SD FILE NO. 414

MARGOT DRIVE

ARBUTUS AVENUE

LISTRA ROAD

ADRIAN STREET

VIERS MILL ROAD

Match Line "A-A"

See Sheet No. 3

See Sheet No. 2

NOT INCLUDED

LIMIT OF APPROVAL 11759-821

CURVE DATA
Δ = 9°-00'-00"
R = 264'
T = 20.78'
L = 41.47'

CURVE DATA
Δ = 20°-57'-52"
R = 681.00'
T = 124.97'
L = 249.18'

CURVE DATA
Δ = 20°-46'-01"
R = 369.00'
T = 67.61'
L = 133.74'

CURVE DATA
Δ = 22°-00'-00"
R = 360.00'
T = 69.98'
L = 138.24'

Right of Way required

Field Connection, See W.S.S.C. Standard 561.22-1

Fill this Area. See Detail Sheet 10

Fill this Area. See Detail Sheet 10
See also Ditch Profile Sheet 8

Brick Start

Ex highway drainage ditch

1' Side ditch @ 0.20%

Concrete

Ex 24"W

Ex 16"G

Ex 18"CCP

Ex 36" Drain

15' R.W

-GENERAL NOTES-

1. All elevation shown are based on W.S.S.D. datum.
2. All pipe and channel elevations shown are Invert elevations.
3. Information concerning underground utilities was obtained from available records, but the Contractor must determine the exact location and elevation of the mains by digging test pits by hand at all utility crossings well in advance of trenching.
4. Unless otherwise shown, Inlets are 3' back of curb and gutter fillet P.C.
5. Types of structures refer to the Washington Suburban Sanitary Commission's Standard Storm Drainage Details unless otherwise noted.
6. All curb fillets are 25' radius.
7. All storm drains shall be constructed in accordance with the General Specifications of the Washington Suburban Sanitary Commission, adopted September 30, 1954.
8. Steps shall be provided in the channels of structures involving pipes larger than 27" in accordance with the Washington Suburban Sanitary Commission Standard Detail.
9. Contact Mr. J. Lee, Washington Suburban Sanitary Commission System Maintenance Engineer, APpleton 7-7700, before excavating in vicinity of water mains. Backfill to be made under the supervision of the Washington Suburban Sanitary Commission Maintenance and Operations Division.

S.D. #D-61, 59001-1

WASHINGTON SUBURBAN SANITARY COMMISSION

APPROVED January 1-54

THE STORM DRAINAGE STRUCTURES SHOWN ON THIS PLAN ARE INCLUDED AS A COMPONENT PART OF THE CONSTRUCTION FOR WHICH THIS PLAN IS SUBMITTED.

James A Stapp

* Subject to approval by S.R.C.

LAWRENCE L. LEVIN, OWNER
4901 RANDOLPH ROAD
ROCKVILLE, MD.

STRUCTURE SCHEDULE				
No	Type		Elev Top	Remarks
TA	Special	Inlet	248.00	See Detail Sheet 10
1	Special	Inlet	251.00	See Detail Sheet 10
2	B	Manhole	253.58	66" ϕ Inside
5	A-1	Inlet	251.14	
6	Special	Inlet	251.14	See Detail Sheet 10
7	B	Manhole	252.43	54" ϕ Inside
8	Special	Inlet	254.90	See Detail Sheet 10
9	B-1	Inlet	254.80	
42	Special	Inlet	252.50	See Detail Sheet 10
43	A-1	Inlet	258.03	
44	A-1	Inlet	258.63	
45	B	Manhole	259.00	54" ϕ Inside
46	Special	Inlet	260.67	See Detail Sheet 10
47	B-1	Inlet	260.67	
65	A-2	Inlet	259.76	
66	A-1	Inlet	259.76	
67		Manhole	262.06	
68	B-2	Inlet	263.86	
69	A-1	Inlet	263.86	
70	B-1	Inlet	262.82	

D-20
59001

SD File No 414

DATE	REMARKS	BY
REVISIONS		

ASPEN HILL PARK

MONTGOMERY COUNTY MARYLAND

SITE GRADING PLAN

SECTION

STORM DRAINAGE

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

Scale: 1"=30'

Sheet No. 1 of 10

CE487-410-1

SD FILE NO. 414

ASPEN HILL PARK

MONTGOMERY COUNTY MARYLAND

SITE GRADING PLAN

SECTION

STORM DRAINAGE

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

Scale: 1"=30' Sheet No. 2 of 10

REVISIONS		
DATE	REMARKS	BY

LAWRENCE L. LEVIN, OWNER
4901 RANDOLPH ROAD
ROCKVILLE, MD.

N

STRUCTURE SCHEDULE			
No	Type	Elev. Top	Remarks
3	F-1	Inlet	257.66
4	F-1	Inlet	256.71
11	B-2	Inlet	275.38
12	A-1	Inlet	286.08
13	F	Inlet	286.08
14	B-1	Inlet	285.30
21	A-1	Inlet	276.65
22	B-1	Inlet	276.82
23	B-1	Inlet	276.82
24	B	Manhole	290.75
27	B-1	Inlet	287.58
28	B-1	Inlet	286.59
29	B-2	Inlet	286.59
30	B	Manhole	289.93
2-A	B-1	Inlet	356.71

48" Sq Inside

* James A. Stapp

* Adrian St. and uic. only

LISTRA ROAD

TALLAHASSEE AVENUE

WISSAHICAN AVENUE

ADRIAN STREET

MERCURY DRIVE

UTREAT

NOT INCLUDED

LIMIT OF APPROVAL

PARCEL 5-A

LIMIT OF SUBDIVISION

This Area to be filled.

See Sheet No. 1

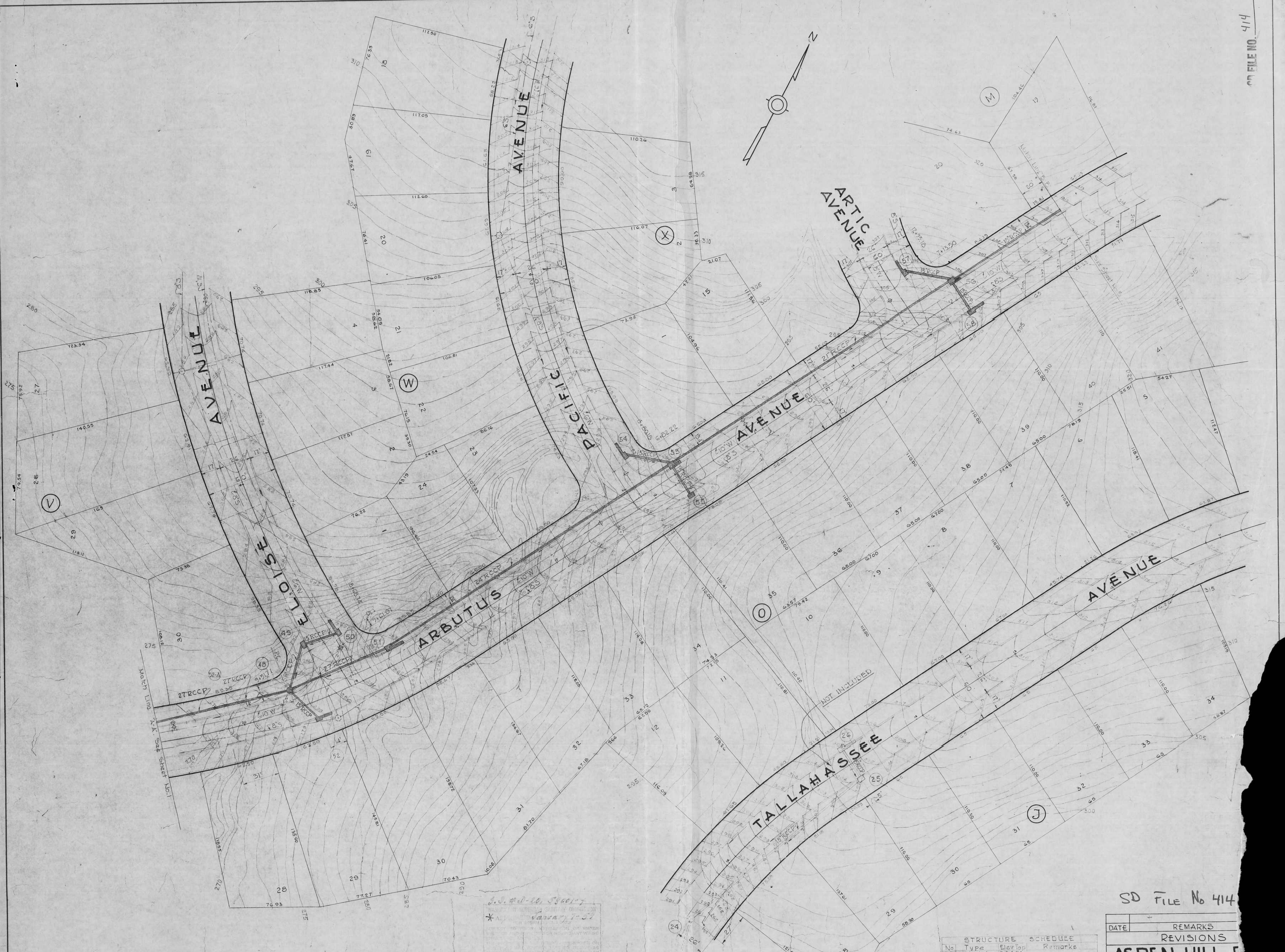
See Sheet No. 1

See Sheet No. 1

SD FILE No. 414 Sheet No. 2 of 10

CE487-410-2

Maryland State Archives



SD FILE NO. 414

STRUCTURE SCHEDULE				
No	Type		Elev Top	Remarks
25	A-1	Inlet	304.81	
26	F	Inlet	304.81	
48	B	Manhole	278.59	48 ⌀ Inside
49	A-1	Inlet	281.79	
50	F-1	Inlet	281.48	
51	F-2	Inlet	282.17	
52	F-1	Inlet	278.80	
53	B-2	Inlet	293.71	
54	F-1	Inlet	292.47	
55	A-1	Inlet	293.71	
56	B-2	Inlet	305.17	
57	F-1	Inlet	305.11	
58	F-1	Inlet	305.17	

LAWRENCE L. LEVIN, OWNER
4901 RANDOLPH ROAD
ROCKVILLE, MD.

James A. Stapp

*Arbutus Ave. and vicinity only

SD FILE No 414

DATE	REMARKS

REVISIONS

ASPEN HILL F

MONTGOMERY COUNTY MAR

SITE GRADING F

SECTION

STORM DRAINAGE

WHITMAN, REQUARDT & ASSOC
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

Scale 1"=30'

CE 487-410-3

S.D. # D-20, 59001-7

WASHINGTON SUBURBAN SANITARY COMMISSION
* APPROVED January 7-59
FOR STORM DRAINS ONLY

James A. Stapp

* Structure 77A to 79 & connecting pipes

S.D. # D-18, 58081-7

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED August 6-58
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.
James A. Stapp
SENIOR DESIGNING ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

MONTGOMERY COUNTY MARYLAND
DEPARTMENT OF PUBLIC WORKS
*FINAL APPROVAL
DATE Aug. 14, 1958
BY [signature]
* Subject to St. Rd. Approval

STRUCTURE SCHEDULE

No	Type		Elev. Top	Remarks
79	B-1	Inlet	322.54	
80	B-1	Inlet	342.89	
81		Manhole	342.08	
82		Manhole	342.55	
78	F-2	Inlet	302.85	
77	B-1	Inlet	302.85	
103-A	B-1	Inlet	327.50	
103	F-2	Inlet	323.17	
104	B-1	Inlet	323.17	
77A	W.S.S.C. Cutoff Wall		296.50	

SD FILE No 414

LAWRENCE L. LEVIN, OWNER
4901 RANDOLPH ROAD
ROCKVILLE, MD.

DATE	REMARKS	BY
9-23-57	TO CONFORM TO NEW STREET PLAN	R.J.

REVISIONS

ASPEN HILL PARK

MONTGOMERY COUNTY MARYLAND

SITE GRADING PLAN

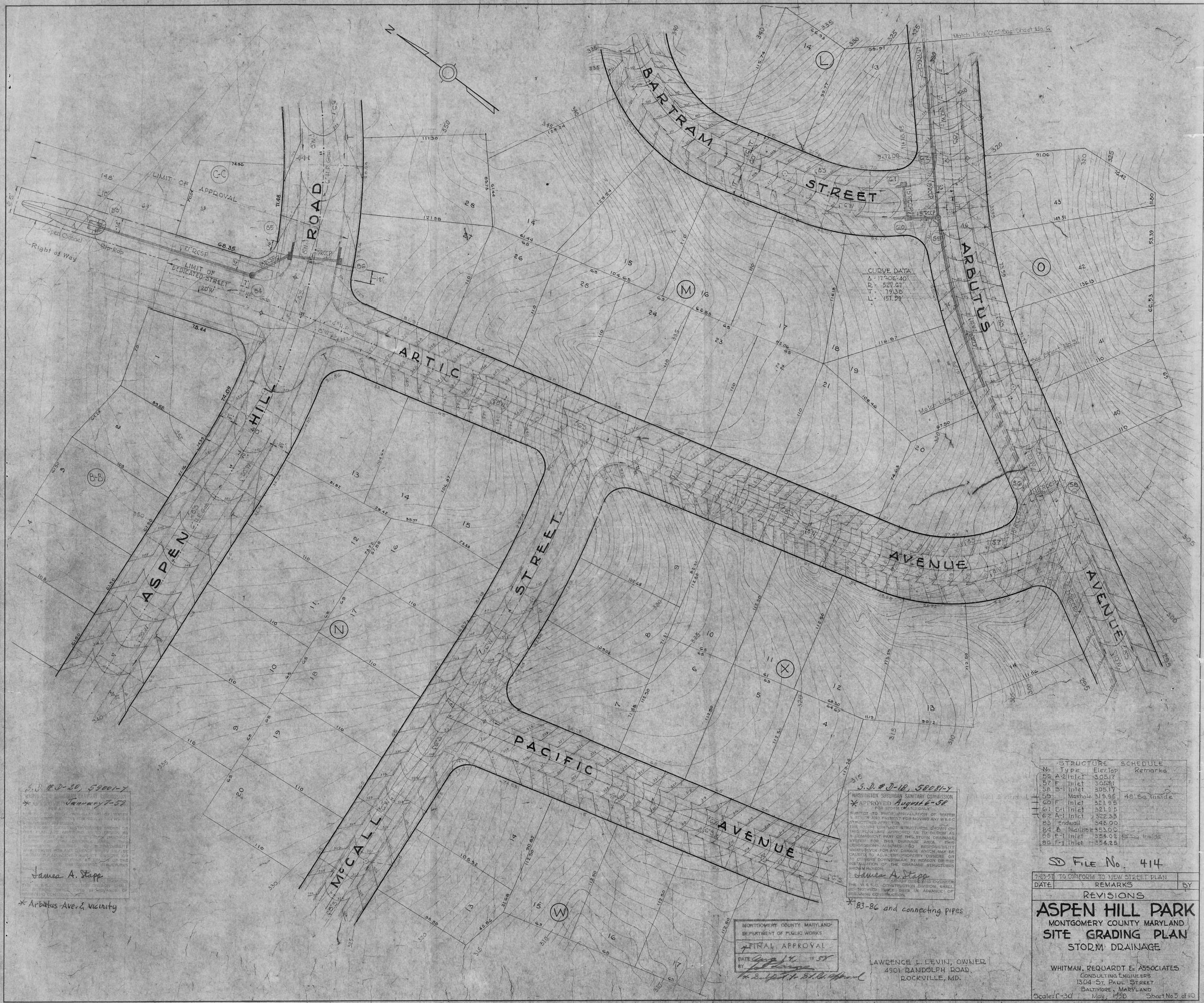
STORM DRAINAGE

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

Scale: 1"=30' May, 1958 Sheet No. 4 of 10

CE487-410-4

217 NW 5 Glenmont District



S.D. # D-20, 59001-Y
WASHINGTON SUBURBAN SANITARY COMMISSION
* APPROVED January 7-59
FOR STORM DRAINAGE 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.
James A. Stapp
SENIOR DESIGNING ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

* Arbutus Ave. & vicinity

S.D. # D-18, 58081-Y
WASHINGTON SUBURBAN SANITARY COMMISSION
* APPROVED August 6-58
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.
James A. Stapp
SENIOR DESIGNING ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

* 83-86 and connecting pipes

MONTGOMERY COUNTY MARYLAND
DEPARTMENT OF PUBLIC WORKS
* FINAL APPROVAL
DATE Aug 14 1958
BY [signature]
* Subject to Bd. Rd. Approval

LAWRENCE L. LEVIN, OWNER
4901 RANDOLPH ROAD
ROCKVILLE, MD.

STRUCTURE SCHEDULE

No	Type	Elev. Top	Remarks
56	A-2 Inlet	305.17	
57	F Inlet	305.11	
58	B-1 Inlet	305.17	
59	Manhole	319.95	48" Sq. Inside
60	F Inlet	321.95	
61	B-1 Inlet	321.95	
62	A-1 Inlet	322.33	
83	Endwall	348.00	
84	B Manhole	353.00	
85	F-1 Inlet	354.02	48" Sq. Inside
86	F-1 Inlet	354.25	

SD FILE No. 414

DATE	REMARKS	BY
9-23-57	TO CONFORM TO NEW STREET PLAN	

REVISIONS

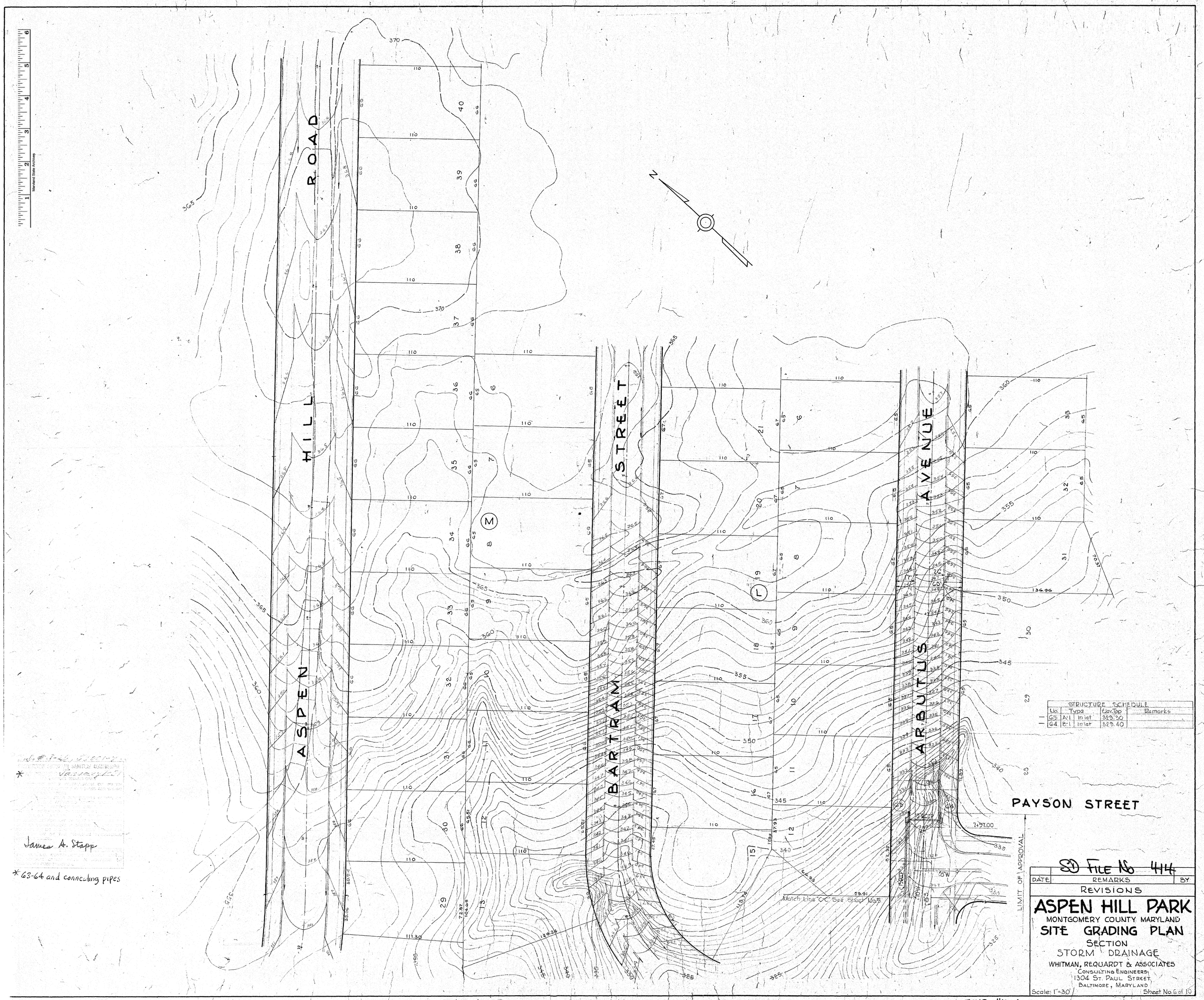
ASPEN HILL PARK
MONTGOMERY COUNTY MARYLAND
SITE GRADING PLAN
STORM DRAINAGE

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

Scale: 1" = 30' May, 1958 Sheet No 5 of 10

CE487-410-5

217 NW 5 Glenmont District



STRUCTURE SCHEDULE				
No.	Type		Elev. Top	Remarks
63	A-1	Inlet	329.30	
64	B-1	Inlet	329.40	

James A. Stapp

* 63-64 and connecting pipes

SD File No 414

DATE	REMARKS	BY

REVISIONS

ASPEN HILL PARK

MONTGOMERY COUNTY MARYLAND

SITE GRADING PLAN

SECTION

STORM DRAINAGE

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

Scale: 1"=30'

Sheet No. 6 of 10

CE 487-410-6

ELOISE AVENUE

Estab. Grade on C.L.
Appr. M.N.C.P. & P. Comm.
3-12-58

RIGHT OF WAY BETWEEN ELOISE AVE. AND MARGOT DR.

MARGOT DRIVE

Estab. Grade on C.L.
Appr. M.N.C.P. & P. Comm.
3-12-58

Not included in approval of Jan. 7-59

ARBUTUS AVENUE

Estab. Grade on C.L.
Appr. M.N.C.P. & P. Comm.
3-12-58

ADRIAN STREET

Estab. Grade on C.L.
Appr. M.N.C.P. & P. Comm.
3-12-58

ARBUTUS AVENUE

Estab. Grade on C.L.
Appr. M.N.C.P. & P. Comm.
3-12-58

ARBUTUS AVENUE

Estab. Grade on C.L.
Appr. M.N.C.P. & P. Comm.
3-12-58

S.D. #J-20, 59001-7
January 7-59
James A. Stapp

*See notes above for limits of this approval.
Subject to approval by S.H.C.

Note: For all water mains above storm drain see General Note No. 9 on Sheet No. 1.

ASPEN HILL PARK
MONTGOMERY COUNTY MARYLAND
STORM DRAINAGE
PROFILES

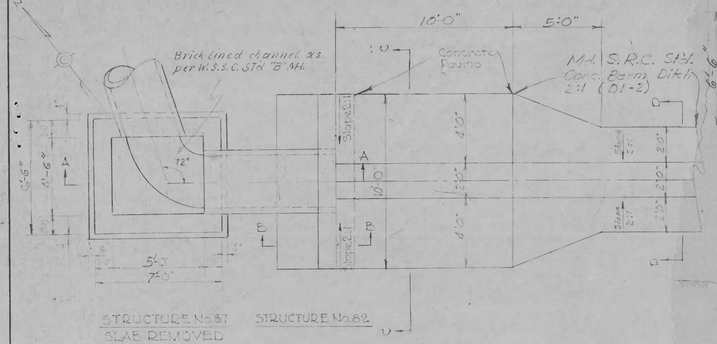
WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST PAUL STREET
BALTIMORE, MARYLAND

Scale: Vert 1"=5' Horiz 1"=50'

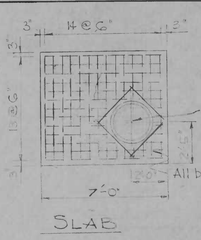
Sheet No. 7 of 10

SD File No 414

CE487-410-7



PLAN



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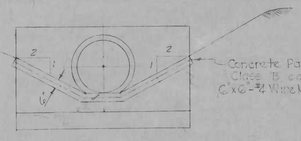
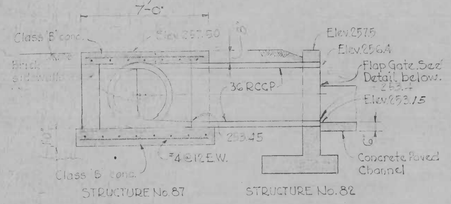
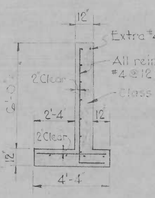


SECTION "C-C"

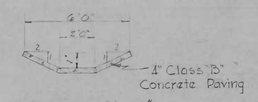
All Concrete Class "B"



SECTION "A-A"



SECTION "B-B"

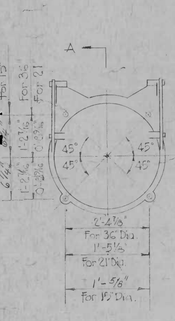


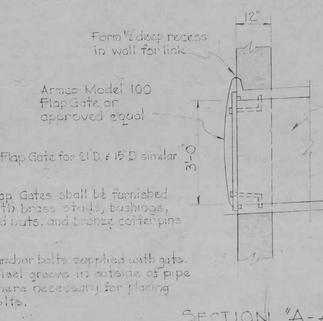
SECTION "D-D"

Note:
For all water mains above storm drains see General Note No.5 on Sheet No.1

STRUCTURES 82 & 87

No Scale

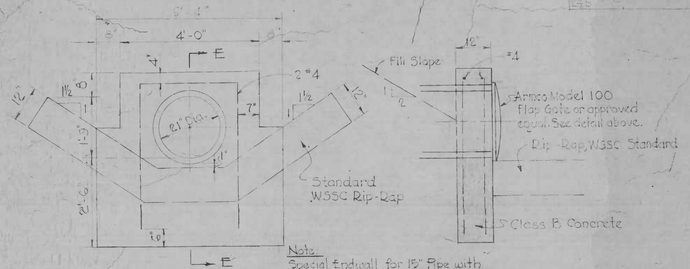




SECTION "A-A"

FLAP GATE DETAILS

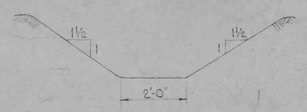
Scale: ½"=1'-0"



ELEVATION

Note
Special endwall for 15" Pipe with Flapgate the same as shown for 21" Pipe.

SECTION "E-E"



TYPICAL OPEN CHANNEL BELOW STRUCTURE No.83

S.D. #S-18, 58081-Y

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED
August 6-58
SUBJECT ONLY TO THE INSTALLATION OF WATER AND SEWER MAINS AND PAYMENT FOR MOVING ANY WATER AND SEWER APPURTENANCES SHOWN ON THIS PLAN ARE APPROVED AS TO USE ON AS A CONSTRUCT PART OF THE STORM DRAINAGE SYSTEM ONLY. THE APPROVAL OF THIS PLAN BY THE COMMISSION ASSUMES NO RESPONSIBILITY WHATSOEVER FOR ANY DAMAGE WHICH MAY BE CAUSED TO PROPERTY OWNERS OR OTHERS BY REASON OF THE CONSTRUCTION OF THE DRAINAGE STRUCTURES SHOWN HEREON.
James A. Stapp
CHIEF ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

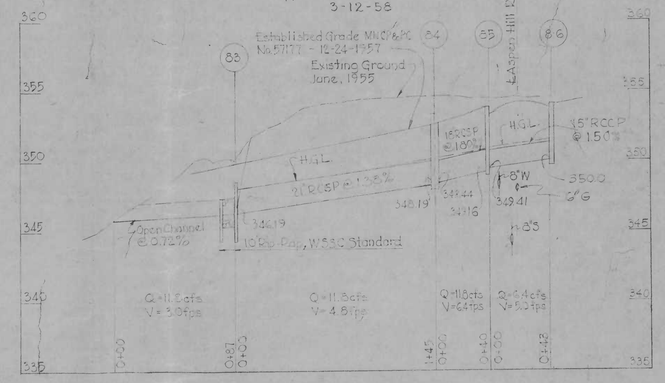
MONTGOMERY COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS XX
FINAL APPROVAL
DATE Sept. 15, 1958
BY

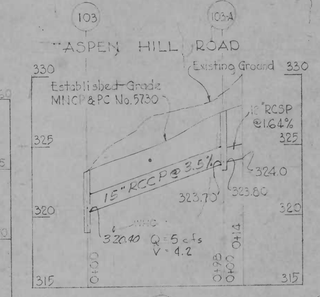
* State Rd. approval only required.
* As Revised at State Rd.
State Rd. Permit Required
Mod 58 Drainage
XX Revision of grade & profile from 104 approved 10/14/58 DBS

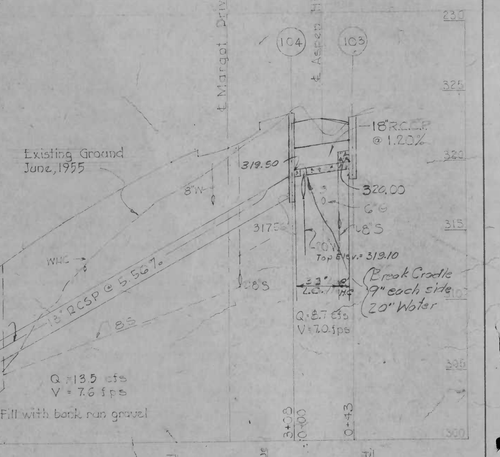
STRUCTURE No.83

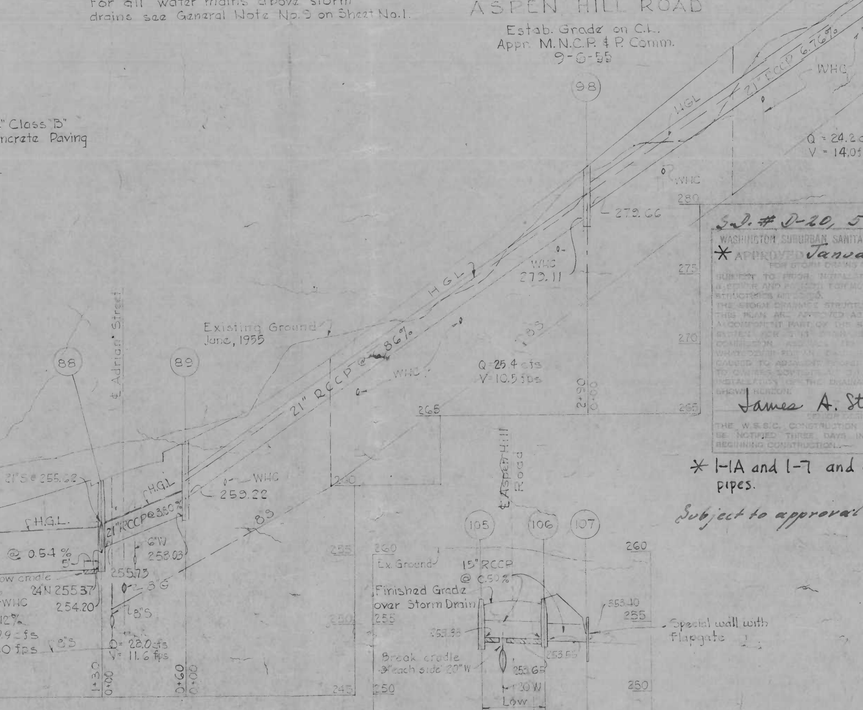
Scale: ½"=1'-0"

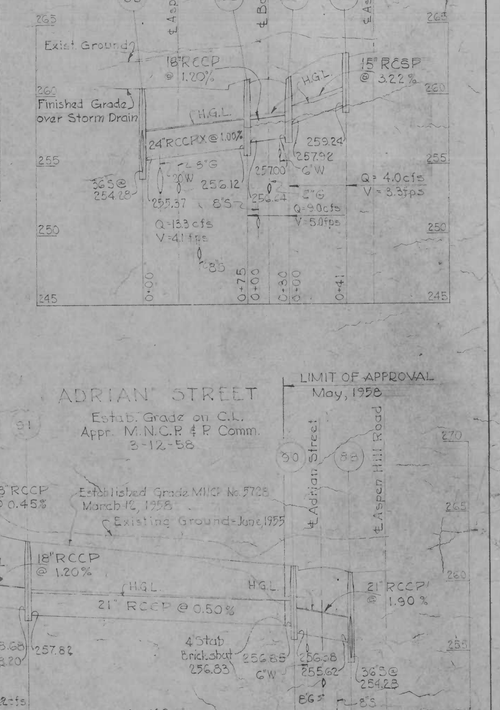
* Revision of ditches below 82 & 107 approved 9/18/58 DBS
* Profile revisions upgrade from 104 approved 10/14/58 DBS

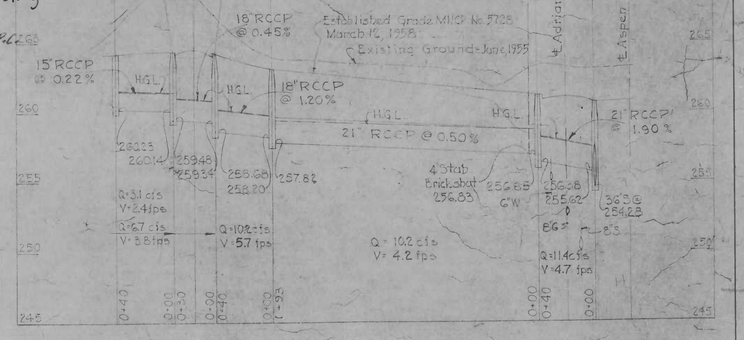


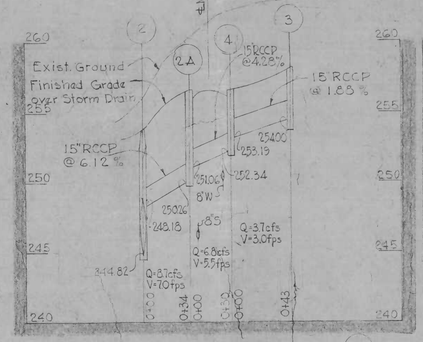


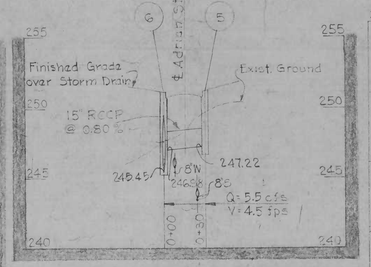


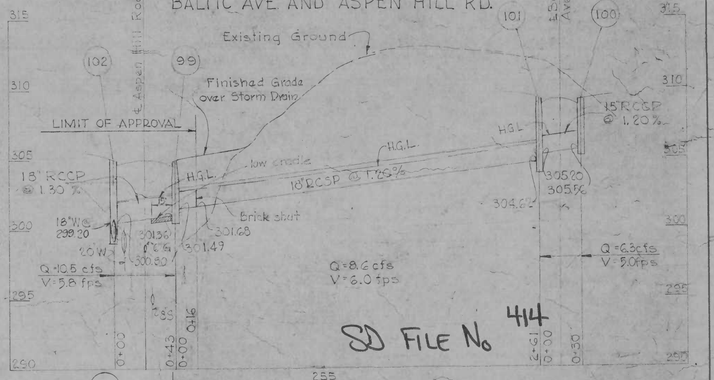












SD File No 414

DATE	REMARKS	BY
9/18/58	Ditches below outfalls #82 & 107	
9-23-57	TO CONFORM TO NEW STREET PLAN	

REVISIONS

ASPEN HILL PARK

MONTGOMERY COUNTY MARYLAND

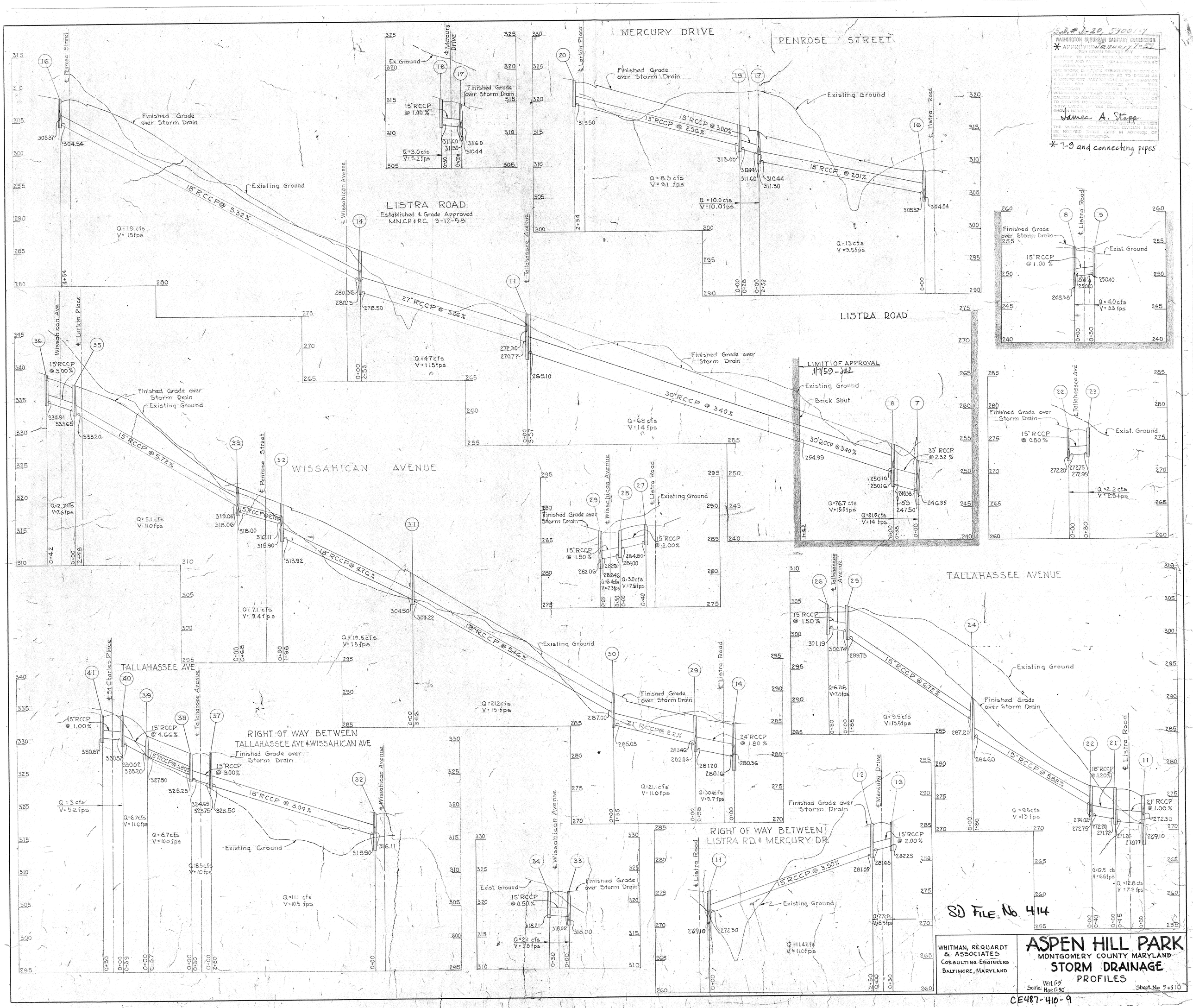
STORM DRAINAGE PROFILES

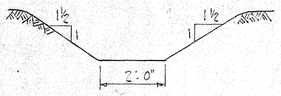
WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST PAUL STREET
BALTIMORE, MARYLAND

Scale: Vert. 1"=5' Horiz. 1"=50' May, 1958 Sheet No. 8 of 10

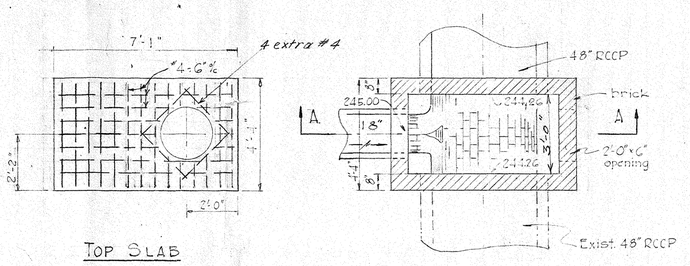
CE 487-410-8

217 NW/5 Gleneagles District


MERCURY DRIVE
PENROSE STREET
LISTRA ROAD
Established & Grade Approved
M.N.C.P. & P.C. 3-12-58
WISSAHICAN AVENUE
TALLAHASSEE AVENUE
TALLAHASSEE AVE
RIGHT OF WAY BETWEEN
TALLAHASSEE AVE & WISSAHICAN AVE
RIGHT OF WAY BETWEEN
LISTRA RD. & MERCURY DR.
LIMIT OF APPROVAL
Brick Shut
Finished Grade over Storm Drain
Existing Ground
18" RCCP @ 5.32%
27" RCCP @ 3.06%
30" RCCP @ 3.40%
18" RCCP @ 4.76%
18" RCCP @ 5.46%
21" RCCP @ 2.2%
15" RCCP @ 6.72%
15" RCCP @ 5.88%
15" RCCP @ 3.50%
18" RCCP @ 3.04%
15" RCCP @ 5.72%
15" RCCP @ 2.56%
18" RCCP @ 2.01%
33" RCCP @ 2.32%
24" RCCP @ 1.80%
15" RCCP @ 1.00%
15" RCCP @ 3.00%
15" RCCP @ 4.66%
15" RCCP @ 3.80%
15" RCCP @ 1.50%
15" RCCP @ 2.00%
15" RCCP @ 0.80%
15" RCCP @ 0.50%
21" RCCP @ 1.00%
18" RCCP @ 1.20%
Q = 19 cfs V = 15 fps
Q = 47 cfs V = 11.5 fps
Q = 68 cfs V = 14 fps
Q = 13 cfs V = 9.5 fps
Q = 10.0 cfs V = 10.0 fps
Q = 8.3 cfs V = 9.1 fps
Q = 3.0 cfs V = 5.2 fps
Q = 4.0 cfs V = 3.3 fps
Q = 2.2 cfs V = 2.5 fps
Q = 2.7 cfs V = 7.6 fps
Q = 5.1 cfs V = 11.0 fps
Q = 7.1 cfs V = 9.4 fps
Q = 19.5 cfs V = 15 fps
Q = 21.2 cfs V = 15 fps
Q = 21.1 cfs V = 11.0 fps
Q = 9.5 cfs V = 13.5 fps
Q = 11.1 cfs V = 10.5 fps
Q = 11.4 cfs V = 11.0 fps
Q = 12.5 cfs V = 6.6 fps
Q = 12.8 cfs V = 7.2 fps
Q = 2.1 cfs V = 3.8 fps
Q = 3 cfs V = 5.2 fps
Q = 6.7 cfs V = 11.0 fps
Q = 6.7 cfs V = 10.0 fps
Q = 8.5 cfs V = 10 fps
Q = 76.7 cfs V = 15.5 fps
Q = 81.5 cfs V = 14 fps
Q = 7.7 cfs V = 8.5 fps
Q = 6.7 cfs V = 7.0 fps
Q = 9.5 cfs V = 13 fps
Q = 6.4 cfs V = 7.3 fps
Q = 3.0 cfs V = 7.5 fps
Exist. Ground
Finished Grade over Storm Drain
WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED January 7-59
FOR STORM DRAINAGE ONLY
* 7-9 and connecting pipes
SD FILE No 414
WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
BALTIMORE, MARYLAND
ASPEN HILL PARK
MONTGOMERY COUNTY MARYLAND
STORM DRAINAGE
PROFILES
Scale: Vert. 1"=5' Hor. 1"=50'
Sheet No. 9 of 10
CE487-410-9

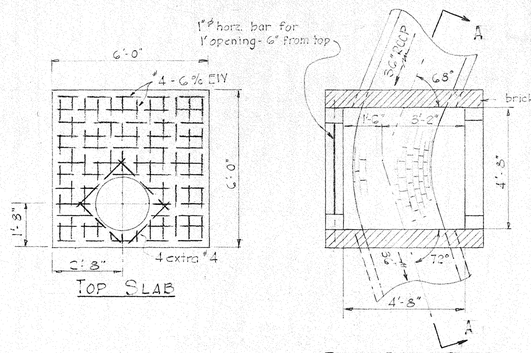


TYPICAL OPEN CHANNEL
BELOW STRUCTURE 77-A



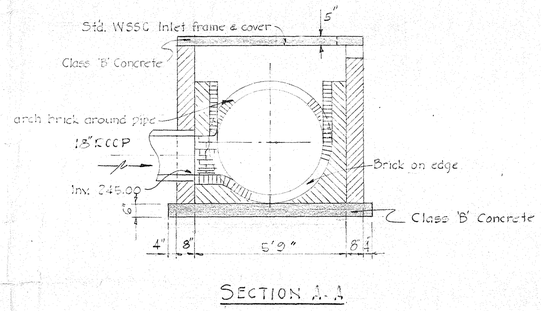
TOP SLAB

PLAN BELOW SLAB

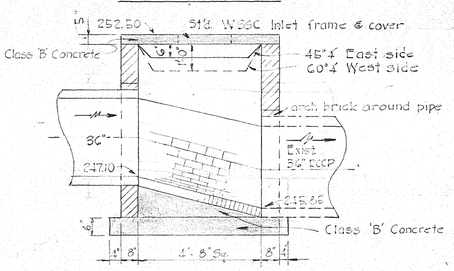


TOP SLAB

PLAN BELOW SLAB



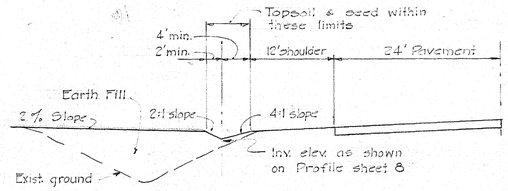
SECTION A-A



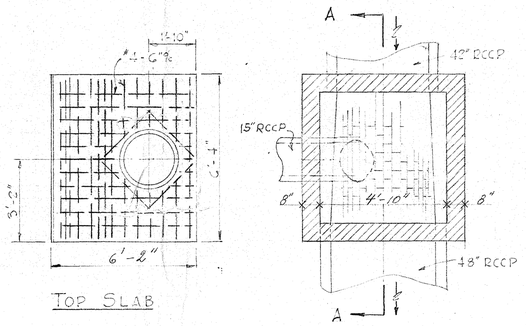
SECTION A-A

STRUCTURE No. 1
Scale: 3/8" = 1'-0"

STRUCTURE No. 42
Scale: 3/8" = 1'-0"



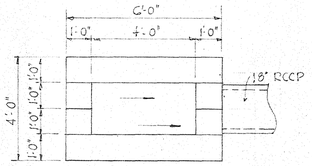
TYPICAL EARTH FILL SECTION
VIERS MILL ROAD
Scale: 1" = 10'

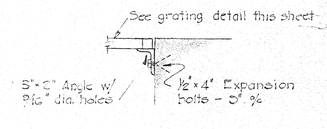


TOP SLAB

PLAN BELOW SLAB

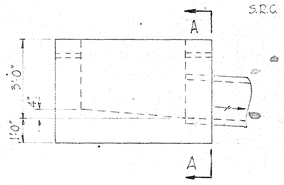
NOTE:
For details not shown see WSSC Standard Detail 561218-L



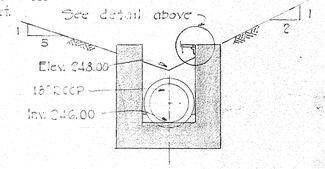


PLAN

Notes:
1. Concrete to be Class 'A'
2. For details not shown see S.R.C. Std. 'J' inlet



ELEVATION

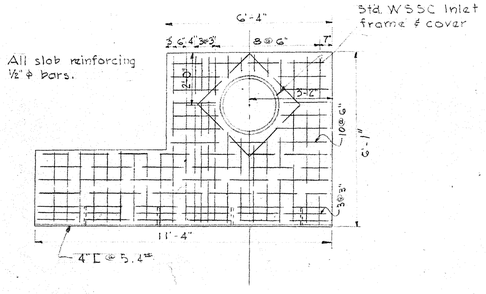


SECTION A-A

STRUCTURE No. 1-A
Scale: 3/8" = 1'-0"

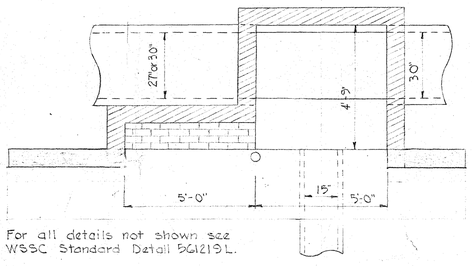
SECTION A-A

STRUCTURE No. 6
Scale: 3/8" = 1'-0"



SLAB PLAN

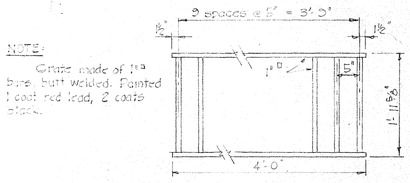
STRUCTURES NOS. 8 AND 4C
Scale: 3/8" = 1'-0"



For all details not shown see WSSC Standard Detail 561219L.

PLAN BELOW SLAB

STRUCTURES NOS. 8 AND 4C
Scale: 3/8" = 1'-0"



NOTE:
Grate made of 1" bars butt welded. Painted 1 coat red lead, 2 coats black.

GRATING DETAIL
Scale: 3/4" = 1'-0"

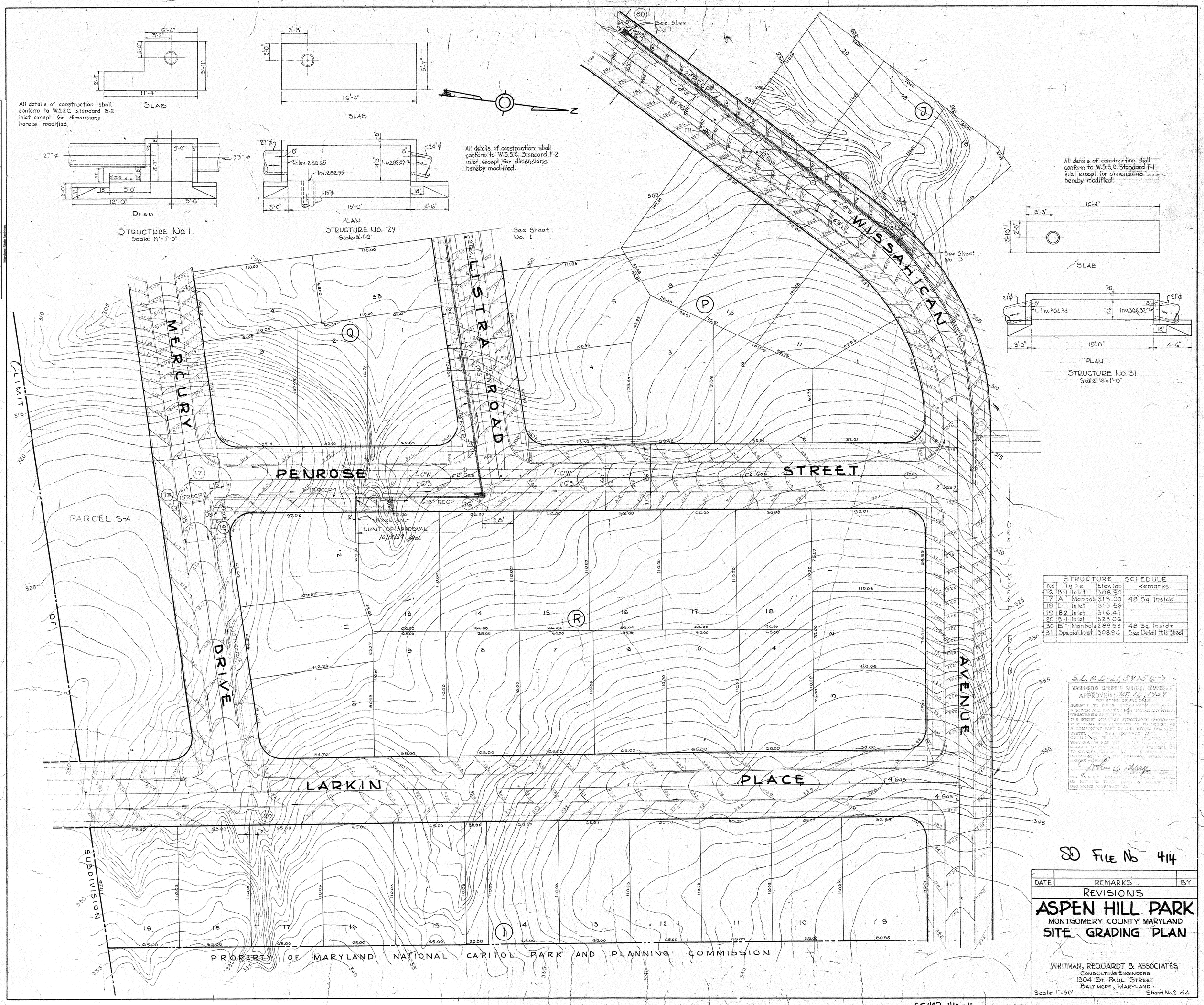
SD File No. 414

ASPEN HILL PARK
MONTGOMERY COUNTY MARYLAND
SITE GRADING PLAN
STORM DRAIN DETAILS

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND
Scale: As Shown
Sheet No. 10 of 10

CE 487-410-10

Maryland State Archives



STRUCTURE SCHEDULE				
No	Type		Elev. Top	Remarks
16	B-1	Inlet	308.90	
17	A	Manhole	315.00	48 Sq. Inside
18	B-1	Inlet	315.56	
19	B2	Inlet	316.47	
20	B-1	Inlet	323.06	
30	B	Manhole	289.93	48 Sq. Inside
31	Special	Inlet	308.96	See Detail this Sheet

S.L.A.D-21,59156-7

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED: Oct. 14, 1959
FOR STORM DRAINS ONLY

SUBJECT TO SAME INSTALLATION OF WATER & SEWER AND PAVING FOR MOVING ANY WHICH STRUCTURES AFFECTED.
THE STORM DRAINAGE STRUCTURES SHOWN ON THIS PLAN ARE APPROVED AS TO DESIGN AS A COMPONENT PART OF THE STORM DRAINAGE SYSTEM. THE STORM DRAINAGE AREA IS COMPLETE IN ACCORDANCE WITH RESPONSIBILITY WHICH MAY BE CAUSED TO ADJACENT PROPERTY OR TO GRADING OR ALTERATION OF THE INFRASTRUCTURE OF THE DRAINAGE STRUCTURES SHOWN HEREON.
John W. Mary
DEPUTY DIRECTOR, ENGINEER
THE WASHINGTON SUBURBAN SANITARY COMMISSION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

SD File No 414

DATE	REMARKS	BY

REVISIONS

ASPEN HILL PARK

MONTGOMERY COUNTY MARYLAND

SITE GRADING PLAN

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

Scale: 1"=30'

Sheet No. 2 of 4

CE487-410-11 6-30-59 FINAL 10-9-59

DATE	REMARKS	BY
	REVISIONS	

ASPEN HILL PARK

MONTGOMERY COUNTY MARYLAND

SITE GRADING PLAN

SECTION

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

Scale: 1" = 30'

Sheet No 2 of 5

414

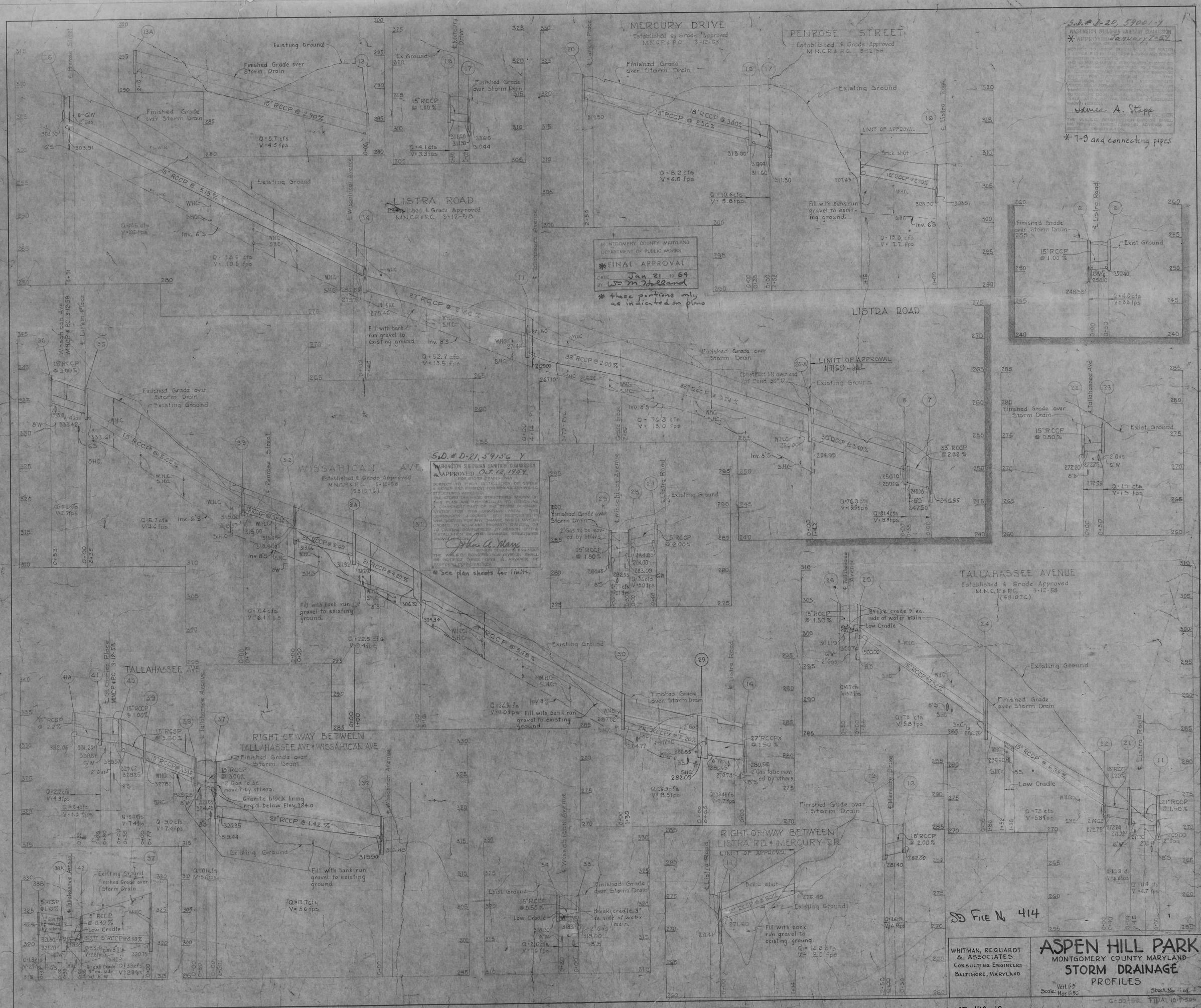
STRUCTURE SCHEDULE				
No	Type		Elev. Top	Remarks
71	F-2	Inlet	270.58	
72	F-2	Inlet	291.66	
73	A-1	Inlet	293.42	
74	B-1	Inlet	293.43	
71A	B	Manhole	274.09	48" Sq. Inside
76	B	Manhole	296.69	48" Sq. Inside
~~77~~	~~A-1~~	~~Inlet~~	~~302.85~~	
~~78~~	~~B-1~~	~~Inlet~~	~~[illegible]~~	

PIPE SCHEDULE		
Size	Type	Length
15"	RCCP	119'
18"	RCCP	346'
~~21"~~	~~RCCP~~	~~345'~~

CE487-410-14

SD FILE NO. 414

FINAL: SEPT 23, 1959



S.D. # D-20, 59001-Y
WASHINGTON SUBURBAN SANITARY COMMISSION
* APPROVED January 7-59
James A. Stapp
* 7-9 and connecting pipes
MERCURY DRIVE
Established & Grade Approved
M.N.C.P. & P.C. 3-12-58
PENROSE STREET
Established & Grade Approved
M.N.C.P. & P.C. 3-12-58
LISTRA ROAD
Established & Grade Approved
M.N.C.P. & P.C. 3-12-58
MONTGOMERY COUNTY MARYLAND
DEPARTMENT OF PUBLIC WORKS
* FINAL APPROVAL
DATE Jan 21 1959
BY Wm M Holland
* these portions only as indicated on plans
LIMIT OF APPROVAL
1/7/59
S.D. # D-21, 59156 Y
WASHINGTON SUBURBAN SANITARY COMMISSION
* APPROVED Oct. 12, 1959
FOR STORM DRAINS ONLY
* See plan sheets for limits.
WISSAHICAN AVE.
Established & Grade Approved
M.N.C.P. & P.C. 3-12-58
(581076)
TALLAHASSEE AVENUE
Established & Grade Approved
M.N.C.P. & P.C. 3-12-58
(581076)
TALLAHASSEE AVE
RIGHT OF WAY BETWEEN
TALLAHASSEE AVE & WISSAHICAN AVE
RIGHT OF WAY BETWEEN
LISTRA RD. & MERCURY DR.
LIMIT OF APPROVAL
SD FILE No 414
WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
BALTIMORE, MARYLAND
ASPEN HILL PARK
MONTGOMERY COUNTY MARYLAND
STORM DRAINAGE
PROFILES
Scale: Vert. 1:5 Hor. 1:50
Sheet No. 4 of 4
FINAL 10-9-59

CE487-410-13

DATE	REMARKS	BY

REVISIONS

ASPEN HILL PARK

MONTGOMERY COUNTY MARYLAND

SITE GRADING PLAN

SECTION

414

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

Scale: 1" = 30' Sheet No 2 of 5

STRUCTURE SCHEDULE

No	Type		Elev Top	Remarks
71	F-2	Inlet	270.59	
72	F-2	Inlet	291.66	
73	A-1	Inlet	293.42	
74	B-1	Inlet	293.43	
71A	B	Manhole	274.09	48" Sq Inside
76	B	Manhole	296.69	48" Sq Inside
77	A-1	Inlet	302.85	
78	B-1	Inlet	[illegible]	

PIPE SCHEDULE

Size	Type	Length
15"	RCCP	119'
18"	RCCP	346'
21"	RCCP	315'

CE487-410-14

SD FILE NO. 414

FINAL: SEPT 23, 1959

GENERAL NOTES

1. All elevation shown are based on WSSD datum.
2. All pipe and channel elevations shown are invert elevations.
3. Information concerning underground utilities was obtained from available records, but the Contractor must determine the exact location and elevation of the mains by digging test pits by hand at all utility crossings well in advance of trenching.
4. Unless otherwise shown, Inlets are 3' back of curb and gutter fillet P.C.
5. Types of structures refer to the Washington Suburban Sanitary Commission's Standard Storm Drainage Details unless otherwise noted.
6. All curb fillets are 25' radius.
7. All storm drains shall be constructed in accordance with the General Specifications of the Washington Suburban Sanitary Commission, adopted September 30, 1954.
8. Steps shall be provided in the channels of structures involving pipes larger than 27" in accordance with the Washington Suburban Sanitary Commission's Standard Detail.

MONTGOMERY COUNTY MARYLAND
DEPARTMENT OF PUBLIC WORKS
FINAL APPROVAL
DATE August 14, 58
Subject to State Rd Agreement
As revised 7-24-58 if any
State Rd Permit Required
S.D. # D-18, 58061-7

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED August 6-58
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. THE 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.
James A. Stapp
SENIOR ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

Revision of ditches below 82 & 107 approved 9/18/58 JAS

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED OCT. 27 1959
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. THE 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.
James A. Stapp
SENIOR ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

S.D. # D-18-58061-7

ADRIAN ST. IMPROVE FROM LIMIT OF APPROVAL

APPROVED AUG. 14, 1958

July 15, 1958 Submission

Approved Aug. 6, 1958

Existing 24" RCP

Limit of Mill Creek Watershed

Limit of Ex. highway drainage ditch & Ex. R.C. Easement Area

Proposed outfall ditch to drain into Ex. 24" RCP

TYPICAL DITCH SECTION
No Scale

℄ Curve Data
Δ = 12°-30'
R = 354.00'
T = 38.77'
L = 77.23'

Right of Way Pole to be moved by others. See detail this Area Sheet 4

Paved ditch to drain into Exist. 24" RCP

Paved ditch to drain into Exist. 24" RCP

Construct Concrete ditch from Catch Structure No. 82 to Exist. 24" RCP @ Lot 6 Block T See detail Sheet 4 of 4.

Construct Concrete ditch from Catch Structure No. 82 to Exist. 24" RCP @ Lot 6 Block T See detail Sheet 4 of 4.

Construct 10' Rip Rap Apron and brick Shaft

See Sheet No. 2

STRUCTURE SCHEDULE			
No.	Type	Elev. Top	Remarks
87	Manhole	257.50	See detail Sheet 4
88	B Manhole	260.98	4'0" Inside Square
89	A-2 Inlet	263.00	
90	A-2 Inlet	261.85	
91	B Manhole	263.43	4'0" Sq. Inside
92	B-1 Inlet	264.84	
93	B-1 Inlet	264.84	
94	A-1 Inlet	264.23	
95	B-1 Inlet	261.35	
96	B-1 Inlet	261.65	
97	B-1 Inlet	262.00	
98	B-2 Inlet	262.78	
99	B-1 Inlet	305.05	
100	F-1 Inlet	309.38	Not Included
101	B-1 Inlet	309.[illegible]	
102	B-2 Inlet	305.05	
105	A-1 Inlet	256.88	
106	A-1 Inlet	256.88	
82	Endwall with Flagstone		See detail Sheet 4
107	Endwall with Flagstone		See detail Sheet 4

PIPE SCHEDULE		
S	Type	Length
15	R.-SR	41
18	RCCP	32
18	RCP	20
21	RCCP	688
24	RCCPX	15
24	RCP	135
36	RCCP	135

LAWRENCE L. LEVIN, OWNER
4901 RANDOLPH ROAD
ROCKVILLE, MD.

DATE	REMARKS	BY
9/18/58	Ditches below outfalls #82 & 107	

REVISIONS

ASPEN HILL PARK
MONTGOMERY COUNTY MARYLAND
SITE GRADING PLAN
STORM DRAINAGE

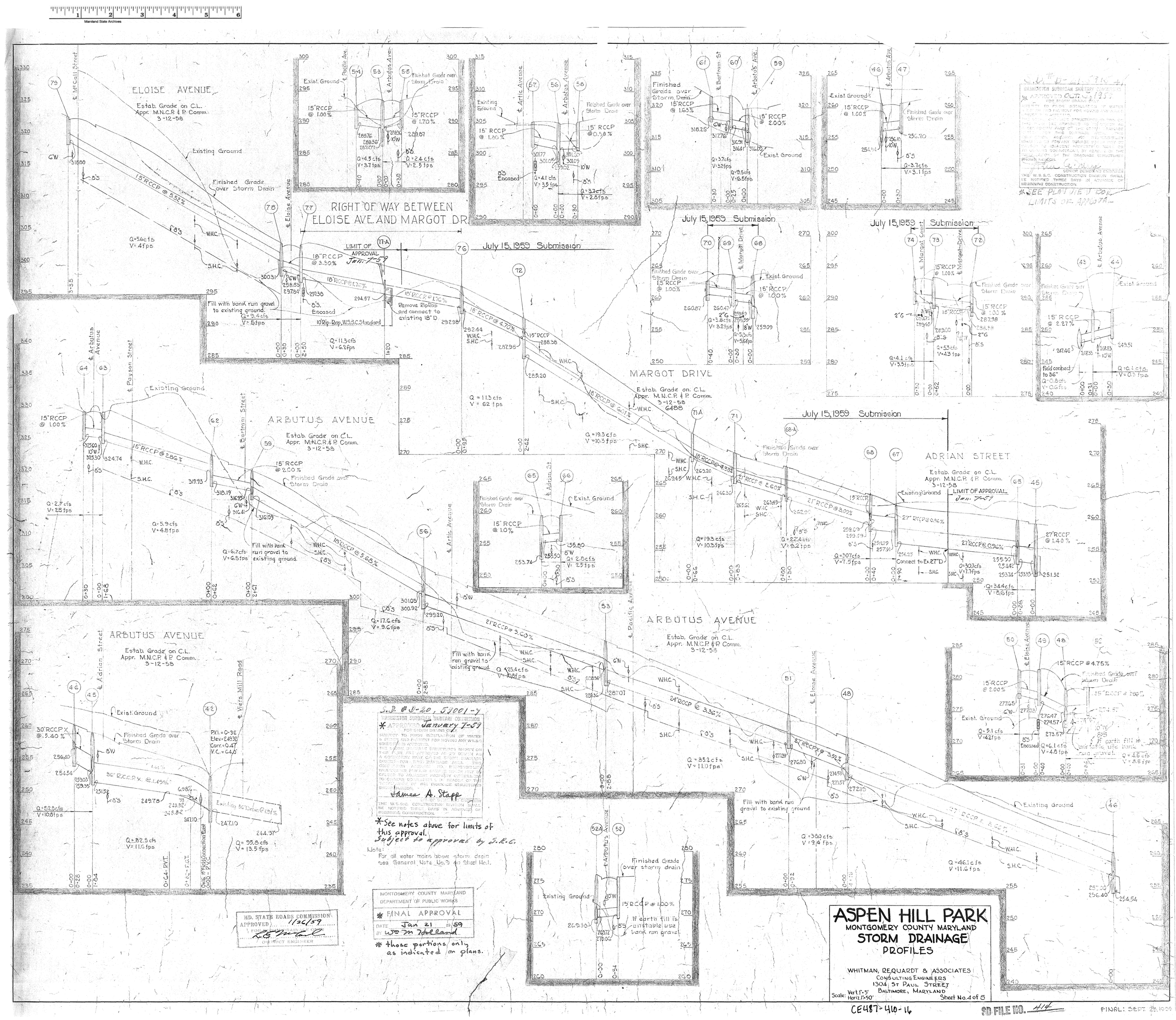
SD FILE NO. 414

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

May, 1958 Scale: 1"=30' Sheet No. 3 of 5

217 NW 5 Glenmont District

CE487-410-15


ELOISE AVENUE
Estab. Grade on C.L. Appr. M.N.C.P. & P. Comm. 3-12-58
RIGHT OF WAY BETWEEN ELOISE AVE. AND MARGOT DR.
July 15, 1959 Submission
LIMIT OF APPROVAL Jan. 7-59
MARGOT DRIVE
Estab. Grade on C.L. Appr. M.N.C.P. & P. Comm. 3-12-58
ARBUTUS AVENUE
Estab. Grade on C.L. Appr. M.N.C.P. & P. Comm. 3-12-58
ADRIAN STREET
Estab. Grade on C.L. Appr. M.N.C.P. & P. Comm. 3-12-58
LIMIT OF APPROVAL Jan. 7-59
ARBUTUS AVENUE
Estab. Grade on C.L. Appr. M.N.C.P. & P. Comm. 3-12-58
ARBUTUS AVENUE
Estab. Grade on C.L. Appr. M.N.C.P. & P. Comm. 3-12-58
Existing Ground
Finished Grade over Storm Drain
Fill with bank run gravel to existing ground.
Remove RipRap and connect to existing 18" D
Field connect to 36"
Connect to Ex. 27" D
If earth fill is unstable use bank run gravel.
S.D. # D-20, 59001-7
WASHINGTON SUBURBAN SANITARY COMMISSION
* APPROVED January 7-59
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.
SENIOR DESIGN ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.
* See notes above for limits of this approval.
Subject to approval by S.R.C.
Note:
For all water mains above storm drain see General Note No. 9 on Sheet No. 1.
MONTGOMERY COUNTY MARYLAND
DEPARTMENT OF PUBLIC WORKS
* FINAL APPROVAL
DATE Jan 21 1959
BY Wm M Holland
* those portions only as indicated on plans.
MD. STATE ROADS COMMISSION
APPROVED 1/26/59
FOR STORM DRAINAGE ONLY
DISTRICT ENGINEER
ASPEN HILL PARK
MONTGOMERY COUNTY MARYLAND
STORM DRAINAGE
PROFILES
WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST PAUL STREET
BALTIMORE, MARYLAND
Scale: Vert. 1"=5' Horiz. 1"=50'
Sheet No. 4 of 5
CE487-410-16
SD FILE NO. 414
FINAL: SEPT. 23, 1959

PLAN

All Concrete Class "B"

STRUCTURE No.87
SLAB REMOVED

STRUCTURE No.82

SLAB

Standard WSSC Inlet Frame & Cover

All bars #4

SECTION "C-C"

Concrete Paving Class "B" conc. 6"x6"-#4 Wire Mesh

SECTION "A-A"

STRUCTURE No.87

STRUCTURE No.82

SECTION "B-B"

SECTION "D-D"

4" Class "B" Concrete Paving

STRUCTURES 82 & 87

No Scale

Note:
For all water mains above storm drains see General Note No.9 on Sheet No.1

MONTGOMERY COUNTY MARYLAND
DEPARTMENT OF PUBLIC WORKS
* FINAL APPROVAL
DATE Jan. 21 19 59
BY Wm M Holland
* those portions only as indicated on plans.

MD. STATE ROADS COMMISSION
APPROVED 1/26/59
DISTRICT ENGINEER

ARTIC AVENUE
Estab Grade on C.L.
Appr. M.N.C.P. & P. Comm.
3-12-58

Established Grade MNCP&PC No.5717 - 12-24-1957
Existing Ground June, 1955

Aspen Hill Road

21"RCCP @ 1.28%
15"RCCP @ 1.50%
18"RCCP @ 1.80%
Open Channel
10' Rip Rap, WSSC Standard
H.G.L.
8"W
8"S
8"G

Q=11.8cfs V=3.0fps
Q=11.8cfs V=4.8fps
Q=11.8cfs V=6.4fps
Q=6.4cfs V=5.0fps

ASPEN HILL ROAD

Established Grade MNCP&PC No.5730

Existing Ground June, 1955

15"RCCP @ 3.5%
RCSP @ 1.64%
Q=5 cfs V=4.2

Established Grade MNCP&PC No.5730 9-16-1955

Q=18.5 cfs V=7.6 fps

Fill with bank run gravel

18"RCCP @ 1.20%

Break Cradle 10" each side 20" Wide

Q=8.7 cfs V=3.0 fps

ASPEN HILL ROAD
Estab. Grade on C.L.
Appr. M.N.C.P. & P. Comm.
9-6-55

Q=24.2 cfs V=14.0 fps

Existing Ground June, 1955

21"RCCP @ 0.54%

Q=26.4 cfs V=10.9 fps

Finished Grade over Storm Drain

Existing Ground

18"RCCP @ 1.00%

24"RCCPX @ 1.00%

15"RCSP @ 3.22%

Q=4.0 cfs V=3.3 fps

Q=13.3 cfs V=4.1 fps

Q=5.0 cfs

Note:
Flap gates shall be furnished with brass studs, bushings, and nuts, and bronze cotter pins.

4 anchor bolts supplied with gate. Chisel groove in outside of pipe where necessary for placing bolts.

Form ½" deep recess in wall for link.

Armco Model 100 Flap Gate or approved equal

Flap Gate for 21"D. & 15"D similar

SECTION "A-A"

FLAP GATE DETAILS

Scale: ½"=1'-0

Armco Model 100 Flap Gate or approved equal. See detail above.

Rip-Rap, WSSC Standard

Standard WSSC Rip-Rap

Class B Concrete

Fill Slope

ELEVATION

SECTION "E-E"

Special Endwall for 15" Pipe with flapgate the same as shown for 21" Pipe.

TYPICAL OPEN CHANNEL BELOW STRUCTURE No.83

S.D. #0-24&91-4

WASHINGTON SUBURBAN SANITARY COMMISSION
* APPROVED Oct. 5, 1954
SUBJECT TO A FINAL INSPECTION OF WATER AND SEWER MAINS AND TO THE CONDITIONS SET FORTH IN THE PERMIT FOR THIS PLAN. THE SIZE OF STRUCTURES SHOWN ON THIS PLAN ARE APPROVED AS A COMPONENT PART OF THE STORM DRAINAGE SYSTEM FOR THIS DRAINAGE AREA. THIS COMMISSION ASSUMES NO RESPONSIBILITY WHATSOEVER AS TO ANY DAMAGE WHICH MAY BE CAUSED TO ADJACENT PROPERTY OWNERS, OR TO OWNERS DOWNSTREAM, BY REASON OF THE DESIGN OF THE DRAINAGE STRUCTURES SHOWN HEREON.
James A. Stapp
ENGINEER-SECRETARY
* THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

MONTGOMERY COUNTY MARYLAND
DEPARTMENT OF PUBLIC WORKS
* FINAL APPROVAL
DATE Aug. 16 19 57
BY J. D. Lane

* 2 blk Rd. approval only required.
* As Revised at Blk Rd.
Blk Rd. Permit Required
Under Drainage
XX Revision of road & grade some 1st time at 11:57

STRUCTURE No.83

Scale: ½"=1'-0

* Revision of ditches below 82 & 107 approved 2/18/58 JDS

* Profile revisions upgrade from 104 approved 10/14/58 JDS

VIERS MILL ROAD
- Not Included -

Exist. & Viers Mills Rd.

Existing Ground

Proposed ditch meets existing ditch at Sta. 0+80±

Top Elev. 251.00

Proposed ditch Inv @ 1.00%?

18" RCCP @ 0.5%

244.26

245.00

Q=3.5cfs V=2.0fps

Cut existing 48" pipe at property line along Viers Mill Road and construct structure No.1

See Detail of new Ditch Sheet No. 10

Existing ditch North side of Viers Mill Rd.

FOR ALIGNMENT & PROFILE REVISIONS FROM 1A TO 1 AND FROM 1 TO 2 SEE SHEET 10A OF 10 approved 5/22/59 JDS

VIERS MILL ROAD

Existing Ground
Viers Mill Road
Hydraulic Gradient

21"S @ 255.42

21"RCCP @ 0.50%

36"RCCP @ 0.54%

24"N

Low cradle

Q=47.9 cfs V=7.0 fps

Q=28.0 cfs V=11.6 fps

Q=50.5 cfs V=8.8 fps

Channel to be Paved See Section "D-D" above

Culvert Existing Highway Ditch 0.2%

Ex.24"D

Ex.36"D

H.G.L.

W.H.C.

8"S

8"W

8"G

* SEE PLAN VIEW FOR LIMITS OF APPROVAL

Note:
For all water mains above storm drains see General Note No.9 on Sheet No.1

Existing Ground June, 1955

Finished Grade over Storm Drain

Ex Ground

15"RCCP @ 0.50%

Special wall with Flapgate

Break cradle 8 each side 20" W

Low Cradle

Q=2.1 cfs V=1.8 fps

Q=2.8 cfs V=2.0 fps

Mercury Drive

Adrian Street

Aspen Hill Road

* 1-1A and 1-7 and connecting pipes.

Subject to approval by S.H.C.

ADRIAN STREET
Estab. Grade on C.L.
Appr. M.N.C.P. & P. Comm.
3-12-58

Finished Grade over Existing Ground

42"RCCP @ 0.77%

48"RCCP @ 0.36%

48"RCCP @ 0.32%

Existing 48" Pipe @ 12%

Q=8.2 cfs V=8.4 fps

Q=8.8 cfs V=6.9 fps

Q=8.8 cfs V=6.9 fps

Q=9.9 cfs V=7.8 fps

Viers Mill Road

July 15, 1959 Submission

LIMIT OF APPROVAL May, 1958

ADRIAN STREET
Estab. Grade on C.L.
Appr. M.N.C.P. & P. Comm.
3-12-58
5728

Established Grade MNCP No. 5728 March 12, 1958

Existing Ground June, 1958

18" RCCP @ 0.60%

15" RCCP @ 0.50%

18" RCCP @ 1.20% Connect to Ex. 27"D

21" RCCP @ 0.60%

21" RCCP @ 1.90%

Q=3.1 cfs V=2.4 fps

Q=6.7 cfs V=3.8 fps

Q=10.2 cfs V=5.7 fps

Q=10.2 cfs V=4.2 fps

Q=11.4 cfs V=4.7 fps

RIGHT OF WAY BETWEEN BALTIC AVE. AND ASPEN HILL RD.

Existing Ground

Finished Grade over Storm Drain

LIMIT OF APPROVAL

18" RCCP @ 1.30%

18" RCCP @ 1.20%

15" RCCP @ 1.20%

Brick shut

Q=10.5 cfs V=5.8 fps

Q=8.6 cfs V=6.0 fps

Q=6.3 cfs V=5.0 fps

SD File No 414

DATE	REMARKS	BY
9/18/59	Ditches between outfalls #82 & #107	
9-23-57	TO CONFORM TO NEW STREET PLAN	

REVISIONS

ASPEN HILL PARK
MONTGOMERY COUNTY MARYLAND
STORM DRAINAGE
PROFILES

WHITMAN, REQUARDT & ASSOCIATES
CONSULTING ENGINEERS
1304 ST PAUL STREET
BALTIMORE, MARYLAND

Scale: Vert. 1"=5' Horiz. 1"=50'
May, 1958
Sheet No. 5 of 5

CE 487-410-17

SD FILE NO. 414

2 17 NW 5 Glenmont District
FILMED SEP 22 1959