

NO.	DATE	REVISIONS

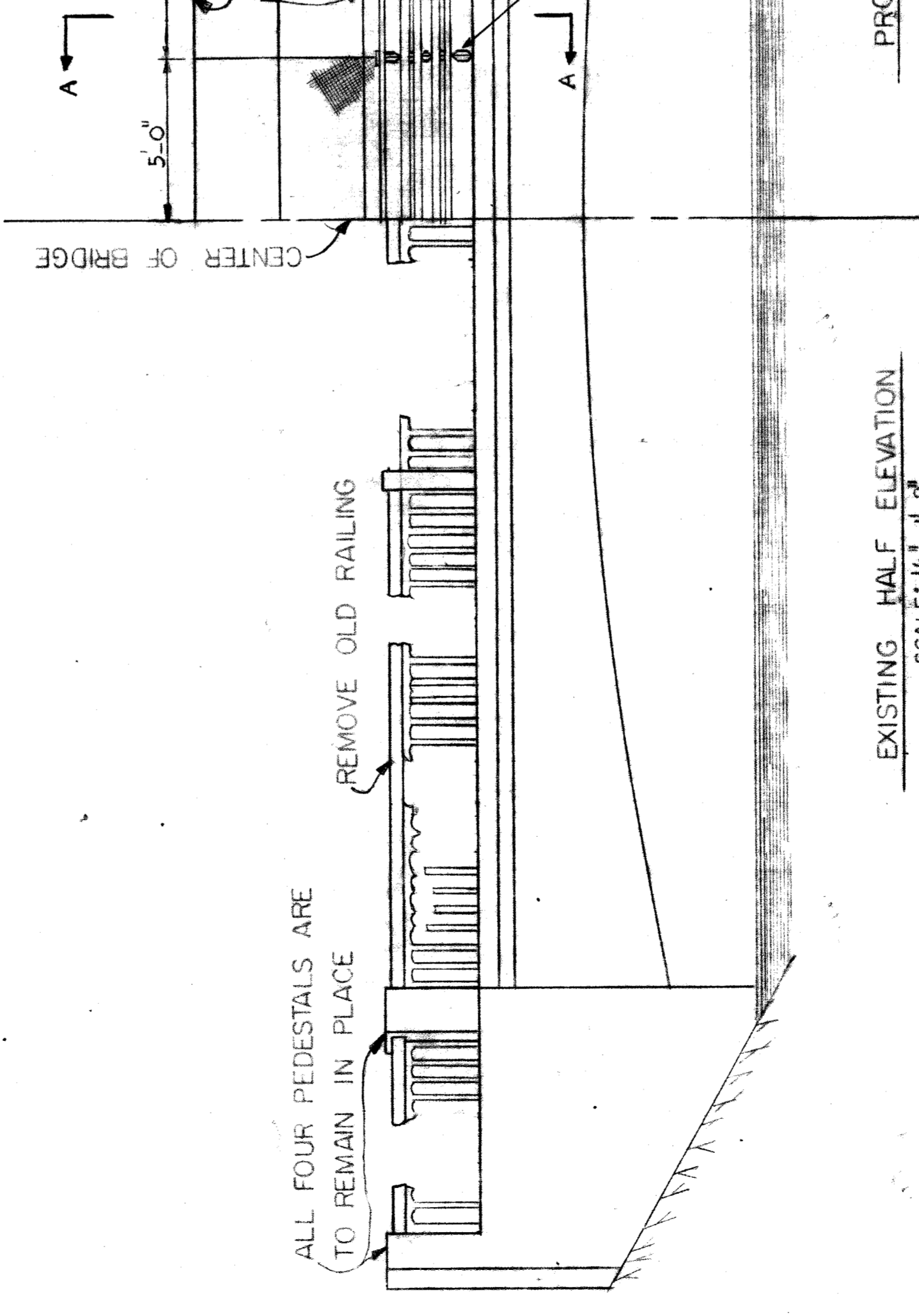
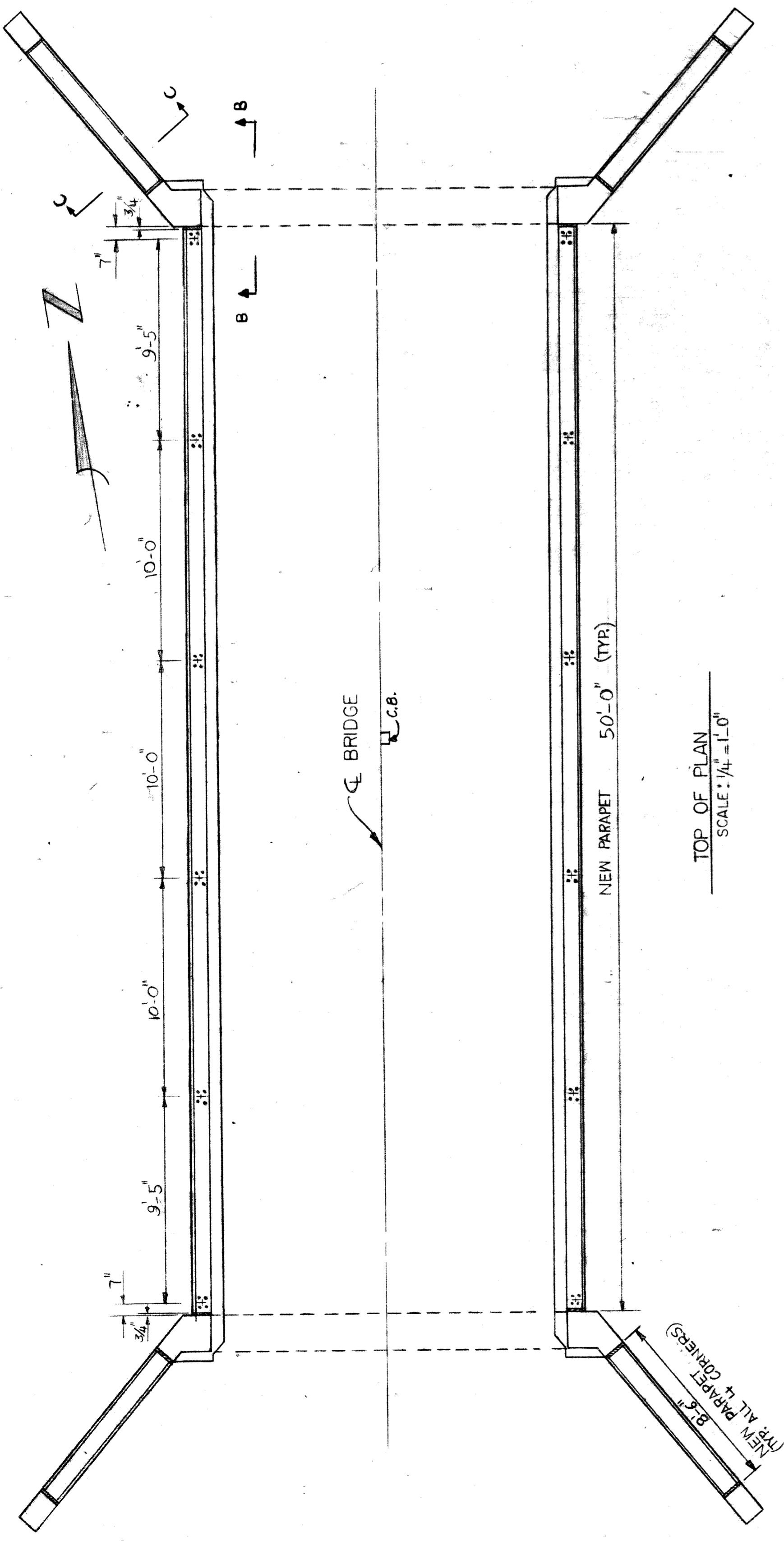
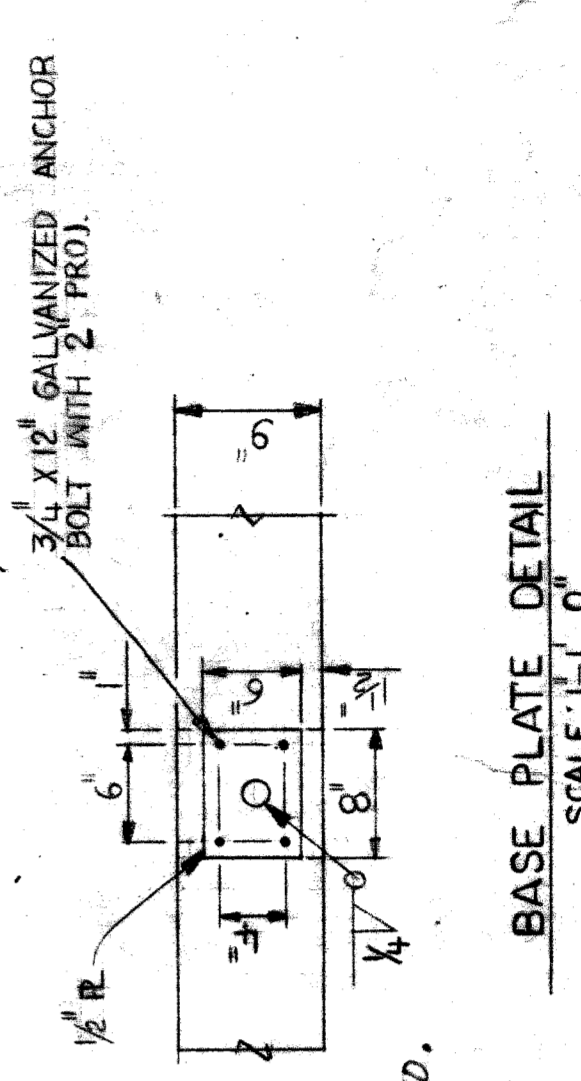
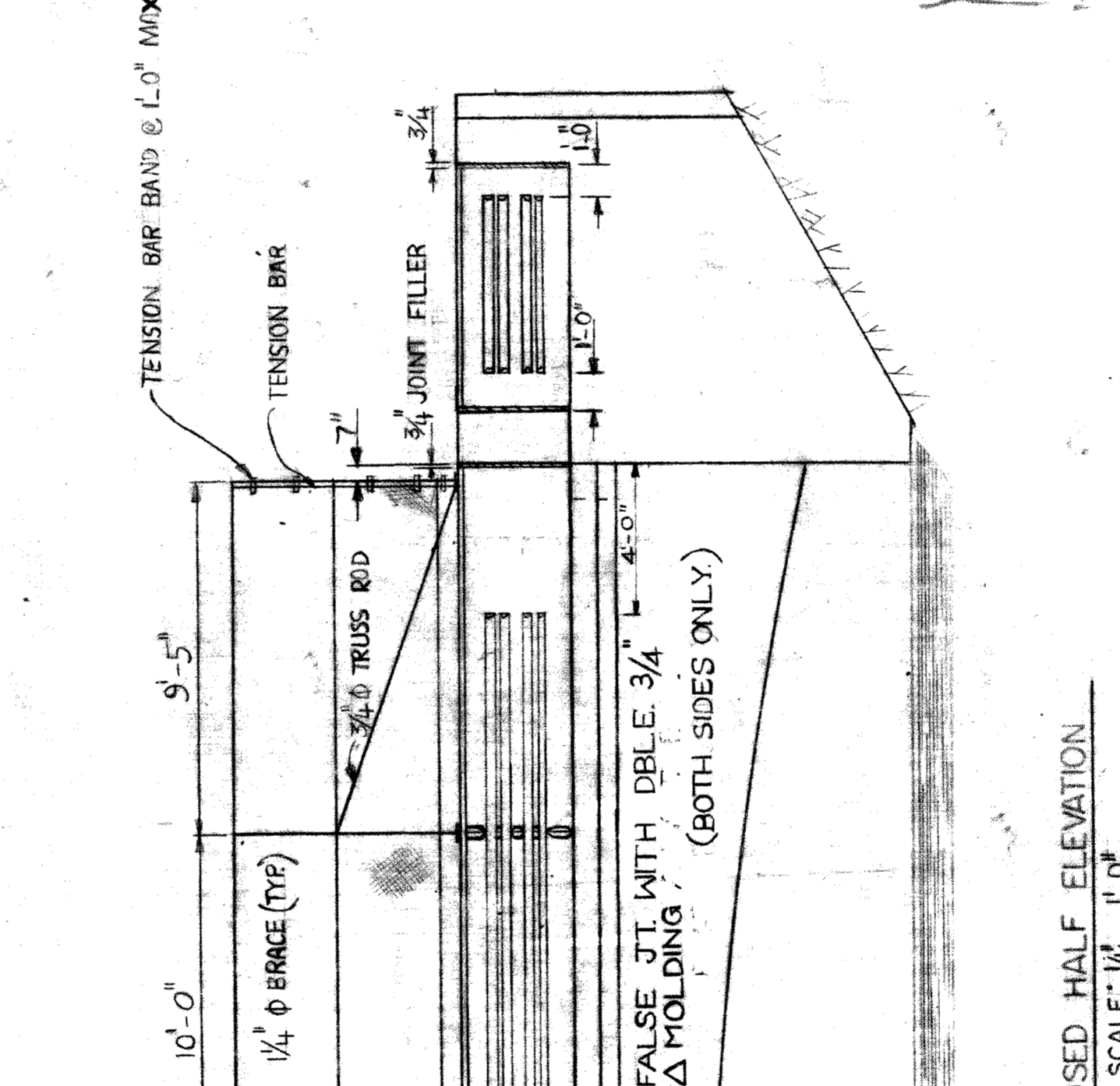
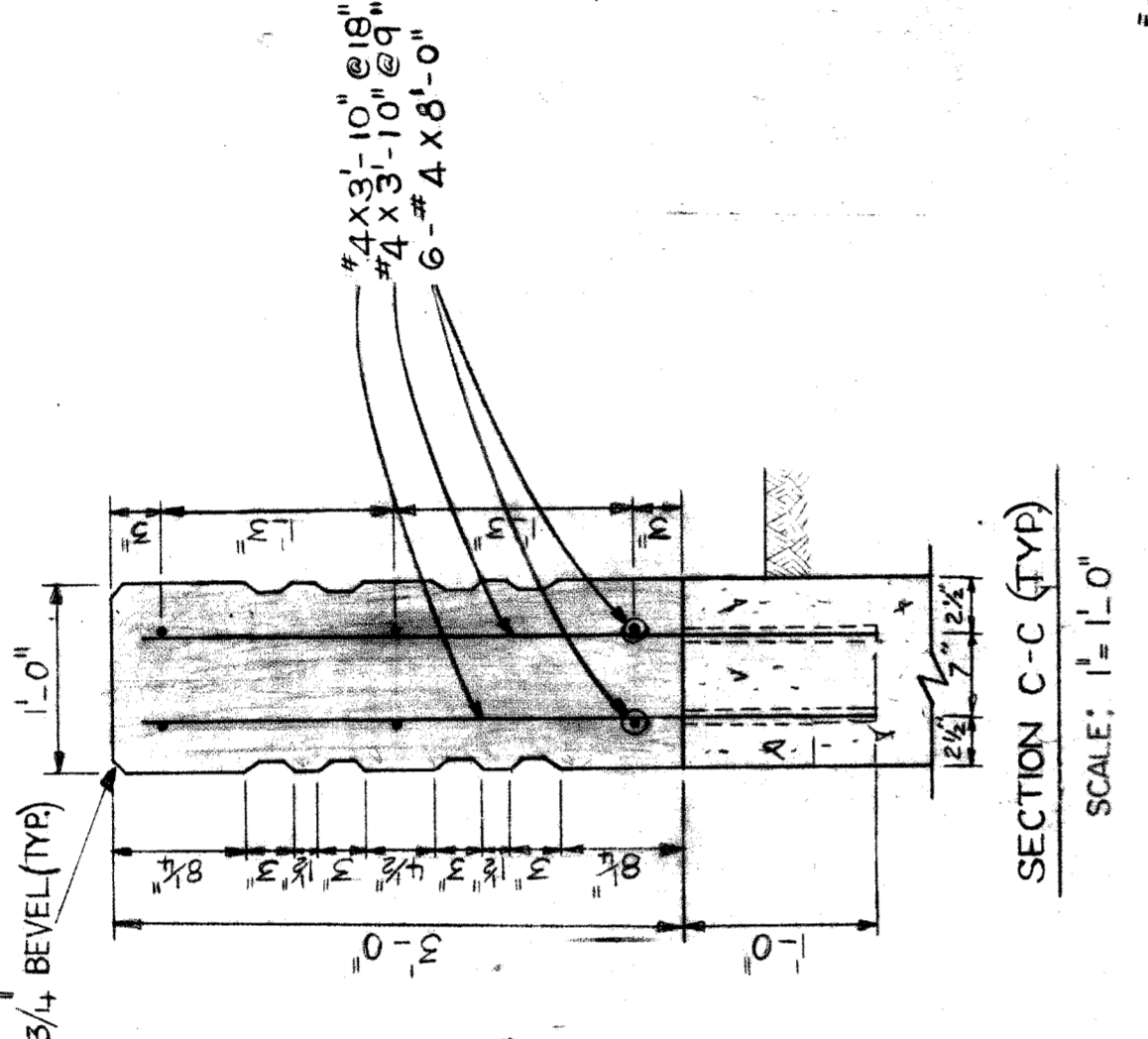
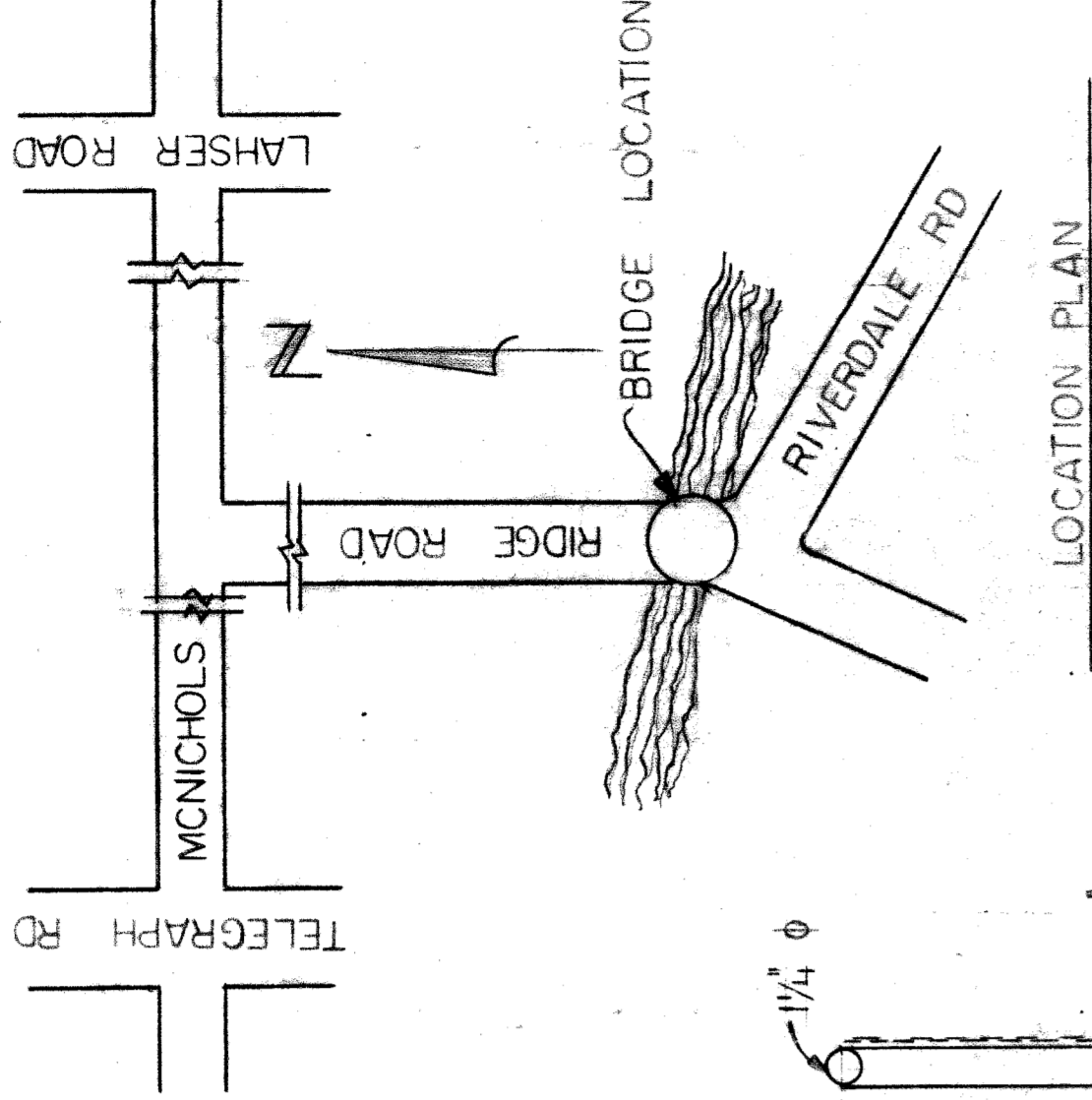
designed by M.H.
 drawn by N.H./J.Y.
 checked by M.C.
 approved by [Signature]
 STRUCTURAL ENGINEER
 HEAD ENGINEER

CITY OF DETROIT
 city engineering department
 for DEPARTMENT OF PUBLIC WORKS

RIDGE ROAD BRIDGE
 OVER ROUGE RIVER
 BW. 283

CONCRETE RAILING REPLACEMENT

a.o. contract no.
 sheet 1 of 2
 drawing no.
 date 9-15-1988



PARAPET AND FENCING NOTES

ALL WORK SHALL CONFORM TO MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 1984 EDITION.

ALL FENCE FABRIC SHALL BE GALVANIZED, #9 GAGE WITH A 2" MESH, AND FINISHED WITH ANCKLING AT BOTH SELVAGES.

THE POSTS SHALL BE ROUND POSTS HAVING AN OUTSIDE DIAMETER OF 2 3/8" AND WEIGHT 3.65 P.L.F., GALVANIZED.

THE NOMINAL 1 1/4" PIPE SHALL BE 1 3/8" OUTSIDE DIAMETER STEEL PIPE OR TUBING WEIGHING 227 P.L.F., GALVANIZED.

ALL POSTS AND TUBING SHALL BE FURNISHED WITH MANUFACTURERS STANDARD CONNECTIONS AND ITS MINIMUM WEIGHT SHALL BE WITHIN 5% OF THAT SPECIFIED.

ALL COMPONENTS ARE TO BE GALVANIZED. BOLTS, NUTS AND WASHERS ARE TO BE GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION A153.

TENSION BAR SHALL BE 3/4" x 1/4" GALVANIZED STEEL.

CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE FABRICATION.

DRILLED HOLES MUST BE TWICE THE BAR DIAMETER AND THEN THE BARS SHALL BE SET IN EPOXY GROUT.

NEW PARAPET CONCRETE SHALL BE GRADE 45 D. ALL STEEL REINFORCEMENT MUST BE EPOXY COATED BAR, GRADE 60.

ALL EXPOSED NUTS SHALL BE PROTECTED FROM VANDALISM BY PEENING, SCORING, UPSSETTING THE BOLT THREADS, OR OTHER ACCEPTABLE MEANS.

PROVIDE AN ELECTRICAL GROUNDING SYSTEM FOR EACH FENCE AS INDICATED IN THE DETAILED SPECIFICATIONS.

BW-283

REVISED	DATE	BY	REVISIONS

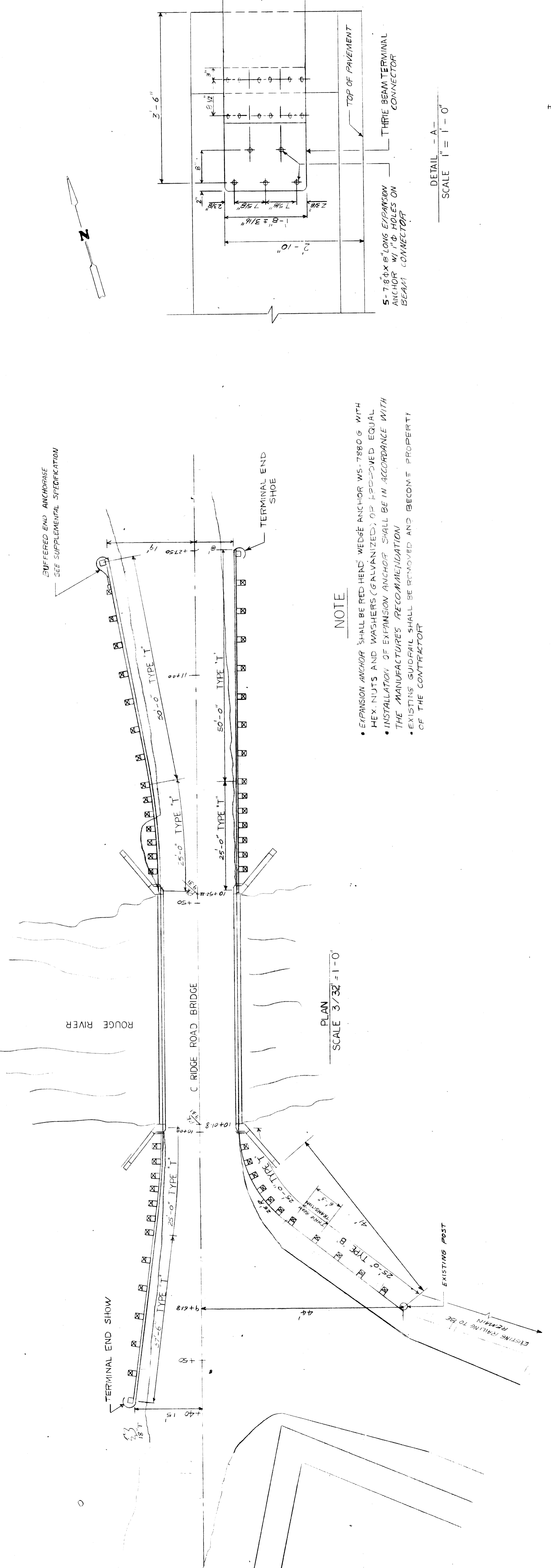
designed by H. DICKOW
 drawn by H. DICKOW
 checked by M. CHAN
 approved: [Signature]
 STRUCTURAL ENGINEER
 HEAD ENGINEER

CITY OF DETROIT
 city engineering department
 for DEPARTMENT OF PUBLIC WORKS

RIDGE ROAD BRIDGE OVER ROUGE RIVER
 BW-283

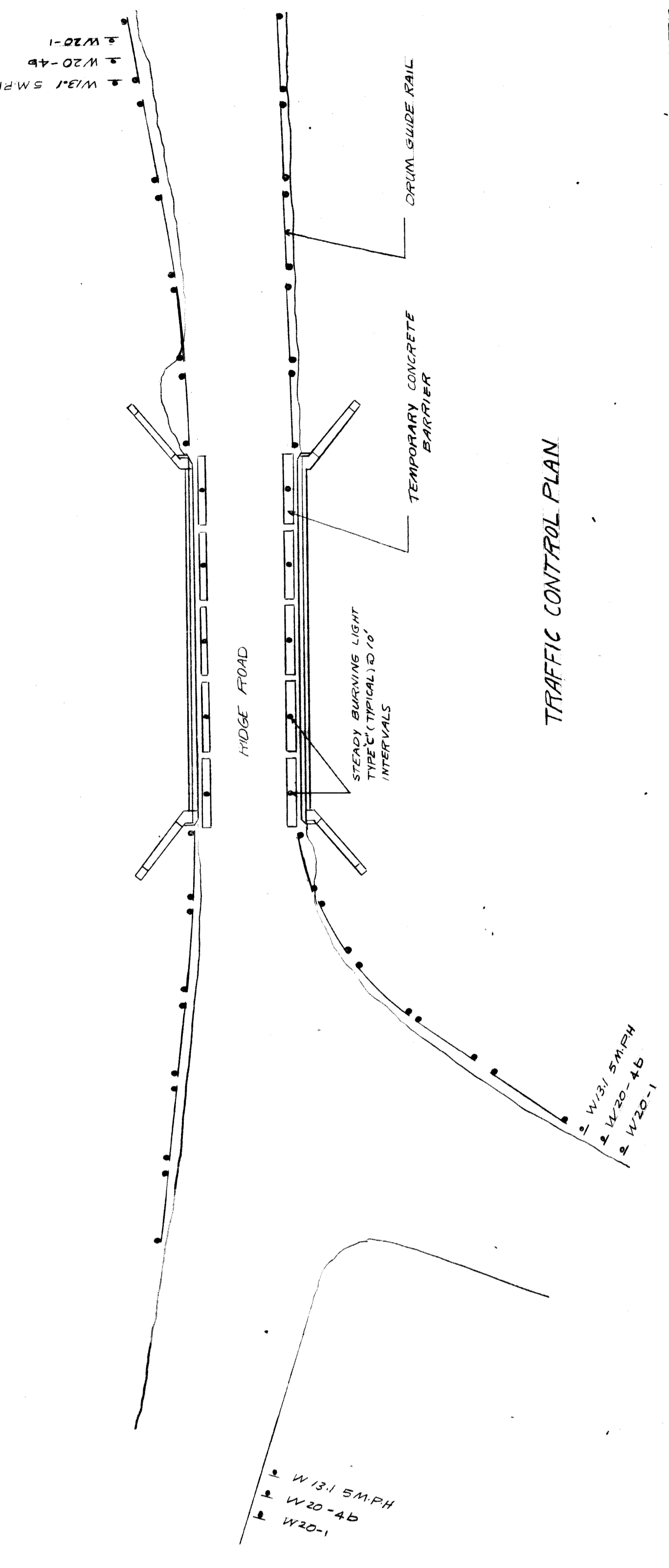
GUARDRAIL REPLACEMENT

a.o. contract no.
 sheet 2 of 2
 drawing no.
 date 9-15-1986



NOTE

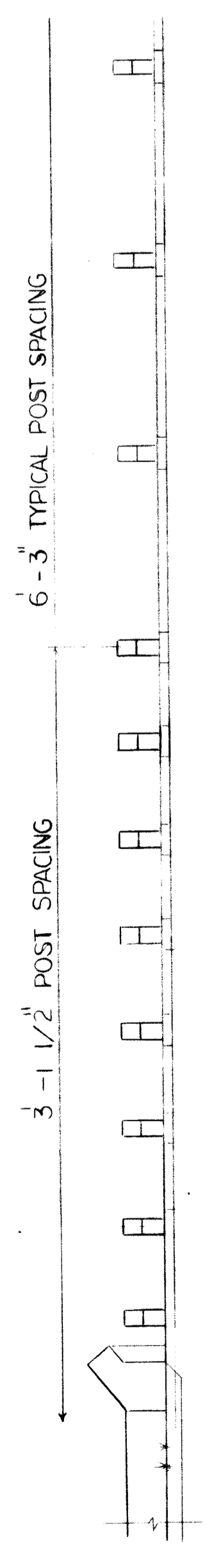
- EXPANSION ANCHOR SHALL BE RED HEAD WEDGE ANCHOR WS-7880 G WITH HEX NUTS AND WASHERS (GALVANIZED), OR APPROVED EQUAL.
- INSTALLATION OF EXPANSION ANCHOR SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- EXISTING GUARDRAIL SHALL BE REMOVED AND BECOME PROPERTY OF THE CONTRACTOR.



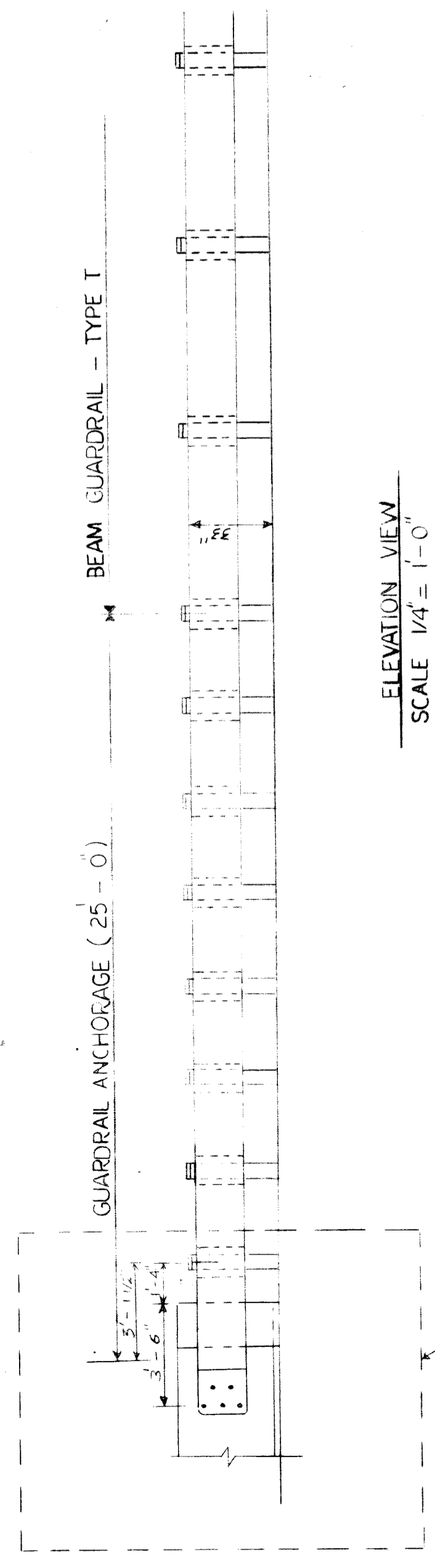
TRAFFIC CONTROL PLAN

TRAFFIC DEVICE KEY

- W/131 SPEED LIMIT 5 M.P.H.
- W/20-4B WATCH FOR ONCOMING TRAFFIC
- W/20-1 CONSTRUCTION AHEAD

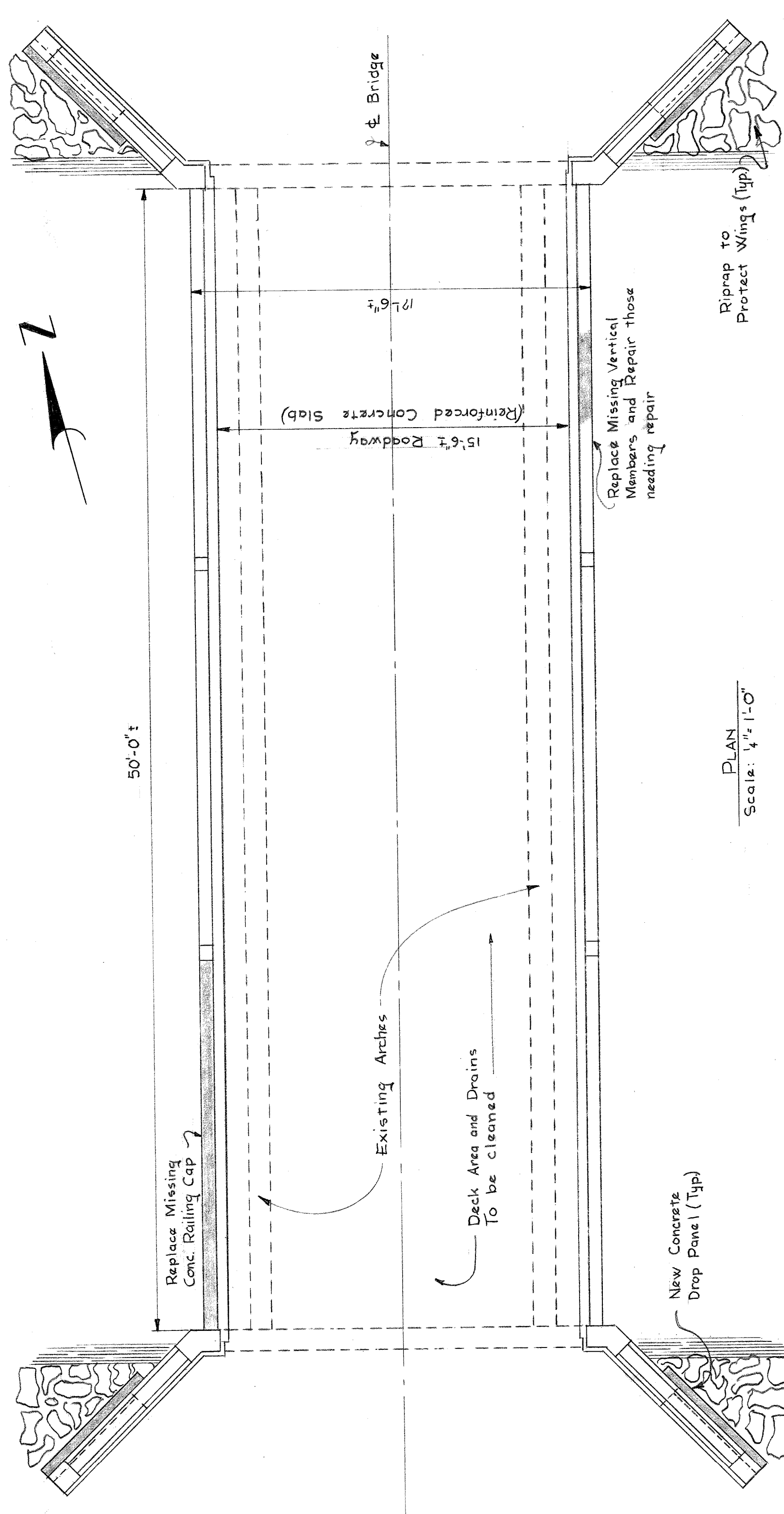


PLAN VIEW SCALE 1/4" = 1'-0"

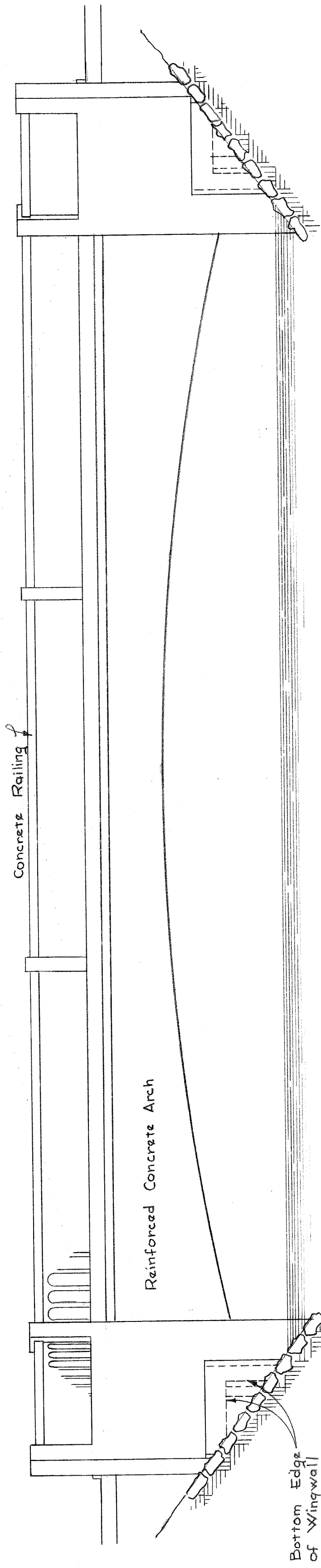


ELEVATION VIEW SCALE 1/4" = 1'-0"

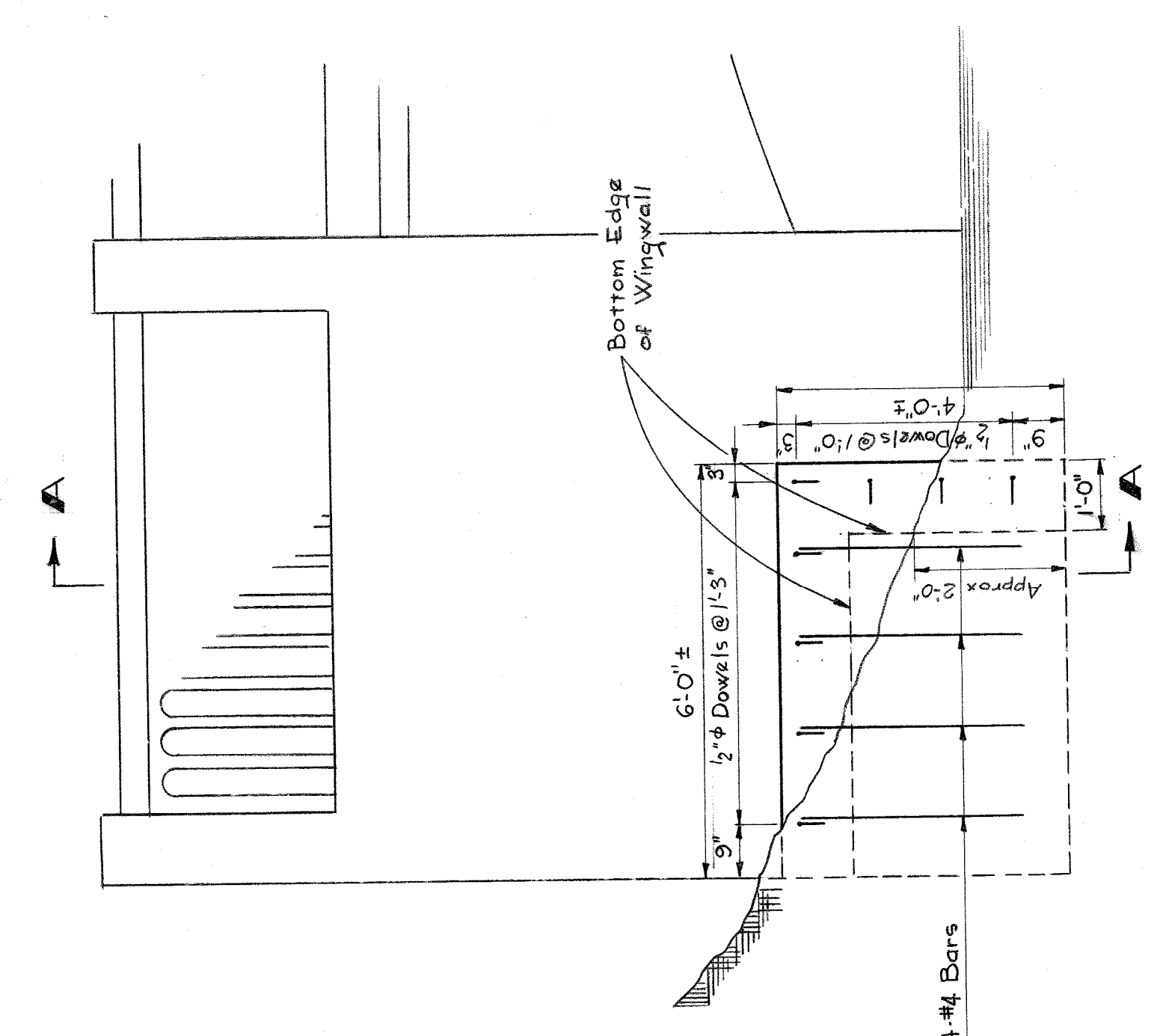
DETAIL - A - SCALE 1" = 1'-0"



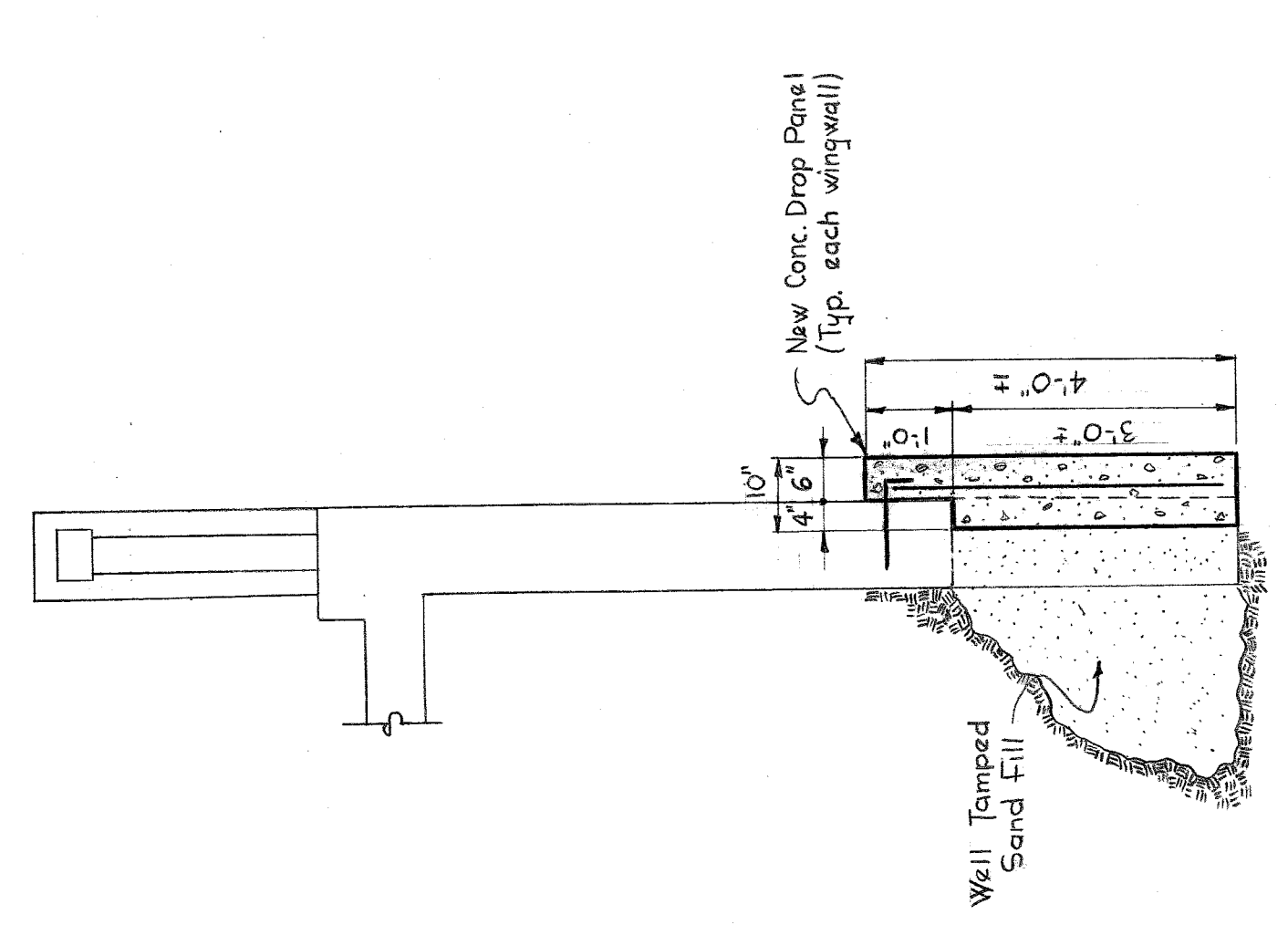
PLAN
Scale: 1/4" = 1'-0"



ELEVATION
Scale: 1/4" = 1'-0"



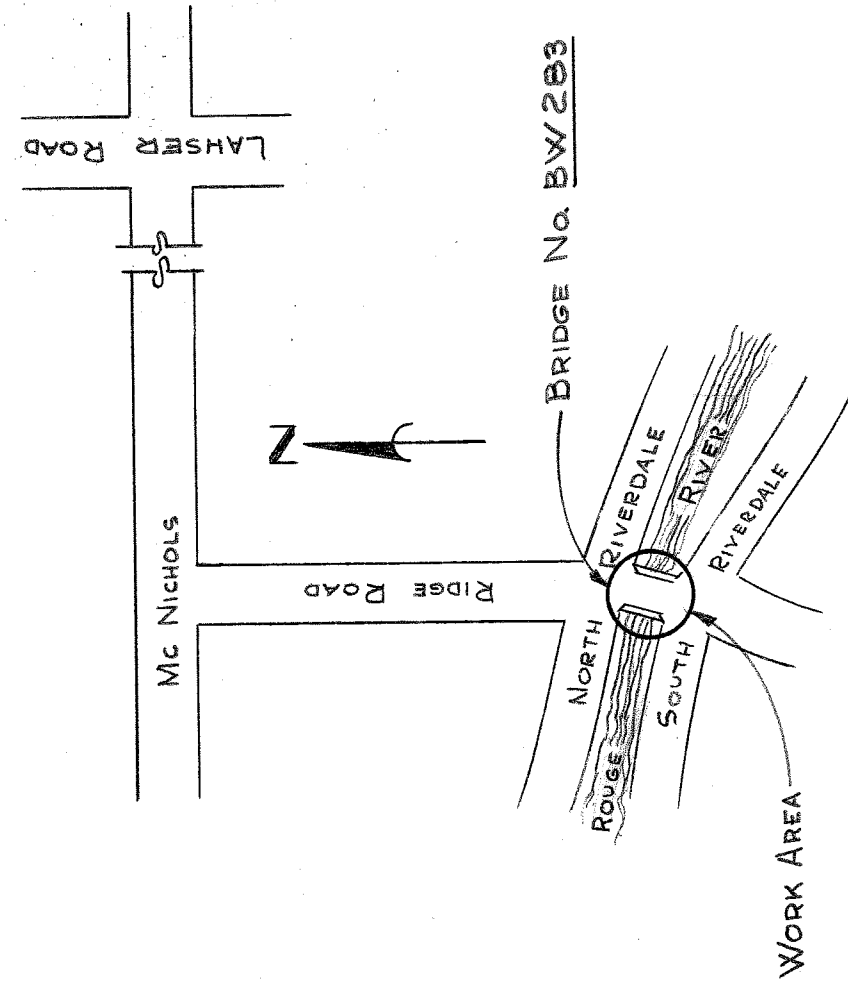
WINGWALL ELEVATION
Scale: 1/2" = 1'-0"



SECTION
Scale: 1/2" = 1'-0"

BILL OF MATERIALS

Concrete	3 Cu. Yd.
Re. Steel 32 Pt. #4 bar, 1'-3" (dowels, bend in field)	70 Lbs.
16 Pt. #4 bar, 3'-6" Miscellaneous - Railing	
Fill	5 Cu. Yd.
Riprap	100 Sq. Ft.



LOCATION PLAN
Scale: 1" = 200'

SHEET 1 OF 1 SHEETS		JOB No. M-BW283		DRWG No. C-101		DATE 6-19-59	
RIDGE ROAD BRIDGE - SOUTH OF MC NICHOLS ROAD				BRIDGE REPAIR PLAN			
CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE				CITY ENGINEER			
APPROVED:				DESIGNED BY			
A. GERSH				DRAWN BY			
C.C.L.				TRACED BY			
C.C.L.				CHECKED BY			
C.C.L.				REVISIONS			
NO.	DATE	BY	DESCRIPTION	NO.	DATE	BY	DESCRIPTION