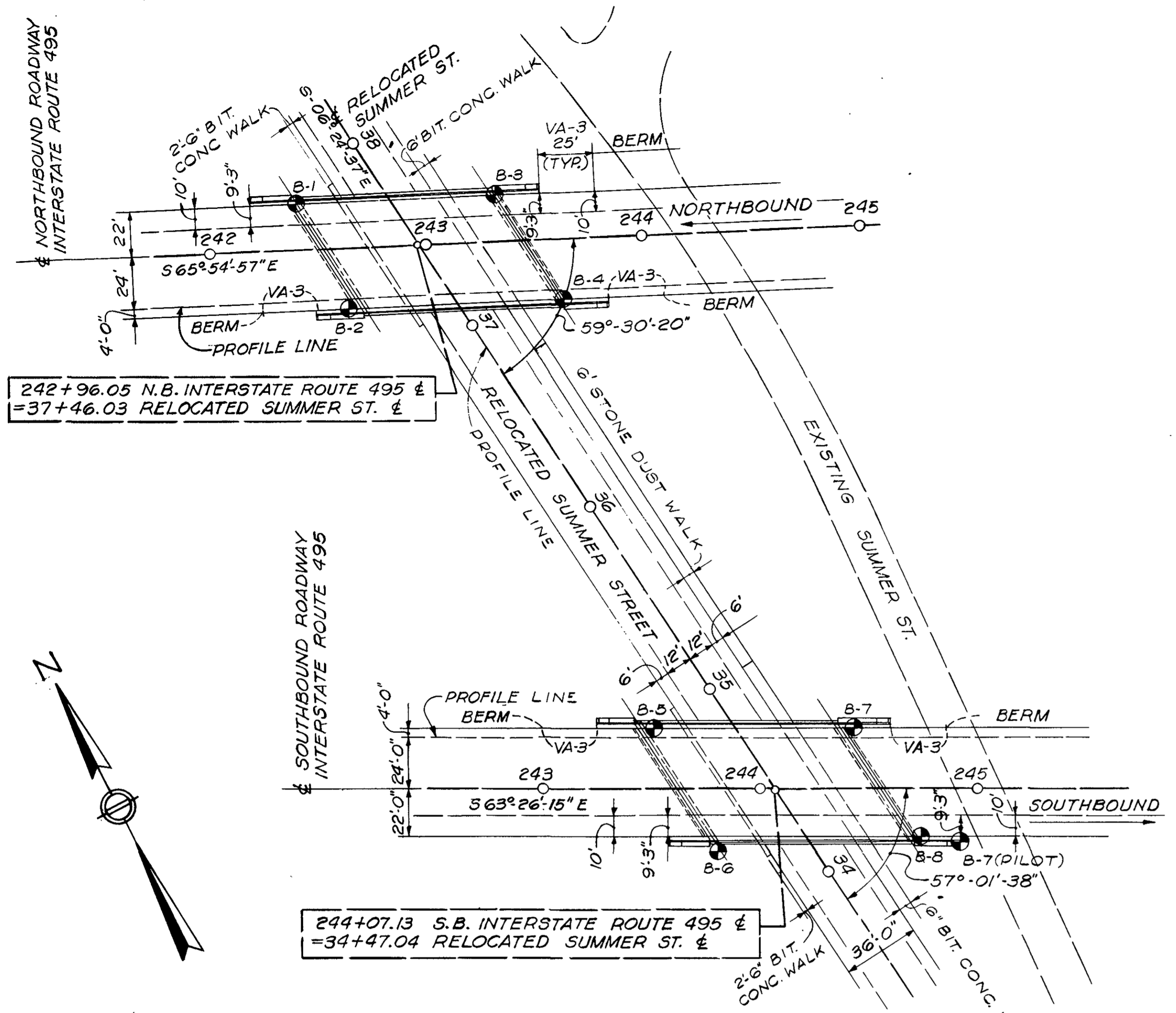
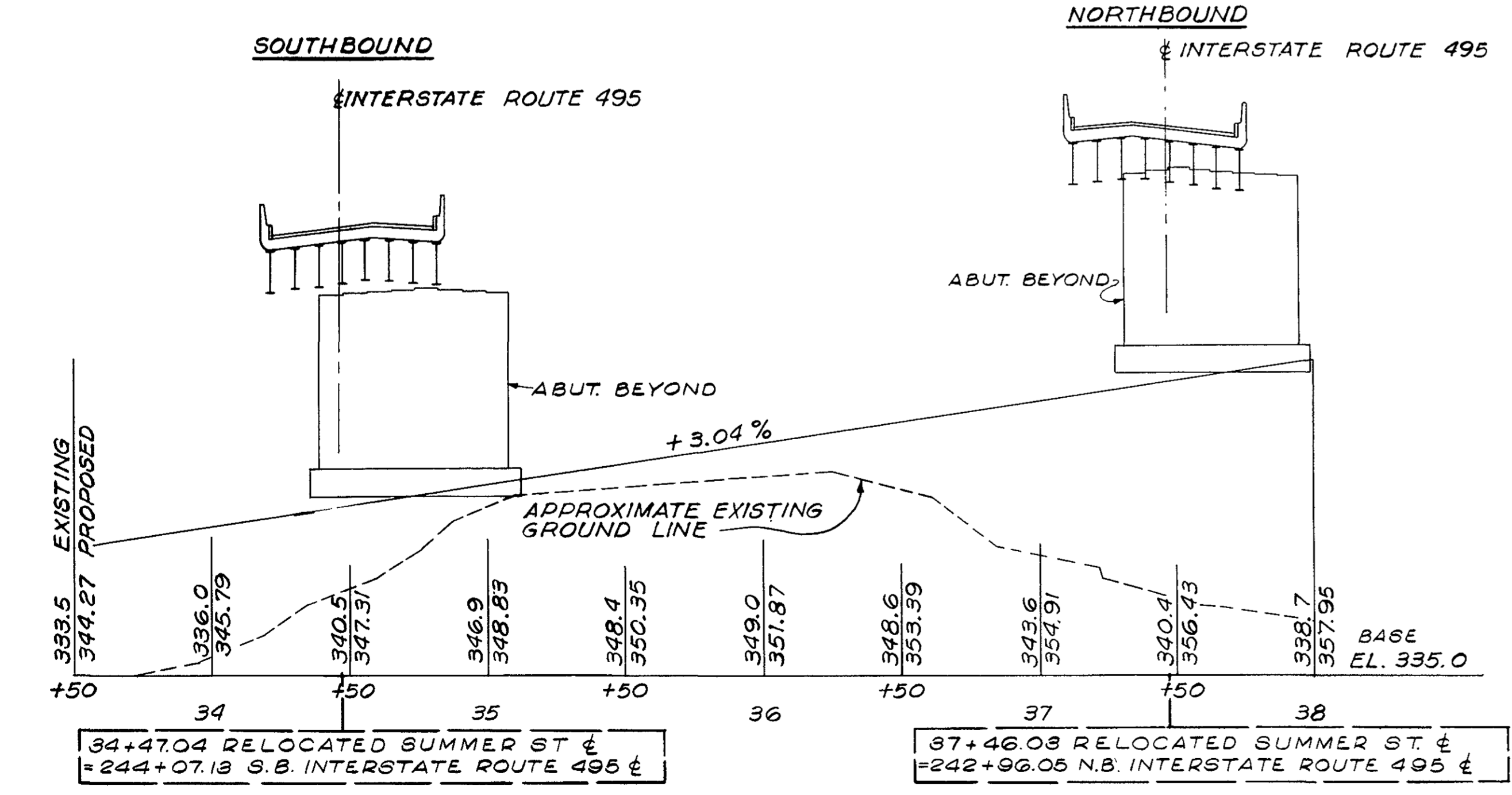


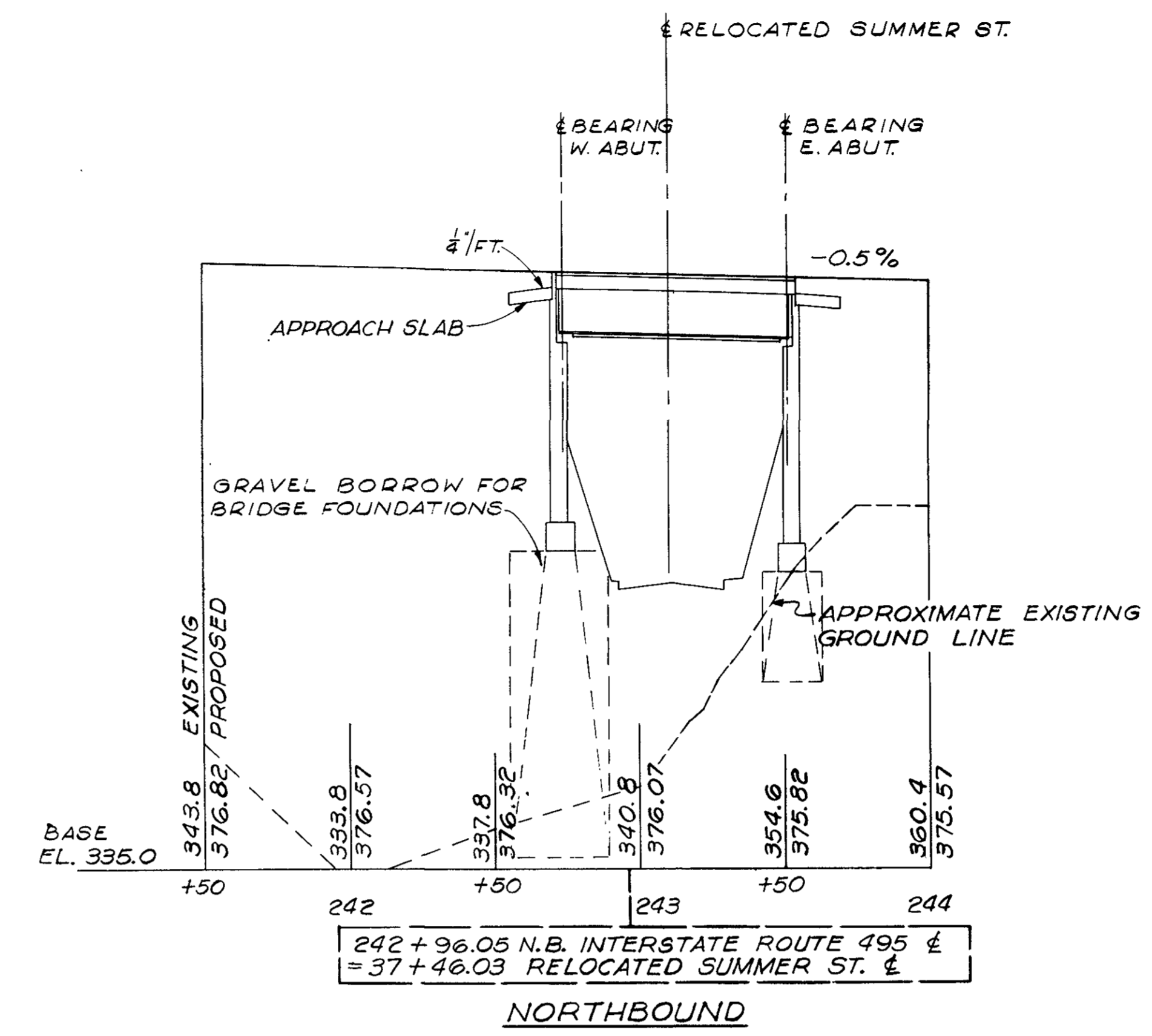
PROJ. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	I-495-5(15)S		178	673



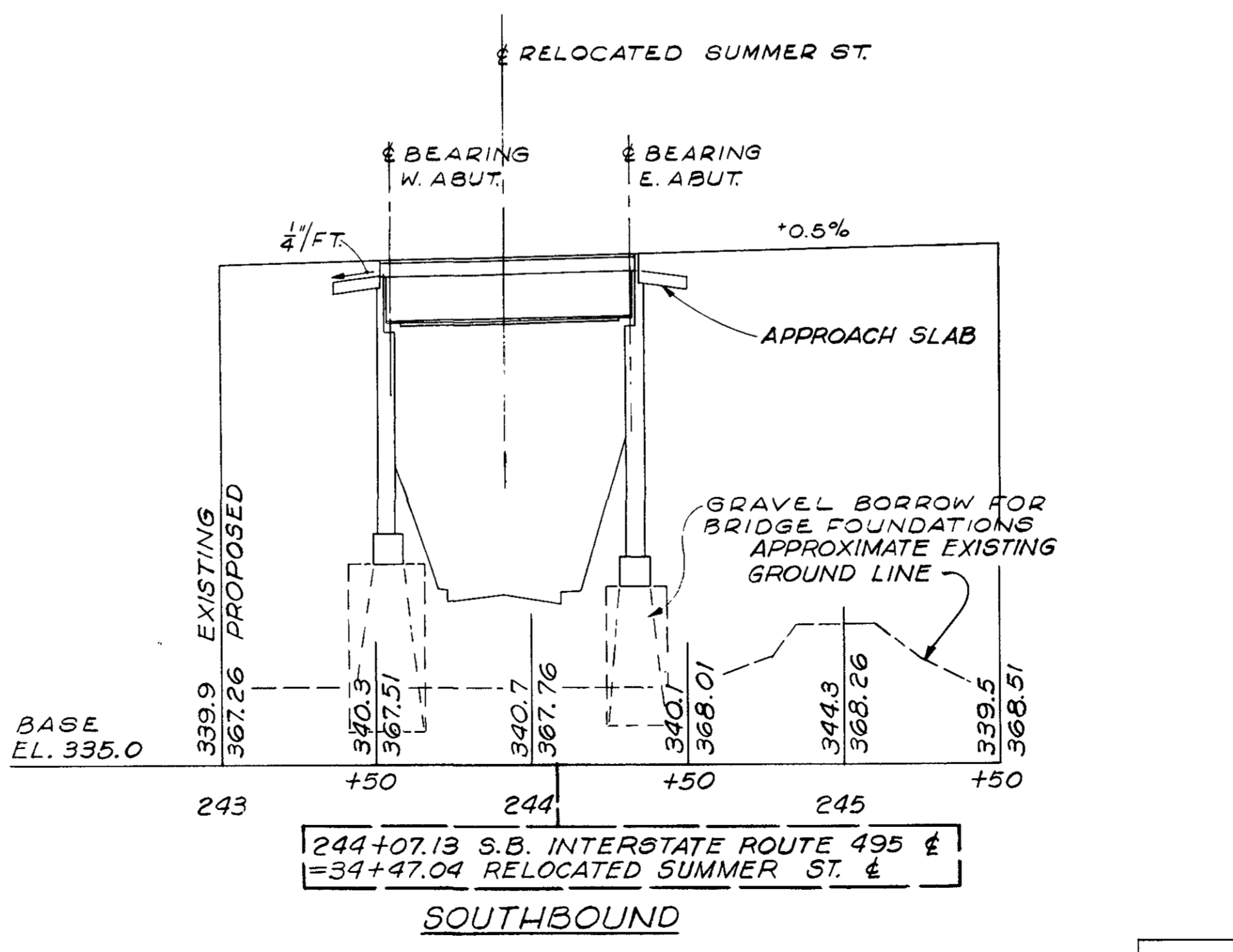
KEY PLAN
SCALE: 1"=40'



PROFILE ALONG SUMMER STREET RELOC.
SCALE VERT. 1"=8'-0"
HORIZ. 1"=40'-0"



PROFILE ALONG INTERSTATE ROUTE 495
SCALE VERT. 1"=8'-0"
HORIZ. 1"=40'-0"



CROSS SECTION
SCALE VERT. 1"=8'-0"
HORIZ. 1"=40'-0"

GENERAL NOTES

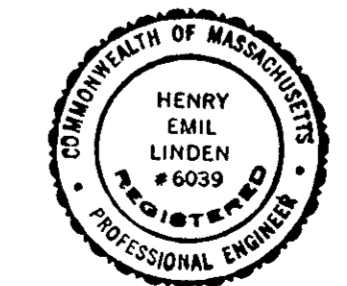
- ANCHOR BOLTS:** ANCHOR BOLTS ARE TO BE SET BY TEMPLATE AND PLACED BEFORE CONCRETE IS POURED.
- BENCH MARK:** SURVEY & STA. 249+45, 5'-0" RT. SPIKE IN 16" OAK STUMP ELEV. 336.82 MEAN SEA LEVEL DATUM OF 1929 (U.S.C. & G.S.)
- SURVEY NOTE BOOKS:** Nos 26699, 3302, 21325
- DESIGN:** IN ACCORDANCE WITH THE SPECIFICATIONS OF THE 1961 EDITION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS AND INTERIM SPECIFICATIONS, FOR HS 20-44 LOADING. (MODIFIED FOR MILITARY REQUIREMENTS.)
- FOUNDATIONS:** MAY BE ALTERED, IF NECESSARY, TO SUIT CONDITIONS ENCOUNTERED DURING CONSTRUCTION.
- REINFORCEMENT:** ALL BARS SHALL HAVE DEFORMATIONS CONFORMING TO A.S.T.M. DESIGNATION A-305. UNLESS OTHERWISE NOTED ON THE PLANS, REINFORCING BARS SHALL BE LAPPED 20 DIAMETERS TO MAKE A SPLICE, EXCEPT THAT MAIN REINFORCING BARS NEAR THE TOP OF THE SLABS AND BEAMS HAVING MORE THAN 12 INCHES OF CONCRETE UNDER THE BARS, SHALL BE LAPPED 35 DIAMETERS TO MAKE A SPLICE.
- DATE AND SEAL:** TO BE PLACED ON THE INSIDE FACES OF THE NORTHEAST END POST OF THE NORTHBOUND BRIDGE AND THE SOUTHWEST END POST OF THE SOUTHBOUND BRIDGE. A SHEET SHOWING THE SIZE AND CHARACTER OF NUMERALS WILL BE FURNISHED. SEAL WILL BE FURNISHED BY THE COMMONWEALTH AND PLACED BY THE CONTRACTOR.
- BRIDGE RAILINGS:** SEE DEPARTMENT STANDARD PLANS, DATED MAY 1965, FOR DETAILS OF BRIDGE RAILINGS. (AL-1 OR ST-1)
- SCALES:** SCALES NOTED ON PLANS ARE NOT APPLICABLE TO REDUCED SIZED PRINTS. DIVIDE SCALES BY 2 FOR 1/2 SIZE PRINTS.
- UNSUITABLE MATERIAL:** ALL UNSUITABLE MATERIAL SHALL BE REMOVED WITHIN THE LIMITS OF THE FOUNDATIONS OF THE STRUCTURE.

ESTIMATED QUANTITIES
(NOT GUARANTEED)

CLASS B ROCK EXCAVATION	5	C.Y.
BRIDGE EXCAVATION	1340	C.Y.
GRAVEL BORROW	1200	C.Y.
GRAVEL BORROW FOR BRIDGE FOUNDATION	5900	C.Y.
CLASS I BIT. CONC. PAVE. TYPE I-1	70	TONS
CLASS I DENSE PROTECTIVE BOTTOM COURSE FOR BRIDGES TO TONS	520	LIN. FT.
METAL BRIDGE RAILING (I-RAIL) OPTION	11	LUMP SUM
BRIDGE STRUCTURE NO. (F-8-24)	442,200	LBS
ESTIMATED WEIGHT OF STRUCTURAL STEEL	160,700	LBS
ESTIMATED WEIGHT OF REINFORCING STEEL		
(THESE ITEMS ARE PART OF LUMP SUM ITEM 339.04 FOR BRIDGE STRUCTURE AND ARE NOT GUARANTEED)		

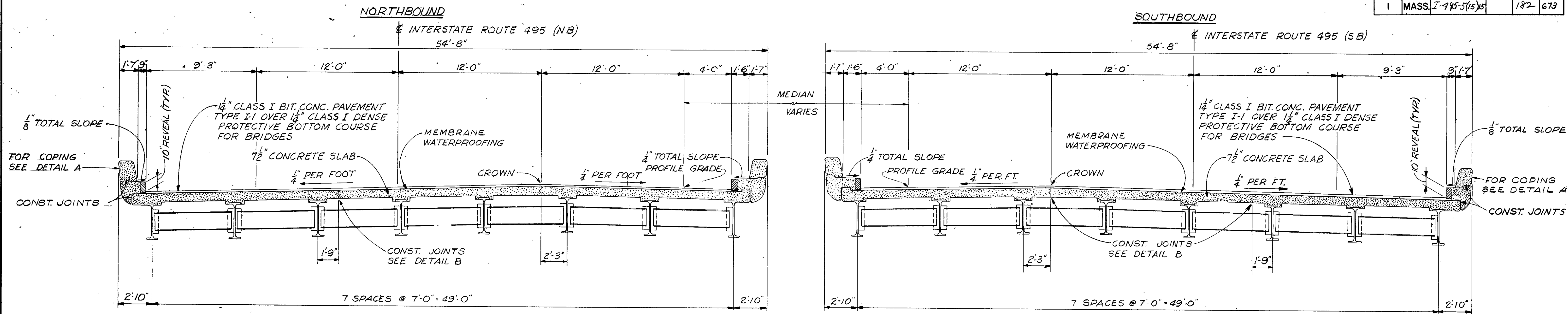
MARCH 1, 1966 ISSUED FOR CONSTRUCTION

THE COMMONWEALTH OF MASSACHUSETTS
PROPOSED BRIDGE
FRANKLIN
INTERSTATE ROUTE 495
OVER
RELOCATED SUMMER STREET
SCALES AS NOTED
OFFICE OF
DEPARTMENT OF PUBLIC WORKS
100 NASHUA ST. BOSTON, MASS.
BRIDGE ENGINEER: [Signature] MAR. 1966 CHIEF ENGINEER: [Signature]

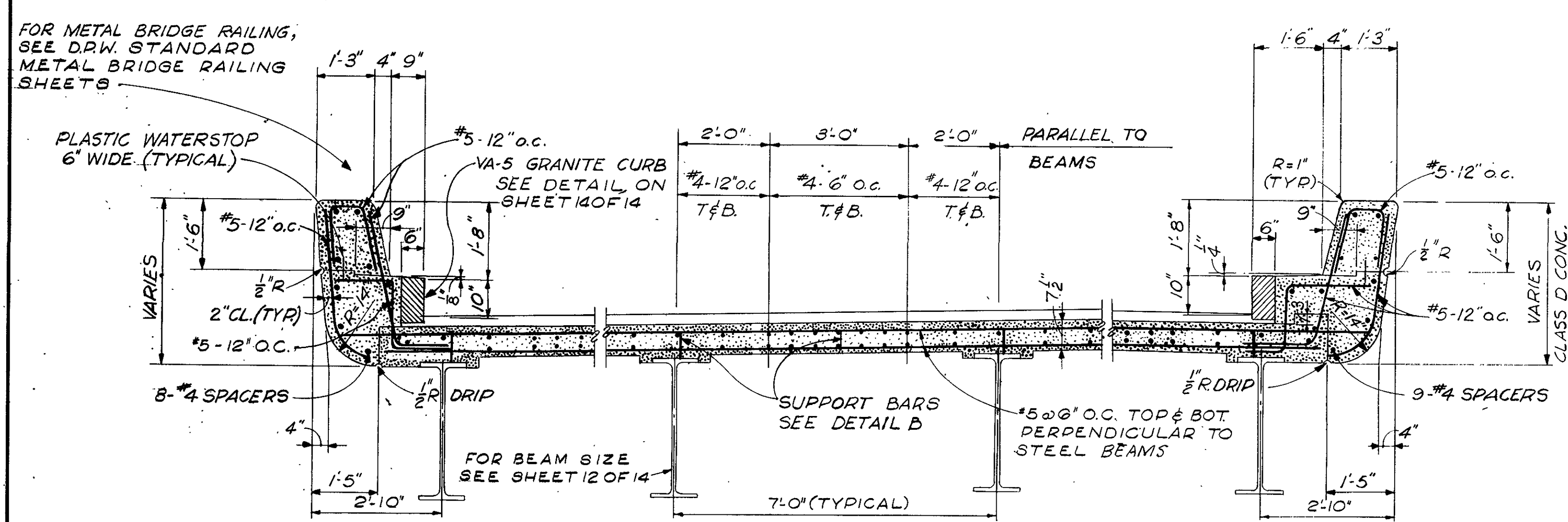


CONGDON, GURNEY AND TOWLE, INC.
CONSULTING ENGINEERS
53 STATE ST.
BOSTON, MASS.

PUB. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	I-985-5(15)5	182	673	673

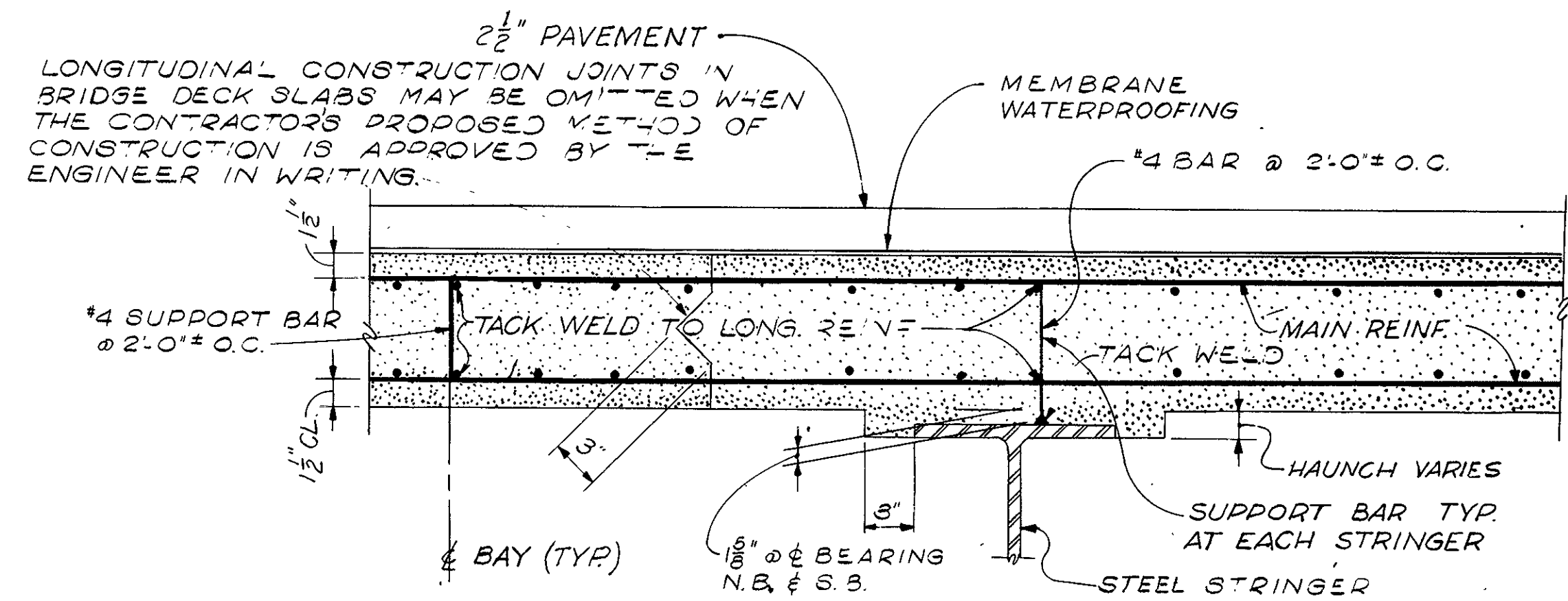


TYPICAL CROSS SECTION
SCALE: 1/4" = 1'-0"

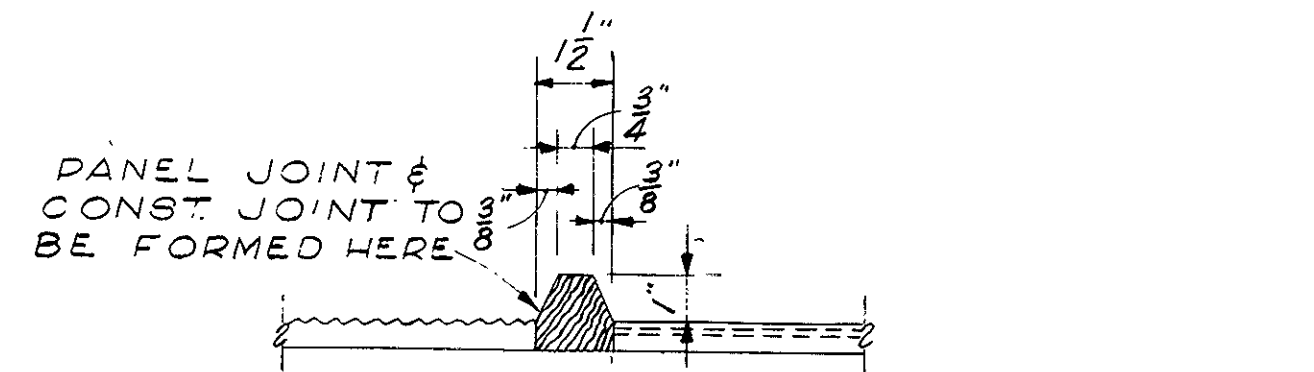


PARAFFIN JOINT THROUGH COPING & SAFETY WALK
NOT TO SCALE

- NOTES:
1. SAFETY WALK AND COPING SHALL BE POURED IN ALTERNATE SECTIONS AND SHALL HAVE A CURING PERIOD OF NOT LESS THAN 5 DAYS BETWEEN POURS.
 2. FOR LOCATION OF JOINTS, SEE BRIDGE PLANS SHEETS 3 & 4 OF 14.
 3. REINF. BARS TO BE 2" CLEAR OF JOINT
 4. DO NOT CARRY LONGITUDINAL BARS IN SAFETY WALK AND COPING THROUGH THE JOINTS.
 5. JOINT SEALER TO BE SAME COLOR AS CONCRETE.
 6. JOINT TO BE SQUARE TO FACE OF COPING.

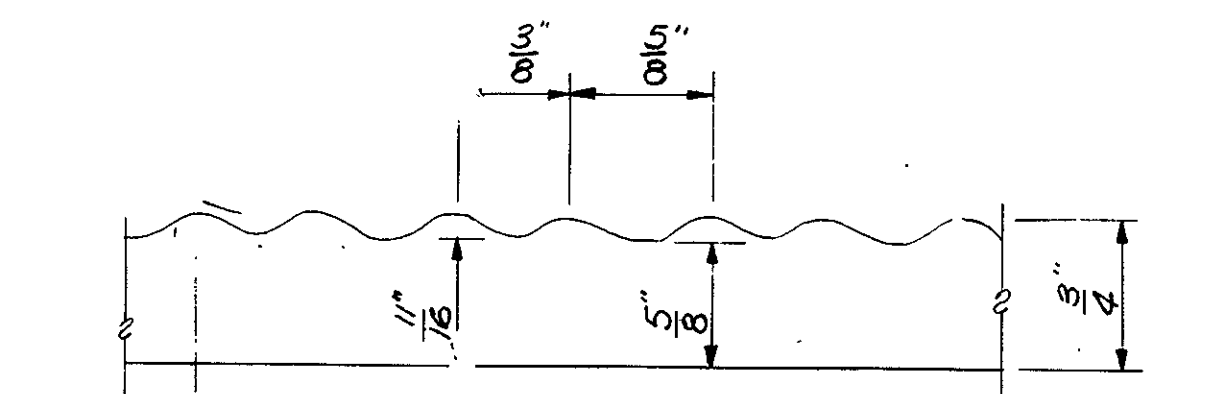


DETAIL B
N.T.S.
NOTE: AN EQUAL DEVICE MAY BE SUBSTITUTED FOR THE #4 BARS UPON WRITTEN APPROVAL OF THE ENGINEER.



TYPICAL STRIATED PANEL JOINT
N.T.S.

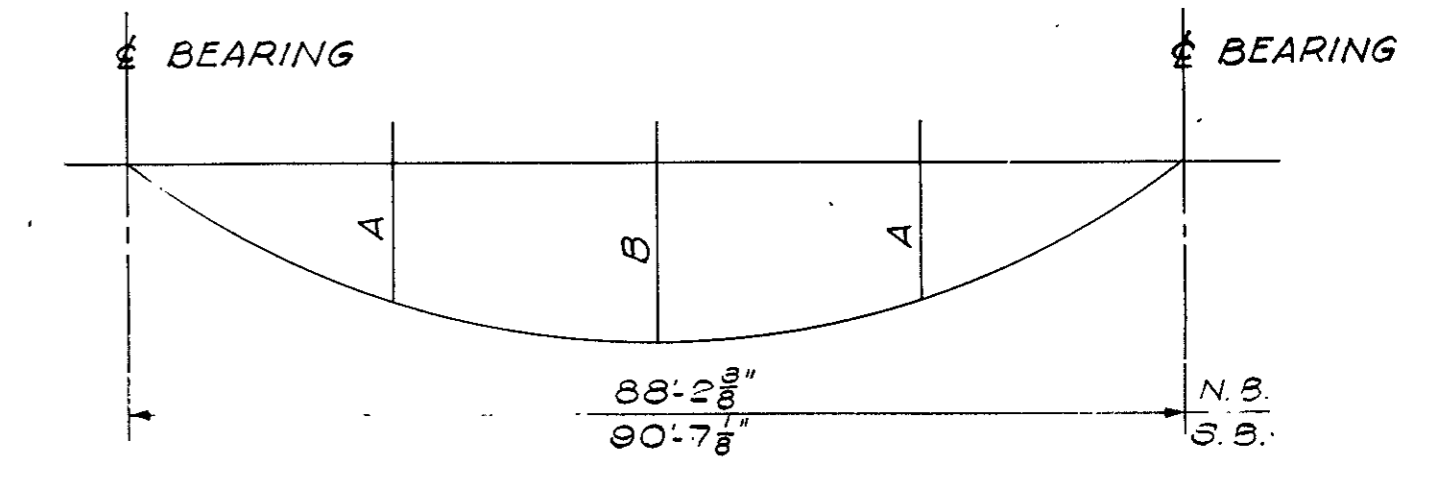
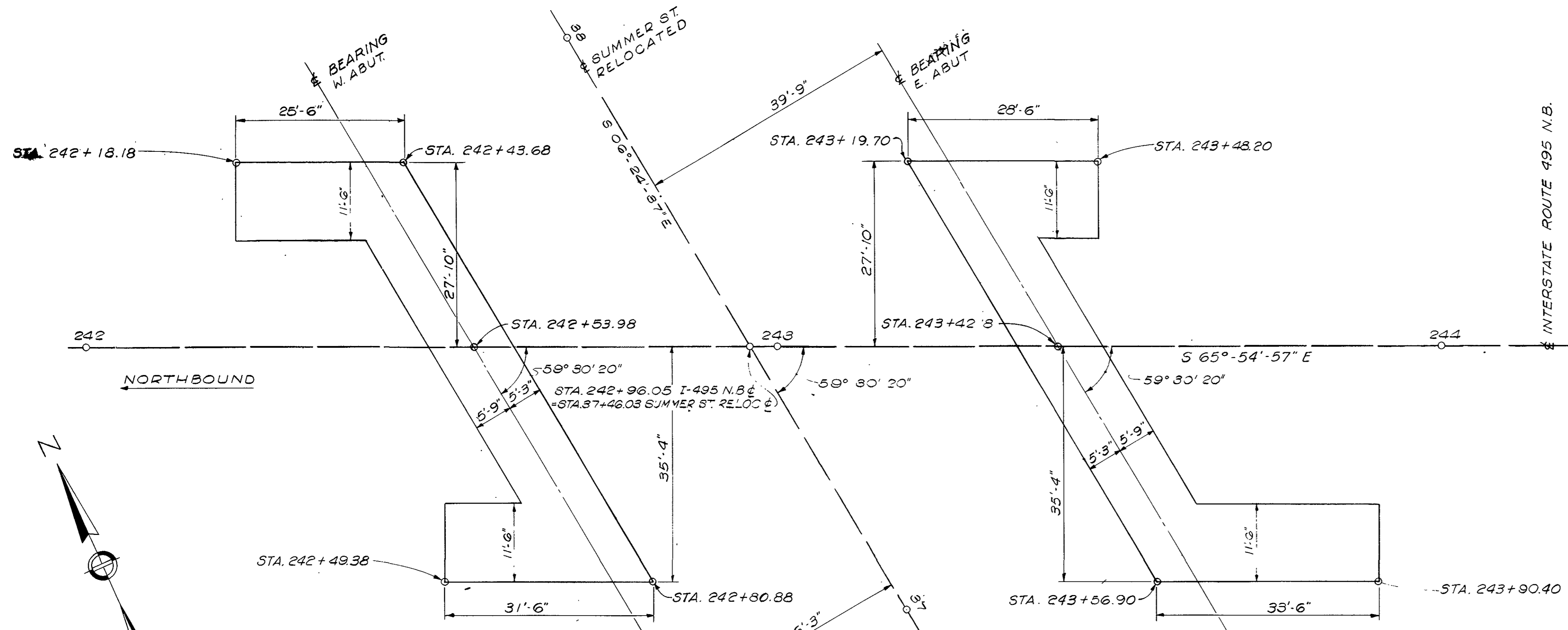
NOTE: FOR STRIATION LAYOUT, SEE ELEVATION ON SHEET 3 OF 14.



TYPICAL STRIATION DETAIL
N.T.S.

DATE	DESCRIPTION
MAR. 1, 1966	ISSUED FOR CONSTRUCTION
	USE ONLY PRINTS OF LATEST DATE

PUB. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	I-495-5(15)15		183	673

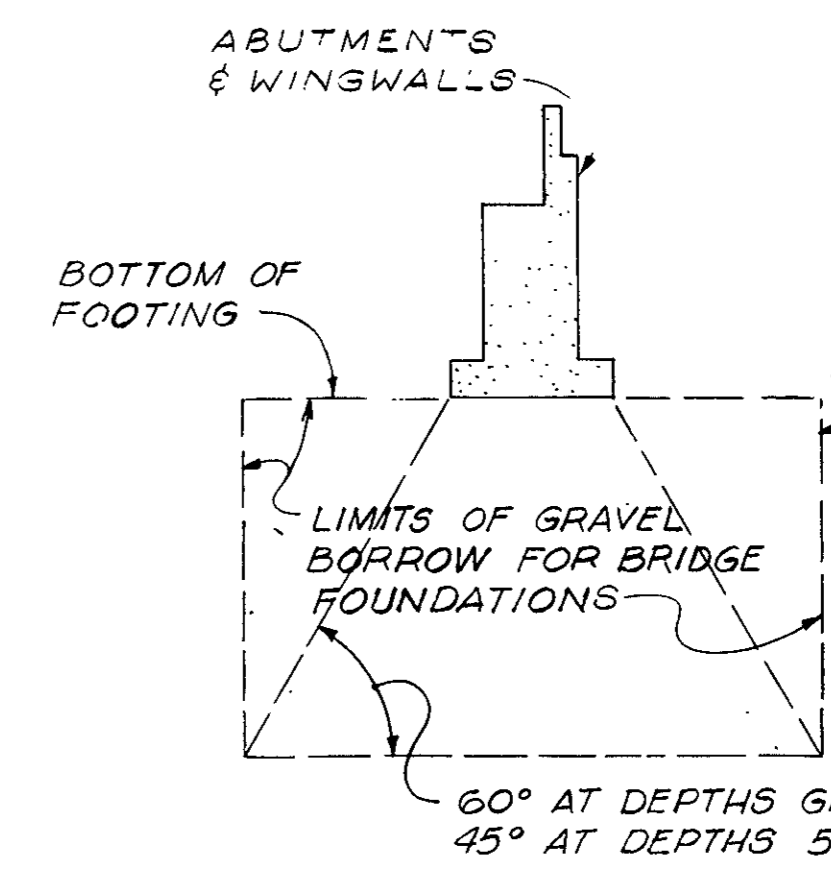
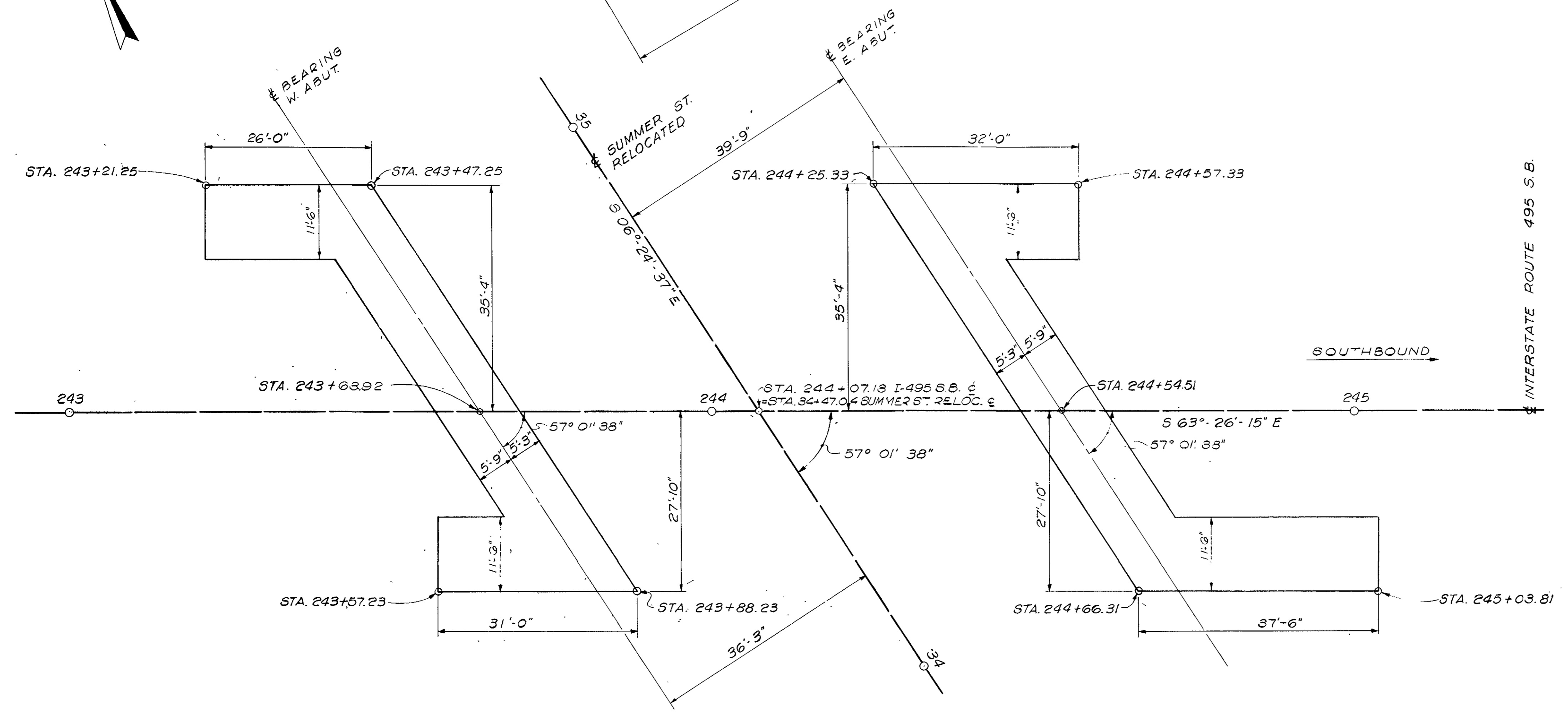


	EXT. BEAM	INT. BEAM
A	1 1/16" N.B. 3/4" S.B.	1 5/16" N.B. 1" S.B.
B	1 5/16" N.B. 1" S.B.	1 7/16" N.B. 1 1/16" S.B.

SLAB DEAD LOAD DEFLECTION DIAGRAM

NOT TO SCALE.

NOTE: DEFLECTIONS ARE NOTED AT THE 1/4, 1/2 & 3/4 POINTS OF THE SPAN FOR THE USE OF THE RESIDENT ENGINEER ONLY. THE ORDINATES SHOWN ON THE PLAN ARE 80% OF THE ACTUAL COMPUTATION.



NOTES
 DEPTH OF GRAVEL BORROW FOR BRIDGE FOUNDATIONS TO BE DETERMINED IN THE FIELD DURING CONSTRUCTION. SAME TREATMENT TO BE USED AT ENDS.
 UNSUITABLE MATERIAL TO BE REMOVED BEFORE GRAVEL BORROW FOR BRIDGE FOUNDATIONS IS PLACED

GRAVEL BORROW FOR BRIDGE FOUNDATION

NOT TO SCALE

FOOTING LAYOUT PLAN N.B. & S.B.

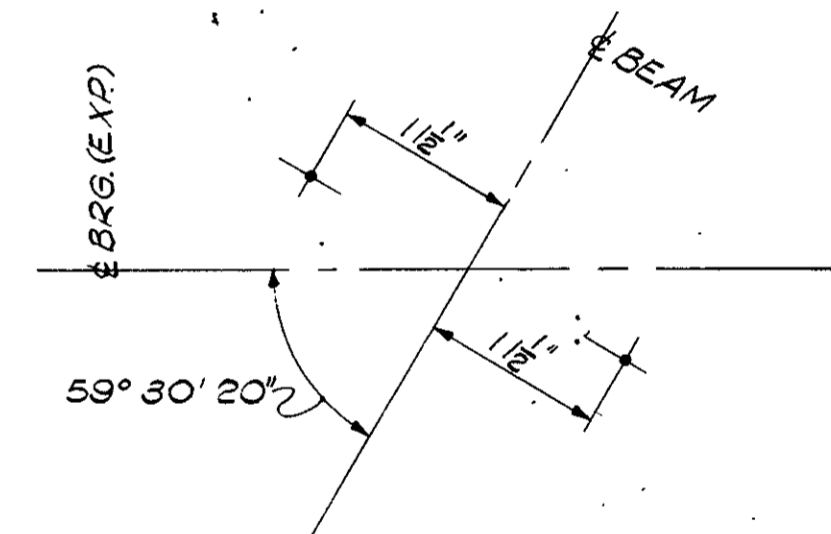
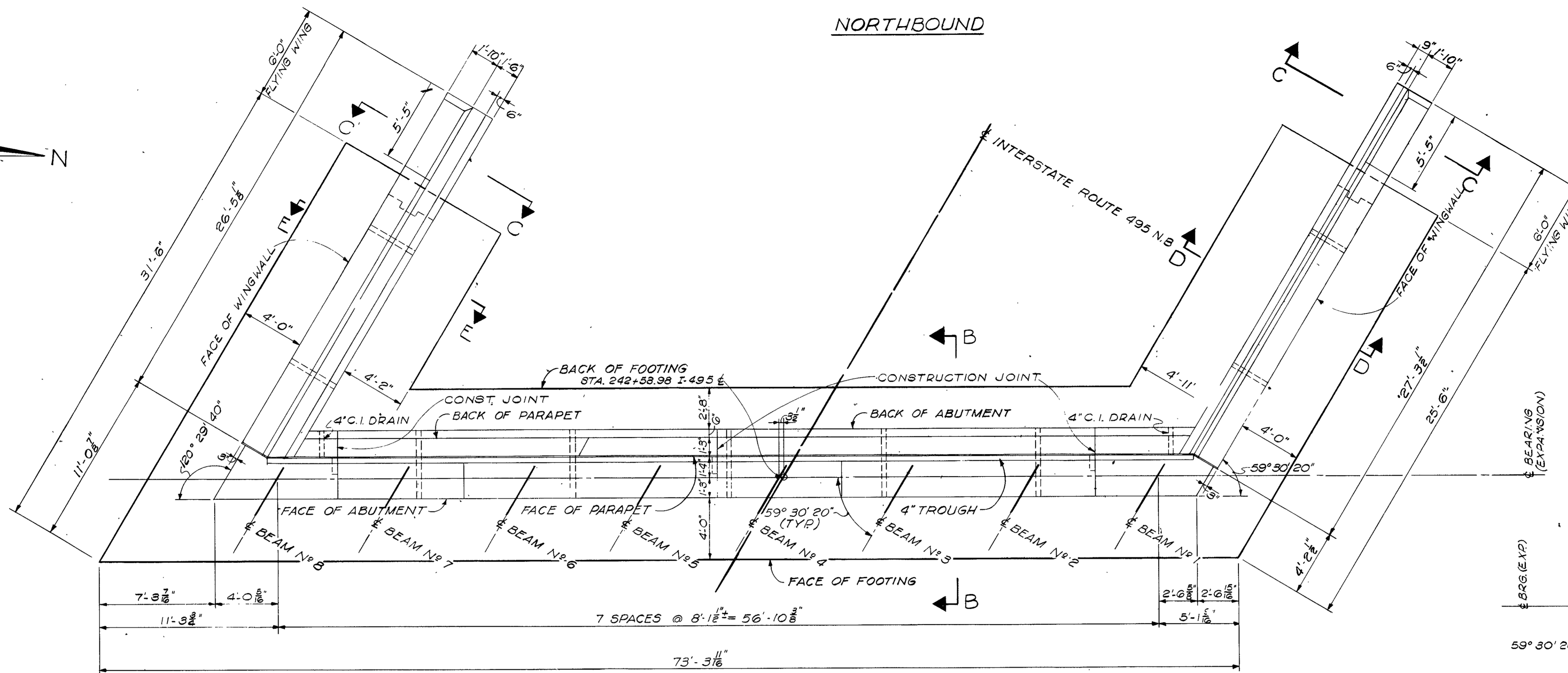
SCALE: 3/32" = 1'-0"

MAR. 1 1966	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
	USE ONLY PRINTS OF LATEST DATE

PUB. OR. DIV. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	I-495-5(13)S		184	1673

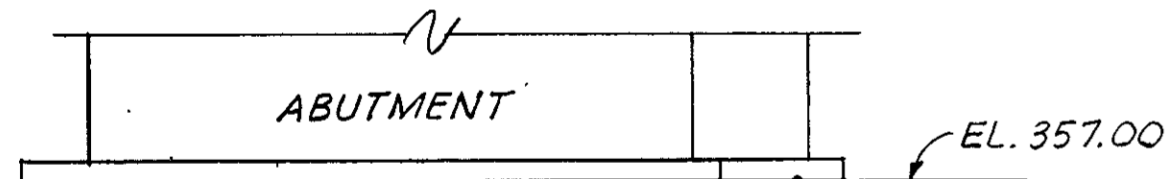


NORTHBOUND

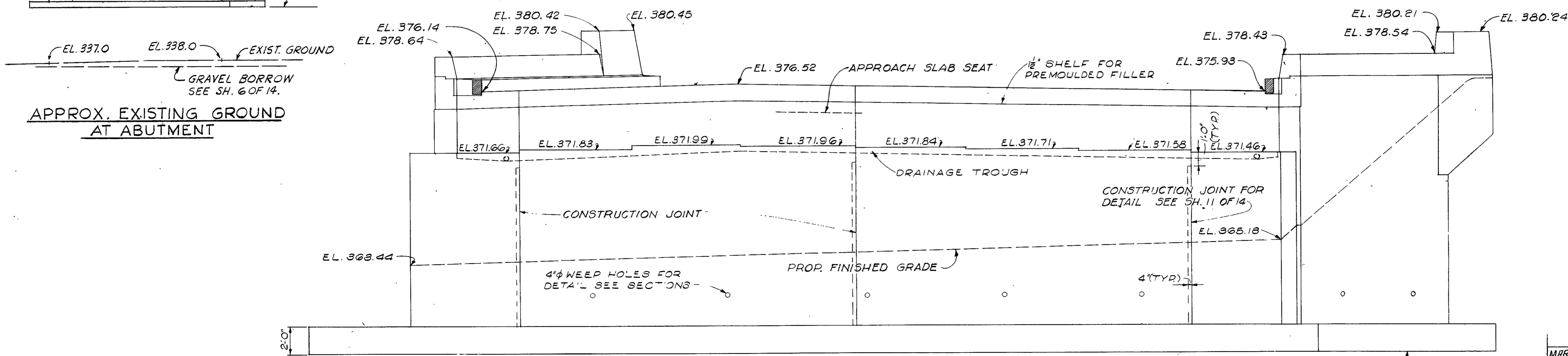


PLAN OF WEST ABUTMENT N. B.

SCALE: 1/4" = 1'-0"



ANCHOR BOLT LAYOUT N.T.S.



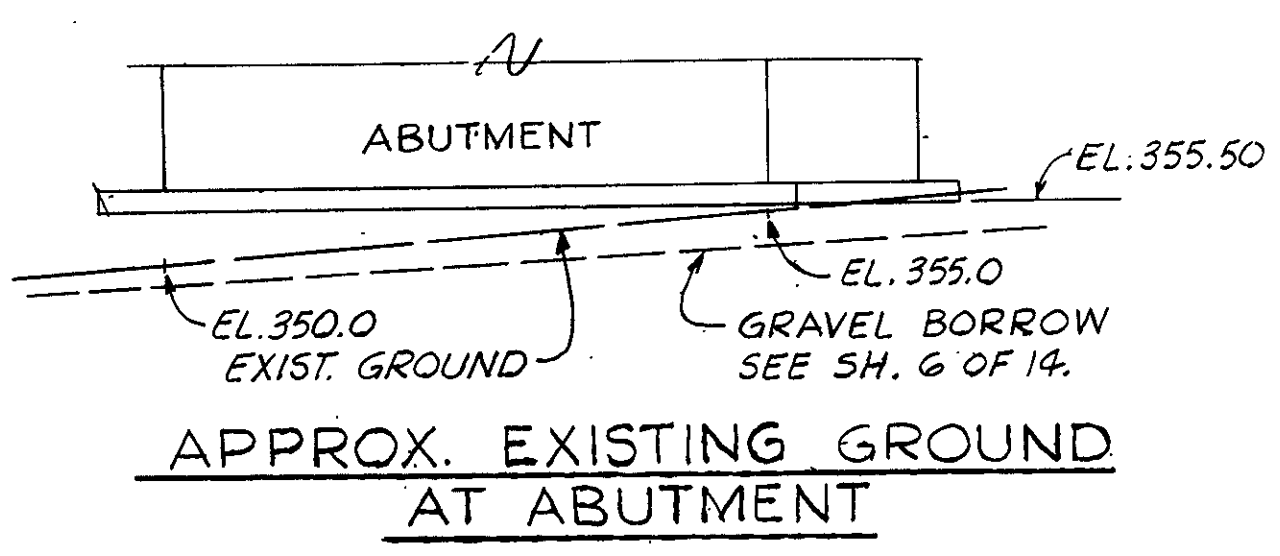
ELEVATION OF WEST ABUTMENT N. B.

SCALE: 1/4" = 1'-0"

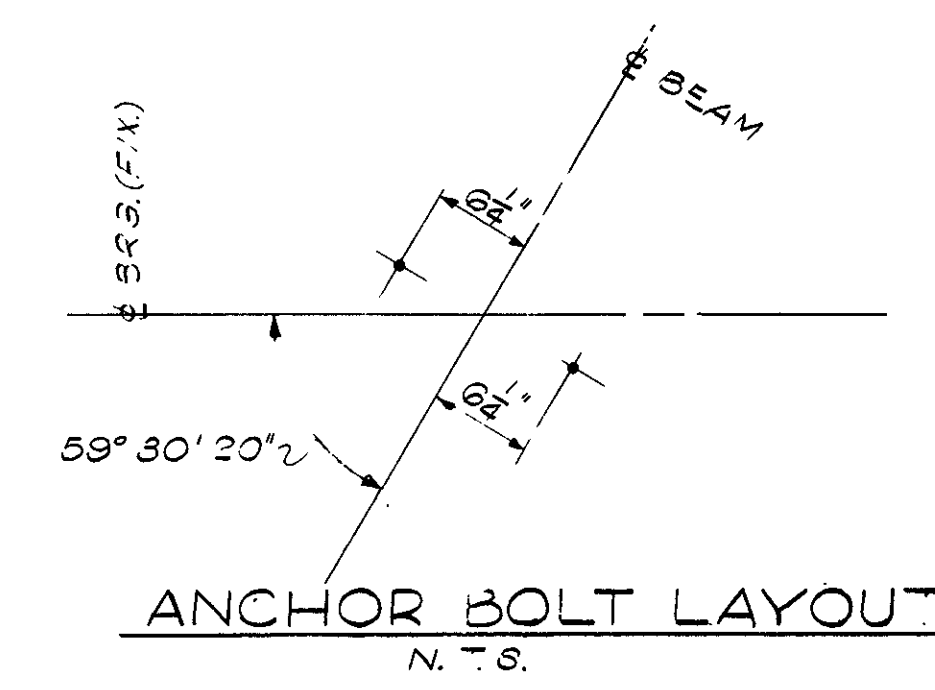
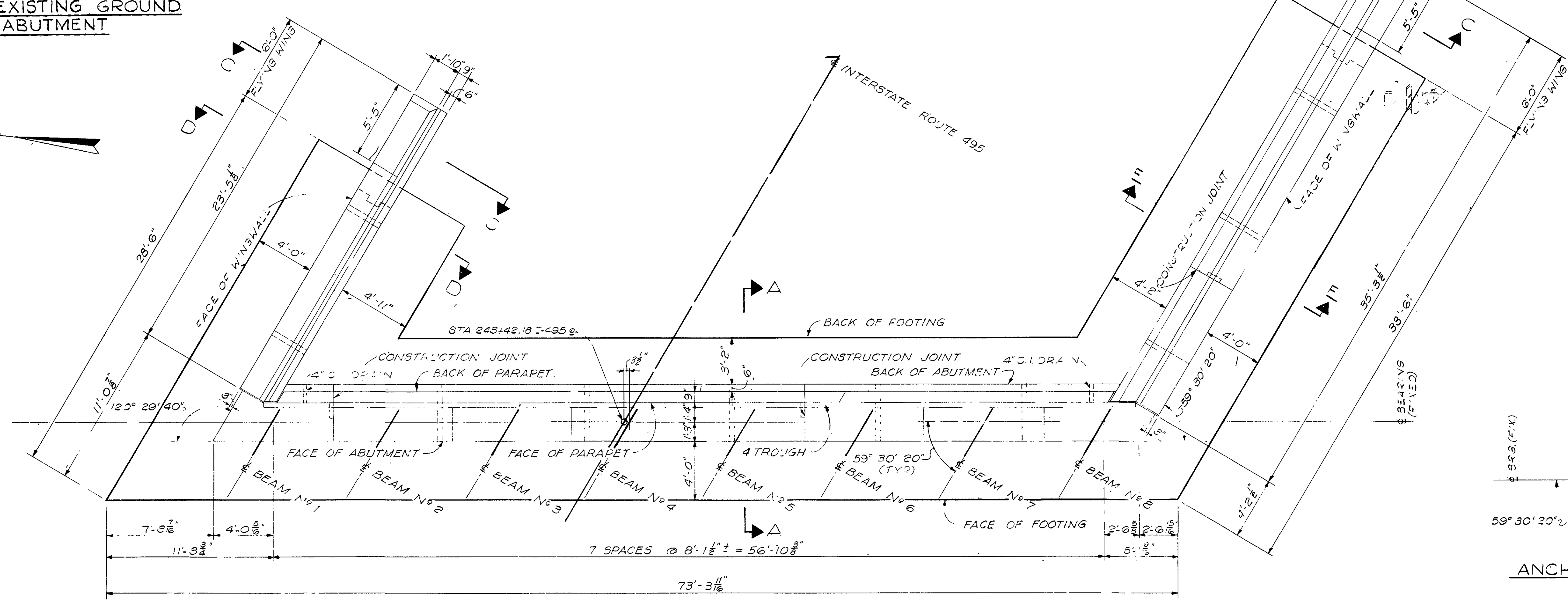
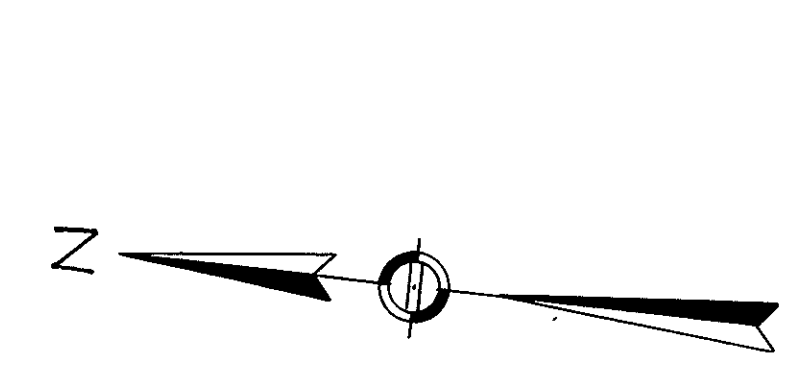
NOTE: FOR SECTIONS B-B, C-C, D-D & E-E SEE SH. SHEET 11 OF 14

MAR. 1, 1966	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
	USE ONLY PRINTS OF LATEST DATE

PROJ. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	I-495-5(15)15		185	673

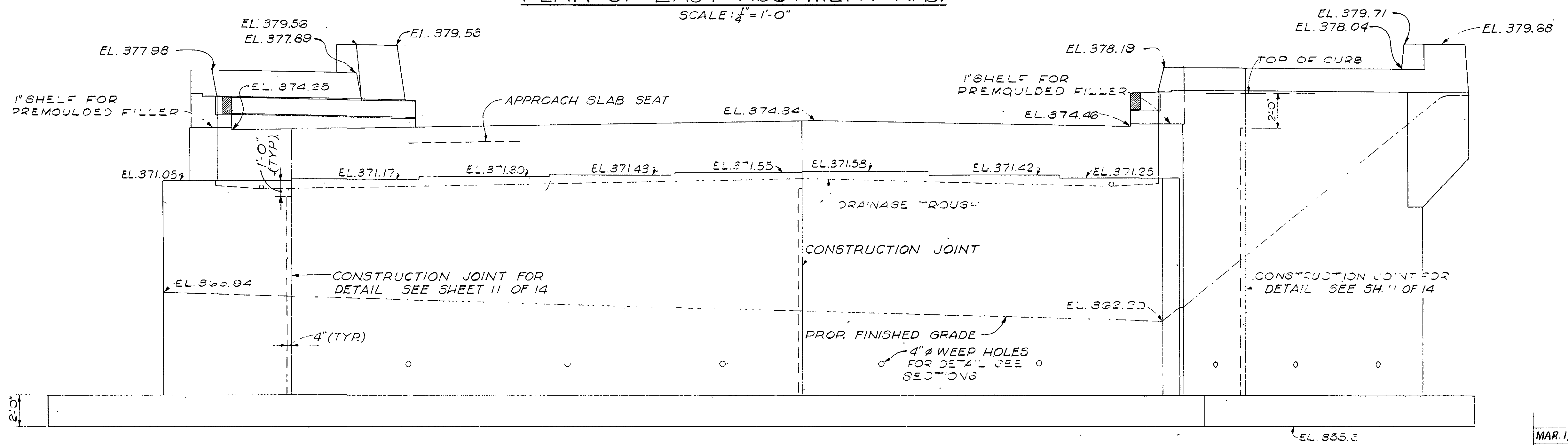


NORTHBOUND



PLAN OF EAST ABUTMENT N.B.

SCALE: 1/4" = 1'-0"



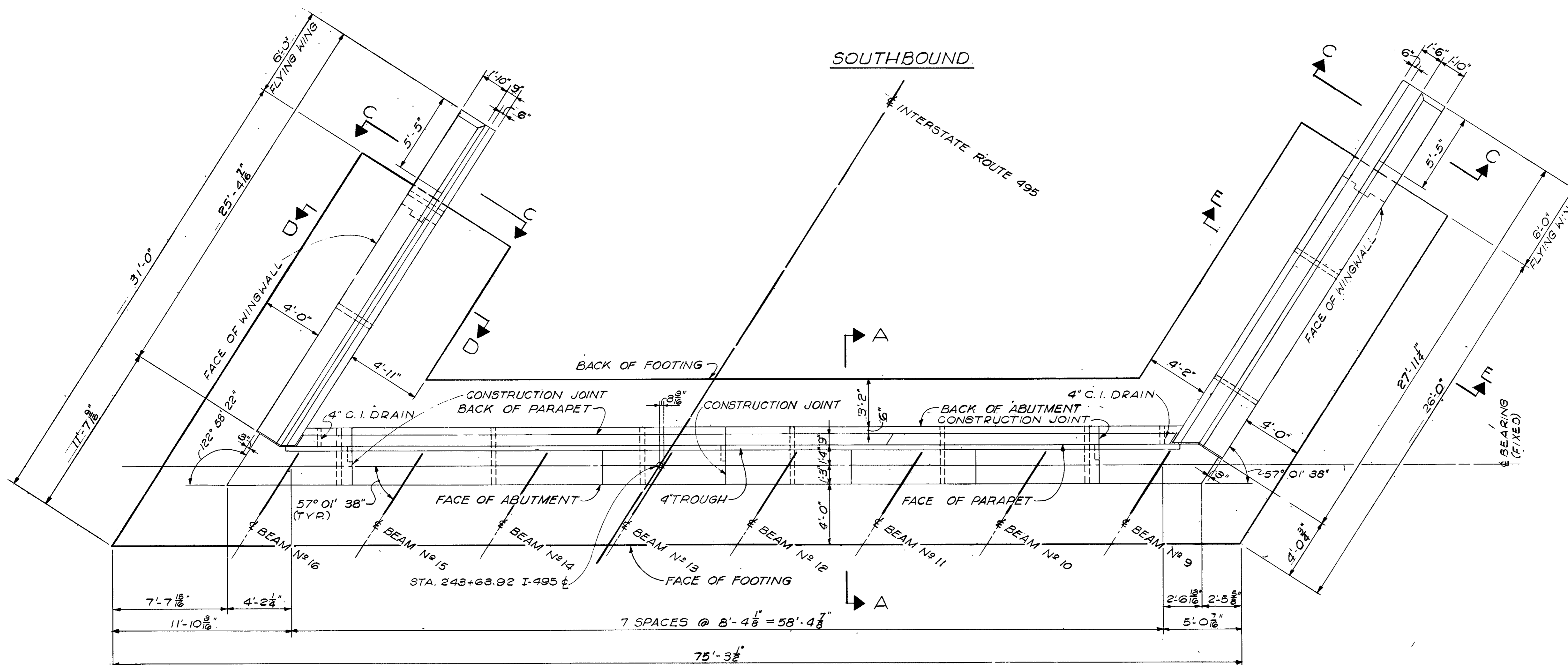
ELEVATION OF EAST ABUTMENT N.B.

SCALE: 1/4" = 1'-0"

NOTE:
FOR SECTION A-A, C-C, D-D
& E-E, SEE SHEET 11 OF 14

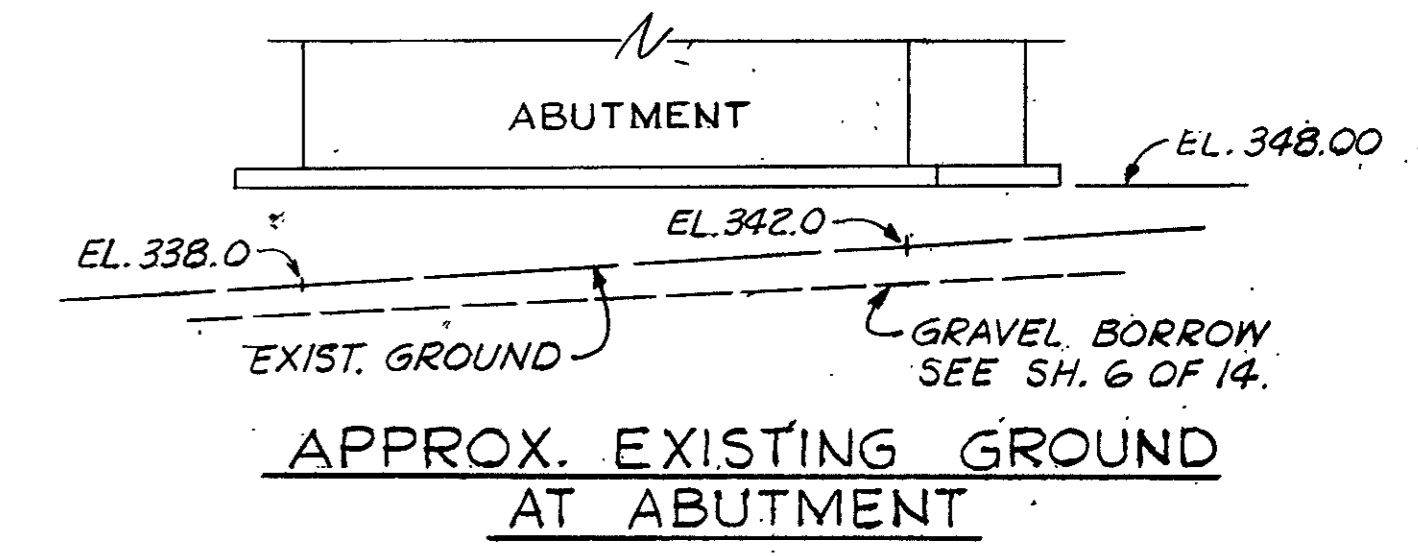
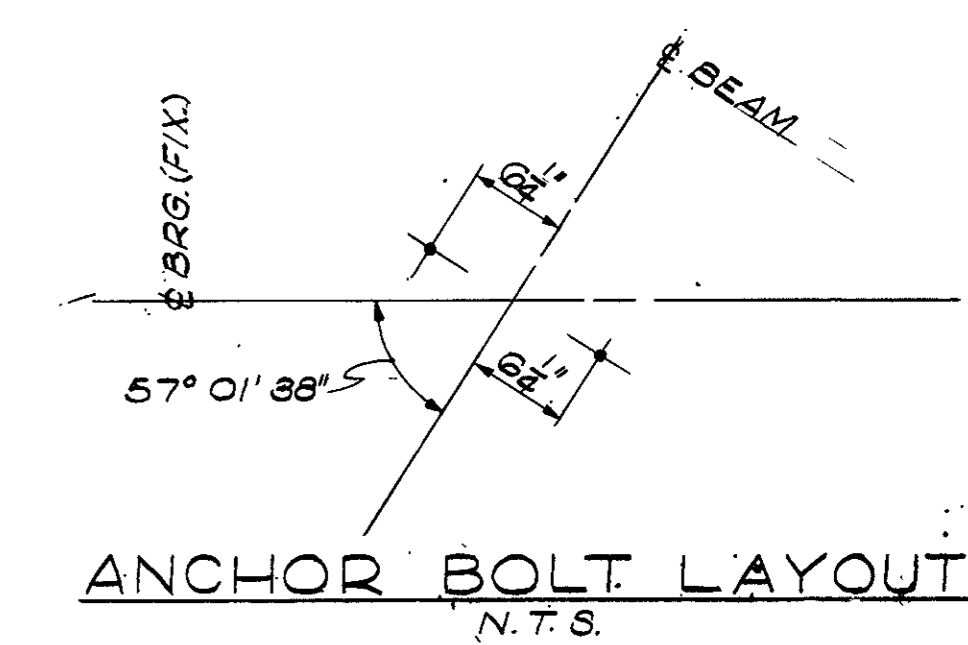
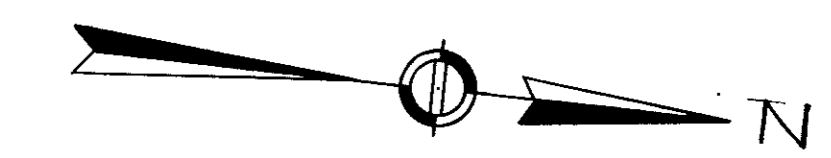
DATE	DESCRIPTION
MAR 1, 1966	ISSUED FOR CONSTRUCTION
	USE ONLY PRINTS OF LATEST DATE

FIG. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	E-495-3(16)15		186	673

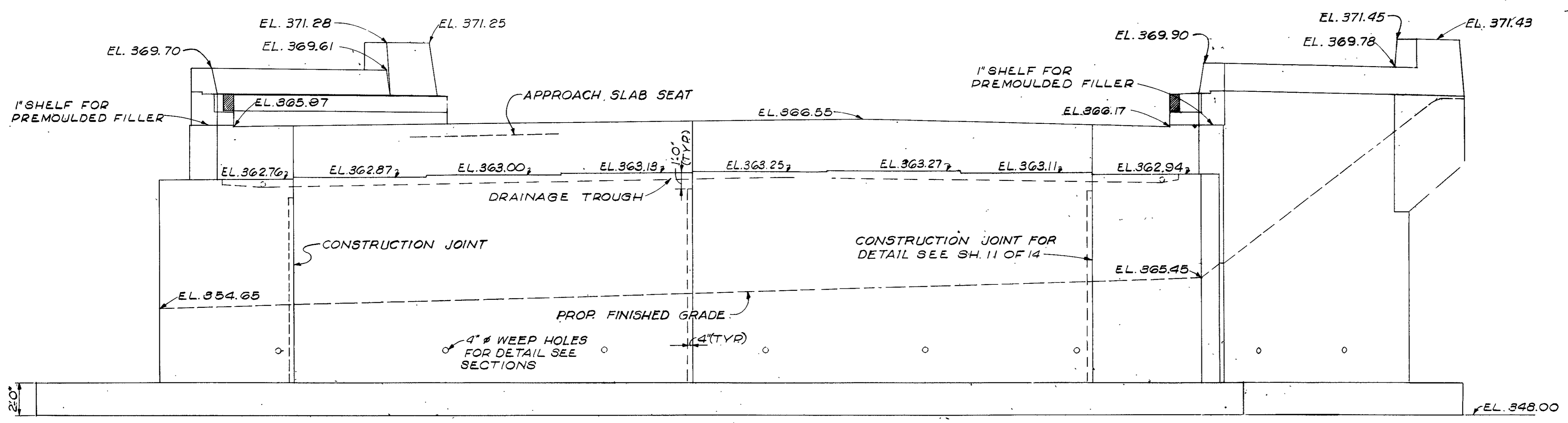


PLAN OF WEST ABUTMENT S. B.

SCALE: 1/4" = 1'-0"



NOTE:
FOR SECTIONS A-A, C-C, D-D & E-E
SEE SHEET 11 OF 14

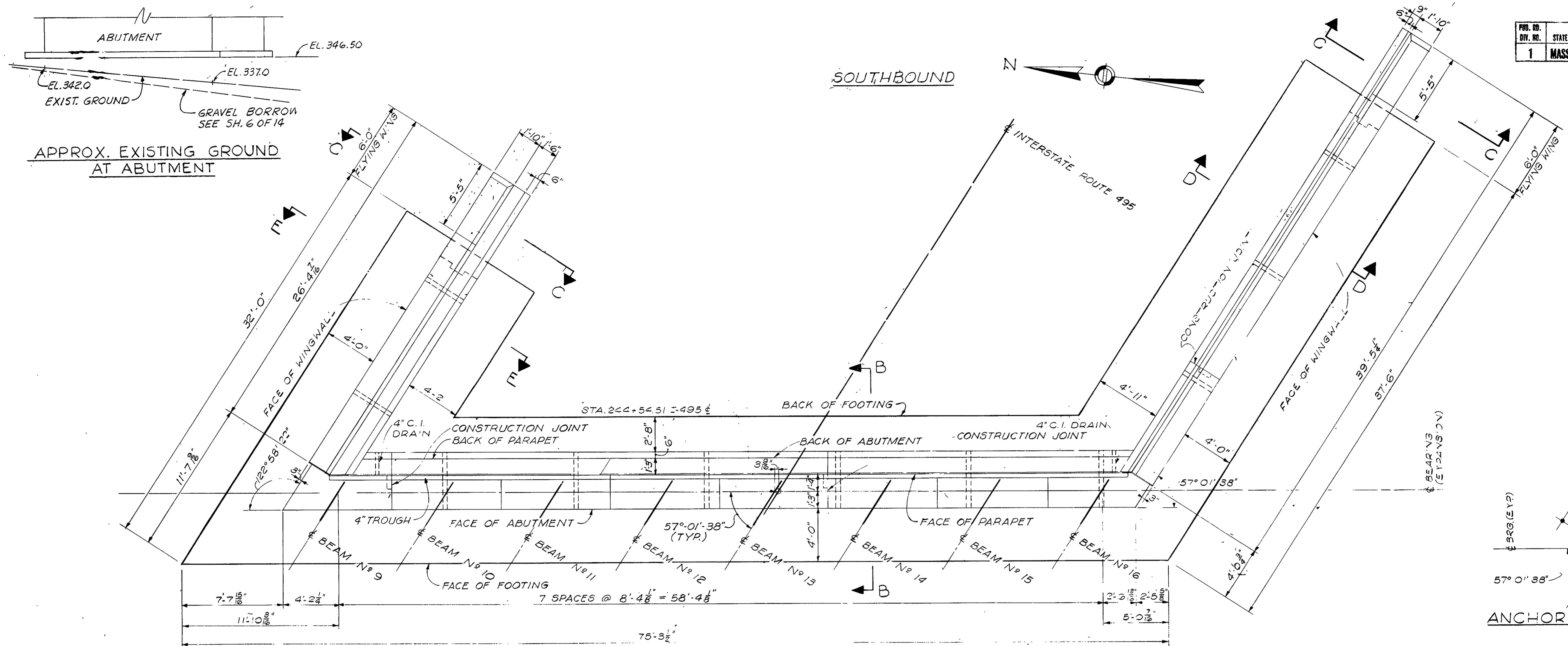


ELEVATION OF WEST ABUTMENT S. B.

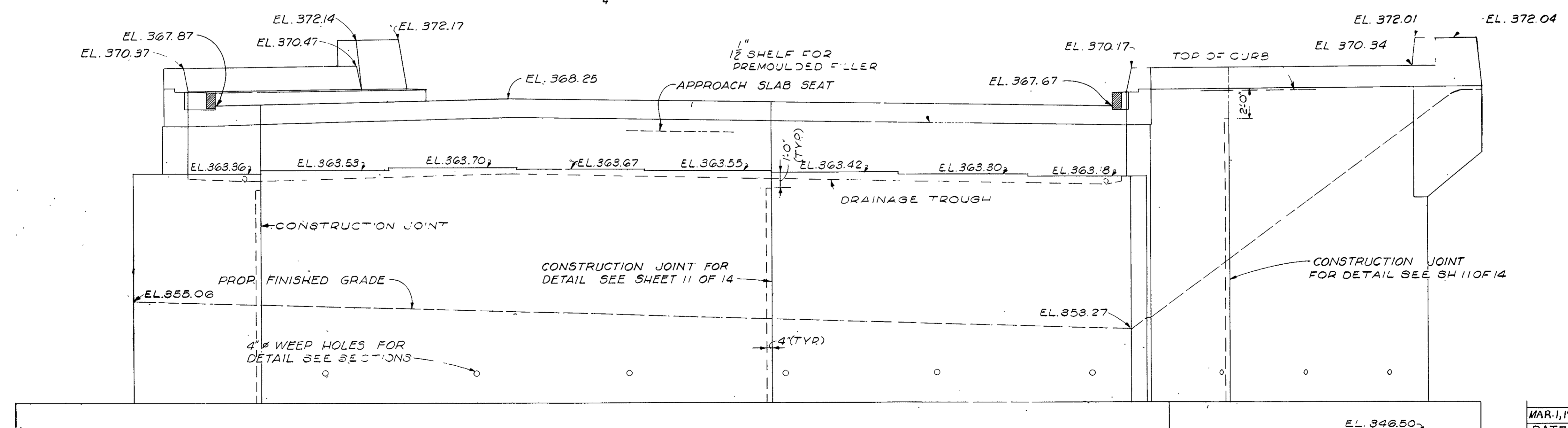
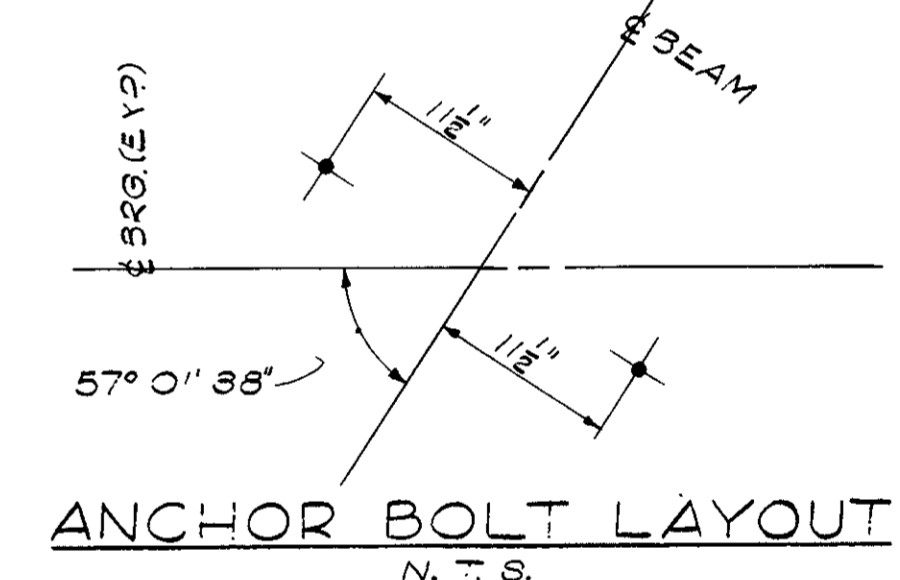
SCALE: 1/4" = 1'-0"

MAR. 1, 1966	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE	

FED. RD. DIV. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	I-495-5(10)B		187	673



PLAN OF EAST ABUTMENT S. B.
SCALE: 1/4" = 1'-0"

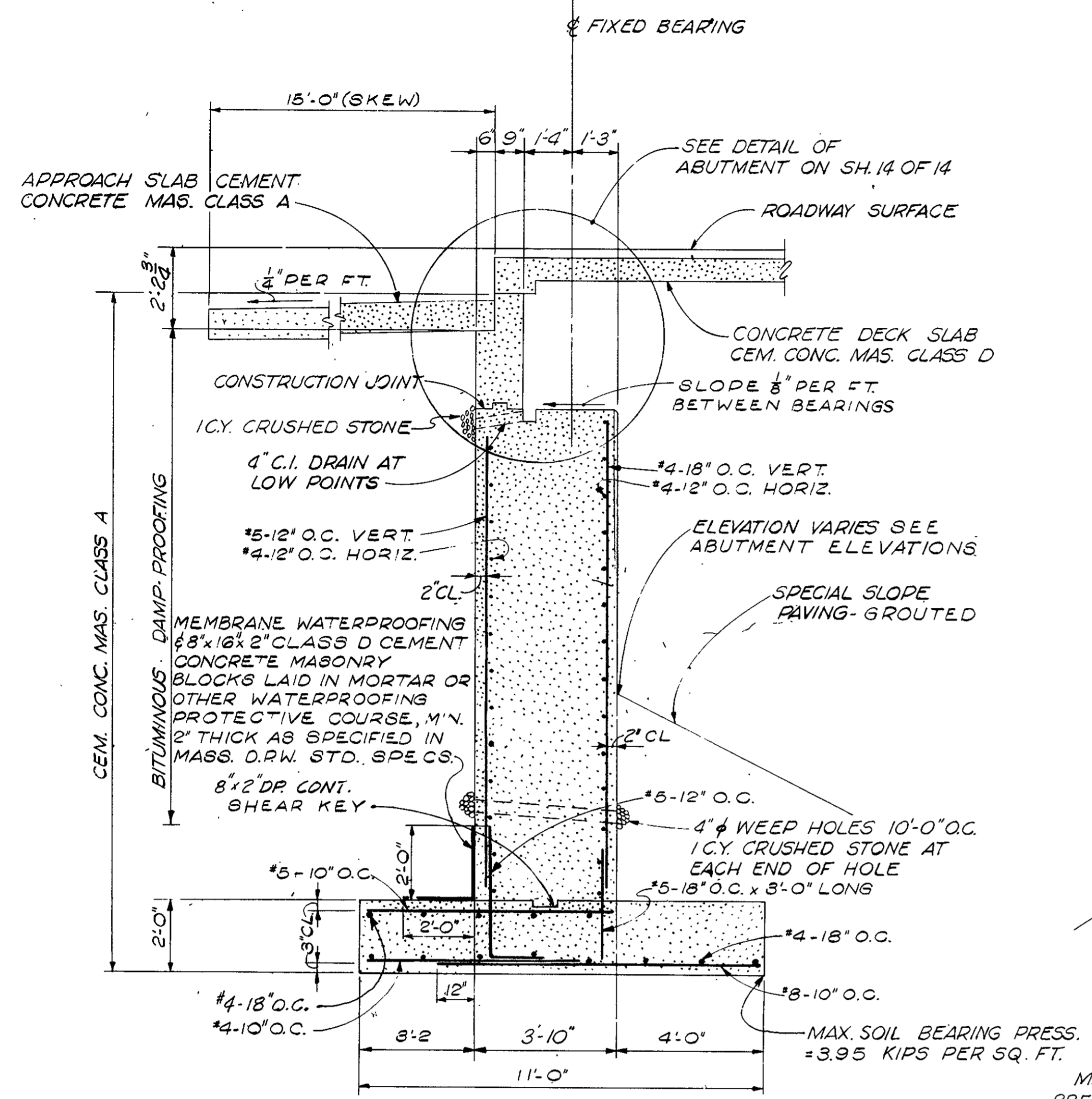


ELEVATION OF EAST ABUTMENT S. B.
SCALE: 1/4" = 1'-0"

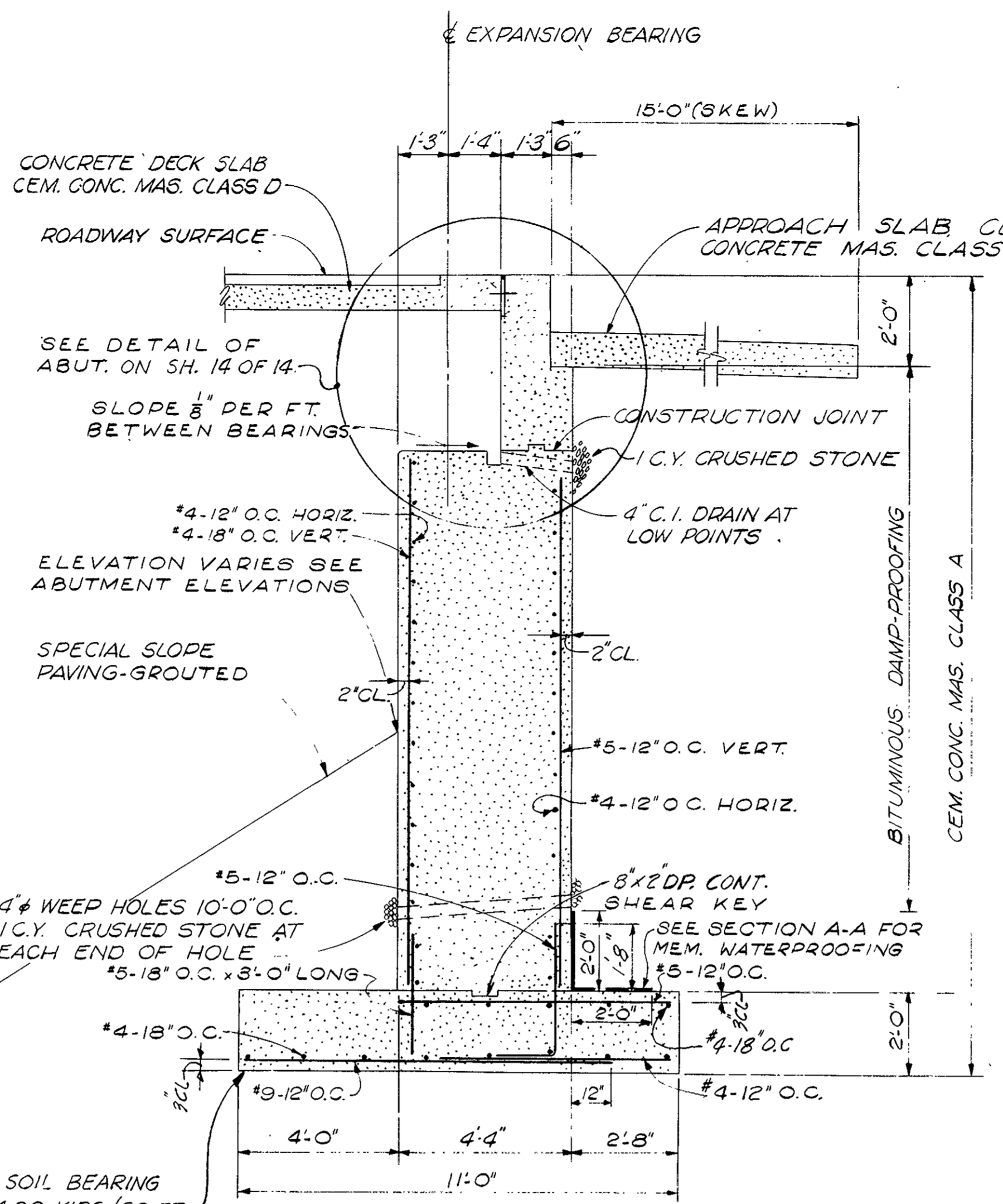
NOTE:
FOR SECTIONS B-B, C-C, D-D & E-E SEE SHEET 11 OF 14

MAR. 1, 1966	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
	USE ONLY PRINTS OF LATEST DATE

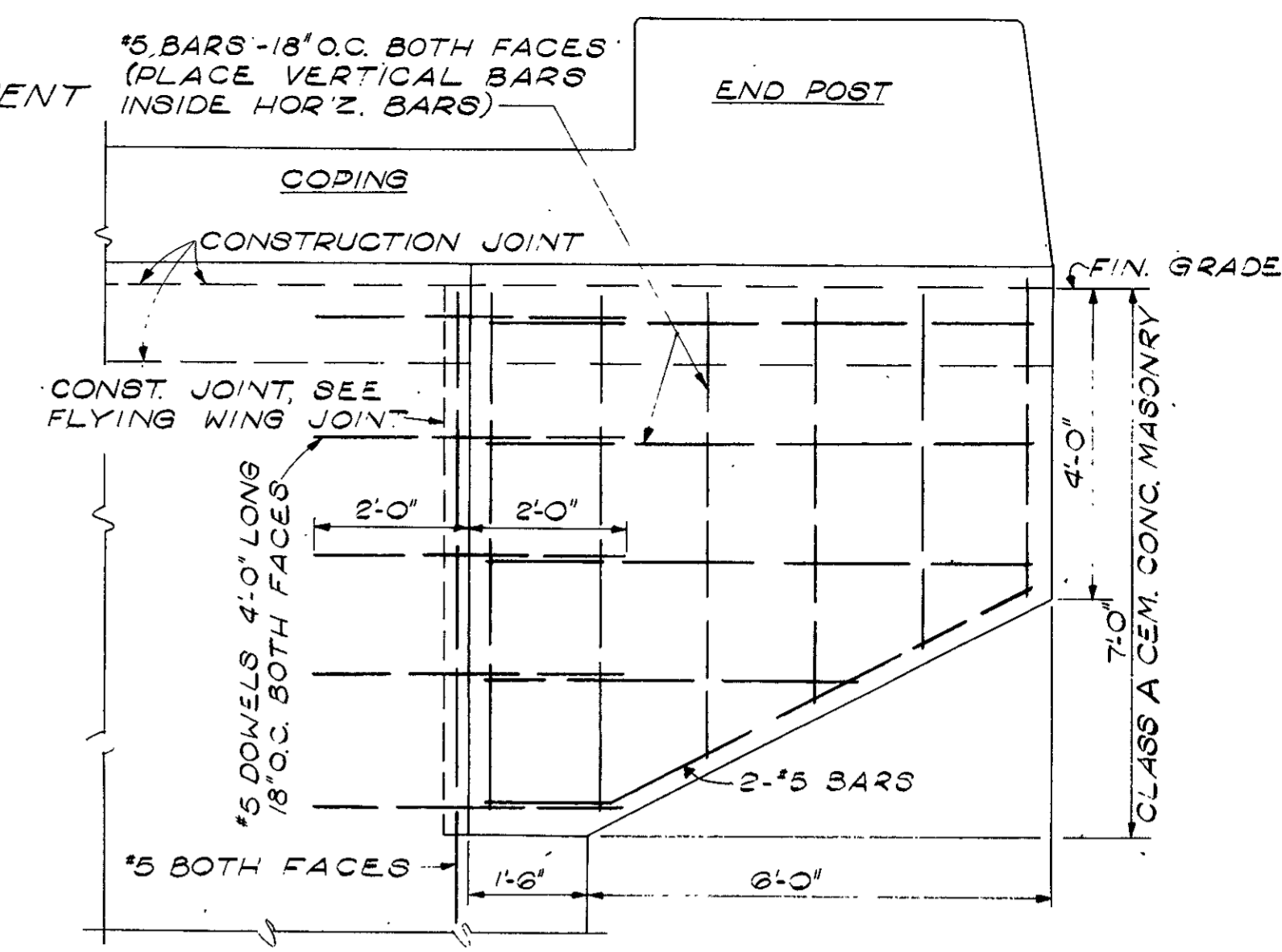
PUB. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	795-5(8)15		188	673



SECTION A-A
SCALE: 3/8" = 1'-0"

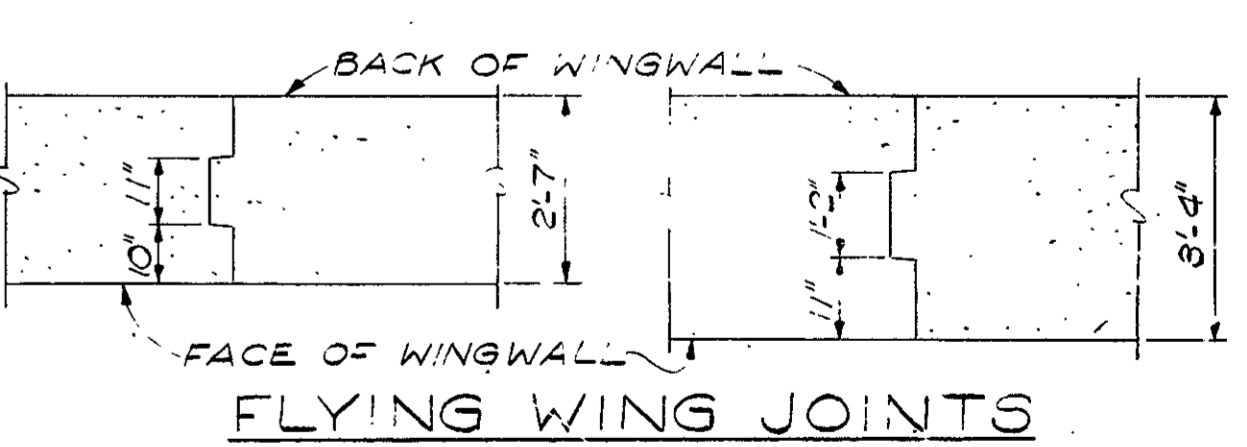
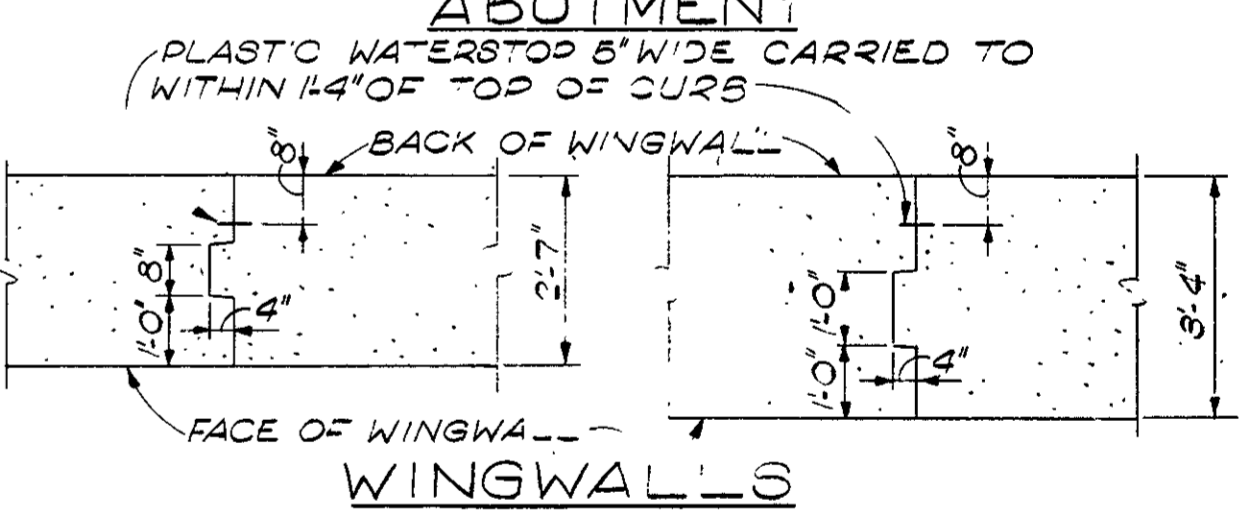
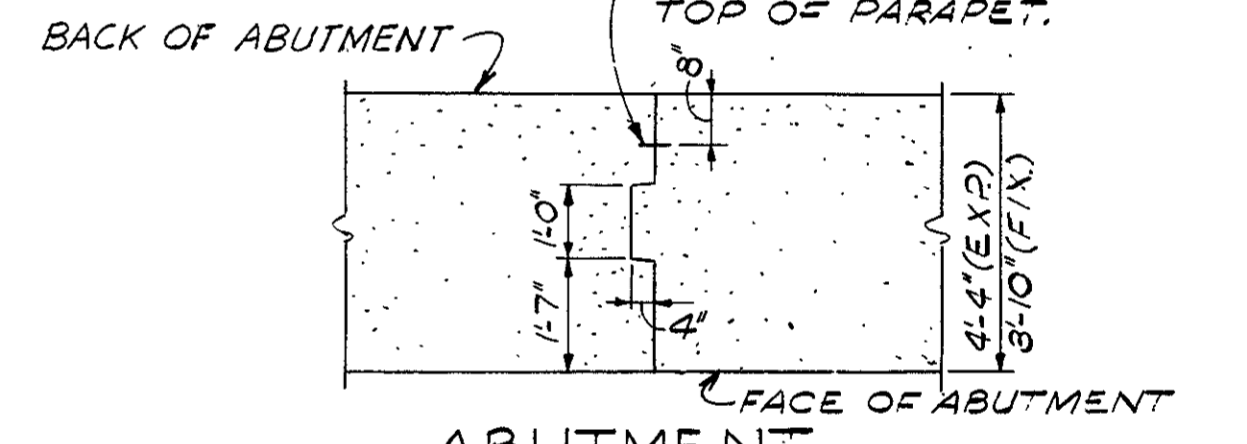


SECTION B-B
SCALE: 3/8" = 1'-0"

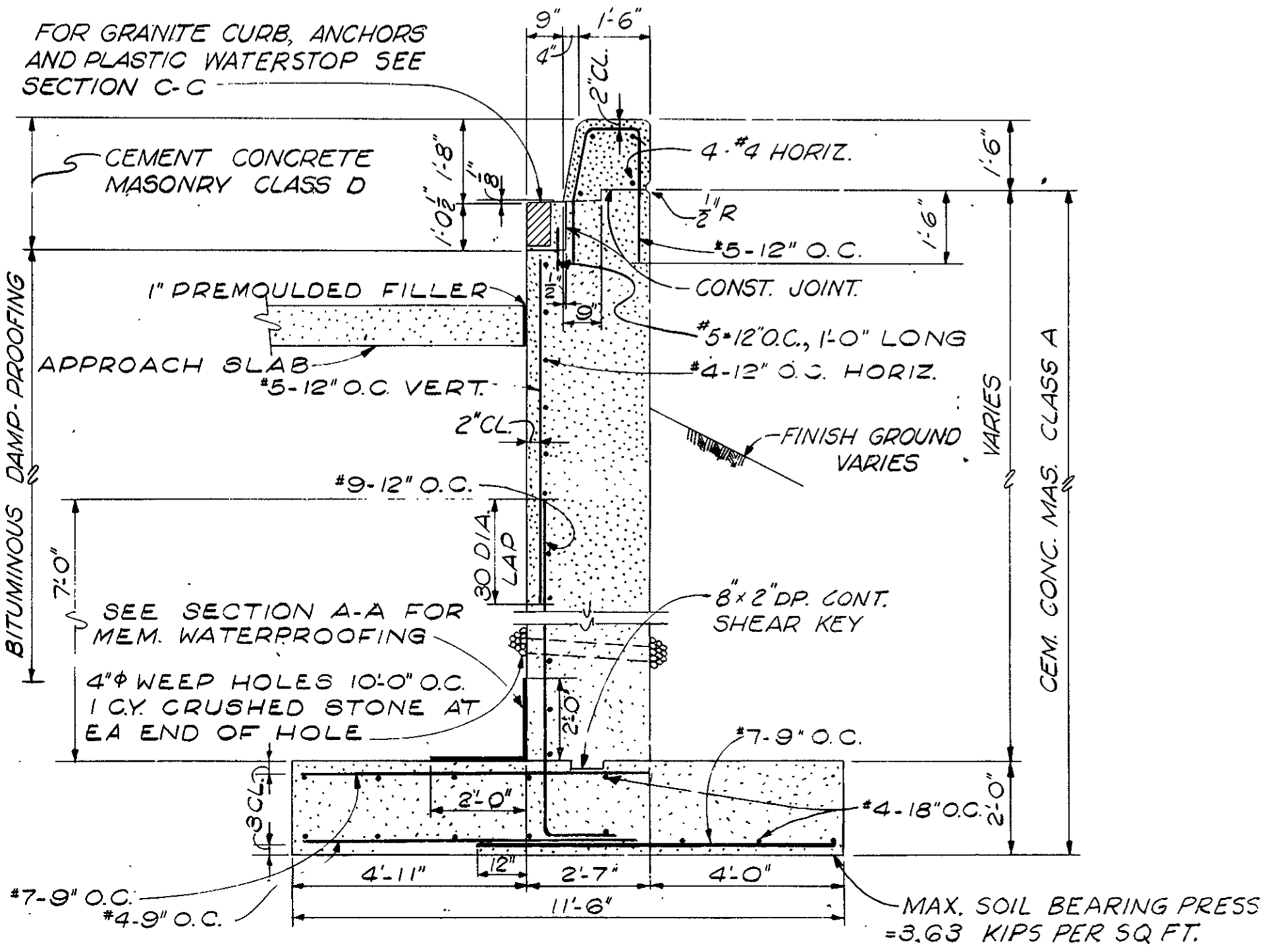


NOTE: FILL SHALL BE PLACED AND THOROUGHLY COMPACTED TO THE GRADE OF THE BOTTOM OF THE WINGS OR WHERE NO FILL IS REQUIRED BELOW THE WINGS, THE CONCRETE SHALL BE PLACED UPON UNDISTURBED SOIL.
FLYING WING FOR WINGWALL

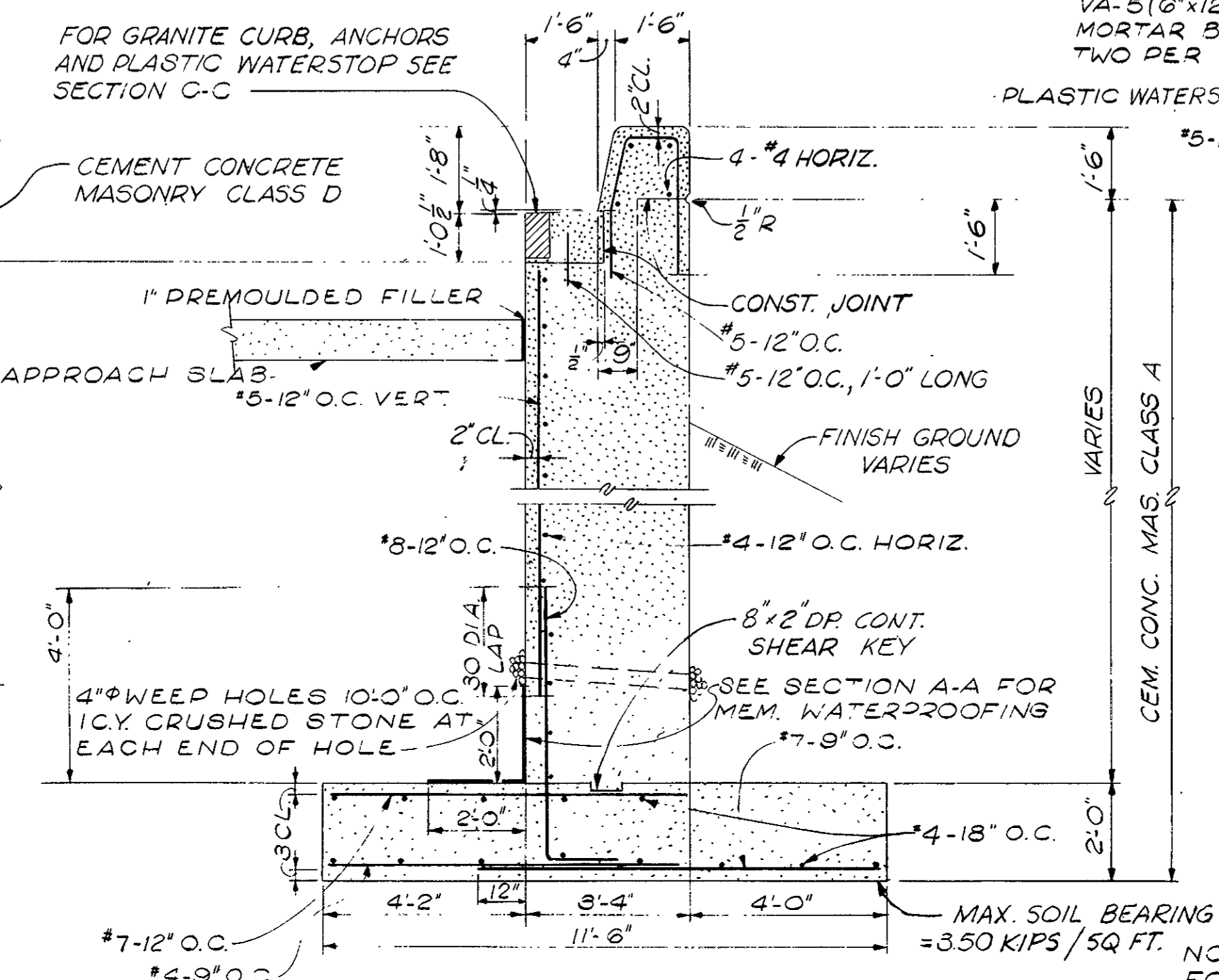
PLASTIC WATERSTOP 5" WIDE CARRIED TO WITHIN 4" OF TOP OF PARAPET.



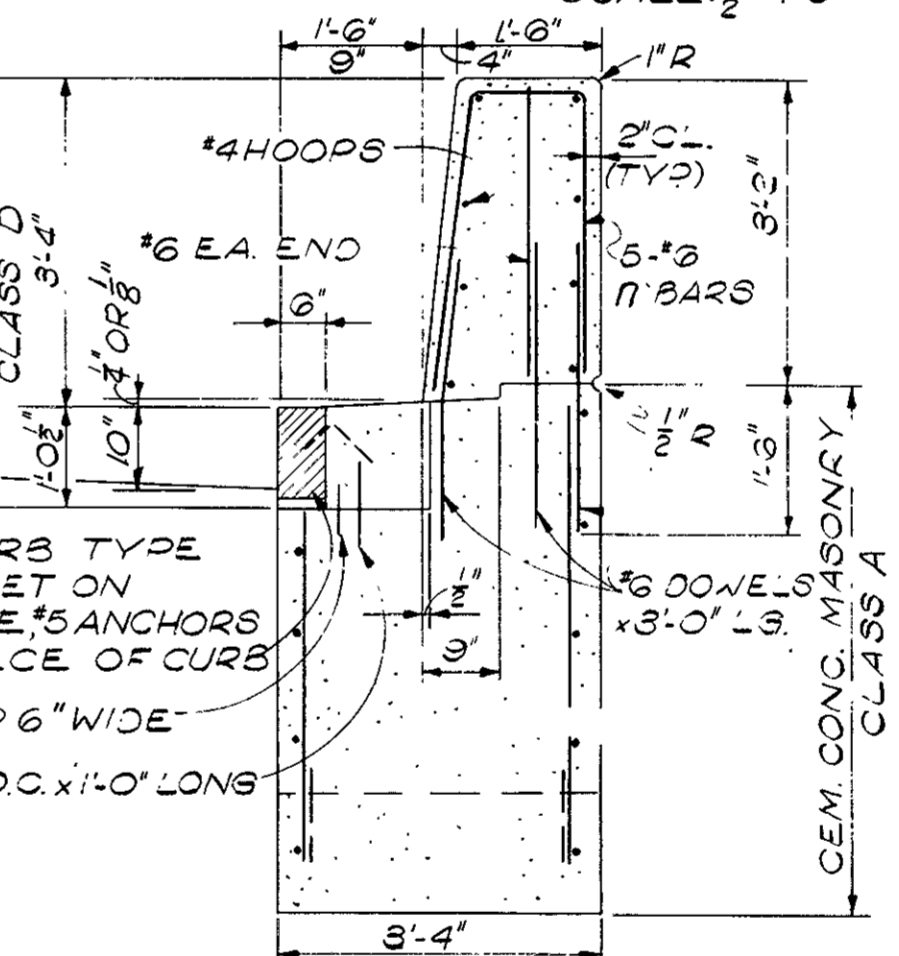
NOTE: KEYS TO BE SLIGHTLY TAPERED
CONSTRUCTION JOINT DETAILS
SCALE: 3/8" = 1'-0"



SECTION D-D
SCALE: 3/8" = 1'-0"



SECTION E-E
SCALE: 3/8" = 1'-0"

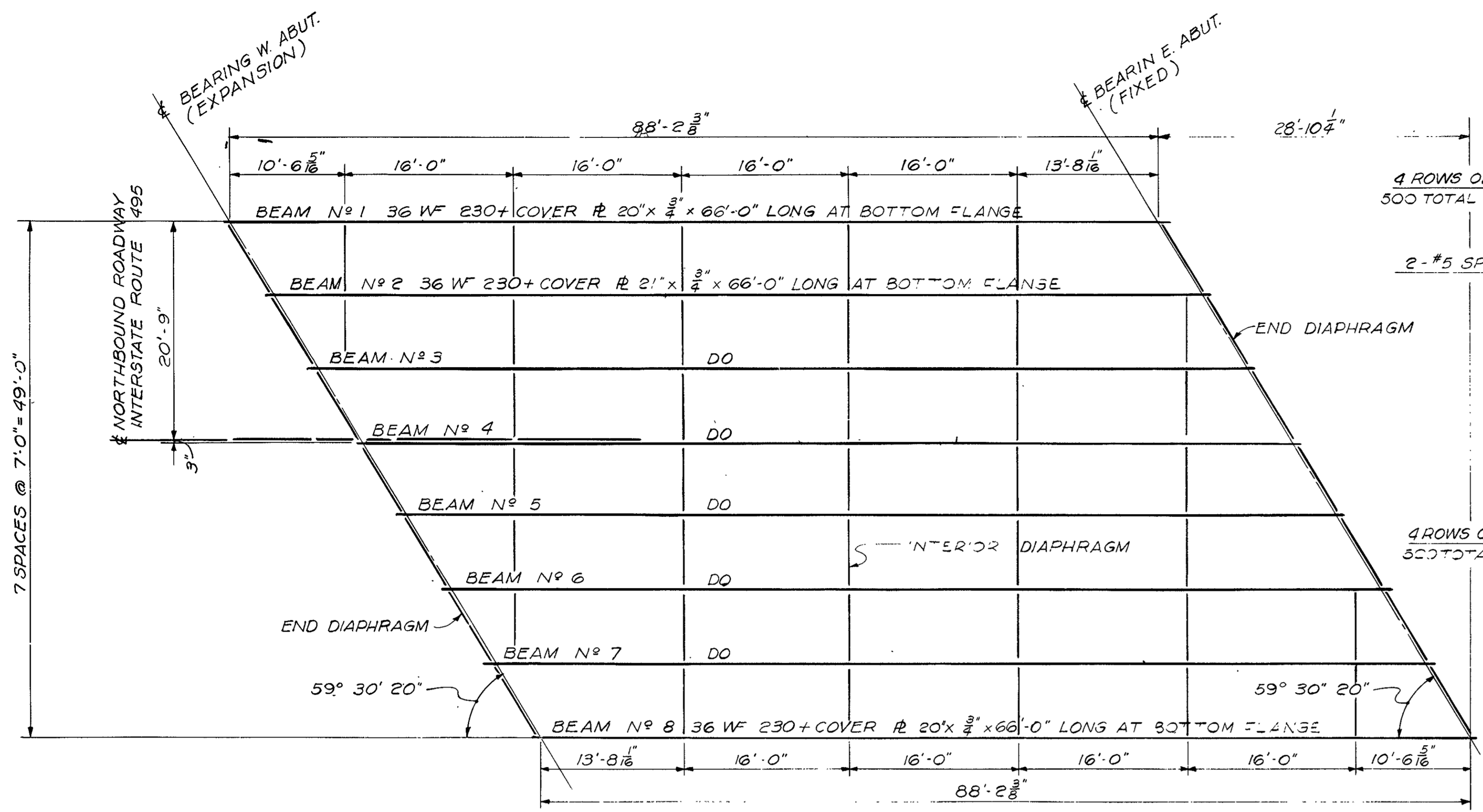


SECTION C-C
SCALE: 1/2" = 1'-0"

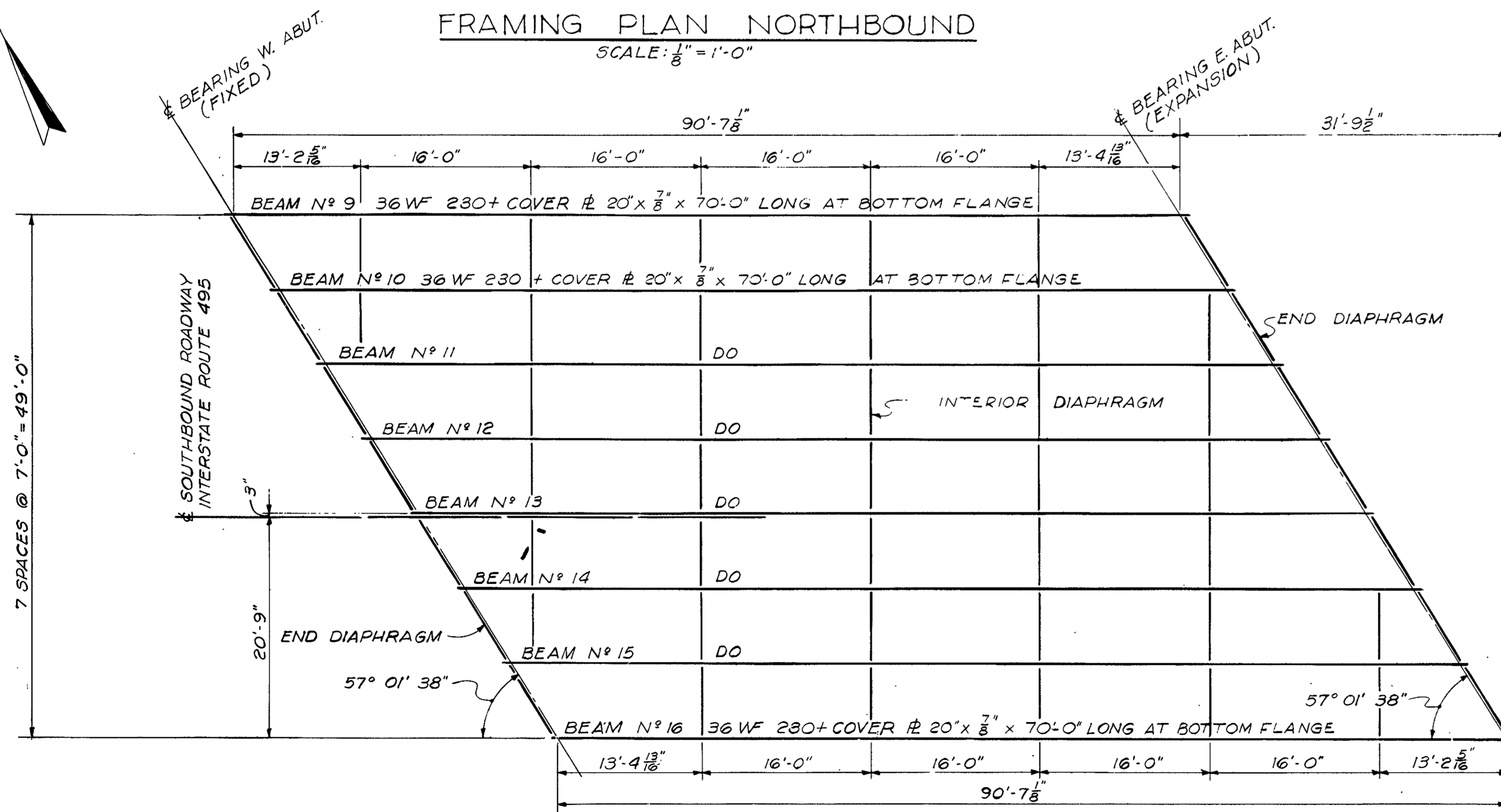
NOTE: FOR LOCATION OF SECTIONS SEE SHEETS 7, 8, 9 & 10 OF 14

DATE	DESCRIPTION
MAR. 1, 1966	ISSUED FOR CONSTRUCTION
	USE ONLY PRINTS OF LATEST DATE

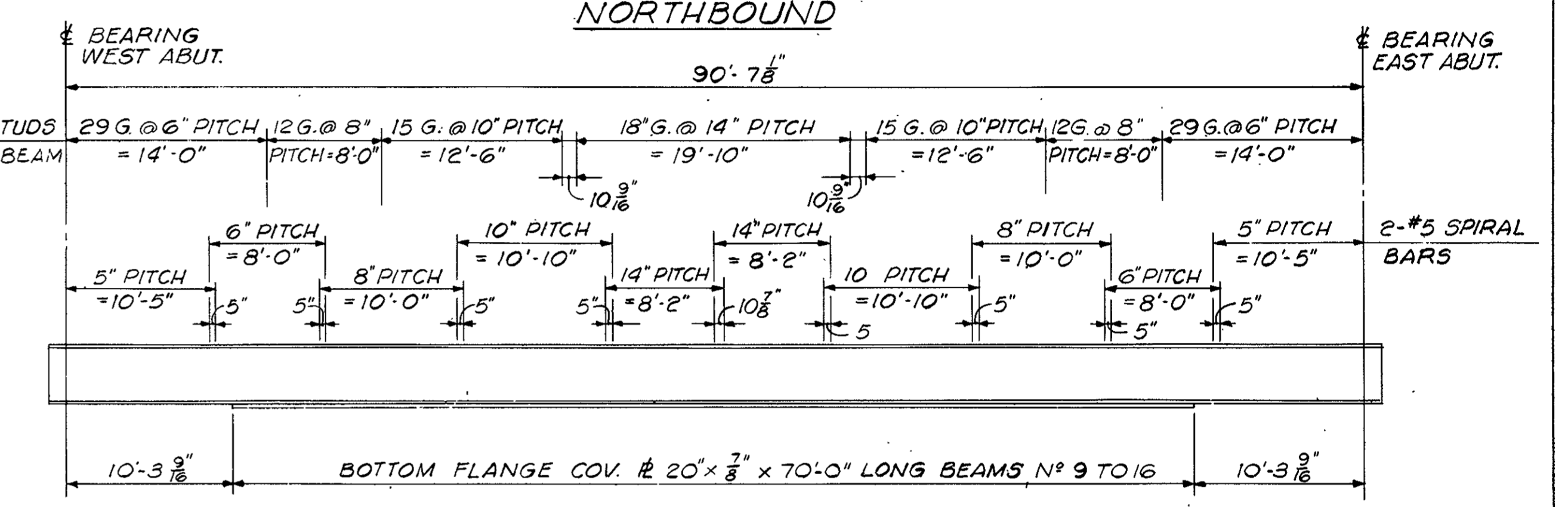
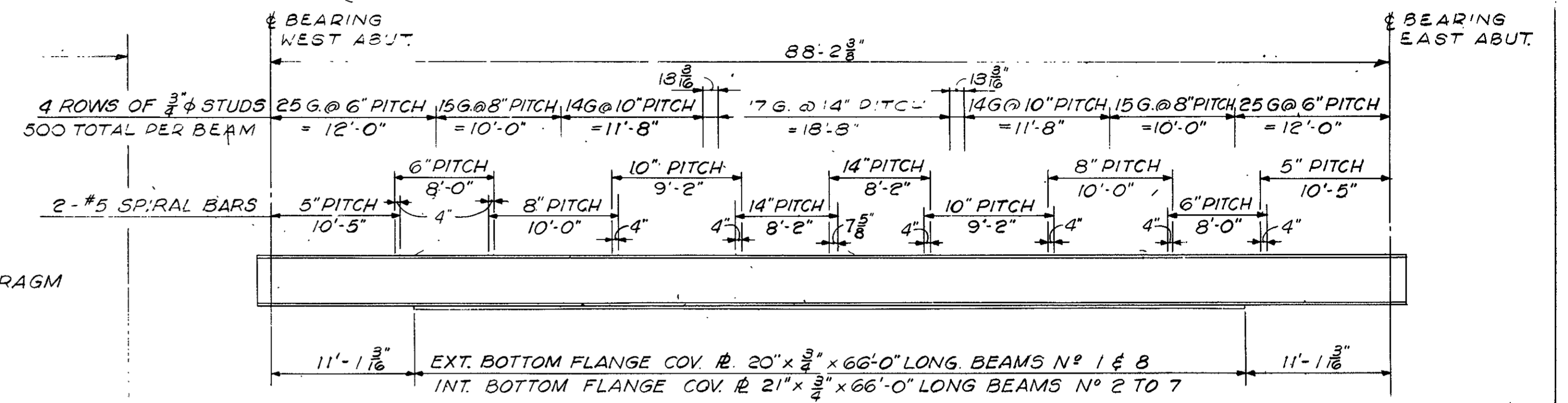
FIG. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	Z-495-3(5)13		189	273



FRAMING PLAN NORTHBOUND
SCALE: 1/8" = 1'-0"



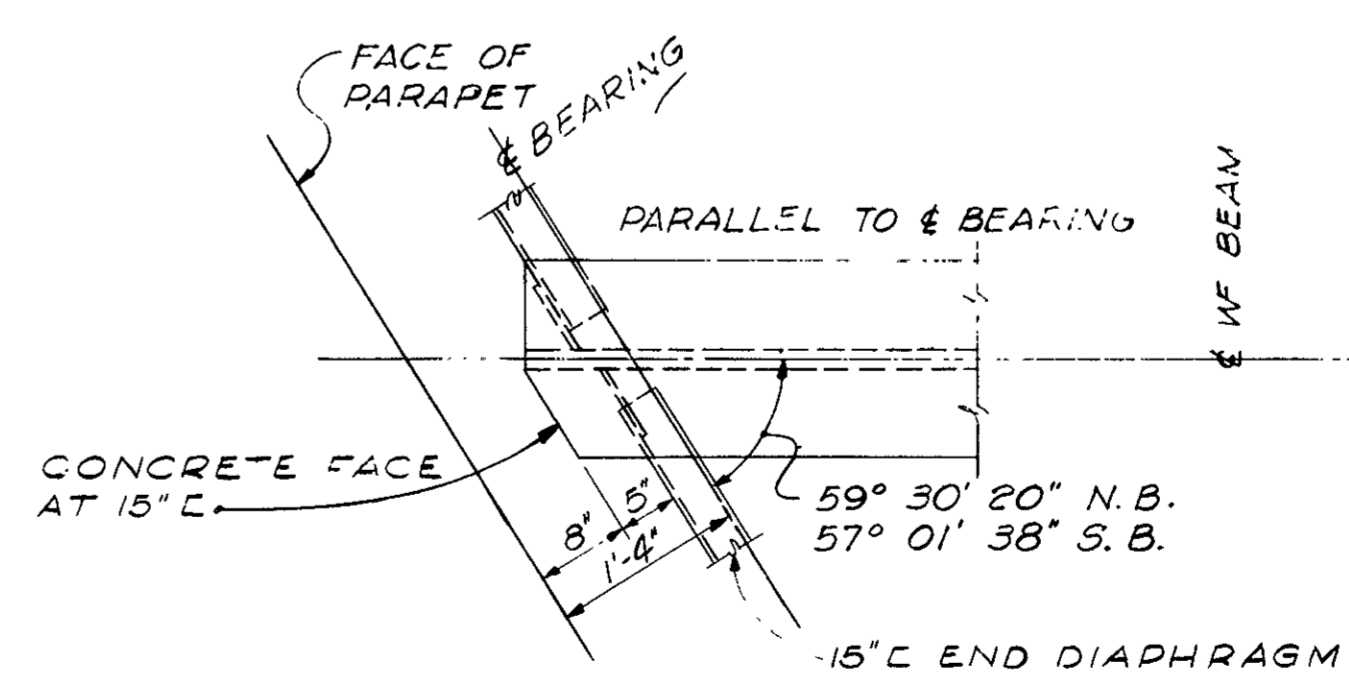
FRAMING PLAN SOUTHBOUND
SCALE: 1/8" = 1'-0"



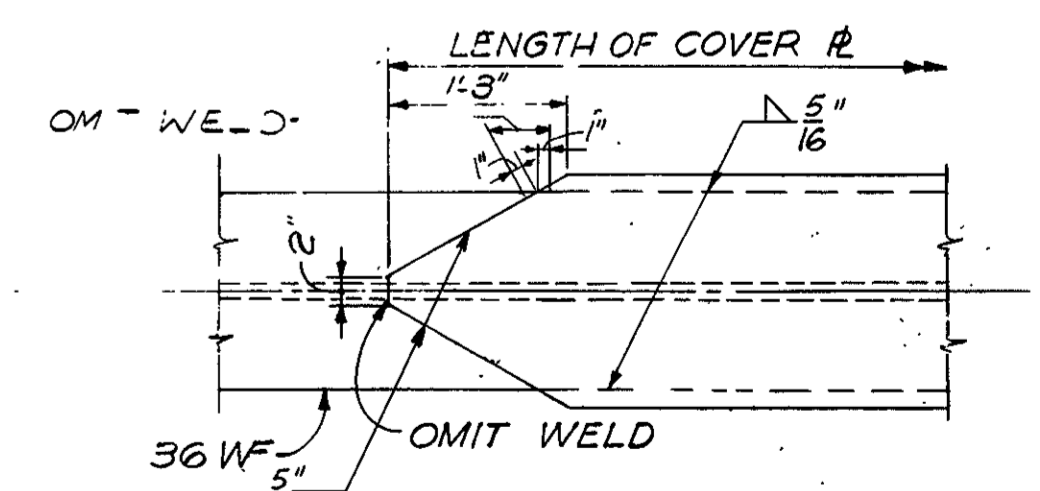
COVER # AND STUD OR SPIRAL SHEAR CONNECTOR SPACINGS
NOT TO SCALE

CAMBER NOTES

- BEAMS N°1 AND N°8 SHALL BE CAMBERED NOT LESS THAN 4".
- BEAMS N°2 TO 7 INCL. E SHALL BE CAMBERED NOT LESS THAN 4 1/8".
- BEAMS N°9 AND N°16 SHALL BE CAMBERED NOT LESS THAN 4 5/8".
- BEAMS N°10 TO 15 INCLUSIVE SHALL BE CAMBERED NOT LESS THAN 4 1/2".



DETAIL FOR CUTTING TOP & BOTTOM FLANGE OF STRINGERS
NOT TO SCALE

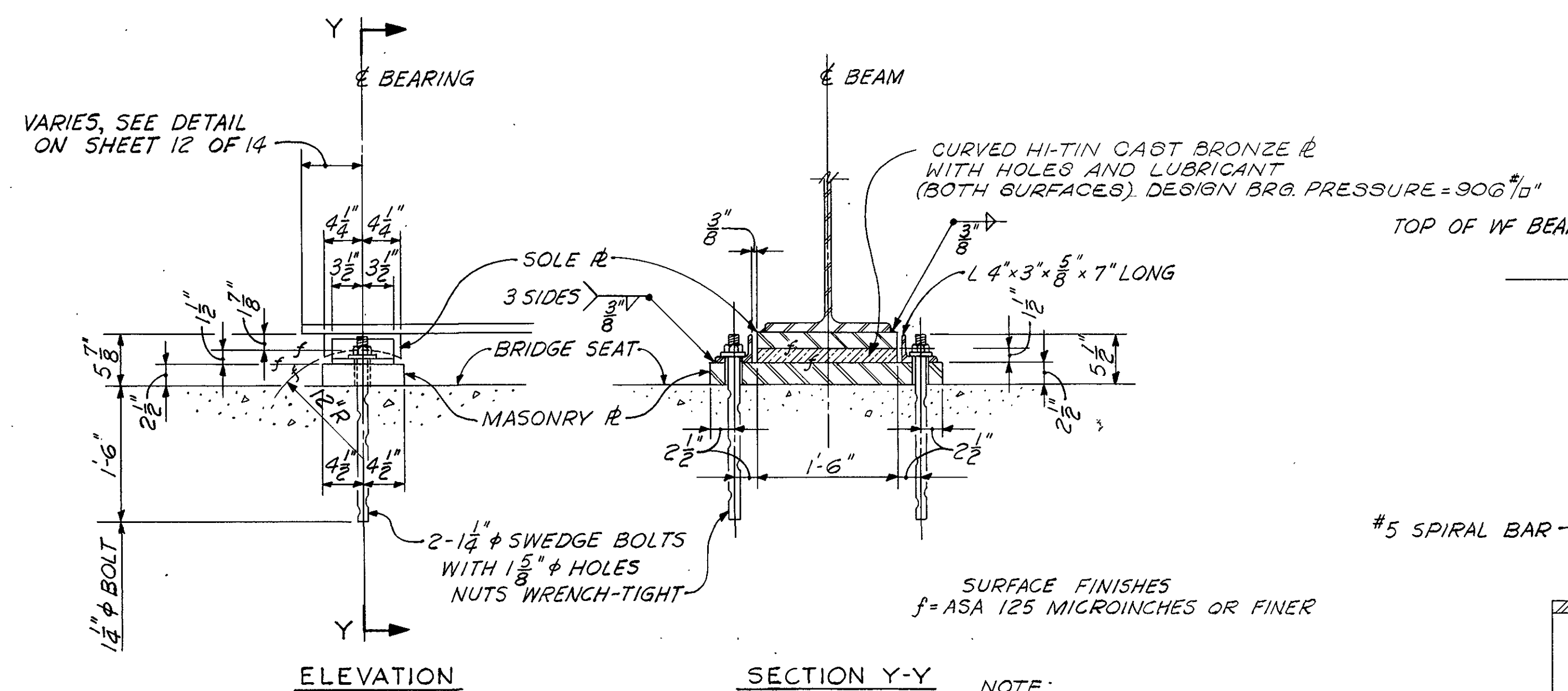


COVER PLATE DETAIL
SCALE: 3/4" = 1'-0"

NOTE.
FOR STEEL NOTES & DETAILS SEE SH. 13 OF 14.
ALL DIMENSIONS ARE HORIZONTAL DISTANCES.

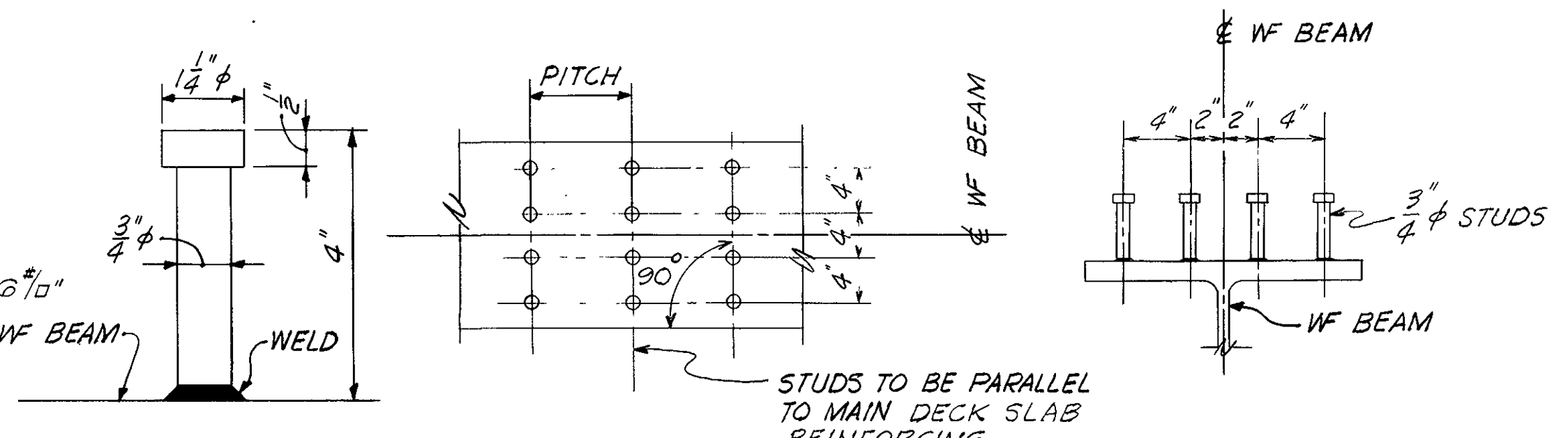
DATE	DESCRIPTION
MAR. 1, 1966	ISSUED FOR CONSTRUCTION
	USE ONLY PRINTS OF LATEST DATE

FED. DIV. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MASS.	E-495-5(15)15		190	673

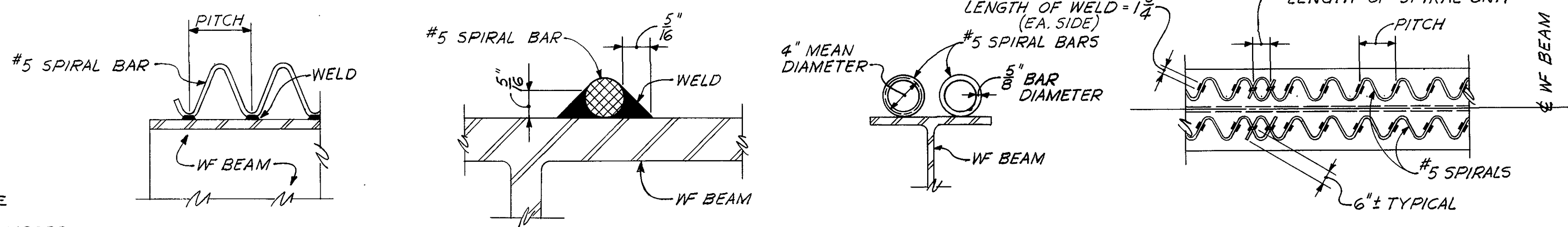


EXPANSION BEARING DETAILS
SCALE: N.T.S.

DETAILS OF STUD SHEAR CONNECTORS

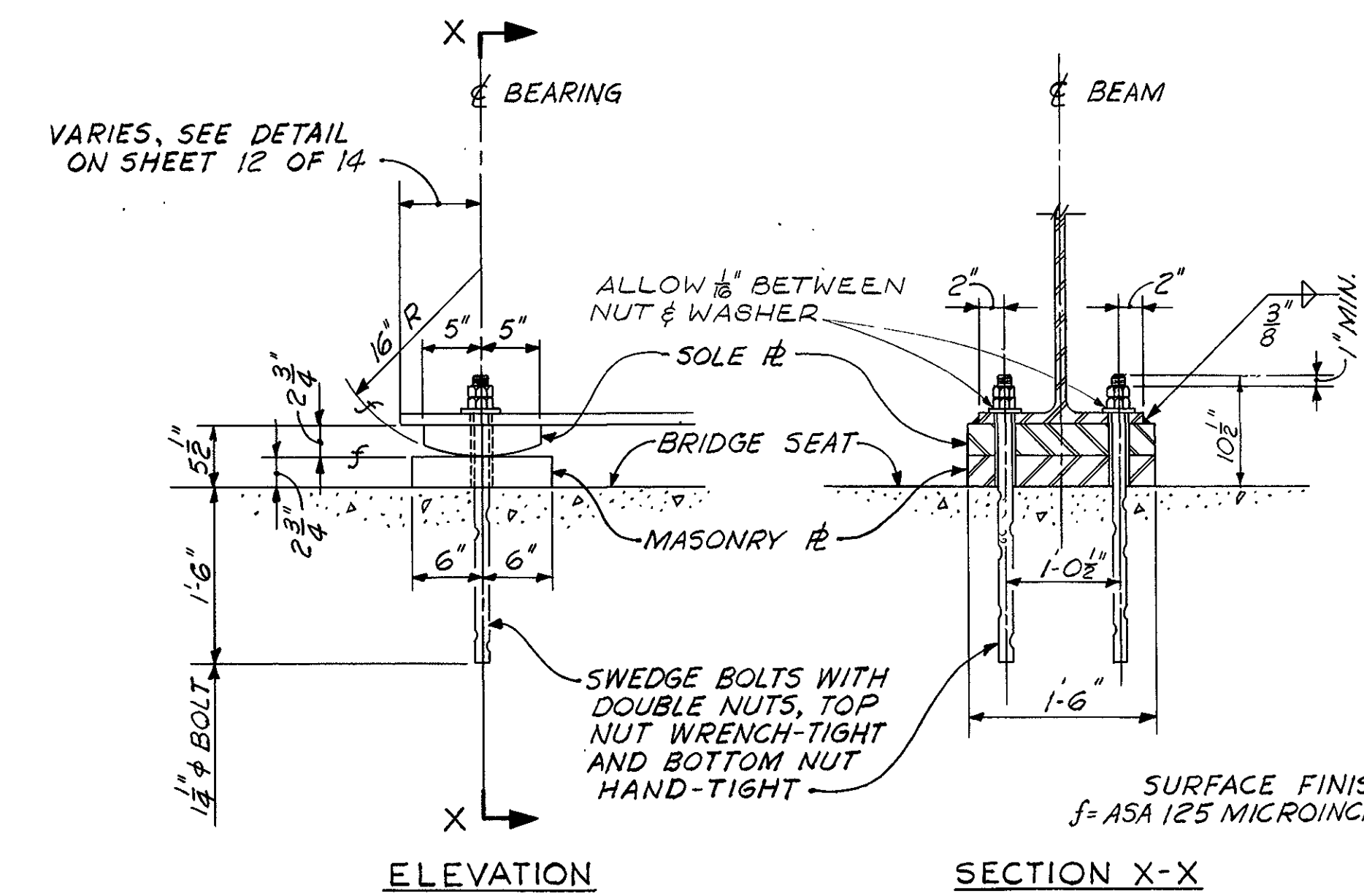


SCALE: N.T.S.



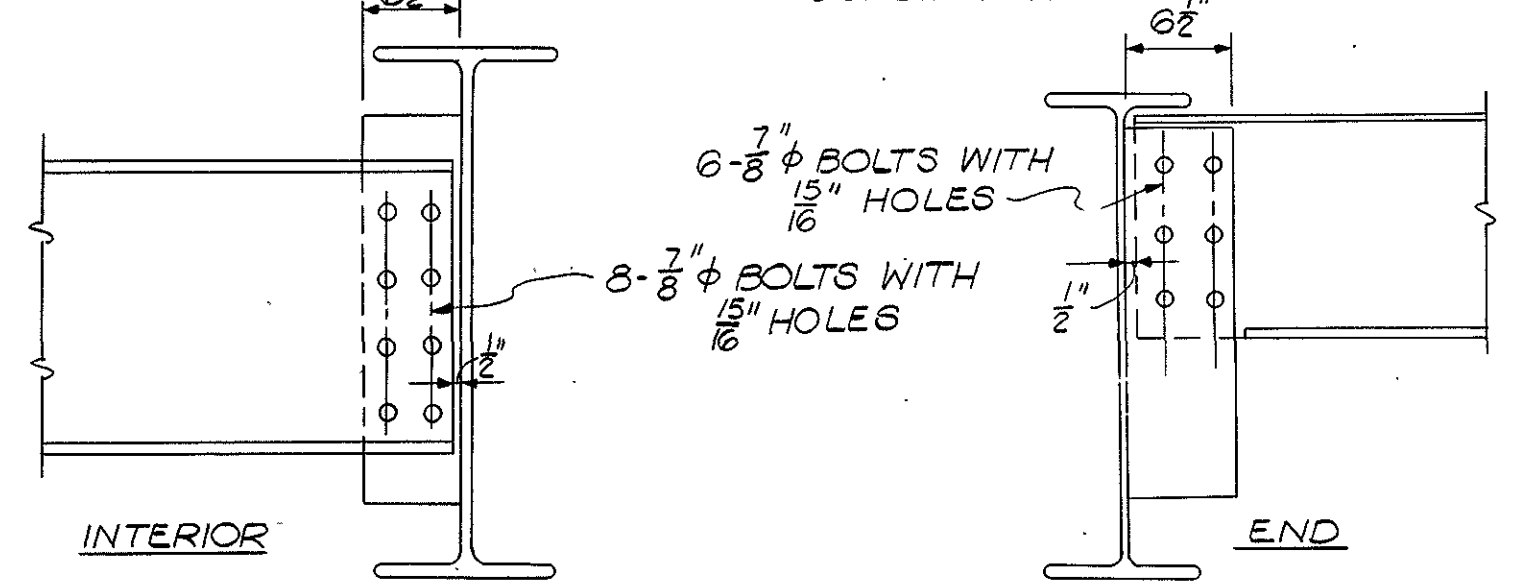
DETAILS OF SPIRAL SHEAR CONNECTORS

SCALE: N.T.S.

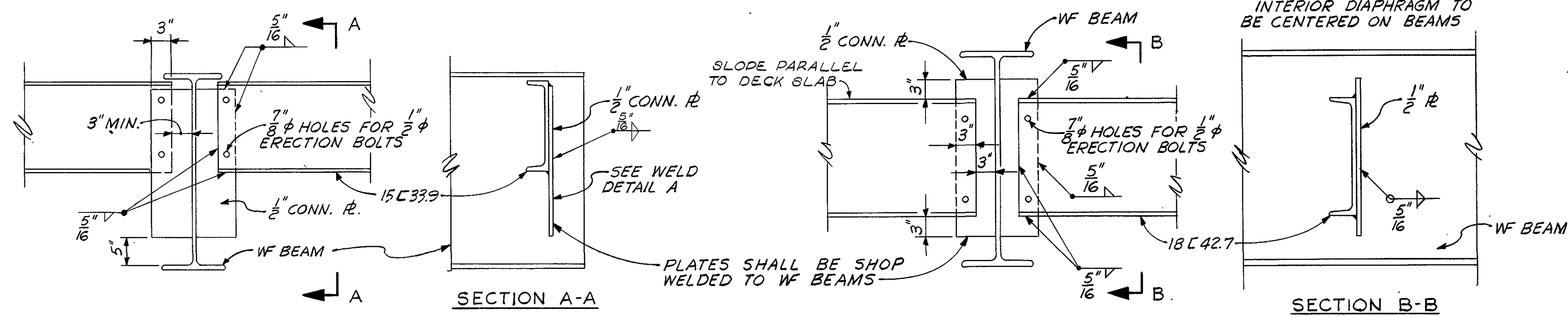


FIXED BEARING DETAILS

SCALE: N.T.S.



ALT. DIAPHRAGM CONN. DETAILS

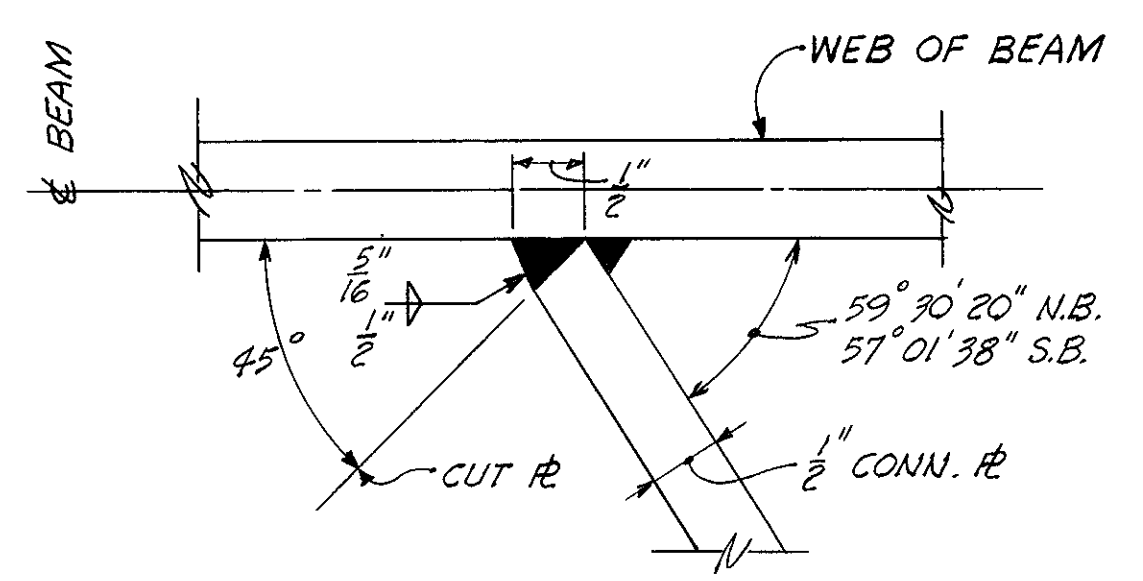


END DIAPHRAGM

INTERIOR DIAPHRAGM

DETAILS OF WELDED DIAPHRAGM CONNECTIONS

SCALE: N.T.S.



WELD DETAIL A

SCALE: N.T.S.

STEEL NOTES

1. ALL STRUCTURAL STEEL SHALL BE A.S.T.M. A-36.
2. PREPARATION AND ASSEMBLY OF MATERIAL FOR WELDING SHALL CONFORM TO ARTICLE 402 & 403 A.W.S. 1963.
3. ALL END DIAPHRAGMS ARE 15 C 33.9 AND ALL INTERIOR DIAPHRAGMS ARE 18 C 42.7.
4. FOR LOCATION OF DIAPHRAGMS SEE SHEET 12 OF 14.
5. FOR COVER PLATE AND BEAM SIZES SEE SHEET 12 OF 14.
6. FOR SHEAR CONNECTOR SPACING SEE SHEET 12 OF 14.
7. SHEAR CONNECTORS SHALL BE EITHER STUDS OR SPIRALS AT THE OPTION OF THE CONTRACTOR.
8. 1/2" DIAMETER STUDS MAY BE SUBSTITUTED FOR 3/4" DIAMETER STUDS BY PROVIDING AN EQUIVALENT CROSS-SECTIONAL AREA AND ADJUSTING THE PITCH ACCORDINGLY.
9. ALL SWEDGE BOLTS, STANDARD HEX NUTS, AND STANDARD WASHERS TO BE GALVANIZED STEEL.
10. ERECTION BOLTS, NUTS AND STANDARD WASHERS FOR DIAPHRAGM CONNECTIONS SHALL BE FURNISHED BY THE FABRICATOR.
11. ANCHOR BOLTS ARE TO BE SET BY TEMPLATE AND PLACED BEFORE THE CONCRETE IS POURED.
12. ANY WELDED JOINT PREQUALIFIED BY AMERICAN WELDING SOCIETY SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES (1963 EDITION) WILL BE ACCEPTABLE IN THE FABRICATION OF THE STRUCTURAL STEEL.

MAR. 1, 1966	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
USE ONLY PRINTS OF LATEST DATE	

