PLUM CREEK WATERSHED PROJECT

FLOODWATER RETARDING DAM NO. 11

DRAINAGE AREA	2,470 ACRES
TOTAL STORAGE	1,420 AC. FT.
WATER SURFACE AREA	39 ACRES
HEIGHT OF DAM	29 FEET
VOLUME OF FILL	160,630 CU.YDS.

BUILT UNDER THE WATERSHED PROTECTION
AND FLOOD PREVENTION ACT

BY

HAYS-CALDWELL-TRAVIS SOIL CONSERVATION DISTRICT

AND

PLUM CREEK CONSERVATION DISTRICT

WITH THE ASSISTANCE OF

SOIL CONSERVATION SERVICE

OF THE

U. S. DEPARTMENT OF AGRICULTURE

1961

As Built Plans
Construction Completed 4-16-62

CONSTRUCTION DRAWINGS APPROVED

Howard Matson 3 ..... 6/23/61
Date

[illegible] 6/23/61
Date

SEP 1 1961

Sheet No. 1 of 9 | Drawing No. 4-E-15,595

FENCE LEGEND

- X——X—— Existing Fences.
- RS——RS—— Fences in sediment pool area, embankment area and 40.0' beyond toe of dam, to be removed and salvaged by land owner.
- C——C—— Fences to be constructed under contract.

Emergency Spillway Diversion: 18" effective height, 3:1 side slopes, minimum base, 13'. Cost of diversion to be subsidiary to other items of work.

A minimum of 6" topsoil to be placed in Emergency Spillway and on all "Compacted Fill Areas." See the specifications.

Stream Channel within embankment area to be cleared of objectional material in accordance with "Stream Channel Cleanout" of the specifications.

SD = Stub Diversion (See Detail on Sheet No. 3.)

Fill Areas to be placed and paid for as "Compacted Fill."

Fence to be offset 20' to provide area for flowage of outside water.

Fence to be aligned a minimum distance of 20' from toe of dam to facilitate ample area for flowage of outside water.

On flowing side of D-9 Diversion, slope 12' bottom width of excavated chute to bottom of natural channel. Chute slope to be approx. 4%, 2:1 side slopes.

Sta. 1+50 on ℄ of Principal Spillway ≅ Sta. 18+00 on ℄ of Dam

Sta. 8+45 on ℄ of Emergency Spillway ≅ Sta. 32+73 on ℄ of Dam

Pump and Pump House

Cone. Monument Sta. 18+00 & Point El. 647.37

Cone. Monument Sta. 3+35 & Point El. 640.06

25.0' Berm El. 616.0

Downstream Toe

12.0' Berm El. 625.9

Upstream Toe

14' Wire Gap in 56.0 ft. of Fence

14' Wire Gap

Power line poles

3/4" Pipe

℄ of Pond Dam.

Emergency Spillway Diversion

Note: Pump, Pump House and power line poles will be removed by land owner or other local interest prior to beginning of construction.

12" pipe line and valve. To be removed by Land Owner after over burden of existing Dam is removed

Farm Pond

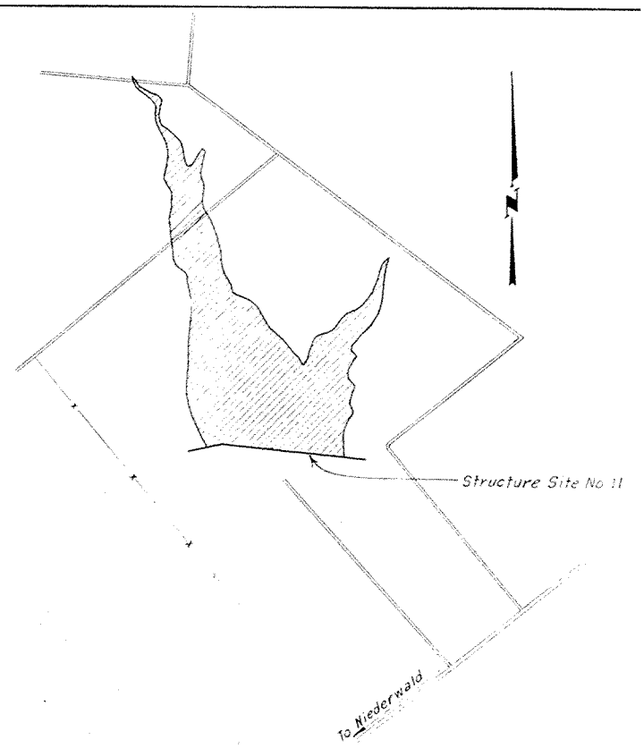
Approximate water line

PLAN OF EMBANKMENT AND SPILLWAYS

0 200 400 600 800 1000

SCALE IN FEET

EMBANKMENT CURVE DATA		EMERGENCY SPILLWAY CURVE DATA	
Δ	= 29°	Δ	= 90°
D	= 14°30'	D	= 36°
R	= 395.19'	R	= 159.32'
L	= 200.0'	L	= 250.0'
P.C.	= Sta. 27+47.53	P.C.	= Sta. 5+50
P.T.	= Sta. 29+47.53	P.T.	= Sta. 8+00

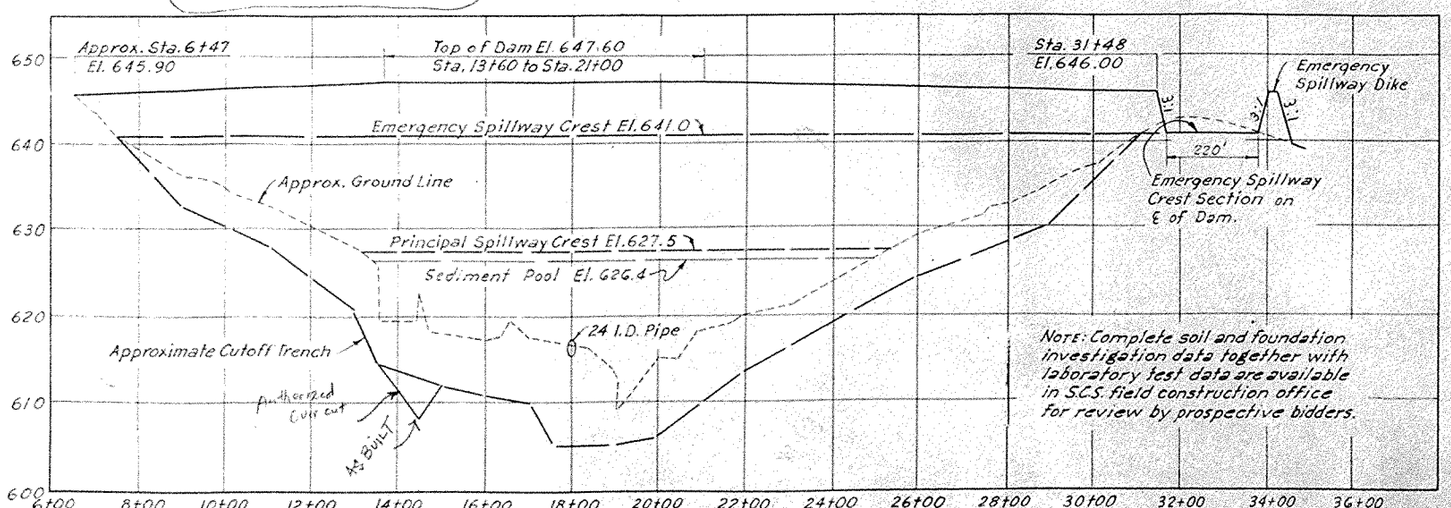


Structure Site No. 11 located approximately 5 miles northwest of Niederwald, Hays County, Texas.

VICINITY MAP

0 1320' 2640 3960 5280

SCALE IN FEET



PROFILE ON ℄ OF DAM

NOTE: Complete soil and foundation investigation data together with laboratory test data are available in S.C.S. field construction office for review by prospective bidders.

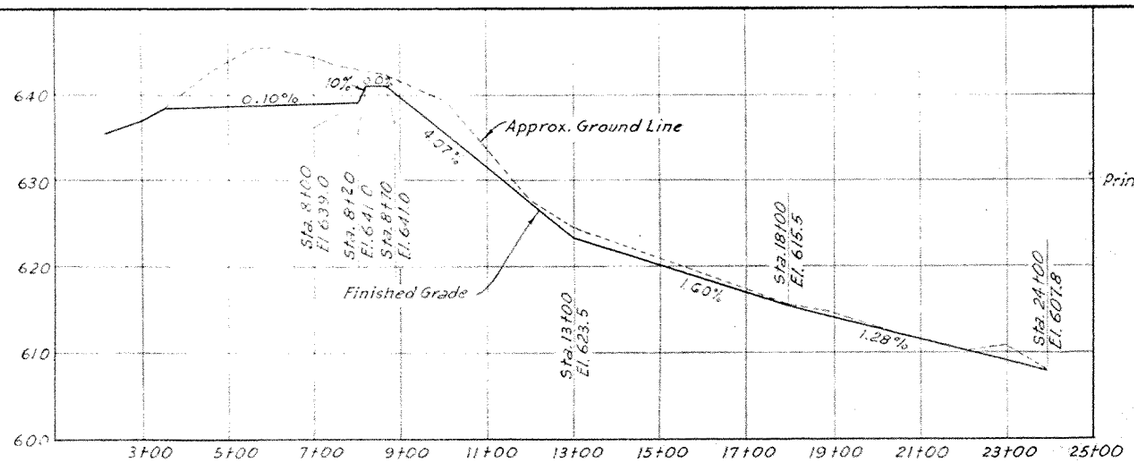
As Built Plans
Construction Completed 11-16-62

EMBANKMENT PLAN AND PROFILE
FLOODWATER RETARDING STRUCTURE SITE No. 11
PLUM CREEK WATERSHED
IN
HAYS, CALDWELL AND TRAVIS COUNTIES, TEXAS

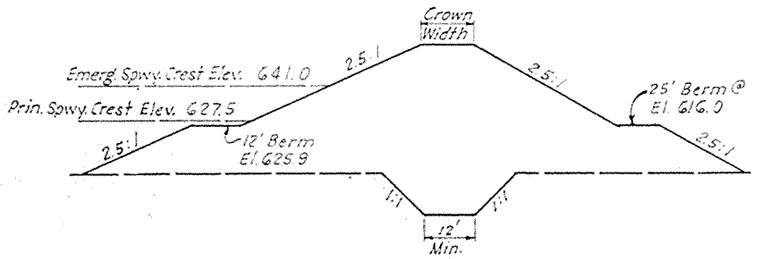
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

	Date	
Designed G.J.M.	5-61	Approved by: HEAD, ENGINEERING & WATERSHED PLANNING UNIT, FORT WORTH, TEXAS
Drawn G.J.M. & M.G.C.	5-61	STATE CONSERVATION ENGINEER, S.C.S. TEMPLE, TEXAS
Traced M.G.C.	5-61	Sheet No. 2 of 9
Checked G.J.M. & G.W.T.	5-61	Drawing No. 4-E-15,595

SEP 1 1961



PROFILE ON ℄ OF EMERGENCY SPILLWAY



TYPICAL SECTION

TABLE OF MATERIALS						
LAB TEST		COMPACTION REQUIREMENTS				Lab. Curve
Modified		Min. Dry Density	Moisture Range			
Max Dry Den	Opt'm Moist	Lbs Per Cu Ft.	Percent			
			From	To		No
127.1	9.7	115	9	Up		2
120.2	12.8	108	12	Up		4
110.5	17.0	100	16	Up		1
114.5	15.5	103	15	Up		5
Like Curve No. 1						3
Like Curve No. 5						6
Like Curve No. 2						7

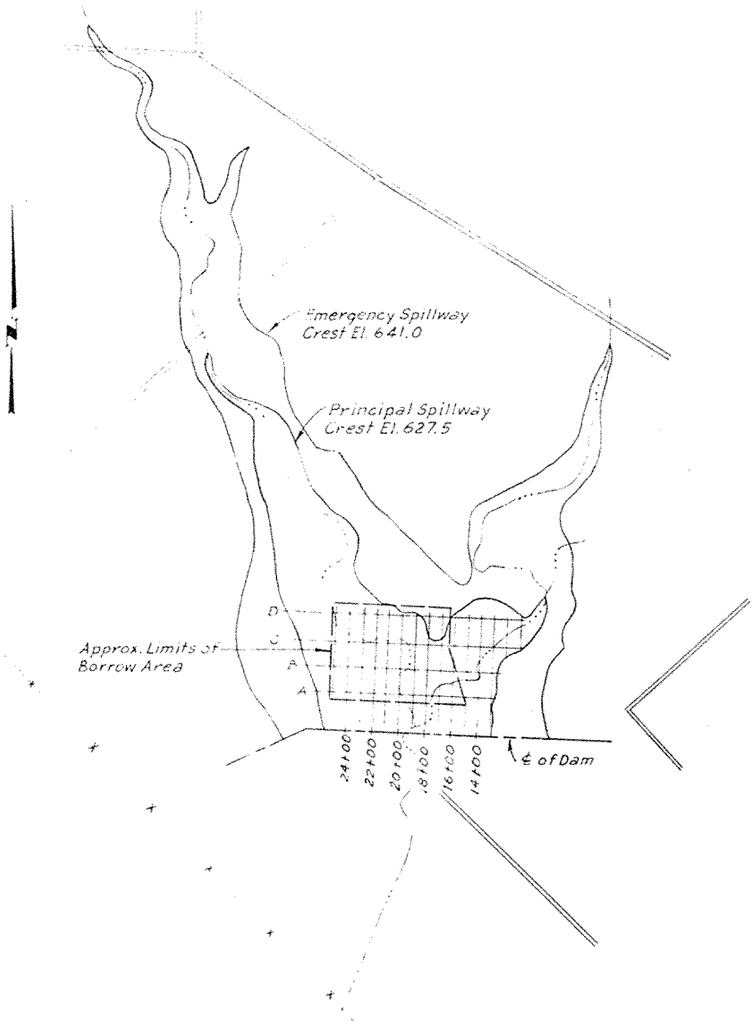
NOTES:

No formal zoning of the embankment is required. The Engineer will exercise a selective placement of the materials to provide for the more plastic materials like those represented by laboratory curves Nos 1 and 5 to be placed in the cutoff trench and center core portion of the dam. The gravelly materials represented by laboratory curves Nos 2 and 4 will be selected for use in the outer shell portions of the dam. Minimum dry densities and moisture limits will be shown in Table of Materials.

If the material being placed in the fill contains 1¼ inch or larger material in amounts differing from the percentages found in the laboratory sample, the minimum dry density and moisture requirement will be corrected for this variation.

No upward limits of moisture placement are established. Upward limits of placement moisture will be determined by the Engineer during construction, on the basis of the workability aspects of the materials and densities being reached.

EMBANKMENT DATA



GENERAL PLAN OF RESERVOIR

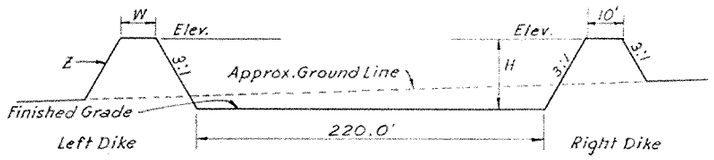
0 660 1320 1980 2640

SCALE IN FEET

ELEVATION	SURFACE ACRES	STORAGE	
		ACRE FEET	INCHES
612.	0	0	0
616.	5	10	.05
620.	12	44	.21
624.	26.7	121	.59
626.4	39.	200	.97
627.5	47.	247	1.20
628.	49.4	271	1.32
632.	73.	516	2.51
636.	95.	852	4.14
640.	124.	1290	6.27
641.	136.	1420	6.90
644.	166.	1873	9.10
648.	212.	2629	12.77
652.	253.6	3560	17.30
656.	314.4	4696	22.81

Top of Dam (Effective) Elev.	645.90
Emergency Spillway Crest Elev.	641.0
Principal Spillway Crest Elev.	627.5
Sediment Pool Elev. @ Port Crest	626.4
Drainage Area, Acres	2470
Sediment Storage, Acre Feet	288
Floodwater Storage, Acre Feet	1132
Max. Emergency Spillway Cap., c.f.s.	5816

Material forming dikes to be placed and paid as "Compacted Fill."



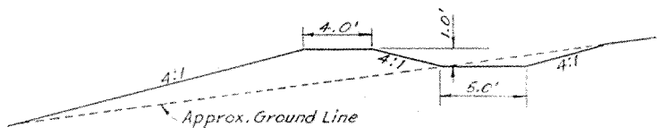
Left Dike Note:

From Sta. 8+00 to Sta. 8+70, El. 646.00, W=14.0', Z=2.5:1. Transition from Sta. 8+70 to Sta. 9+00. Sta. 9+00 to Sta. 12+50, W=10.0', Z=3:1, H=3.0' above grade. From Sta. 12+50 grade dike uniformly to Sta. 14+00. From Sta. 14+00 to Sta. 17+50, W=10.0', Z=3:1, H=3.0' above grade. From Sta 17+50 grade dike uniformly to H=3.5' @ Sta. 19+00. From Sta 19+00 to Sta 24+00, W=10.0', Z=3:1, H=3.5' above grade.

Right Dike Note:

From approx. Sta. 6+50 to Sta. 8+70, El. 646.00. Transition from Sta. 8+70 to Sta. 9+00. Sta. 9+00 to Sta. 12+50, H=3.0' above grade. From Sta. 12+50 grade dike uniformly to Sta. 14+00 From Sta. 14+00 to Sta. 17+50, H=3.0' above grade. From Sta 17+50 grade dike uniformly to H=3.5' @ Sta 19+00 From Sta 19+00 to Sta 24+00, H=3.5' above grade.

TYPICAL SECTION — EMERGENCY SPILLWAY



TYPICAL SECTION

STUB DIVERSIONS NO. 1 TO NO. 8

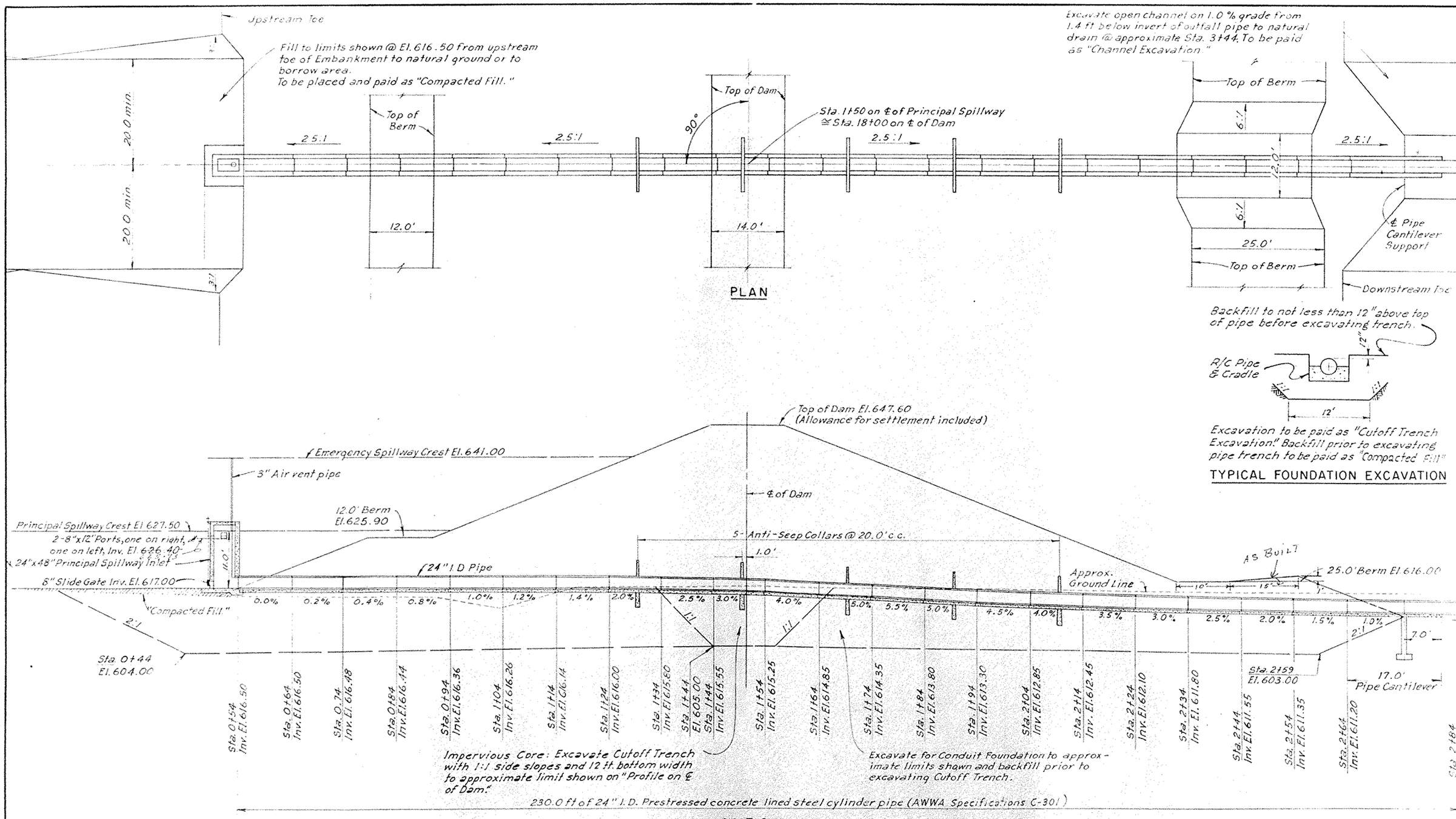
Stub diversions will be constructed at the approximate locations shown on the Plan of Embankment and Spillways. Minimum section will be as shown above. Grade will be established by the Project Engineer. Stub diversions to be built as "semi-compacted fill" and paid by the linear foot.

As Built Plan
Construction Completed 4-16-62

GENERAL PLAN AND PROFILE
FLOODWATER RETARDING STRUCTURE SITE No. 11
PLUM CREEK WATERSHED
IN
HAYS, CALDWELL AND TRAVIS COUNTIES, TEXAS

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

	Date	
Designed G.J.M.	5-61	Approved by: ... AREA ENGINEER, U.S. WATERSHED OPERATIONS - FORT WORTH, TEXAS
Drawn G.J.M. & M.G.C.	5-61	... STATE CONSERVATION ENGINEER - TEMPLE, TEXAS
Traced M.G.C.	5-61	Sheet No. 3 of 8
Checked G.J.M. & G.W.T.	5-61	Drawing No. 4-E-15,595



SECTION
PRINCIPAL SPILLWAY

As Built Plans
Construction Completed 11-16-62

PRINCIPAL SPILLWAY — PLAN AND SECTION
FLOODWATER RETARDING STRUCTURE SITE No. 11
PLUM CREEK WATERSHED
IN
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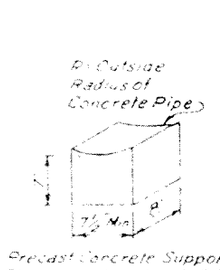
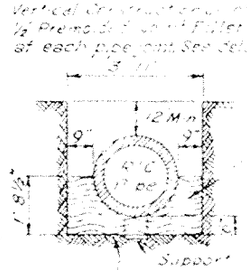
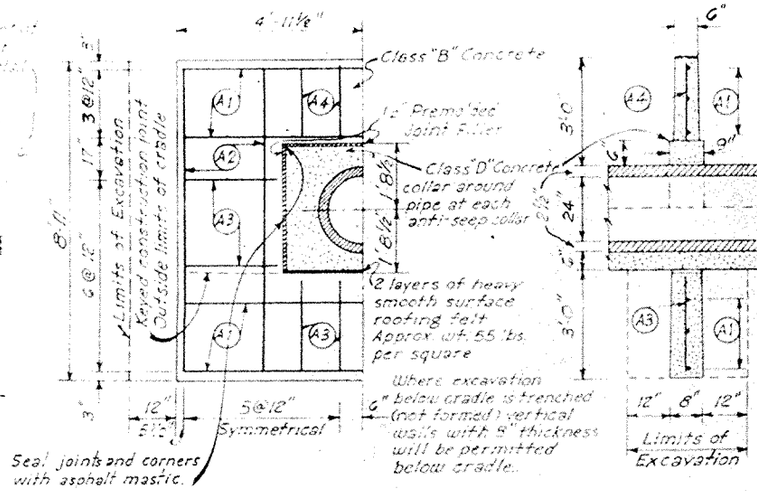
SEP 1 1961



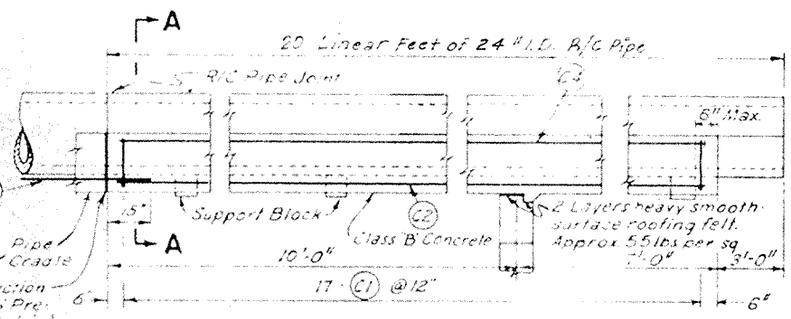
SUPPORT BLOCK



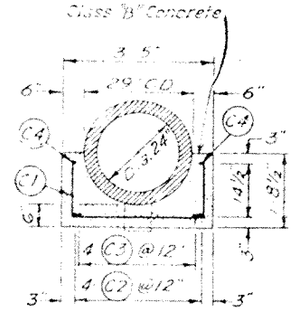
CRADLE & TRENCH



ANTI-SEEP COLLAR

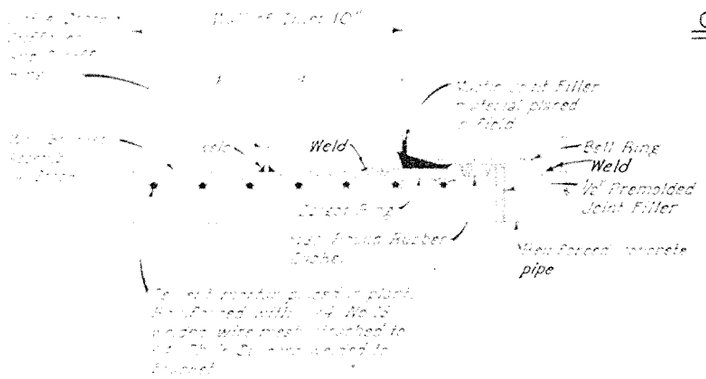


PIPE CANTILEVER

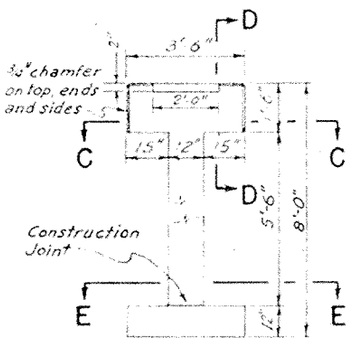


SECTION A-A

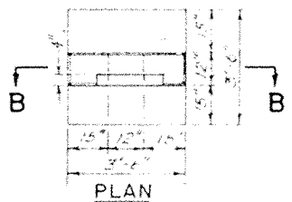
CONCRETE PIPE PLACEMENT DETAILS



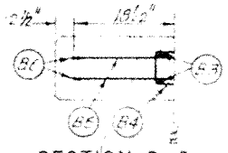
INLET CONNECTION



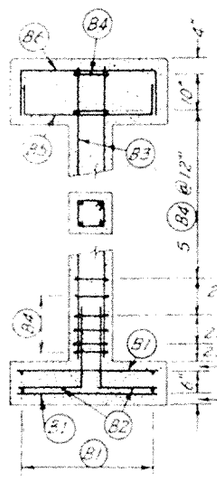
ELEVATION



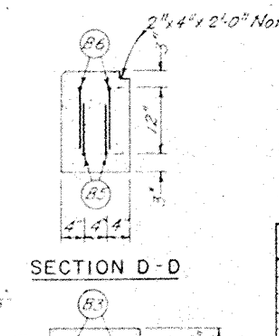
PLAN



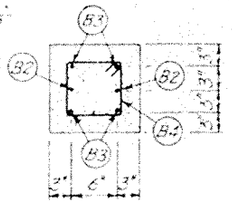
SECTION C-C



SECTION B-B



SECTION D-D



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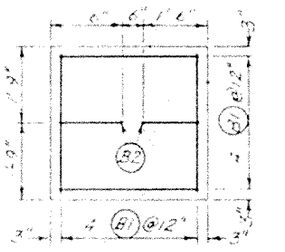
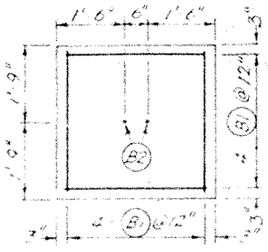
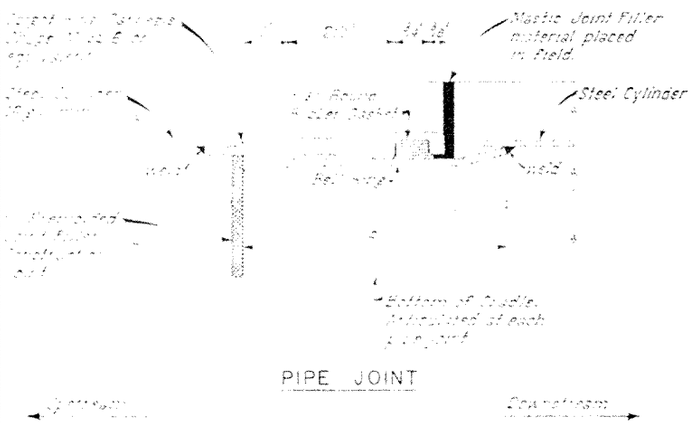


BASE BOTTOM STEEL



BASE TOP STEEL

PIPE CANTILEVER SUPPORT



PIPE JOINT

PIPE JOINT DETAILS

FOR TYPICAL BAR TYPES REFER TO ACI STANDARD 315-48

Bar No.	Location	Qty	Lgth	Total Length	Size	Type	A	B	C	D	E	F	G	H	J	O
A1	Anti-Seep Collar	6	9-3	55-6	4	Str.										
A2	" " "	6	6-6	51-0	4											
A3	" " "	10	2-8	26-8	4											
A4	" " "	4	2-3	9-0	4											
Total Steel in One Anti-Seep Collar (Size 4) 142'-2" = 94.97 lbs.																
Total Class "B" Concrete in One Anti-Seep Collar = 1.62 cu yds																
B1	Cantilever Support	16	3-0	48-0	4	Str.										
B2	"	2	3-9	7-6	6	2	3-6	1-3								
B3	"	4	6-9	27-6	6	Str.										
B4	"	11	3-2	34-10	3	9	0-4	2-2	0 7½	0 7½	0 7½		0-4			
B5	"	2	4-5	8-10	4	2	0-9	2-4					0-9			
B6	"	2	5-1	10-2	6	2	1-0	3-1					1-0			
Total Steel in Pipe Cantilever Support Size #3 34'-10" = 13.10 lbs.																
Total Steel in Pipe Cantilever Support Size #4 56'-10" = 37.96 lbs.																
Total Steel in Pipe Cantilever Support Size #6 44'-8" = 67.09 lbs.																
Total Steel = 118.15 lbs.																
Total Class "B" Concrete in Pipe Cantilever Support = 0.85 Cu. Yds.																
C1	Pipe Cantilever	17	6-5	112-1	4	S10			3	0 11½	4					
C2	"	4	16-6	66-0	4	Str.										
C3	"	4	5-0	20-0	4	Str.										
C4	"	2	16-6	33-0	9	Str.										
Total Steel in Pipe Cantilever (Size # 4 = 153.0 lbs.																
Total Steel in Pipe Cantilever (Size # 9 = 33.0 = 1 lbs.																
Total Steel = lbs.																
Total Class "B" Concrete in Pipe Cantilever: 2.23 cu yds																

Class 'D' Concrete in Pipe Cradle = 34.23 Cu. Yds.
Class 'D' Concrete in Anti-Seep Collars = 0.60 " " } Total Class 'D' = 34.83 Cu Yds

Note
Premolded Joint Filler material for construction joints shall conform to either ASTM Spec. D-545-60T, Type I, II or III or ASTM Spec. D994, except that joint filler material conforming to ASTM Spec. D1751-61T shall be used to form the construction joints in the concrete cradle under the principal spillway conduit.

Note
Pipe supplied will be manufactured in accordance with AWWA Specification C-301 and be prestressed concrete lined steel cylinder pipe, having a 'D'-load capacity of not less than 3000 lbs. per linear foot at the 0.001" crack and an internal pressure head capacity equal to or greater than 50 feet.

As Built Plans
Construction Completed 11-16-62

PIPE DETAILS
FLOODWATER RETARDING STRUCTURE SITE No. 11
PLUM CREEK WATERSHED
IN
HAYS, CALDWELL AND TRAVIS COUNTIES, TEXAS

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

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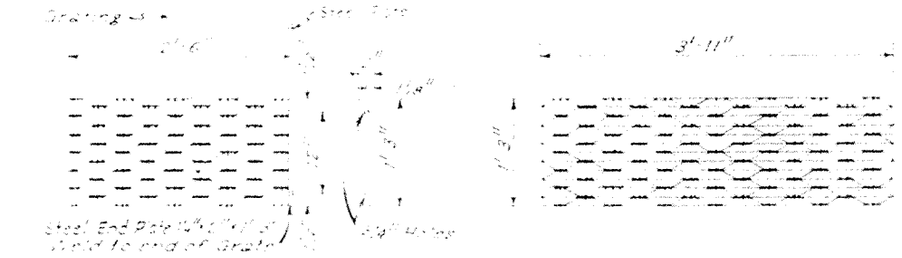
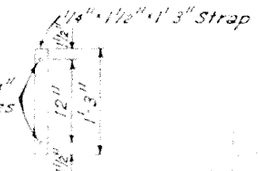
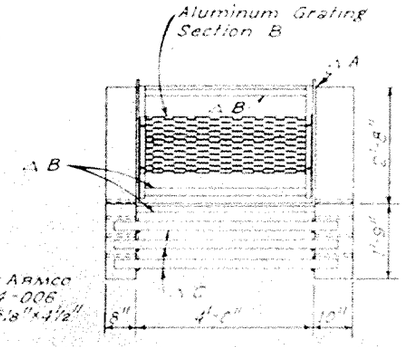
Approved by ... STATE CONSERVATION ENGINEER
TEMPLE, TEXAS
Sheet No. 5 of 9 sheets
Drawing No. 4-E-15,595

SEP 1 1961 .12 - & 24"



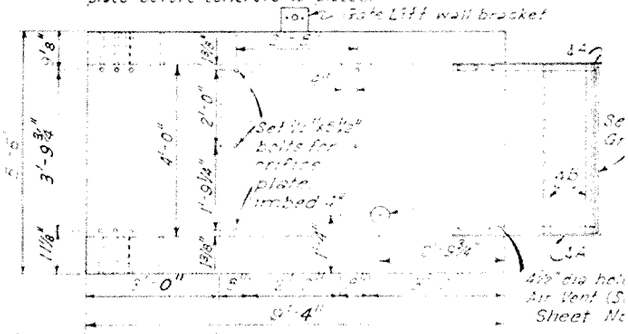


STRAP A
4 Required



SIDE VIEW
DEBRIS GUARD

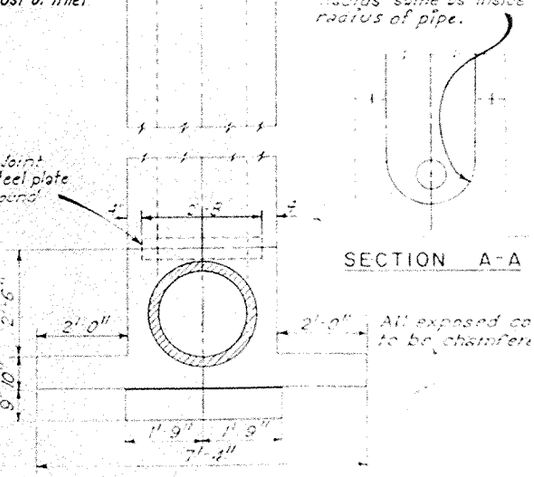
Note: SA, SC, and aluminum Grating to be set prior to inlet with 5/8" ø bolts attached through 3/4 galvanized pipe sleeves. Sleeves are to be in place before concrete is placed.



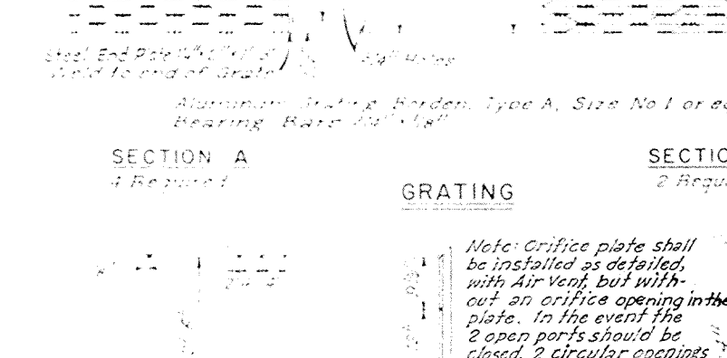
SECTION

TOP VIEW

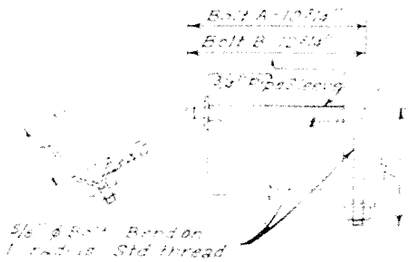
NOTE:
Manhole ring and cover not a bid item; to be included in cost of inlet



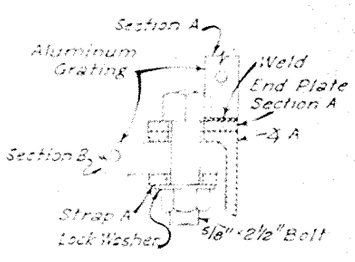
SECTIONAL ELEVATION



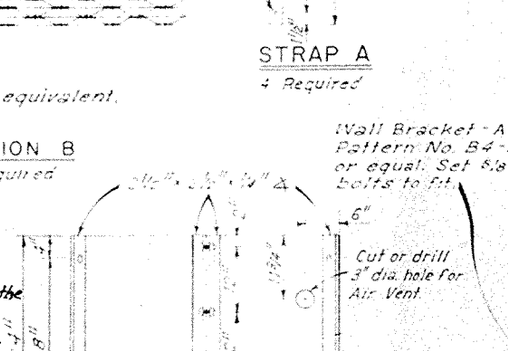
ANGLE DETAIL
Holes may be drilled or punched



DETAIL A
Bolt A - 6 Required
Bolt B - 6 Required



DETAIL B
Note Bolt grating to A A before welding A B to frame



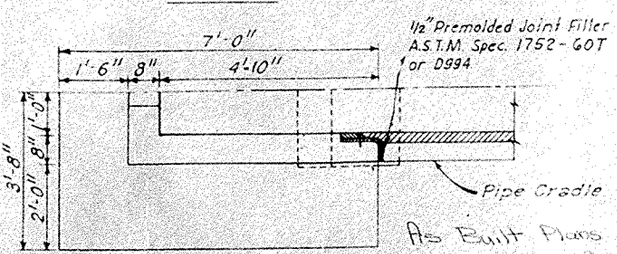
ORIFICE PLATE DETAIL

Schedule of Quantities for Orifice Plate		
Quantity	Item	Description
4	Angles	2 1/2" x 2 1/2" x 1/4" x 5'-4" Punch & weld
2	Plates	1/4" x 1'-11 13/16" x 3'-4"
6	Bolts w/nuts	1/2" x 5 1/2" Machine (Galv.)
4	Bolts w/nuts	1/2" x 11 1/2" Machine (Galv.)

8" Dia. Slide Gate, bronze mounted, spigot back, Armco 50-10c or equivalent, with stem, stem guides and handwheel lift Type H-10, 7/8" Stem Dia.

Schedule of Quantities for Trash Guard		
Quantity	Item	Description
4	A A	2"x2"x1/4"x9'-6" Cut, weld & punch
10	A B	2"x2"x1/4"x4'-0" Plain
6	A C	2"x2"x1/4"x5'-0" Punch as shown
4	Strap A	1/4"x1 1/2"x1'-3" Punch as shown
4	Grating Sec. A	1'-9"x2'-6" As detailed
2	Grating Sec. B	1'-5"x3'-11" As detailed
6	Bolts, A w/nuts	5/8" As detailed
6	Bolts, B w/nuts	5/8" As detailed
8	Bolts	5/8"x2 1/2" Machine (galv.)
22	Bolts	5/8"x9 1/2" Machine (galv.)
10	Bolts	5/8"x11 1/2" Machine (galv.)
10	Lock Washers	1/2"
40	Lock Washers	5/8"
4	Flat Washers	1/2"
56	Flat Washers	5/8"
28	Pipe Sleeves	3/4"x8" (Galv.)
16	Pipe Sleeves	3/4"x10" (Galv.)

All pipe sleeves, nuts, bolts and washers to be galvanized unless othewise specified.



HALF PLAN - BASE

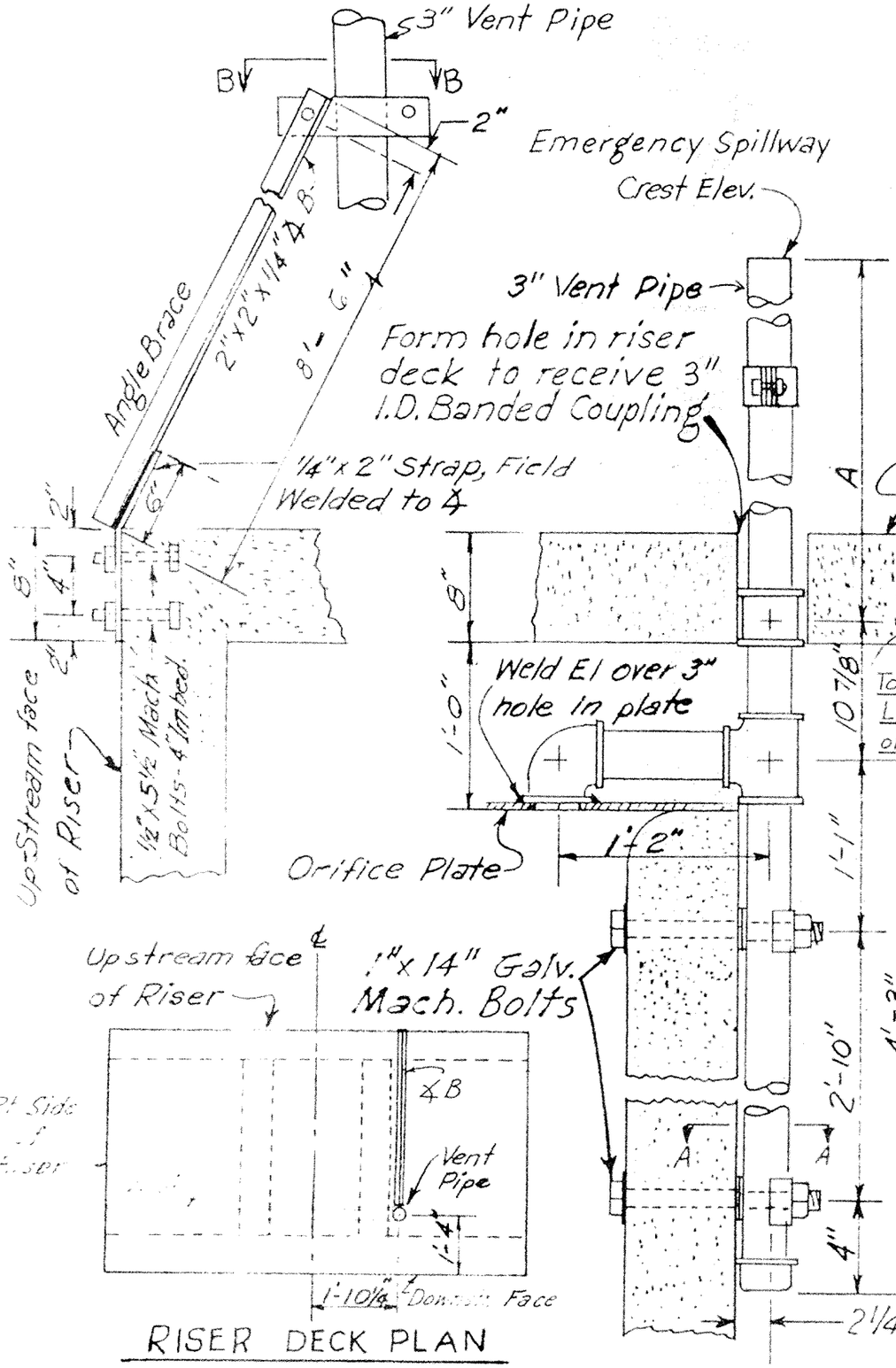
As Built Plans
Construction Completed 4-1962

PRINCIPAL SPILLWAY — INLET
FLOODWATER RETARDING STRUCTURE SITE No.
PLUM CREEK WATERSHED
IN
HAYS, CALDWELL AND TRAVIS COUNTIES, TEXA

U. S. DEPARTMENT OF AGRICULT
SOIL CONSERVATION SERVICE

Designed G.J.M.	5-61	Approved by:	
Drawn G.J.M. & M.G.C.	5-61	STATE CONSERVATION ENGINEER	
Traced M.G.C.	5-61	TEMPLE, TEXAS	
Checked G.J.M. & G.W.T.	5-61	No. 6 of 9	4-E-15, 5

SEP 1



NOTES

1. Not less than one inch of thread engagement on Tee and Sleeve fittings. Pipe shall be 3" Galv. standard weight with 150 Pound Banded fittings.
2. All bolts to be galvanized. Use lock washers between nut and steel and flat washers on concrete.
3. Straps and angle braces to be painted in accordance with Construction Materials Spec. 121-GOT.
4. Both Strap Clamps are the same for bolting ∠s A & B to the 3" Vent Pipe.

As Built Plans
Construction completed 11-16-62

AIR VENT DETAIL FOR 2'x4' RECTANGULAR INLET

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed	M.P.F.	9-60	Approved by
Drawn	M.P.F.	9-60	
Traced	M.P.F.	9-60	Sheet No. 7 of 9
Checked	M.P.F.	9-60	Drawing No. 4-E-15,595

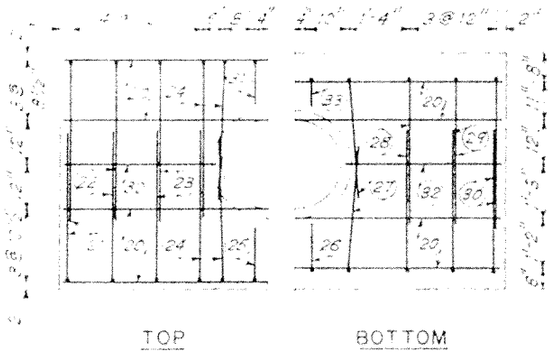
SEP 1 1961

FOR TYPICAL BAR TYPES REFER TO A.C.I. STANDARDS 315-48

No.	Qty.	Lgth.	Total Lgth.	Size	Type	A	B	C	D	G	J	O
1	5	5-0	25-0	5	See Detail							
2	9	6-10	61-6	5	Str.							
3	2	3-2	6-4	5	Str.							
4	9	7-0	63-0	5	Str.							
5	6	5-6	33-0	5	2	1-6	4-0					
6	14	6-0	84-0	5	2	2-0	4-0					
7	4	8-9	35-0	5	2	4-9	4-0					
8	10	6-0	60-0	5	2	2-0	4-0					
9	6	6-10	41-0	5	Str.							
10	2	7-0	14-0	5	Str.							
11	8	5-9	54-0	5	2	2-0	4-9					
13	2	7-6	60-0	5	2	2-4	5-2					
16	16	8-4	133-4	4	Str.							
17	20	9-4	186-8	4	Str.							

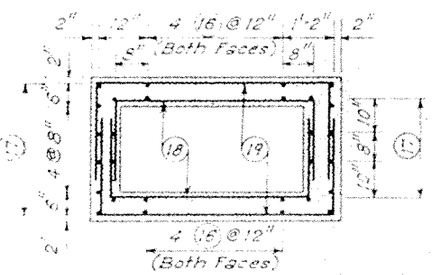
No.	Qty.	Lgth.	Total Lgth.	Size	Type	A	B	C	D	G
18	18	8-1	145-6	4	2	1-10	4-5			
19	18	9-6	171-0	4	2	2-2	5-2			
20	28	9-0	198-0	4	Str.					
21	4	5-7	22-4	4	2	2-4	3-3			
22	4	6-3	25-0	4	2	3-0	3-3			
23	4	6-10	27-4	4	2	3-7	3-3			
24	8	4-5	35-4	4	2	1-2	3-3			
25	2	2-11	5-10	4	2	1-2	1-9			
26	2	2-7	5-2	4	2	1-2	1-5			
27	4	4-0	16-0	4	2	1-2	2-10			
28	4	6-1	24-4	4	2	3-3	2-10			
29	4	5-6	22-0	4	2	2-8	2-10			
30	4	4-10	19-4	4	2	2-0	2-10			
31	2	2-7	5-2	4	2	1-2	1-5			
32	4	3-6	14-0	4	Str.					
33	2	2-2	4-4	4	2	1-2	1-0			
34	8	4-0	32-0	4	Str.					

Total Size 4 Steel in Prin Spwy Inlet = 1092 Lbs = 7.
Total Size 5 Steel " " " " = 536 Lbs = 5.
Total Steel in Prin Spwy. Inlet 128
Total Class "B" Conc in Prin. Spwy. Inlet = 8.2

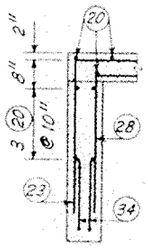


PLAN

ANTI-VORTEX DECK

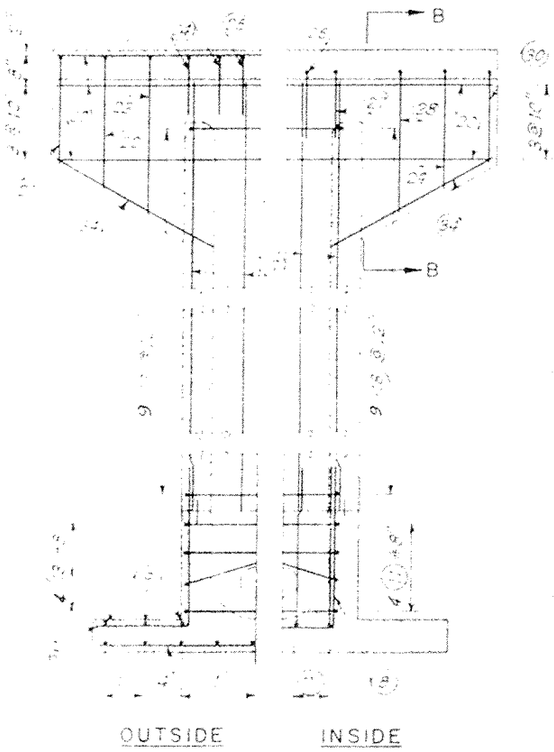


SECTION A-A



SECTION B-B

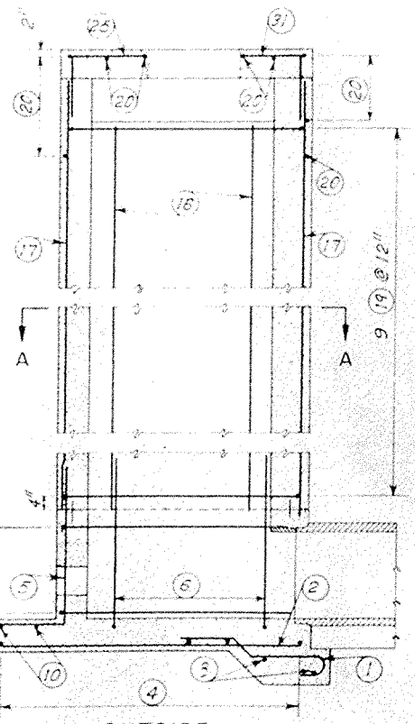
Note: Shift bars 16, 18 & 19 to clear open ports. See Sheet No. 6



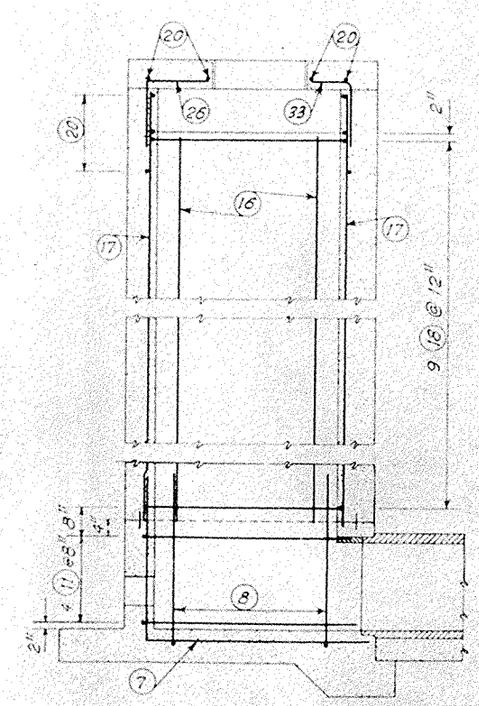
HALF SECTIONS

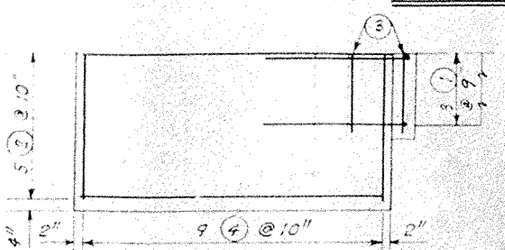
(UPSTREAM)

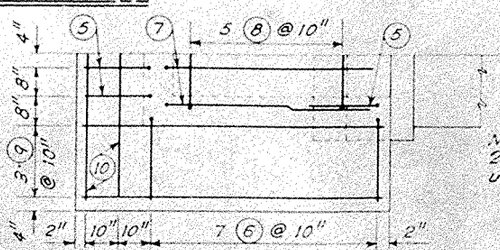
DETAIL BAR NO. 1



SECTION ALONG ℄



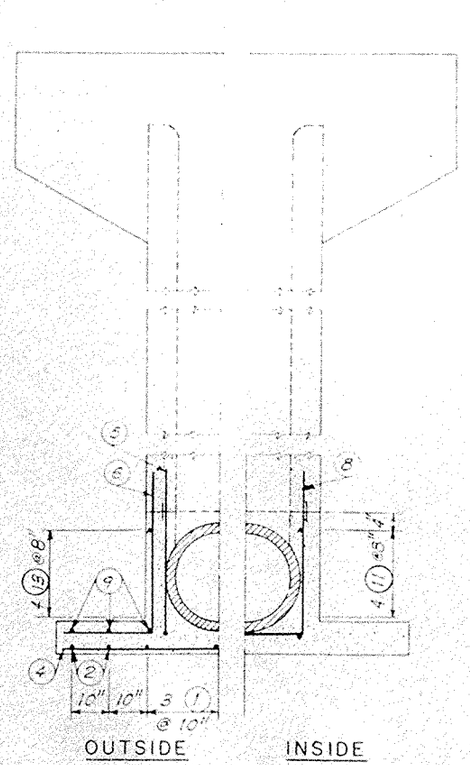




FOUNDATION SLAB

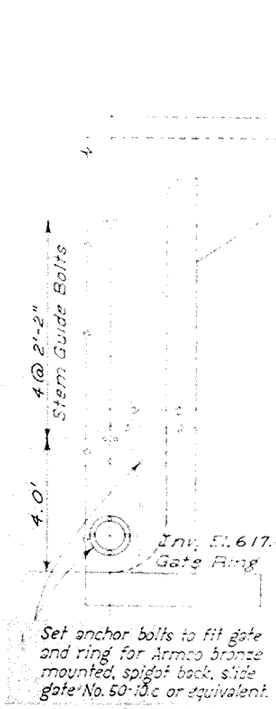
Note: All steel to have a minimum of 2" cover from exposed surfaces, unless otherwise specified.

As Built Plans
Construction Completed 4-16-62



HALF SECTIONS

(DOWNSTREAM)



Set anchor bolts to fit gate and ring for Armco bronze mounted, spigot back, slide gate No. 50-10c or equivalent.

SLIDE GATE

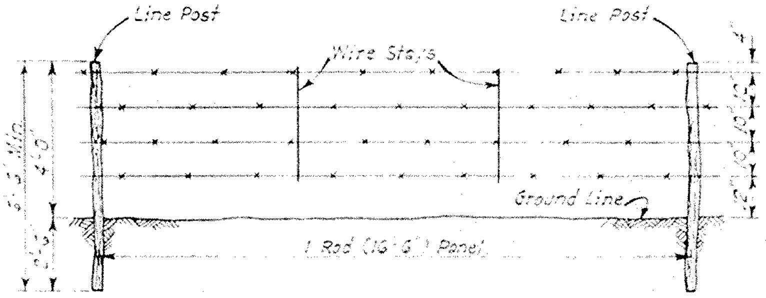
STEEL PLACEMENT - PRINCIPAL SPILLWAY
FLOODWATER RETARDING STRUCTURE SITE No.
PLUM CREEK WATERSHED
IN
HAYS, CALDWELL AND TRAVIS COUNTIES, TEXAS

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

		Date	
Designed	G.J.M.	5-61	Approved by HEAD ENGINEERING & RESEARCH BR. FORT WORTH, TEXAS
Drawn	G.J.M. & M.G.C.	5-61	STATE CONSERVATION ENGINEER'S OFFICE TEMPLE, TEXAS
Traced	M.G.C.	5-61	Sheet No. 8 of 9 — Drawing No. 4-E-15,5
Checked	G.J.M. & G.W.T.	5-61	

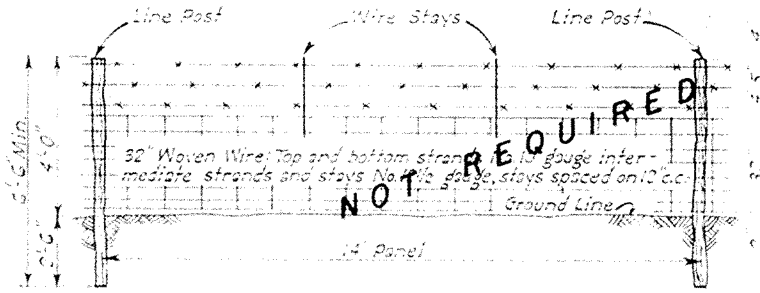
SEP 1 1961

Note: Wire stays to be 10 ga.(min. size), galv. two strand spiral, twist-on type. Length to extend from top fence strand to 3" below bottom fence strand for barbed wire fences and from top strand to 3" below the second strand of the woven wire for woven wire fences. Wire stays to be spaced equally, two stays per line post panel. Stays to be twisted firmly against top strand

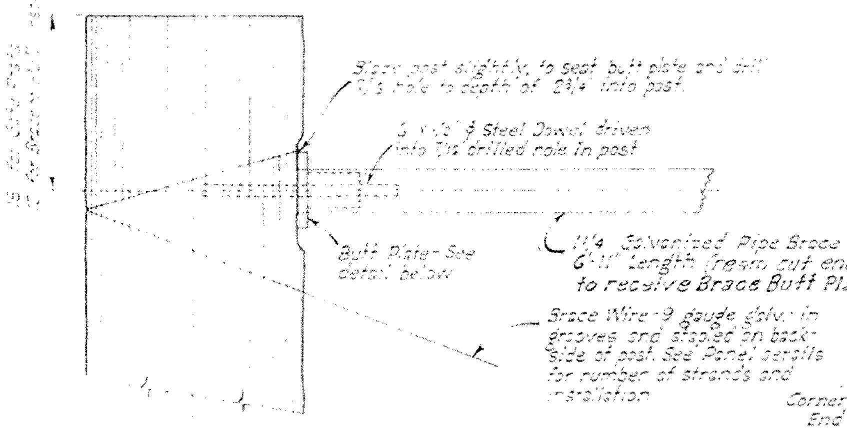


BARBED WIRE

Barbed wire to be 12½ ga. galv. double strand barbed wire with 14 ga. 2 point barbs at 4" oc. Staples to be 9 ga. galv. 1½" minimum length for treated pine and cedar posts and 1" minimum length for bois d'arc.

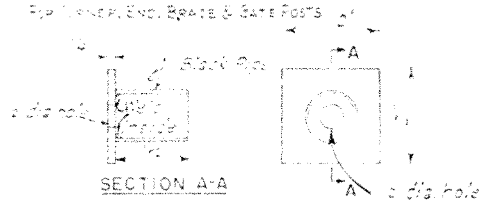


WOVEN WIRE



POST DETAIL

For Corner, End, Brace & Gate Posts



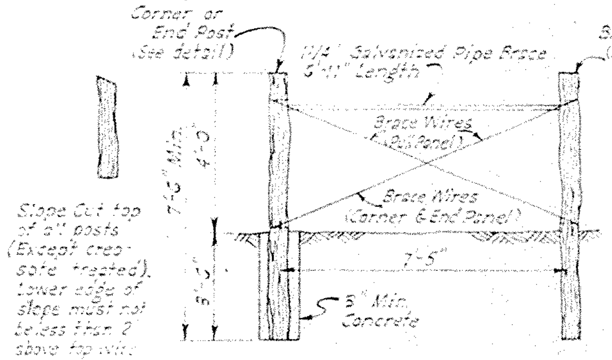
Brace Butt Plate of plate steel 3" x 3" x ¼", ½" dia. hole drilled in center, with 1½" I.D. black steel pipe, 1½" long, welded to plate, weld to be inside of pipe with pipe concentrically centered with the ½" drilled hole in the plate

BRACE BUTT PLATE

Minimum Post Size

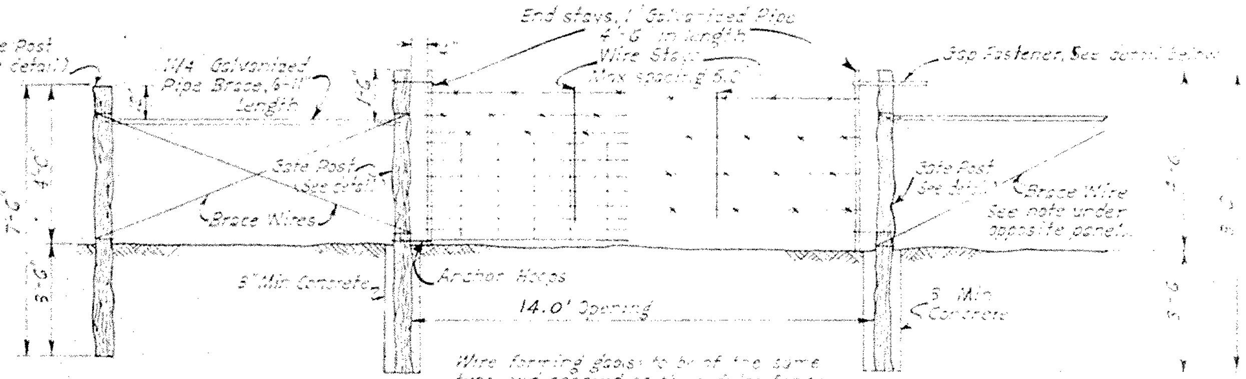
Corner & Brace	Cedar, 8" dia. Treated Pine, 5" dia. Bois d'arc, 6" dia.
Line Posts	Cedar, 4" dia. Treated Pine, 3" dia. Bois d'arc, 3" dia. Other, see specifications
Gate Posts	Treated Pine, 5" dia.

Note: Ash Juniper is considered as meeting the requirements of the specifications for cedar posts. Creosote-Coal Tar Solution will be used for treatment of pine posts.



CORNER, END, OR PULL PANEL

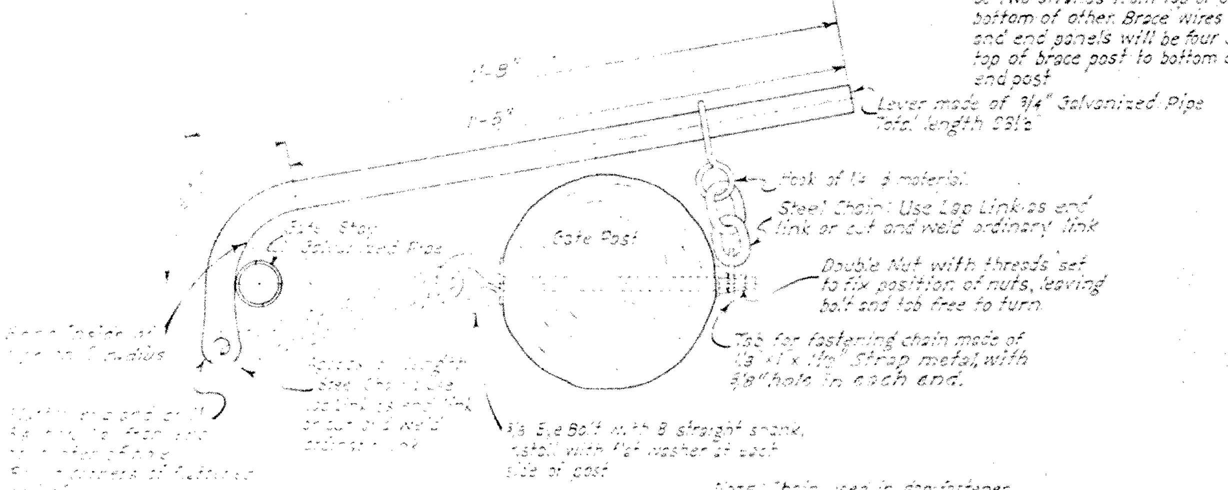
Pull panel does not require concrete setting. Brace wires for Pull Panel will be two strands from top of each post to bottom of other. Brace wires for corner and end panels will be four strands from top of brace post to bottom of corner or end post



Where fence extends in line left or right of Gate Panel, Brace Wires for Gate Panel will be four strands from top of Brace Post to bottom of Gate Post. Where there is no pull of line fence (that is, the Gate Panel is at a corner), Brace Wires for the Gate Panel will be two strands from top of each post to bottom of other.

Wire forming gaps to be of the same type and spacing as the regular fence. Wire to be double wrapped around end stays and secured in place by drilling 1/4" holes at bottom and top strands of woven wire and at each strand of barbed wire, tying these strands with 14 gauge galvanized wire through the holes. Anchor hoops to be two strands of 9 gauge wire stapled at the back side of the gate post.
2 - Gap(s) required.

WIRE GAP PANEL



Note: Chain used in gap fastener may be either straight link or twist link chain; material size from 1/8" to 7/32", links per foot from 10 to 18, wt. per foot from 0.1 to 0.5 lbs. Weldless wire twist chain will not be permitted.

WIRE GAP FASTENER DETAIL

FENCE DETAILS

As Built Plans
Construction Completed 4-16-62

FENCE DETAILS
FLOODWATER RETARDING STRUCTURE SITE No. 11
PLUM CREEK WATERSHED
IN
HAYS, CALDWELL AND TRAVIS COUNTIES, TEXAS

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

		Date	
Designed	G. J. M.	5-61	Approved by
Drawn	G. J. M. & M. G. C.	5-61	STATE CONSERVATION ENGINEER
Traced	M. G. C.	5-61	TEMPLE, TEXAS
Checked	G. J. M. & G. W. T.	5-61	Sheet No. 9 of 9 — Drawing No. 4-E-15,595

SEP 1 1961