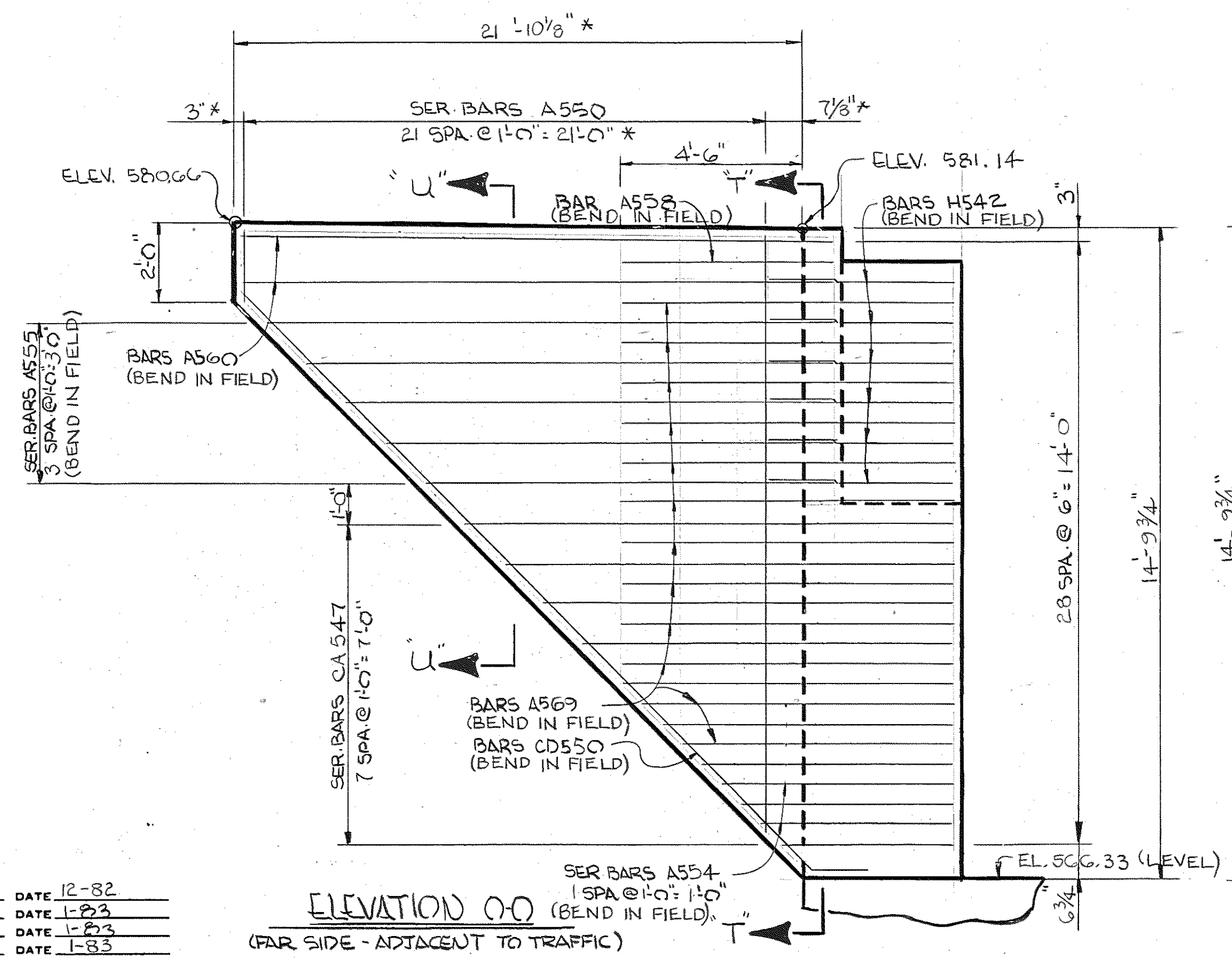


ELEVATION N-N
(FAR SIDE - ADJACENT TO TRAFFIC)

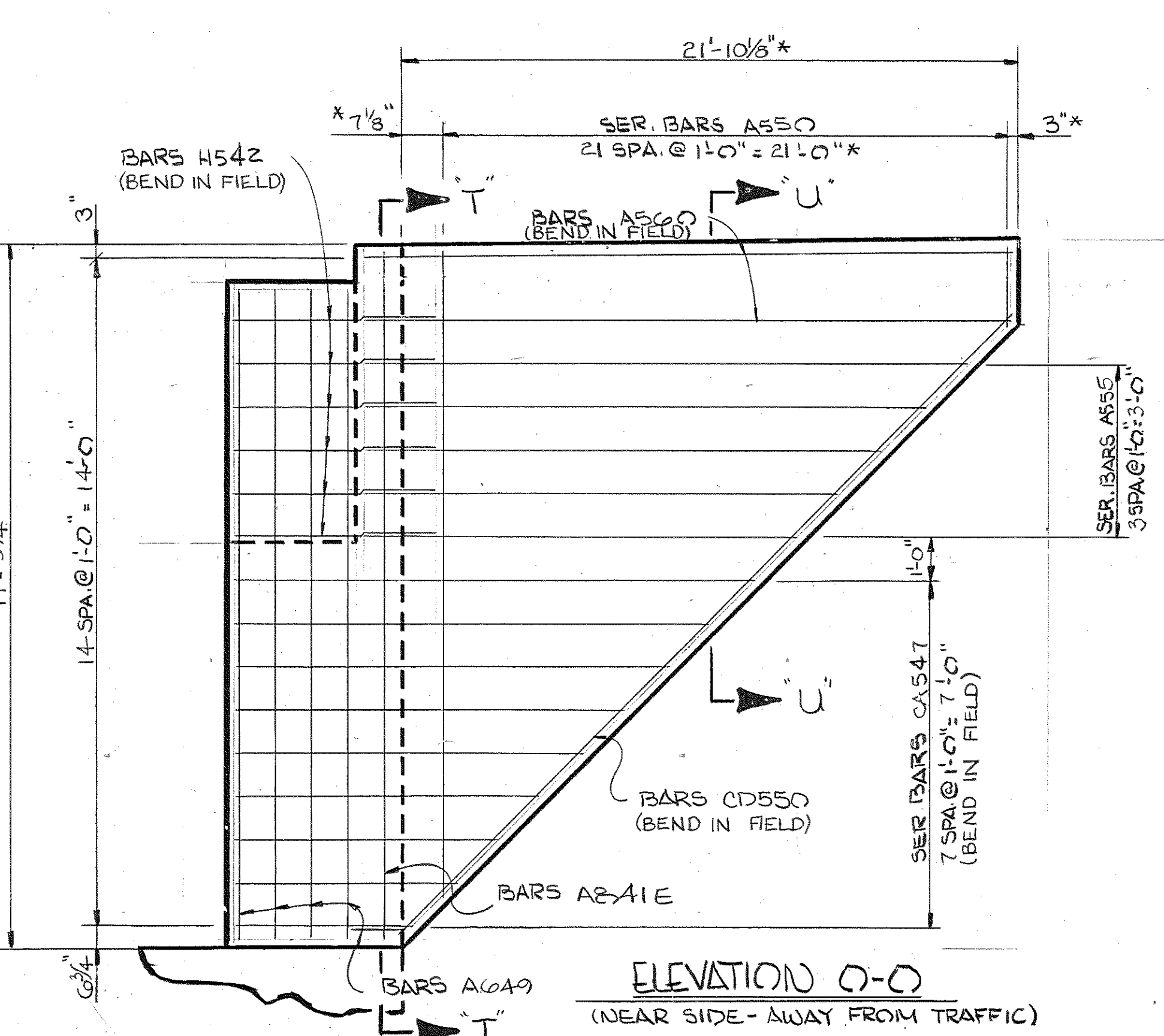


ELEVATION N-N
(NEAR SIDE - AWAY FROM TRAFFIC)

NOTE: WINGWALL TO CONFORM WITH EDGE OF SIDEWALK.
NOTE: TOP OF APRON WALL TO CONFORM TO BOTTOM OF ROADWAY SLAB.



ELEVATION O-O
(FAR SIDE - ADJACENT TO TRAFFIC)



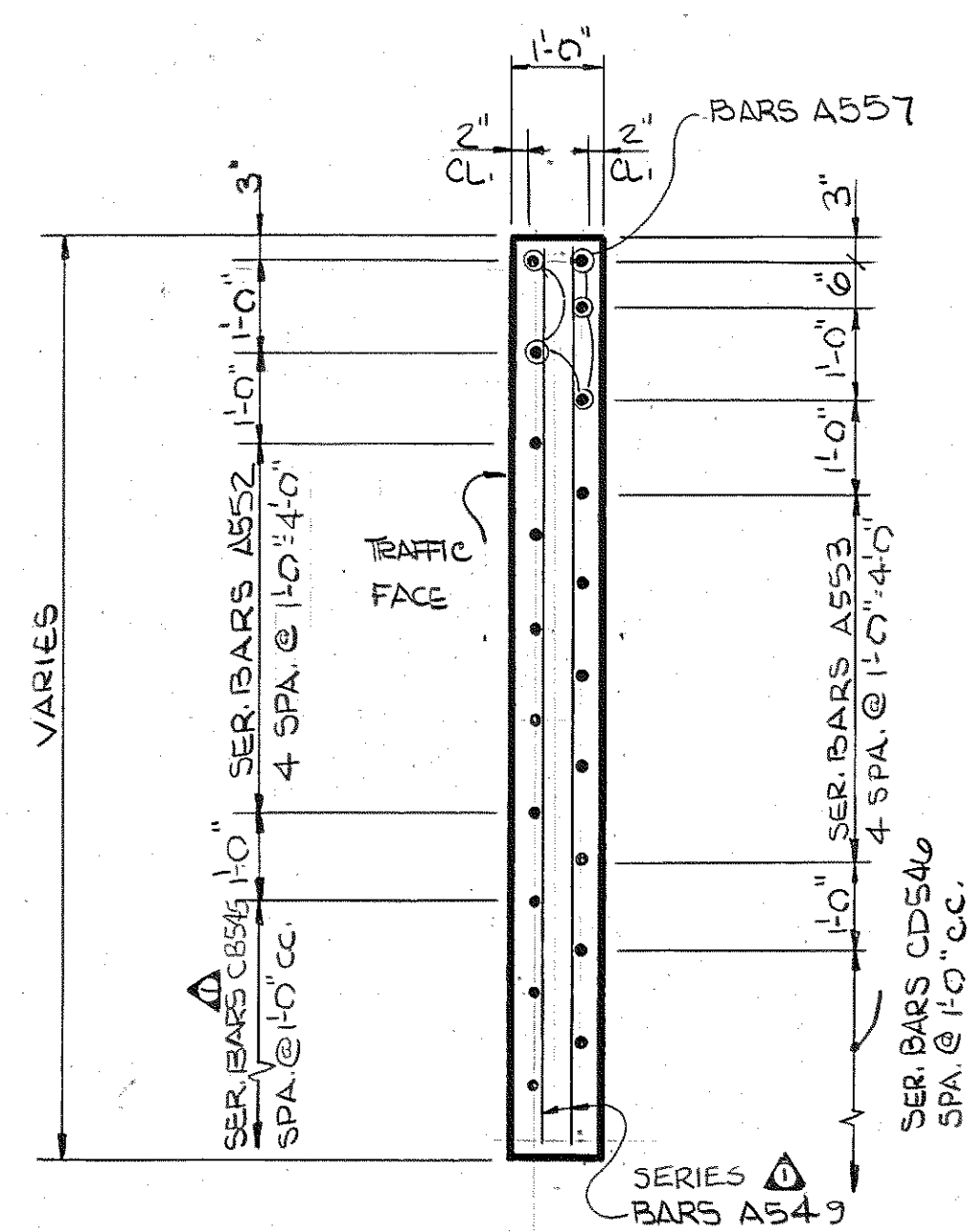
ELEVATION O-O
(NEAR SIDE - AWAY FROM TRAFFIC)

DESIGNED BY C. DIETERS DATE 12-82
DRAWN BY J. FIELDS DATE 1-83
SUPERVISED BY J. FIELDS & A. SMITH DATE 1-83
CHECKED BY C. DIETERS DATE 1-83

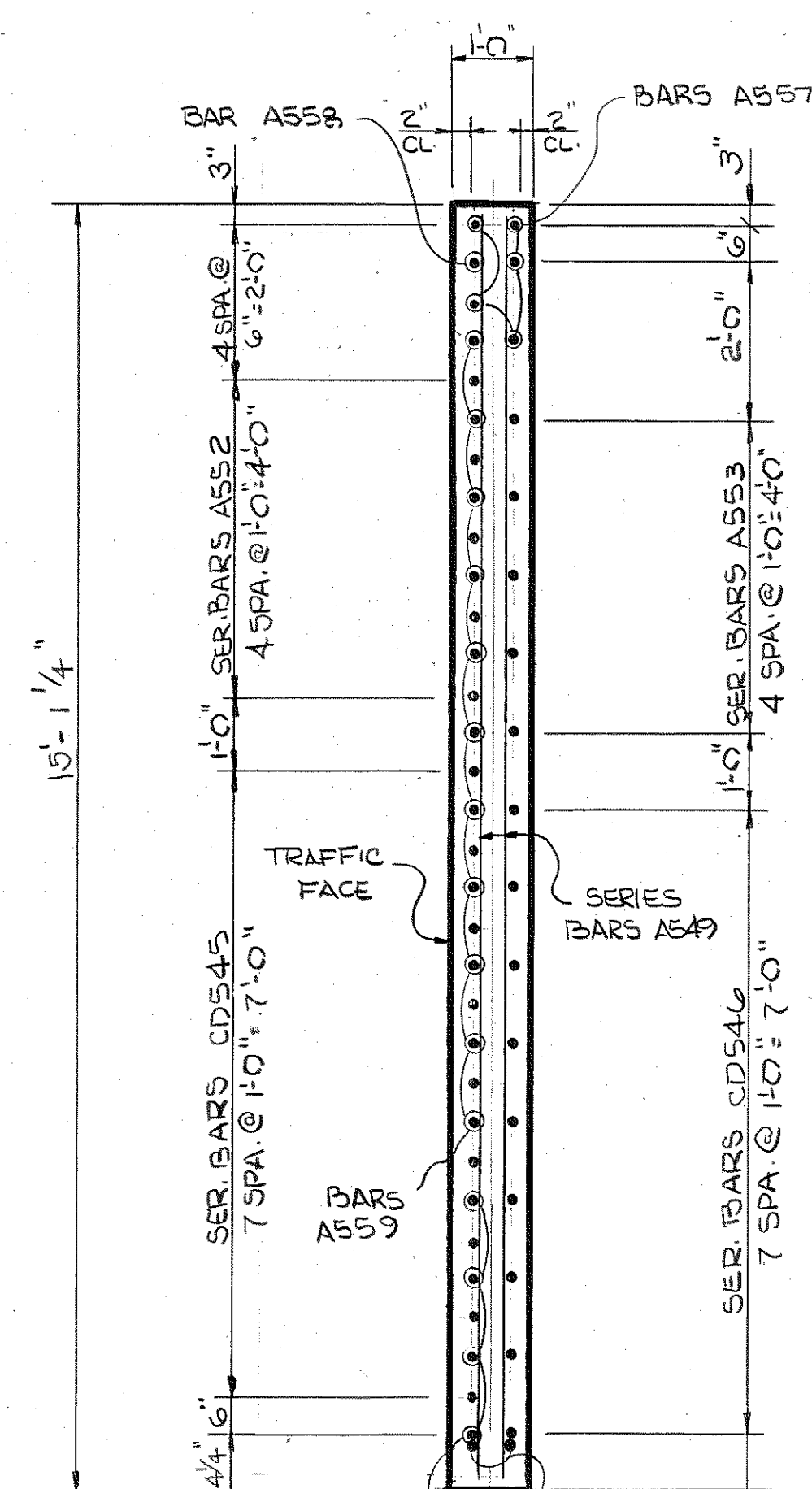
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
ABUTMENT NO 2 DETAILS
RICHARDSON-MARBOROUGH
AVENUE OVER INTERSTATE 440
STATION 183+10.15
DAVIDSON COUNTY
1983

CORRECT *Clifton L. Howell*
ENGINEER OF STRUCTURES
APPROVED *Levis Jones*
DIRECTOR OF HIGHWAYS

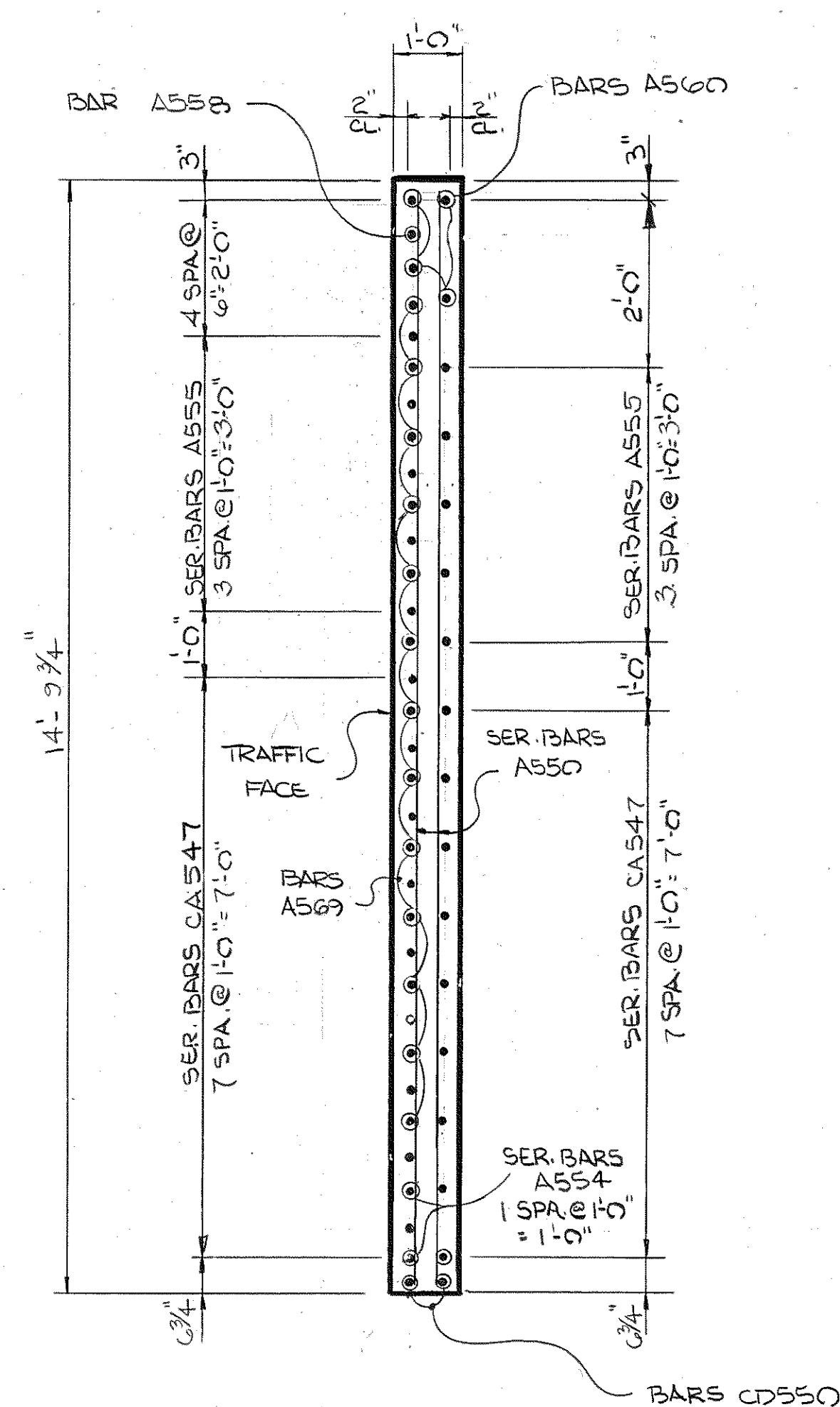
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
Δ	2-7-83	CMD	GENERAL REVISIONS



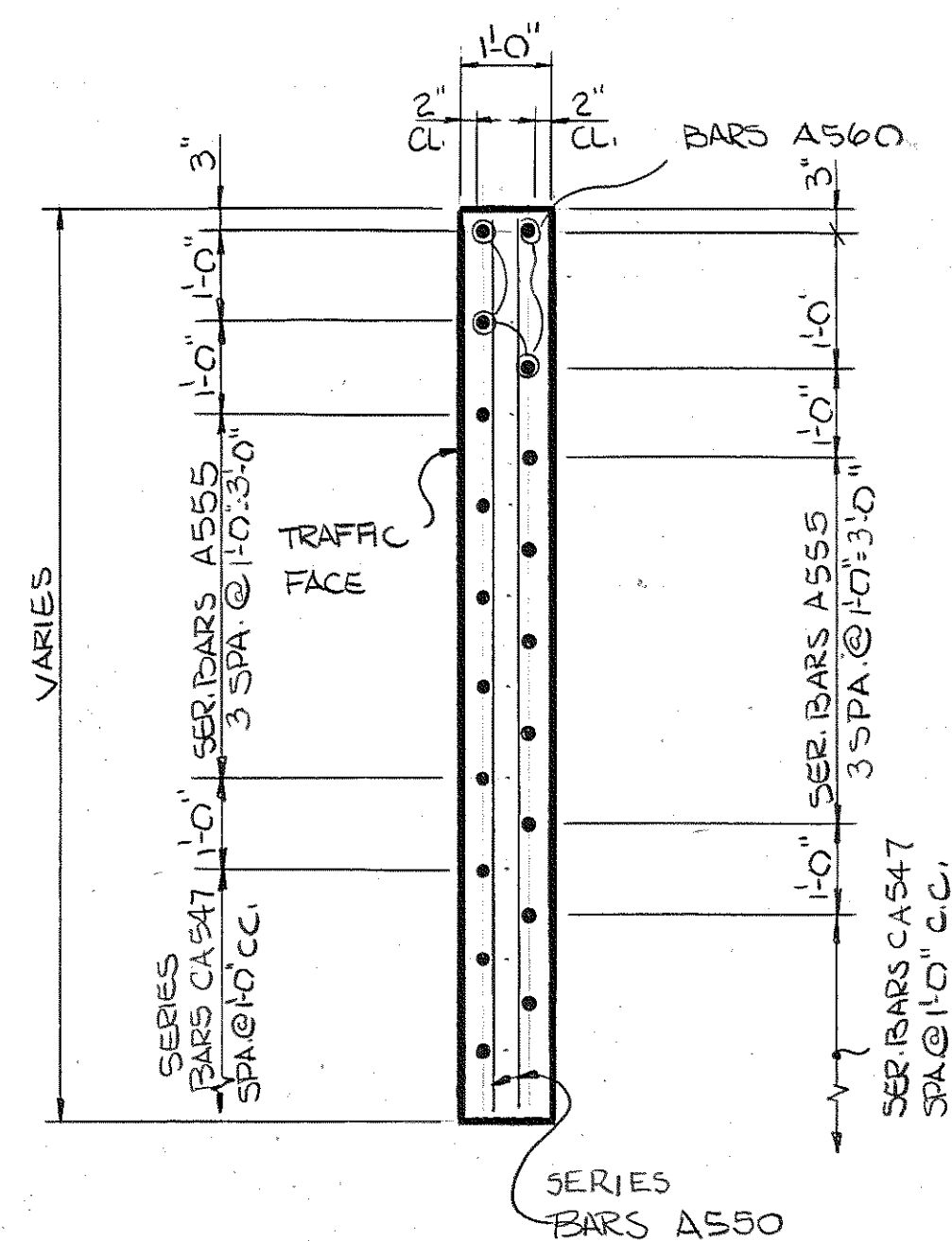
SECTION R-R



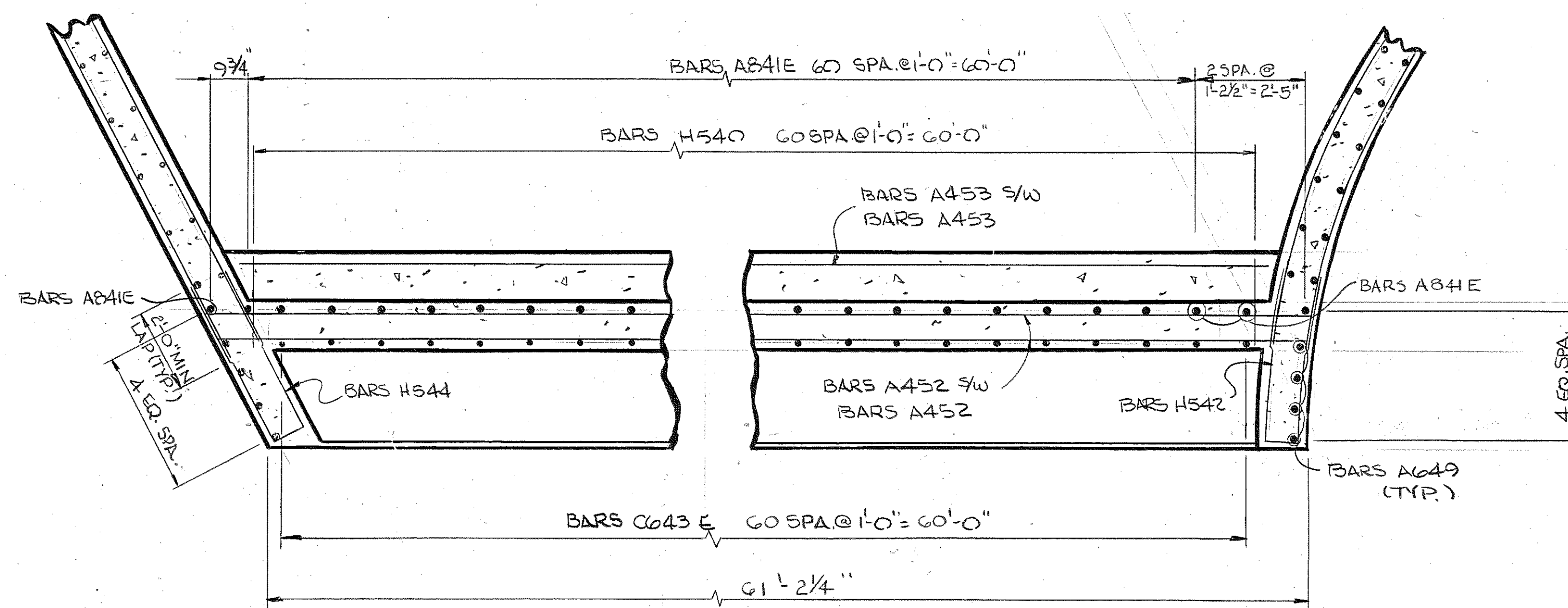
SECTION S-S Δ



SECTION T-T Δ



SECTION U-U Δ



SECTION K-K Δ

DESIGNED BY C. DIETERS DATE 12-82
 DRAWN BY J. FIELDS & A. SMITH DATE 1-83
 SUPERVISED BY J. FIELDS & A. SMITH DATE 1-83
 CHECKED BY C. DIETERS DATE 1-83 Δ

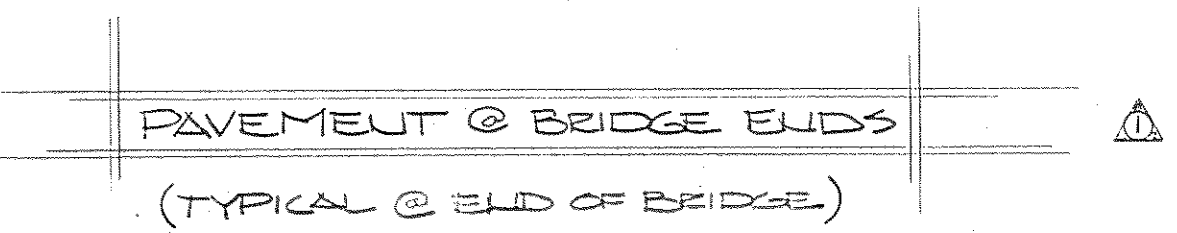
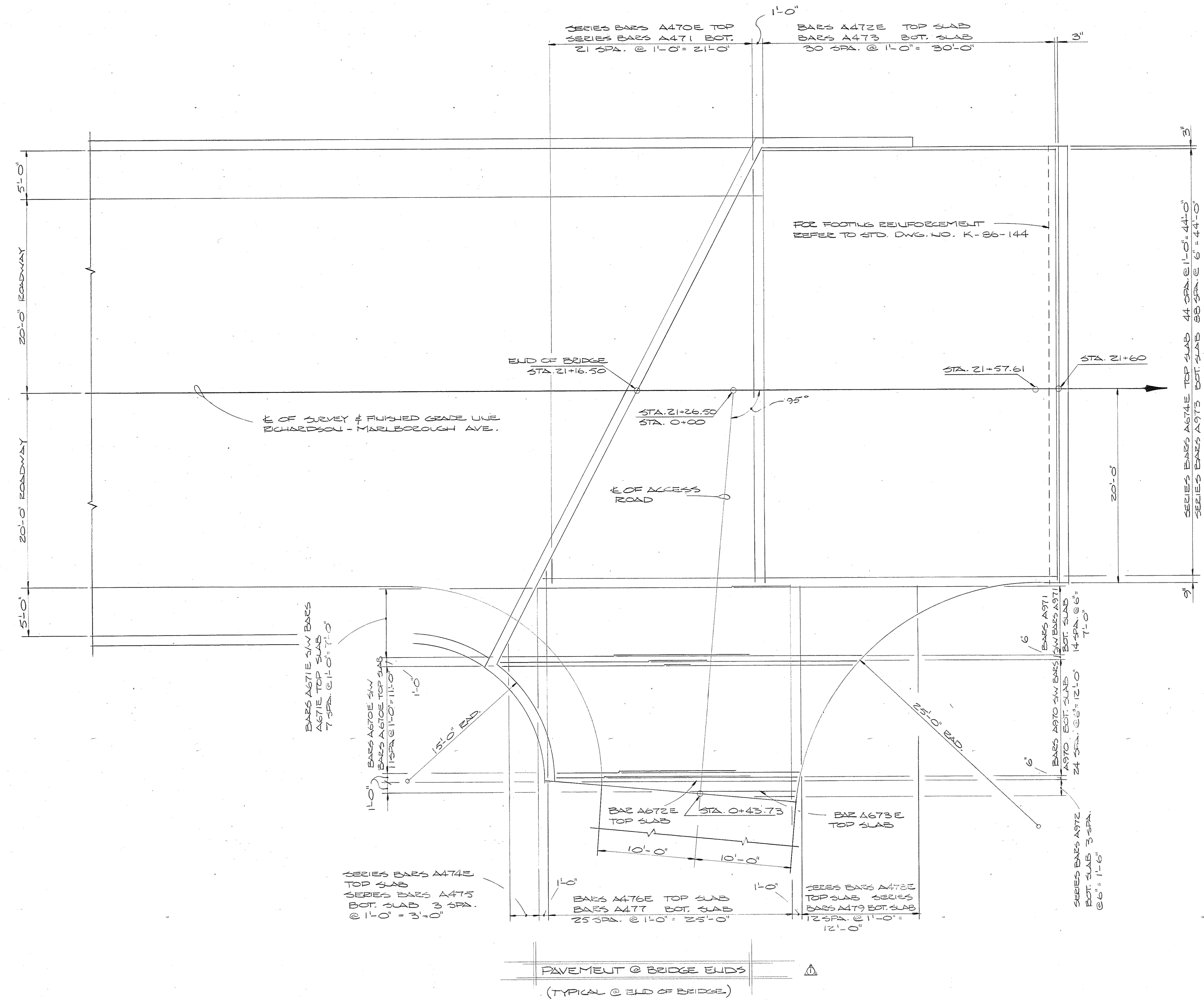
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 2 DETAILS
 RICHARDSON-MARBOROUGH
 AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY

1983

CORRECT *William Shively*
 ENGINEER OF STRUCTURES
 APPROVED *James Evans*
 DIRECTOR OF HIGHWAYS

PROJECT NO.	YEAR	SHEET NO.
I-440(53)200	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-7-83	CD	ADDED SHEET M-119-54A



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

PAVEMENT @ BRIDGE ENDS
ABUTMENT NO. 2
RICHARDSON - MARLBOROUGH
AVENUE OVER INTERSTATE 440
STATION 183+10.15
DAVIDSON COUNTY
1983

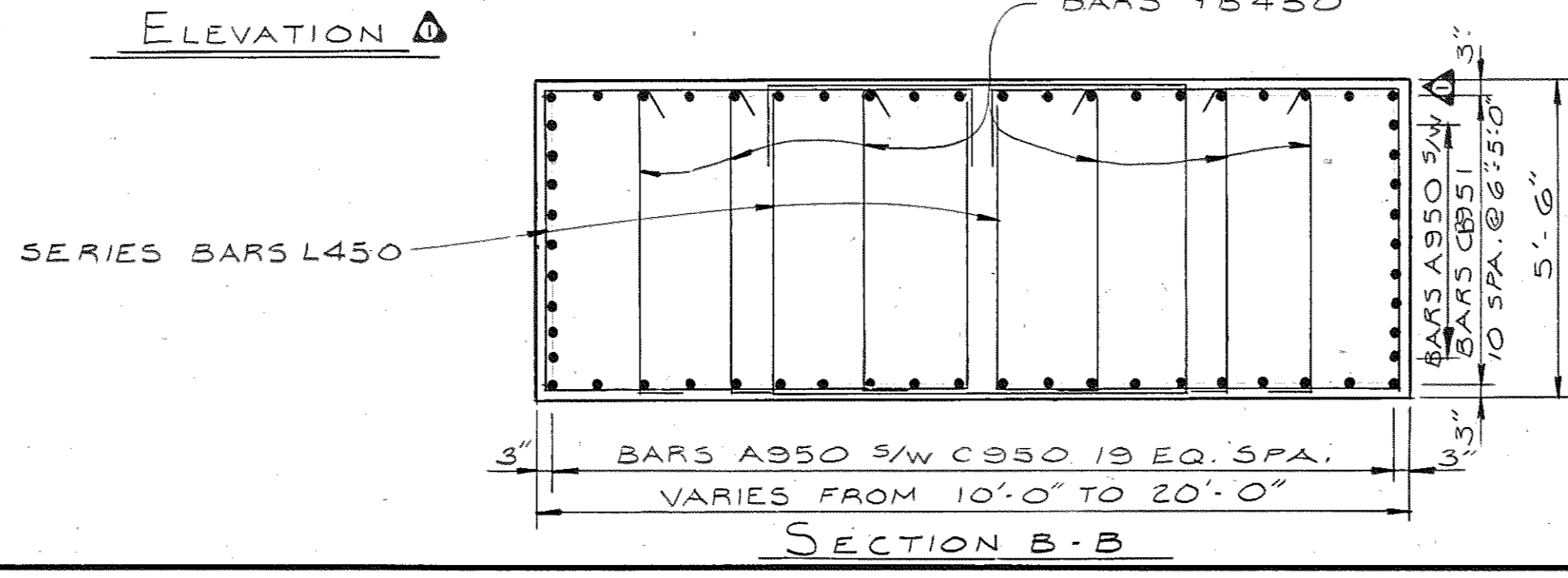
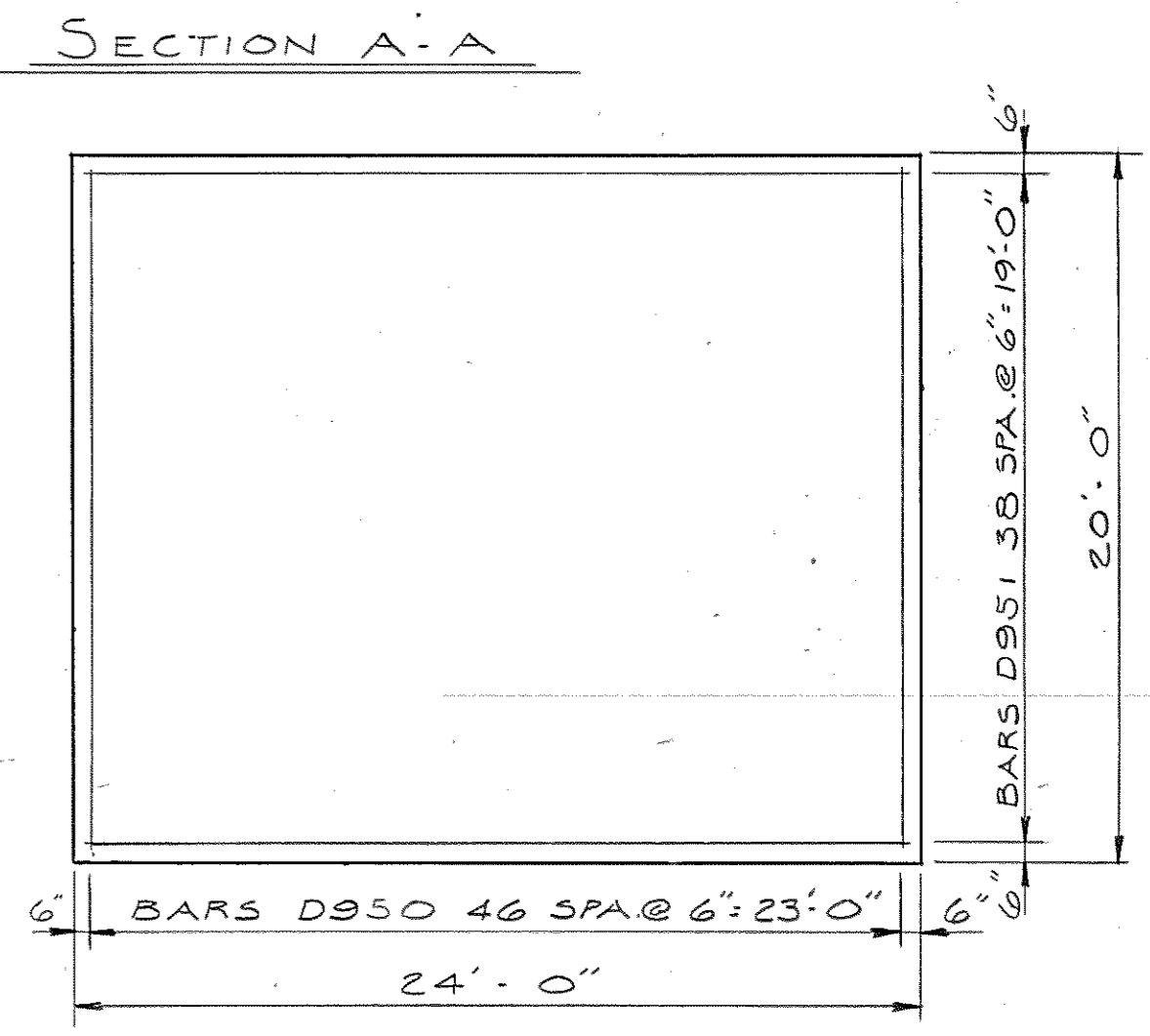
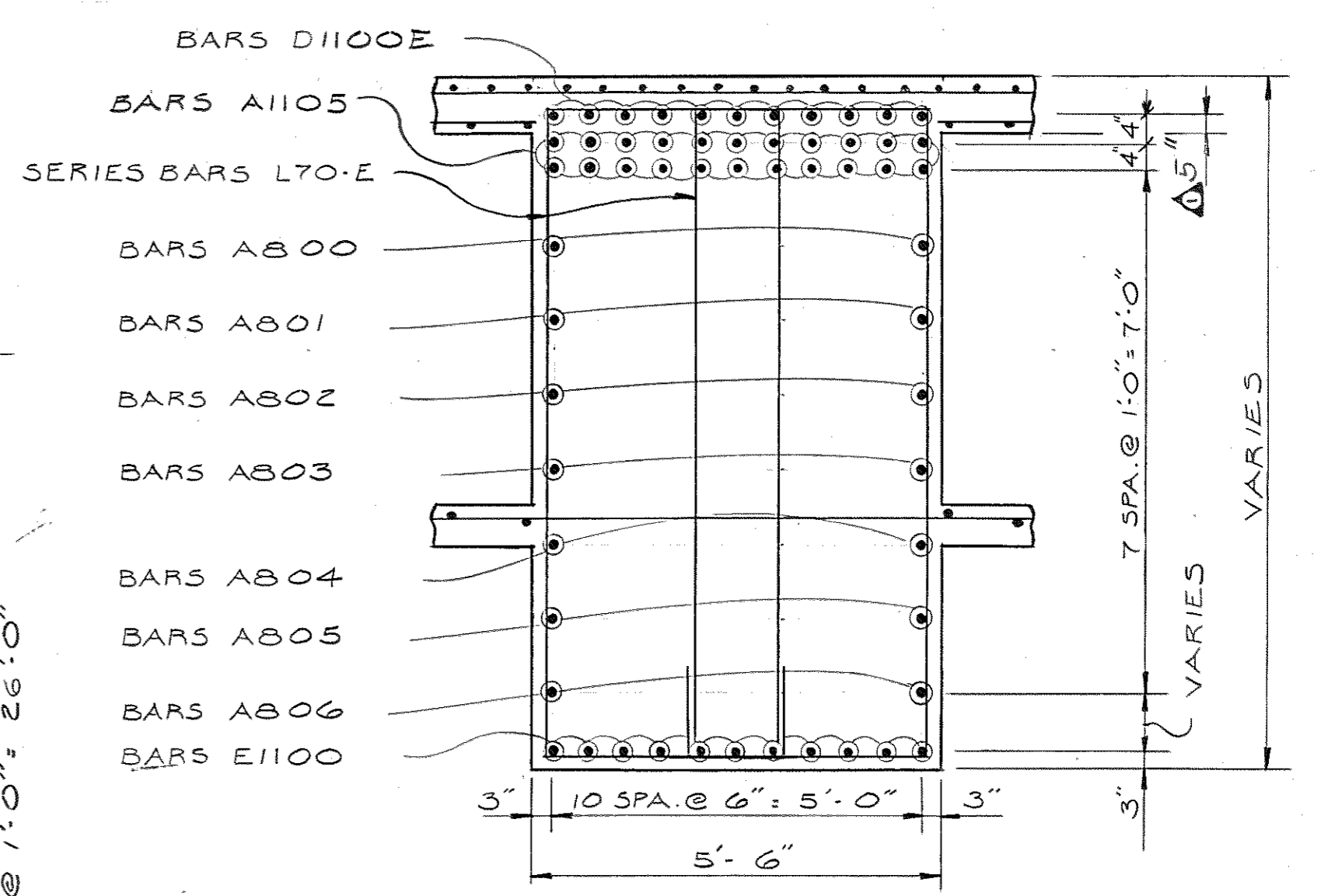
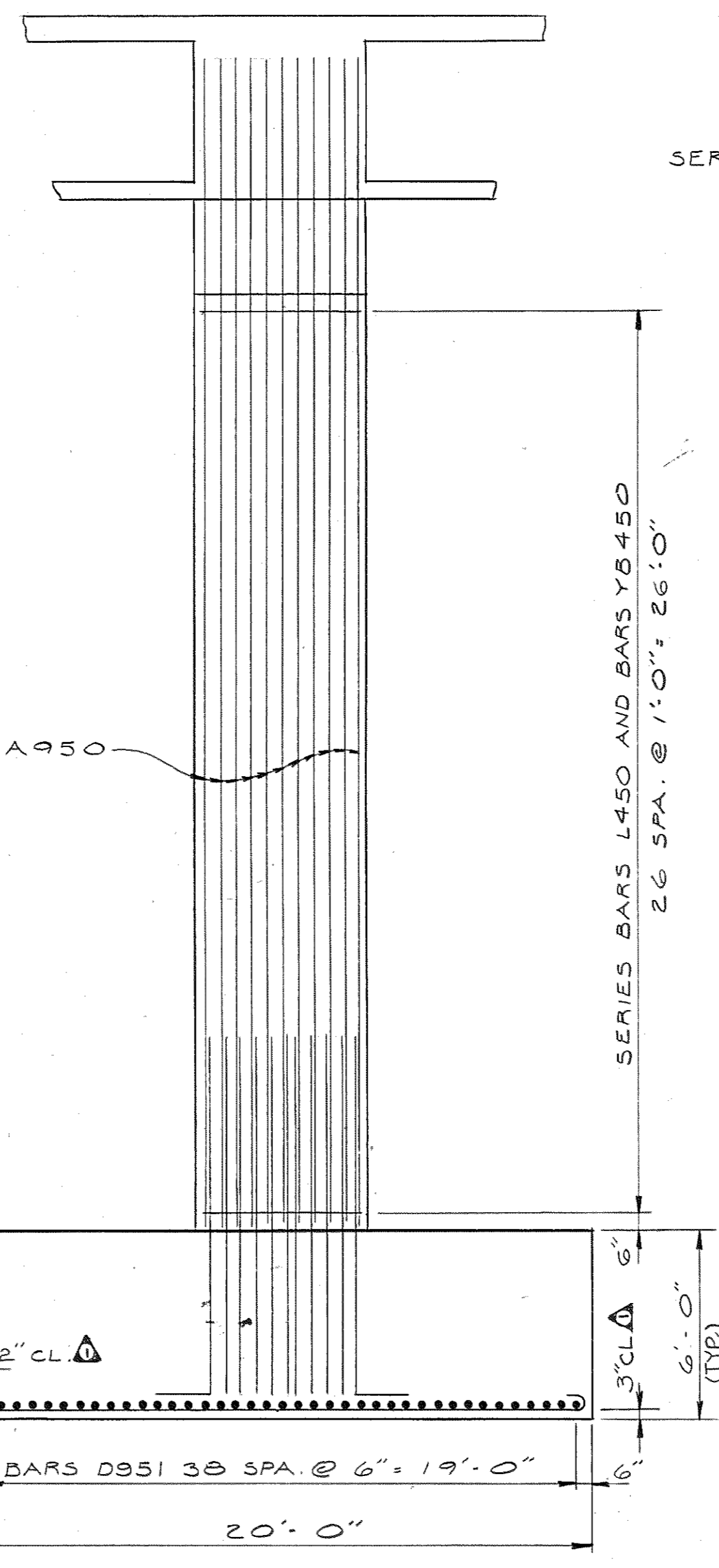
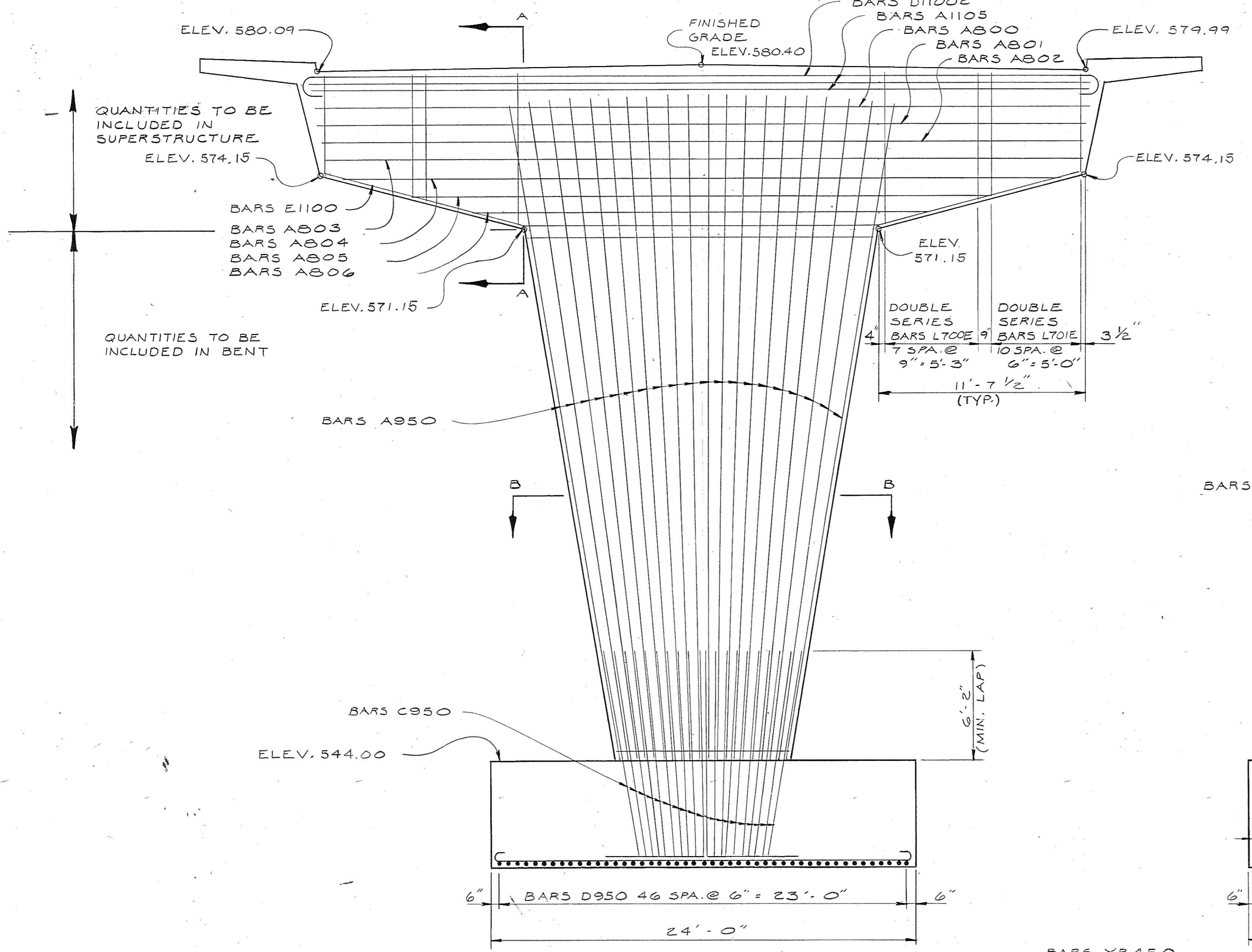
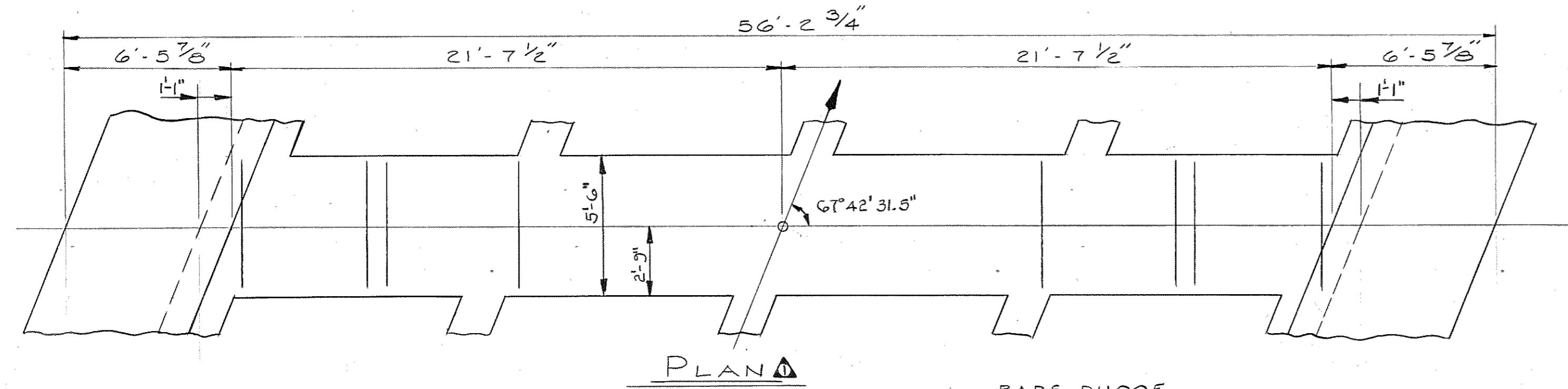
DESIGNED BY C. DIETERS DATE 6-82
DRAWN BY R. CHRISTY DATE 2-83
SUPERVISED BY A.M. SMITH DATE 2-83
CHECKED BY DATE

CORRECT
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-119-54A

PROJECT NO.	YEAR	SHEET NO.
I-440(537)206	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-7-83	CMD	GENERAL REVISIONS



ESTIMATED QUANTITIES	
REINFORCING STEEL LBS.	CLASS "A" CONCRETE (CY)
18,646	183.6

DESIGNED BY C. DIETERS DATE 11-82
 DRAWN BY JERRY BENSON DATE 11-82
 SUPERVISED BY J. FIELDS DATE 11-82
 CHECKED BY C. DIETERS DATE 1-83

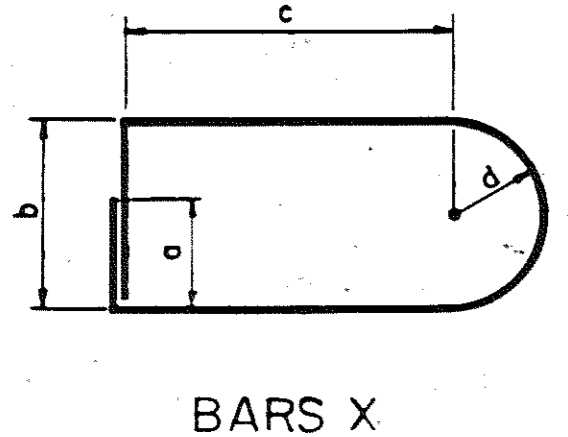
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 BENT
 RICHARDSON - MARLBOROUGH
 AVENUE OVER INTERSTATE 440
 STATION 183+10.15
 DAVIDSON COUNTY
 1983
 CORRECT *Colleen L. Lovell*
 ENGINEER OF STRUCTURES
 APPROVED *Louis Evans*
 DIRECTOR OF HIGHWAYS

BILL OF STEEL

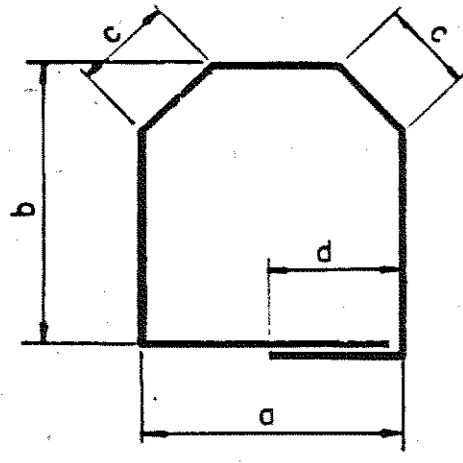
CONST. NO. 19014-3111-440

Table with columns for BAR, LOCATION, SIZE, NO REQD, BENDING DIMENSIONS, LENGTH, and multiple sections: SUPERSTRUCTURE- EPOXY, SUPERSTRUCTURE- EPOXY (CONT.), ABUTMENT NO.1 - EPOXY, ABUTMENT NO.1 (CONT.).

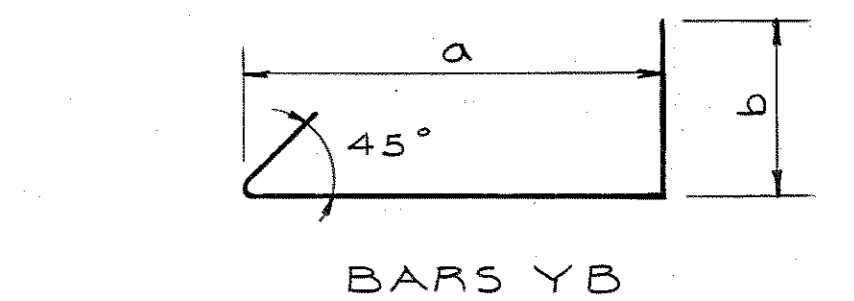
Table with columns: REVISIONS, NO., DATE, BY, BRIEF DESCRIPTION.



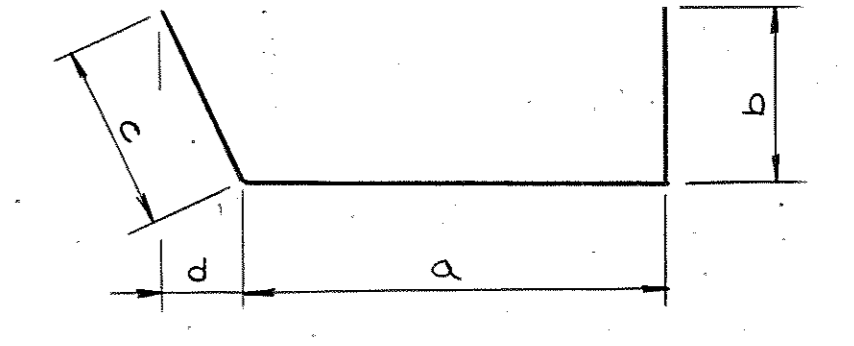
BARS X



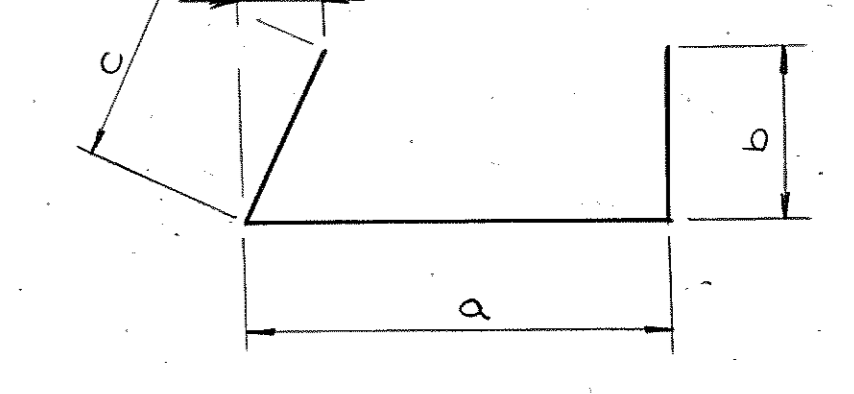
BARS M



BARS YB



BARS HA



BARS HB

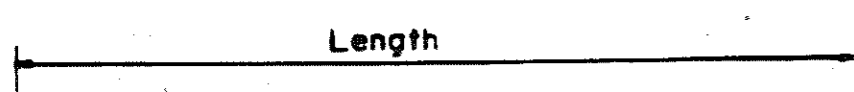
REINFORCING STEEL CODE

Table with columns: TYPE, SIZE, SERIES.

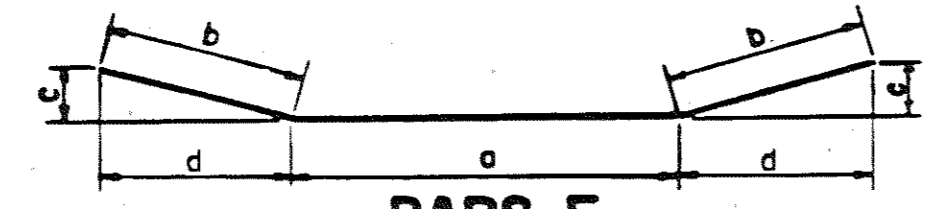
NOTE: Dimensions shown on this sheet are outside to outside of bar. Standard C R S I. Hook Details Shall Apply, Except As Noted.

PAVE. @ BRIDGE ENDS @ ABUT. NO.1 - EPOXY

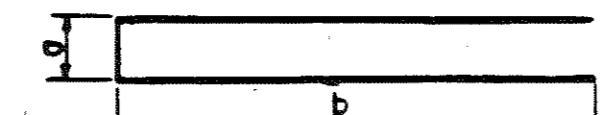
Table listing paving materials and dimensions for ABUT. NO.1 - EPOXY.



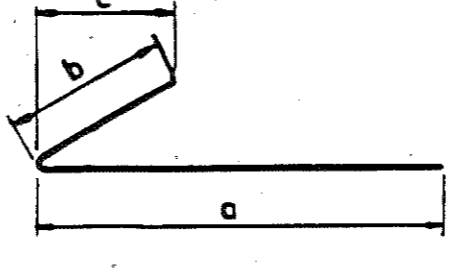
BARS A



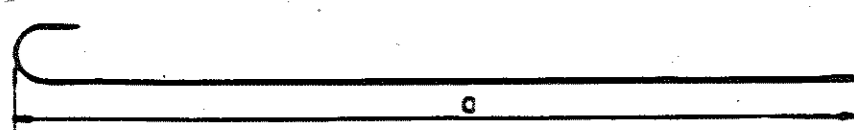
BARS E



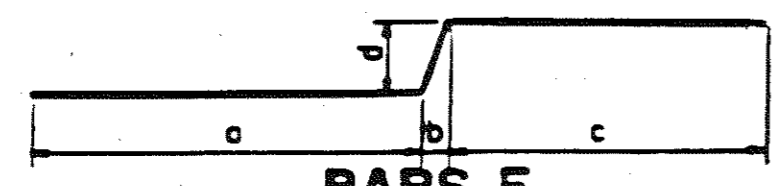
BARS H



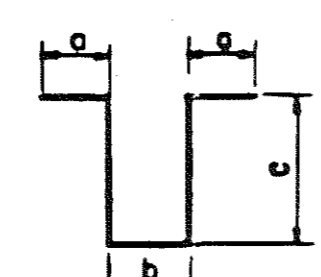
BARS CB



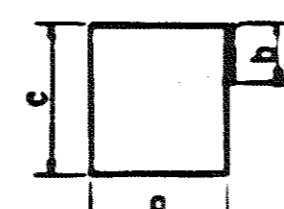
BARS B



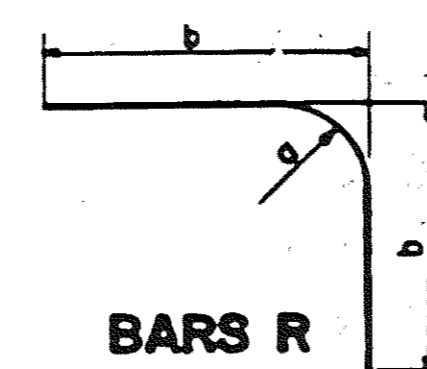
BARS F



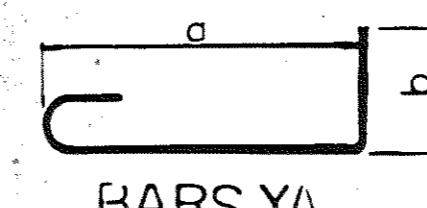
BARS K



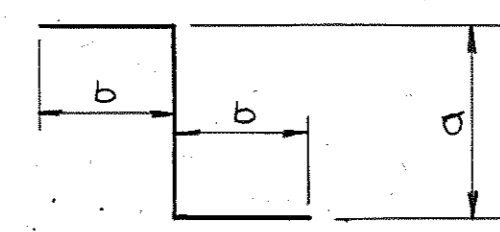
BARS L



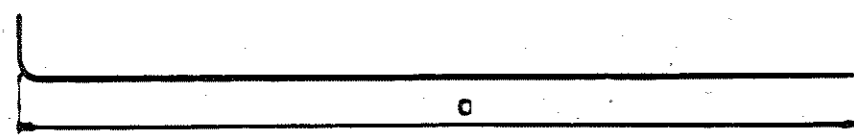
BARS R



BARS YA



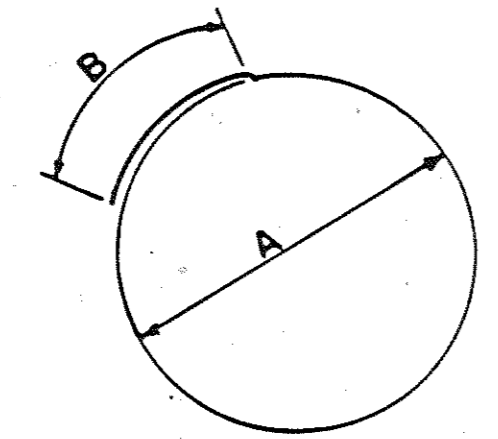
BARS Z



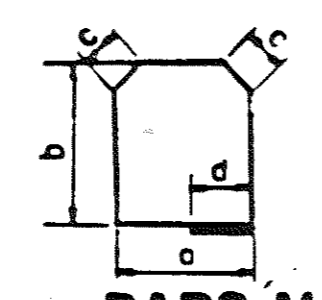
BARS C



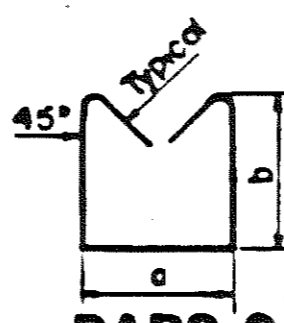
BARS D



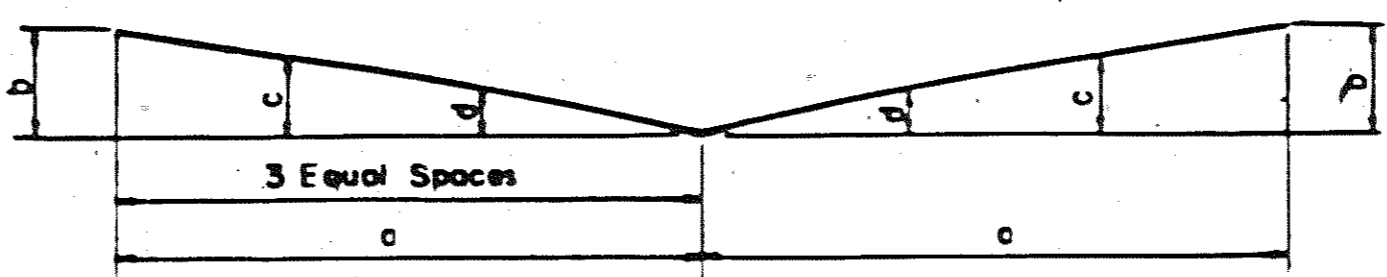
BARS T



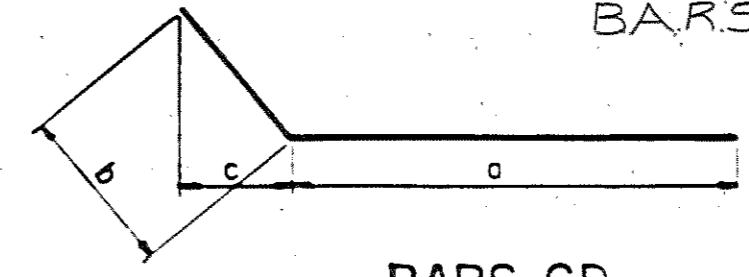
BARS M



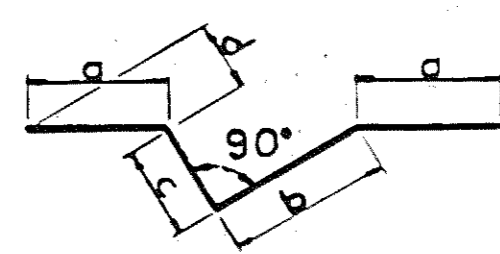
BARS S



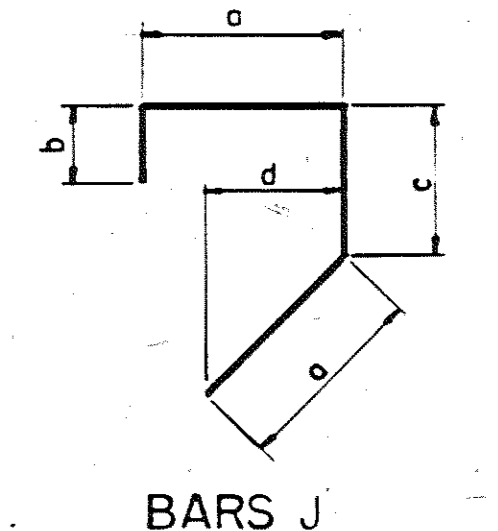
BARS V



BARS CD



BARS JX



BARS J

DESIGNED BY C. DIETERS DATE 1-83
DRAWN BY J.A. DATE 1-83
SUPERVISED BY J.FIELDS DATE 1-83
CHECKED BY DATE

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
BILL OF STEEL
RICHARDSON - MARLBOROUGH AVENUE OVER INTERSTATE 440 STATION 183+10.15 DAVIDSON COUNTY 1983
CORRECT: Challen L. Lovell ENGINEER OF STRUCTURES
APPROVED: Lewis Evans DIRECTOR OF HIGHWAYS

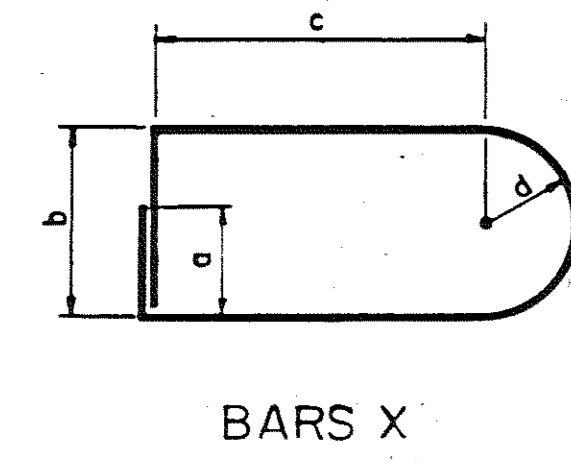
M-119-56

BILL OF STEEL

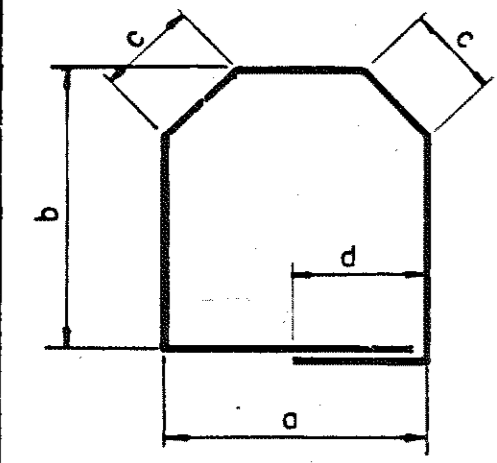
CONST. NO. 19014-3111-440

Main table with columns for BAR, LOCATION, SIZE, NO REQD, BENDING DIMENSIONS, LENGTH. Includes sections for PAVE. @ BRIDGE ENDS @ ABUT. NO. 1, ABUTMENT NO. 2 (CONT.), and ABUTMENT NO. 2 (CONT.) BENT.

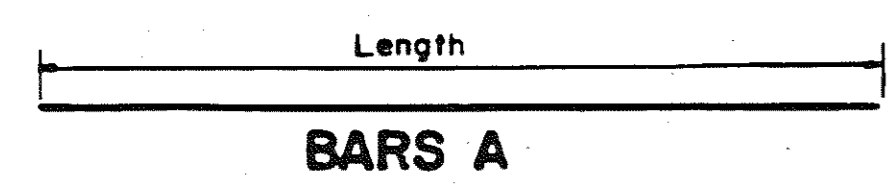
REVISIONS table with columns: NO., DATE, BY, BRIEF DESCRIPTION. Includes revision 1-7-83 by CMD for GENERAL REVISIONS.



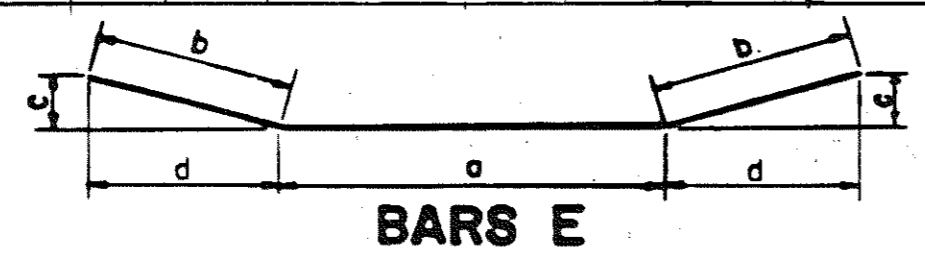
BARS X



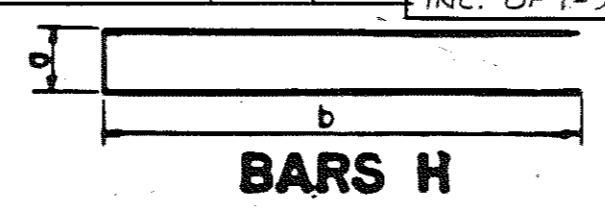
BARS M



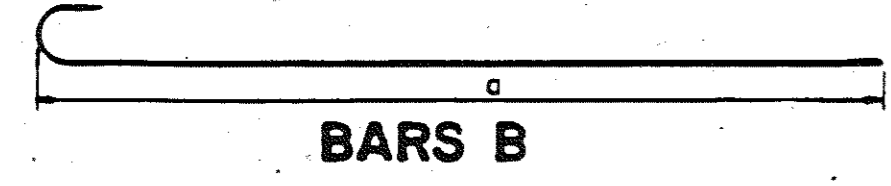
BARS A



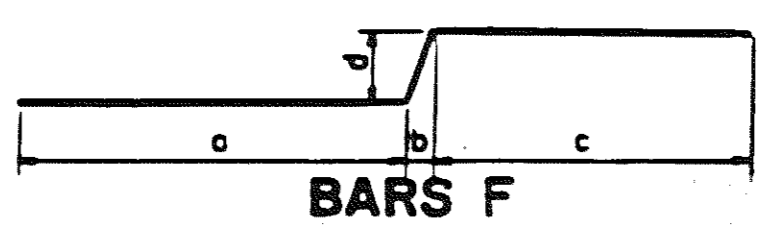
BARS E



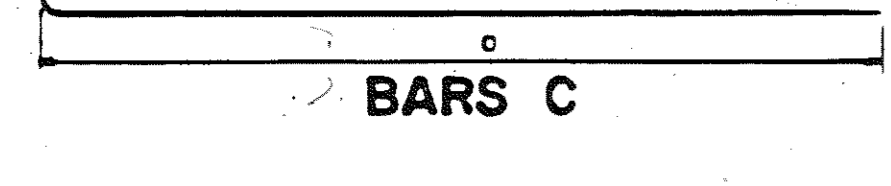
BARS H



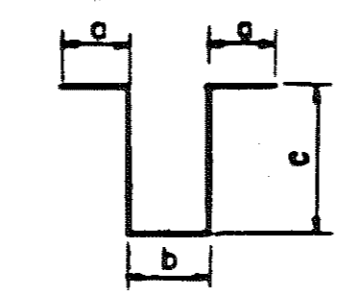
BARS B



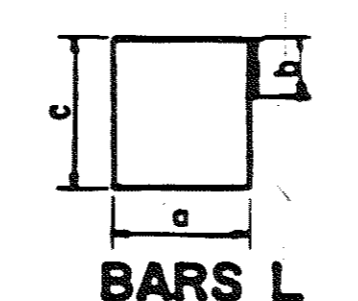
BARS F



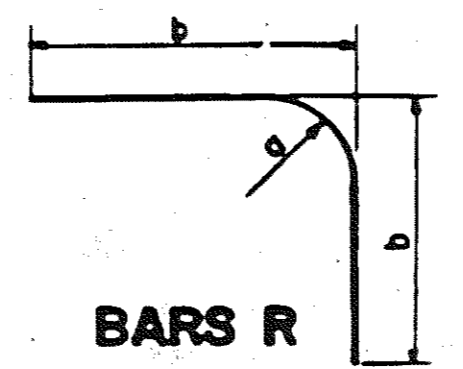
BARS C



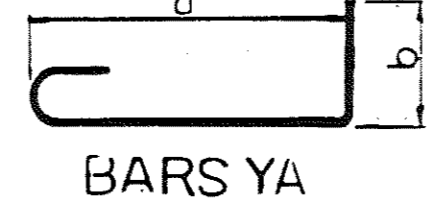
BARS K



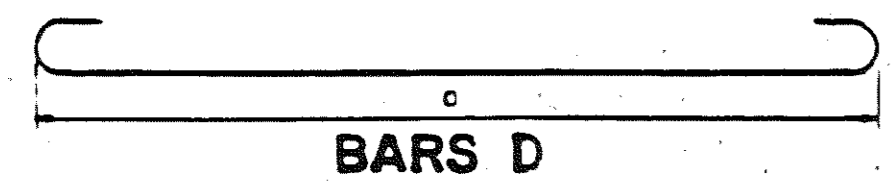
BARS L



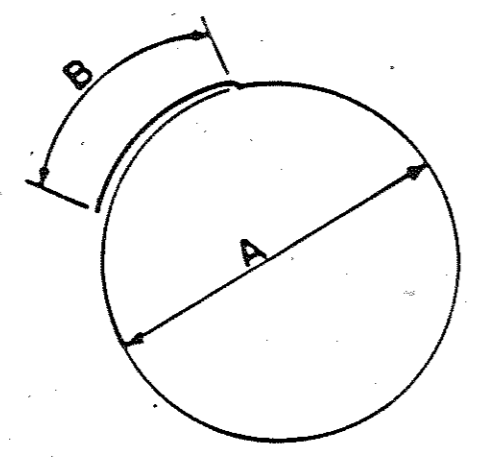
BARS R



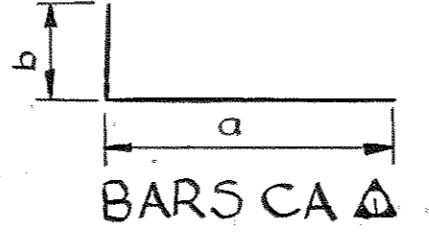
BARS YA



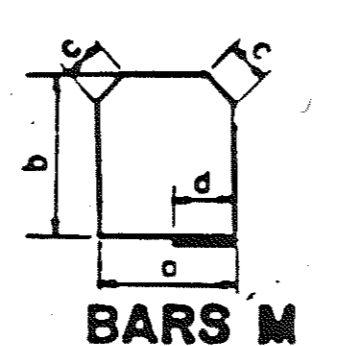
BARS D



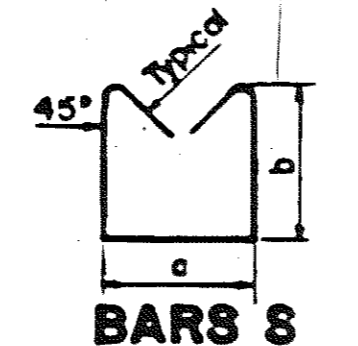
BARS T



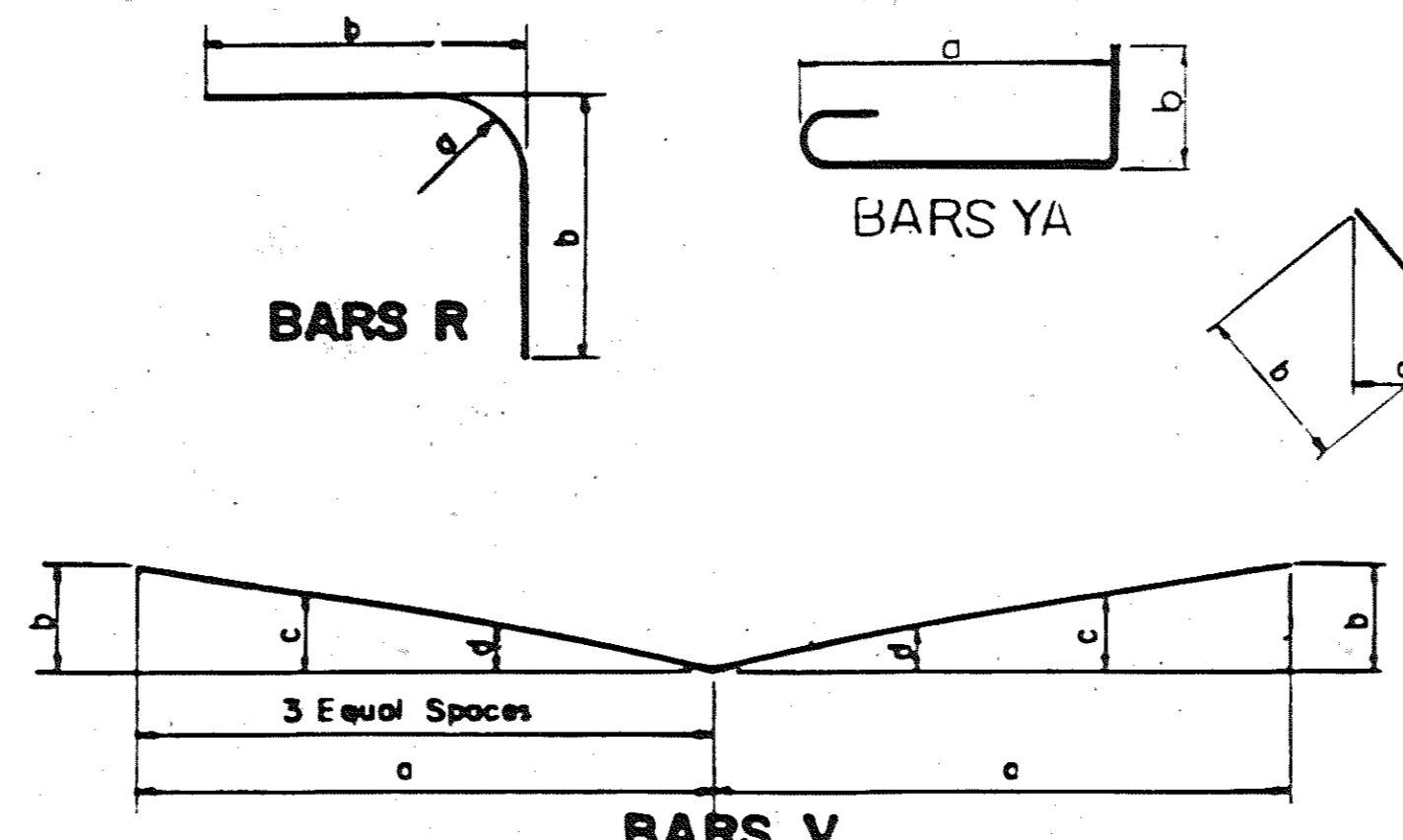
BARS CA



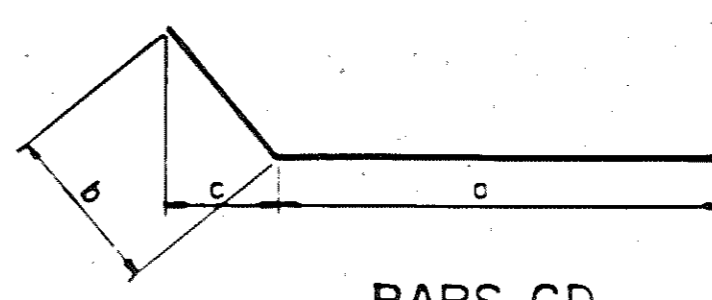
BARS M



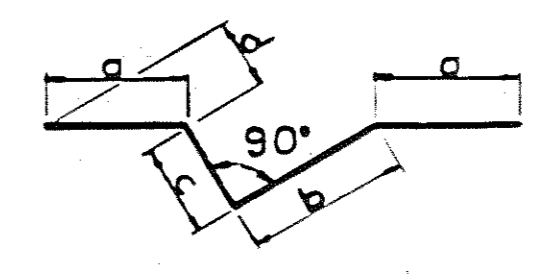
BARS S



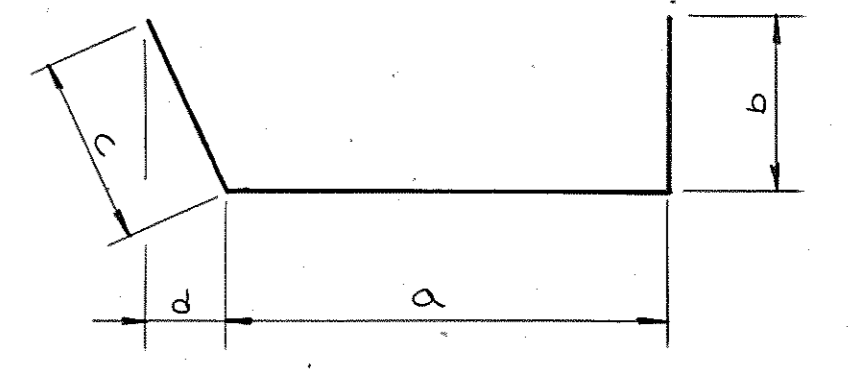
BARS V



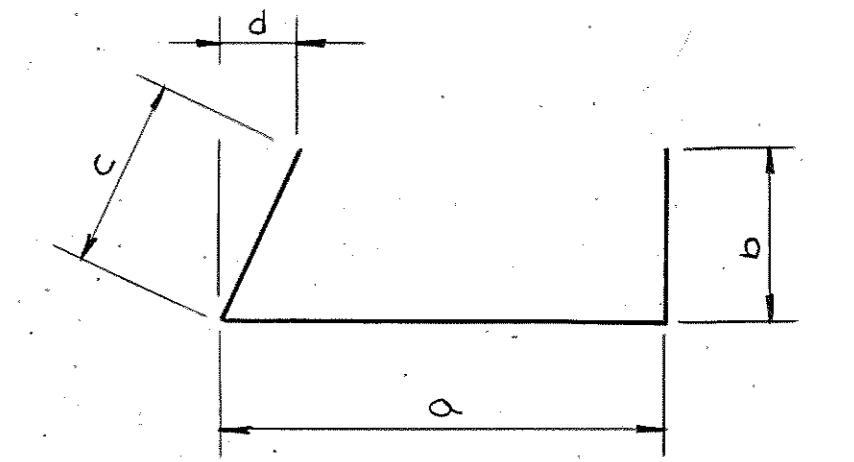
BARS CD



BARS JX



BARS HA

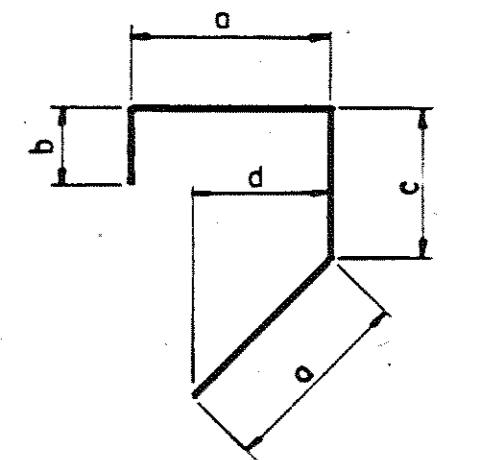


BARS HB

REINFORCING STEEL CODE

Table with columns: TYPE, SIZE, SERIES. Shows TYPE 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 J

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS BILL OF STEEL RICHARDSON - MARLBOROUGH AVENUE OVER INTERSTATE 440 STATION 183 +10.15 DAVIDSON COUNTY 1983

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

M-119-57

DESIGNED BY: C. DIETERS DATE: 1-83 DRAWN BY: J. A. DATE: 1-83 SUPERVISED BY: J. FIELDS DATE: 1-83 CHECKED BY: DATE: