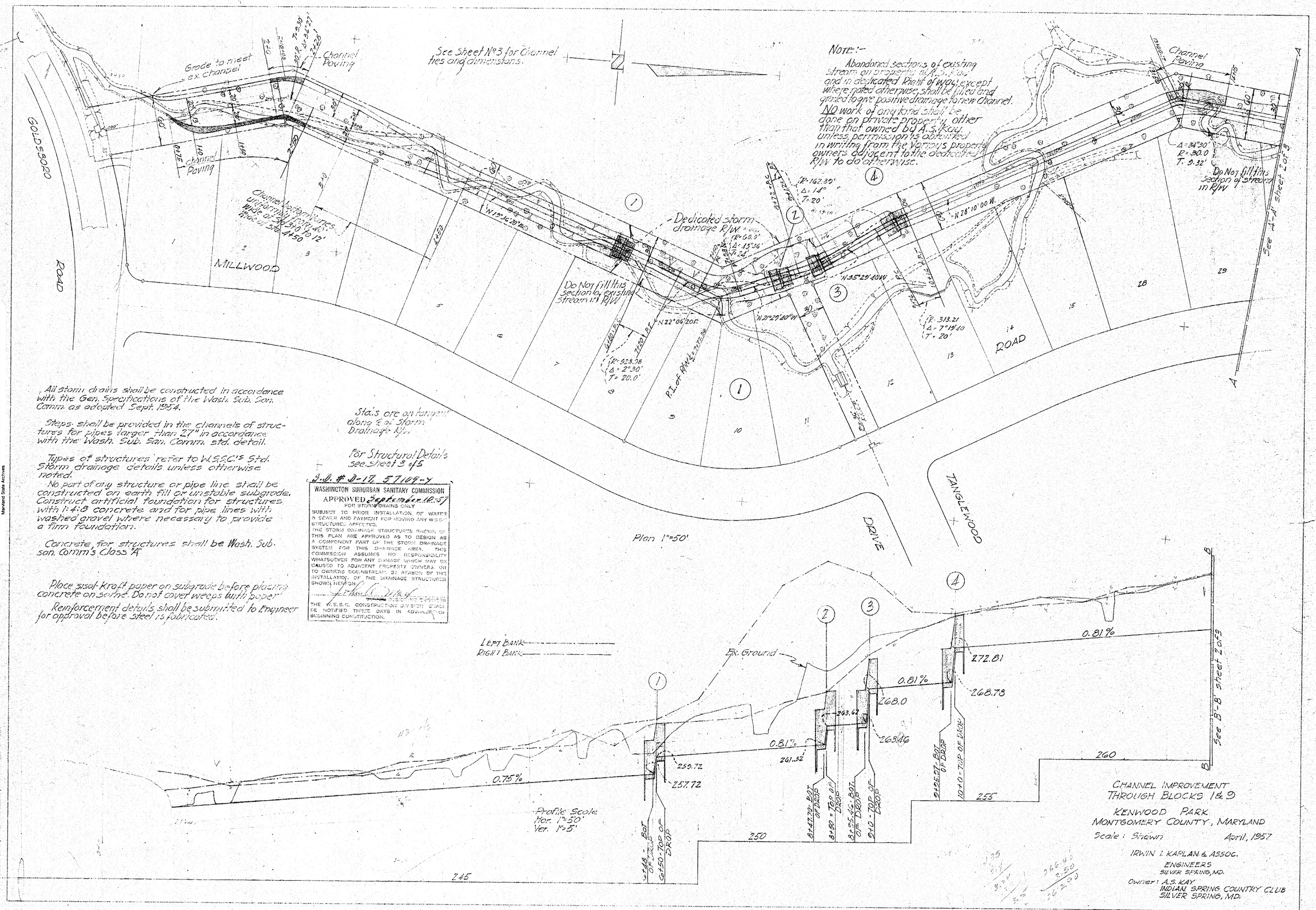


All storm drains shall be constructed in accordance with the Gen. Specifications of the Wash. Sub. San. Comm. as adopted Sept. 1954.

Steps shall be provided in the channels of structures for pipes larger than 27" in accordance with the Wash. Sub. San. Comm. std. detail.

Types of structures refer to W.S.S.C.'s Std. Storm drainage details unless otherwise noted.

No part of any structure or pipe line shall be constructed on earth fill or unstable subgrade. Construct artificial foundation for structures with 1:4:8 concrete and for pipe lines with washed gravel where necessary to provide a firm foundation.

Concrete for structures shall be Wash. Sub. San. Comm's Class "A"

Place sisal-Kraft paper on subgrade before placing concrete on same. Do not cover weeps with paper.

Reinforcement details shall be submitted to Engineer for approval before steel is fabricated.

Sta.'s are on tangent along ℄ of Storm Drainage R/W.

For Structural Details see sheet 3 of 5

J.O. # D-17, 57169-7

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED September 10, 1957
FOR STORM DRAINS ONLY
SUBJECT TO PRIOR INSTALLATION OF WATER & SEWER AND PAYMENT FOR MOVING ANY W.S.S.C. STRUCTURES AFFECTED.
THE STORM DRAINAGE STRUCTURES SHOWN ON THIS PLAN ARE APPROVED AS TO DESIGN AS A COMPONENT PART OF THE STORM DRAINAGE SYSTEM FOR THIS DRAINAGE AREA. THIS COMMISSION ASSUMES NO RESPONSIBILITY WHATSOEVER FOR ANY DAMAGE WHICH MAY BE CAUSED TO ADJACENT PROPERTY OWNERS OR TO OWNERS DOWNSTREAM BY REASON OF THE INSTALLATION OF THE DRAINAGE STRUCTURES SHOWN HEREON.
ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

NOTE:-
Abandoned sections of existing stream on property of A.S. Kay and in dedicated Right of way, except where noted otherwise, shall be filled and graded to give positive drainage to new channel.
No work of any kind shall be done on private property other than that owned by A.S. Kay, unless permission is obtained in writing from the various property owners adjacent to the dedicated R/W to do otherwise.

CHANNEL IMPROVEMENT
THROUGH BLOCKS 1 & 9
KENWOOD PARK
MONTGOMERY COUNTY, MARYLAND
Scale: Shown April, 1957

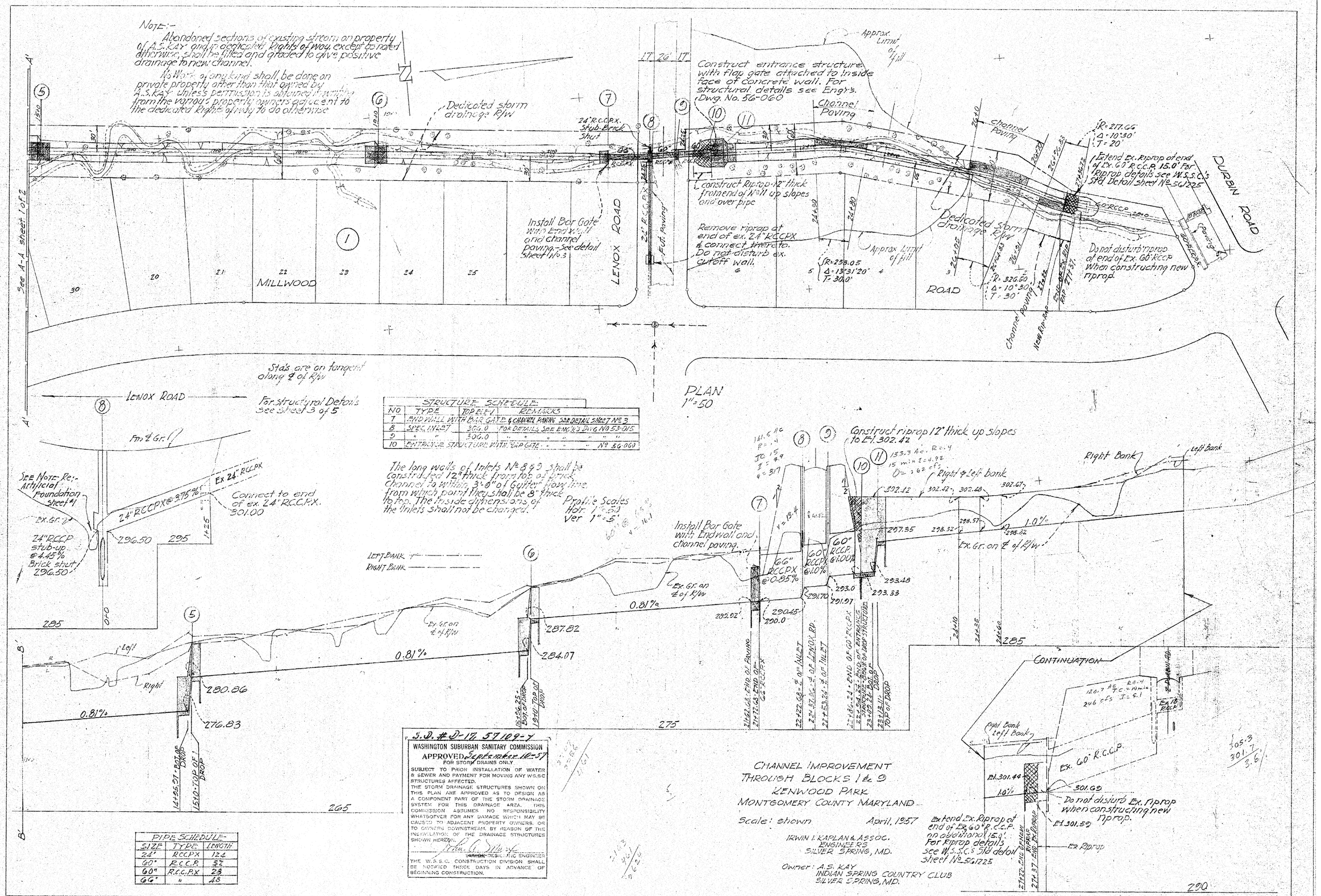
IRWIN I. KAPLAN & ASSOC.
ENGINEERS
SILVER SPRING, MD.

Owner: A.S. KAY
INDIAN SPRING COUNTRY CLUB
SILVER SPRING, MD.

CE487-304-1

SD FILE NO. 306 SHEET 1 of 5

Maryland State Archives



STRUCTURE SCHEDULE			
NO	TYPE	TOP ELEV	REMARKS
7	END WALL WITH BAR GATE & CHANNEL PAVING SEE DETAIL SHEET No. 3		
8	SPEC. INLET	306.0	FOR DETAILS SEE ENG'R'S DWG NO 53-015
9	" "	306.0	" " " " " "
10	ENTRANCE STRUCTURE WITH FLAP GATE " " " No. 56-060		

PIPE SCHEDULE		
SIZE	TYPE	LENGTH
24"	RCCPX	124
60"	R.C.C.P.	32
60"	R.C.C.P.X	28
66"	"	48

S.D. # D-17 57109-7

WASHINGTON SUBURBAN SANITARY COMMISSION

APPROVED September 10-57

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[signature] DESIGNING ENGINEER

THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

CHANNEL IMPROVEMENT
THROUGH BLOCKS 1 & 9
KENWOOD PARK
MONTGOMERY COUNTY MARYLAND

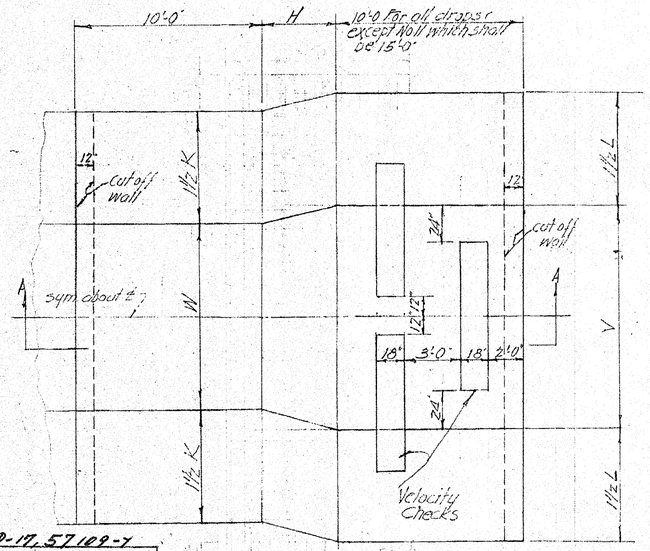
Scale: shown April, 1957

IRWIN I. KAPLAN & ASSOC.
ENGINEERS
SILVER SPRING, MD.

Owner: A.S. KAY
INDIAN SPRING COUNTRY CLUB
SILVER SPRING, MD.

CE487-304-2

SD FILE NO. 306 SHEET 2 OF 5

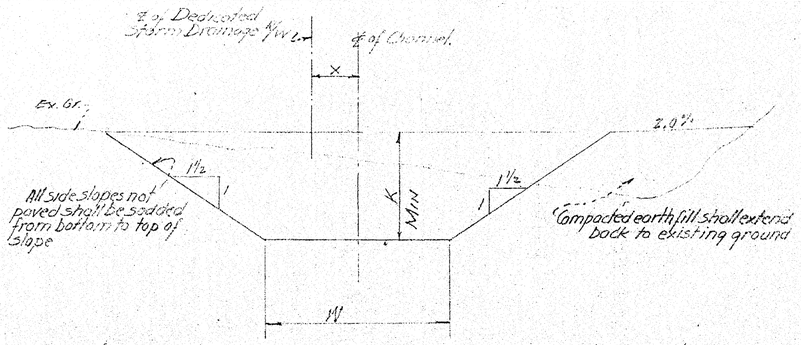


PLAN

All steel reinforcement, except wire mesh, shall be ½"⌀ deformed bars of intermediate grade

Do not construct velocity checks in drop structure No 11

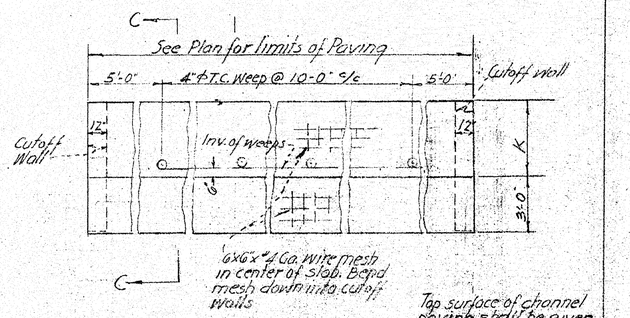
Top surface of drop structure shall be given a float finish with a wood float



TYPICAL CHANNEL SECTION

Earth fill shall be placed in layers not to exceed 8" in loose depth and each layer shall be thoroughly and completely compacted before the next layer of material is placed.

For Dimension "K" See Channel Schedule



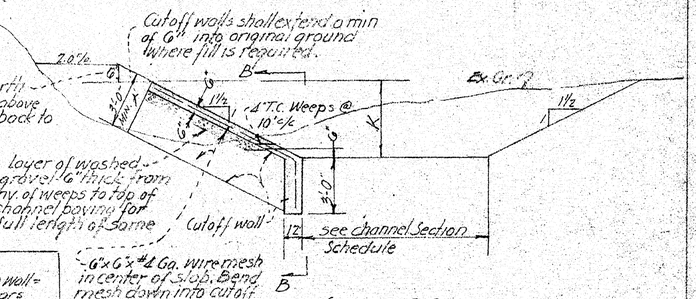
SECTION B-B

Top surface of channel paving shall be given a float finish with a wood float

CHANNEL SCHEDULE			
STA.'S	W	K	X
0+75 Sym. PLAN			
1+0 To 3+0	40.0	2.0	0
3+50	30.0	2.50	0
4+0	20.0	3.10	0
4+50 To 6+80	12.0	3.85	0
6+80 To 8+47.70	12.0	3.85	
8+50	10.0	3.50	
9+0	10.0	3.50	
9+50 To 9+95.57	10.0	3.50	
10+0 To 10+14	8.0	3.85	
10+14 To 21+62.68	8.0	3.35	0
22+84.21 To 23+09.21	5.0	9.10	0
23+13.11	5.0	5.07	0
23+10	5.0	4.10	0
23+35	5.0	3.91	0
23+60 To 60 PLCP	5.0	3.85	0

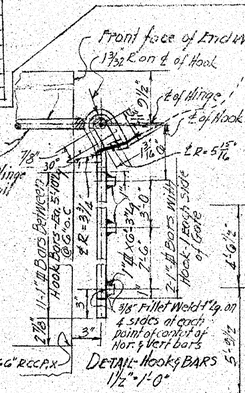
For details of Channel ⌀ between stations 6+80 & 10+14 see Plan Sheet No 1

Channel depth shall vary uniformly from 5.07 deep at Sta. 23+13.11 to 4.10' deep at Sta. 23+10. See elevations on profile for top of bank from Sta. 23+10 to Sta 23+60



SECTION C-C

DETAIL-CHANNEL PAVING
1/4" = 1'-0"



DETAIL-HOOK & BARS
1½" = 1'-0"

All bars shall be 1"⌀ Plain

Intermediate grade steel bars

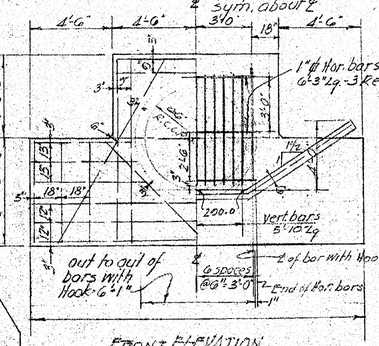
Horizontal bars shall be welded to vertical bars at all points of contact with 1/8" Fillet Welds

Gate shall be given one (1) stop coat of red lead paint after fabrication and 2 coats of bituminous paint after erection.

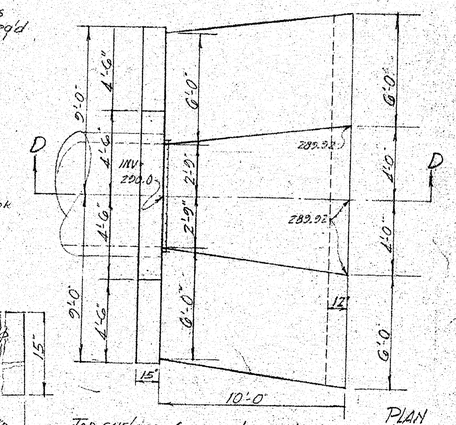
Details of the gate shall be submitted to the Engineer for approval before the gate is fabricated.

After gate is installed weld 1"⌀ bar on hooks to close hook opening

All reinforcement in wall = ½"⌀ deformed bars of intermediate grade steel.

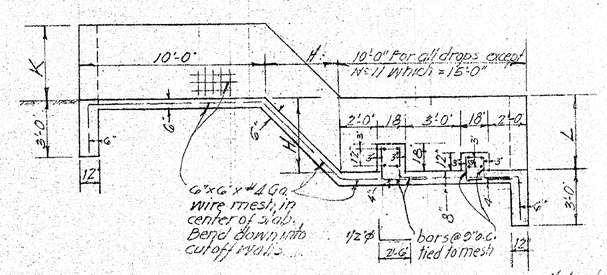


FRONT ELEVATION
1/4" = 1'-0"



PLAN
1/4" = 1'-0"

Top surface of concrete shall be given a float finish with a wood float.



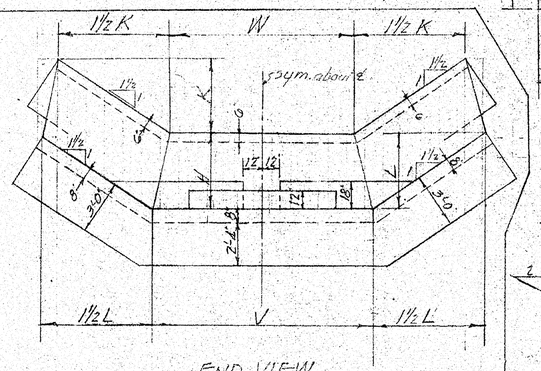
SECTION A-A

All materials and workmanship shall be in accordance with the requirements of the General Specification of the Wash. Sub. San. Comm.

All concrete shall be Wash. Sub San. Comm's Class "A"

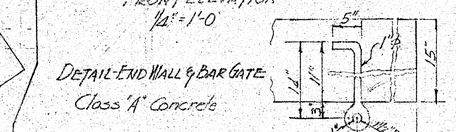
Velocity checks shall be constructed monolithic with bottom slab.

DROP STRUCTURE SCHEDULE							
No	STA.	H	K	W	V	L	
1	6+50	2.0	3.85	12.0'	12.0'	3.85	
2	8+50	2.30	3.50	10.0	12.0'	3.85	
3	9+0	4.64	3.50	10.0	10.0'	3.50	
4	10+0	4.03	3.85	8.0	10.0	3.50	
5	15+0	4.03	3.85	8.0	8.0	3.85	
6	19+0	3.75	3.85	8.0	8.0	3.85	
11	23+13.11	3.67	5.07	5.0'	5.0	8.02	

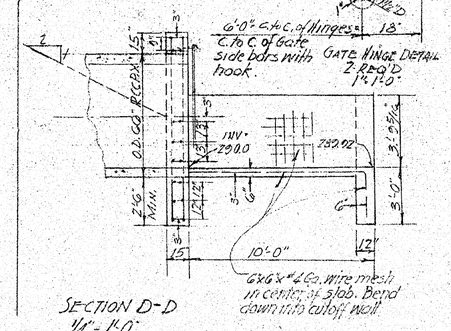


END VIEW.

DETAIL-CHANNEL DROP STRUCTURE
1/4" = 1'-0"



DETAIL-END WALL & BAR GATE
Class "A" Concrete



SECTION D-D
1/4" = 1'-0"

STRUCTURAL DETAILS
CHANNEL IMPROVEMENT
THROUGH BLOCKS 1 & 2
KENWOOD PARK
MONTGOMERY COUNTY-MARYLAND

Scale: shown April 1957

IRWIN I. KAPLAN & ASSOC.
ENGINEERS
SILVER SPRING, MD.

S.D. # D-17, 57109-7

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED September 10-57
FOR STORM DRAINS ONLY

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Paul O. Spray
DRAINAGE ENGINEER

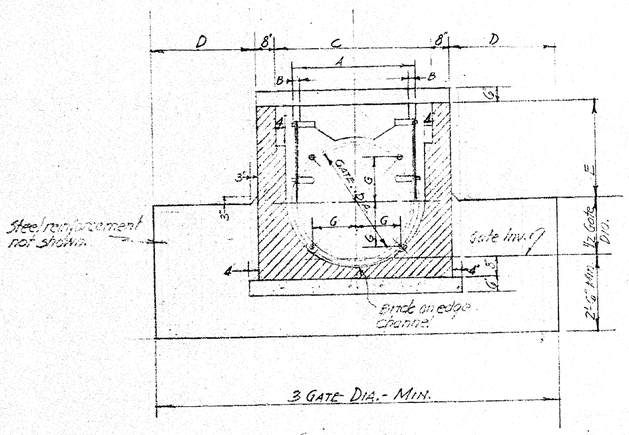
THE WSSC CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

CE487-304-3

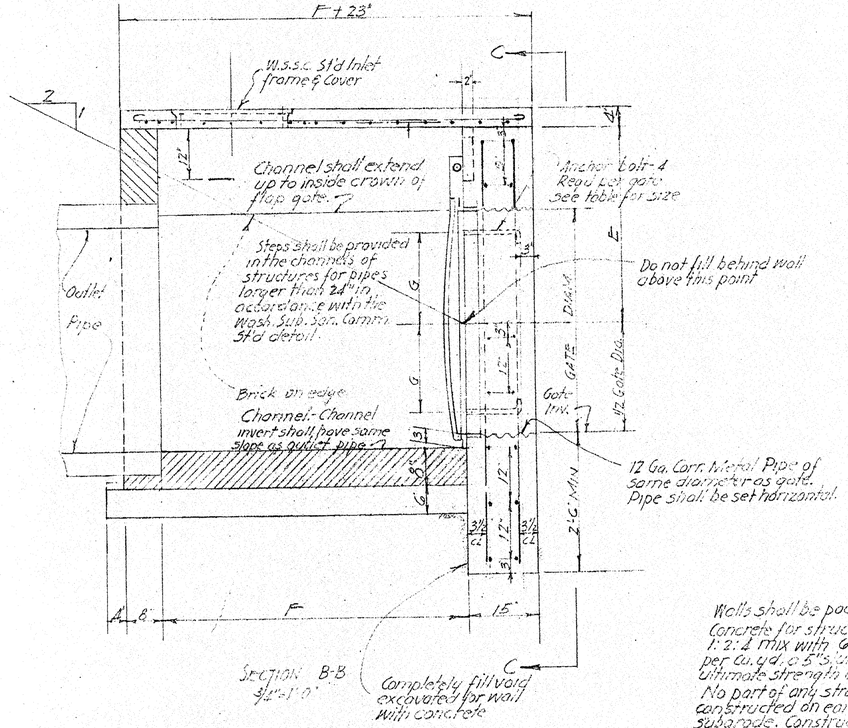
SD FILE NO. 306 Sheet 3 of 6

Maryland State Archives

All work and materials shall be in accordance with the Gen. Specifications of the Wash. Sub. San. Comm. as adopted Sept. 1954.

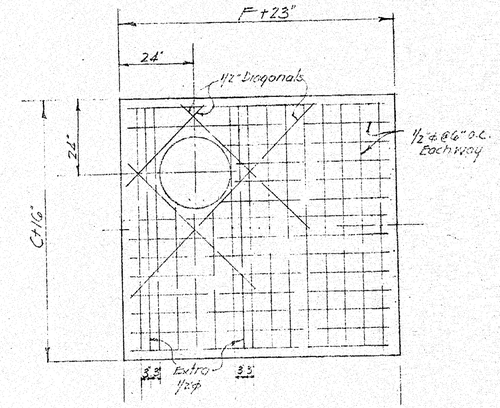


SECTION A-A
3/8" = 1'-0"



SECTION B-B
3/4" = 1'-0"

Completely fill void excavated for wall with concrete



PLAN-Top Slab
1/2" = 1'-0"

Walls shall be poured monolithic. Concrete for structures shall be a 1:2:4 mix with 6 1/2 bags of cement per cu. yd. a 5" slump and a 28 day ultimate strength of 3500 p.s.i.

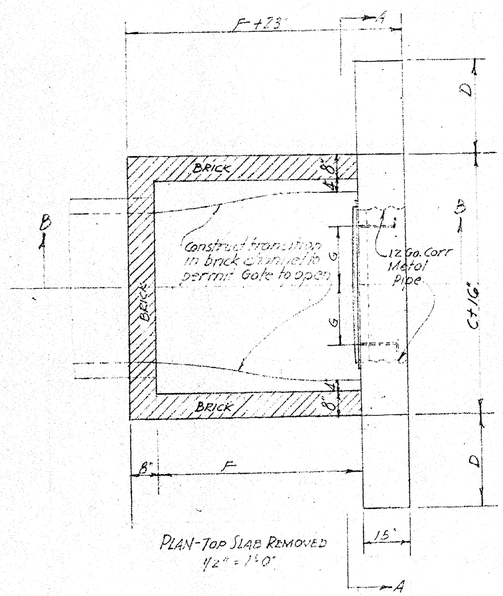
No part of any structure shall be constructed on earth fill or unstable subgrade. Construct artificial foundation with 1:2:8 concrete where necessary to provide a firm foundation.

Chamfer all exposed edges 1"x1"

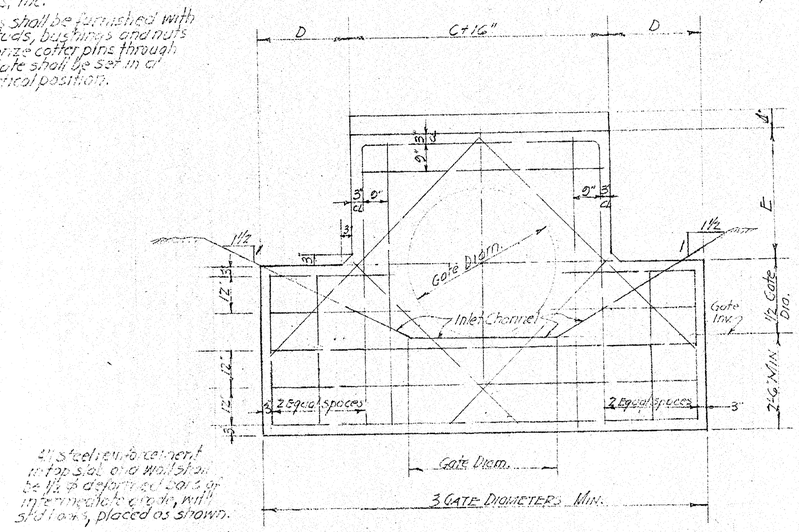
GATE DIAM.	A	B	C	D	E	F	G	ANCHOR BOLT 'D'
15	17 3/4"	1 3/16"	2'-7"	7"	17"	2'-2"	6 1/4"	1/2"
18	22 1/2"	1 1/2"	3'-1"	8 1/2"	19"	2'-5	7 7/16"	5/8"
21	25 1/2"	1 7/16"	3'-4"	11 1/2"	21"	2'-11	8 9/16"	"
24	28 1/2"	1 9/16"	3'-7"	14 1/2"	23"	3'-3	9 3/4"	"
27	USE	30"	GATE	& STRUCTURE				
30	35 1/2"	1 3/4"	4'-2"	20"	2'-3"	3'-0	12"	3/4"
33	USE	36"	GATE	& STRUCTURE				
36	41 3/4"	2 1/16"	4'-8"	2'-3"	2'-8"	4'-3	14 7/16"	3/4"
42	47 3/4"	2 5/16"	5'-2"	2'-8"	3'-0"	5'-0	16 5/8"	"
48	53 3/4"	2 3/4"	5'-8"	3'-2"	3'-4"	5'-7"	19 1/16"	"
54	61	2 13/16"	6'-2"	3'-8"	3'-8"	6'-0	22"	1"
60"	67	2 7/8"	6'-10	4'-1"	4'-0"	6'-0"	24 1/2"	1"

All gates are the Model 100 Armco Cast Iron flap gates as manufactured by the Armco Drainage & Metal Products, Inc.

All gates shall be furnished with brass studs, bushings and nuts and bronze cotter pins through studs. Gate shall be set in a true vertical position.



PLAN-Top Slab Removed
1/2" = 1'-0"



2" steel reinforcement in top slab and wall shall be 1/2" ϕ deformed bars or intermediate grade, with stirrups, placed as shown.

FRONT ELEVATION C-C
1/2" = 1'-0"

S.D. # D-17 57109-Y

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED September 10-57
FOR STORM DRAINS ONLY
James A. Stepp
SENIOR DESIGNING ENGINEER

STRUCTURAL DETAILS
PROTECTIVE GATE INSTALLATION
15" TO 60" Dia. INC. STORM DRAIN INLETS

Scale: As Shown — July 1956

IRWIN I. KAPLAN & ASSOC. ENG'RS
SILVER SPRING, MD.

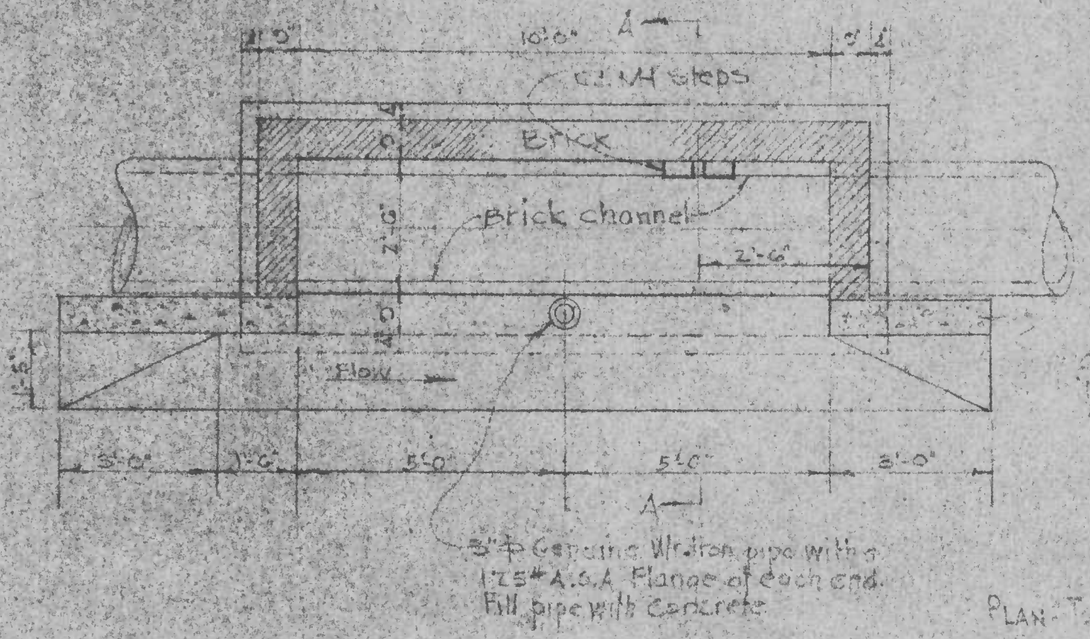
MONTGOMERY COUNTY MARYLAND
DEPARTMENT OF PUBLIC WORKS
FINAL APPROVAL
DATE Sept. 6 19 56
BY Wm. M. Holland

N-56-060 FILE D-8

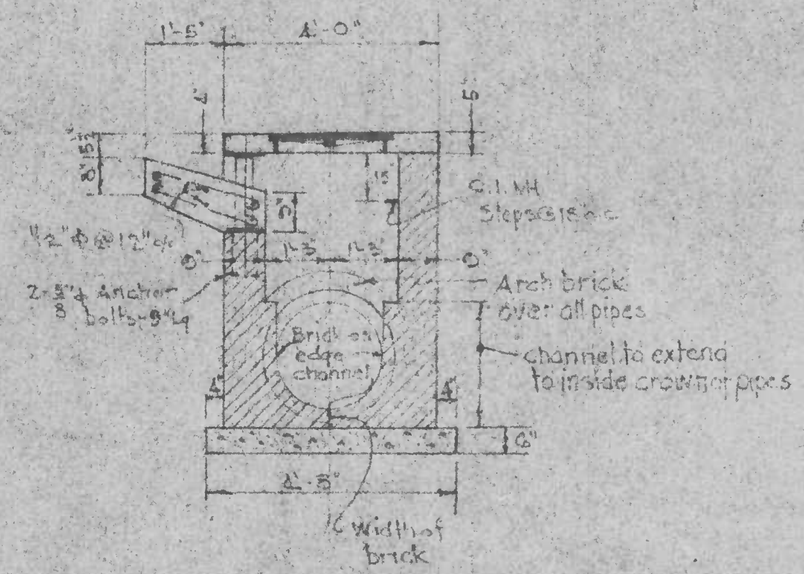
CE487-304-4

SD FILE NO. 306 Sheet 4 of 5

Maryland State Archives

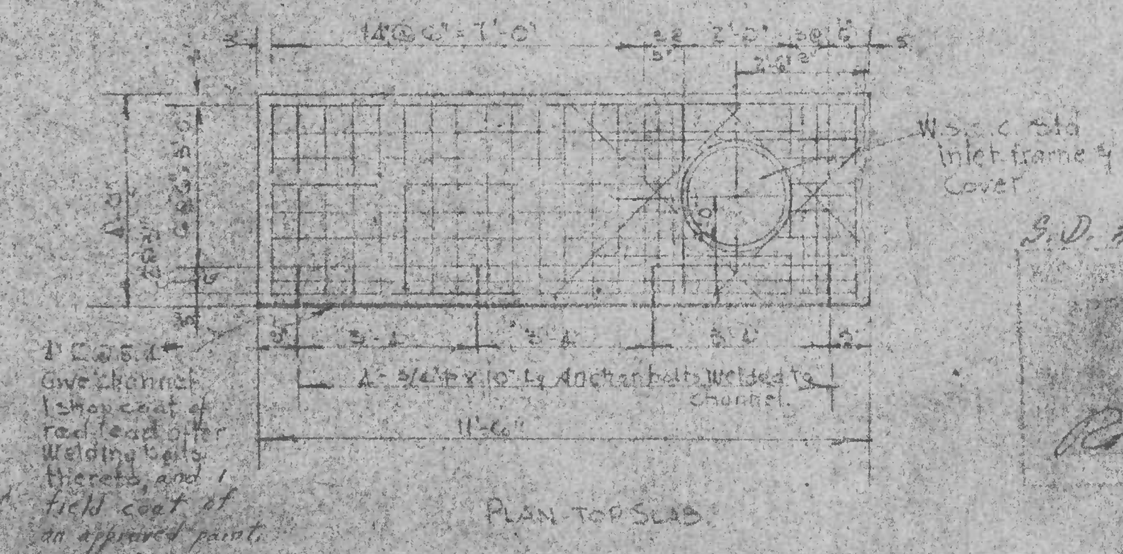


PLAN - TOP SLAB REMOVED



SECTION A-A

All reinforcement 1/2" Φ deformed bars with Std hooks.



PLAN - TOP SLAB

This detail is for 15" to 24" Inc. dia pipes.

S.D. #D-17, 57109-Y

March 2, 1953

Robert J. McLeod

DETAILS - SPECIAL INLET - K-1

Scale 3/8" = 1'-0" Nov. 1952

IRWIN I. KAPLAN & ASSOC.
ENGINEERS
SILVER SPRING, MD.

Sheet 5 of 5 No. 53-015

CE487-304-5