



SAINT LOUIS COUNTY
Transportation and Public Works

February 22, 2024

ADDENDUM NO. 5

Notice to All Persons and Firms Proposing
to Submit a Bid or Furnish Materials for
Hudson Drive Bridge No. 105 and Vorhof Drive Bridge No. 106
St. Louis County Project Nos. CR-1774 and CR-1775
Federal Project Nos. BRO-B096(004) and BRO-B096(006)

The following question was received for the above project:

Does St. Louis County have any 'as-built' drawings for the existing two bridges?

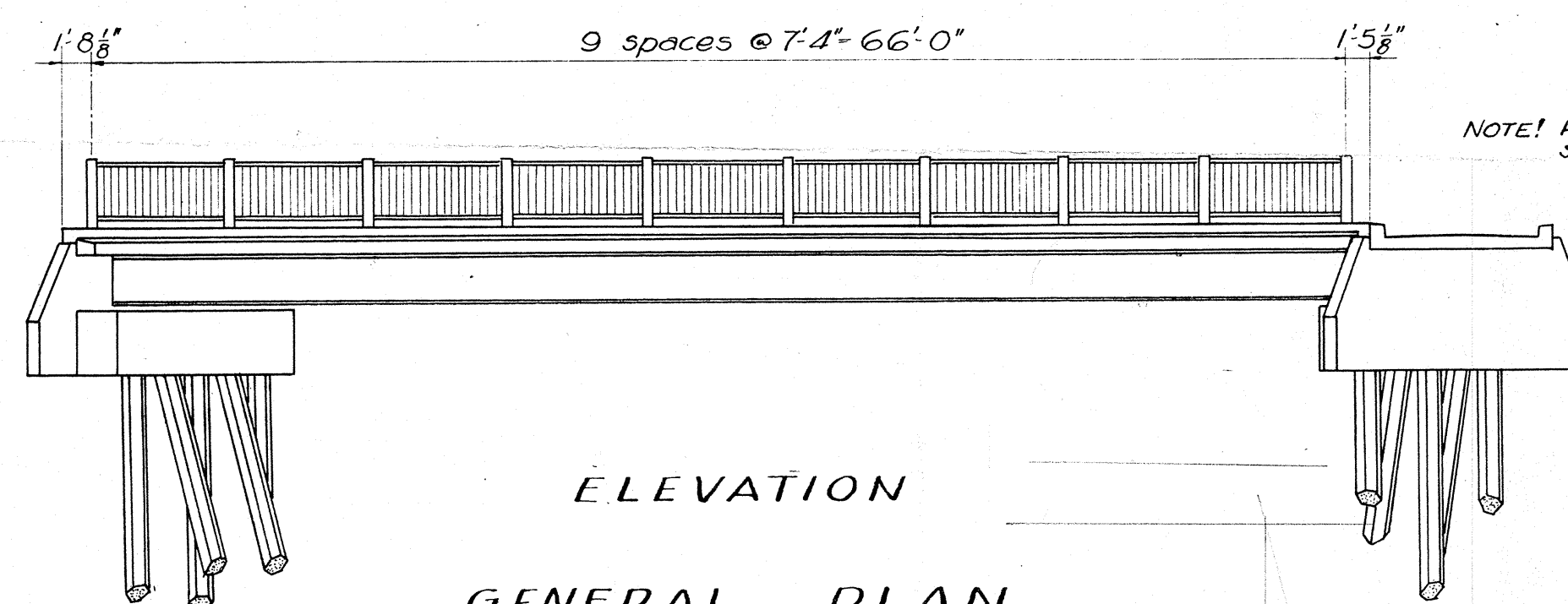
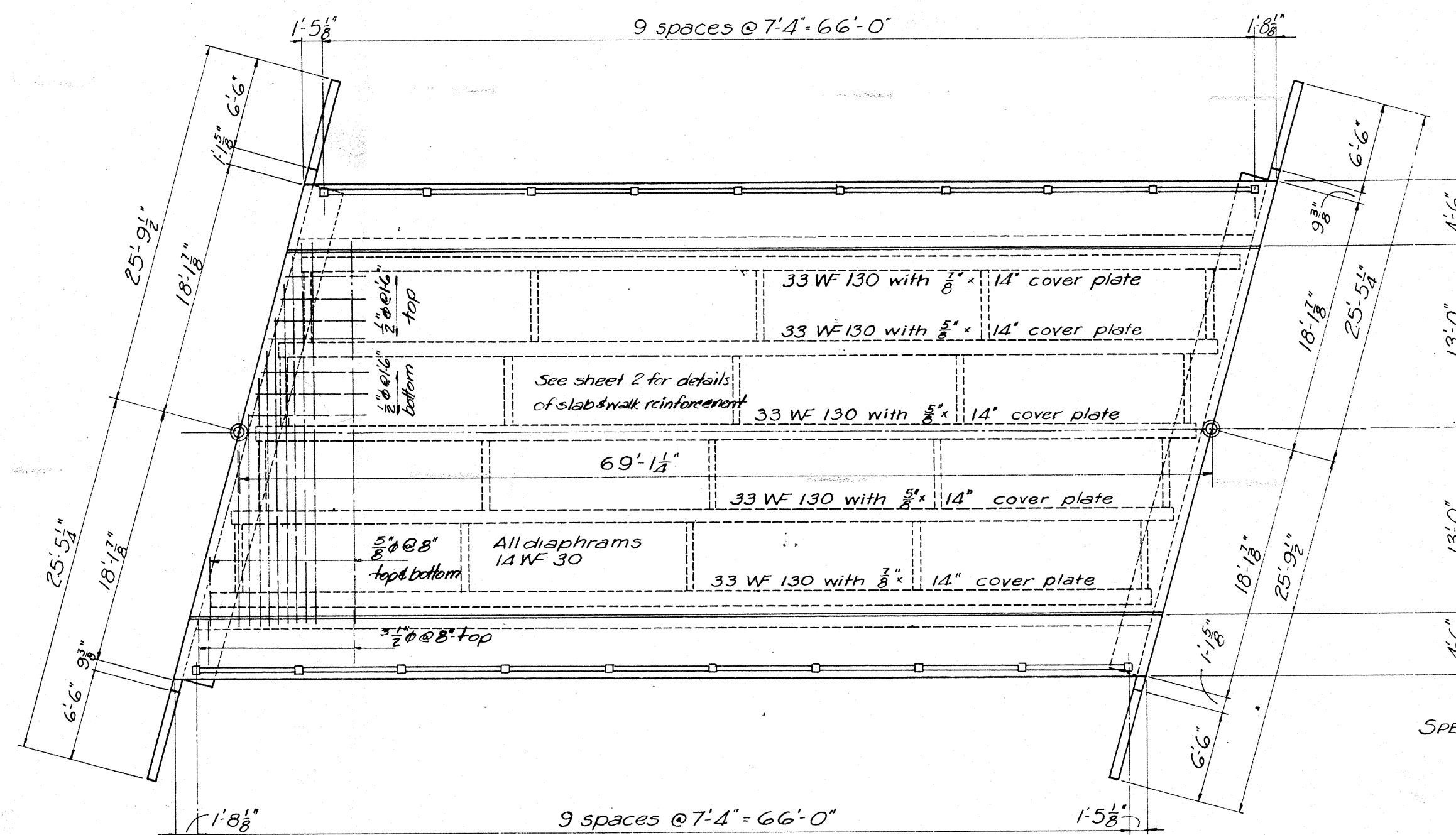
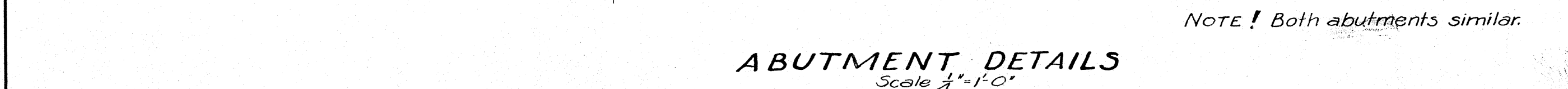
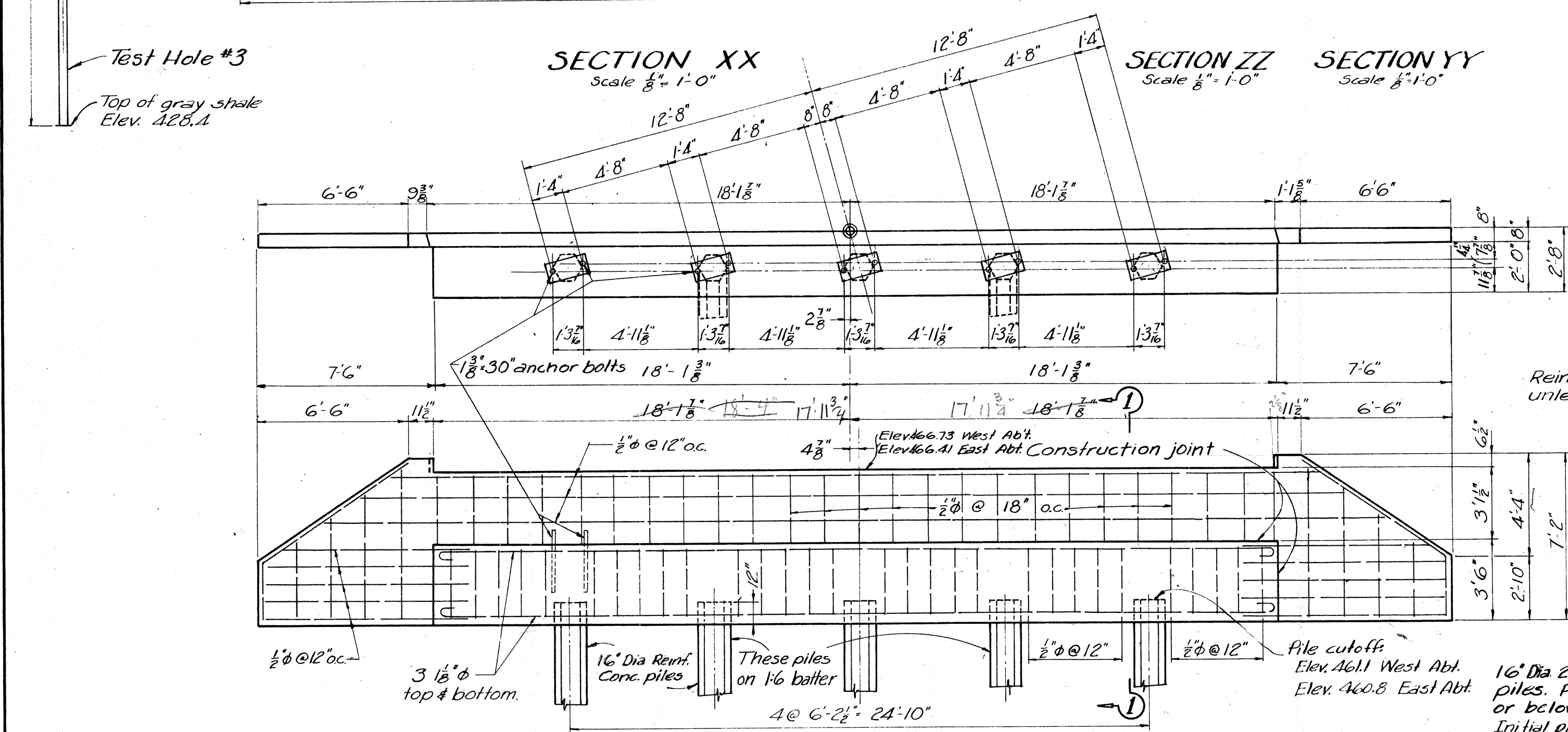
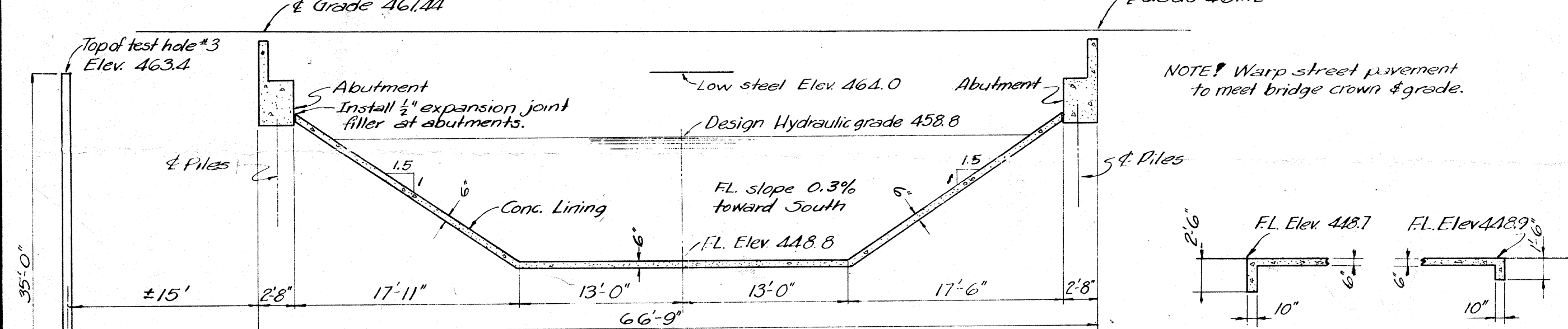
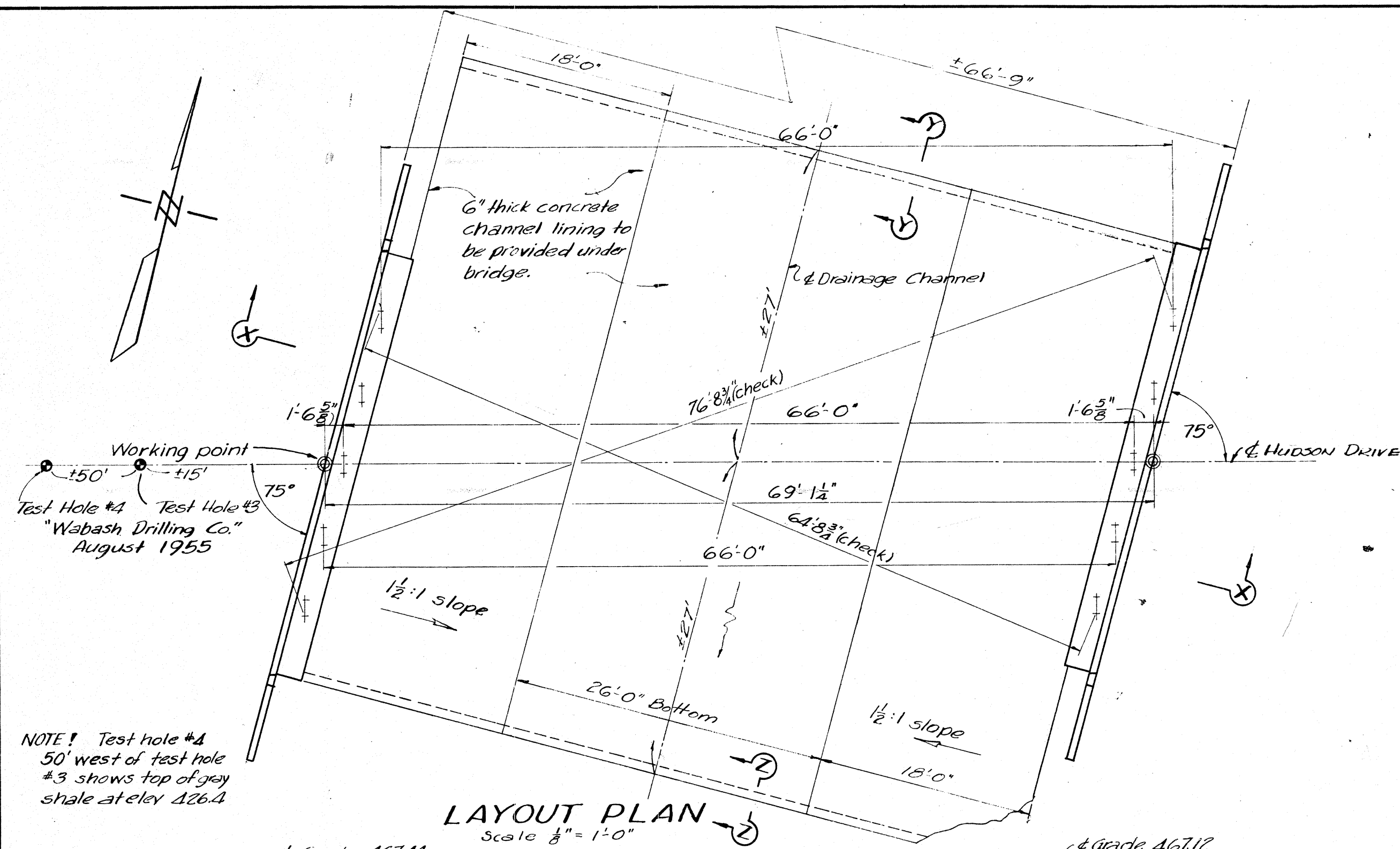
St. Louis County has the existing construction plans for the two bridges, but they are not 'as-builts'. However, they are attached for reference.

ATTENTION BIDDERS: THE ADDENDUM ACKNOWLEDGEMENT IN THE BID DOCUMENTS MUST BE COMPLETED AND SUBMITTED WITH ALL BID PROPOSALS.

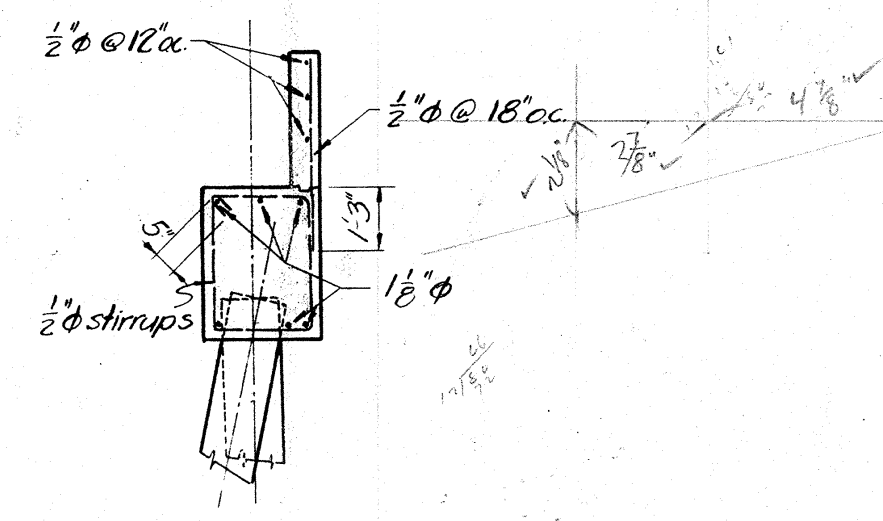
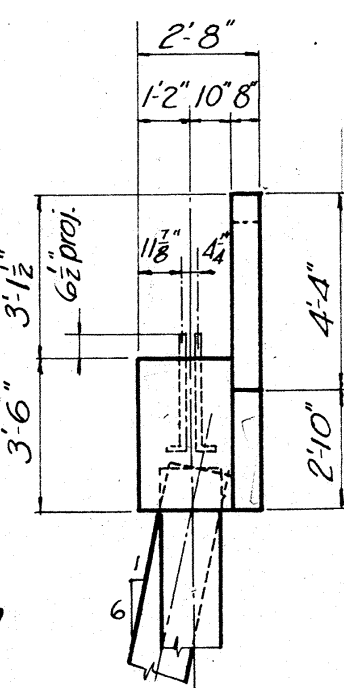
Regards,

Daniel A. Howell, Ph.D., P.E.
Supervisor, Project Managers-Bridges
Department of Transportation and Public Works
1050 North Lindbergh Boulevard
Creve Coeur, MO 63132

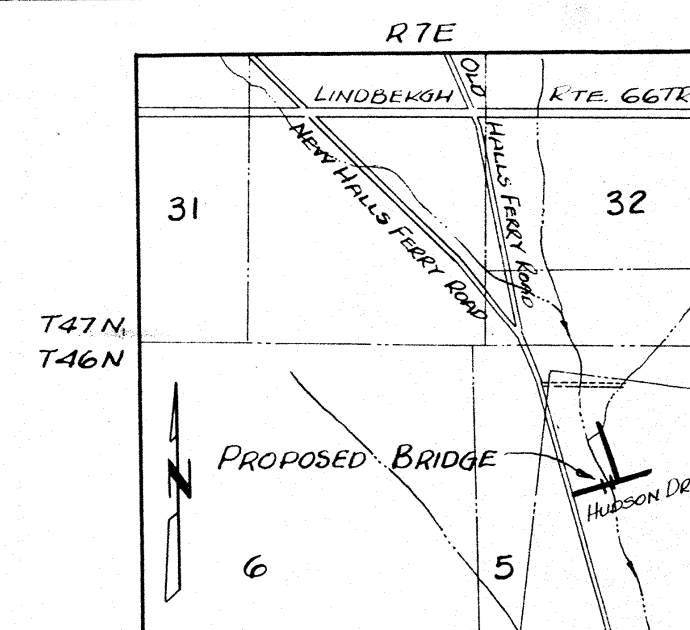
**OPPORTUNITY
CENTRAL**



GENERAL PLAN
Scale $\frac{1}{8}" = 1'-0"$



SEC. N 11



SPECIFICATIONS AND GENERAL NOTES
All materials, methods and workmanship shall conform to the Standard Specifications of the St. Louis County Highway Engineers' Office. Specifications of the American Association of State Highway Officials, the American Institute of Steel Construction and the American Welding Society shall prevail where County Standards are not applicable.

Surfaces of construction joints shall be scored (roughened) to insure bond.

All metal surfaces shall receive one shop or field coat of primer and two coats of aluminum paint. Spiral shear devices and top flanges of beams which will be in contact with concrete shall not be painted.

TEMPORARY SUPPORTS
The steel beams are designed to carry dead load of slab and forms. No falsework is necessary.

LOADING
H20-S16-44 AASHTO Standard Specifications for Highway Bridges - 1953

ALLOWABLE UNIT STRESSES
Concrete 1200 psi.
Steel reinforcement for concrete 20,000 psi.
Structural steel 18,000 psi.
Welds 13,600 psi.

COMPOSITE BEAMS
Slab dead load carried by steel section. Sidewalk, curb & rail dead load carried by composite section - n = 30. Live loads carried by composite section - n = 10. Spiral shear devices designed for dead load plus live load shear.

CAMBER
Camber beams for dead load deflection.

HATHAWAY MANOR
HUDSON DRIVE BRIDGE #105
MILTON CONSTRUCTION AND SUPPLY CO., OWNER

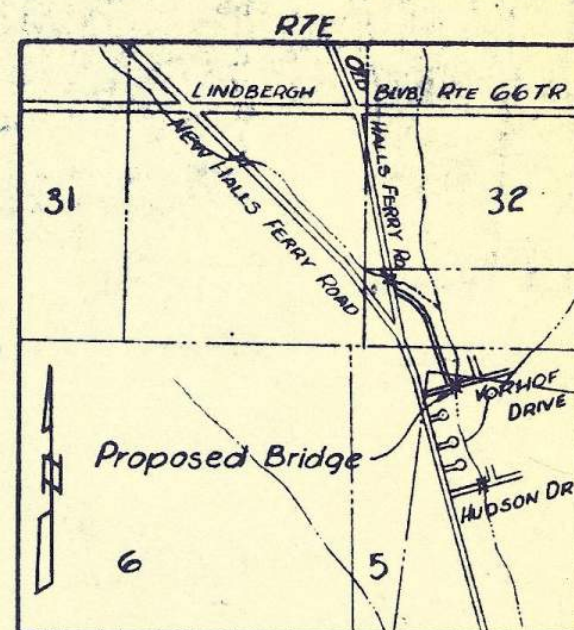
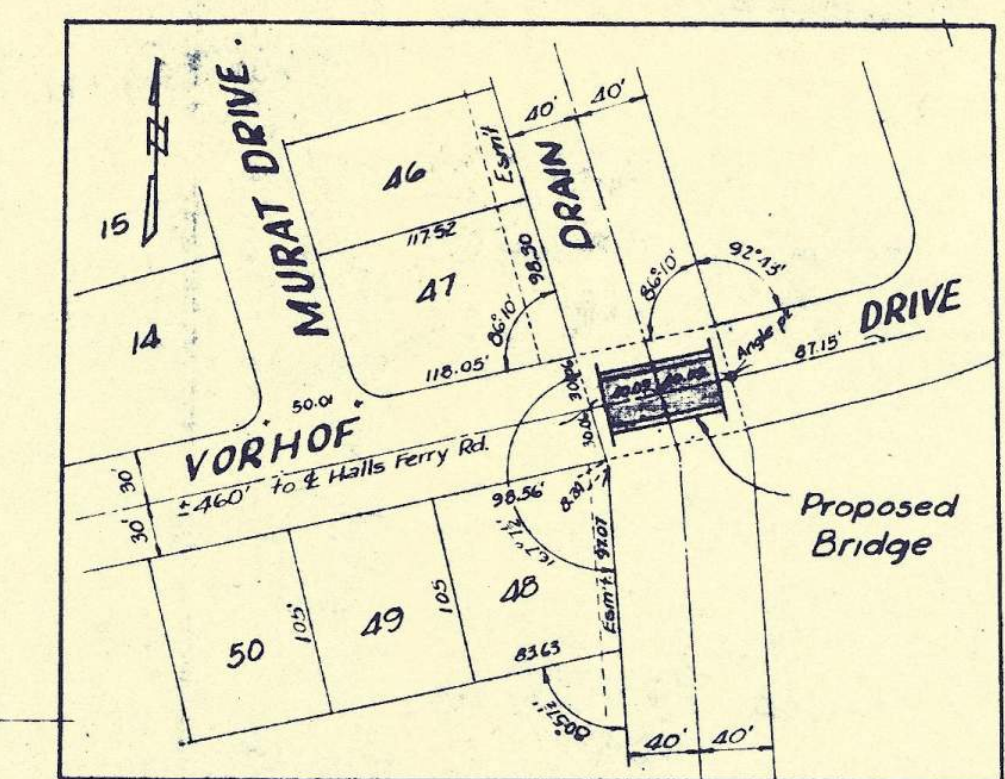
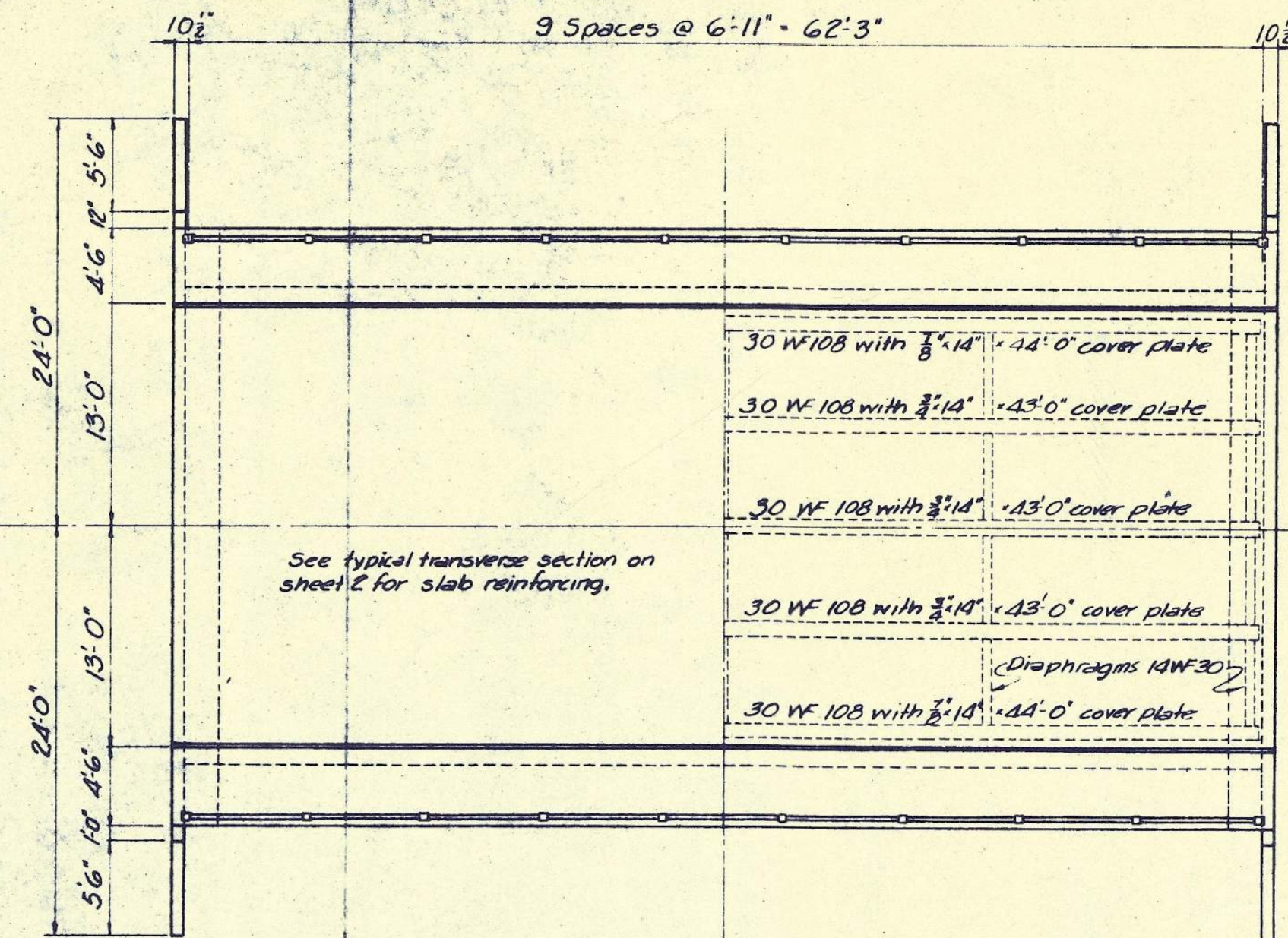
DESIGNED BY
PITZMANS CO. OF SURVEYORS & ENGINEERS
804 PINE ST. ST. LOUIS, I, MO.

A. Fred Helmkamp
MISSOURI PROF. ENGINEER #141
JOHN J. BAILEY JR. ASSOCIATE.
MISSOURI PROF. ENGINEER E-4537

Revised 9/17/55
AUGUST 30, 1955.

SHEET 1 OF 2

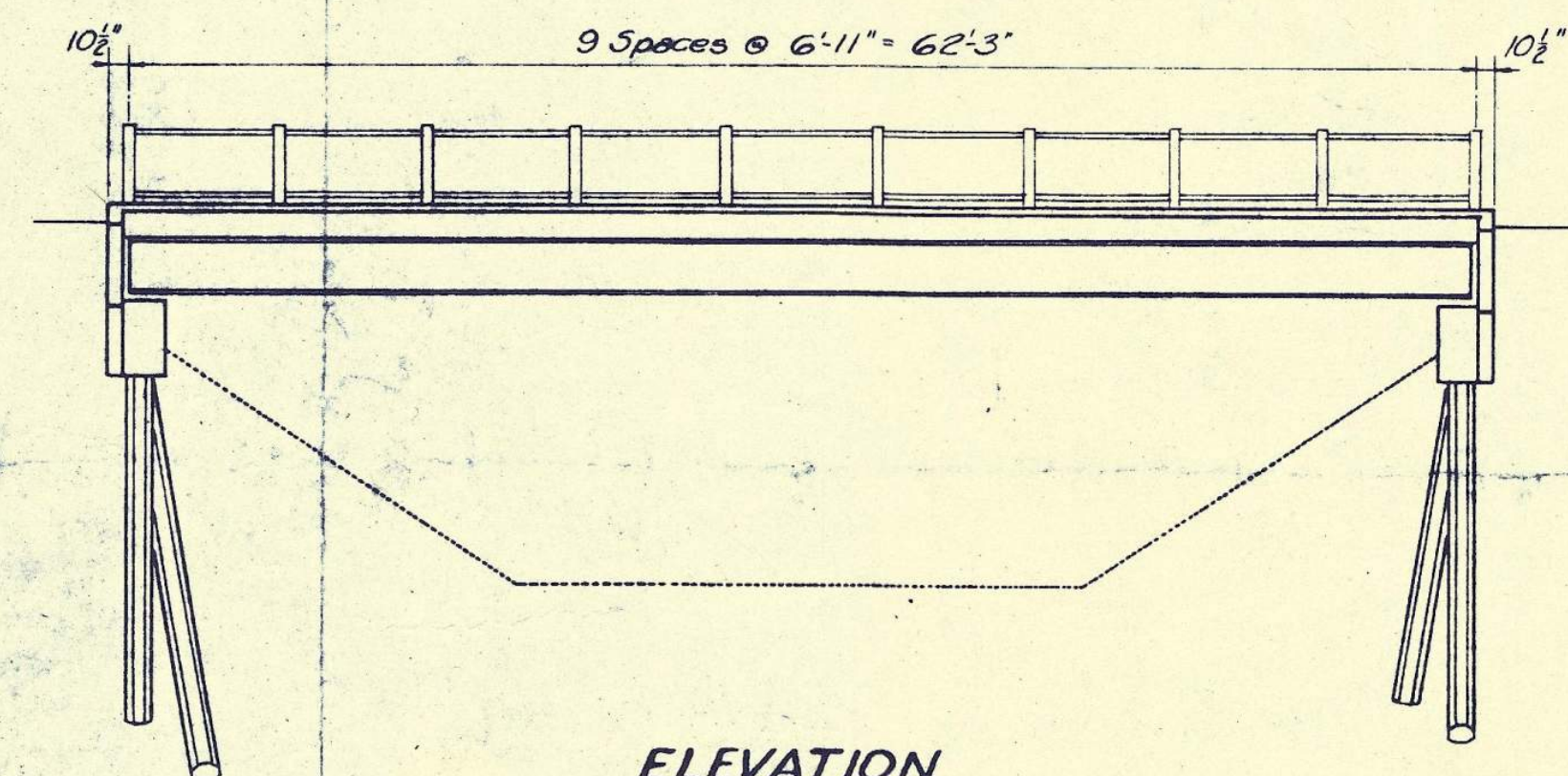
Hudson Dr.
Bridge # 105



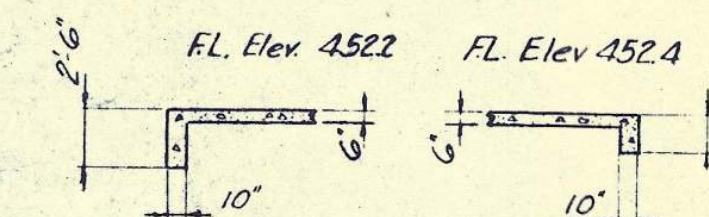
LOCATION MAP
Scale 1"=2000'

PLOT PLAN
Scale 1" = 100'

PLAN

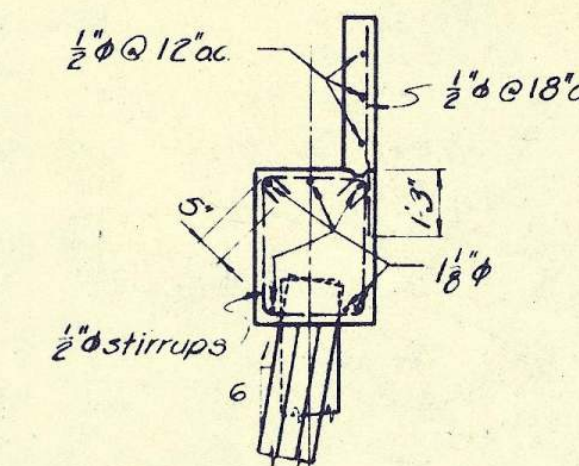
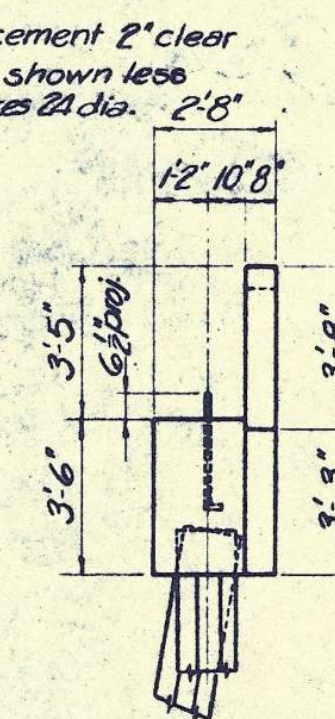


ELEVATION
Scale $\frac{1}{8}" = 1'-0"$

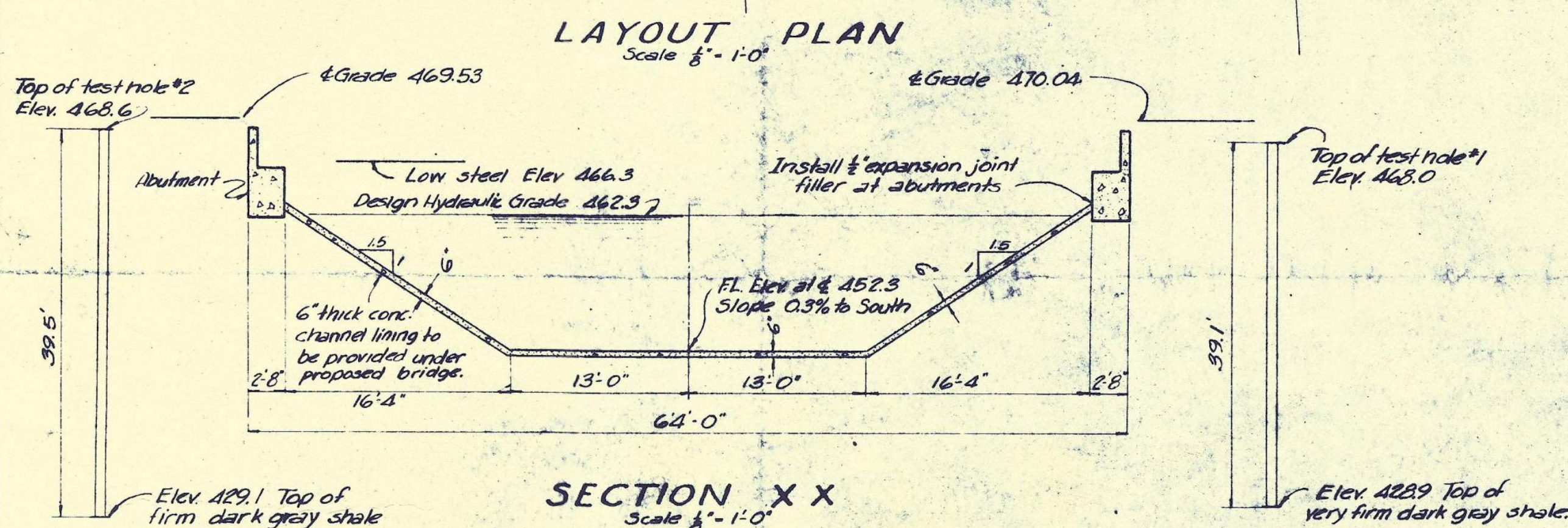


SECTION ZZ
Scale $\frac{1}{8}" = 1'-0"$

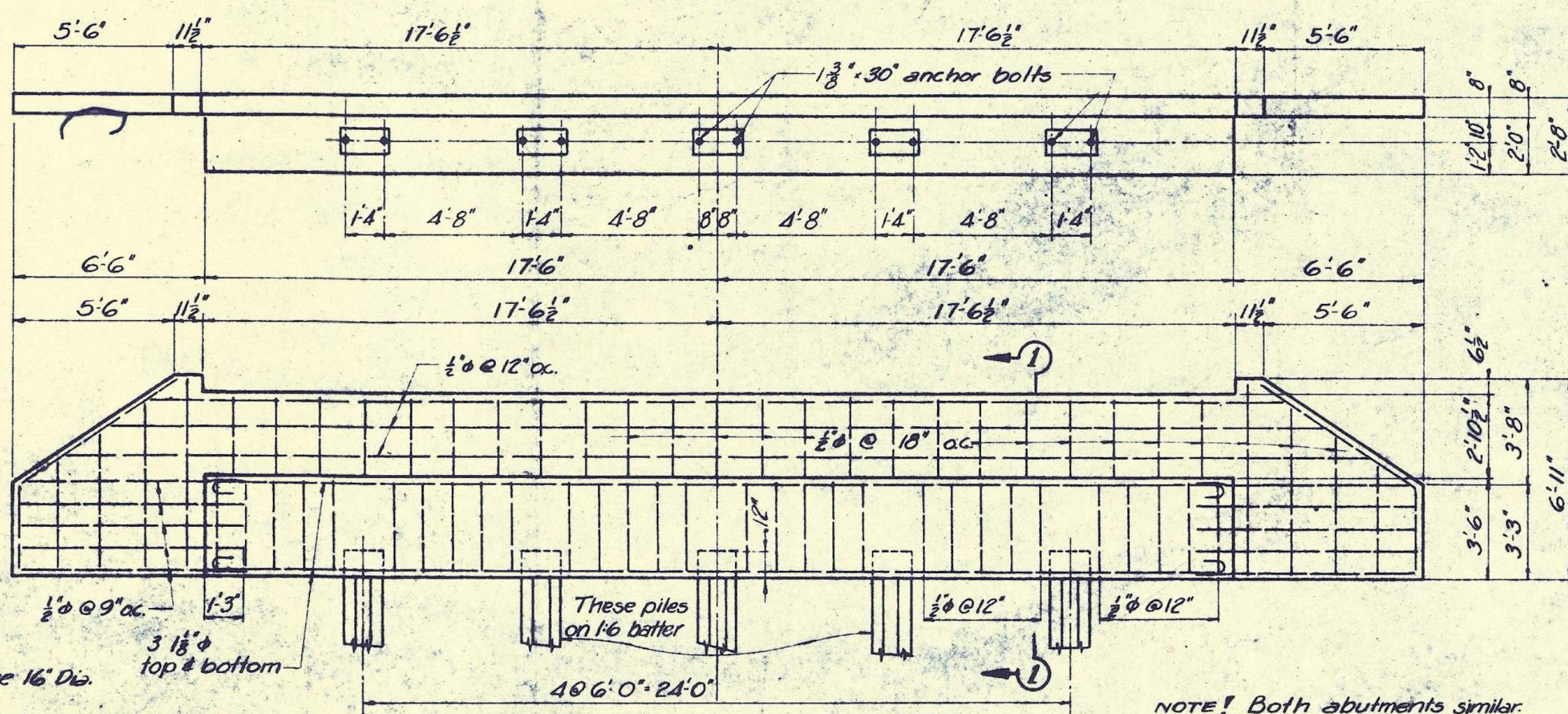
SECTION YY
Scale $\frac{1}{4}'' = 1'-0''$



SECTION 1-1



SECTION X X
Scale $\frac{1}{4}" = 1'-0"$



ABUTMENT DETAILS
Scale $\frac{1}{4}" = 1'-0"$

Concrete piles shall be 16" Dia.
Capacity 28 tons
Penetration to or below Elev 429

NOTE! Both abutments similar.

SPECIFICATIONS

All materials, methods and workmanship shall conform to the Standard Specifications of the St. Louis County Highway Engineer's Office. Standard Specifications of the American Association of State Highway Officials for Highway Bridges, the American Institute of Steel Construction and the American Welding Society shall prevail where the St. Louis County Standard Specifications are not applicable.

Surfaces of construction joints shall be scored (roughened) to insure bond.

PAINTING

All metal surfaces shall have one shop coat of primer and two field coats of aluminum paint except that the spiral shear devices and the top flanges of beams which will be in contact with concrete shall not be painted. All bolts, washers, etc. and any damaged areas of shop primer shall be refouched prior to applying the initial coat of aluminum paint.

TEMPORARY SUPPORTS

The steel beams are designed to carry dead load of slab and forms. Falsework is unnecessary.

LOADING

H 20-516-44-AASHTO Standard
Specification for Highway Bridges

ALLOWABLE UNIT STRESSES

Concrete	3000 psi ultimate	1200 psi
Steel reinforcement for concrete	20,000 psi	20,000 psi
Structural steel	18,000 psi	18,000 psi
Welds	13,600 psi	13,600 psi

COMPOSITE BEAMS

Slab dead load carried by steel section.
Sidewalk, curb and rail dead load carried
by composite section - $n = 30$. Live load
carried by composite section - $n = 10$. Spirals
designed for dead load plus live load shear.

CAMBER

Camber beams for dead load deflection.

HATHAWAY MANOR
VORHOF DRIVE BRIDGE #11

MILTON CONSTRUCTION AND SUPPLY CO., OWNER.

DESIGNED BY

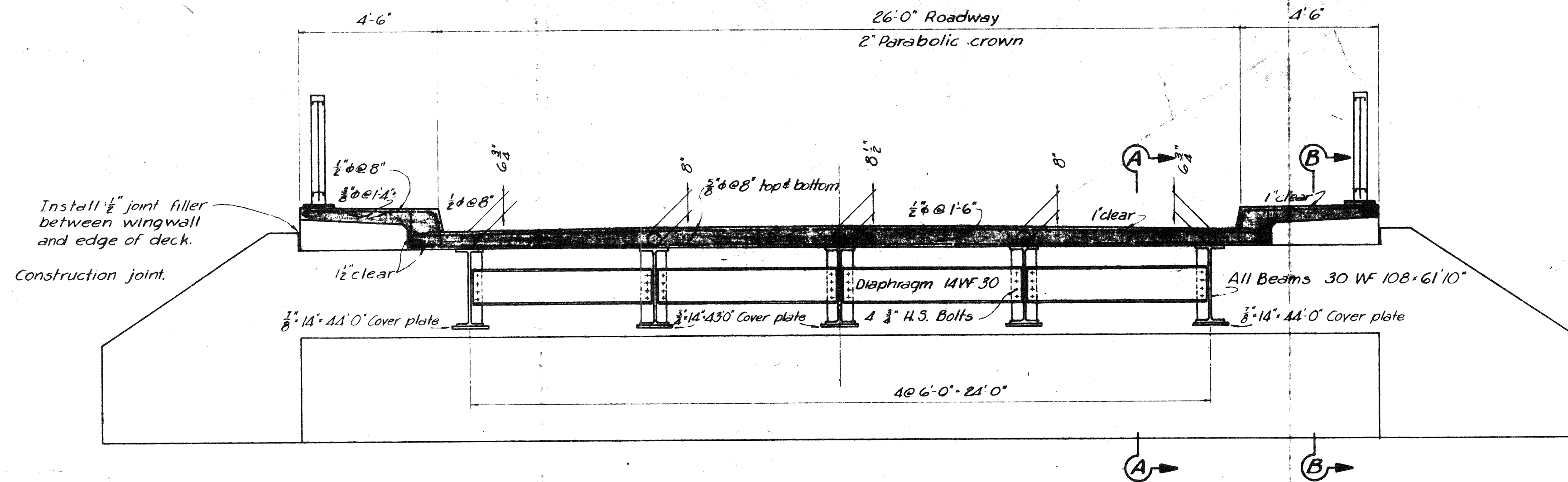
PITZMAN'S CO. OF SURVEYORS & ENGINEERS
804 PINE ST. ST. LOUIS, I, MO.

A. Fred Heimbach
MISSOURI PROF. ENGINEER VE-141

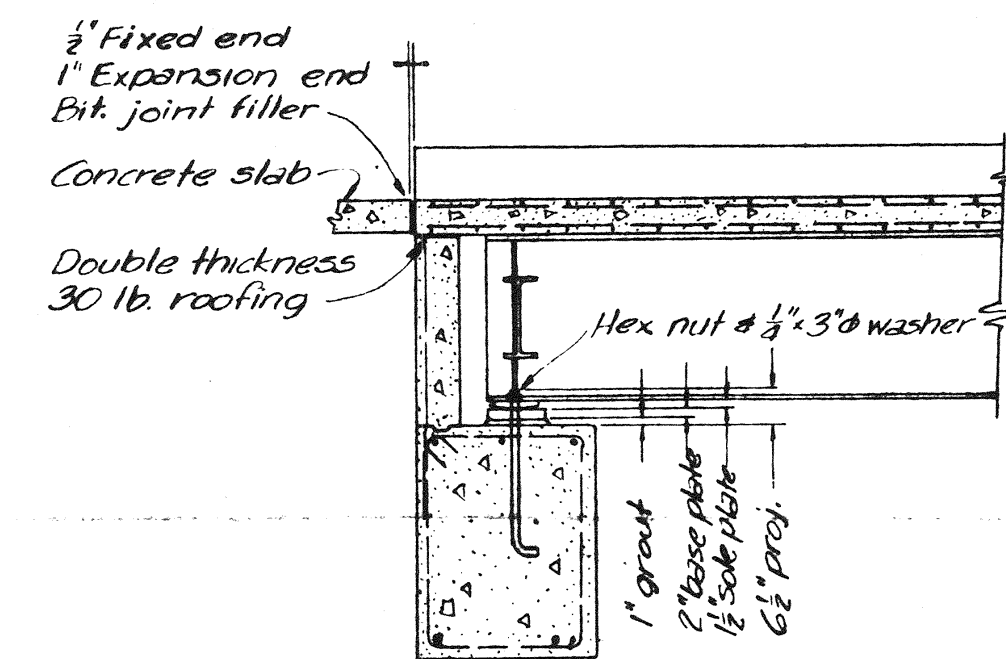
JOHN J. BAILEY JR. ASSOCIATE.
MISSOURI PROF. ENGINEER E-4587

OCTOBER 1955.

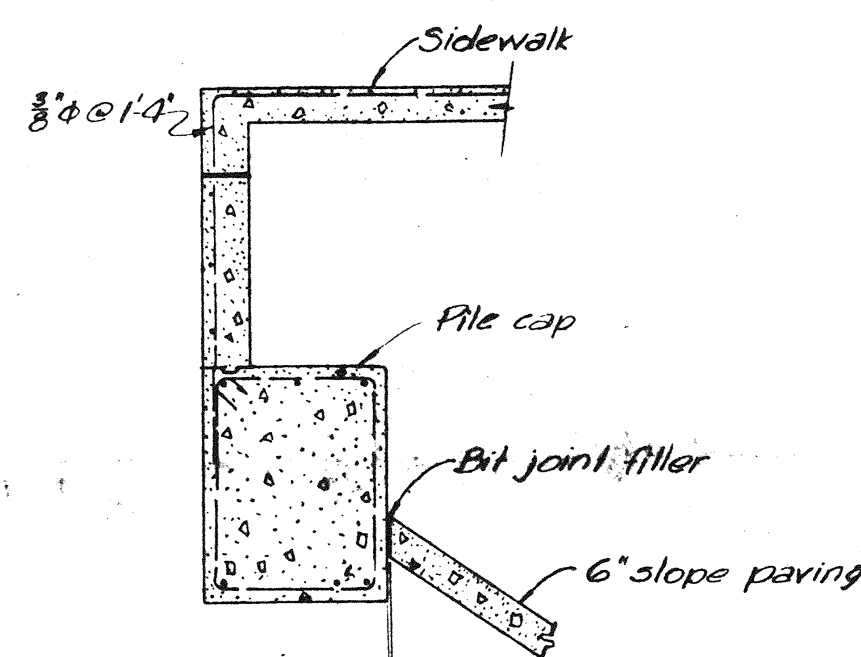
SHEET 1 OF 2



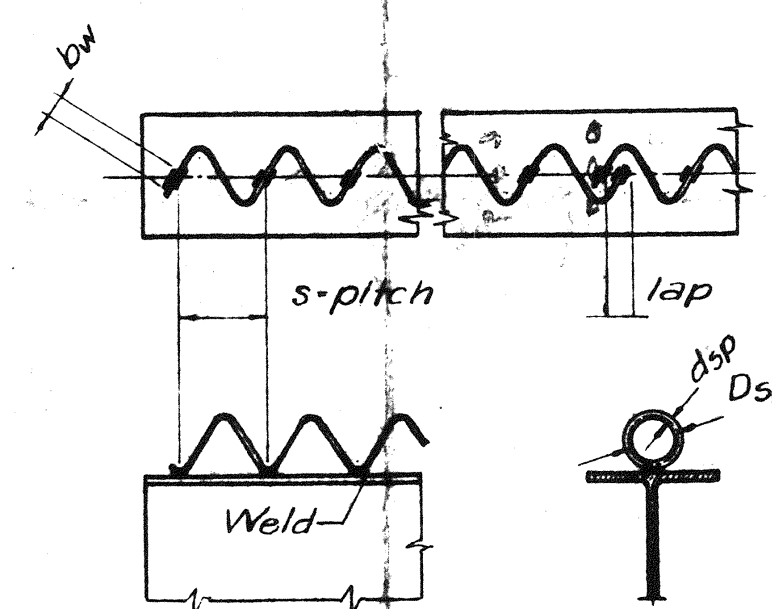
TYPICAL TRANSVERSE SECTION
Scale 3/8" = 1'-0"



SECTION AA

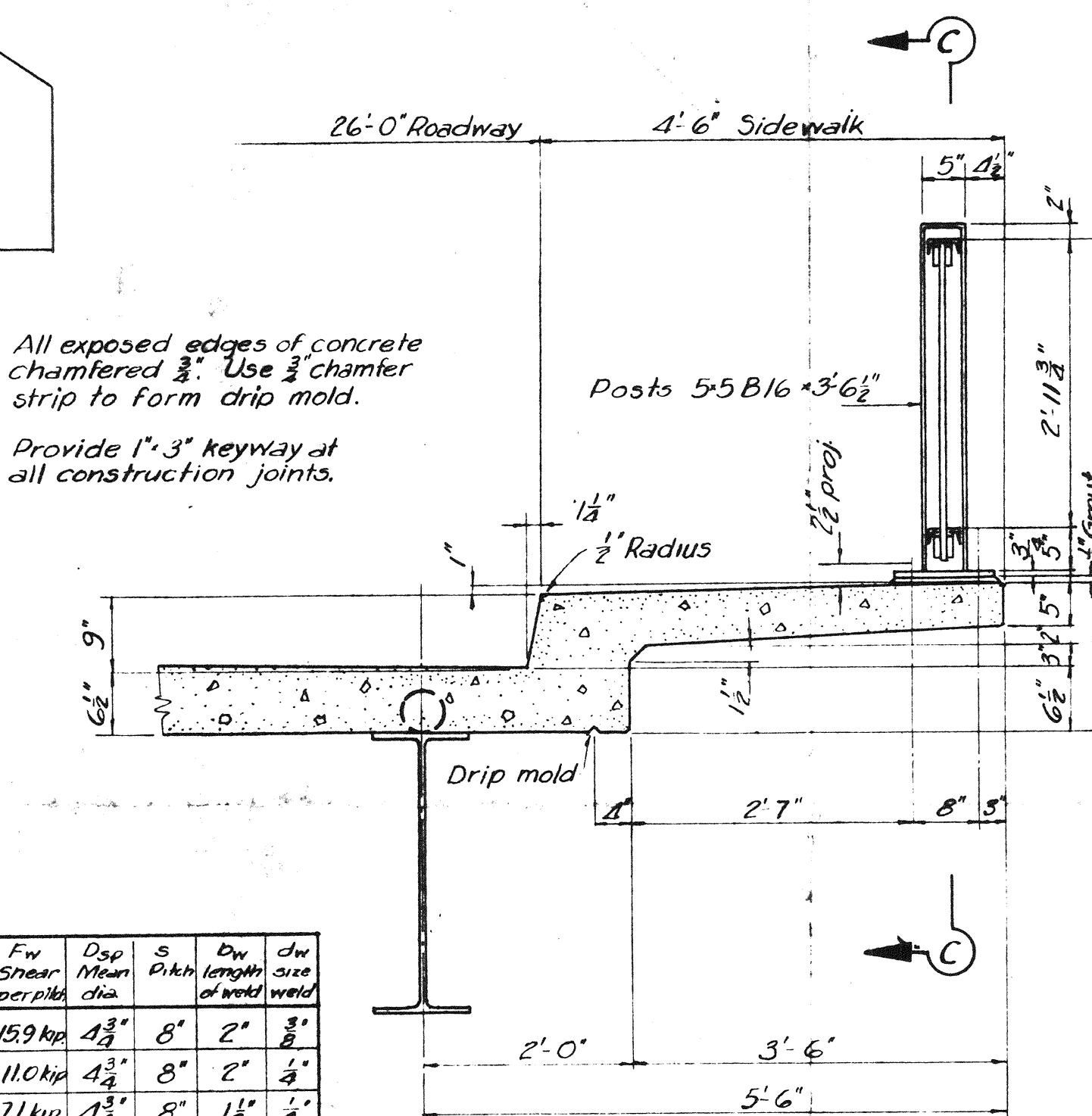


SECTION BB

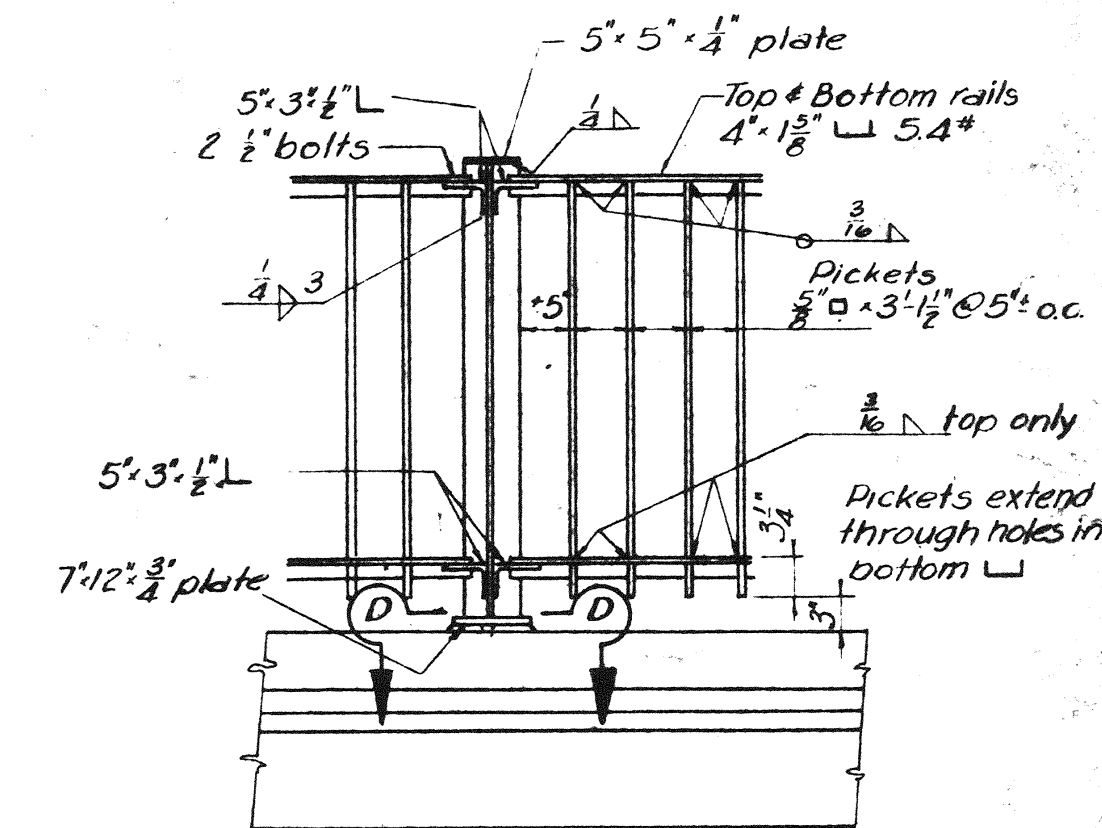


SPIRAL DETAILS
No Scale

dsp	FW	Dsp	S	DW	dw
Bar	Shear	Mean	Pitch	length	size
dia	per ft	dia			
3/4"	15.9 kip	4 3/4"	8"	2'	3/8"
5/8"	11.0 kip	4 3/4"	8"	2'	1/4"
1/2"	7.1 kip	4 3/4"	8"	1 1/2'	1/4"

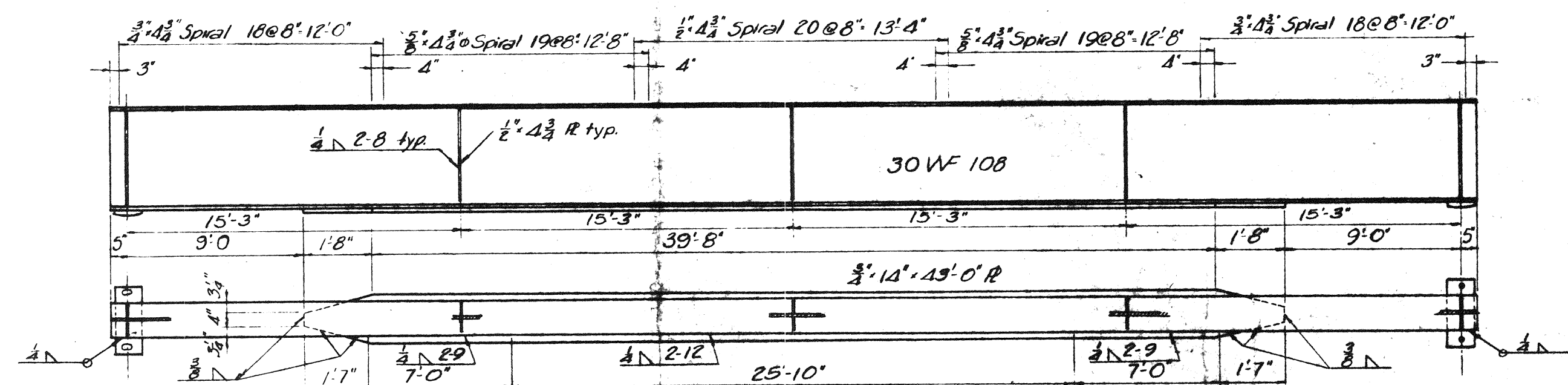


SIDEWALK DETAIL
Scale 3/4" = 1'-0"

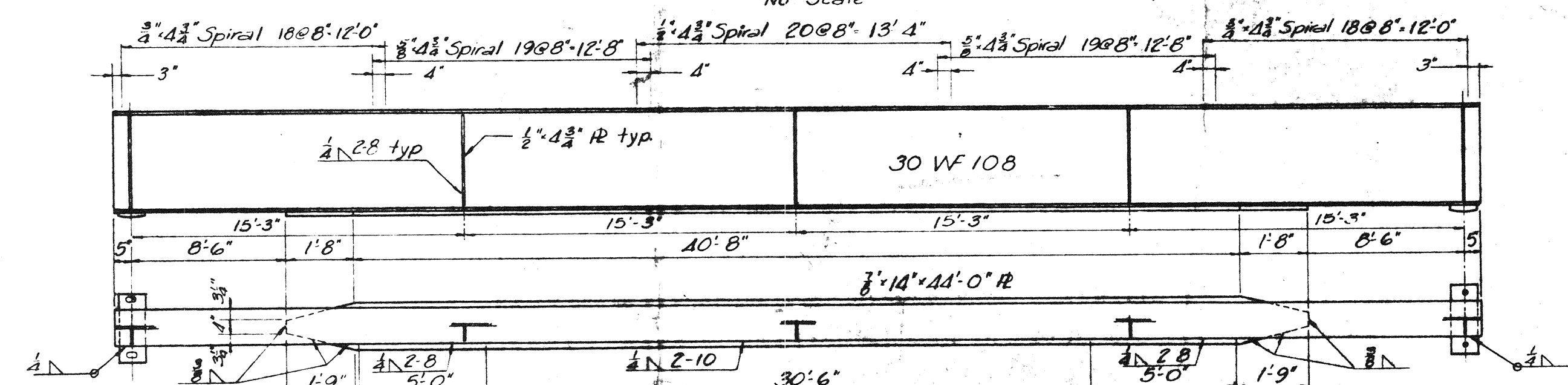


SECTION CC
Scale 3/4" = 1'-0"

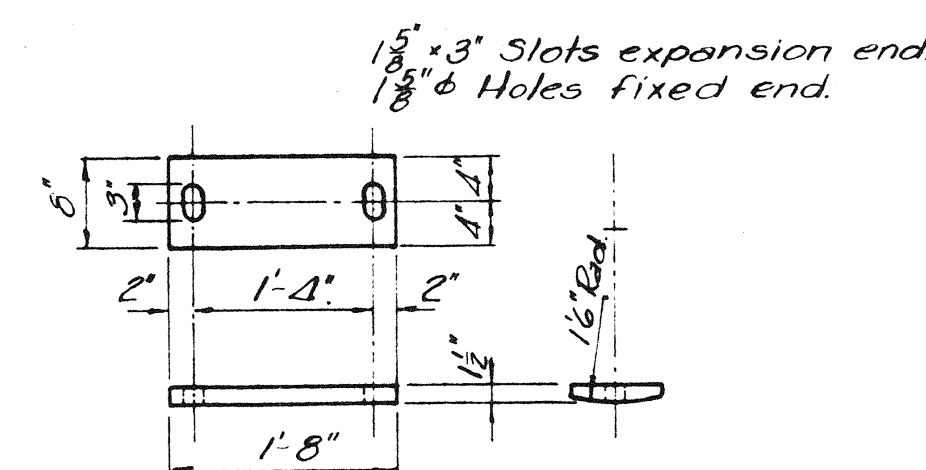
SECTION DD
SHOWING ANCHOR BOLTS
AND HANDRAIL BASE PLATE
Scale 3/4" = 1'-0"



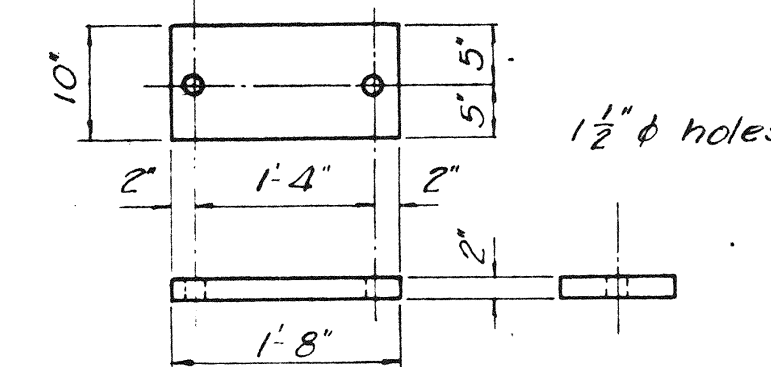
DETAIL OF INTERIOR BEAMS
No Scale



DETAIL OF EXTERIOR BEAMS
No Scale



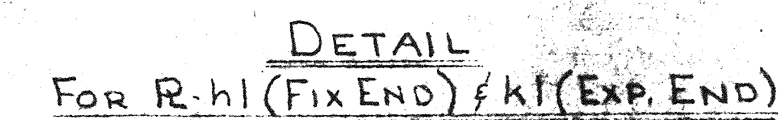
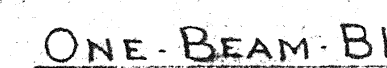
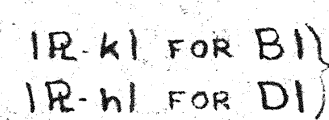
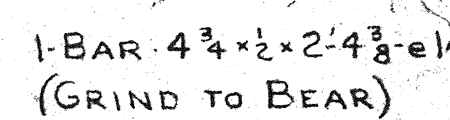
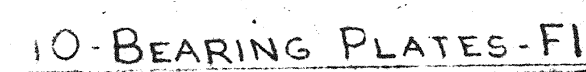
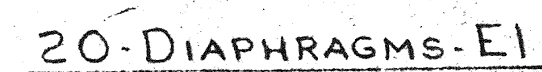
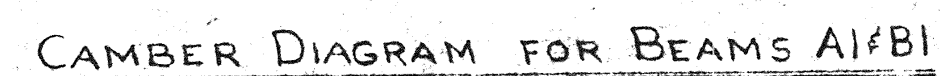
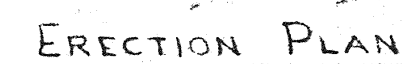
SOLE PLATE
Scale 3/4" = 1'-0"



BEARING PLATE
Scale 3/4" = 1'-0"

MAIN ANCHOR BOLTS
Scale 3/4" = 1'-0"
Each bolt to be supplied with 3" washer and std. hex nut.

HATHAWAY MANOR
VORHOF DRIVE BRIDGE



160+4-3/4" x 2 1/4" H.T. BOLTS HEX HD, F'NUT (EL TO BEAM)
320+8- CARBURIZED WASHERS FOR 3/4" H.T. BOLTS

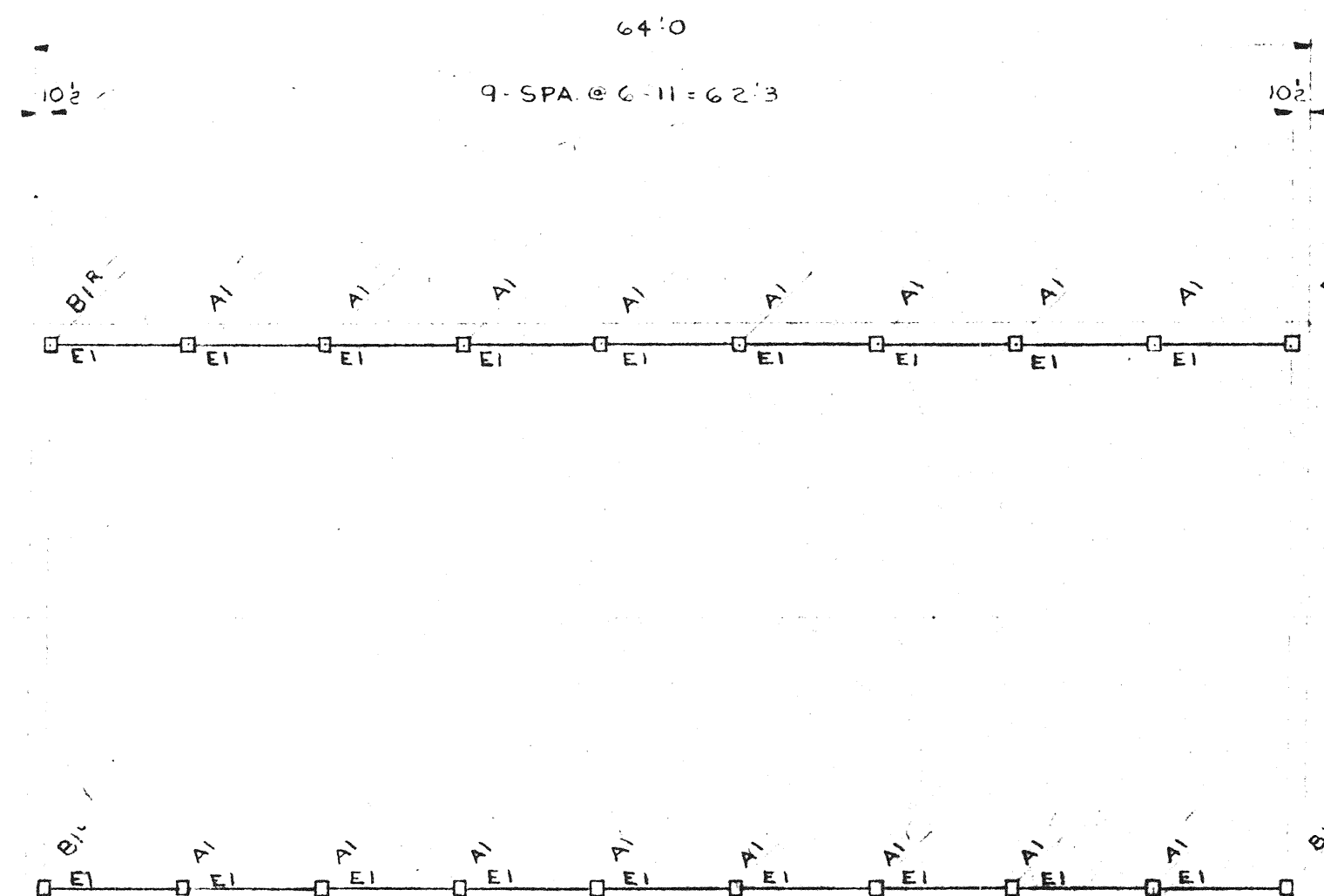
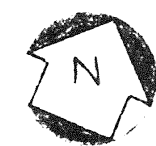
SQUARE FLANGES 90° BEARING

PITZMAN'S CO. OF SURVEYORS &
ENGINEERS - SHEET 142

References

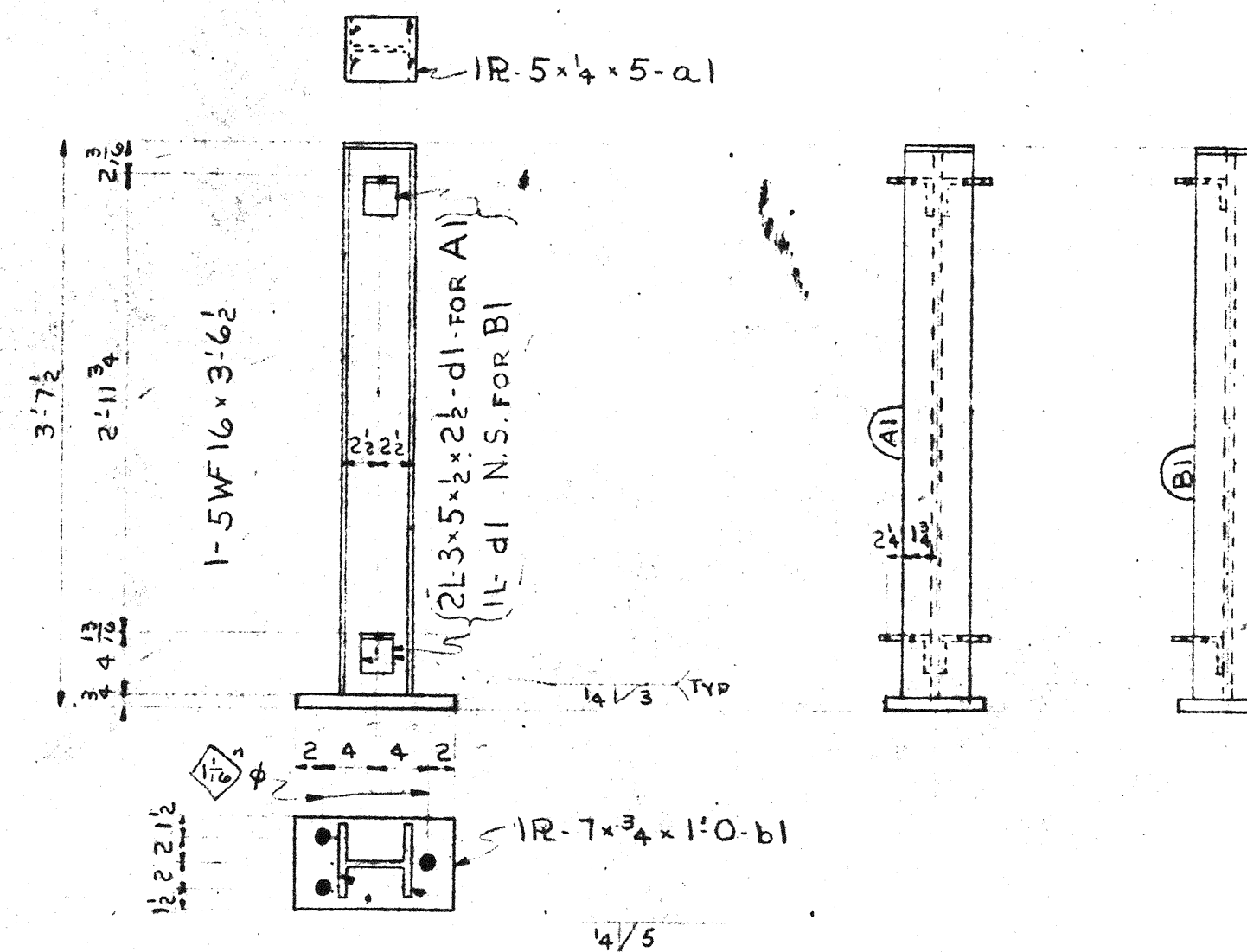
SECURITY	Total Sheets	2
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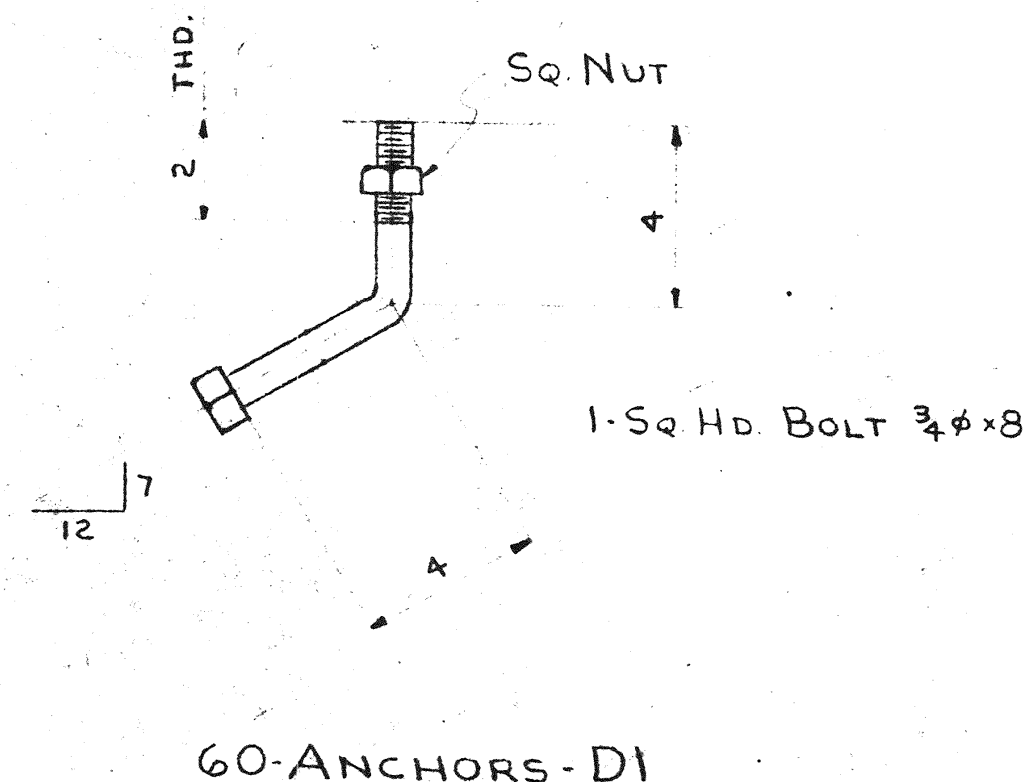


2 ROADWAY

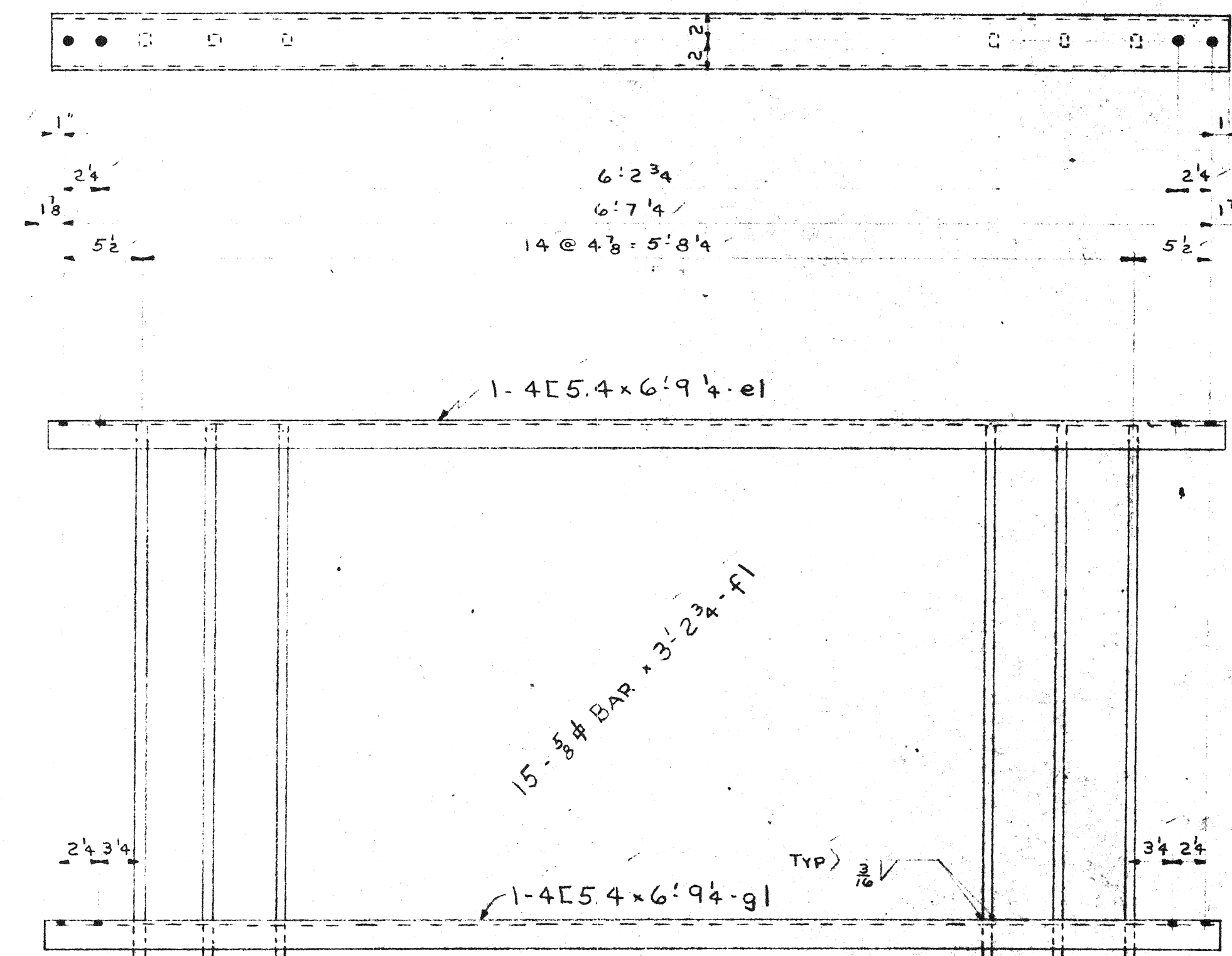
PLAN OF BRIDGE RAIL



16-Posts-A1
4-do-B1



60-ANCHORS-D1



18-RAILS-E1

FIELD BOLT LIST
144+9-MACH. BOLTS 1/2 x 1/2 Sq Hd Nut

VORHOF DRIVE
BRIDGE No. 106

S.O.

PURCHASER'S NO. _____		SHOP NO. 14301	
BOLTS (1/2)	UNLESS NOTED	DR. J.G.L.	DATE 12-7-55
RIVETS (1/2)	UNLESS NOTED	CHK. J.B.	DATE 12-8-55
HOLES (9/16)	UNLESS NOTED	EDGE DISTANCE: 1" SHOP INSPECTION: _____	
PAINT: 1/2 MAROON			
REVISIONS:			
STEEL INSURES STRENGTH AND SECURITY		SHEET NO. 2 TOTAL SHEETS 2	