



**ADDENDUM NUMBER 2**

Project Number 89005561

Project Title Broadway Boulevard Bridge over 30th Street

County Jackson

ISSUE DATE: **May 19, 2015**

Bidders are hereby notified that the Bidding and Contract Documents for the above project, for which Bids are to be received on **Tuesday, June 9, 2015**, are amended as follows:

Information to Bidders The following is provided to Bidders for information only:

1. Attached are the plans for the existing bridge.

**NOTE: Bidders must acknowledge receipt of this Addendum by listing the number and date, where provided, on the Bid Form - Document 00410.**

MISSOURI STATE HIGHWAY DEPARTMENT

# SOUTHWEST TRAFFICWAY

PENN VALLEY PARK

KANSAS CITY, MISSOURI

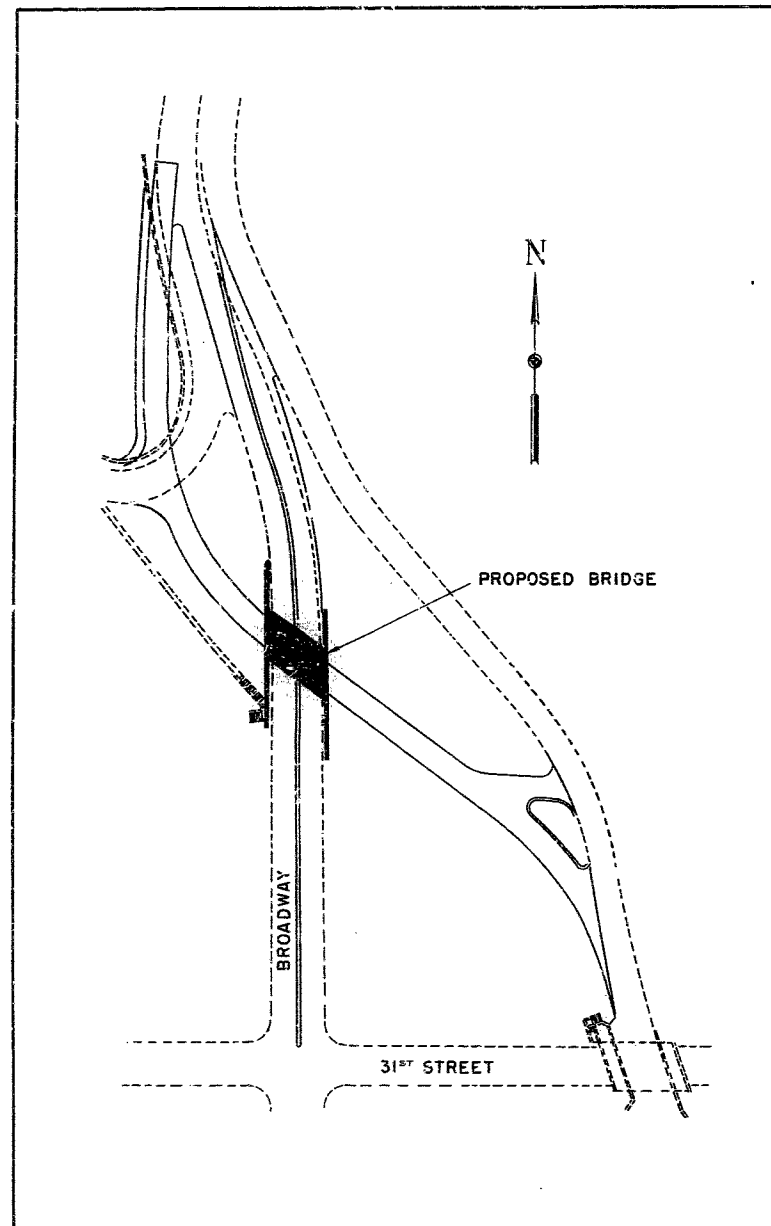
## BRIDGE AT 30<sup>TH</sup> & BROADWAY

PROJECT U-888 (4)

ROUTE US 69 SPUR

JACKSON

COUNTY



LOCATION MAP

### LIST OF DRAWINGS

1. COVER SHEET
2. GENERAL PLAN AND ELEVATION
3. FRAME AND DECK DETAILS
4. NORTH WINGWALLS
5. SOUTHEAST WINGWALL AND DRAINAGE
6. SOUTHWEST WINGWALL AND STONE DETAILS
7. REINFORCEMENT SCHEDULE

SUBMITTED BY T. W. Arnold DATE 11/4/1949  
BRIDGE ENGINEER

APPROVED BY C. W. Brown DATE 11/4/1949  
CHIEF ENGINEER

HOWARD, NEEDLES, TAMMEN & BERGENDCFF  
CONSULTING ENGINEERS  
KANSAS CITY NEW YORK

401

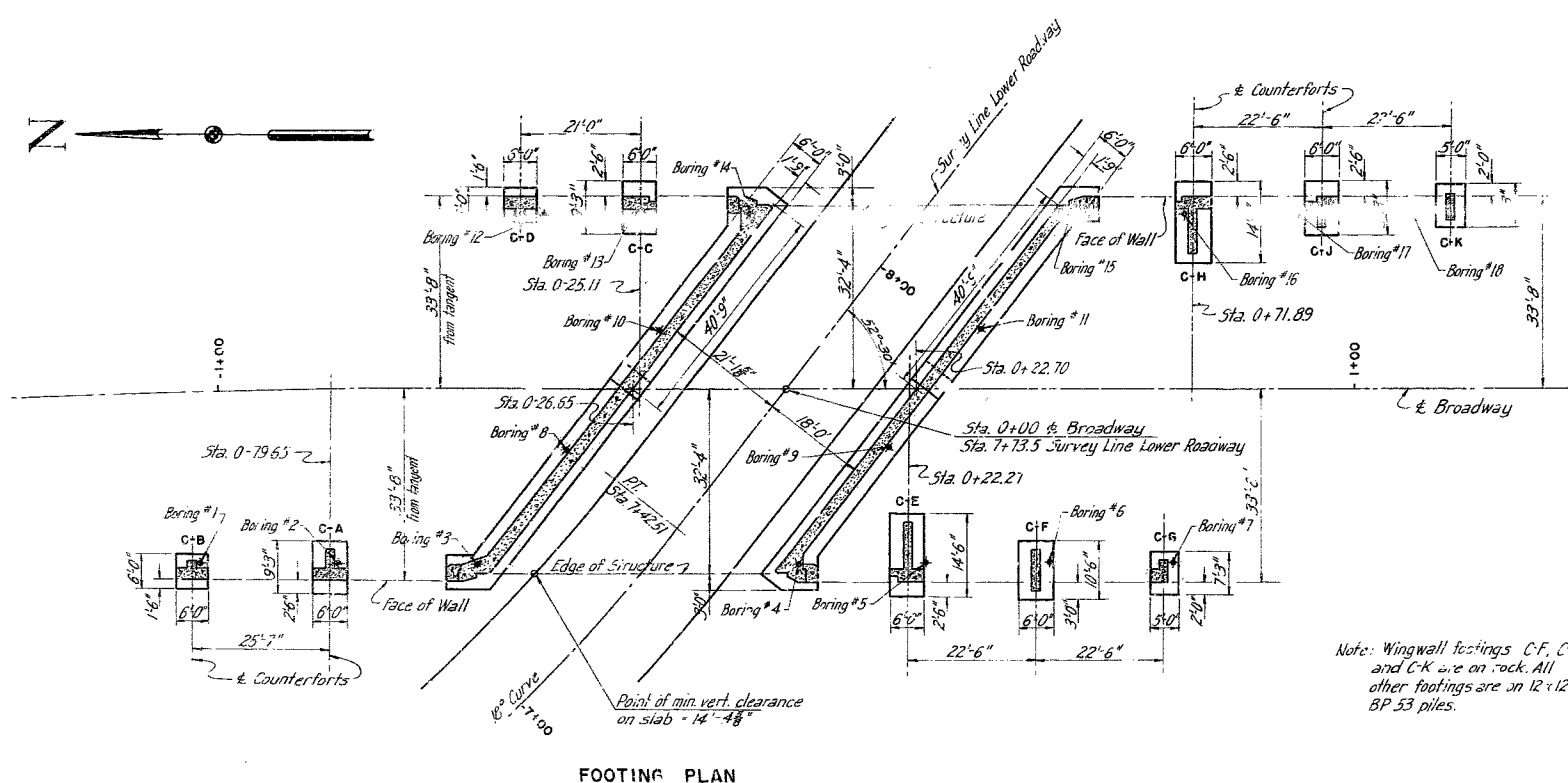
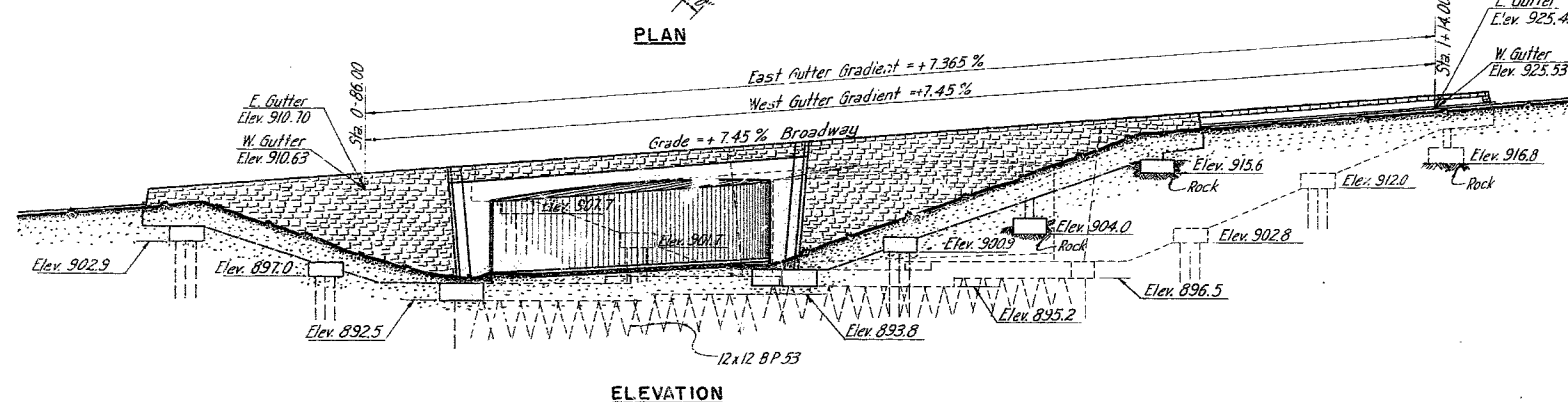
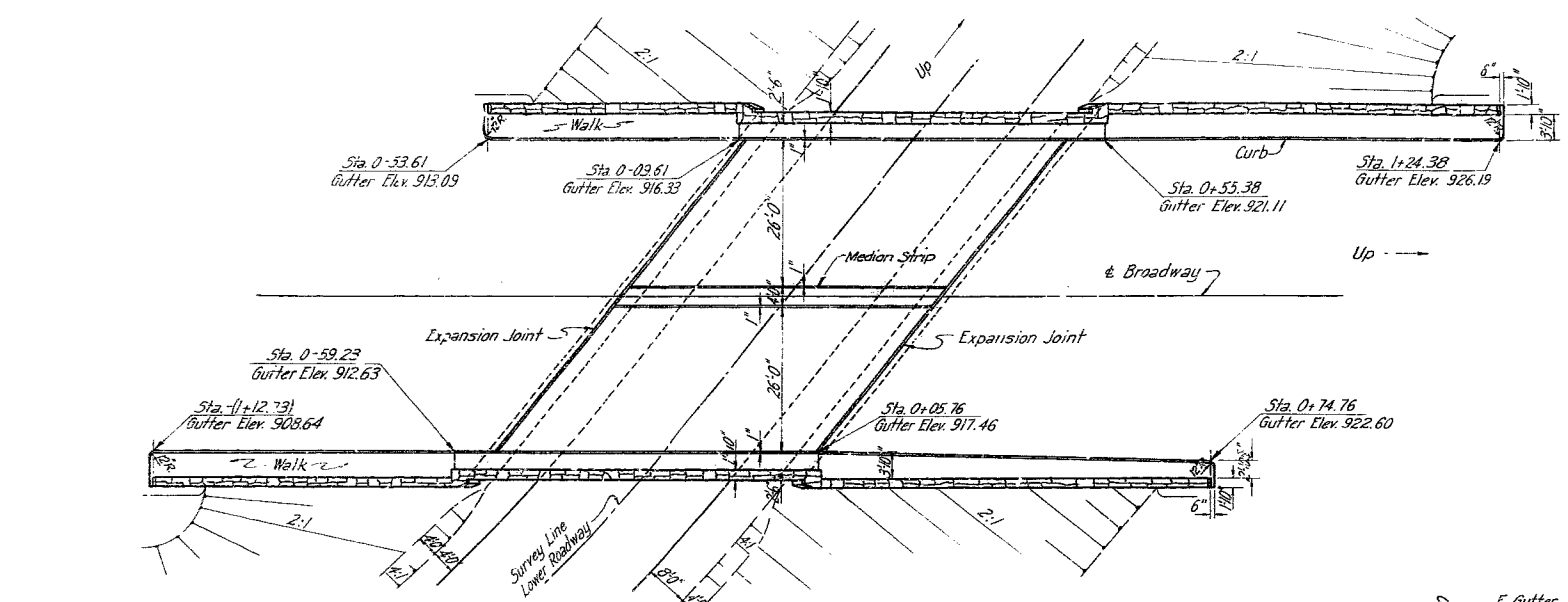
FEDERAL AID DISTRICT NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	PROJECT NO.	TOTAL SHEETS
	MISSOURI	U-888 (4)			
		1-105-63			
		SPUR			

**GENERAL NOTES**

Design Specifications A.A.S.H.O. 1949.  
 Design Loading H-20 -S16 A.A.S.H.O.  
 All distances given are horizontal and are measured at 55° F unless otherwise noted.  
 All stations are on E. of Broadway unless otherwise noted.  
 All elevations are in feet above M.S.L. 1929 Datum at Biloxi, Mississippi.  
 Cost of copper water stops shall be included in the Unit Price bid for Class B Concrete.  
 The elevations shown for bottom of footings are subject to change after excavations are made and foundation strata exposed. The Engineer will provide modified design where changes in footing elevations are required.  
 Horizontal construction joints in stone faced vertical walls, in addition to those shown on the plans, will be permitted subject to the approval of the Engineer.

**GENERAL NOTES FOR CONCRETE REINFORCEMENT**

All concrete to be class B. Allowable stress 1000 p.s.i.  
 For proportioning, mixing, placing, finishing etc., see specifications. All concrete shall be proportioned by the weight proportioning method.  
 All exposed edges shall be beveled  $\frac{3}{4}$ " where no other bevel is noted. All beveled edges shall be dressed.  
 For finish of exposed concrete surfaces see Special Provisions.  
 Reinforcing steel for roadway slab to be structural grade. All other reinforcing steel to be either structural or intermediate grade. Allowable working stress for either grade to be 18000 p.s.i.  
 Minimum covering measured from the surface of the concrete to the face of any reinforcing bar shall be 2" except in slabs where minimum covering shall be 1" and in footings where minimum covering shall be 3".  
 Bar supports and spacers will be required for reinforcing steel in superstructure. (See Standard C-110 R3.)  
 Bar splices shall, unless otherwise noted, have a minimum lap of 45 bar diameters. Dimensions shall be to the center line of bars.  
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 Where joint filler is specified on the plans it shall conform to the requirements of Section 38-19B (2) of the Standard Specification for gray rubber compound joints.  
 Where joint filler is specified on the plans for use in partition or expansion joints the premolded compound shall be securely stitched to one face of concrete with copper wire.  
 Fill faces of frame legs and wingwalls shall be damp-proofed. Two types of damp-proofing will be required, the "regular" asphaltic paint coats and the "special" applications of cotton fabric membrane. See drawings C-102R and C-103R of Missouri State Highway Department Standards for details. See also Special Provisions for damp-proofing.  
 See Special Provisions for details and limits of porous backfill to be placed under this contract.



ESTIMATED QUANTITIES			
Item	Substr.	Superstr.	Total
1-B Class I Excavation for Structures	cu.yds.		980
1-J Porous Backfill	cu.yds.		417
1-B Class B concrete	cu.yds.	402.5	1196.8
18-B1 Perforated 8" Corrugated Metal Culvert Pipe	lin. ft.		414
19-A Reinforcing Steel	lbs.	49,740	151,150
20-D Stone Facing	sq. ft.		2945
20-E Stone Handrail	lin. ft.		372
22-D Steel Piles in Place (Contractor Furnished)	lin. ft.		527
22-D1 Steel Pile Cutoffs (Contractor Furnished)	lin. ft.		75
22-C Steel Piles in Place (State Furnished)	lin. ft.		1277

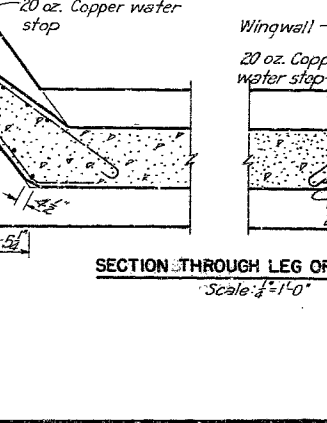
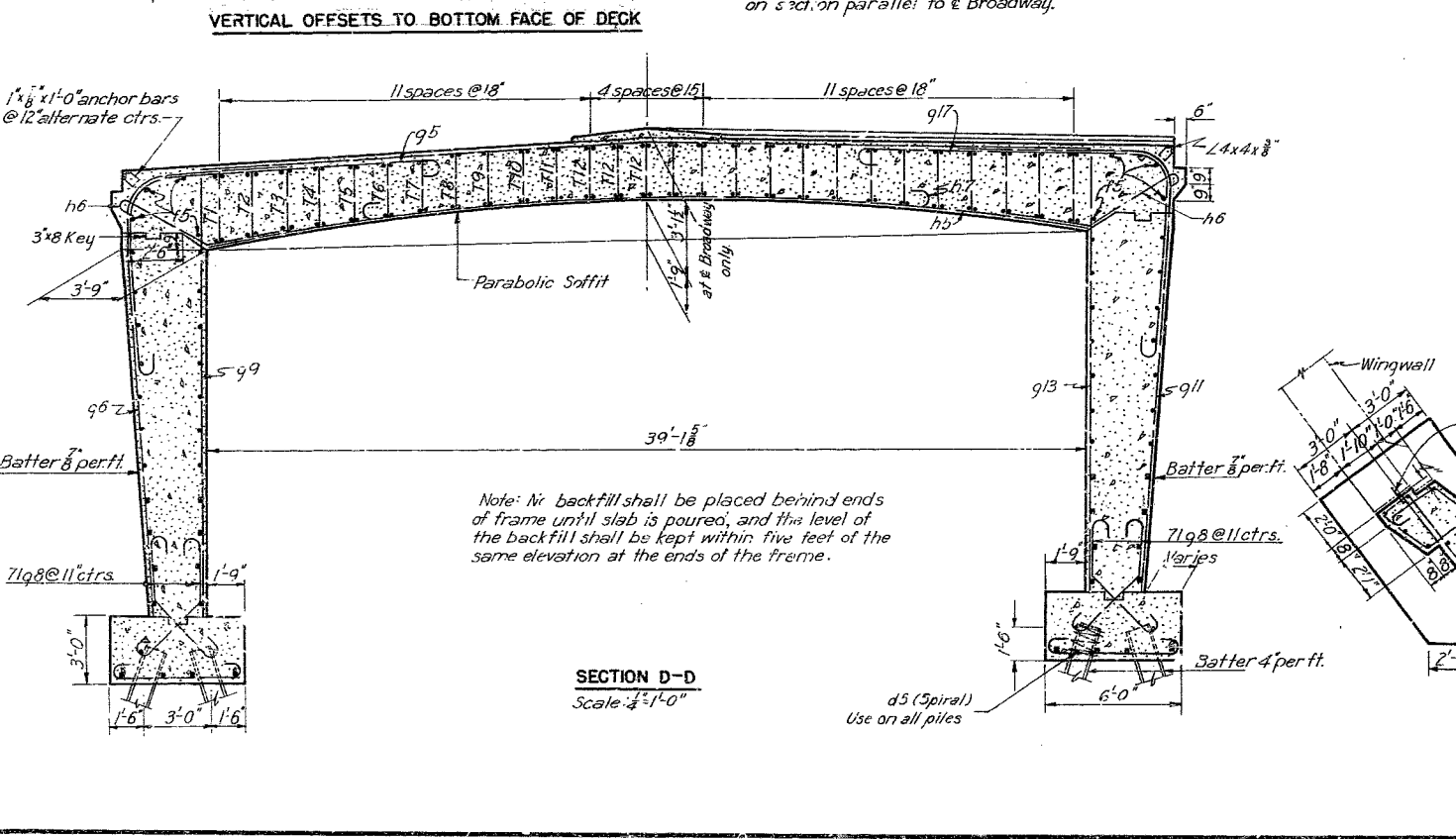
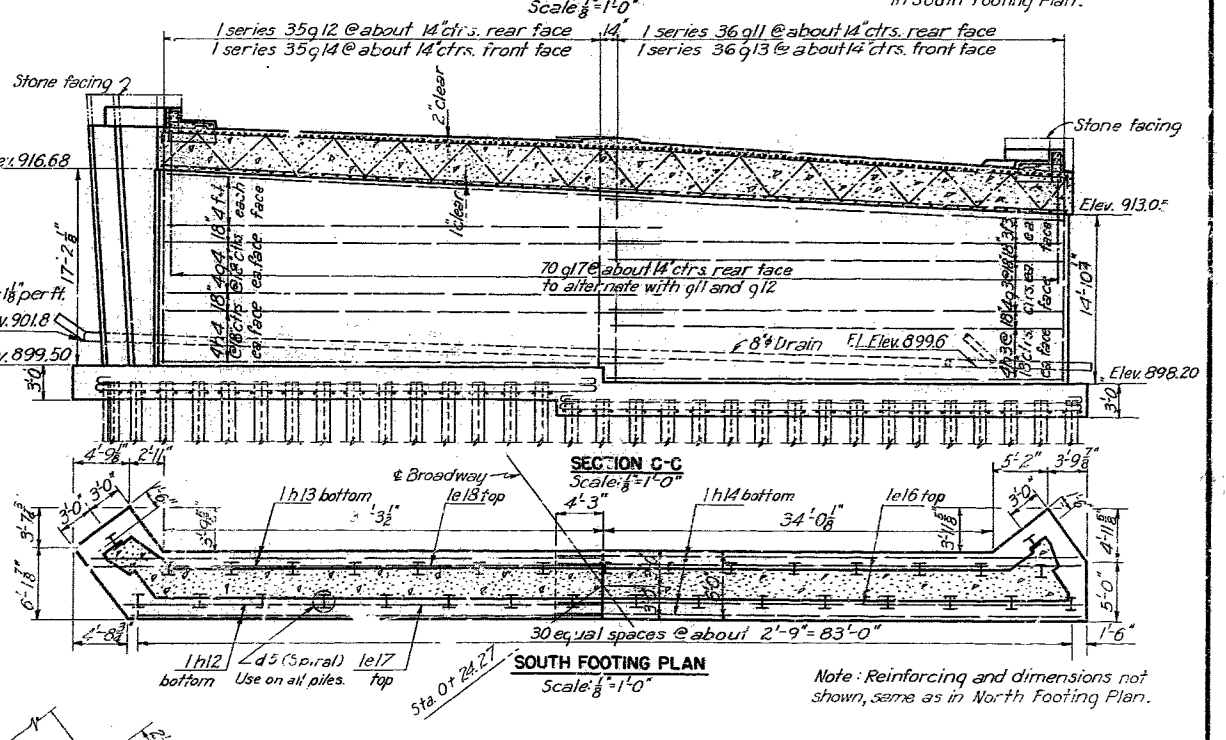
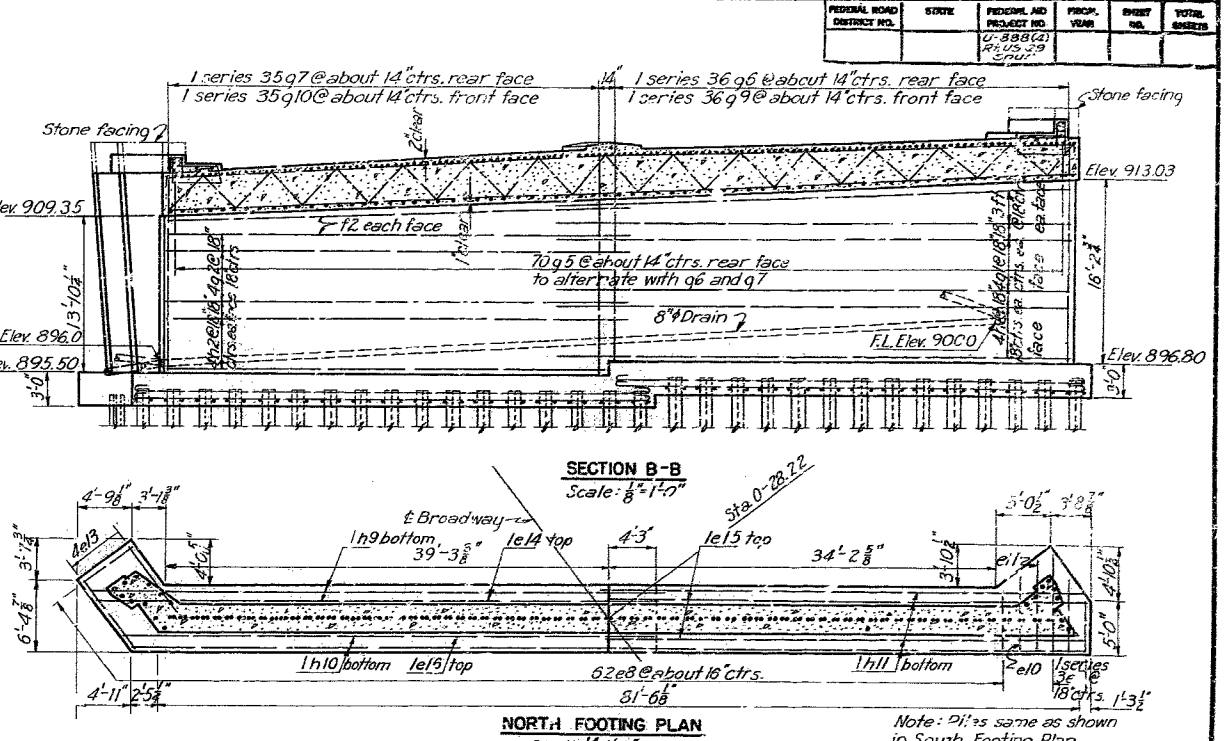
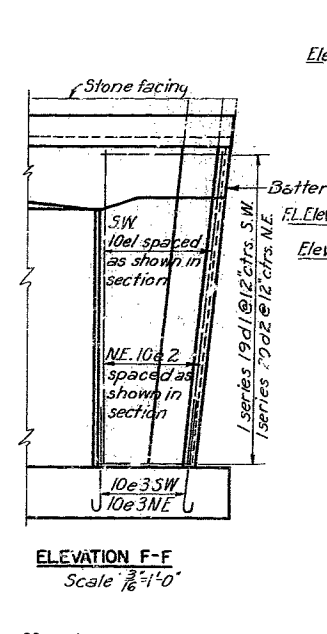
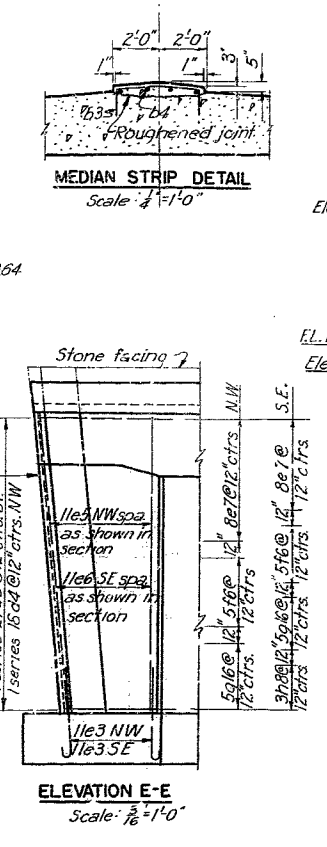
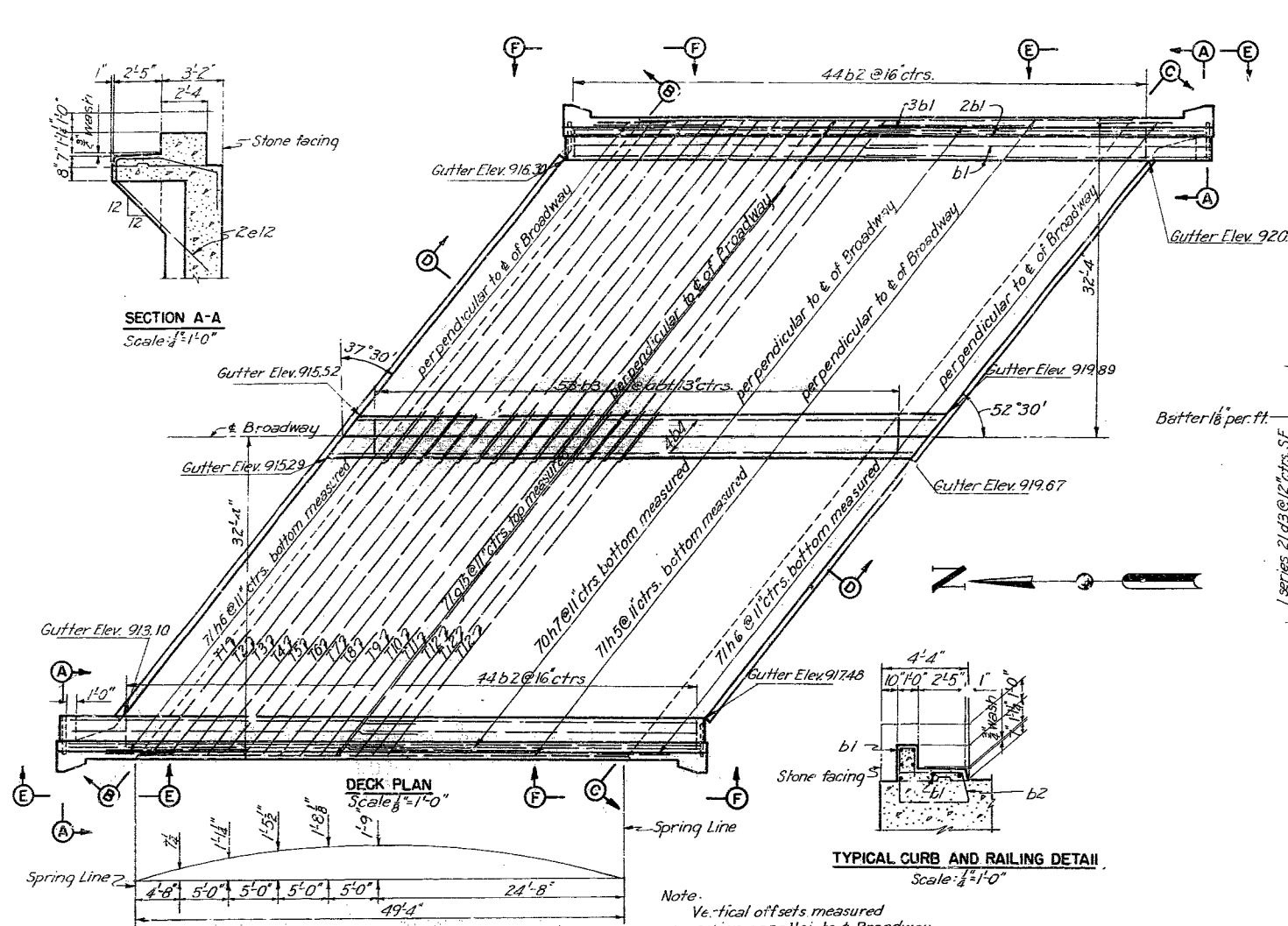
MISSOURI STATE HIGHWAY DEPARTMENT  
 SOUTHWEST TRAFFICWAY  
 PENN VALLEY PARK, KANSAS CITY, MISSOURI  
 BRIDGE AT 30<sup>TH</sup> AND BROADWAY  
 PROJECT U-888 (4) ROUTE 115 E9 SPUR  
 JACKSON COUNTY

GENERAL PLAN AND ELEVATION  
 SCALE 1/4" = 1'-0"  
 MADE S.W.F. DATE 10-7-49  
 TRCD. S.W.F. DATE 10-11-49  
 CHD. S.W.F. DATE 10-18-49  
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS  
 KANSAS CITY NEW YORK  
 798 SHEET 2

STD. C-102R  
 STD. C-103R  
 STD. C-110R3  
 L-253

402

FEDERAL ROAD DISTRICT NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	MO	U-888(4)		10	10



BAR SIZE			
MARK	SIZE	MARK	SIZE
a	3/8"	f	7/8"
b	1/2"	g	1"
c	5/8"	h	1 1/8"
d	3/4"	i	1 1/4"
e	1"	k	1 1/2"

MISSOURI STATE HIGHWAY DEPARTMENT  
**SOUTHWEST TRAFFICWAY**  
 PENN VALLEY PARK, KANSAS CITY, MISSOURI  
 BRIDGE AT 30<sup>TH</sup> AND BROADWAY  
 JACKSON COUNTY

PROJECT U 888(4) ROUTE US 69 SPUR  
 JACKSON COUNTY

DECK PLAN AND FRAME DETAILS

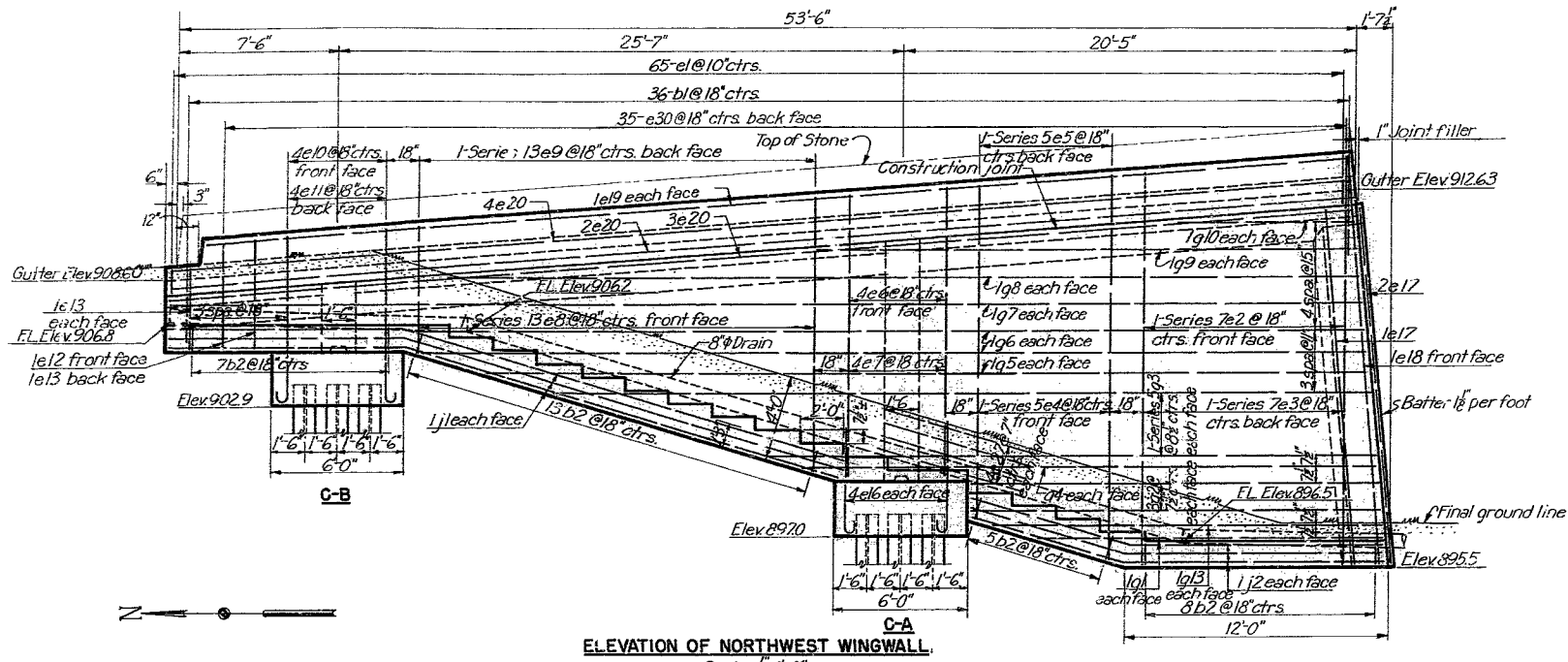
SCALE: 1/4" = 1'-0" (DECK PLAN)  
 SCALE: 1/8" = 1'-0" (FOOTING PLANS)  
 SCALE: 3/8" = 1'-0" (ELEVATIONS)

DATE: 10-18-49  
 ENGINEER: H. G. HARRIS  
 CHECKED: R. D. HARRIS  
 DRAWN: R. D. HARRIS

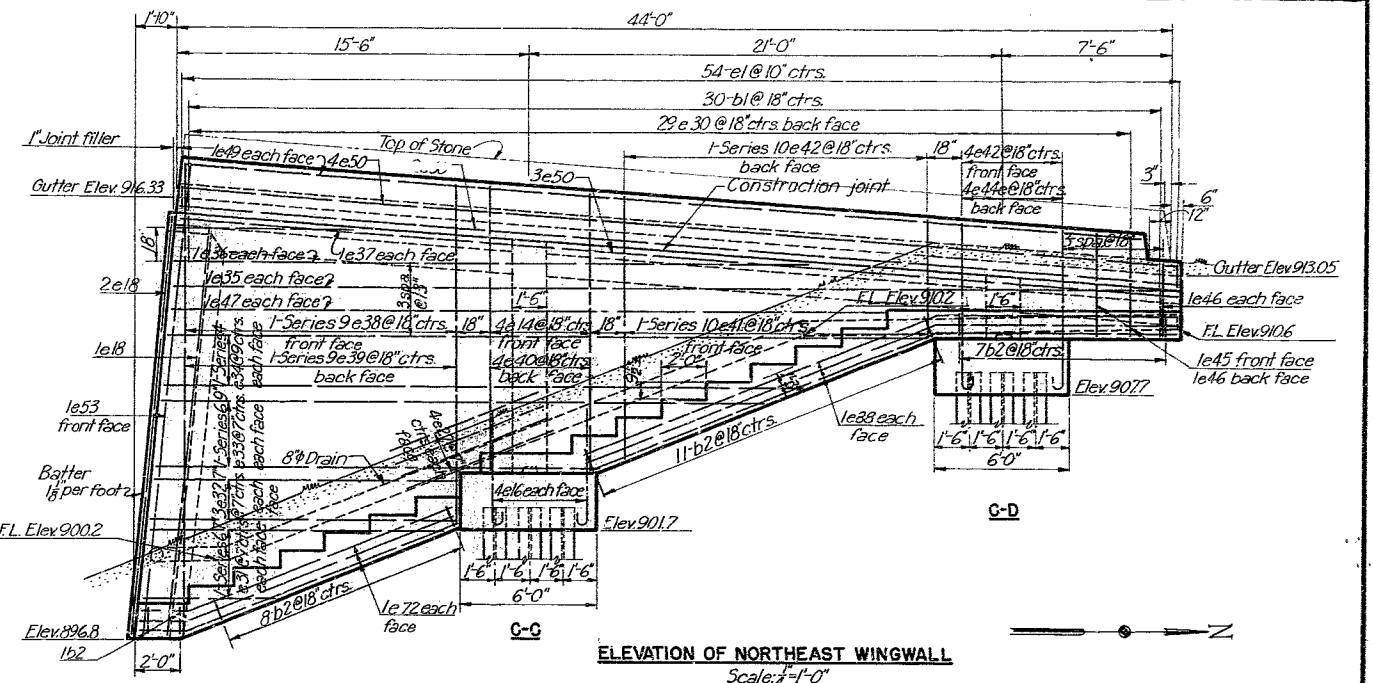
HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS  
 NEW YORK

798 SHEET 3

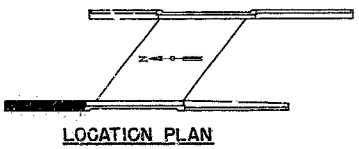
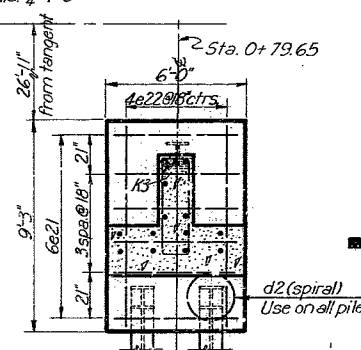
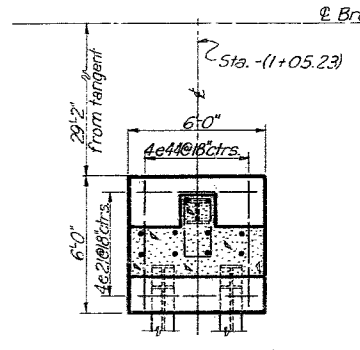
403



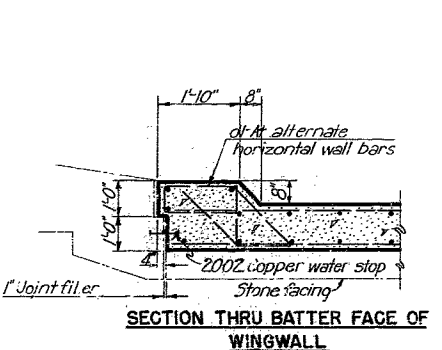
**ELEVATION OF NORTHWEST WINGWALL**  
Scale: 1/4" = 1'-0"



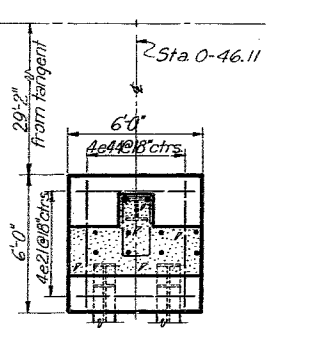
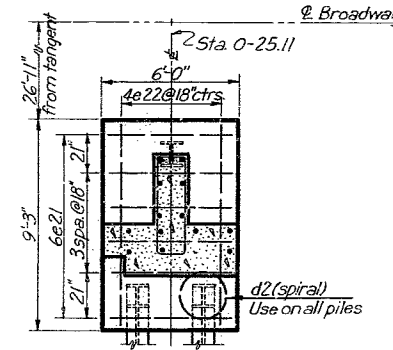
**ELEVATION OF NORTHEAST WINGWALL**  
Scale: 1/4" = 1'-0"



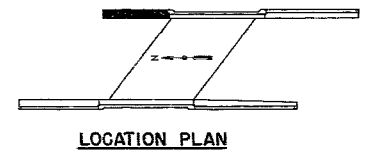
**FOOTING PLAN**  
Scale: 1/4" = 1'-0"



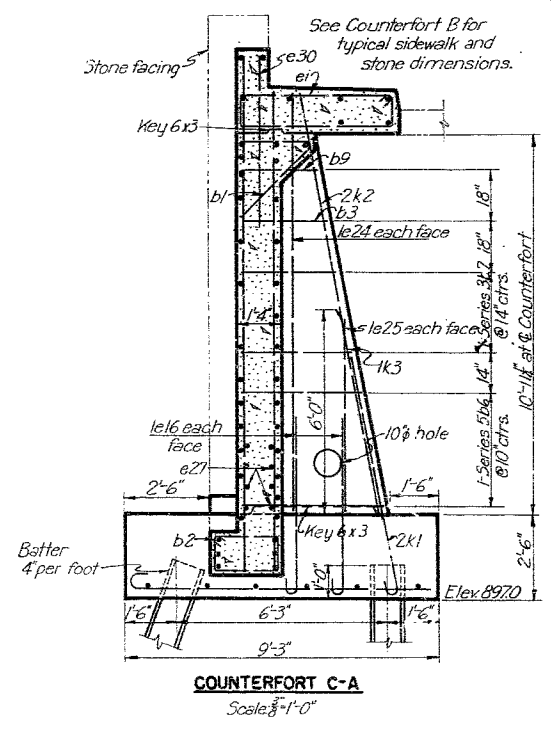
**SECTION THRU BATTER FACE OF WINGWALL**  
Scale: 3/8" = 1'-0"



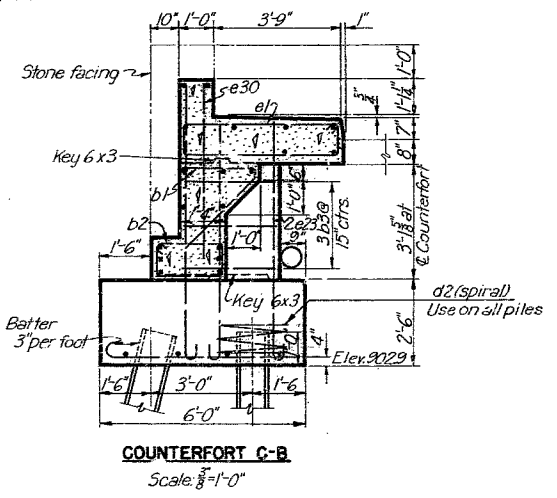
**FOOTING PLAN**  
Scale: 1/4" = 1'-0"



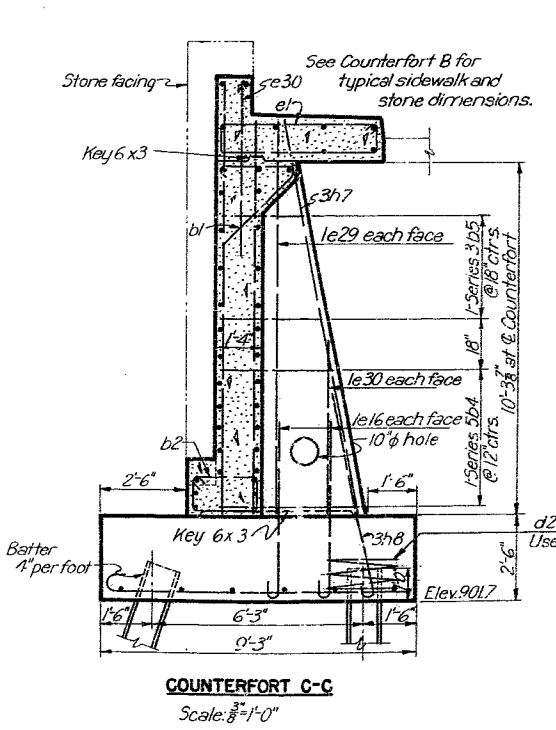
Note: All piles are 12x12 BP 53. For stone details, see sheet 6. For drainage details, see sheet 5.



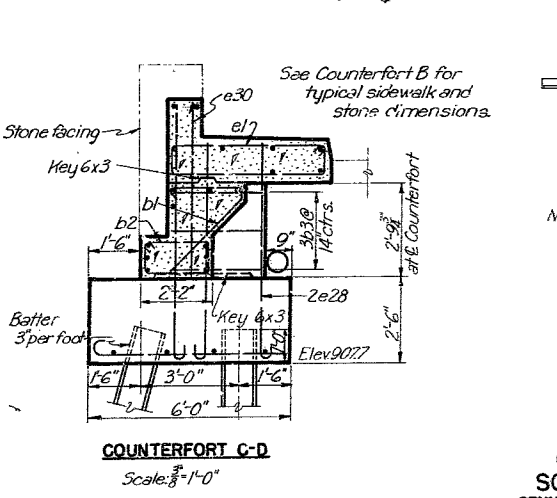
**COUNTERFORT C-A**  
Scale: 3/8" = 1'-0"



**COUNTERFORT C-B**  
Scale: 3/8" = 1'-0"



**COUNTERFORT C-C**  
Scale: 3/8" = 1'-0"



**COUNTERFORT C-D**  
Scale: 3/8" = 1'-0"

BAR SIZE			
MARK	SIZE	MARK	SIZE
a	3/8" φ	f	3/8" φ
b	1/2" φ	g	1" φ
c	5/8" φ	h	1" sq
d	3/4" φ	i	1 1/2" sq
e	1" φ	k	1 1/2" sq

MISSOURI STATE HIGHWAY DEPARTMENT  
SOUTHWEST TRAFFICWAY  
PENN VALLEY PARK, KANSAS CITY, MISSOURI  
BRIDGE AT 30<sup>TH</sup> AND BROADWAY  
PROJECT U 888(4) ROUTE US 69 SPUR  
JACKSON COUNTY

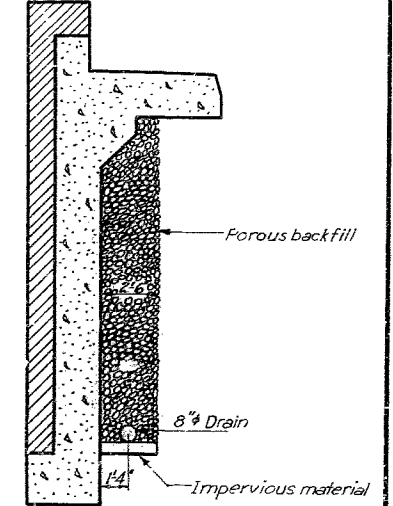
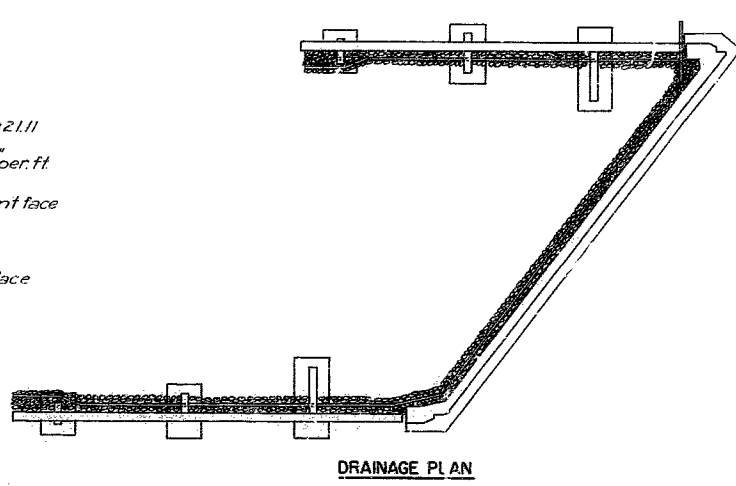
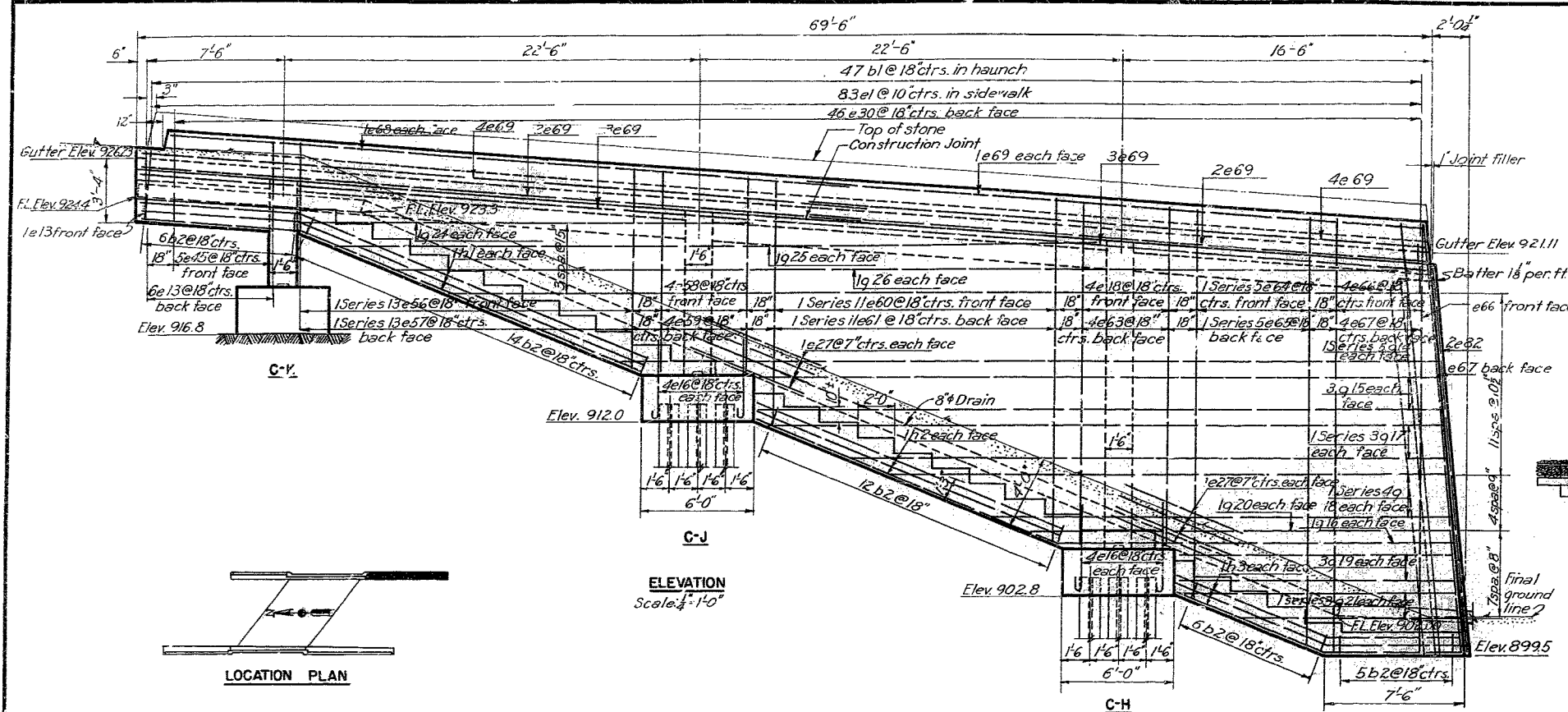
NORTH WINGWALLS

SCALE: as noted  
MADE: C.R. DATE: 10/2/59  
TRCD: L.L. DATE: 10/15/59  
CHKD: DATE: \_\_\_\_\_  
HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
KANSAS CITY NEW YORK  
798 SHEET 4

404

SEE FINAL PLANS BROWN LINES

FEDERAL ROAD DISTRICT NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	KEY NO.	TOTAL SHEETS
		U 888(4)			



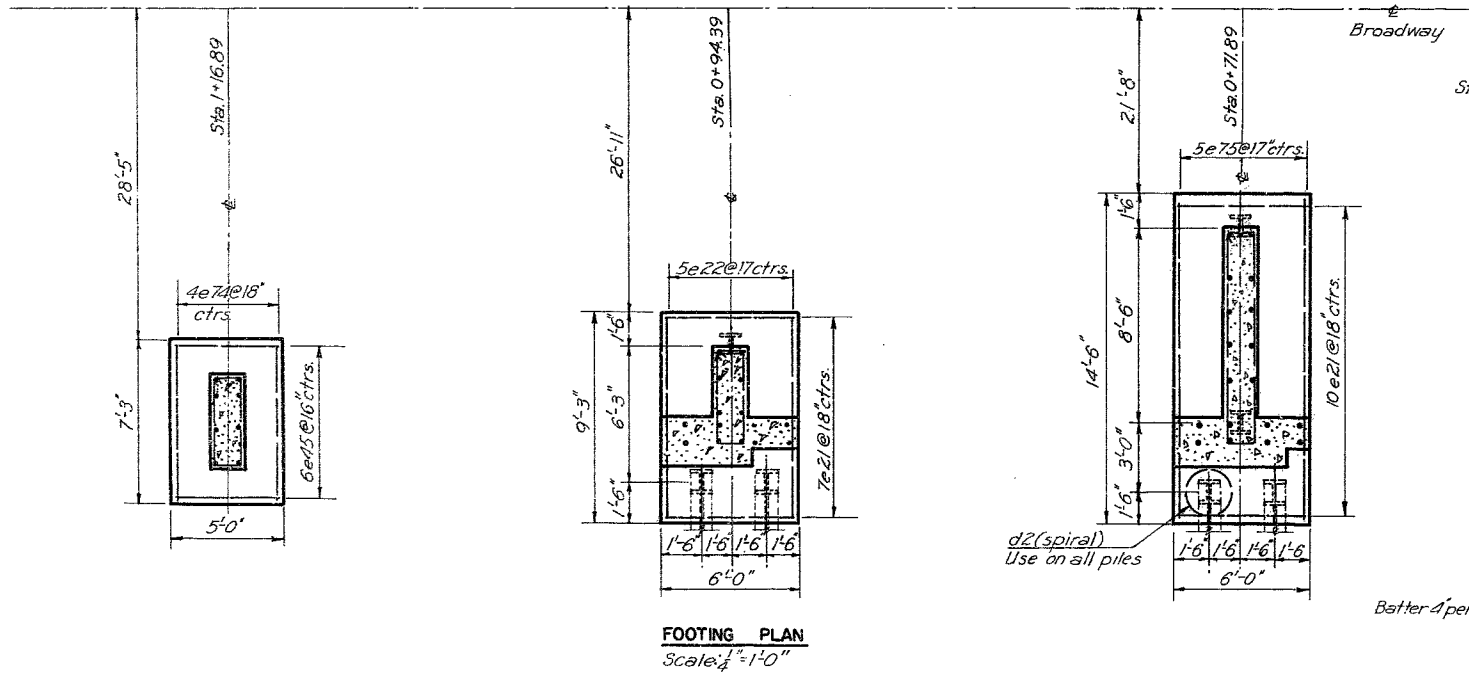
Note: Porous backfill shall be placed as shown in section for full length of drain pipe. Eight inch diameter corrugated, perforated, galvanized metal pipes shall be placed in porous backfill as shown in the above plan and section. Upper ends of the pipes shall be tightly closed with permanent headers made of No. 16 gage galvanized sheet metal. Lower ends shall extend 6'-0" beyond wingwalls. All pipes shall be laid as shown on frame and wingwall elevations.

Notes:  
 All piles to be 12x12 BP 53  
 For stone details, see sheet 6  
 For detail of joint between wingwall and frame sheet 4

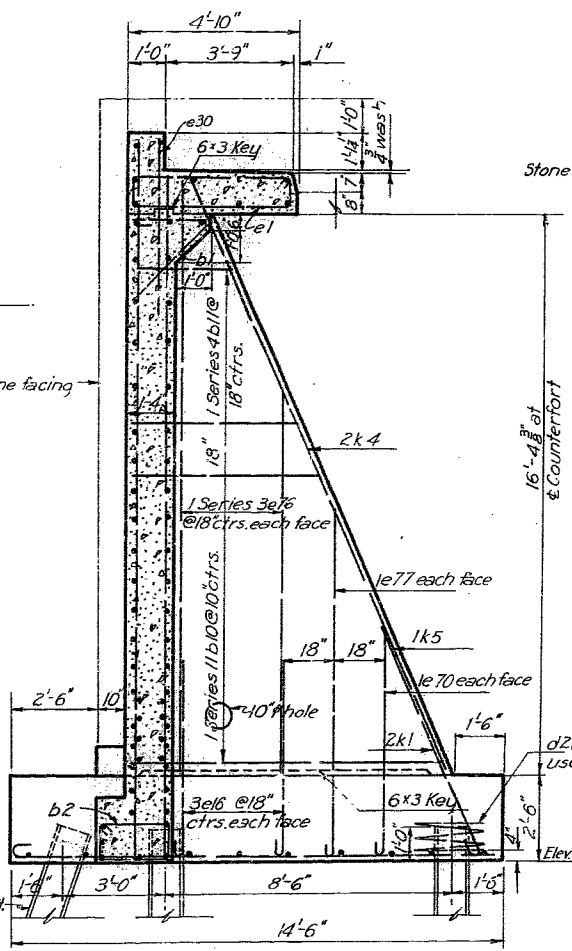


ELEVATION  
Scale: 1/4" = 1'-0"

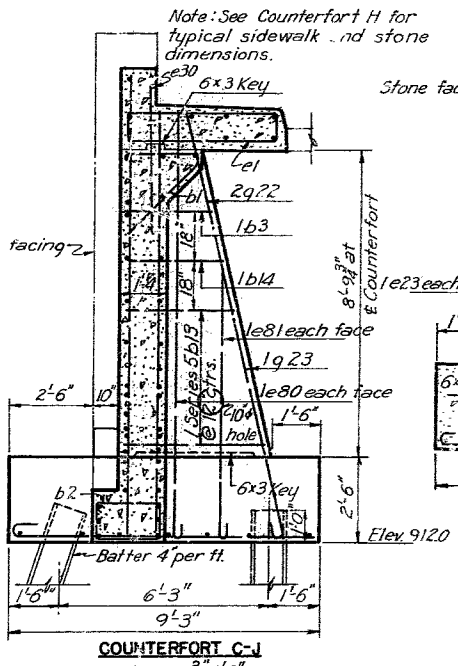
C-H



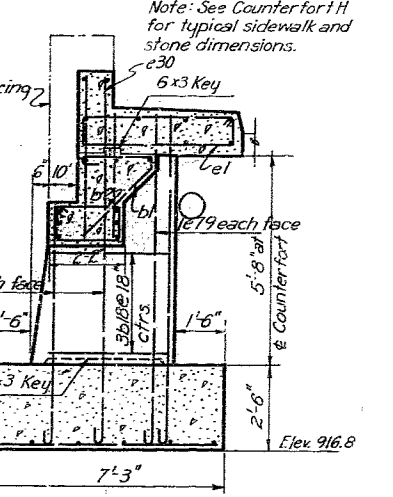
FOOTING PLAN  
Scale: 1/4" = 1'-0"



COUNTERFORT C-H  
Scale: 3/8" = 1'-0"



COUNTERFORT C-J  
Scale: 3/8" = 1'-0"



COUNTERFORT C-K  
Scale: 3/8" = 1'-0"

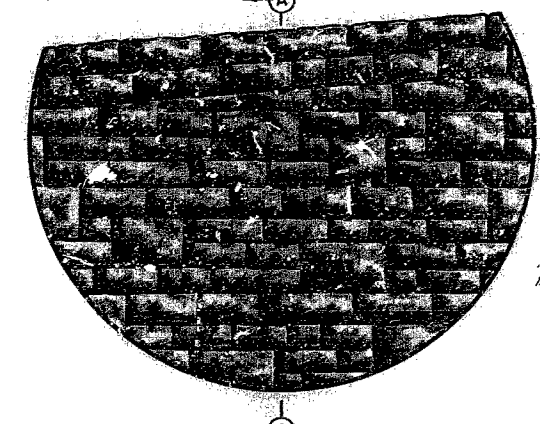
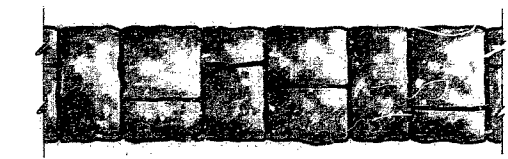
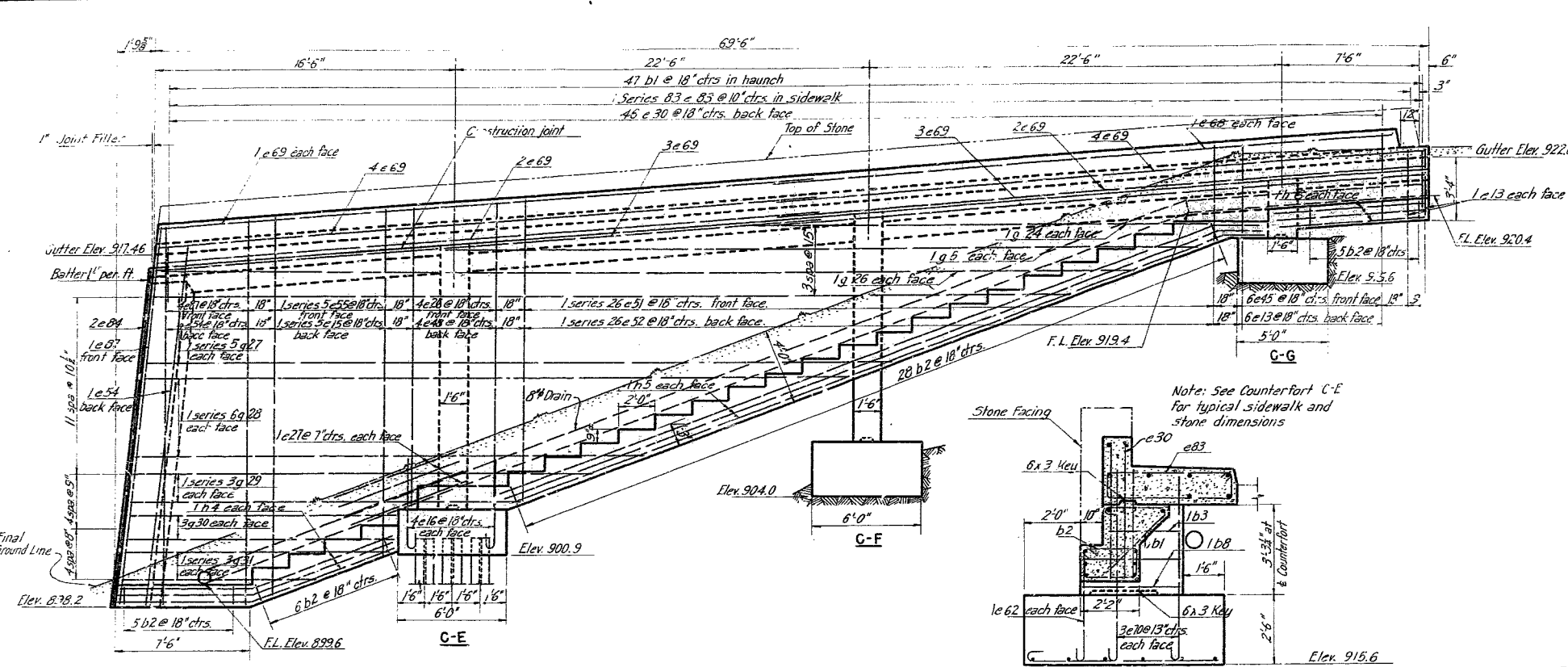
BAR SIZE			
MARK	SIZE	MARK	SIZE
a	3/8"	f	7/8"
b	1/2"	g	1"
c	5/8"	h	1 1/8"
d	3/4"	i	1 1/4"
e	7/8"	j	1 1/2"
		k	1 3/4"

MISSOURI STATE HIGHWAY DEPARTMENT  
 SOUTHWEST TRAFFICWAY  
 PENN VALLEY PARK, KANSAS CITY, MISSOURI  
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 PROJECT U 888(4) ROUTE US 69 SPUR  
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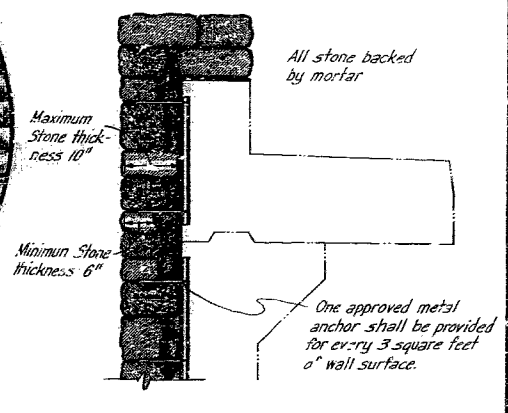
SOUTHEAST WINGWALL AND DRAINAGE  
 SCALE: as noted  
 MARK: B.O.D. DATE: 10-2-49  
 TROUD: H.B. DATE: 10-15-49  
 G.W.D.: B.C. DATE: 10-24-49  
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS  
 KANSAS CITY NEW YORK  
 798 SHEET 5

405

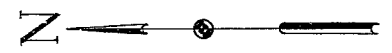
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	MO	1-988(4)			



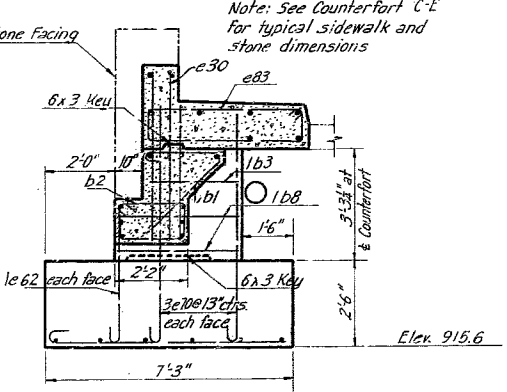
PLAN  
SECTION C-E  
ELEVATION



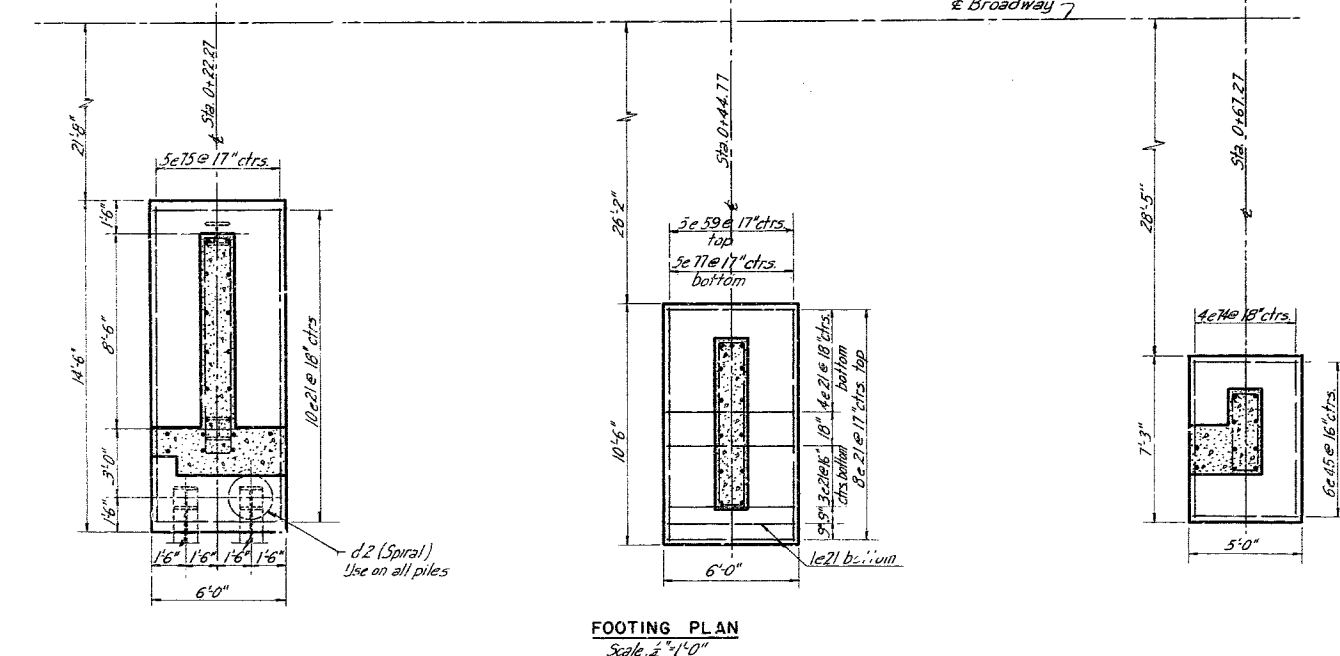
SECTION A-A



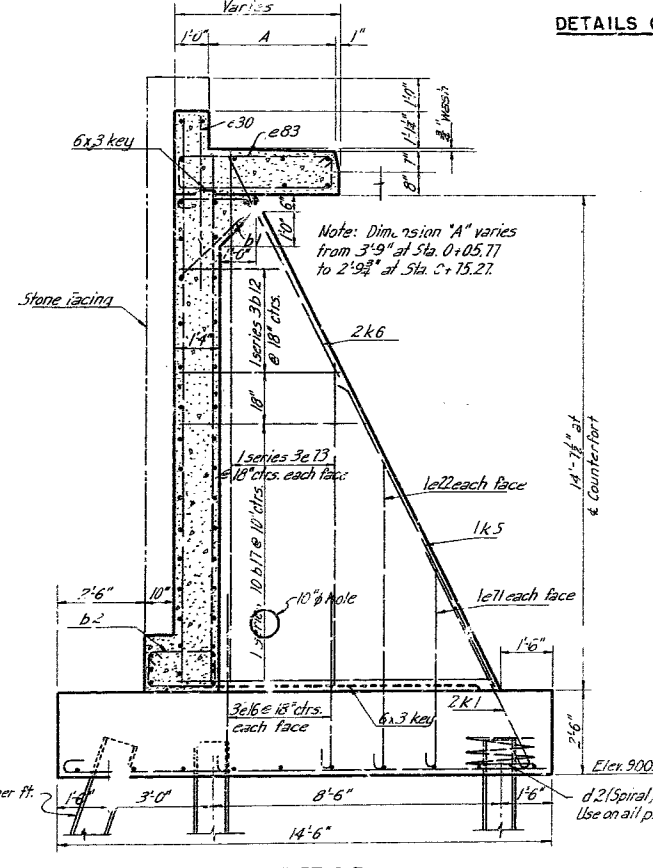
ELEVATION  
Scale: 1/8" = 1'-0"



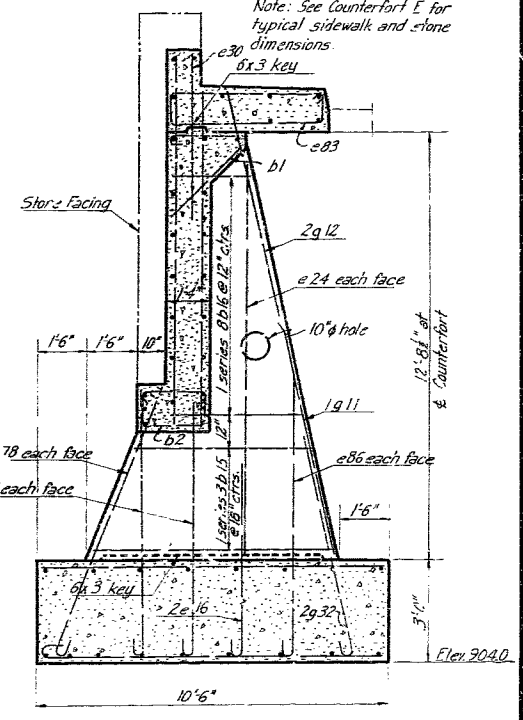
DETAILS OF STONE VENEER  
Scale: 3/8" = 1'-0"



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



COUNTERFORT C-E  
Scale: 3/8" = 1'-0"



COUNTERFORT C-F  
Scale: 3/8" = 1'-0"

Note: All piles to be 12 x 12 BP 53. For detail of joint between wing wall and frame, see sheet 4. For drainage details, see sheet 5.

BAR SIZE			
MARK	SIZE	MARK	SIZE
a	3/8" Ø	f	1/2" Ø
b	1/2" Ø	g	1" Ø
c	5/8" Ø	h	1" sq
d	3/8" Ø	j	1 1/2" sq
e	3/8" Ø	k	1 1/4" sq

LOCATION PLAN

MISSOURI STATE HIGHWAY DEPARTMENT  
**SOUTHWEST TRAFFICWAY**  
PENN VALLEY PARK, KANSAS CITY, MISSOURI  
BRIDGE AT 30<sup>TH</sup> AND BROADWAY  
PROJECT US 988(4) ROUTE US 69 SPUR  
**JACKSON COUNTY**  
SOUTHWEST WINGWALL AND STONE DETAILS  
HOWARD, NEEDLES, TAMPMEN & BERGENDORF CONSULTING ENGINEERS  
KANSAS CITY NEW YORK  
DATE 10-23-43 798 SHEET 6

400

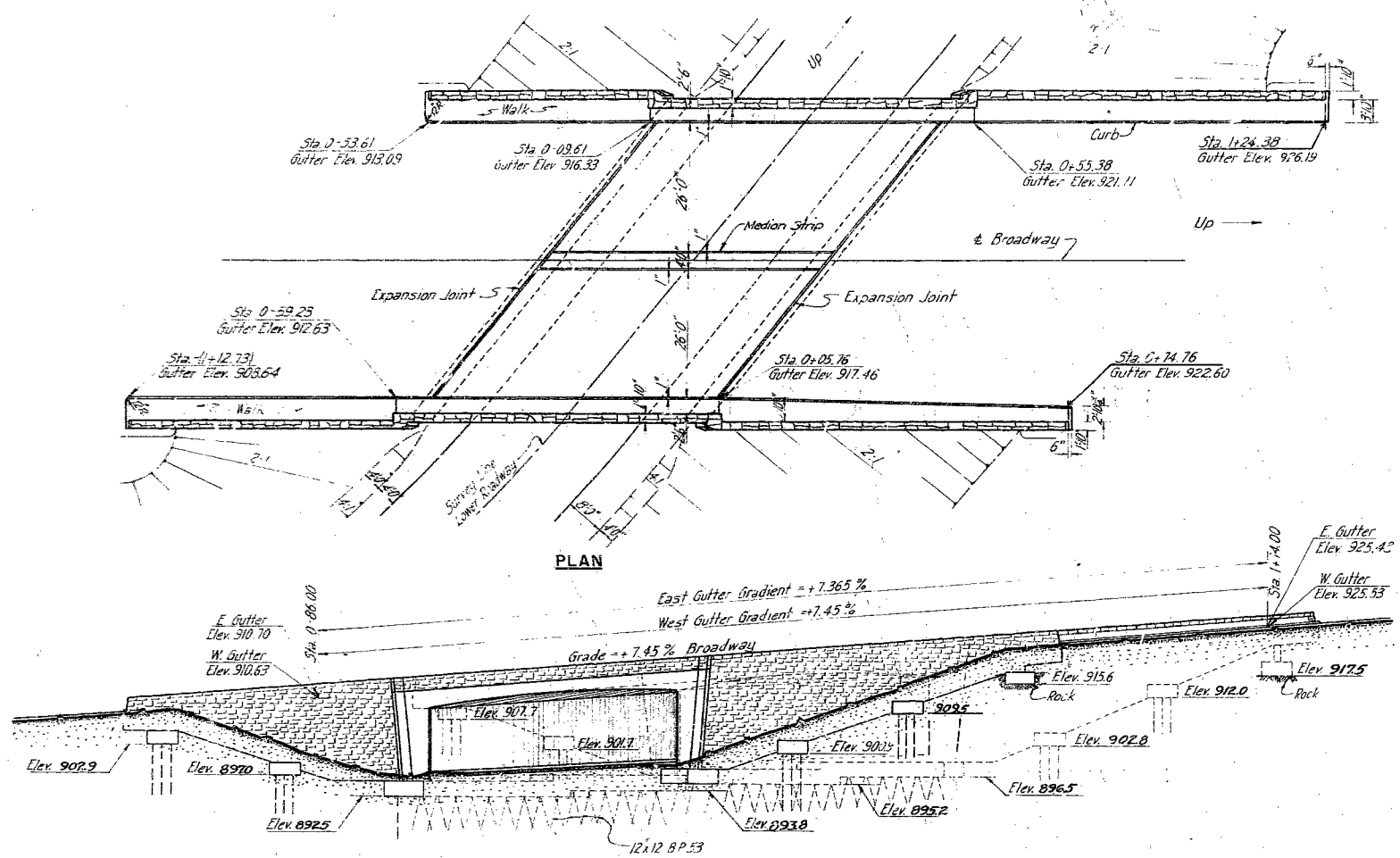
SEE FINAL PLANS BROWN





FEDERAL ROAD DISTRICT NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	Mo.	1-888(4) PLUS 69 Spur	1951	14	45

FINAL PLANS



**GENERAL NOTES**

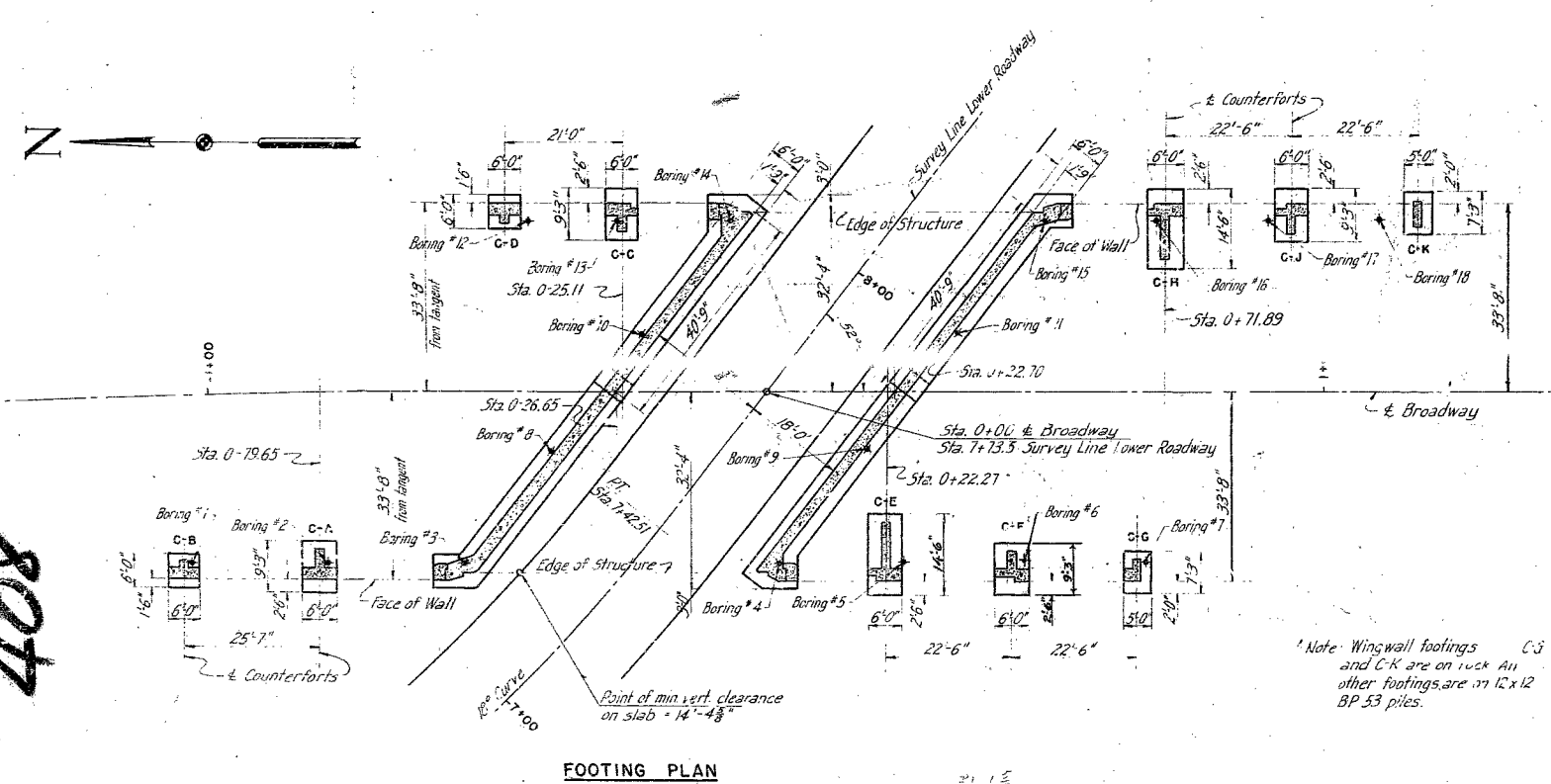
Design Specifications A.A.S.H.O. 1949  
 Design Loading H-20 -S16 A.A.S.H.O.  
 All distances given are horizontal and are measured at 55° F unless otherwise noted.  
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 All elevations are in feet above M.S.L. 1929 Datum at Biloxi, Mississippi.  
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 For finish of exposed concrete surfaces see Special Provisions.  
 Reinforcing steel for roadway slab to be structural grade. All other reinforcing steel to be either structural or intermediate grade. Allowable working stress for either grade to be 18000 p.s.i.  
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 Fill faces of frame legs and wingwalls shall be damp-proofed. Two types of damp-proofing will be required, the "regular" asphaltic paint coats and the "special" applications of cotton fabric membrane. See drawings C-102R and C-103R of Missouri State Highway Department Standards for details. See also Special Provisions for damp-proofing.  
 See Special Provisions for details and limits of porous backfill to be placed under this contract.

**FINAL ESTIMATED QUANTITIES**

Item	Substr.	Superstr.	Total
1-G Class I Excavation For Structures	cu.yds.		1087
1-J Porous Backfill	cu.yds.		401
16-B Class B concrete	cu.yds.	3921	1194.7
18-B1 Perforated 8" Corrugated Metal Culvert Pipe	lin.ft.		414
19-A Reinforcing Steel	lbs.		152070
20-D Stone Faring	sq.ft.		247.5
20-F Stone Mandrel	lin.ft.		374
22-D Steel Piles in Place (Contractor Furnished)	lin.ft.		513
22-D1 Steel Pile Cutoffs (Contractor Furnished)	lin.ft.		50
22-G Steel Piles in Place (State Furnished)	lin.ft.		1423
Class I Excavation Below Grade	cu.yds.		26
Pile Splices			2
Drilling test holes			35
Investigation for Rock (Footing C-G)			Force Acc. 4



Note: Wingwall footings C-J and C-K are on rock. All other footings are on 12x12 BP 53 piles.

408

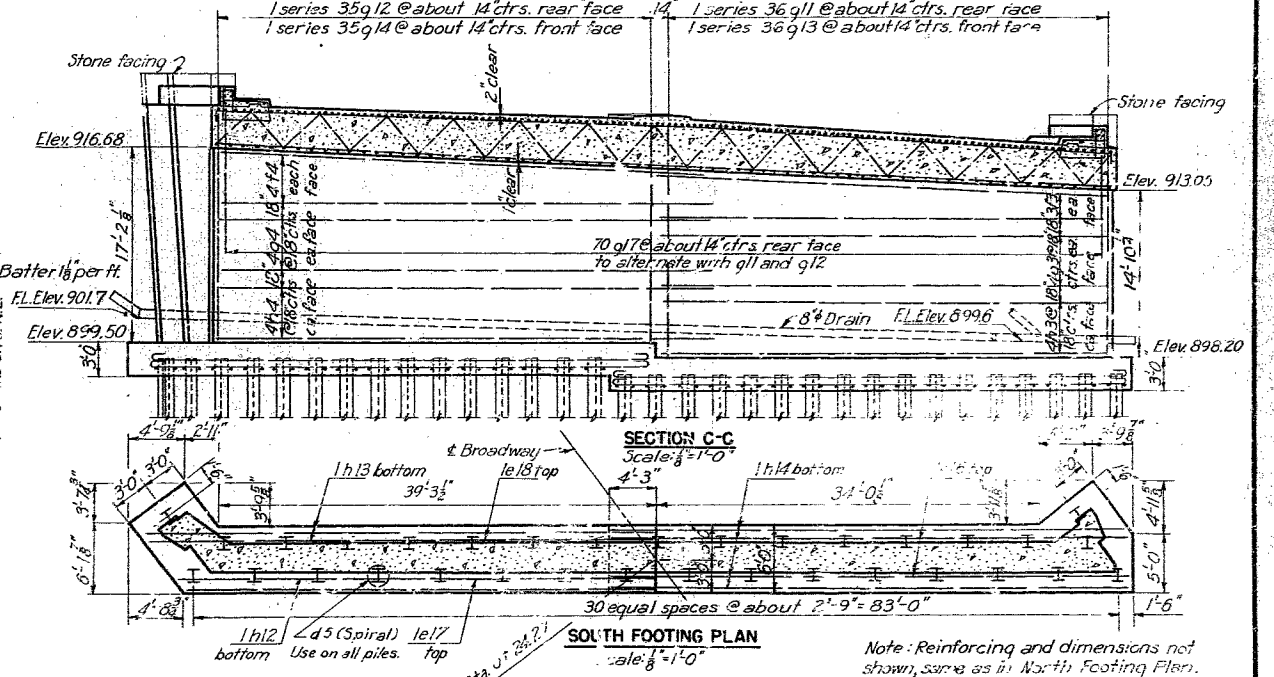
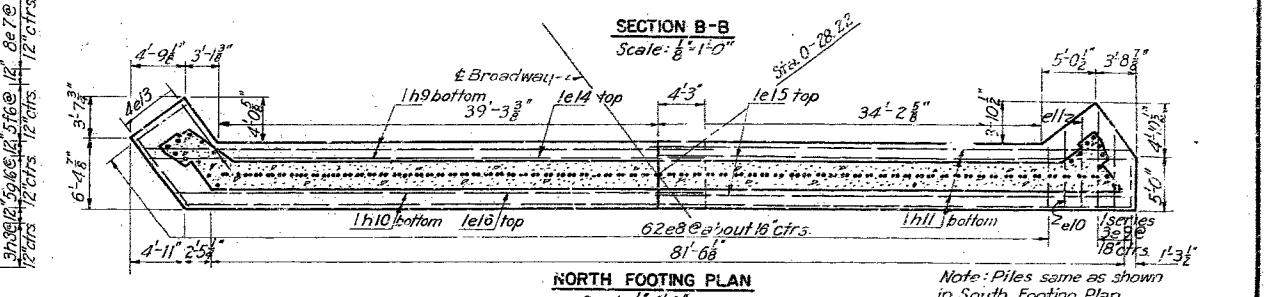
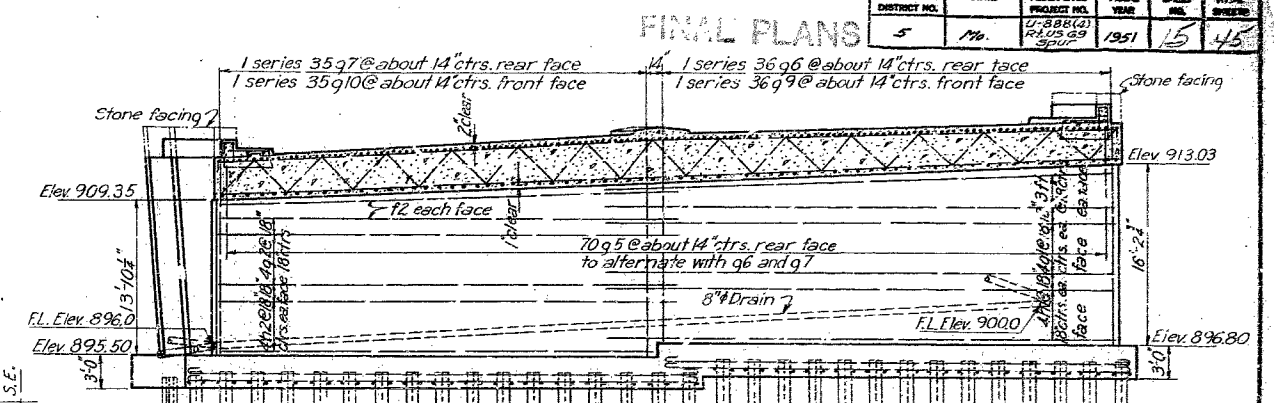
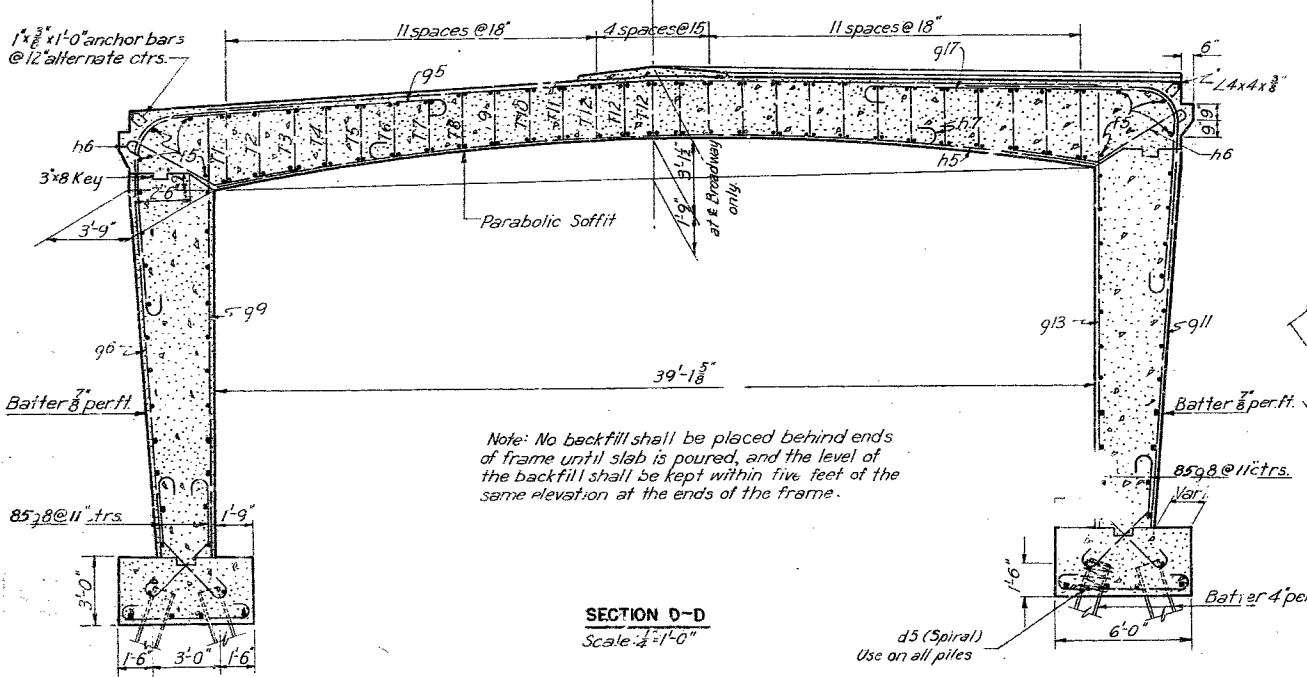
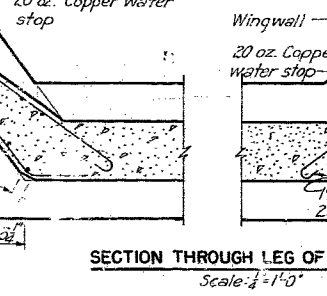
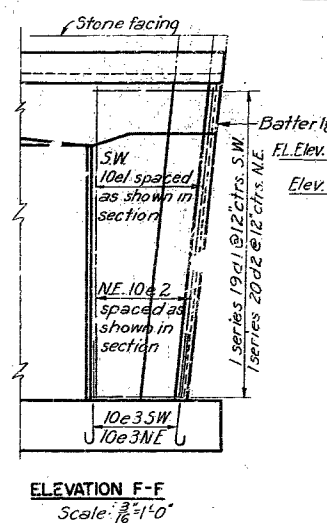
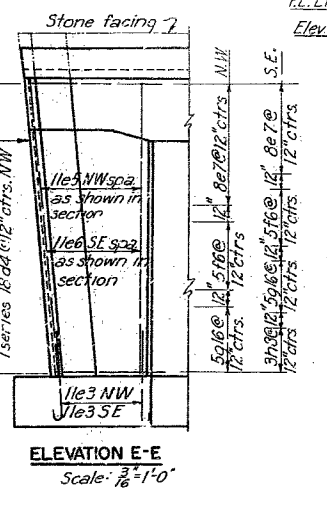
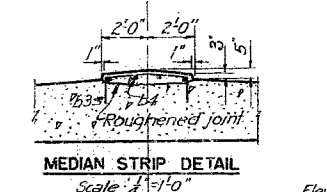
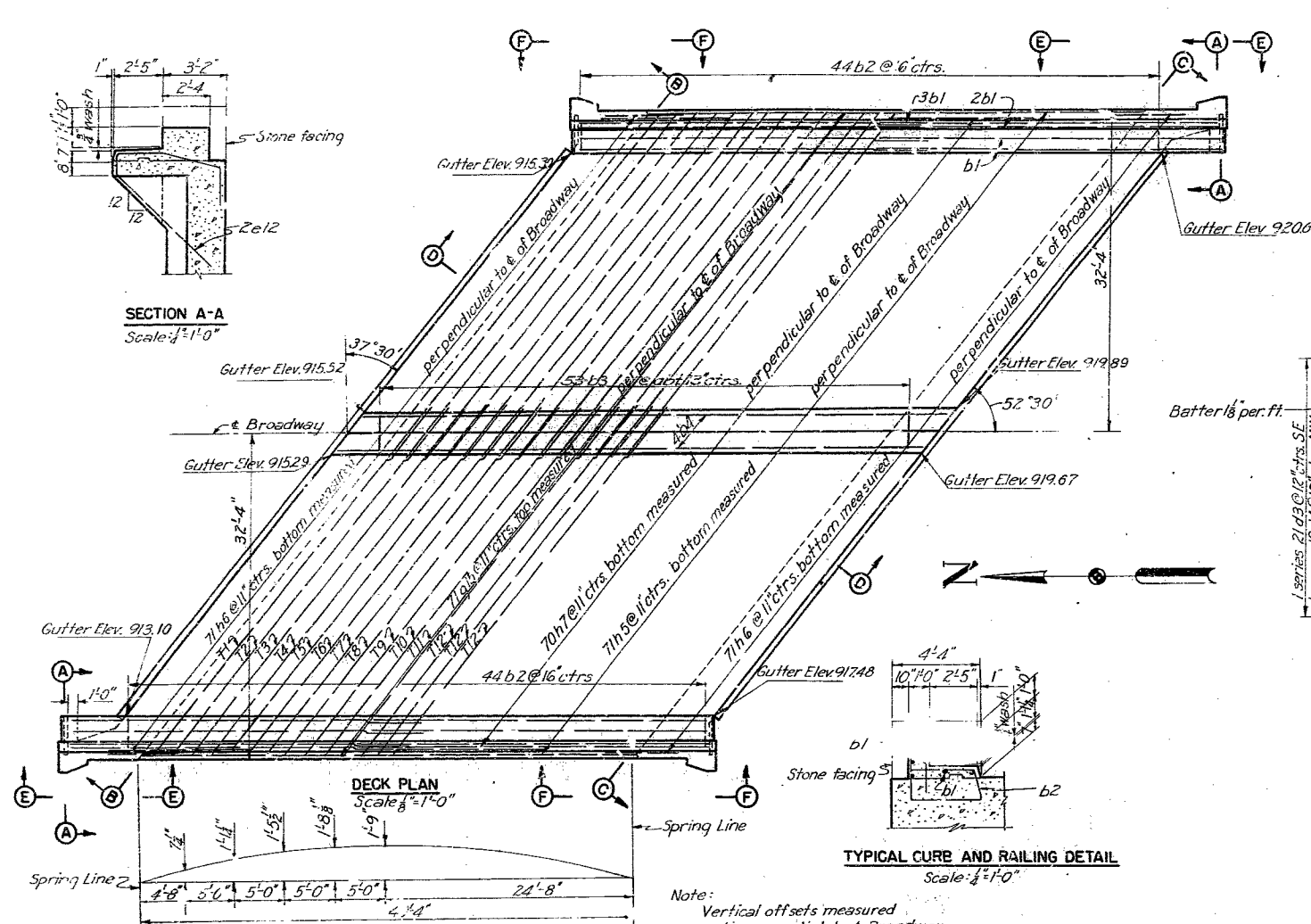
MISSOURI STATE HIGHWAY DEPARTMENT  
**SOUTHWEST TRAFFICWAY**  
 PENN. VALLEY PARK, KANSAS CITY, MISSOURI  
 BRIDGE AT 30<sup>TH</sup> AND BROADWAY  
 PROJECT 1-888 (4) ROUTE US 69 SPUR  
 JACKSON COUNTY

GENERAL PLAN AND ELEVATION

SCALE: 1/8" = 1'-0"  
 MADE S.W.F. DATE 12-2-49 HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 TRCD S.W.F. DATE 12-11-49 CONSULTING ENGINEERS  
 CHKC. S.W.F. DATE 12-18-49 KANSAS CITY NEW YORK  
 798 SHEET 24 of 5

STD. C-102R
STD. C-103R
STD. C-103R
L-253

FEDERAL ROAD DISTRICT NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	Mo.	U-888(4) R.L. US 69 Spur	1951	15	45



Note: For stone details, see sheet 6.  
For drainage details see sheet 5.  
All piles 12" x 12" BP53.

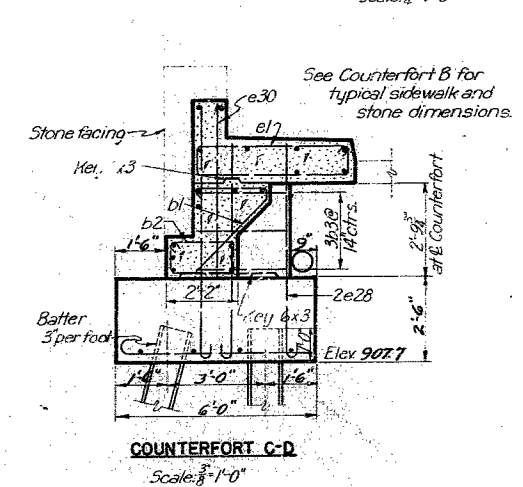
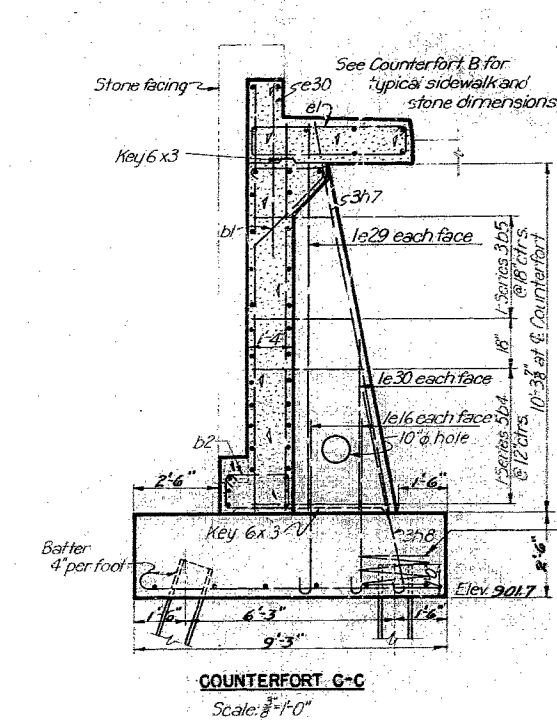
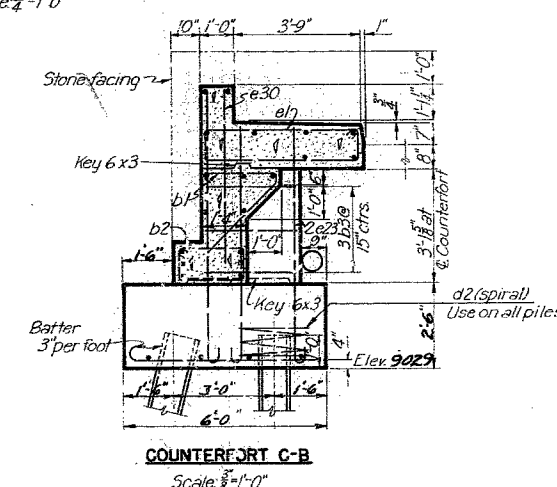
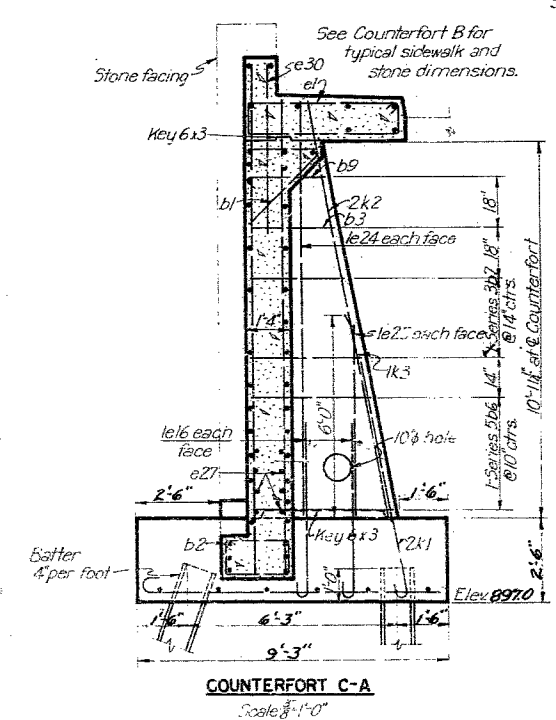
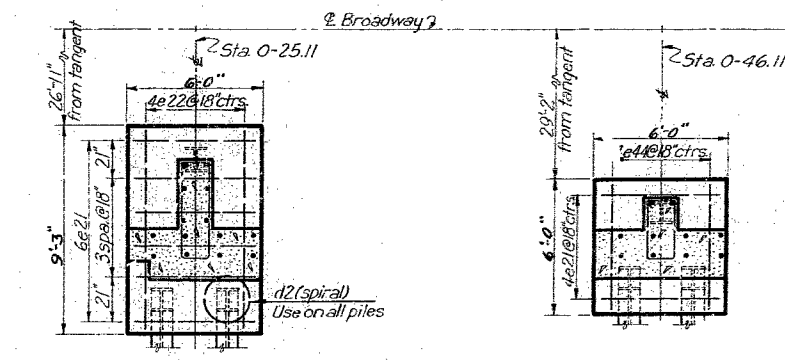
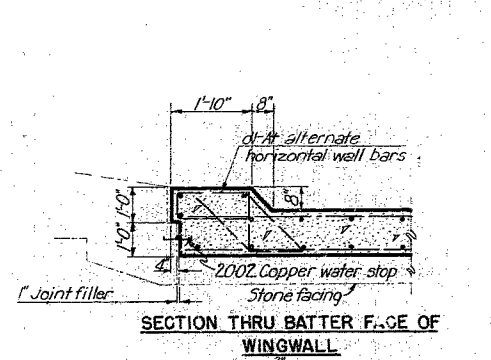
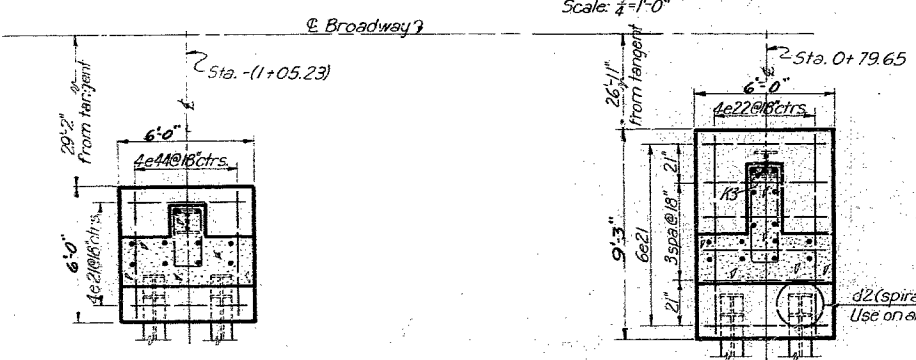
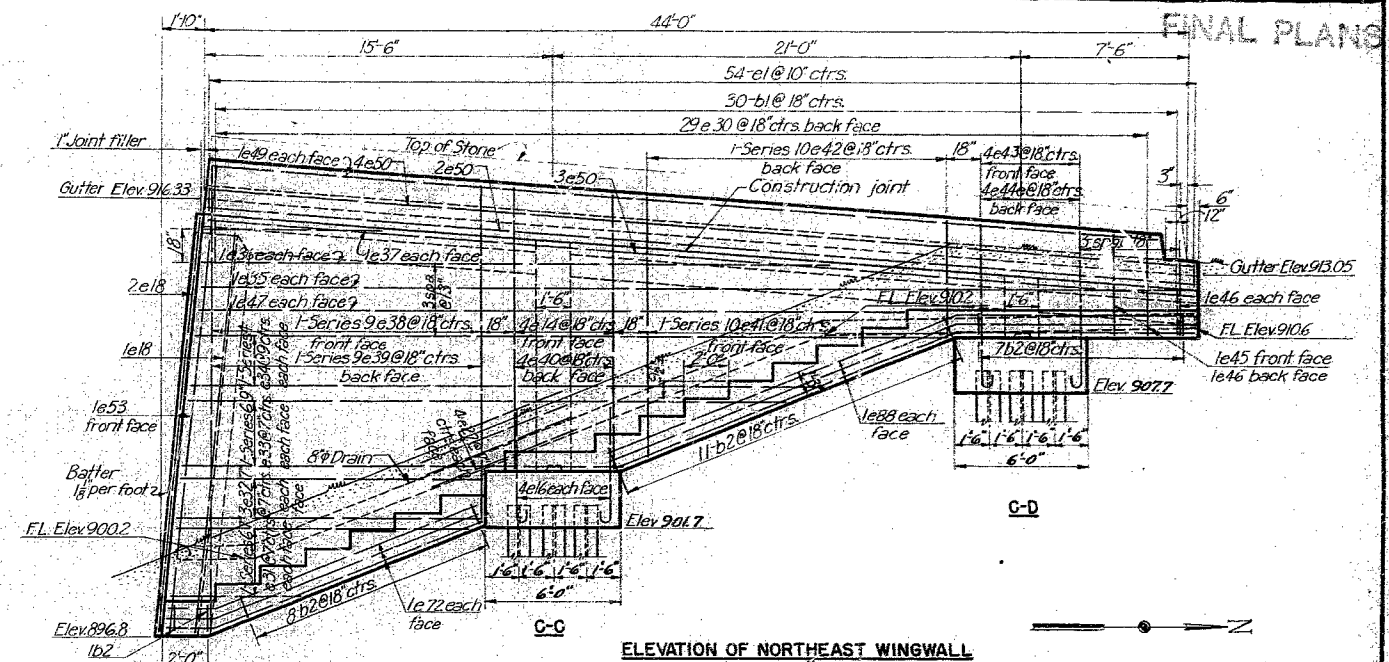
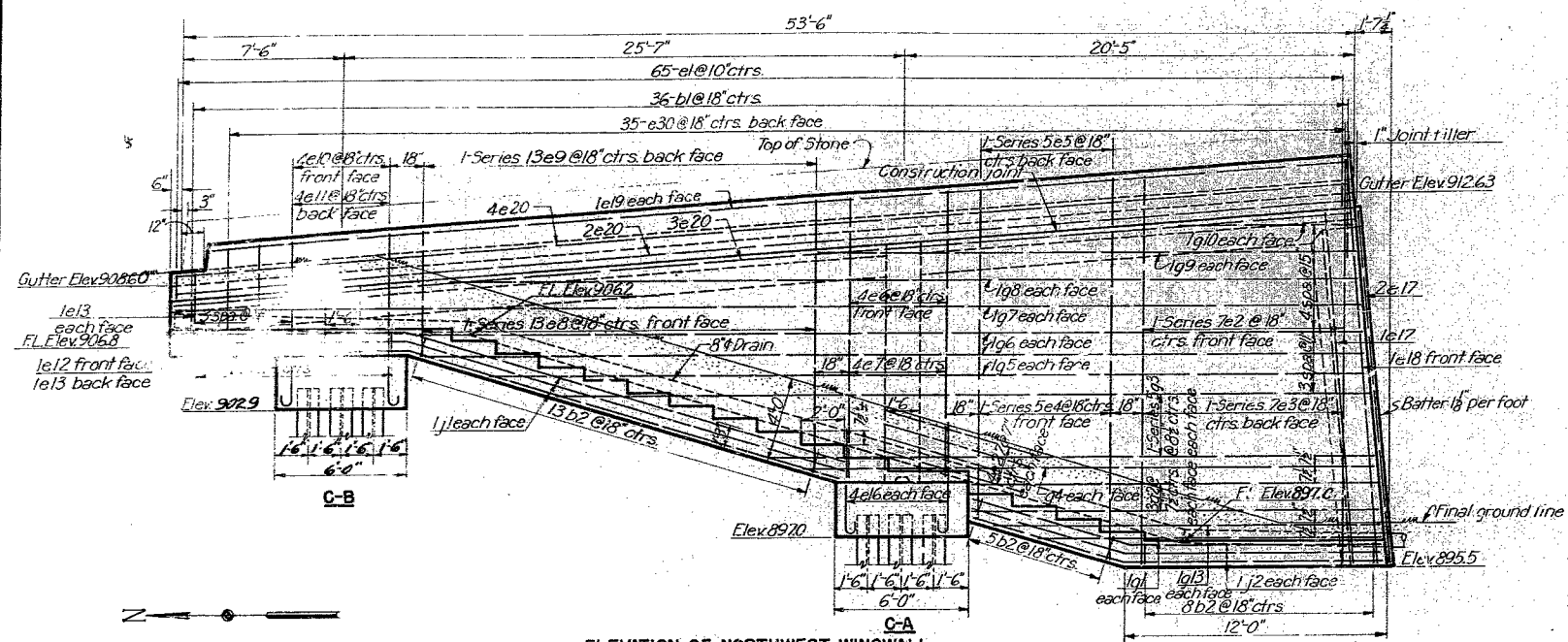
MARK	SIZE	MARK	SIZE
a	3/4"	f	7/8"
b	1/2"	g	1"
c	1/4"	h	1" sq
d	3/8"	j	1 1/2" sq
e	3/4"	k	1 1/4" sq

MISSOURI STATE HIGHWAY DEPARTMENT  
SOUTHWEST TRAFFICWAY  
PENN VALLEY PARK, KANSAS CITY, MISSOURI  
BRIDGE AT 30<sup>TH</sup> AND BROADWAY  
PROJECT U 888(4) ROUTE US 69 SPUR  
JACKSON COUNTY  
DECK PLAN AND FRAME DETAILS

SCALE: 1/8" = 1'-0"  
DATE: 10-19-49  
DRAWN: 10-19-49  
CHECKED: 10-24-49  
KAWFORD, NEEDLES, TAMMEN & BERGENDTORF  
CONSULTING ENGINEERS  
KANSAS CITY NEW YORK  
798 STREET 3A of 5

409

FEDERAL ROAD DISTRICT NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	Mo.	U-888(a) R-105-59 300	1951	16	45



MARK	SIZE	MARK	SIZE
a	3/8"	f	1 1/8"
b	1/2"	g	1"
c	1/2"	h	1" sq
d	5/8"	j	1 1/8" sq
e	3/4"	k	1 1/2" sq

MISSOURI STATE HIGHWAY DEPARTMENT  
**SOUTHWEST TRAFFICWAY**  
 PENN VALLEY PARK, KANSAS CITY, MISSOURI  
 BRIDGE AT 30<sup>TH</sup> AND BROADWAY  
 PROJECT U 888(4) ROUTE US 69 SPUR  
 JACKSON COUNTY

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS  
 KANSAS CITY, MISSOURI  
 NEW YORK, NEW YORK

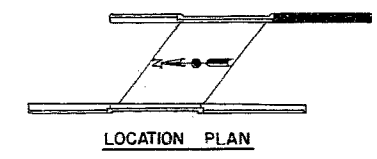
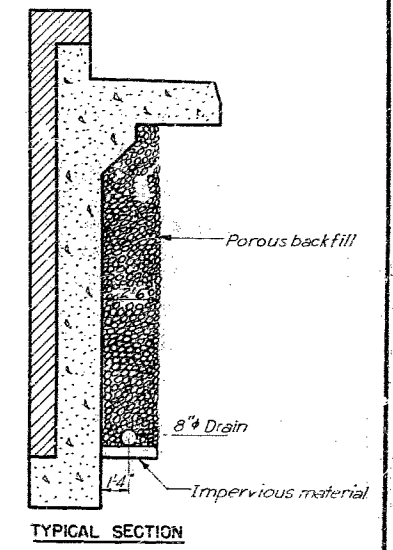
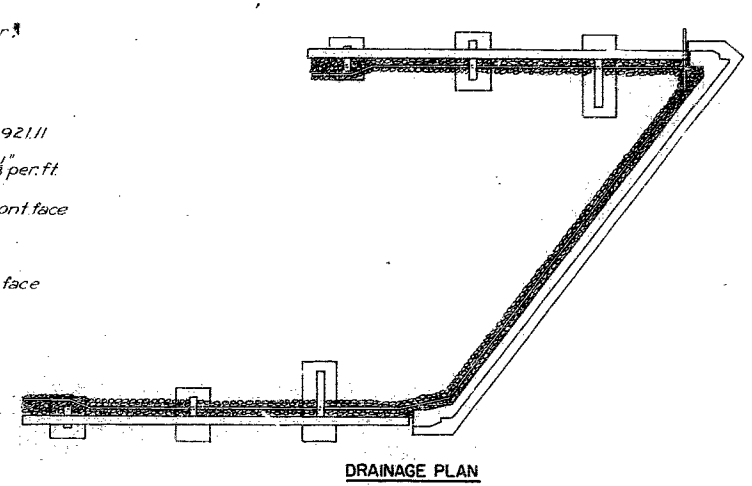
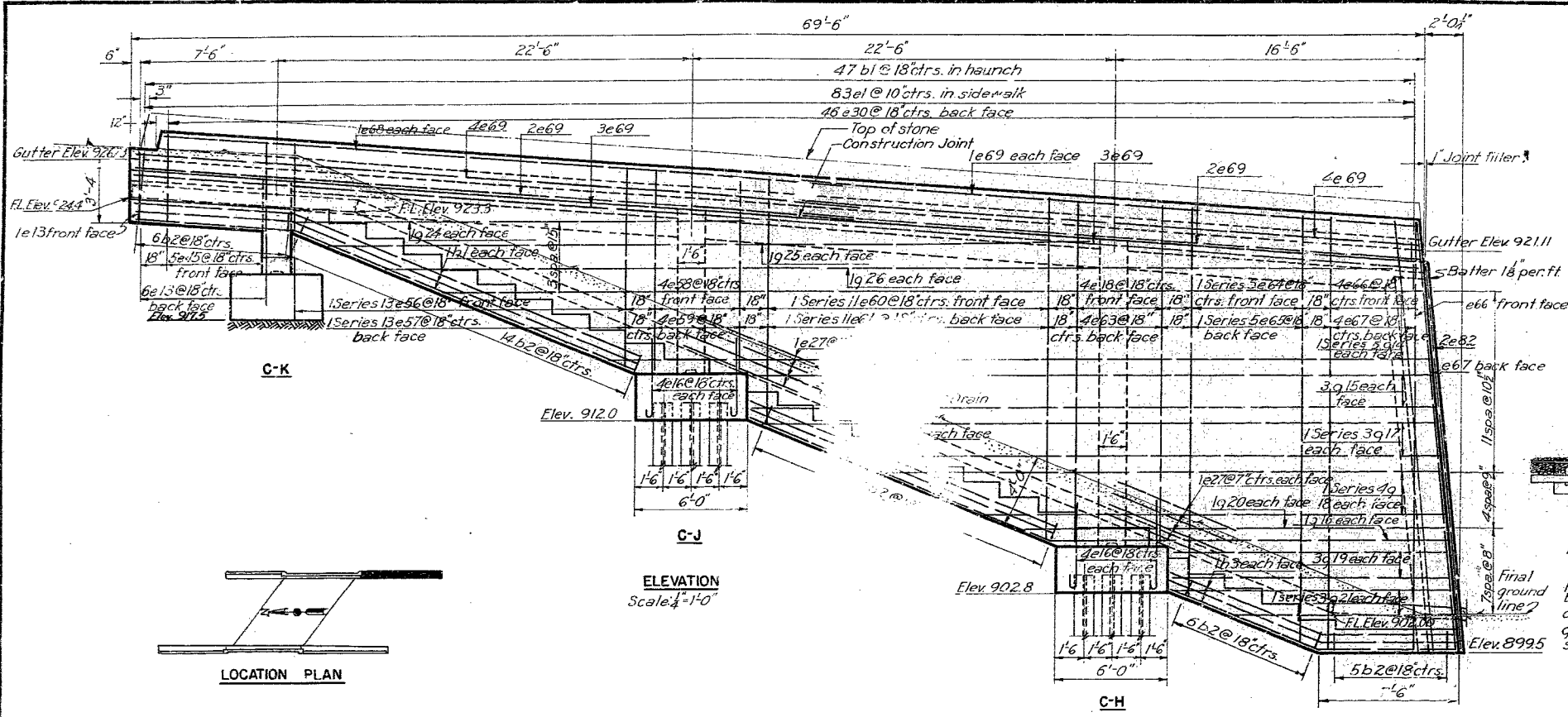
SCALE as noted  
 MADE C.R. DATE 10/15/50  
 TRCD. L.L. DATE 10/15/50  
 CHKD. DATE

798 SHEET 4A OF 5

410

FEDERAL ROAD DISTRICT NO.	STATE	FEDERAL AID PROJECT NO.	F.Y. YEAR	SHEET NO.	TOTAL SHEETS
5	Mo.	U-886(4) HLOR-69 Spur	1951	17	45

FINAL PLANS



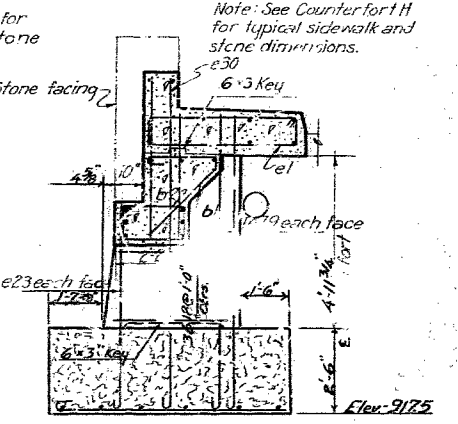
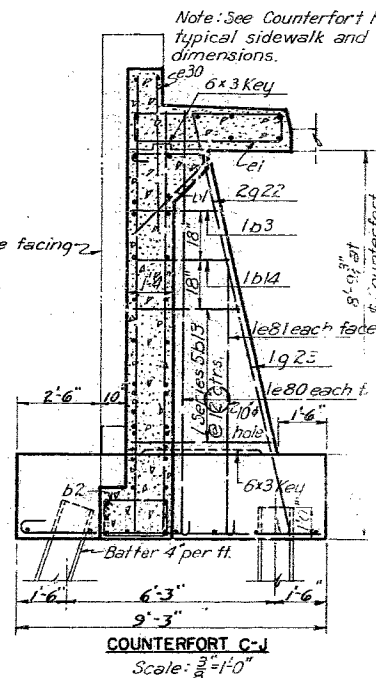
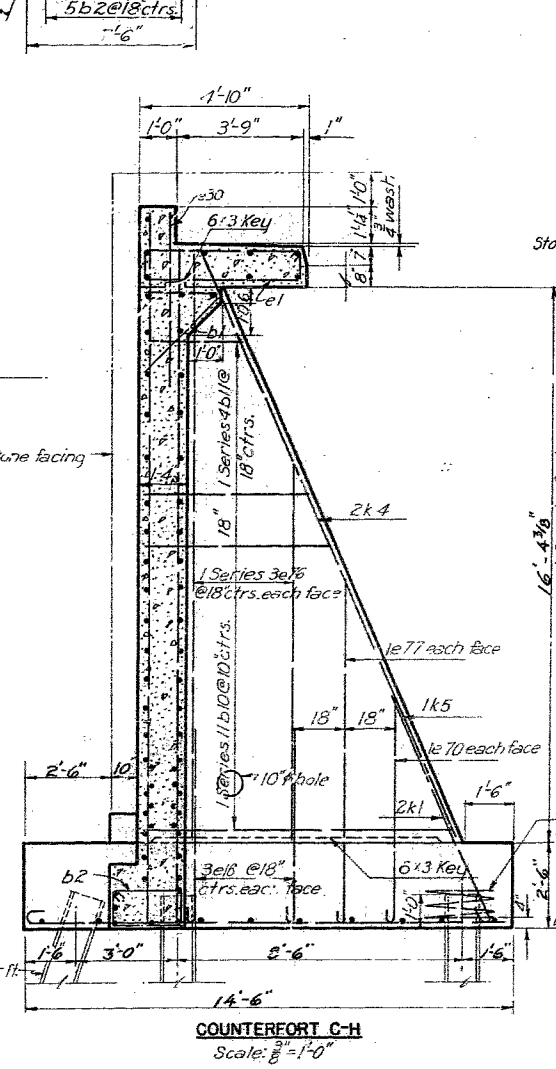
ELEVATION Scale: 1/4" = 1'-0"

DRAINAGE PLAN

TYPICAL SECTION

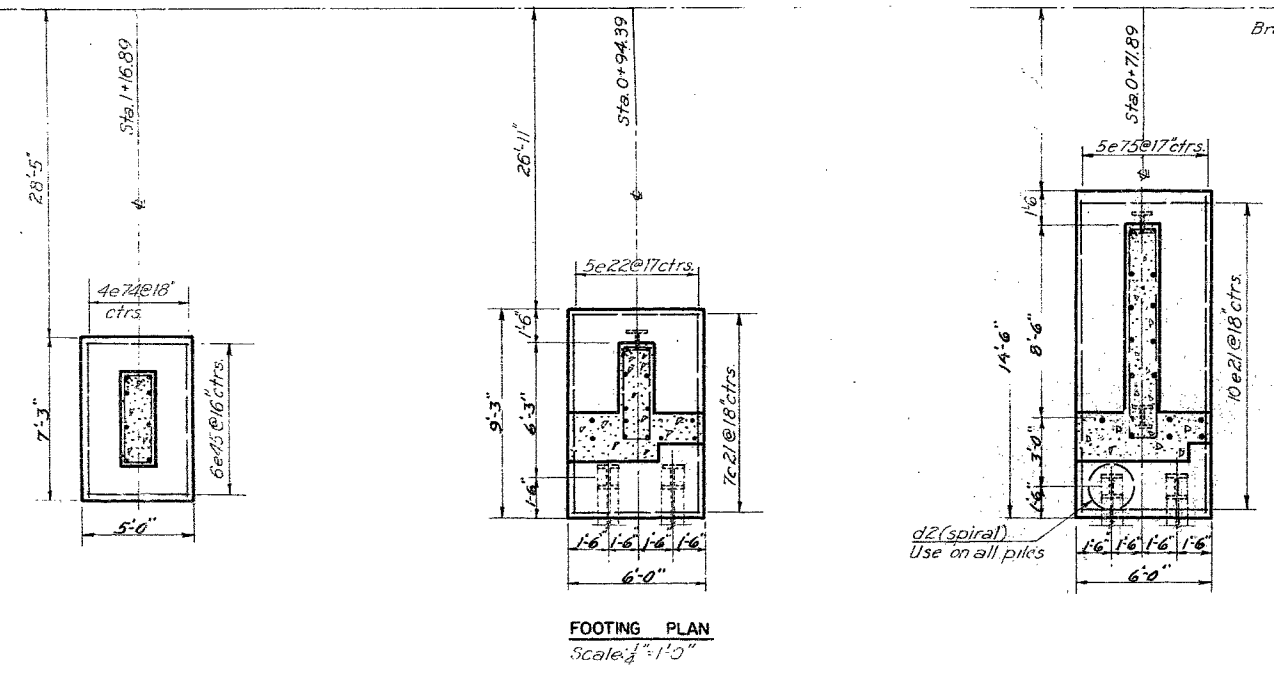
Note: Porous backfill shall be placed as shown in section for full length of drain pipe. Eight inch diameter corrugated, perforated, galvanized metal pipes shall be placed in porous backfill as shown in the above plan and section. Upper ends of the pipes shall be tightly closed with permanent headers made of No. 16 gage galvanized sheet metal. Lower ends shall extend 6'-0" beyond wingwalls. All pipes shall be laid as shown on frame and wingwall elevations.

Notes:  
 All piles to be 12"x12" B.P. 53  
 For stone details, see sheet 6  
 For detail of joint between wingwall and frame sheet 4



COUNTERFORT C-H Scale: 3/8" = 1'-0"

COUNTERFORT C-J Scale: 3/8" = 1'-0"



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

BAR SIZE			
MARK	SIZE	MARK	SIZE
a	3/8"	f	1/8"
b	1/2"	g	1"
c	1/2"	h	1" 5/8"
d	5/8"	j	1 1/8"
e	3/4"	k	1 1/2"

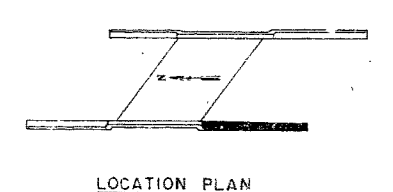
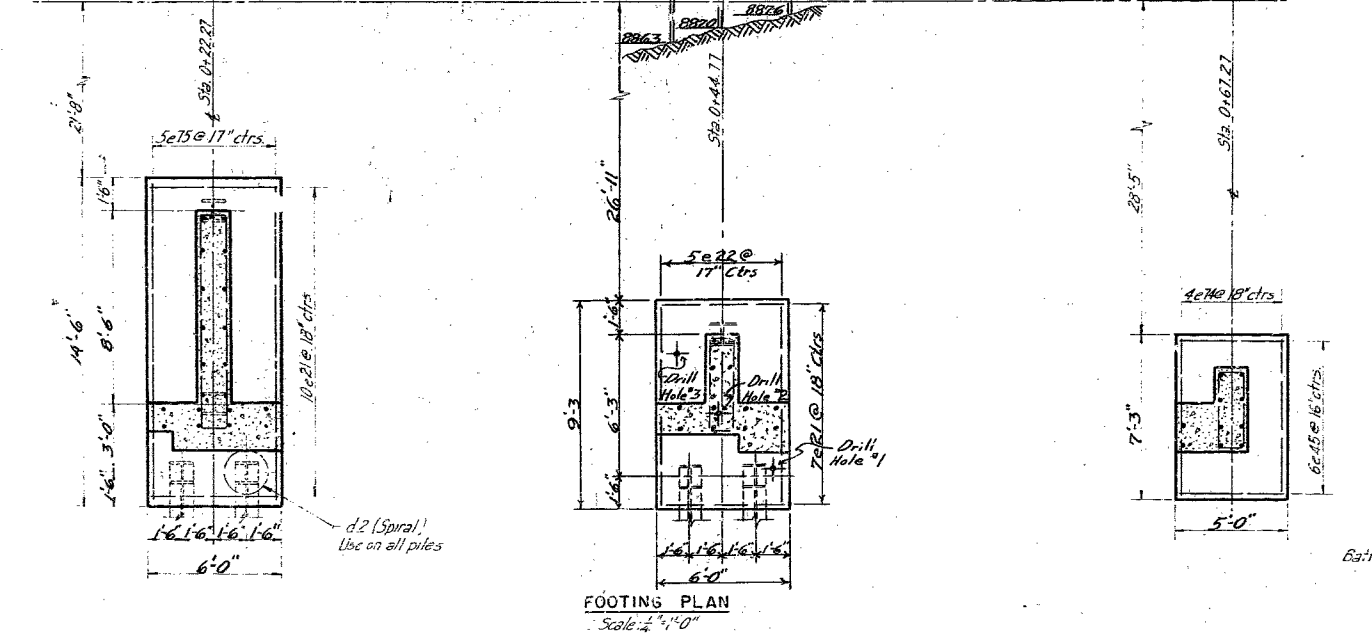
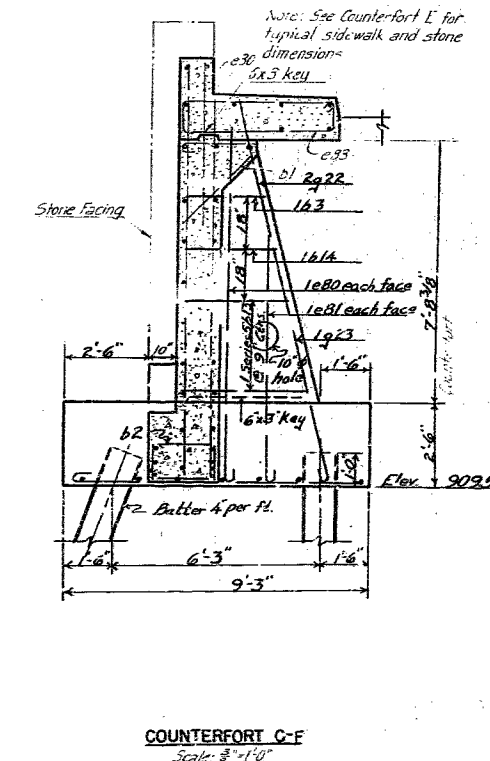
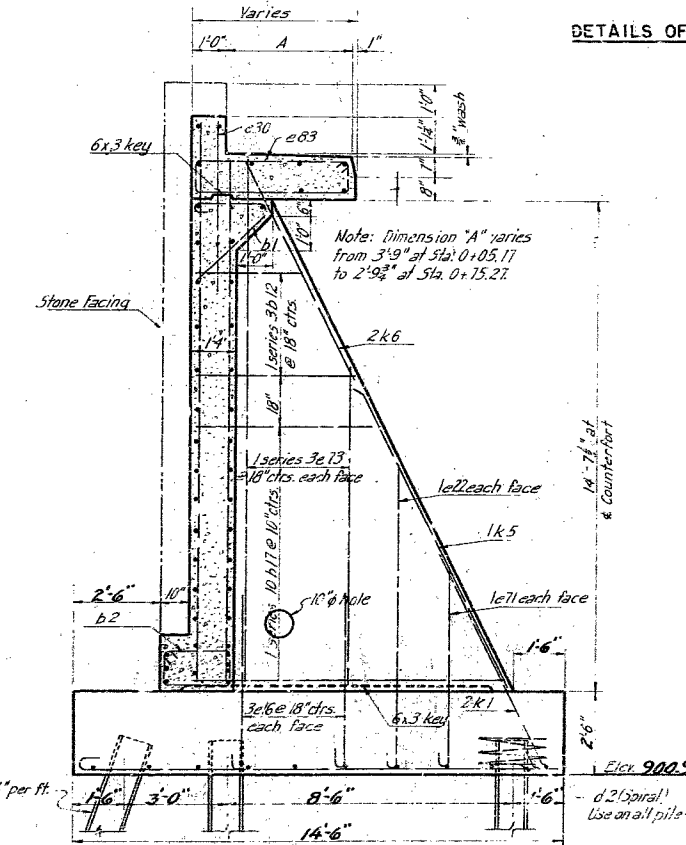
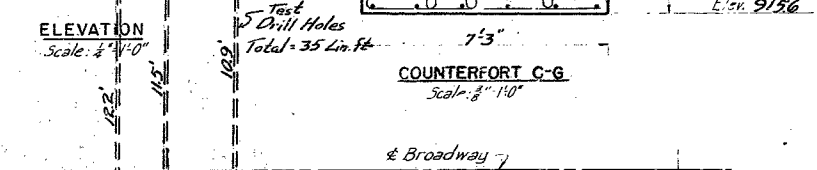
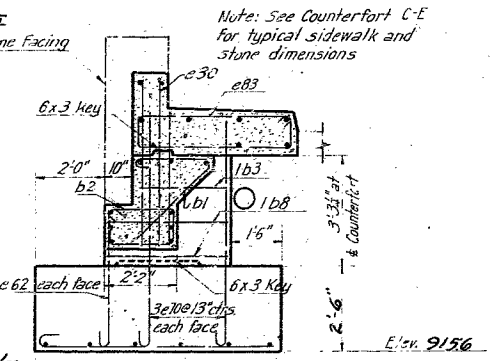
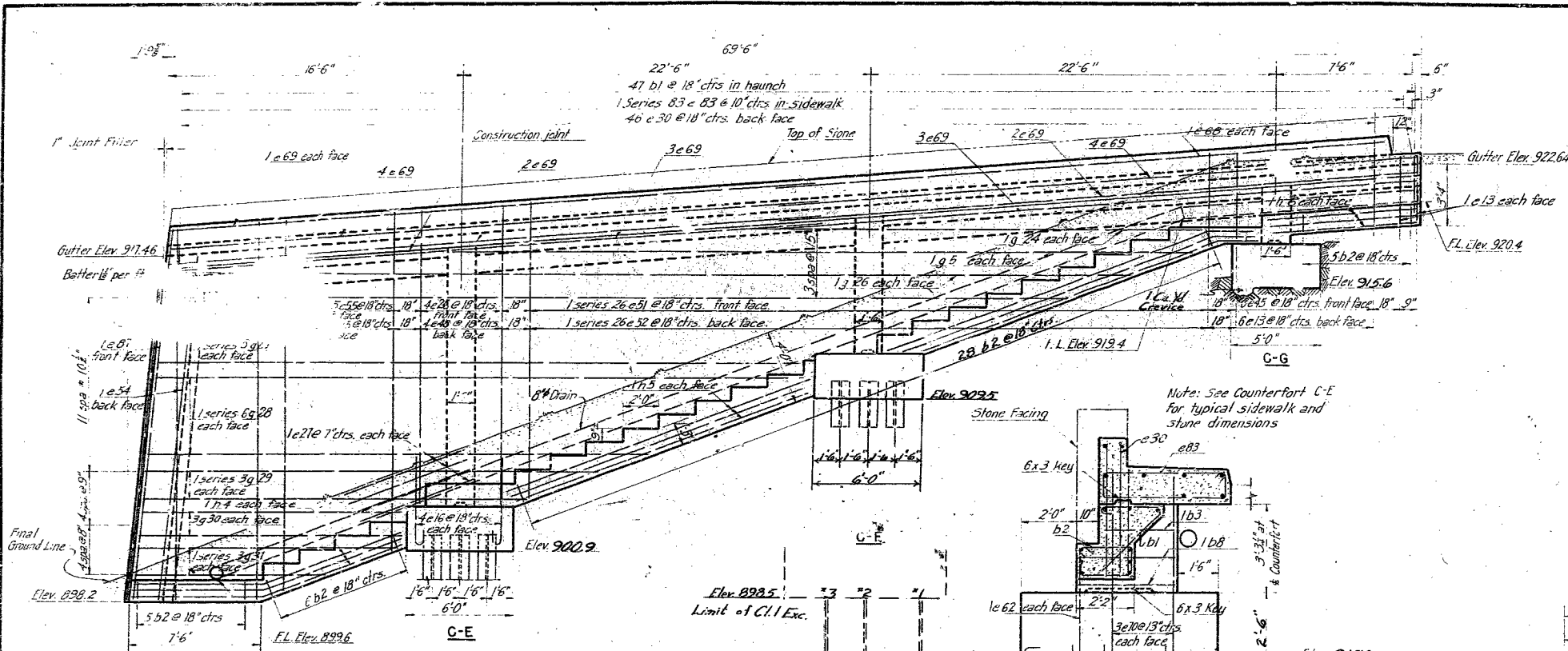
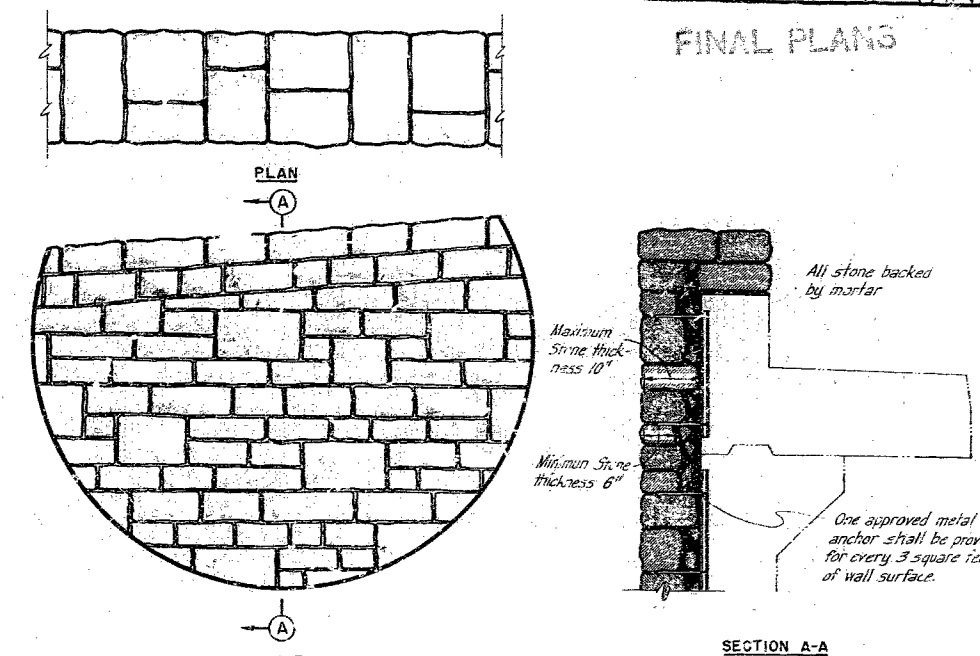
MISSOURI STATE HIGHWAY DEPARTMENT  
 SOUTHWEST TRAFFICWAY  
 PENN VALLEY PARK, KANSAS CITY, MISSOURI  
 BRIDGE AT 3074 AND BROADWAY  
 PROJECT U-886(4) ROUTE US 69 SPUR  
 JACKSON COUNTY

SOUTHEAST WINGWALL AND DRAINAGE  
 SCALE: AS NOTED  
 MADE P.L.D. DATE 10-2-49  
 THROU DATE 10-16-49  
 CHD. DATE 10-24-49  
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS  
 KANSAS CITY NEW YORK  
 798 SHEET 5A OF 5

411

FEDERAL ROAD DISTRICT NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	U-888(4) R.L.S. 69 SPUR	1951	18	45

FINAL PLANS



BAR SIZE			
MARK	SIZE	MARK	SIZE
a	3/8"	f	7/8"
b	1/2"	g	1"
c	5/8"	h	1 1/8"
d	3/4"	i	1 1/4"
e	7/8"	k	1 3/4"

Note: All piles to be 12 A 12 BP 53, for detail of joint between wing wall and frame, see sheet 4. for drainage details, see sheet 5.

MISSOURI STATE HIGHWAY DEPARTMENT  
SOUTHWEST TRAFFICWAY  
PENN VALLEY PARK, KANSAS CITY, MISSOURI  
BRIDGE AT 30<sup>TH</sup> AND BROADWAY  
PROJECT U 888(4) ROUTE US 69 SPUR  
JACKSON COUNTY

SOUTHWEST WINGWALL AND STONE DETAILS

SCALE: 1/4" = 1'-0"  
HOWARD, NEEDLES, TAMM & BERGENDOFF  
CONSULTING ENGINEERS  
KANSAS CITY, MISSOURI  
NEW YORK, NEW YORK  
798 SHEET 6A OF 5

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FINAL PLANS

L-253