C. L. Sumrall

DRAINAGE DIST. NO. 7-POINSETT COUNTY

ST. FRANCIS RIVER PROJECT

SIPHON

MARKED TREE - ARK.

REVISED JAN. 1939

WAR DEPARTMENT - CORPS OF ENGINEERS, U. S. ARMY

U. S. ENGINEER OFFICE

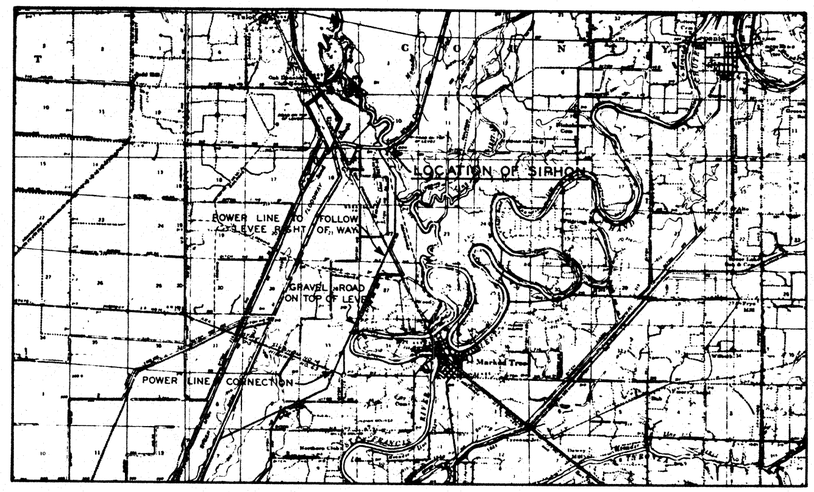
MEMPHIS, TENN.

WAR DEPARTMENT – CORPS OF ENGINEERS, U. S. ARMY
MEMPHIS ENGINEER DISTRICT

SAINT FRANCIS RIVER PROJECT

SIPHON – MARKED TREE, ARK.

DRAINAGE DISTRICT NO. 7, POINSETT COUNTY, ARK.

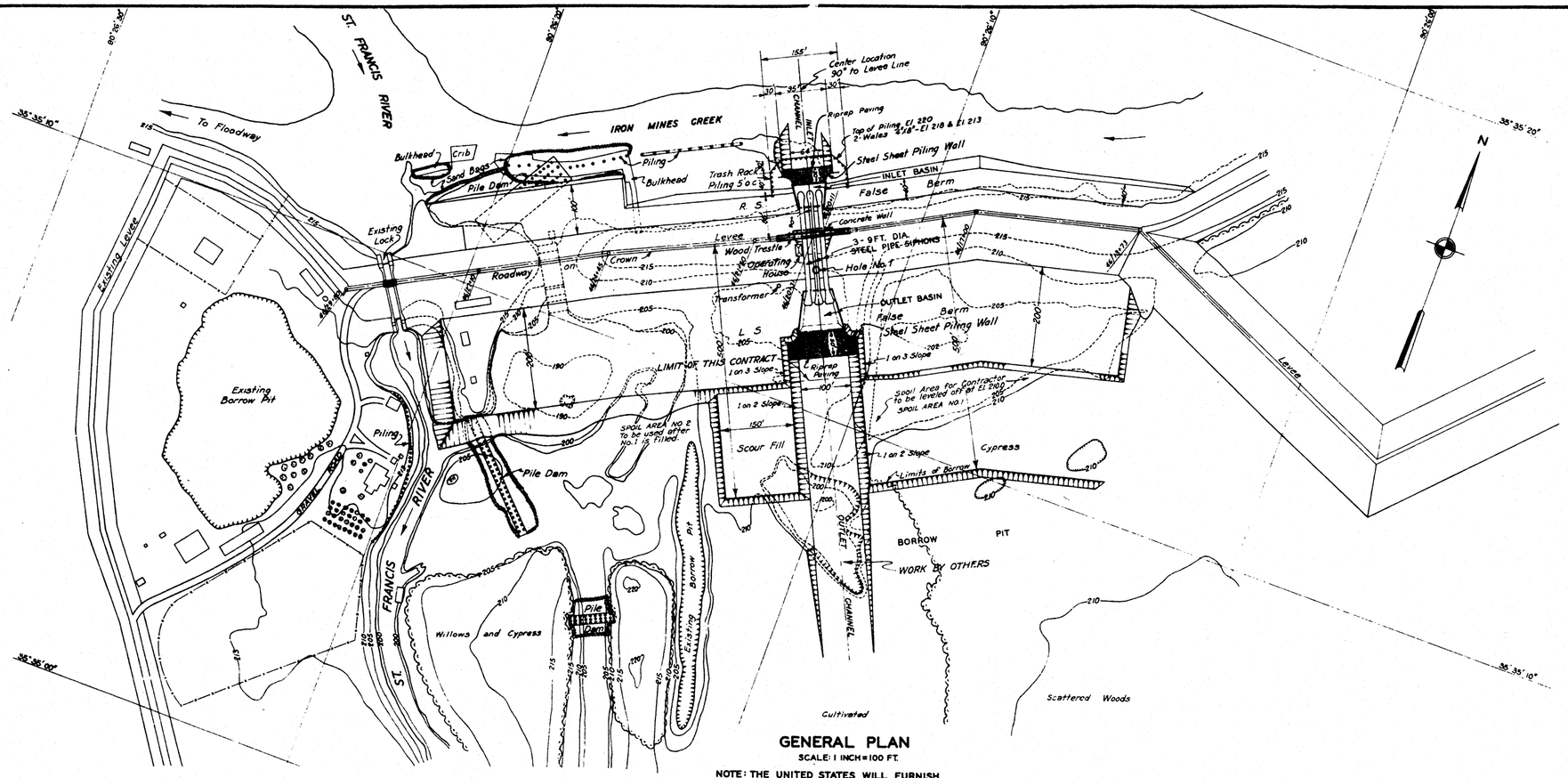


INDEX

SHEET NO.	TITLE
1	GENERAL MAP
2	PLAN AND SECTION
3	DETAILS OF INLET BASIN
4	DETAILS OF INLET BASIN-REINFORCING BARS
5	DETAILS OF OUTLET BASIN
6	DETAILS OF OUTLET BASIN-REINFORCING BARS
7	OPERATING HOUSE - TRESTLE - WALL
8	DETAILS OF FOOTINGS AND ANCHOR BOLTS
9	BAR SCHEDULE
10	BAR SCHEDULE
* 11	PIPE DETAILS
* 12	DETAILS OF PIPE SUPPORTS
* 13	EXHAUST PIPING LAYOUT

* THESE DRAWINGS ARE INCLUDED WITH MASONRY DRAWINGS FOR REFERENCE ONLY.
STEEL SIPHONS AND PIPING ARE NOT INCLUDED IN MASONRY CONTRACT

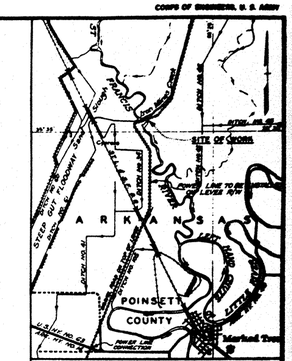
NOTE –
DRAWINGS IN THIS FOLDER HAVE BEEN REDUCED $\frac{1}{2}$ SIZE



GENERAL PLAN

SCALE: 1 INCH = 100 FT.

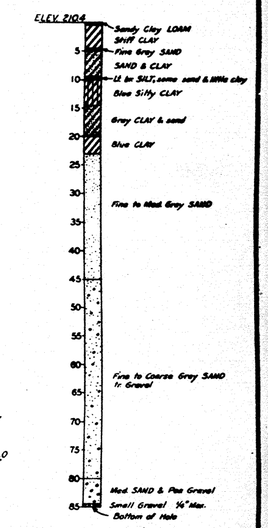
NOTE: THE UNITED STATES WILL FURNISH EMBANKMENT WORK AT TOP OF LEVEE TO APPROXIMATE LINES AND GRADES AS SHOWN.

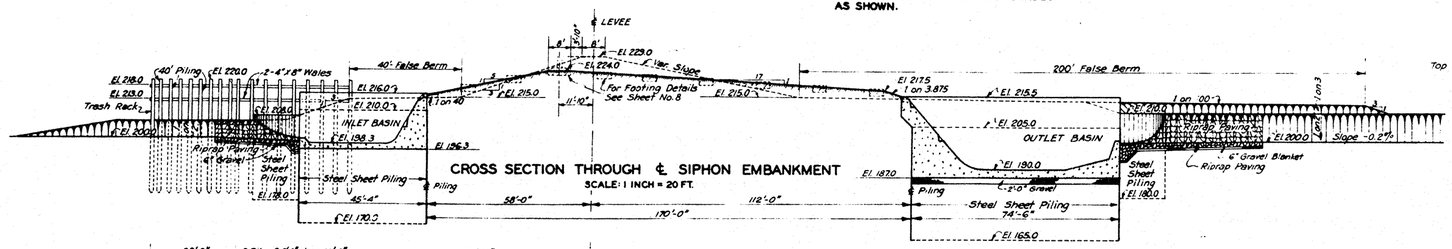


LOCALITY MAP

SCALE OF MILES

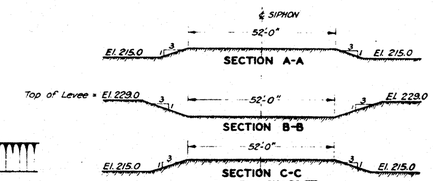
BORING NO. 1



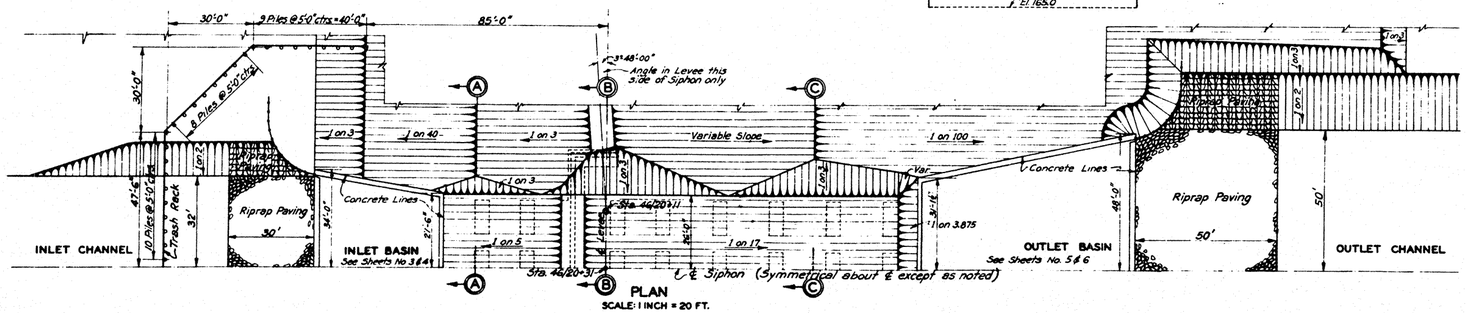


CROSS SECTION THROUGH ℄ SIPHON EMBANKMENT

SCALE: 1 INCH = 20 FT.



SCALE: 1 INCH = 20 FT.



PLAN

SCALE: 1 INCH = 20 FT.

EMBANKMENT FOR SIPHON

All elevations refer to Mean Gulf Level.

Date	Description	Made	Ckd	Appd
10-24-38	Revised according to indorsement, Pres. M.R.C.	J.M.M.	R.W.	R.E.D.
10-22-38	Revised according to indorsement, C. of E.			

REVISIONS

SIPHON

SAINT FRANCIS RIVER PROJECT
MARKED TREE, ARKANSAS
DRAINAGE DISTRICT NO. 7 - POINSETT COUNTY

GENERAL MAP

IN 13 SHEETS — SHEET NO. 1 — SCALE: 1 INCH = 100 FT.

100' 50' 0 100' 200'

SCALE 1 INCH = 100 FEET

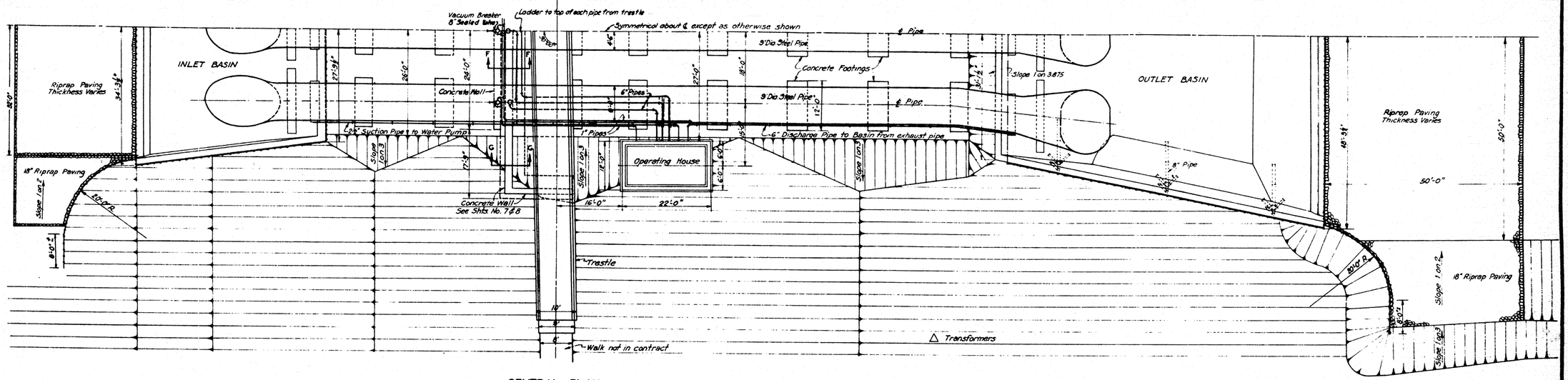
U.S. ENGINEER OFFICE, MEMPHIS TENN., OCTOBER 1938

SUBMITTED: Engineer — APPROVAL RECOMMENDED: Major, Corps of Engineers, Chief of Div. Eng. & Planning Div. — APPROVED: Major, Corps of Engineers, District Engineer

DRAWN: J.M.M. TRACED: J.B. and W.B. CHECKED: H.L.D.

SERIAL 7727 FILE 32/101

TO ACCOMPANY SPECIFICATIONS DATED OCT. 31, 1938



Pile and Timber Foundation will not be installed unless directed by contracting officer after excavation is carried to indicated level of basins.

Gravel blanket for Outlet Basin may be omitted if directed by the contracting officer and foundation for the Outlet Basin made the same as Inlet Basin.

GENERAL NOTES

Gravel blanket shall be the same gravel as used for coarse aggregate of concrete.

Steel sheet piling marked on the plans as MA 22# shall be medium arch type pile weighing 22# per sq. ft., with a section modulus of 5.4 in.³ per foot of wall, and an interlock strength of 8000# per lin. inch.
Steel sheet piling marked on the plans as Z 32# shall be Z type pile weighing 32# per sq. ft., with a section modulus of 38.3 in.³ per foot of wall, a strength of 8000# per lin. inch.

Date	Description	Mode	Ch'k'd	Appd
10-24-38	Revised according to indorsement, Pres., M.R.C.	J.M.M.	R.W.	R.E.D.
10-22-38	Revised according to indorsement, C. of E.			
8-23-38	Revised according to letter to Pres. M.R.C. dated Sept. 24, 1938.	J.J.R.	G.G.	R.E.D.

REVISIONS

SIPHON

SAINT FRANCIS RIVER PROJECT
MARKED TREE, ARKANSAS
DRAINAGE DISTRICT NO. 7 - POINSETT COUNTY

PLAN AND SECTION

IN 13 SHEETS — SHEET NO 2 — SCALE: ¼ INCH = 1 FOOT

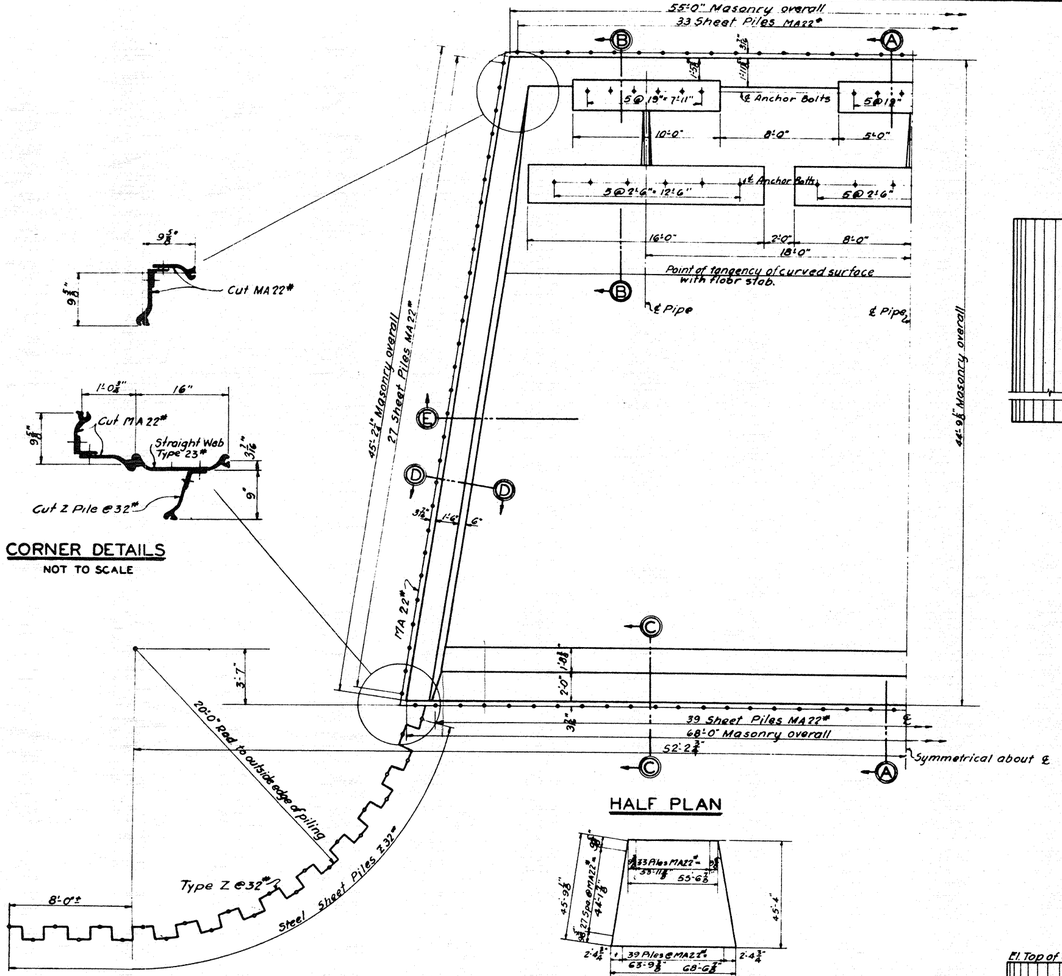
SCALE OF 12 0 5' 10' 15' 20' 25'
SCALE ¼ INCH = 1 FOOT

U S ENGINEER OFFICE, MEMPHIS, TENN., OCTOBER, 1938

SUBMITTED — APPROVAL RECOMMENDED — APPROVED

ENGINEER — MAJOR, CORPS OF ENGINEERS, CHIEF OF GEN. ENG. AND PLANNING — MAJOR, CORPS OF ENGINEERS, DISTRICT ENGINEER

DRAWN 33 JUN TRACED JUN CHECKED RED — SERIAL 7727 FILE 92/102 — TO ACCOMPANY SPECIFICATIONS DATED OCTOBER 31, 1938



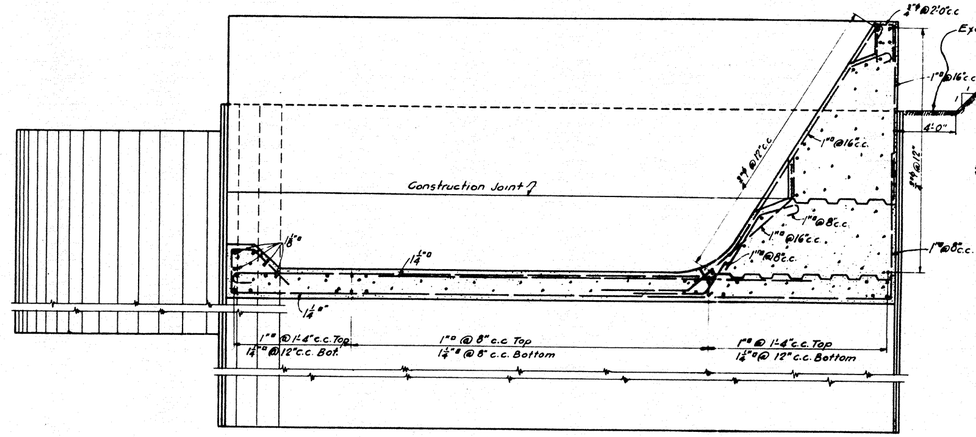
CORNER DETAILS

NOT TO SCALE

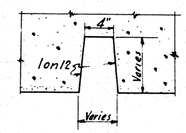
HALF PLAN

SHEET PILING LAYOUT

NOT TO SCALE

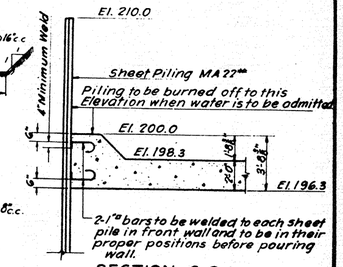


SECTION A-A



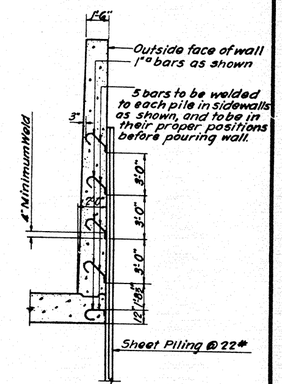
SECTION F-F

SCALE 1½" = 1'-0"

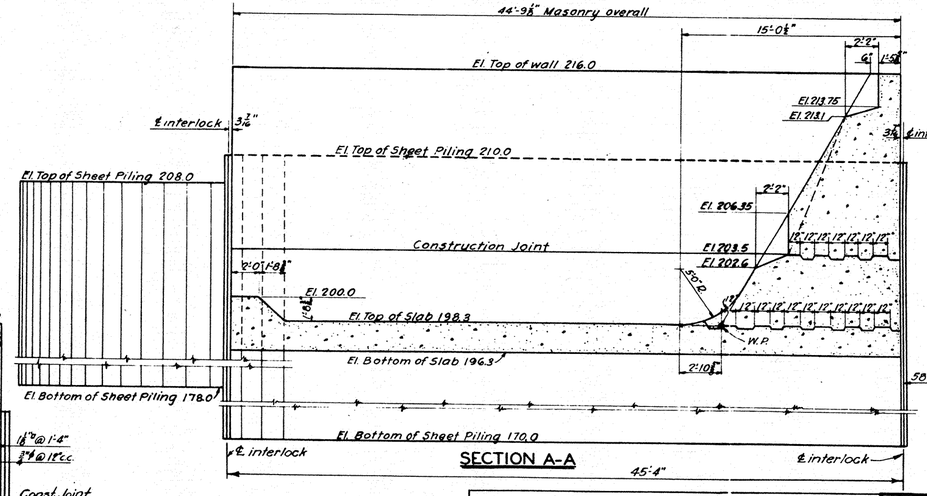


SECTION C-C

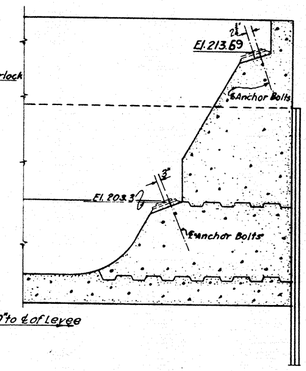
NOTE: Mark for all bars welded to sheet Piling will be 2-1"⌀ bars in walls, and 2-1"⌀ bars in Slab.



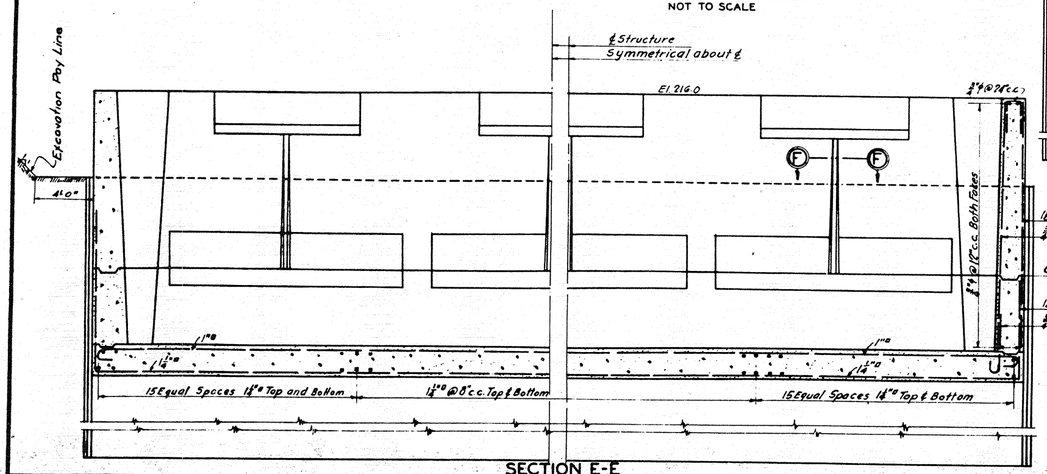
SECTION D-D



SECTION A-A



SECTION B-B



SECTION E-E

NOTE: All reinforcing to be placed not less than 3" minimum, clear distance, from face of concrete.

Date	Description	Made	Chk'd	Appd
10-24-38	Revised according to indorsement Pres M.R.C. Revised according to indorsement C. of E.	R.W.P.	G.G.	R.E.D.
9-23-38	Revised according to letter to Pres M.R.C. dated Sept 24, 1938.	G.C.S.	G.G.	R.E.D.

REVISIONS

SIPHON

SAINT FRANCIS RIVER PROJECT

MARKED TREE, ARKANSAS

DRAINAGE DISTRICT NO. 7-POINSETT COUNTY

DETAILS OF INLET BASIN

IN 13 SHEETS — SHEET NO. 3 — SCALE: ¼ INCH = 1 FT

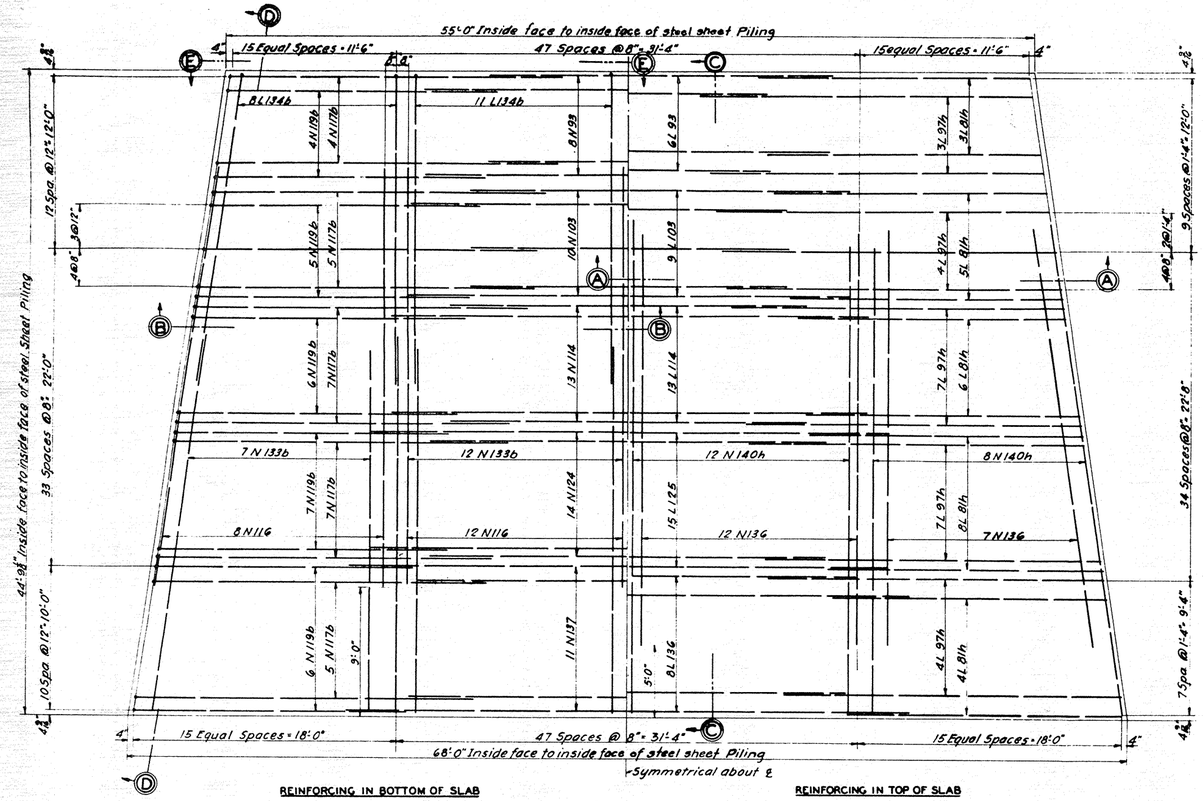
SCALE ¼ INCH = 1 FOOT

U. S. ENGINEER OFFICE, MEMPHIS, TENN. — OCTOBER 1938

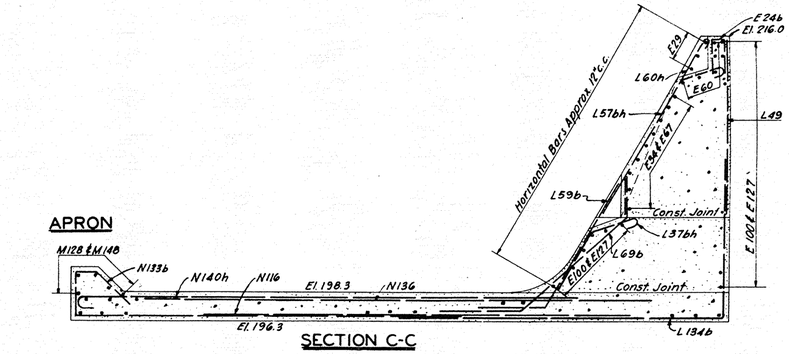
SUBMITTED: ENGINEER — APPROVAL RECOMMENDED: MAJOR, CORPS OF ENGINEERS, CHIEF OF BCH. ENG. & PLANNING DIV. — APPROVED: MAJOR, CORPS OF ENGINEERS, DISTRICT ENGINEER

DRAWN R.W.P. TRACED R.W.P. CHECKED R.E.D. — SERIAL 7727 — FILE 92/103

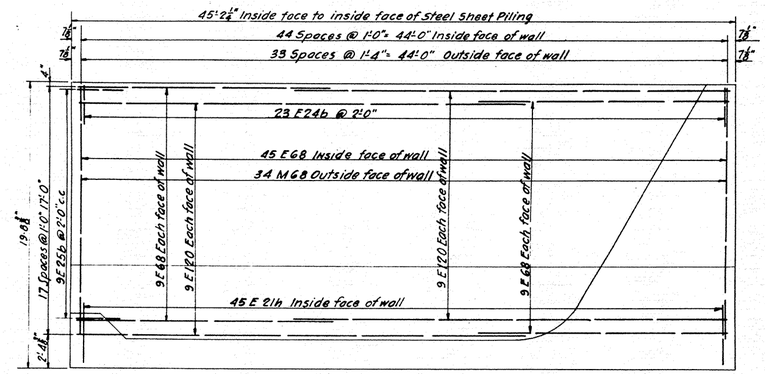
TO ACCOMPANY SPECIFICATIONS DATED OCTOBER 31, 1938



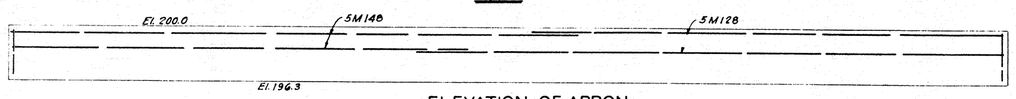
PLAN



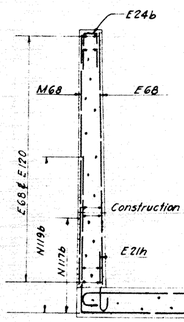
SECTION C-C



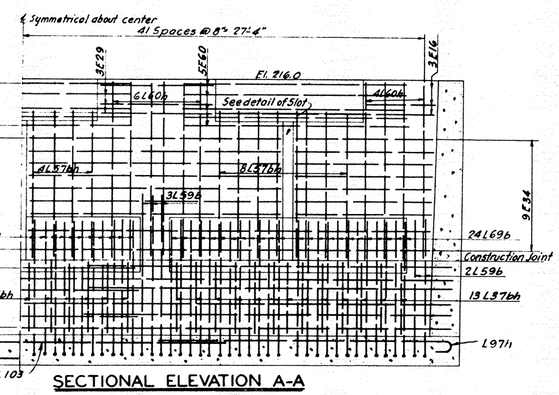
SECTION D-D



ELEVATION OF APRON

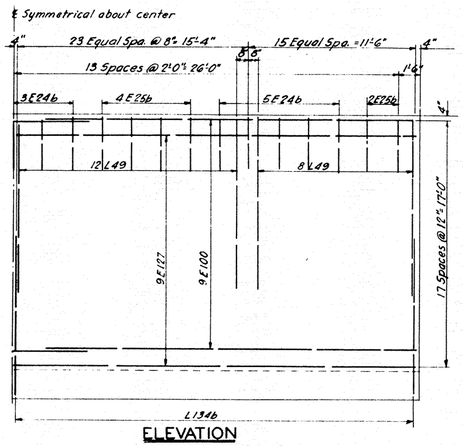


SECTION B-B



SECTIONAL ELEVATION A-A

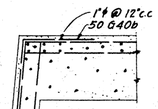
REINFORCING STEEL NEAR FACE



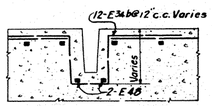
ELEVATION

REINFORCING STEEL NEAR FACE

General Notes
See sheet No 9 for bar schedule



PLAN
TYPICAL CORNER



DETAIL OF SLOT
3 REQUIRED
SCALE: ½" = 1'-0"

Date	Description	Mode	Ch'k'd	Appd
	REVISIONS			

SIPHON

SAINT FRANCIS RIVER PROJECT
MARKED TREE, ARKANSAS
DRAINAGE DISTRICT NO. 7 - POINSETT COUNTY

DETAILS OF INLET BASIN - REINFORCING BARS

IN 13 SHEETS — SHEET NO. 4 — SCALE: ½ INCH = 1 FT.

12" 0 5' 10"
SCALE: ½ INCH = 1 FOOT

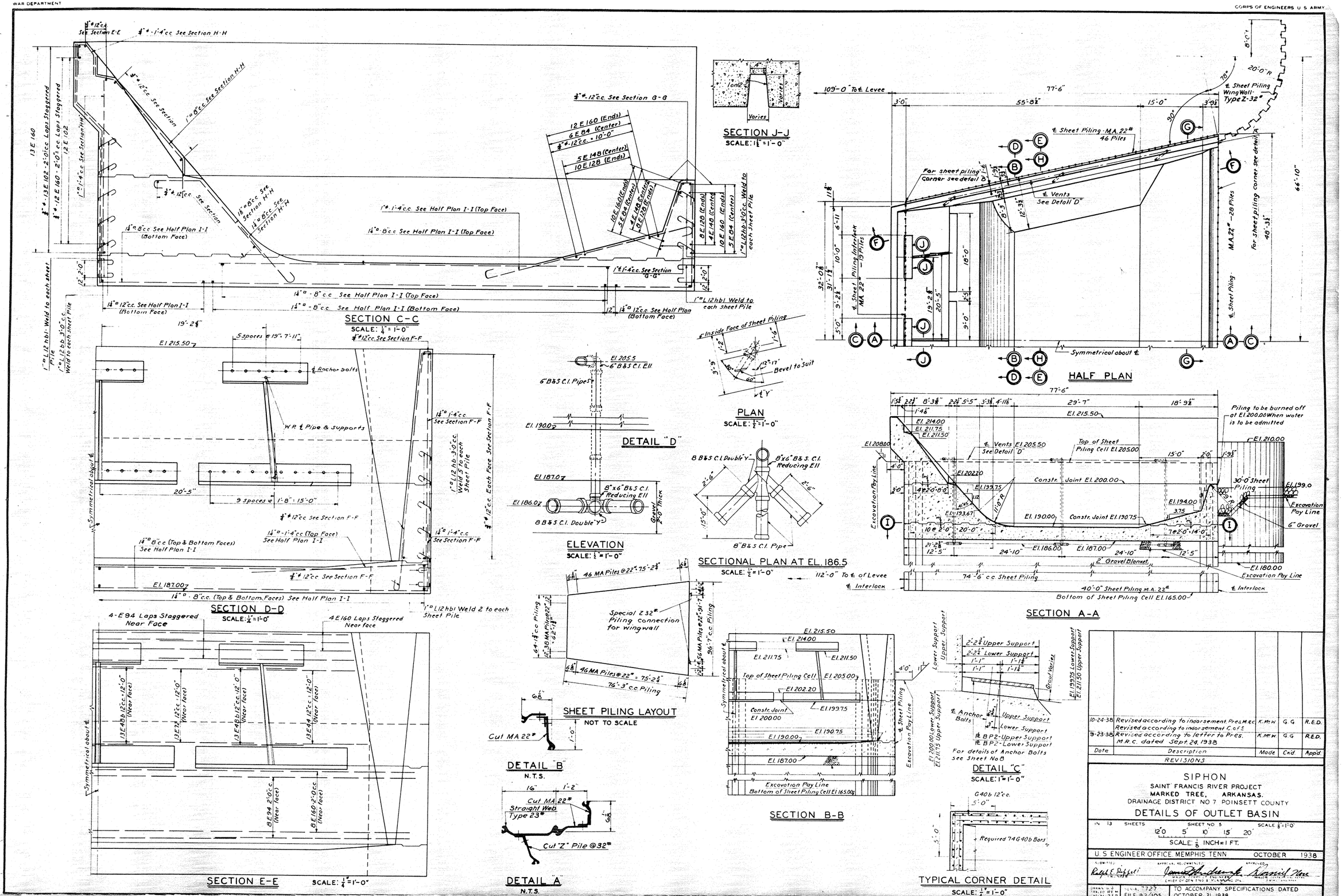
U. S. ENGINEER OFFICE, MEMPHIS, TENN. — OCTOBER 1938

SUBMITTED: Ralph E. Dyer — ENGINEER
APPROVAL RECOMMENDED: Lawrence Hardaway Jr. — MAJOR, CORPS OF ENGINEERS, CHIEF OF GEN. ENG. & PLANNING DIV.
APPROVED: Lawrence Tacon — MAJOR, CORPS OF ENGINEERS, DISTRICT ENGINEER

DRAWN RWP
TRACED RWP
CHECKED RO

SERIAL 7777
FILE 92/104

TO ACCOMPANY SPECIFICATIONS DATED OCTOBER 31, 1938



Date	Description	Made	Ckd.	Appd.
10-24-38	Revised according to indorsement Pres. M.R.C.	K.M.W	G.G	R.E.D.
	Revised according to indorsement C. of E.			
9-23-38	Revised according to letter to Pres. M.R.C. dated Sept. 24, 1938	K.M.W	G.G	R.E.D.

REVISIONS

SIPHON

SAINT FRANCIS RIVER PROJECT
MARKED TREE, ARKANSAS.
DRAINAGE DISTRICT NO 7 POINSETT COUNTY

DETAILS OF OUTLET BASIN

IN 13 SHEETS SHEET NO 5 SCALE 1/8" = 1'-0"

12' 0 5' 10' 15' 20'

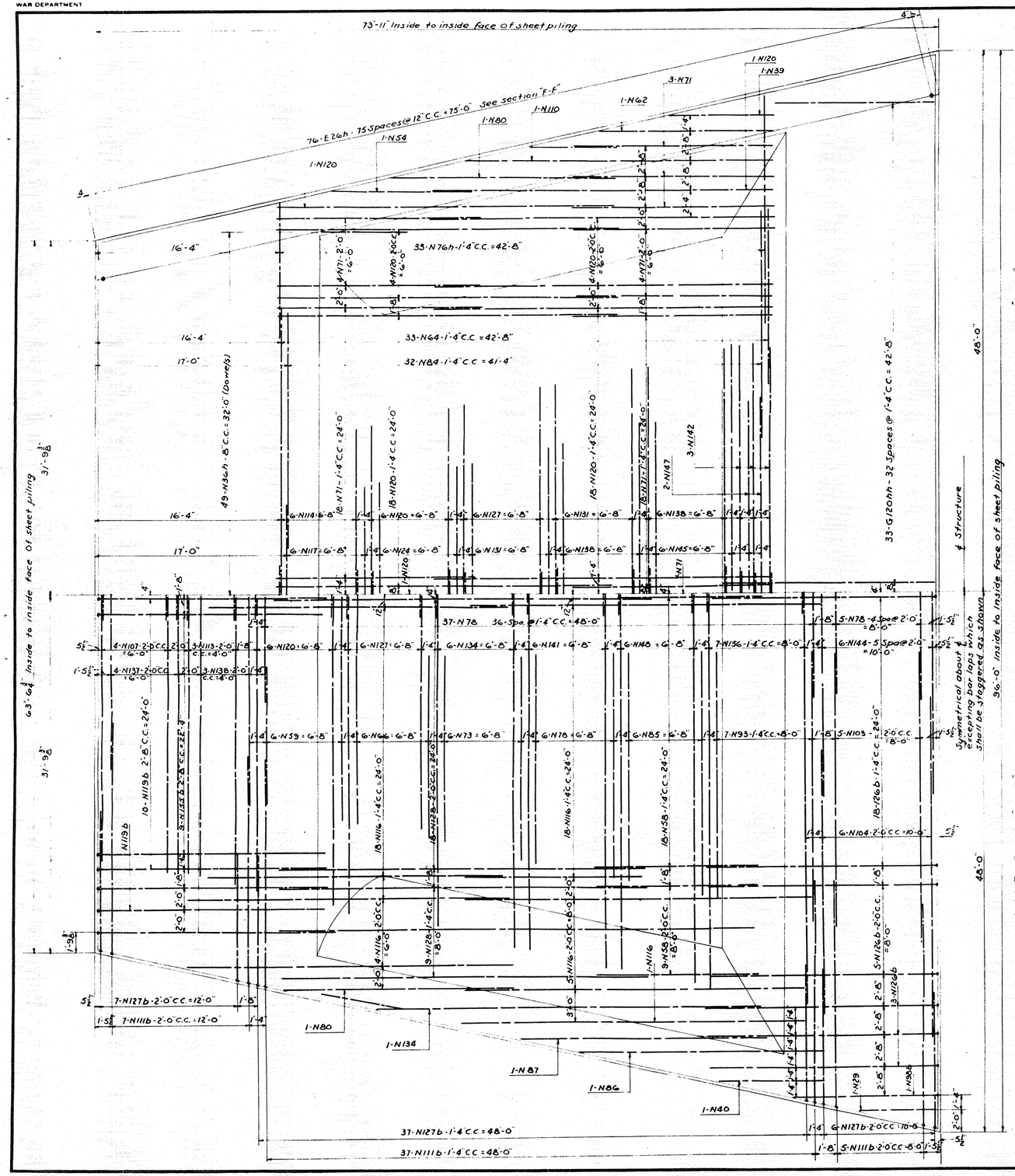
SCALE: 1/8" INCH = 1 FT.

U. S. ENGINEER OFFICE, MEMPHIS TENN. OCTOBER 1938

SUBMITTED: Ralph E. Dipperli
RECOMMENDED: Chief of Gen. Eng. & Planning Div.
APPROVED: Harvey Mac
Major, Corps of Engineers, District Engineer

DRAWN No. 8 TRACED No. 8 CHECKED No. 8 — CIVIL 727 — FILE 92/105

TO ACCOMPANY SPECIFICATIONS DATED OCTOBER 31, 1938.

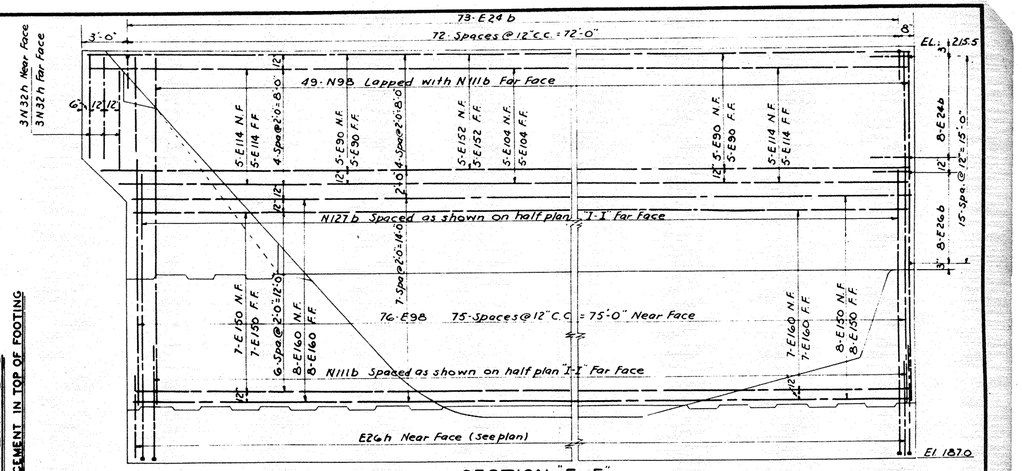


HALF PLAN "I-I"

SHOWING REINFORCEMENT IN TOP OF FOOTING

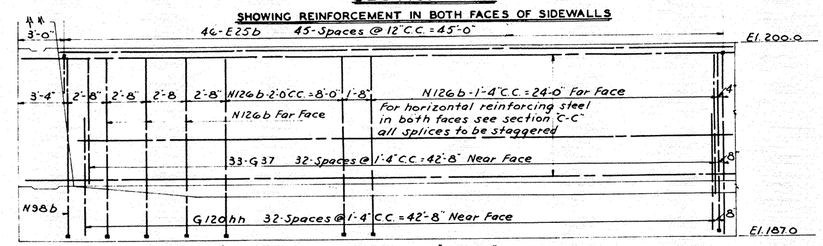
HALF PLAN "I-I"

SHOWING REINFORCEMENT IN BOTTOM OF FOOTING



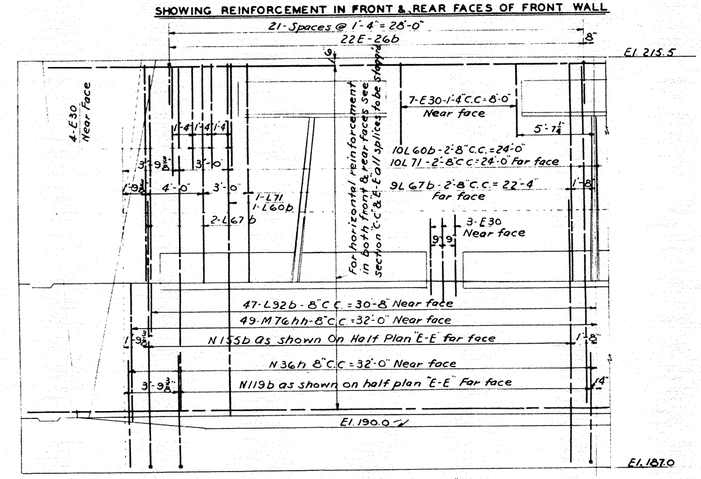
SECTION "F-F"

SHOWING REINFORCEMENT IN BOTH FACES OF SIDEWALLS



HALF SECTION "G-G"

SHOWING REINFORCEMENT IN FRONT & REAR FACES OF FRONT WALL



HALF SECTION "H-H"

SHOWING REINFORCEMENT IN FRONT & REAR FACES OF REAR WALL

Date	Description	Made	Chk'd	App'd
	Revisions			

SIPHON

SAINT FRANCIS RIVER PROJECT
MARKED TREE ARKANSAS
DRAINAGE DISTRICT NO. 7 POINSETT COUNTY

DETAILS OF OUTLET BASIN - REINFORCING BARS

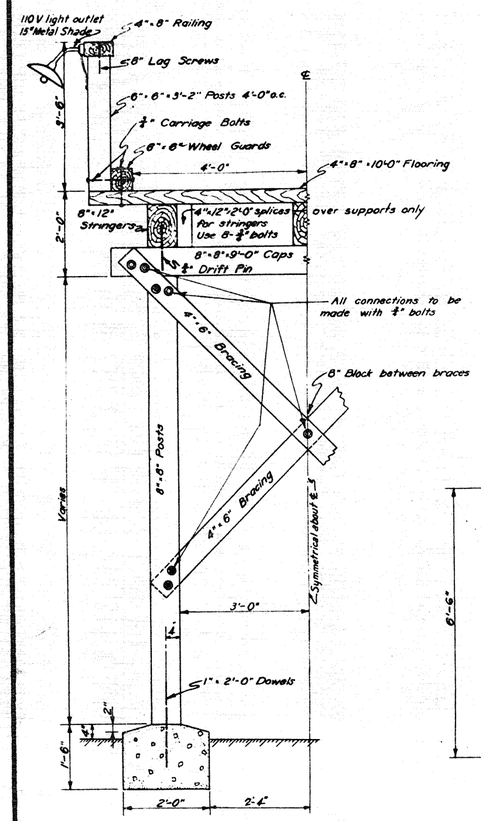
IN 13 SHEETS — SHEET NO 6 — SCALE: 1" = 1'-0" (SCALE ¼ INCH = 1 FOOT)

U. S. ENGINEER OFFICE, MEMPHIS, TENN. — OCTOBER 1938

SUBMITTED: Ralph Dissell, ENGINEER — APPROVAL RECOMMENDED: James A. Anderson, MAJOR, CORPS OF ENGINEERS, CHIEF, CE&M ENG. & PLANNING DIV. — APPROVED: Harold Nelson, MAJOR, CORPS OF ENGINEERS, DISTRICT ENGINEER

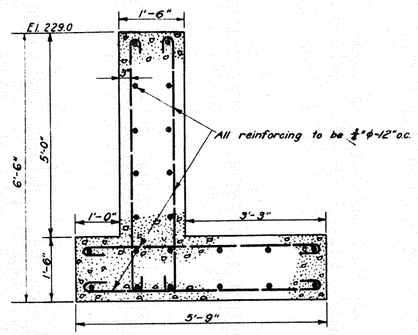
DRAWN G.C.S. TRACED & PRINTED BY ENGINEER D.O.P. — SERIAL 7727 — FILE 92/106

TO ACCOMPANY SPECIFICATIONS DATED OCTOBER 31, 1938



TYPICAL TRESTLE SECTION

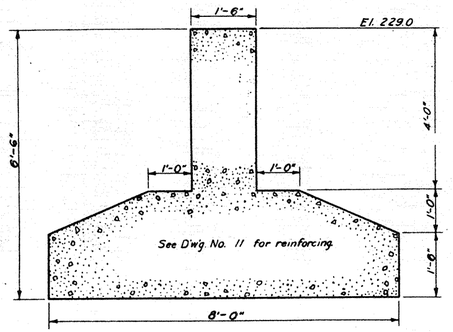
SCALE: ¾"=1'-0"



SECTION G-G

See Sheet #2.

SCALE: ¾"=1'-0"

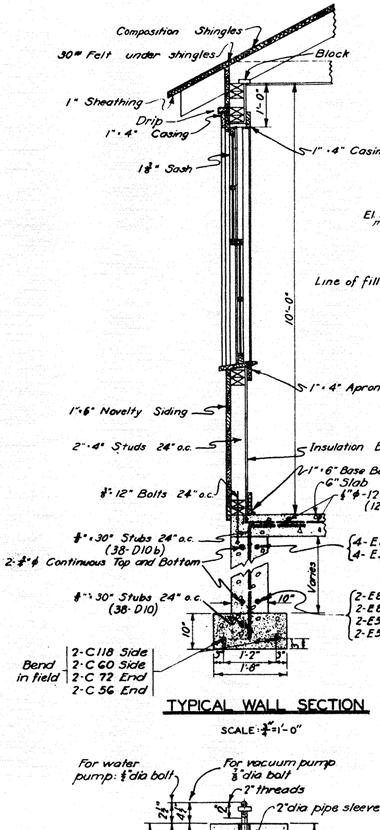


SECTION F-F

See Sheet #2

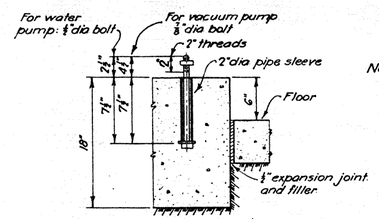
SCALE: ¾"=1'-0"

SECTIONS THRU WALL AT TOP OF LEVEE



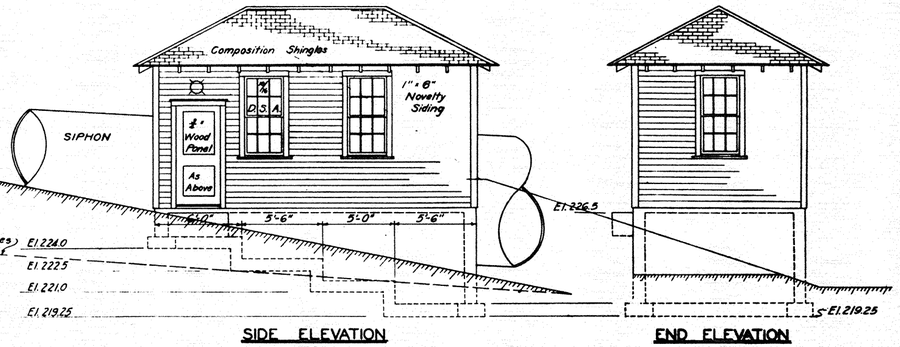
TYPICAL WALL SECTION

SCALE: ¾"=1'-0"



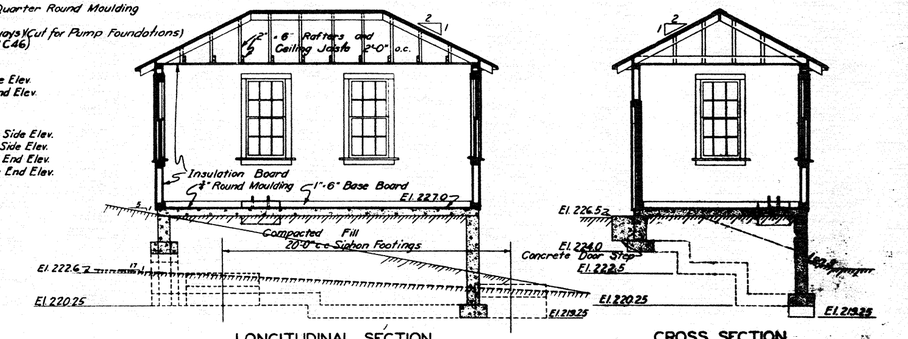
PUMP FOUNDATION DETAILS

SCALE: ¾"=1'-0"



SIDE ELEVATION

END ELEVATION

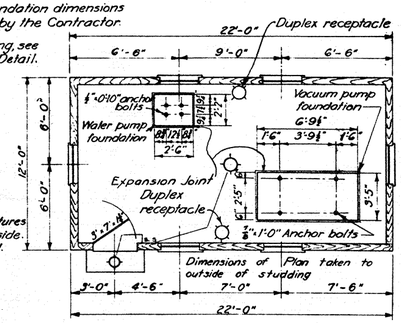


LONGITUDINAL SECTION

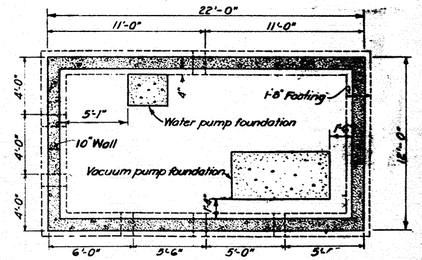
CROSS SECTION

Note:- All pump foundation dimensions to be verified by the Contractor.

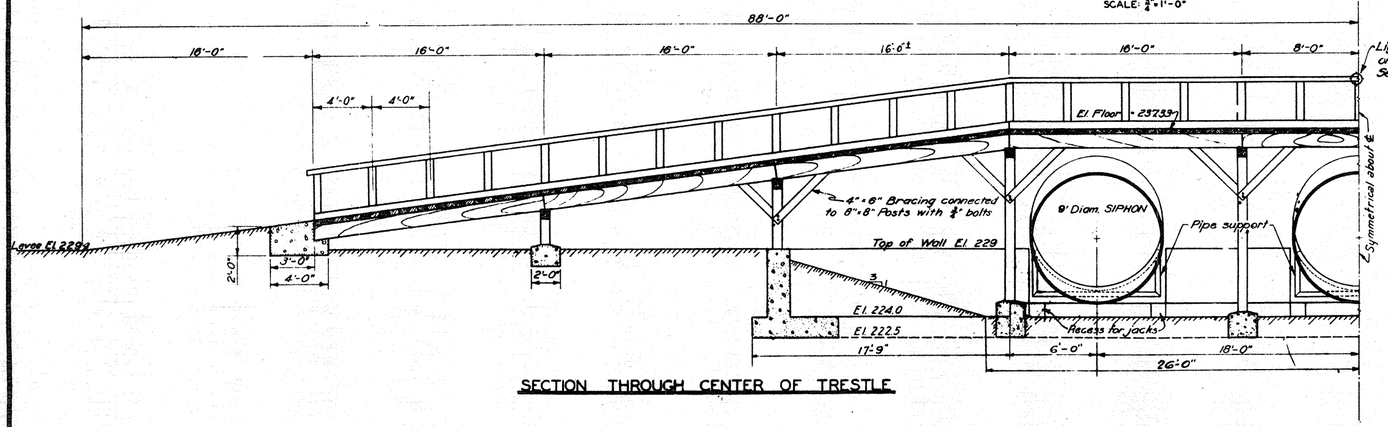
For piping, see Piping Detail.



FLOOR PLAN



FOUNDATION PLAN



SECTION THROUGH CENTER OF TRESTLE

Date	Description	Made	Chk'd	Appd
10-24-38	Revised according to indorsement, Pres. M.R.C.	K.M.W.	R.W.	R.E.D.
	Revised according to indorsement C. of E.			

REVISIONS

SIPHON

SAINT FRANCIS RIVER PROJECT

MARKED TREE, ARKANSAS

DRAINAGE DISTRICT NO. 7 - POINSETT COUNTY

OPERATING HOUSE - TRESTLE - WALL

IN 13 SHEETS — SHEET NO. 7 — SCALE: ¼ INCH = 1 FOOT

SCALE ¼ INCH = 1 FOOT

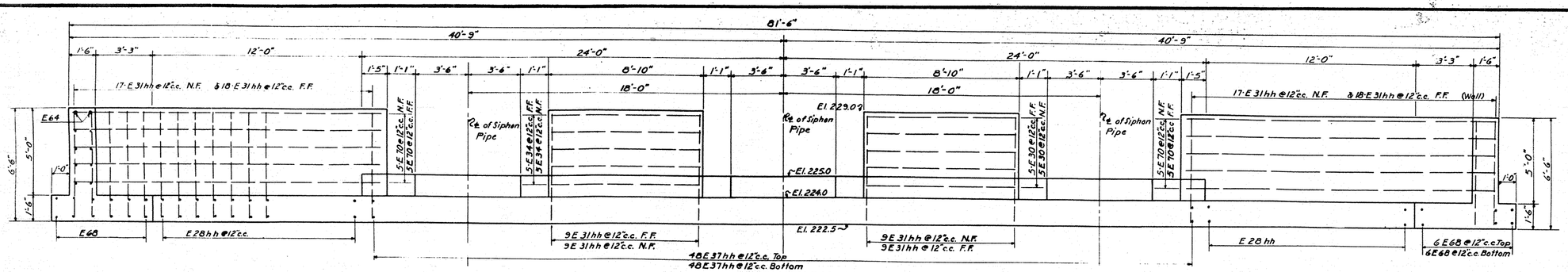
U. S. ENGINEER OFFICE, MEMPHIS, TENN. — OCTOBER 1938

SUBMITTED: Chief, Eng. Div. & Planning Div. — APPROVAL RECOMMENDED: Chief, Eng. Div. & Planning Div. — APPROVED: Colonel, Corps of Engineers, District Engineer

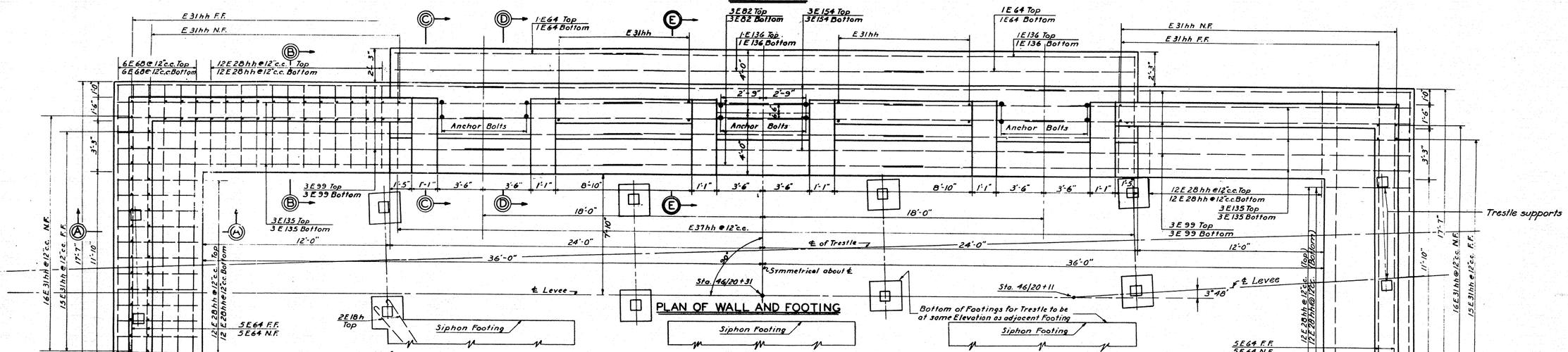
DRAWN: C. M. K. TRACED: J. M. K. CHECKED: R. W.

SERIAL 7727 FILE 68/107

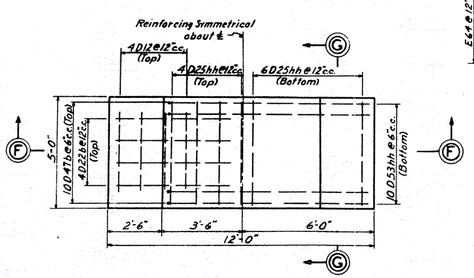
TO ACCOMPANY SPECIFICATIONS DATED OCTOBER 31, 1938.



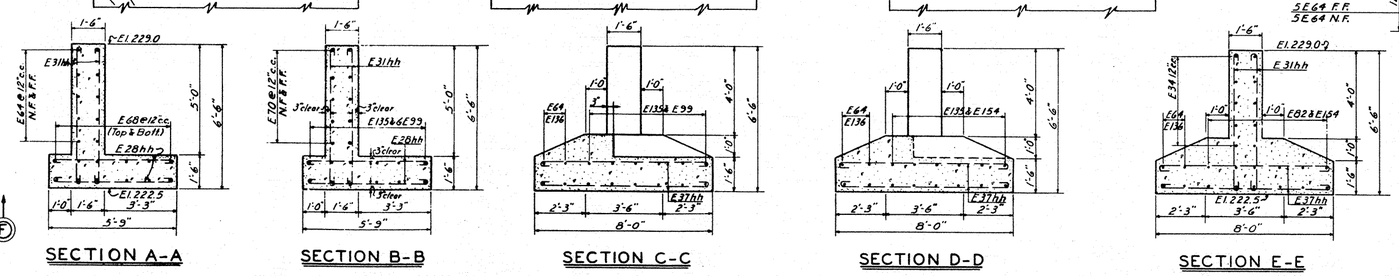
ELEVATION



PLAN OF WALL AND FOOTING

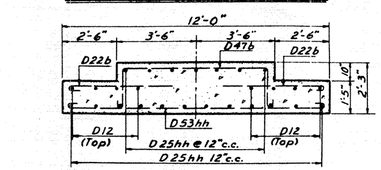


PLAN OF TYPICAL FOOTING

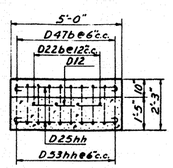


SECTION A-A SECTION B-B SECTION C-C SECTION D-D SECTION E-E

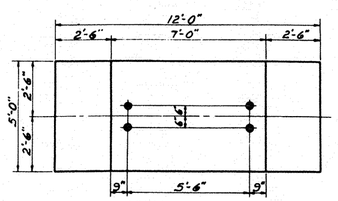
Note:-
F.F. = For face of concrete.
N.F. = Near face of concrete.
For bar schedule, see Sheet No. 9.



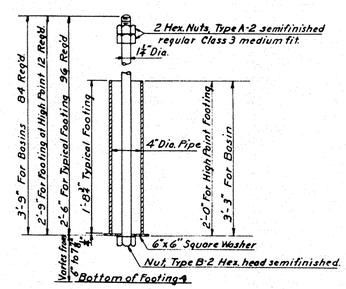
SECTION F-F



SECTION G-G



TYPICAL FOOTING ANCHOR BOLT SETTING



ANCHOR BOLT
SCALE: 1½" = 1 FOOT

Date	Description	Made	Chk'd.	App'd.
	REVISIONS			

SIPHON

SAINT FRANCIS RIVER PROJECT
MARKED TREE, ARKANSAS
DRAINAGE DISTRICT NO. 7 - POINSETT COUNTY

DETAILS OF FOOTINGS AND ANCHOR BOLTS

IN 13 SHEETS — SHEET NO. 8 — SCALE: ⅜" = 1 FOOT

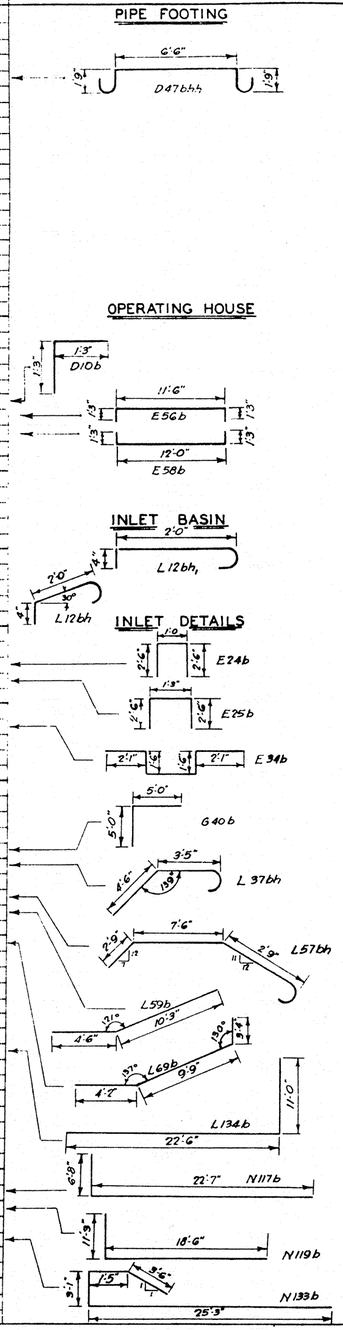
SCALE: ⅜ INCH = 1 FOOT

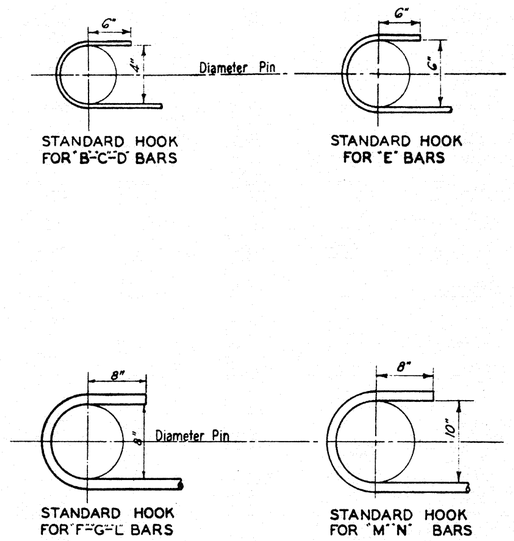
U. S. ENGINEER OFFICE, MEMPHIS, TENN. — OCTOBER 1938

SUBMITTED: Ralph E. Diffell, ENGINEER
APPROVAL RECOMMENDED: MAJOR, CORPS OF ENGINEERS, CHIEF OF ENG. & PLANNING DIV.
APPROVED: MAJOR, CORPS OF ENGINEERS, DISTRICT ENGINEER

DRAWN: L.H.S. TRACED: R.E.M. CHECKED: R.E.D.
SERIAL 7727
FILE 92/108
TO ACCOMPANY SPECIFICATIONS DATED OCTOBER 31, 1938.

BAR MARK	SIZE	LENGTH	BENDING DIAGRAM	QUANTITIES REQUIRED — SHEET NUMBER: 3 INLET BASIN	5 OUTLET BASIN	7 OP'NG HOUSE	4 INLET DETAILS	6 OUTLET DETAILS	8 PIPE FOOTINGS			MISC.	TOTAL NO. BARS	WT. EACH BAR	TOTAL WEIGHT	BAR MARK
			PIPE FOOTING													
D12	⅜"φ	3'-0"							64				64	3.13	201	D12
D22h	⅜"φ	5'-6"							64				64	5.74	368	D22h
D25hh	⅜"φ	6'-3"							152				152	6.52	992	D25hh
D47bhh	⅜"φ	11'-9"							80				80	12.25	980	D47bhh
D53h	⅜"φ	13'-3"							80				80	13.82	1106	D53hh
E28hh	¾"φ	7'-0"							96				96	10.51	1009	E28hh
E31hh	¾"φ	7'-9"							164				164	11.64	1909	E31hh
E34	¾"φ	8'-6"							20				20	12.77	256	E34
E37hh	¾"φ	9'-3"							96				96	13.90	1335	E37hh
E64	¾"φ	16'-0"							24				24	24.03	577	E64
E68	¾"φ	17'-0"							24				24	25.55	613	E68
E70	¾"φ	17'-6"							20				20	26.28	526	E70
E82	¾"φ	20'-6"							6				6	30.79	185	E82
E99	¾"φ	24'-6"							12				12	36.80	442	E99
E135	¾"φ	33'-9"							12				12	50.70	609	E135
E136	¾"φ	34'-0"							4				4	51.07	205	E136
E154	¾"φ	38'-6"							6				6	57.82	347	E154
E18h	¾"φ	4'-6"							2				2	6.76	14	E18h
			OPERATING HOUSE													
C56	½"φ	14'-0"				2							2	9.35	19	C56
C60	½"φ	15'-0"				2							2	10.02	21	C60
C72	½"φ	18'-0"				2							2	12.02	25	C72
C118	½"φ	29'-6"				2							2	19.70	40	C118
D10	⅜"φ	2'-6"				38							38	2.61	100	D10
D10b	⅜"φ	2'-6"				38							38	2.61	100	D10b
E56b	¾"φ	14'-0"				6							6	21.03	127	E56b
E58b	¾"φ	14'-6"				2							2	21.78	44	E58b
E86	¾"φ	21'-6"				6							6	32.29	194	E86
E88	¾"φ	22'-0"				2							2	33.04	67	E88
C46	½"φ	11'-6"				22							22	7.68	169	C46
C86	½"φ	21'-6"				12							12	14.36	173	C86
			INLET BASIN													
L12bh	1"□	3'-0"		372									372	10.2	3,795	L12bh
L12bh,	1"□	3'-0"		179									179	10.2	1,826	L12bh,
			INLET DETAILS													
E16	¾"φ	4'-0"					6						6	6.01	37	E16
E21h	¾"φ	5'-3"					90						90	7.89	711	E21h
E24b	¾"φ	6'-0"					61						61	9.01	550	E24b
E25b	¾"φ	6'-3"					30						30	9.39	282	E25b
E29	¾"φ	7'-3"					6						6	10.89	66	E29
E34	¾"φ	8'-6"					18						18	12.77	230	E34
E34b	¾"φ	8'-6"					36						36	12.77	460	E34b
E48	¾"φ	12'-0"					6						6	18.02	109	E48
E60	¾"φ	15'-0"					15						15	22.53	338	E60
E67	¾"φ	16'-9"					18						18	25.16	453	E67
E68	¾"φ	17'-0"					162						162	25.53	4136	E68
E100	¾"φ	25'-0"					24						24	37.55	902	E100
E120	¾"φ	30'-0"					72						72	45.06	3245	E120
E127	¾"φ	31'-9"					24						24	47.69	1145	E127
G40b	1"φ	10'-0"					50						50	26.70	1335	G40b
L37bh	1"□	9'-3"					38						38	31.45	1196	L37bh
L49	1"□	12'-3"					40						40	41.65	1666	L49
L57bh	1"□	14'-3"					24						24	48.45	1163	L57bh
L59b	1"□	14'-9"					10						10	50.15	502	L59b
L60h	1"□	15'-0"					20						20	51.00	102	L60h
L69b	1"□	17'-3"					70						70	58.65	4106	L69b
L81h	1"□	20'-3"					52						52	68.85	3581	L81h
L93	1"□	23'-3"					6						6	79.05	475	L93
L97h	1"□	24'-3"					50						50	82.45	4123	L97h
L103	1"□	25'-9"					9						9	87.55	788	L103
L114	1"□	28'-6"					13						13	96.90	1260	L114
L125	1"□	31'-3"					15						15	106.25	1594	L125
L134b	1"□	33'-6"					38						38	113.90	4329	L134b
L136	1"□	34'-0"					8						8	115.60	925	L136
M68	1⅛"□	17'-0"					68						68	73.15	4975	M68
M128	1⅛"□	32'-0"					5						5	137.70	689	M128
M148	1⅛"□	37'-0"					5						5	159.21	797	M148
N93	1¼"□	23'-3"					8						8	123.53	989	N93
N103	1¼"□	25'-9"					10						10	136.81	1369	N103
N114	1¼"□	28'-6"					13						13	151.42	1969	N114
N116	1¼"□	29'-0"					40						40	154.08	6164	N116
N117b	1¼"□	29'-3"					56						56	155.41	8703	N117b
N119b	1¼"□	29'-9"					56						56	158.06	8857	N119b
N124	1¼"□	31'-0"					14						14	164.70	2306	N124
N133b	1¼"□	33'-9"					38						38	176.66	6714	N133b
N136	1¼"□	34'-0"					38						38	180.64	6865	N136
N137	1¼"□	34'-3"					11						11	181.97	2002	N137
N140h	1¼"□	35'-0"					40						40	185.96	7439	N140h





METHOD OF MARKING REINFORCING BARS.

The capital letter indicates the size of the bar.
The number indicates the length of the bar.
The small letter "b" indicates bars bent.
The small letter "h" indicates standard hook on one end.
The small letters "hh" indicate standard hook on each end.
The number divided by four is the total length of bar in feet.

A = ¼" Round
B = ⅜" Round
C = ½" Round
D = ⅝" Round
E = ¾" Round
F = ⅞" Round
G = 1" Round
K = ½" Square
L = 1" Square
M = 1⅛" Square
N = 1¼" Square

GENERAL NOTES:

Bending diagrams are not to scale.
Length given for hooked bars includes bend and grip.
All hooks are standard unless otherwise shown or noted.

Date	Description	Made	Ck'd	App'd
	REVISIONS			

SIPHON

SAINT FRANCIS RIVER PROJECT
MARKED TREE, ARKANSAS
DRAINAGE DISTRICT NO. 7 - POINSETT COUNTY

BAR SCHEDULE

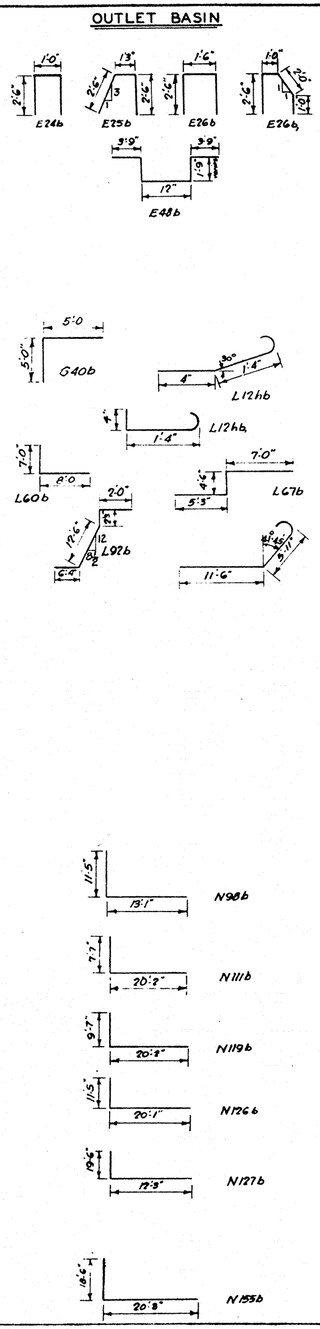
IN 13 SHEETS — SHEET NO. 9

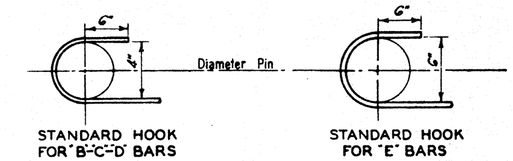
U. S. ENGINEER OFFICE, MEMPHIS, TENN. — OCTOBER 1938

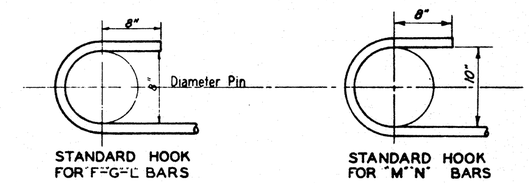
SUBMITTED: Reid F. Offield, ENGINEER
APPROVAL RECOMMENDED: James D. Hudnall, MAJOR, CORPS OF ENGINEERS, CHIEF OF GEN. ENG. & PLANNING DIV.
APPROVED: Charles L. Ford, MAJOR, CORPS OF ENGINEERS, DISTRICT ENGINEER

DRAWN H.A.M. TRACED H.A.M. CHECKED R.F.O. — SERIAL 7727 — FILE 92/109 — TO ACCOMPANY [redacted] — DATED OCTOBER 31, 1938.

BAR MARK	SIZE	LENGTH	BENDING DIAGRAM	QUANTITIES REQUIRED — SHEET NUMBER: 3 INLET BASIN	5 OUTLET BASIN	7 OP'NG HOUSE	4 INLET DETAILS	6 OUTLET DETAILS	8 PIPE FOOTINGS			MISC.	TOTAL NO. BARS	WT. EACH BAR	TOTAL WEIGHT	BAR MARK
E24b	¾"φ	6'-0"	OUTLET BASIN					162					162	9.01	1460	E24b
E25b	¾"φ	6'-3"						91					91	9.39	854	E25b
E26b	¾"φ	6'-6"						16					16	9.76	156	E26b
E26b,	¾"φ	6'-6"						44					44	9.76	429	E26b,
E26h	¾"φ	6'-6"						152					152	9.76	1484	E26h
E30	¾"φ	7'-6"						28					28	11.27	316	E30
E44	¾"φ	11'-0"			26								26	16.52	430	E44
E48b	¾"φ	12'-0"			39								39	18.02	703	E48b
E72	¾"φ	18'-0"			26								26	27.04	703	E72
E84	¾"φ	21'-0"			16								16	31.54	505	E84
E90	¾"φ	22'-6"						40					40	33.80	1352	E90
E94	¾"φ	23'-6"			12								12	35.30	424	E94
E98	¾"φ	24'-6"						152					152	36.80	5594	E98
E102	¾"φ	25'-6"			25								25	38.30	958	E102
E104	¾"φ	26'-0"						20					20	39.05	781	E104
E114	¾"φ	28'-6"						40					40	42.81	1712	E114
E128	¾"φ	32'-0"						26					26	48.06	1250	E128
E148	¾"φ	37'-0"						13					13	55.57	722	E148
E150	¾"φ	37'-6"						60					60	56.33	3380	E150
E152	¾"φ	38'-0"						20					20	57.08	1142	E152
E160	¾"φ	40'-0"			69			60					129	60.08	7750	E160
G37	1"φ	9'-3"						66					66	24.70	1630	G37
G40b	1"φ	10'-0"			74								74	26.70	1976	G40b
G120hh	1"φ	30'-0"						66					66	80.10	5287	G120hh
L12hb	1"□	3'-0"						860					860	10.20	8772	L12hb
L12hb,	1"□	3'-0"						392					392	10.20	3998	L12hb,
L60b	1"□	15'-0"						22					22	51.00	1122	L60b
L67b	1"□	16'-9"						22					22	56.95	1253	L67b
L71	1"□	17'-9"						22					22	60.35	1328	L71
L92b	1"□	23'-0"						93					93	78.20	7273	L92b
M76hb	1¼"□	19'-0"						97					97	81.76	7931	M76hb
N29	1¼"□	7'-3"						2					2	38.52	77	N29
N32h	1¼"□	8'-0"						12					12	42.50	510	N32h
N36h	1¼"□	9'-0"						97					97	47.82	4637	N36h
N39	1¼"□	9'-9"						2					2	51.81	104	N39
N40	1¼"□	10'-0"						2					2	53.13	106	N40
N54	1¼"□	13'-6"						2					2	71.73	143	N54
N58	1¼"□	14'-6"						54					54	77.04	4160	N58
N59	1¼"□	14'-9"						12					12	78.37	940	N59
N62	1¼"□	15'-6"						2					2	82.35	165	N62
N64	1¼"□	16'-0"						64					64	85.01	5441	N64
N66	1¼"□	16'-6"						12					12	87.66	1052	N66
N71	1¼"□	17'-9"						97					97	94.31	9148	N71
N73	1¼"□	18'-3"						12					12	96.96	1164	N73
N76h	1¼"□	19'-0"						66					66	100.95	6663	N76h
N78	1¼"□	19'-6"						54					54	103.60	5594	N78
N80	1¼"□	20'-0"						4					4	106.26	425	N80
N84	1¼"□	21'-0"						64					64	111.57	7141	N84
N85	1¼"□	21'-3"						12					12	112.90	1355	N85
N86	1¼"□	21'-6"						2					2	114.23	228	N86
N87	1¼"□	21'-9"						2					2	115.56	231	N87
N93	1¼"□	23'-3"						14					14	123.53	1729	N93
N98	1¼"□	24'-6"						98					98	130.17	12757	N98
N98b	1¼"□	24'-6"						2					2	130.17	260	N98b
N103	1¼"□	25'-9"						10					10	136.81	1368	N103
N104	1¼"□	26'-0"						12					12	138.14	1658	N104
N107	1¼"□	26'-9"						8					8	142.12	1137	N107
N110	1¼"□	27'-6"						2					2	146.11	292	N110
N111b	1¼"□	27'-9"						98					98	147.44	14453	N111b
N113	1¼"□	28'-3"						6					6	150.09	901	N113
N114	1¼"□	28'-6"						12					12	151.42	1817	N114
N116	1¼"□	29'-0"						92					92	154.08	14175	N116
N117	1¼"□	29'-3"						6					6	155.41	932	N117
N119b	1¼"□	29'-9"						24					24	158.06	3793	N119b
N120	1¼"□	30'-0"						119					119	159.39	18967	N120
N124	1¼"□	31'-0"						6					6	164.70	988	N124
N126b	1¼"□	31'-6"						52					52	167.36	8703	N126b
N127	1¼"□	31'-9"						24					24	168.69	4049	N127
N127b	1¼"□	31'-9"						100					100	168.69	16869	N127b
N128	1¼"□	32'-0"						54					54	170.02	9181	N128
N131	1¼"□	32'-9"						18					18	174.00	3132	N131
N134	1¼"□	33'-6"						14					14	177.98	2492	N134
N137	1¼"□	34'-3"						4					4	181.97	728	N137
N138	1¼"□	34'-6"						18					18	183.30	3299	N138
N141	1¼"□	35'-3"						12					12	187.28	2247	N141
N142	1¼"□	35'-6"						6					6	188.61	1132	N142
N144	1¼"□	36'-0"						6					6	191.27	1148	N144
N145	1¼"□	36'-3"						6					6	192.60	1156	N145
N147	1¼"□	36'-9"						4					4	195.25	781	N147
N148	1¼"□	37'-0"						15					15	196.58	2949	N148
N155b	1¼"□	38'-9"						22					22	206.88	4529	N155b
N156	1¼"□	39'-0"						14					14	207.21	2901	N156







METHOD OF MARKING REINFORCING BARS.

The capital letter indicates the size of the bar.
The number indicates the length of the bar.
The small letter "b" indicates bars bent.
The small letter "h" indicates standard hook on one end.
The small letters "hh" indicate standard hook on each end.
The number divided by four is the total length of bar in feet.

A = ¼" Round
B = ⅜" Round
C = ½" Round
D = ⅝" Round
E = ¾" Round
F = ⅞" Round
G = 1" Round
K = ½" Square
L = 1" Square
M = 1⅛" Square
N = 1¼" Square

GENERAL NOTES:

Bending diagrams are not to scale
Length given for hooked bars includes bend and grip.
All hooks are standard unless otherwise shown or noted.

Date	Description	Made	Ck'd	App'd
	REVISIONS			

SIPHON

SAINT FRANCIS RIVER PROJECT
MARKED TREE, ARKANSAS
DRAINAGE DISTRICT NO. 7 - POINSETT COUNTY

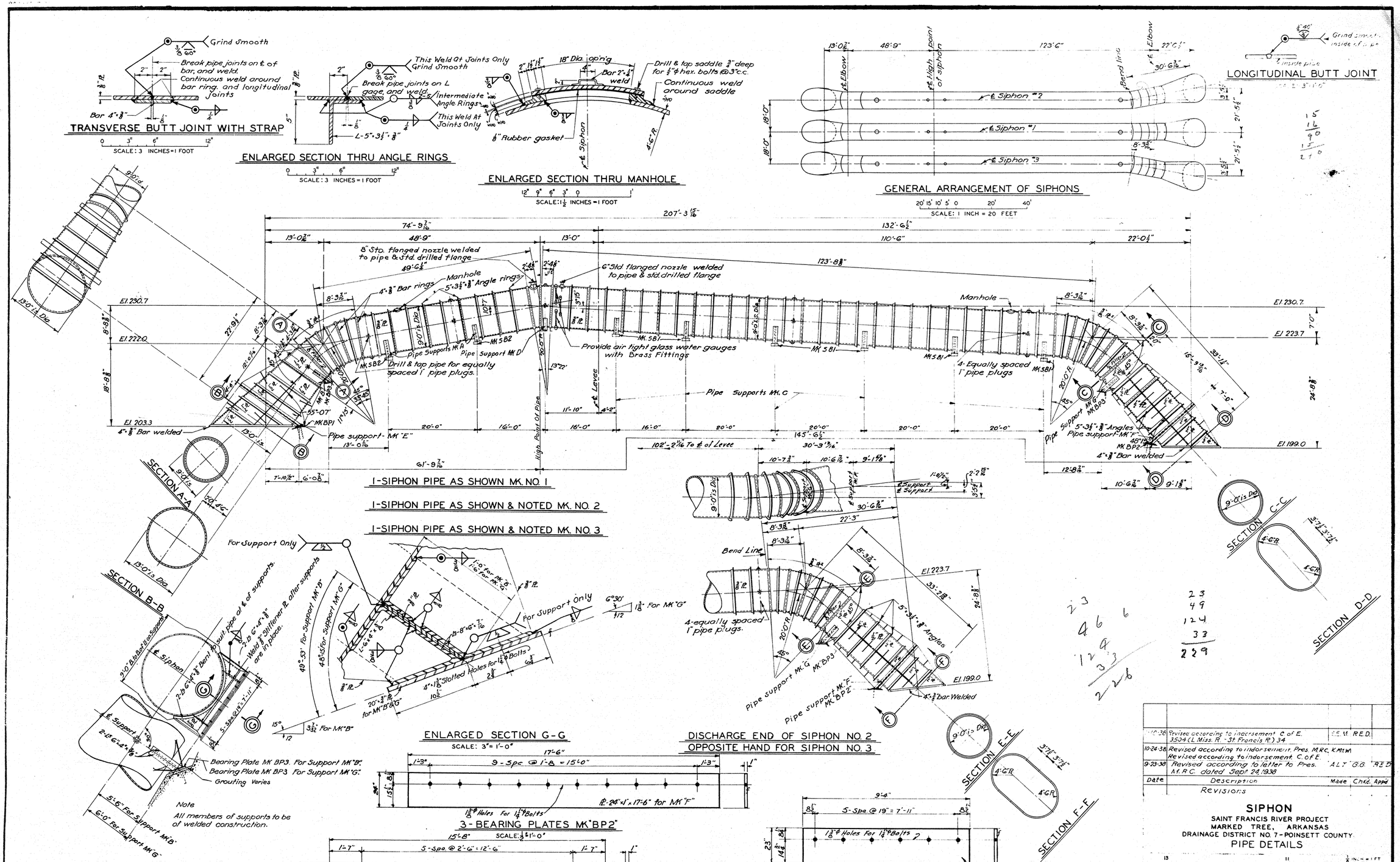
BAR SCHEDULE

IN 13 SHEETS — SHEET NO. 10

U. S. ENGINEER OFFICE, MEMPHIS, TENN. — OCTOBER 1938

SUBMITTED: Ralph E. Dissell, DESIGNER
APPROVAL RECOMMENDED: James H. Anderson, Lt. Col. Corps of Engrs., Executive Officer; Harold Nelson, Chief of Eng. Div. & Planning Div.
APPROVED: Harold Nelson, Major, Corps of Engrs., District Engineer

DRAWN: M.A.H. TRACED: M.A.H. CHECKED: R.E.D. — SERIAL 7727 — FILE 92/110 — TO ACCOMPANY SPECIFICATIONS DATED OCTOBER 31, 1938.



Date	Description	Made	Chkd.	Appd
10-30	Revised according to indorsement C. of E. 3504 (L. Miss. R. - St. Francis R.) 34	E.E.M.	R.E.D.	
10-24-38	Revised according to indorsement, Pres. M.R.C. K.M.W. Revised according to indorsement C. of E.			
9-23-38	Revised according to letter to Pres. M.R.C. dated Sept. 24, 1938	A.L.T.	G.G.	R.E.D.

Revisions

SIPHON

SAINT FRANCIS RIVER PROJECT
MARKED TREE, ARKANSAS
DRAINAGE DISTRICT NO. 7 - POINSETT COUNTY

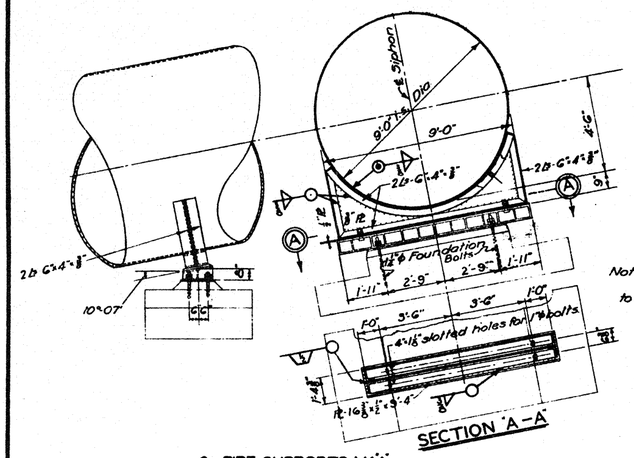
PIPE DETAILS

SCALE: ⅛ INCH = 1 FT

OCTOBER 1938

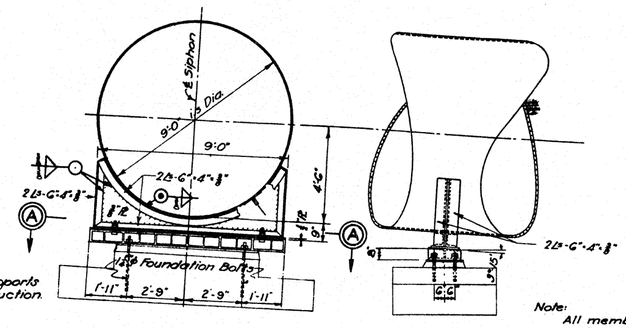
ENGINEER — MAJOR CORPS OF ENGINEERS, CHIEF OF GEN. ENG. & PLANNING DIV. — MAJOR CORPS OF ENGINEERS, DISTRICT ENGINEER

K.M.W. 7727 TO ACCOMPANY SPECIFICATIONS DATED
H.A.H. 92/111 OCTOBER 31, 1938.

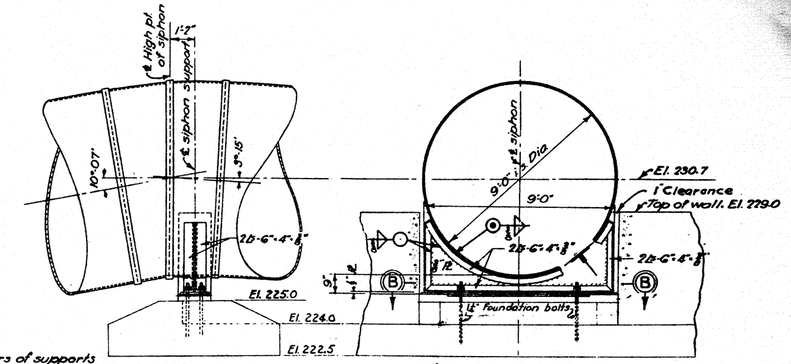


6-PIPE SUPPORTS MK "A"

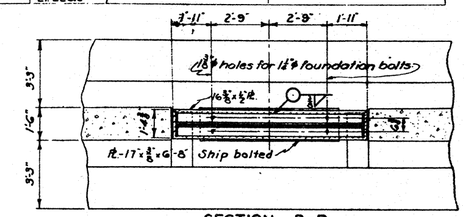
Note: All members of supports to be of welded construction.



18-PIPE SUPPORTS MK "C"

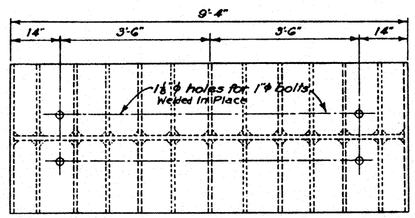


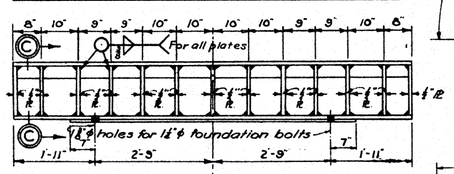
Note: All members of supports to be of welded construction or Cast Steel of equal strength.



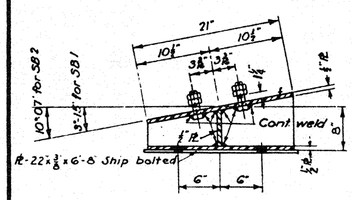
SECTION B-B

3-PIPE SUPPORTS MK "D"

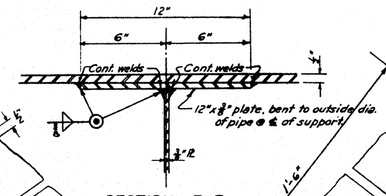




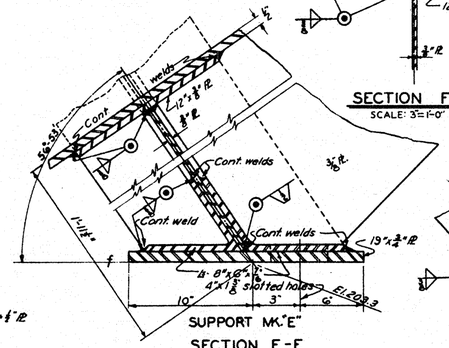
18-PIPE SUPPORT BASES-MK "SB1"
6-PIPE SUPPORT BASES-MK "SB2"



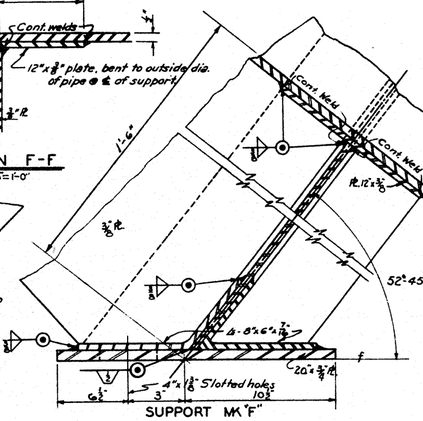
SECTION C-C



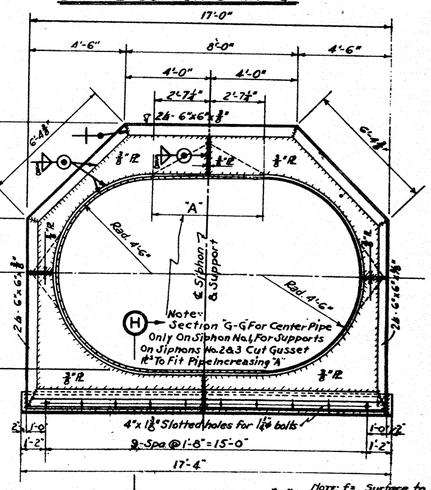
SECTION F-F
SCALE: 3"=1'-0"



SUPPORT MK "E"
SECTION E-E
SCALE: 3"=1'-0"

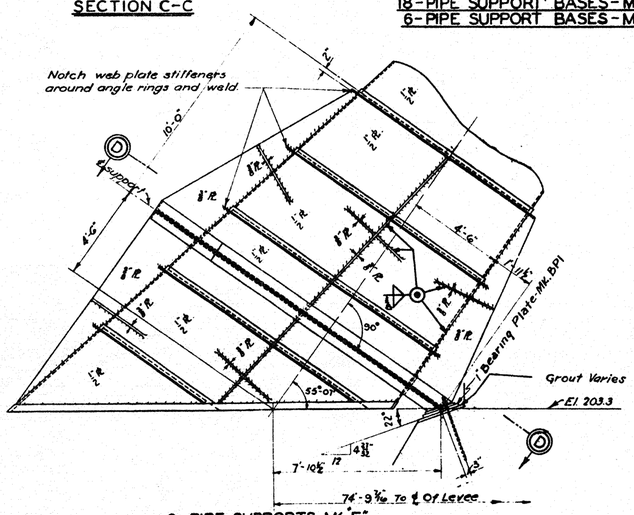


SUPPORT MK "F"
SECTION H-H
SCALE 3"=1'-0"

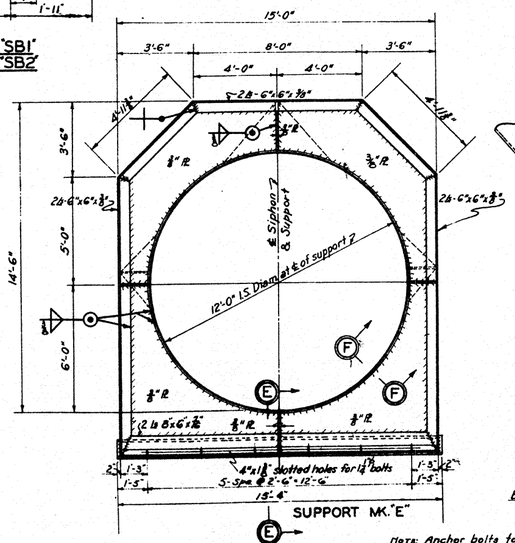


SUPPORT MK "F"
SECTION G-G

Note: f= Surface to be planed to a medium finish.

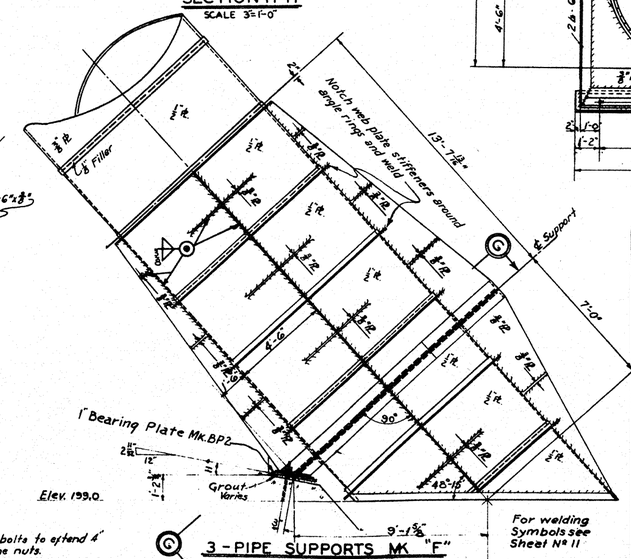


3-PIPE SUPPORTS MK "E"



SUPPORT MK "E"
SECTION D-D

Note: Anchor bolts to extend 4" above the nuts.



3-PIPE SUPPORTS MK "F"

For welding Symbols see Sheet No. 11

Date	Description	Made	Ch'kd	Appd
10-24-38	Revised according to indorsement Pres. M.R.C. Revised according to indorsement of E.	K.R.W.		
9-29-38	Revised according to letter of Pres. M.R.C. dated Sept. 26, 1938.	K.W.	G.G.	P.E.D.

REVISIONS

SIPHON

SAINT FRANCIS ~~RIVER PROJECT~~
MARKED TREE ARKANSAS
DRAINAGE DISTRICT NO. 7 POINSETT COUNTY

DETAILS OF PIPE SUPPORTS

IN 13 SHEETS — SHEET NO. 12 — SCALE: 3" = 1'-0"

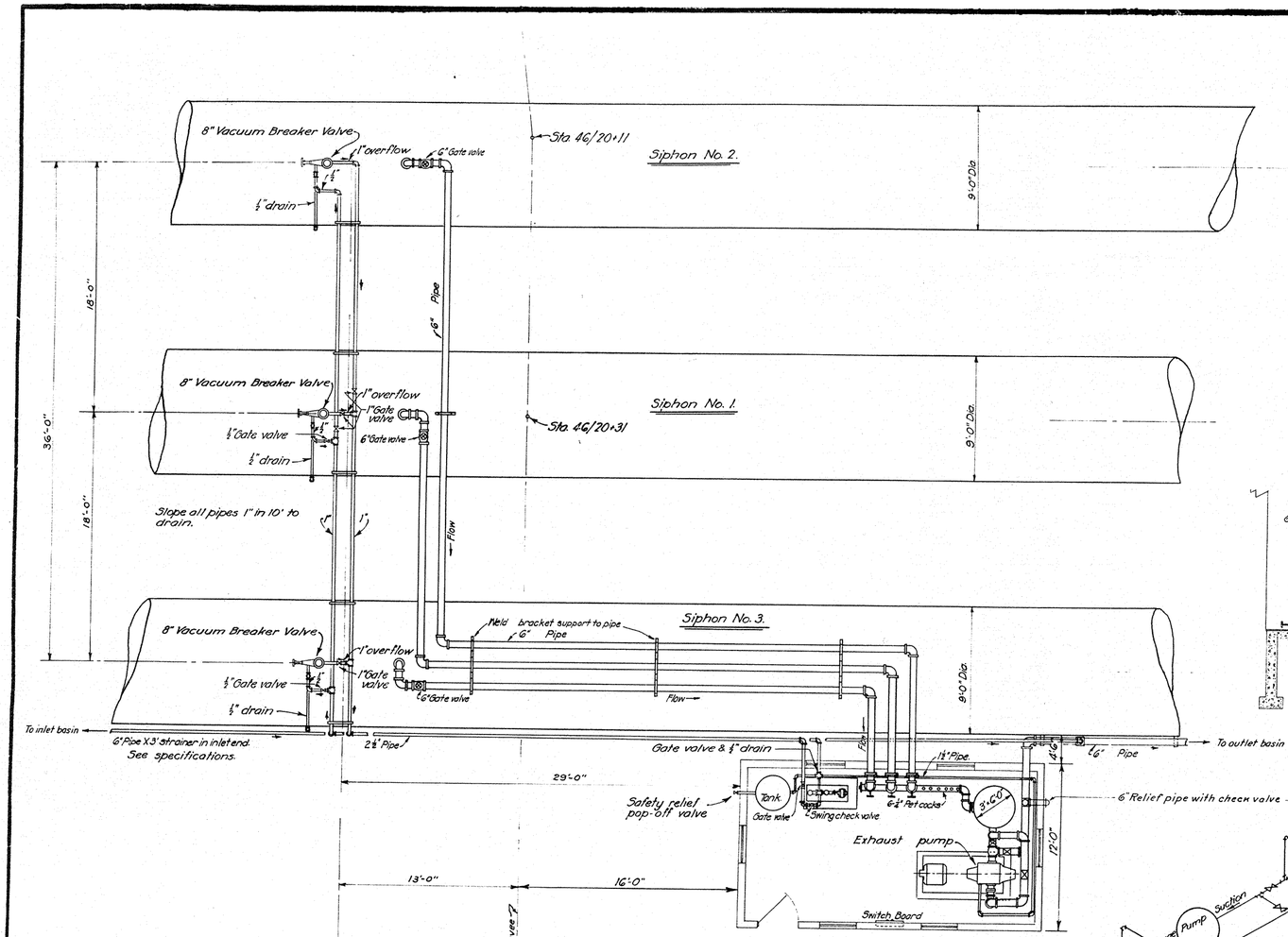
SCALE: ¼ INCH = 1 FOOT

U. S. ENGINEER OFFICE, MEMPHIS, TENN. — OCTOBER 1938

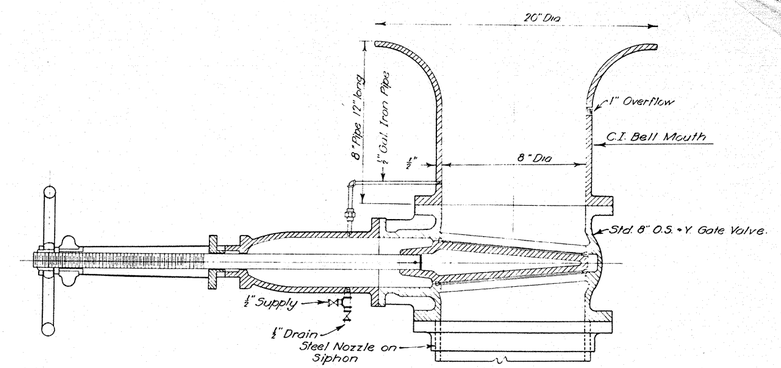
SUBMITTED: ENGINEER — APPROVAL RECOMMENDED: CHIEF OF SUB. ENG. & PLANNING BR. — APPROVED: DISTRICT ENGINEER

DRAWN: R. M. W. TRACED: M.A.H. CHECKED: R.E.G. — SERIAL 7727 — FILE 92/112

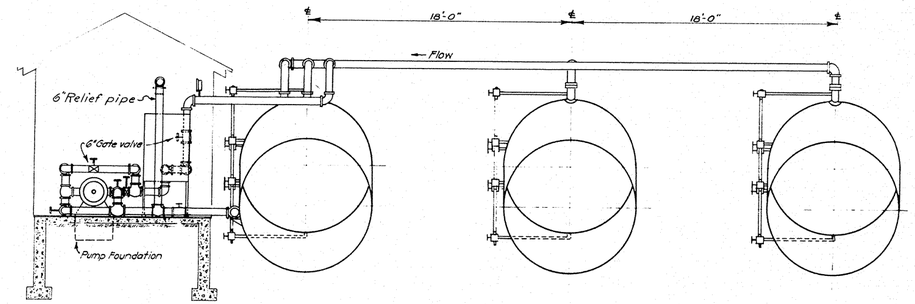
TO ACCOMPANY SPECIFICATIONS DATED OCTOBER 31, 1938.



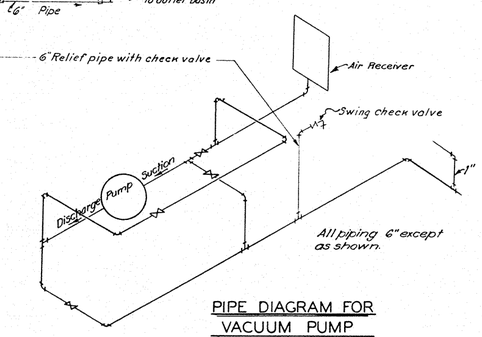
PLAN



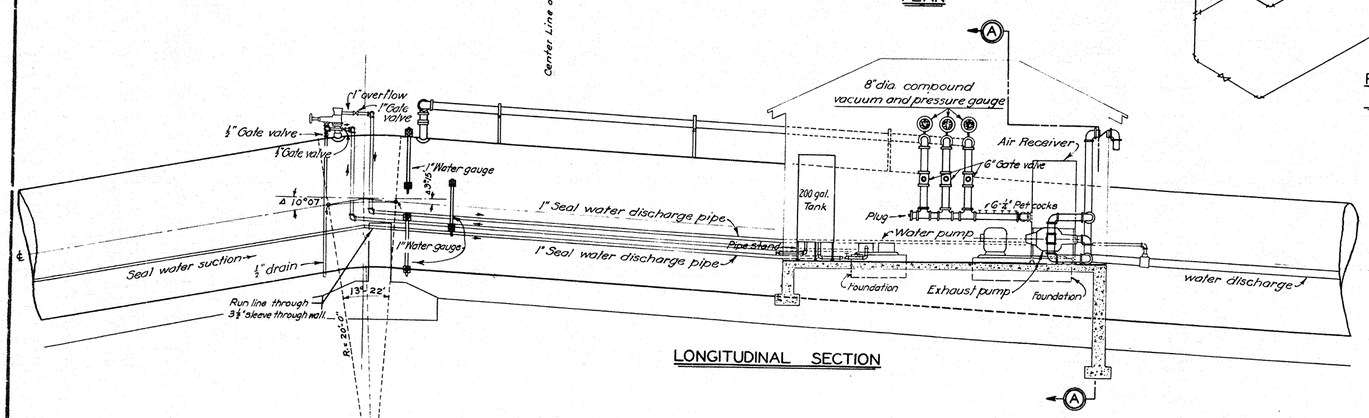
VACUUM BREAKER VALVE



SECTION A-A



PIPE DIAGRAM FOR VACUUM PUMP



LONGITUDINAL SECTION

Equipment Furnished by U.S.

Exhaust pump, with electric motor and starting switch.
Water pump, with electric motor and starting switch.

Date	Description	Made	Chk'd	Appd
1-10-38	Revised according to indorsement C. of E. 3504 (L. Miss. R.-St. Francis R.) 3-4	REM	RED.	
10-24-38	Revised according to indorsement Pres. M.R.C. h. W. R.W.		R.E.D.	
	Revised according to indorsement, C. of E.			
9-23-38	Revised according to letter to Pres. M.R.C. dated Sept. 24, 1938.	HAH	GG.	R.E.D.

REVISIONS

SIPHON

SAINT FRANCIS RIVER PROJECT
MARKED TREE, ARKANSAS
DRAINAGE DISTRICT NO. 7 - POINSETT COUNTY

EXHAUST PIPING LAYOUT

SHEET 13 OF 13 SHEETS

SCALE: ¼ INCH = 1 FOOT

U.S. ENGINEER OFFICE, MEMPHIS, TENN. OCTOBER 1938

Henry Lampert, Engineer — Major, Corps of Engineers, Chief of Div. & Asst. to Dist. Engr. — Major, Corps of Engineers, District Engineer