Herzog's
EST. 1909
HOME & PAINT CENTERS
www.herzogs.com

July 26, 2019

Suzanne Cahill, Planning Director
City of Kingston
420 Broadway
Kingston, N.Y. 12401

Re: Demolition of Herzog's Warehouse Building at 9-17 North Front Street

Dear Ms. Cahill and Planning Board Members:

We understand that the Planning Board had requested some information relative to the proposed demolition of our warehouse building at 9-17 North Front Street.

In anticipation of the possible demolition of this structure in the future, we had an Asbestos Survey conducted in March, 2018. Following completion of the survey, we had a complete asbestos abatement performed on 11/5/2018 through 11/27/2018.

We enclose herein copies of the relevant reports.

We understand that a demolition permit will be required prior to commencement of demolition activities. In reviewing the permit, it requires identification of a demolition contractor and notification to all utilities for disconnection of electric, gas, water and sewer to the building. The project is not yet advanced to the point where such an application can be made, but we would be happy to respond to any questions that the Planning Board might have pertaining to this matter.

Very truly yours,

Bradley W. Jordan
President

w/attachments

Corporate Office
Kingston
PO Box 3328
Kingston, NY 12402
Phone: 845-338-6300
Fax: 845-338-6286

Albany
296 Central Ave.
Albany, NY 12206
Phone: 518-465-1526
Fax: 518-463-6807

Latham
898 New Loudon Rd.
Latham, NY 12110
Phone: 518-782-1590
Fax: 518-782-1402

Poughkeepsie
409 Manchester Road
Poughkeepsie, NY 12603
Phone 845-471-0133
Fax 845-471-6149

Fishkill
1083 Route 9
Fishkill, NY 12524
Phone 845-296-0222
Fax 845-296-1056

McLoughlin Properties, LLC

To: **Owner/Claimant: 9 Front St., (Herzog's Wearhouse)**

From: Joseph P. McLoughlin NYSDOL Monitor # 17-42920

Date: 11/30/2018

Re: Asbestos Abatement Air Sampling, Monitoring: 9 Front St. (Herzog's Wearhouse)

Hello,

An clearance air sampling, lab evaluation, and visual clearance inspection by a NYSDOL Licensed project monitor determined the satisfactory abatement of Asbestos Containing Material located on the 1st, and 2nd floors of Herzog's Wearhouse, 9 Front St., Kingston, NY.

All levels of asbestos in the air following the abatements of the aforementioned property were below .01 fibers per cubic centimeter of air sampled. Due to this result, 9 Front St. received an air clearance grading as per NYS Code Rule 56.

Along with this, as per NYS CR56, the project required a final visual inspection of the work area by a licensed Project Monitor, to ensure no presence of the identified ACM following removal. The work area passed a visual inspection, and is clear of all identified ACM.

Air sampling analysis was conducted by San Air Labs, in Powhatan, West Virginia.

Project monitoring, and air sampling were conducted by Joseph McLoughlin, of McLoughlin Properties, LLC (NYSDOL # 17-42920).

Attached below are all air sample results, a daily log summary, pictures of the work area following abatement, and copies of all licenses.

Thank You,

Joseph P. McLoughlin

McLoughlin Properties, LLC

845.392.2370

McLoughlinProperties@gmail.com

McLoughlin Properties, LLC

Daily Project Log Summary

11/5 Planning, and determination of layout of facilities for abatement of 2nd floor materials. Conducted background sampling of 2nd floor worksite and identified ACM. Mobilization of equipment.

11/6 Begin setup of work area, Establishing size and structure of main decontamination facility for 2nd floor removal.

11/7 after decontamination unit is established, begin plasticizing internal work area, establishing critical barrier covers on all outlets, and ensuring that any opening within the critical barriers of the work area is covered, and marked with appropriate signage. Negative air established within WA, and required waiting period observed.

11/8 Removal Day 1 commences after brief safety meeting, and WA checklist. Workers are provided full PPE, and reminded of proper removal methods. Several checks made throughout day by PM. Air samples remained below .01 f/cc for day.

11/9 Removal Day 2, 2nd floor. Workers instructed to make sure they do not allow waste to accrue within WA. Bags cleaned, labeled and brought out to enclosed dumpster. (Although enclosed dumpster is not a priority for given project, due to level of friability of ACM, contractor took preventative measures to ensure no bagged, labeled ACM waste is disturbed once disposed, given length of project, and placement of dumpster). Air samples remained below .01 f/cc

11/10 Removal day 3, 2nd floor. Wet methods of removal being used, air changes on schedule. Multiple machines inside WA, sufficient for SF of WA, and to ensure no loss of integrity when air changes are being completed. Samples remain below .01 f/cc

11/12 Removal day 4, 2nd floor. Multiple visits inside WA by PM. All ACM located on walls is removed, waiting period observed prior to commencing removal of flooring that also contains same, non-friable ACM. Samples remain below .01 f/cc

11/13 Removal day 5, 2nd floor. Removal of flooring, and small items along base of flooring that contain remnants of ACM from time of application. Samples remain below .01 f/cc

11/14 Removal Day 6, 2nd floor. Flooring continued. Wood of floor being disposed of as PACM, given its porous qualities, and possible contamination from remnants of ACM. Samples remain below .01 f/cc. Background samples conducted for 1st floor Work Area.

McLoughlin Properties, LLC

11/15 Removal Day 7, 2nd floor. Flooring removal is being completed. All ACM taken from inside WA and disposed of in proper receptacle. Air changed observed, with 1 final air change at completion of work day, prior to commencement of waiting period. Samples remain below .01 f/cc

11/16 Workers on-site, begin mobilization of equipment for 1st floor work area. Begin clearance samples of 2nd floor WA, using aggressive sampling methods. WA passes visual inspection. To receive clearance results on Monday.

11/17 Workers on-site, continue mobilization of equipment to 1st floor WA. Decon does not need to be attached to work area given friability of identified ACM.

11/19 critical barriers are applied to 1st floor WA. Clearance samples for 2nd floor WA are received, and read below .01 f/cc for all samples taken. Workers spend afternoon beginning breakdown of 2nd floor WA as per clearance results, as negative air is established in 1st floor WA, and mandatory waiting period is observed prior to any removal activities. Minor pipe wrap area is setup for removal.

11/20 1st floor removal, all materials bagged, labeled, and disposed of in covered receptacle. Minor pipe wrap area is abated, and waiting time is observed prior to clearance sampling. Proper labels in place, removal samples remain below .01 f/cc

11/21 1st floor work area is cleared using aggressive sampling methods. 1st floor work area passes visual inspection. Workers continue to break down 1st floor WA.

11/27 Breakdown of 1st floor WA given clearance results being received on Monday, (lab hours differed due to holiday). Mobilization of all equipment from work site. Work is complete.

WORKERS PRESENT (11/5-10, 11/12-17, 11/19-21, 11/27):

Supervisor- Jorge Rodriguez #03-06935

Handler- Wimper Briones #07-04857

Handler- Eric Olivia #06-23162

Handler- Rodolfo Alas #08-95217

Handler- Jose Lian #04-52086

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18053029
FINAL REPORT
11/16/2018 11:28:52 AM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St
P.O. Number:
Project Name: Herzog WHSE 2nd
Collected Date: 11/5/2018
Received Date: 11/14/2018 10:25:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18053029-001	IWA Backgrounds 2nd	915	<5.5	100	0.003	7.006	<0.003	0.19
2 18053029-002	IWA Backgrounds 2nd	915	<5.5	100	0.003	7.006	<0.003	0.19
3 18053029-003	IWA Backgrounds 2nd	900	<5.5	100	0.003	7.006	<0.003	0.19
4 18053029-004	IWA Backgrounds 2nd	900	<5.5	100	0.003	7.006	<0.003	0.19
5 18053029-005	IWA Backgrounds 2nd	915	<5.5	100	0.003	7.006	<0.003	0.19
6 18053029-006	OWA Backgrounds 2nd	900	<5.5	100	0.003	7.006	<0.003	0.19
7 18053029-007	OWA Backgrounds 2nd	915	<5.5	100	0.003	7.006	<0.003	0.19
8 18053029-008	OWA Backgrounds 2nd	900	<5.5	100	0.003	7.006	<0.003	0.19
9 18053029-009	OWA Backgrounds 2nd	915	<5.5	100	0.003	7.006	<0.003	0.19
10 18053029-010	OWA Backgrounds 2nd	915	<5.5	100	0.003	7.006	<0.003	0.19
FB01 18053029-011	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18053029-012	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst: _____ Approved Signatory: _____

Analysis Date: 11/16/2018 Date: 11/16/2018

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18052393
FINAL REPORT
11/12/2018 6:05:24 PM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St
P.O. Number:
Project Name: Herzog's WHSE 2nd
Collected Date: 11/8/2018
Received Date: 11/12/2018 8:40:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18052393-001	Decon Clean, Removal 11/8	1227	<5.5	100	0.002	7.006	<0.002	0.19
2 18052393-002	Decon Waste, Removal 11/8	1227	<5.5	100	0.002	7.006	<0.002	0.19
3 18052393-003	Outside Barrier 1, Removal 11/8	1227	<5.5	100	0.002	7.006	<0.002	0.19
4 18052393-004	Outside Barrier 2, Removal 11/8	1224	<5.5	100	0.002	7.006	<0.002	0.19
5 18052393-005	Negative Air Exhaust, Removal 11/8	1227	<5.5	100	0.002	7.006	<0.002	0.19
6 18052393-006	Outside Environmental, Removal 11/8	1227	<5.5	100	0.002	7.006	<0.002	0.19
FB01 18052393-007	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18052393-008	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst: _____ Approved Signatory: _____

Analysis Date: 11/12/2018 Date: 11/12/2018

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18052372
FINAL REPORT
11/12/2018 5:57:12 PM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St.
P.O. Number:
Project Name: Herzog's WHSE 2nd
Collected Date: 11/9/2018
Received Date: 11/12/2018 8:40:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18052372-001	Decon Clean, Removal 11/9	1269	<5.5	100	0.002	7.006	<0.002	0.19
2 18052372-002	Decon Waste, Removal 11/9	1269	<5.5	100	0.002	7.006	<0.002	0.19
3 18052372-003	Outside Barrier 1, Removal 11/9	1269	<5.5	100	0.002	7.006	<0.002	0.19
4 18052372-004	Outside Barrier 2, Removal 11/9	1266	<5.5	100	0.002	7.006	<0.002	0.19
5 18052372-005	Negative Air Exhaust, Removal 11/9	1269	<5.5	100	0.002	7.006	<0.002	0.19
6 18052372-006	Outside Environmental, Removal 11/9	1266	<5.5	100	0.002	7.006	<0.002	0.19
FB01 18052372-007	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18052372-008	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst: _____ Approved Signatory: _____

Analysis Date: 11/12/2018 Date: 11/12/2018

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18052639
FINAL REPORT
11/13/2018 7:57:32 PM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St.
P.O. Number:
Project Name: 9 Front St. Herzog WHSE
Collected Date: 11/10/2018
Received Date: 11/13/2018 10:00:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18052639-001	Decon Clean Removal 11/10	1436	<5.5	100	0.002	7.006	<0.002	0.19
2 18052639-002	Decon Waste Removal 11/10	1440	<5.5	100	0.002	7.006	<0.002	0.19
3 18052639-003	Outside Barrier 1 Removal 11/10	1440	<5.5	100	0.002	7.006	<0.002	0.19
4 18052639-004	Outside Barrier 2 Removal 11/10	1440	<5.5	100	0.002	7.006	<0.002	0.19
5 18052639-005	Negative Air Exhaust Removal 11/10	1436	<5.5	100	0.002	7.006	<0.002	0.19
6 18052639-006	Outside Environment Removal 11/10	1436	<5.5	100	0.002	7.006	<0.002	0.19
FB01 18052639-007	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18052639-008	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst: JBTallert
Analysis Date: 11/13/2018

Approved Signatory: Sandra Sabino
Date: 11/13/2018

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18052686
FINAL REPORT
11/14/2018 10:35:39 AM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St.
P.O. Number:
Project Name: Herzog WHSE 2nd
Collected Date: 11/12/2018
Received Date: 11/13/2018 10:00:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18052686-001	Decon Clean Removal 11/12	1227	<5.5	100	0.002	7.006	<0.002	0.19
2 18052686-002	Decon Waste Removal 11/12	1227	<5.5	100	0.002	7.006	<0.002	0.19
3 18052686-003	Outside Barrier 1 Removal 11/12	1227	<5.5	100	0.002	7.006	<0.002	0.19
4 18052686-004	Outside Barrier 2 Removal 11/12	1227	<5.5	100	0.002	7.006	<0.002	0.19
5 18052686-005	Negative Air Exhaust Removal 11/12	1227	<5.5	100	0.002	7.006	<0.002	0.19
6 18052686-006	Outside Environmental Removal 11/12	1230	<5.5	100	0.002	7.006	<0.002	0.19
FB01 18052686-007	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18052686-008	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst: _____ Approved Signatory: _____

Analysis Date: 11/14/2018 Date: 11/14/2018

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18052939
FINAL REPORT
11/15/2018 11:24:47 AM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St
P.O. Number:
Project Name: Herzogs WHSE 2nd
Collected Date: 11/13/2018
Received Date: 11/14/2018 10:25:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18052939-001	Decon Clean Removal 11/13	1260	<5.5	100	0.002	7.006	<0.002	0.19
2 18052939-002	Decon Waste Removal 11/13	1263	<5.5	100	0.002	7.006	<0.002	0.19
3 18052939-003	Negative Air Exhaust Removal 11/13	1260	<5.5	100	0.002	7.006	<0.002	0.19
4 18052939-004	Outside Barrier 1 Removal 11/13	1263	<5.5	100	0.002	7.006	<0.002	0.19
5 18052939-005	Outside Environmental Removal 11/13	1263	<5.5	100	0.002	7.006	<0.002	0.19
6 18052939-006	Outside Barrier 2 Removal 11/13	1263	<5.5	100	0.002	7.006	<0.002	0.19
FB01 18052939-007	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18052939-008	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst:
Analysis Date: 11/15/2018

Approved Signatory:
Date: 11/15/2018

McLoughlin Properties, LLC | Environmental Sampling * Asbestos * Mold * Lead
16 Harcourt Cosman Dr. Newburgh, NY 12550 | mcloughlinproperties@gmail.com | 845.549.3002

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18053189
FINAL REPORT
11/16/2018 11:17:38 AM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St.
P.O. Number:
Project Name: Herzog's WHSE 2nd
Collected Date: 11/14/2018
Received Date: 11/15/2018 11:35:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18053189-001	Decon Clean Removal 11/14	1338	<5.5	100	0.002	7.006	<0.002	0.19
2 18053189-002	Decon Waste Removal 11/14	1338	<5.5	100	0.002	7.006	<0.002	0.19
3 18053189-003	Negative Air Exhaust 11/14	1338	<5.5	100	0.002	7.006	<0.002	0.19
4 18053189-004	Outside Barrier 1 11/14	1335	<5.5	100	0.002	7.006	<0.002	0.19
5 18053189-005	Outside Environmental 11/14	1332	<5.5	100	0.002	7.006	<0.002	0.19
6 18053189-006	Outside Barrier 2 11/14	1335	11	100	0.002	14.013	0.004	0.19
FB01 18053189-007	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18053189-008	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst: _____ Approved Signatory: _____

Analysis Date: 11/16/2018 Date: 11/16/2018

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18053624
FINAL REPORT
11/20/2018 2:37:27 PM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St.
P.O. Number:
Project Name: Herzog's WHSE 2nd
Collected Date: 11/15/2018
Received Date: 11/19/2018 8:50:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18053624-001	Decon Clean	1212	<5.5	100	0.002	7.006	<0.002	0.19
2 18053624-002	Decon Waste	1212	<5.5	100	0.002	7.006	<0.002	0.19
3 18053624-003	Negative Air Exhaust	1212	<5.5	100	0.002	7.006	<0.002	0.19
4 18053624-004	Outside Barrier 1	1204	<5.5	100	0.002	7.006	<0.002	0.19
5 18053624-005	Outside Environmental	1208	<5.5	100	0.002	7.006	<0.002	0.19
6 18053624-006	Outside Barrier 2	1208	<5.5	100	0.002	7.006	<0.002	0.19
FB01 18053624-007	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18053624-008	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst: _____ Approved Signatory: _____

Analysis Date: 11/20/2018 Date: 11/20/2018

McLoughlin Properties, LLC | Environmental Sampling * Asbestos * Mold * Lead
16 Harcourt Cosman Dr. Newburgh, NY 12550 | mcloughlinproperties@gmail.com | 845.549.3002

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18053525
FINAL REPORT
11/19/2018 11:56:31 AM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St.
P.O. Number:
Project Name: Herzog's WHSE 2nd
Collected Date: 11/16/2018
Received Date: 11/19/2018 8:50:00 AM

Analyst: Sobrino, Sandra

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18053525-001	IWA Clearance 11/16	930	<5.5	100	0.003	7.006	<0.003	0
2 18053525-002	IWA Clearance 11/16	930	<5.5	100	0.003	7.006	<0.003	0
3 18053525-003	IWA Clearance 11/16	915	<5.5	100	0.003	7.006	<0.003	0
4 18053525-004	IWA Clearance 11/16	930	<5.5	100	0.003	7.006	<0.003	0
5 18053525-005	IWA Clearance 11/16	930	<5.5	100	0.003	7.006	<0.003	0
6 18053525-006	OWA Clearance 11/16	930	<5.5	100	0.003	7.006	<0.003	0
7 18053525-007	OWA Clearance 11/16	930	<5.5	100	0.003	7.006	<0.003	0
8 18053525-008	OWA Clearance 11/16	915	<5.5	100	0.003	7.006	<0.003	0
9 18053525-009	OWA Clearance 11/16	930	<5.5	100	0.003	7.006	<0.003	0
10 18053525-010	OWA Clearance 11/16	930	<5.5	100	0.003	7.006	<0.003	0
FB01 18053525-011	Field Blank 01	0	<5.5	100		<7.0		0
FB02 18053525-012	Field Blank 02	0	<5.5	100		<7.0		0

Analyst: Sandra Sobrino Approved Signatory:
Analysis Date: 11/19/2018 Date: 11/19/2018

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18053846
FINAL REPORT
11/28/2018 5:33:59 PM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St.
P.O. Number:
Project Name: Herzog WHSE 1st
Collected Date: 11/14/2018
Received Date: 11/19/2018 8:50:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18053846-001	IWA Backgrounds 1st	915	<5.5	100	0.003	7.006	<0.003	0.19
2 18053846-002	IWA Backgrounds 1st	930	<5.5	100	0.003	7.006	<0.003	0.19
3 18053846-003	IWA Backgrounds 1st	915	<5.5	100	0.003	7.006	<0.003	0.19
4 18053846-004	IWA Backgrounds 1st	915	19	100	0.003	24.204	0.010	0.19
5 18053846-005	IWA Backgrounds 1st	930	<5.5	100	0.003	7.006	<0.003	0.19
6 18053846-006	OWA Backgrounds 1st	915	<5.5	100	0.003	7.006	<0.003	0.19
7 18053846-007	OWA Backgrounds 1st	900	8.5	100	0.003	10.828	0.005	0.19
8 18053846-008	OWA Backgrounds 1st	915	<5.5	100	0.003	7.006	<0.003	0.19
9 18053846-009	OWA Backgrounds 1st	915	<5.5	100	0.003	7.006	<0.003	0.19
10 18053846-010	OWA Backgrounds 1st	930	<5.5	100	0.003	7.006	<0.003	0.19
FB01 18053846-011	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18053846-012	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst: _____ Approved Signatory: _____

Analysis Date: 11/28/2018 Date: 11/28/2018

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18054377
FINAL REPORT
11/26/2018 3:48:06 PM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St.
P.O. Number:
Project Name: Herzog WHSE 1st
Collected Date: 11/20/2018
Received Date: 11/26/2018 9:00:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18054377-001	Decon Clean Removal 11/20	1266	<5.5	100	0.002	7.006	<0.002	0.19
2 18054377-002	Outside Barrier Removal 11/20	1266	<5.5	100	0.002	7.006	<0.002	0.19
3 18054377-003	Outside Environmentel Removal 11/20	1266	<5.5	100	0.002	7.006	<0.002	0.19
4 18054377-004	Outside Barrier 2 Removal 11/20	1266	<5.5	100	0.002	7.006	<0.002	0.19
5 18054377-005	Decon Waste Removal 11/20	1266	<5.5	100	0.002	7.006	<0.002	0.19
6 18054377-006	Negative Air Exhaust Removal 11/20	1266	10	100	0.002	12.739	0.004	0.19
FB01 18054377-007	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18054377-008	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst: _____ Approved Signatory: _____

Analysis Date: 11/26/2018 Date: 11/26/2018

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18054341
FINAL REPORT
11/26/2018 12:01:21 PM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St.
P.O. Number:
Project Name: Herzog WHSE 1st
Collected Date: 11/21/2018
Received Date: 11/26/2018 9:00:00 AM

Analyst: Tallett, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18054341-001	IWA Clearance 1st	915	<5.5	100	0.003	7.006	<0.003	0.19
2 18054341-002	IWA Clearance 1st	930	<5.5	100	0.003	7.006	<0.003	0.19
3 18054341-003	IWA Clearance 1st	930	<5.5	100	0.003	7.006	<0.003	0.19
4 18054341-004	IWA Clearance 1st	915	<5.5	100	0.003	7.006	<0.003	0.19
5 18054341-005	IWA Clearance 1st	915	6	100	0.003	7.643	0.003	0.19
6 18054341-006	OWA Clearance 1st	900	<5.5	100	0.003	7.006	<0.003	0.19
7 18054341-007	OWA Clearance 1st	915	<5.5	100	0.003	7.006	<0.003	0.19
8 18054341-008	OWA Clearance 1st	900	<5.5	100	0.003	7.006	<0.003	0.19
9 18054341-009	OWA Clearance 1st	915	<5.5	100	0.003	7.006	<0.003	0.19
10 18054341-010	OWA Clearance 1st	915	<5.5	100	0.003	7.006	<0.003	0.19
FB01 18054341-011	Field Blank 01	0	<5.5	100		<7.0		0.19
FB02 18054341-012	Field Blank 02	0	<5.5	100		<7.0		0.19

Analyst: JBT
Analysis Date: 11/26/2018

Approved Signatory: Johnathan Wilson
Date: 11/26/2018

McLoughlin Properties, LLC

SanAir Technologies Laboratory

SanAir ID Number
18054340
FINAL REPORT
11/26/2018 11:41:54 AM

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550
Phone: 845-565-9603

Project Number: 9 Front St.
P.O. Number:
Project Name: Herzog's WHSE Pipe
Collected Date: 11/21/2018
Received Date: 11/26/2018 9:00:00 AM

Analyst: Tallert, Jonathan

Asbestos Air PCM NIOSH 7400 Method

Sample	Location	Volume (liters)	Fibers	Fields	LOD	Fibers/ sq mm	Fibers/ cc	RSD
1 18054340-001	Inside Tent Clearance	915	<5.5	100	0.003	7.006	<0.003	0.19
2 18054340-002	Outside Tent Clearance	900	<5.5	100	0.003	7.006	<0.003	0.19
FB01 18054340-003	Field Blank 01	0	<5.5	100		<7.0		0.19

Analyst: _____ Approved Signatory: _____

Analysis Date: 11/26/2018 Date: 11/26/2018

McLoughlin Properties, LLC

2nd floor Work Area (Post-Abatement)

McLoughlin Properties, LLC

1st floor Work Area (Post-Abatement)

(Left): 31x15 9x9 tile on top of Non-ACM Tar-paper Mastic)

(Left) 15x18 Mastic on top of nailed plywood

McLoughlin Properties, LLC

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

McLoughlin Properties LLC
16 Harcourt Cosman Drive
Newburgh, NY 12550

FILE NUMBER: 17-107330
LICENSE NUMBER: 107330
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 11/09/2017
EXPIRATION DATE: 11/30/2018

Duly Authorized Representative – Peter McLoughlin:

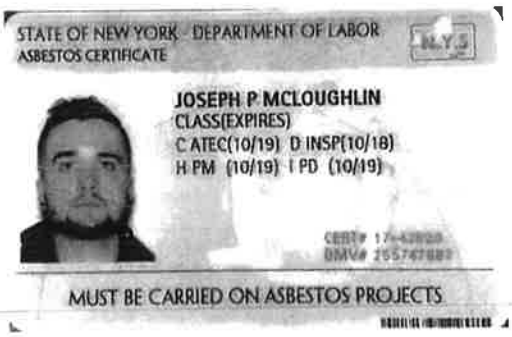
This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

McLoughlin Properties, LLC


STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

JOSEPH P MCLOUGHLIN
CLASS(EXPIRES)
C ATEC(10/19) D INSP(10/18)
H PM (10/19) I PD (10/19)

MUST BE CARRIED ON ASBESTOS PROJECTS

McLoughlin Properties, LLC

16 Harcourt Cosman Dr.
Newburgh. NY 12550
(845) 392-2370

DATE: 11/30/18

BILL TO

owner/claimant: Herzog's Wearhouse,

9 Front St., Kingston, NY
ATTN: Brad Jordan

FOR

NYSDOL air monitoring, project monitoring: 9 Front St., Herzog's Wearhouse

Details	**AMOUNT**
Monitoring Daily Rate ($480/day) * 15 days	$7,200.00
Background, Daily Air Samples (88)	Included
Clearance Air Samples (27) @ $30/each	**$810.00**

SUBTOTAL	$8,010.00
Discount(s)	**$810.00**
Paid	$0.00
TOTAL DUE	$7,200.00

If you have any questions concerning this invoice, use the following contact information:
Pete McLoughlin @ 845 549 3002 or Joseph McLoughlin @ 845 392 2370

THANK YOU FOR YOUR BUSINESS!

McLoughlin Properties, LLC

Asbestos Pre-Renovation Survey

Prepared for:

Tom Murphy/Brad Jordan

At:

Herzog Warehouse
Kingston, NY 12603

On:

3/29/2018

McLoughlin Properties, LLC

Table of Contents

McLoughlin Properties, LLC

Section 1 - Inspection Information

Survey Performed By:	McLoughlin Properties, LLC 16 Harcourt Cosman Dr Newburgh, NY 12550 Phone: 845.549.3002
Asbestos License Number:	107330
Sampling Performed By:	Pete McLoughlin (NYS DOL # 17-35510)
Dates Performed:	3/29/2018
PCM Air Sample Analysis Performed By:	NA
Bulk Sample Analysis Performed By:	San Air 1551 Oakbridge Dr. Suite B Powhatan, VA 23139
Client:	Tom Murphy/Brad Jordan
Property:	Herzog Warehouse Kingston,NY 12603

Section 2: Introduction

McLoughlin Properties, LLC was hired by **Tom Murphy** to perform an inspection and renovation or demolition survey of PACM, or presumed asbestos containing materials and suspect asbestos containing materials in the Herzog Warehouse in **Kingston, NY.** This survey was limited to areas in the facility where demolition work will impact suspect building materials. If additional areas are to be disturbed or additional suspect material is uncovered, further sampling will be necessary.

Before any renovation or demolition work can begin, the owner of a building must hire a licensed asbestos contractor with valid certificates for inspection to perform a building survey. This survey must be in accordance with NYS DOL ICR-56 regulations. These protocols will determine if any asbestos containing material (ACM) or presumed asbestos containing material (PACM) is present within the building. Any asbestos must be abated before work takes place if the scheduled work will impact any asbestos.

The asbestos survey shall include a detailed inspection for the identification of all asbestos containing material in the building / structure, or the portion of it to be renovated, demolished, or otherwise disturbed. All asbestos inspections must be done by a certified asbestos inspector employed by a licensed firm. At a minimum, asbestos surveys shall include identification of the asbestos containing materials (ACM), presumed asbestos containing material (PACM) by the following means and methods.

1. Review of prints/plans from the structure, as well as previous asbestos inspection reports.

2. A visual inspection for suspect asbestos containing materials throughout the building or structure, or the portion of said building that will be impacted. All visually assessed ACM shall be treated and considered ACM unless bulk samples are collected in accordance with EPA, NYS DOL, and OSHA regulations. A certified laboratory must then analyze the samples.

Section 3: Inspection Summary

A visual inspection was performed on homogenous material types that were determined on the basis of color, appearance, and texture. The findings of this report are based upon available information and observed conditions at the time the inspection was performed. The findings of this report are not to be indicative of future conditions at the site.

Representative bulk sampling was performed on suspect materials for laboratory analysis using PLM, PLM NOB, and TEM analysis. The following is a summary of building materials that may be sampled:

- Ceiling Materials- Sheetrock, Ceiling Tile
- Wall Materials- Sheetrock, Wall Board
- Flooring Materials- Floor Adhesive, Floor Tile, Mastic
- Roofing Materials- Roof Shingles, Rolled Roof
- Thermal Systems Insulation- Batt, Cement Board
- Miscellaneous Materials- Joint Compound, Vibration Damper, AHU Putty, Brick Mortar, Block Mortar, Ceramic Tile Grout, Ceramic Tile Mastic, Ceiling Tile, Textured Paint

McLoughlin Properties, LLC

Section 4: Summary of Findings

ACM DETECTED IN THIS STRUCTURE

Our description of the asbestos in the structure is based upon visual inspection in accessible areas and on laboratory results of Friable and Non-Friable Organically Bound (NOB) bulk samples from the premises. This report is an accurate narrative of the location and condition of asbestos containing materials based on laboratory analysis reports and professional judgment. **A total of 66 bulk samples were collected at this location.** The following table is a summary of all homogenous areas / materials that were identified during the course of the inspection. Each homogeneous area / material that was identified as an asbestos containing material (ACM) is highlighted in yellow.

WHAT TO DO IF ACM IS DETECTED

Call an Abatement contractor provided to you on the attached list.
Have them review the IR, Lab Report and VISIT the site to determine the project size.
The project size will be determined by the volume, linear feet and the square ft of the ACM detected areas.

ID #	Material Classification	Homogeneous Material Description	Material Type	Approx. Quantity	Condition
1,2	Non-ACM	Brick mortar	NA	NA	NA
3,4	Non-ACM	Window caulk	NA	NA	NA
5,6	Non-ACM	Window glazing	NA	NA	NA
7,8	Non-ACM	Wall board 4th	NA	NA	NA
9,10	Non-ACM	Plaster 4th	NA	NA	NA
11,12	Non-ACM	Ceiling sheetrock 3rd	NA	NA	NA
13,14	Non-ACM	Wall plaster 3rd	NA	NA	NA
15,16	Non-ACM	Wall board 3rd	NA	NA	NA
17,18	Non-ACM	Wall sheetrock 3rd	NA	NA	NA
19,20	ACM	2nd floor plaster	Friable	3000	Fair
21,22	Non-ACM	2nd floor ceiling plaster	NA	NA	NA
23,24	Non-ACM	2nd floor bathroom wallboard	NA	NA	NA
25,26	Non-ACM	2nd fl bathroom surface plaster	NA	NA	NA
27,28	Non-ACM	2nd floor sheetrock	NA	NA	NA
29,30	Non-ACM	Main roof shingle	NA	NA	NA
31,32	Non-ACM	Roof tar	NA	NA	NA
33,34	Non-ACM	Paraphet caulk	NA	NA	NA
35,36	Non-ACM	1st fl wall tile storage	NA	NA	NA

37,38	Non-ACM	1sr floor sheetrock	NA	NA	NA
39,40	ACM	Mastic on wood floor	Non-Friable	1000	good
41,42	Non-ACM	14'' ceiling tile 1st floor	NA	NA	NA
43,44	Non-ACM	1st floor wall board yellow	NA	NA	NA
45,46	Non-ACM	1st floor wall board grey	NA	NA	NA
47,48	Non-ACM	1st floor wall board red	NA	NA	NA
49,50	Non-ACM	Boiler packing 1	NA	NA	NA
51,52	Non-ACM	Boiler packing 2	NA	NA	NA
53,54	Non-ACM	Wall board ground floor	NA	NA	NA
55,56	Non-ACM	Plaster ground floor	NA	NA	NA
57,58	Non-ACM	Foam ins glue	NA	NA	NA
59,60	Non-ACM	Sprinkler room wall board	NA	NA	NA
61,62	Non-ACM	Brick mortar ground floor	NA	NA	NA
63,64	Non-ACM	Batt insulation	NA	NA	NA
65,66	Non-ACM	Brick packing ground floor	NA	NA	NA

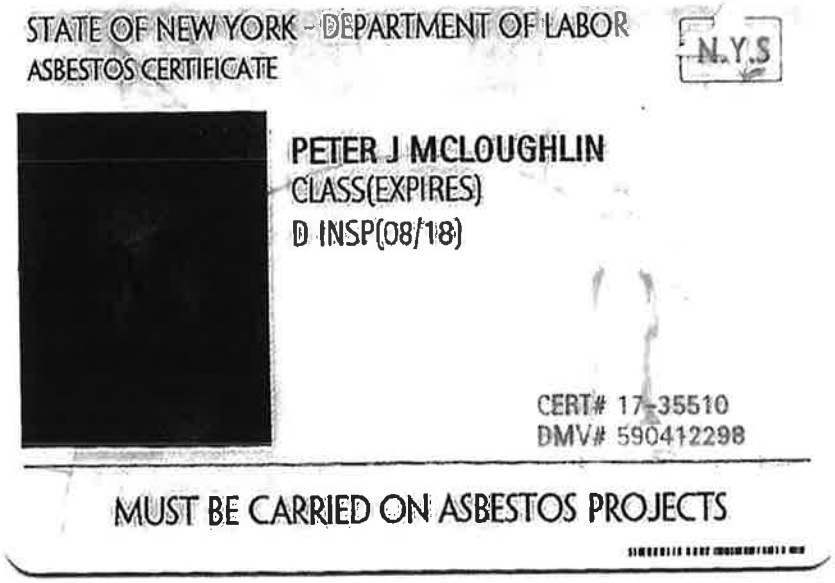
Section 5: Disclaimer

This report is for the exclusive use of client and is to be used only as a guide in determining the presence of asbestos containing materials at the premises at the time of the inspection.
All quantities of asbestos containing materials are only approximations. All quantities of asbestos containing materials should be verified by abatement contractors prior to supplying estimations of costs on the abatement required.
This report is based solely upon visual inspection of contracted and accessible areas at the time of the inspection. This report shall not be applied to areas or buildings that were not inspected. McLoughlin Properties, LLC assumes no liability with respect to the building owner's compliance with local, state, or federal regulations. McLoughlin Properties, LLC assumes no liability for the use of this report by any other person or entity other than the customer it was prepared for. Any and all liability on the part of McLoughlin Properties, LLC shall be limited solely to the cost of this survey report. McLoughlin Properties, LLC shall have no liability for any other damages whether consequential, compensatory, punitive, or special, arising out of incidental to, or as a result of this report.
The abatement contractor hired for any removal of asbestos is responsible for verifying all positive quantities before a bid is submitted.
Prepared by:

Peter J. McLoughlin, Principal
McLoughlin Properties, LLC

McLoughlin Properties, LLC

Section 6: Licenses and Certifications



STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

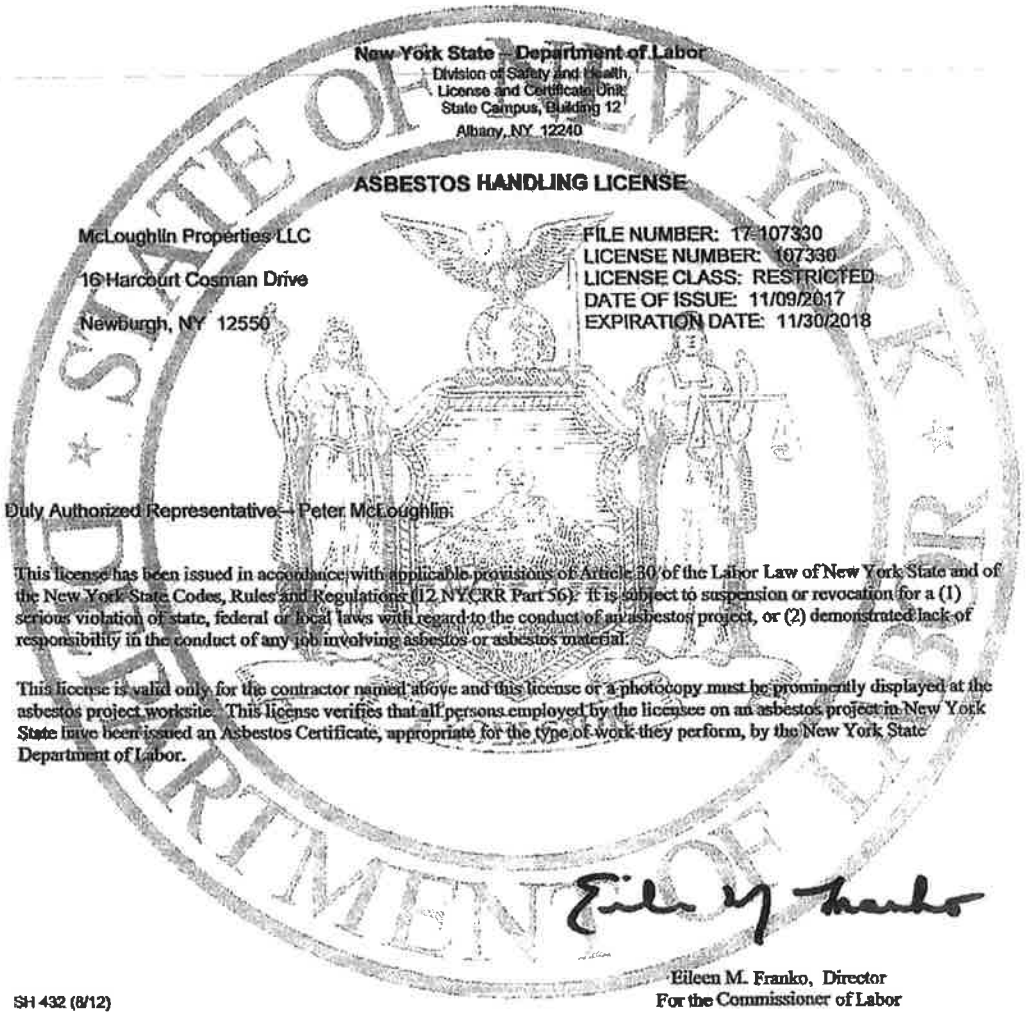
[redacted]

PETER J MCLOUGHLIN
CLASS(EXPIRES)
D INSP(08/18)

CERT# 17-35510
DMV# 590412298

MUST BE CARRIED ON ASBESTOS PROJECTS

McLoughlin Properties, LLC



New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

McLoughlin Properties LLC
16 Harcourt Cosman Drive
Newburgh, NY 12550

FILE NUMBER: 17-107330
LICENSE NUMBER: 107330
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 11/09/2017
EXPIRATION DATE: 11/30/2018

Duly Authorized Representative – Peter McLoughlin

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

McLoughlin Properties, LLC

McLoughlin Properties, LLC

McLoughlin Properties, LLC

Asbestos Pre-Renovation Survey

Prepared for:

Tom Murphy/Brad Jordan

At:

Herzog Warehouse
Kingston, NY 12603

On:

3/29/2018

McLoughlin Properties, LLC

Table of Contents

McLoughlin Properties, LLC

Section 1 - Inspection Information

Survey Performed By:	McLoughlin Properties, LLC 16 Harcourt Cosman Dr Newburgh, NY 12550 Phone: 845.549.3002
Asbestos License Number:	107330
Sampling Performed By:	Pete McLoughlin (NYS DOL # 17-35510)
Dates Performed:	3/29/2018
PCM Air Sample Analysis Performed By:	NA
Bulk Sample Analysis Performed By:	San Air 1551 Oakbridge Dr. Suite B Powhatan, VA 23139
Client:	Tom Murphy/Brad Jordan
Property:	Herzog Warehouse Kingston,NY 12603

Section 2: Introduction

McLoughlin Properties, LLC was hired by **Tom Murphy** to perform an inspection and renovation or demolition survey of PACM, or presumed asbestos containing materials and suspect asbestos containing materials in the Herzog Warehouse in **Kingston, NY.** This survey was limited to areas in the facility where demolition work will impact suspect building materials. If additional areas are to be disturbed or additional suspect material is uncovered, further sampling will be necessary.

Before any renovation or demolition work can begin, the owner of a building must hire a licensed asbestos contractor with valid certificates for inspection to perform a building survey. This survey must be in accordance with NYS DOL ICR-56 regulations. These protocols will determine if any asbestos containing material (ACM) or presumed asbestos containing material (PACM) is present within the building. Any asbestos must be abated before work takes place if the scheduled work will impact any asbestos.

The asbestos survey shall include a detailed inspection for the identification of all asbestos containing material in the building / structure, or the portion of it to be renovated, demolished, or otherwise disturbed. All asbestos inspections must be done by a certified asbestos inspector employed by a licensed firm. At a minimum, asbestos surveys shall include identification of the asbestos containing materials (ACM), presumed asbestos containing material (PACM) by the following means and methods.

1. Review of prints/plans from the structure, as well as previous asbestos inspection reports.

2. A visual inspection for suspect asbestos containing materials throughout the building or structure, or the portion of said building that will be impacted. All visually assessed ACM shall be treated and considered ACM unless bulk samples are collected in accordance with EPA, NYS DOL, and OSHA regulations. A certified laboratory must then analyze the samples.

Section 3: Inspection Summary

A visual inspection was performed on homogenous material types that were determined on the basis of color, appearance, and texture. The findings of this report are based upon available information and observed conditions at the time the inspection was performed. The findings of this report are not to be indicative of future conditions at the site.

Representative bulk sampling was performed on suspect materials for laboratory analysis using PLM, PLM NOB, and TEM analysis. The following is a summary of building materials that may be sampled:

- Ceiling Materials- Sheetrock, Ceiling Tile
- Wall Materials- Sheetrock, Wall Board
- Flooring Materials- Floor Adhesive, Floor Tile, Mastic
- Roofing Materials- Roof Shingles, Rolled Roof
- Thermal Systems Insulation- Batt, Cement Board
- Miscellaneous Materials- Joint Compound, Vibration Damper, AHU Putty, Brick Mortar, Block Mortar, Ceramic Tile Grout, Ceramic Tile Mastic, Ceiling Tile, Textured Paint

Section 4: Summary of Findings

ACM DETECTED IN THIS STRUCTURE

Our description of the asbestos in the structure is based upon visual inspection in accessible areas and on laboratory results of Friable and Non-Friable Organically Bound (NOB) bulk samples from the premises. This report is an accurate narrative of the location and condition of asbestos containing materials based on laboratory analysis reports and professional judgment. **A total of 66 bulk samples were collected at this location.** The following table is a summary of all homogenous areas / materials that were identified during the course of the inspection. Each homogeneous area / material that was identified as an asbestos containing material (ACM) is highlighted in yellow.

WHAT TO DO IF ACM IS DETECTED

Call an Abatement contractor provided to you on the attached list.
Have them review the IR, Lab Report and VISIT the site to determine the project size.
The project size will be determined by the volume, linear feet and the square ft of the ACM detected areas.

ID #	Material Classification	Homogeneous Material Description	Material Type	Approx. Quantity	Condition
1,2	Non-ACM	Brick mortar	NA	NA	NA
3,4	Non-ACM	Window caulk	NA	NA	NA
5,6	Non-ACM	Window glazing	NA	NA	NA
7,8	Non-ACM	Wall board 4th	NA	NA	NA
9,10	Non-ACM	Plaster 4th	NA	NA	NA
11,12	Non-ACM	Ceiling sheetrock 3rd	NA	NA	NA
13,14	Non-ACM	Wall plaster 3rd	NA	NA	NA
15,16	Non-ACM	Wall board 3rd	NA	NA	NA
17,18	Non-ACM	Wall sheetrock 3rd	NA	NA	NA
19,20	ACM	2nd floor plaster	Friable	3000	Fair
21,22	Non-ACM	2nd floor ceiling plaster	NA	NA	NA
23,24	Non-ACM	2nd floor bathroom wallboard	NA	NA	NA
25,26	Non-ACM	2nd fl bathroom surface plaster	NA	NA	NA
27,28	Non-ACM	2nd floor sheetrock	NA	NA	NA
29,30	Non-ACM	Main roof shingle	NA	NA	NA
31,32	Non-ACM	Roof tar	NA	NA	NA
33,34	Non-ACM	Paraphet caulk	NA	NA	NA
35,36	Non-ACM	1st fl wall tile storage	NA	NA	NA

37,38	Non-ACM	1sr floor sheetrock	NA	NA	NA
39,40	ACM	Mastic on wood floor	Non-Friable	1000	good
41,42	Non-ACM	14'' ceiling tile 1st floor	NA	NA	NA
43,44	Non-ACM	1st floor wall board yellow	NA	NA	NA
45,46	Non-ACM	1st floor wall board grey	NA	NA	NA
47,48	Non-ACM	1st floor wall board red	NA	NA	NA
49,50	Non-ACM	Boiler packing 1	NA	NA	NA
51,52	Non-ACM	Boiler packing 2	NA	NA	NA
53,54	Non-ACM	Wall board ground floor	NA	NA	NA
55,56	Non-ACM	Plaster ground floor	NA	NA	NA
57,58	Non-ACM	Foam ins glue	NA	NA	NA
59,60	Non-ACM	Sprinkler room wall board	NA	NA	NA
61,62	Non-ACM	Brick mortar ground floor	NA	NA	NA
63,64	Non-ACM	Batt insulation	NA	NA	NA
65,66	Non-ACM	Brick packing ground floor	NA	NA	NA

Section 5: Disclaimer

This report is for the exclusive use of client and is to be used only as a guide in determining the presence of asbestos containing materials at the premises at the time of the inspection.
All quantities of asbestos containing materials are only approximations. All quantities of asbestos containing materials should be verified by abatement contractors prior to supplying estimations of costs on the abatement required.
This report is based solely upon visual inspection of contracted and accessible areas at the time of the inspection. This report shall not be applied to areas or buildings that were not inspected. McLoughlin Properties, LLC assumes no liability with respect to the building owner's compliance with local, state, or federal regulations. McLoughlin Properties, LLC assumes no liability for the use of this report by any other person or entity other than the customer it was prepared for. Any and all liability on the part of McLoughlin Properties, LLC shall be limited solely to the cost of this survey report. McLoughlin Properties, LLC shall have no liability for any other damages whether consequential, compensatory, punitive, or special, arising out of incidental to, or as a result of this report.
The abatement contractor hired for any removal of asbestos is responsible for verifying all positive quantities before a bid is submitted.
Prepared by:

Peter J. McLoughlin, Principal
McLoughlin Properties, LLC

Section 6: Licenses and Certifications

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

PETER J MCLOUGHLIN
CLASS(EXPIRES)
D INSP(08/18)

CERT# 17-35510
DMV# 590412298

MUST BE CARRIED ON ASBESTOS PROJECTS

McLoughlin Properties, LLC

New York State – Department of Labor
Division of Safety and Health,
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

McLoughlin Properties LLC

16 Harcourt Cosman Drive

Newburgh, NY 12550

FILE NUMBER: 17-107330
LICENSE NUMBER: 107330
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 11/09/2017
EXPIRATION DATE: 11/30/2018

Duly Authorized Representative – Peter McLoughlin.

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

McLoughlin Properties, LLC

McLoughlin Properties, LLC

SanAir Technologies Laboratory

Analysis Report

prepared for

McLoughlin Properties, LLC

Report Date: 4/9/2018
Project Name: Herzog WHSE
Project #: Herzog WHSE
SanAir ID#: 18013264

NVLAP LAB CODE 200870-0

Virginia SBE Certification # 652931

Texas Licensed Mold Analysis Laboratory License # LAB0166

SanAir Technologies Laboratory

804.897.1177 www.sanair.com

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

McLoughlin Properties, LLC
16 Harcourt Cosman Drive
Newburgh, NY 12550

April 9, 2018

SanAir ID # 18013264
Project Name: Herzog WHSE
Project Number: Herzog WHSE

Dear Peter McLoughlin,

We at SanAir would like to thank you for the work you recently submitted. The 66 sample(s) were received on Monday, April 02, 2018 via FedEx. The final report(s) is enclosed for the following sample(s): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

L. Claire Macdonald

L. Claire Macdonald
Microbiology Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:
- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

sample conditions:
66 sample(s) in Good condition

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk TEM NY ELAP 198.4

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
3 18013264-003 Window Caulk	Non-Fibrous Homogeneous Clear	100%		None Detected	

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
4 18013264-004 Window Caulk	Non-Fibrous Homogeneous Clear	100%		None Detected	

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
5 18013264-005 Window Glazing	Non-Fibrous Homogeneous Various	100%		None Detected	

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
6 18013264-006 Window Glazing	Non-Fibrous Homogeneous Various	100%		None Detected	

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
29 18013264-029 Main Roof Shingle	Non-Fibrous Heterogeneous Black	100%		None Detected	

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
30 18013264-030 Main Roof Shingle	Non-Fibrous Heterogeneous Black	100%		None Detected	

Certification

Analyst: _____
Analysis Date: 4/6/2018

Approved Signatory: Sandra Sobrino
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk TEM NY ELAP 198.4

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
31 18013264-031	Non-Fibrous Homogeneous Black	99.26	<1%	Chrysotile	<1%
				Total:	<1%

Roof Tar

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
32 18013264-032	Non-Fibrous Homogeneous Black	99.34	<1%	Chrysotile	<1%
				Total:	<1%

Roof Tar

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
33 18013264-033	Non-Fibrous Homogeneous Grey	100%		None Detected	

Paraphet Caulk

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
34 18013264-034	Non-Fibrous Homogeneous Grey	100%		None Detected	

Paraphet Caulk

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
39 18013264-039	Non-Fibrous Homogeneous Various	99.68	<1%	Chrysotile	<1%
				Total:	<1%

Mastic On Wood 1st Floor

Certification

Analyst: _____
Analysis Date: 4/6/2018

Approved Signatory: Sandra Sobieraj
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk TEM NY ELAP 198.4

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
41 18013264-041	Fibrous Homogeneous Brown	100%		None Detected	

14" Ceiling Tile 1st Floor

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
42 18013264-042	Fibrous Homogeneous Brown	100%		None Detected	

14" Ceiling Tile 1st Floor

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
57 18013264-057	Non-Fibrous Homogeneous Various	100%		None Detected	

Foam Panel Glue

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
58 18013264-058	Non-Fibrous Homogeneous Various	100%		None Detected	

Foam Panel Glue

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
63 18013264-063	Non-Fibrous Homogeneous Various	100%		None Detected	

Bottom Insulation

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
64 18013264-064	Non-Fibrous Homogeneous Various	100%		None Detected	

Bottom Insulation

Certification

Analyst: [signature]
Analysis Date: 4/6/2018

Approved Signatory: Sandra Sobrino
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM NOB NY ELAP 198.6

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
3 18013264-003 Window Caulk	Non-Fibrous Homogeneous Clear	100%		None Detected	

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
4 18013264-004 Window Caulk	Non-Fibrous Homogeneous Clear	100%		None Detected	

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
5 18013264-005 Window Glazing	Non-Fibrous Homogeneous Various	100%		None Detected	

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
6 18013264-006 Window Glazing	Non-Fibrous Homogeneous Various	100%		None Detected	

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
29 18013264-029 Main Roof Shingle	Non-Fibrous Heterogeneous Black	100%		None Detected	

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
30 18013264-030 Main Roof Shingle	Non-Fibrous Heterogeneous Black	100%		None Detected	

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Gobrin
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM NOB NY ELAP 198.6

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
31 18013264-031	Non-Fibrous Homogeneous Black	100%		None Detected	

Roof Tar

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
32 18013264-032	Non-Fibrous Homogeneous Black	99.27	<1%	Chrysotile	<1%
				Total:	<1%

Roof Tar

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
33 18013264-033	Non-Fibrous Homogeneous Grey	100%		None Detected	

Paraphet Caulk

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
34 18013264-034	Non-Fibrous Homogeneous Grey	100%		None Detected	

Paraphet Caulk

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
39 18013264-039	Non-Fibrous Homogeneous Various	100	<1%	Chrysotile	<1%
				Total:	<1%

Mastic On Wood 1st Floor

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Sobieraj
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM NOB NY ELAP 198.6

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
40 18013264-040	Non-Fibrous Homogeneous Black	96.72	<1%	Chrysotile	3.28
				Total:	3.28

Mastic On Wood 1st Floor

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
41 18013264-041	Fibrous Homogeneous Brown	100%		None Detected	

14" Ceiling Tile 1st Floor

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
42 18013264-042	Fibrous Homogeneous Brown	100%		None Detected	

14" Ceiling Tile 1st Floor

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
57 18013264-057	Non-Fibrous Homogeneous Various	100%		None Detected	

Foam Panel Glue

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
58 18013264-058	Non-Fibrous Homogeneous Various	100%		None Detected	

Foam Panel Glue

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
63 18013264-063	Non-Fibrous Homogeneous Various	100%		None Detected	

Bottom Insulation

Certification

Analyst: Nick Cil
Analysis Date: 4/9/2018

Approved Signatory: Sandra Sobrino
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.

1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM NOB NY ELAP 198.6

Sample	Appearance	% Other Material	% Non-Asbestos Fibers	Asbestos Types	% Total Asbestos
64 18013264-064 Bottom Insulation	Non-Fibrous Homogeneous Various	100%		None Detected	

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Sobieraj
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM EPA 600/M4-82-020

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
1 / 18013264-001 Mortar Brick	Grey Non-Fibrous Homogeneous		100% Other	None Detected
2 / 18013264-002 Mortar Brick	Grey Non-Fibrous Homogeneous		100% Other	None Detected
7 / 18013264-007 Wallboard 4th	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
8 / 18013264-008 Wallboard 4th	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
9 / 18013264-009 Plaster 4th, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
9 / 18013264-009 Plaster 4th, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected
10 / 18013264-010 Plaster 4th, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
10 / 18013264-010 Plaster 4th, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Gobigny
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM EPA 600/M4-82-020

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
11 / 18013264-011 Ceiling Sheetrock 3rd	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
12 / 18013264-012 Ceiling Sheetrock 3rd	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
13 / 18013264-013 Wall Plaster 3rd, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
13 / 18013264-013 Wall Plaster 3rd, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected
13 / 18013264-013 Wall Plaster 3rd, Texture	White Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
14 / 18013264-014 Wall Plaster 3rd, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
14 / 18013264-014 Wall Plaster 3rd, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
15 / 18013264-015 Wallboard 3rd	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Sobieraj
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.

1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM EPA 600/M4-82-020

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
16 / 18013264-016 Wallboard 3rd	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
17 / 18013264-017 Wall Sheetrock 3rd	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
18 / 18013264-018 Wall Sheetrock 3rd	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
19 / 18013264-019 2nd Floor Plaster, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
19 / 18013264-019 2nd Floor Plaster, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected
19 / 18013264-019 2nd Floor Plaster, Texture	White Non-Fibrous Homogeneous		98.5% Other	1.5% Chrysotile

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
20 / 18013264-020 2nd Floor Plaster, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
20 / 18013264-020 2nd Floor Plaster, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected
20 / 18013264-020 2nd Floor Plaster, Texture	White Non-Fibrous Homogeneous		98.25% Other	1.75% Chrysotile

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Gobigny
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.

1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM EPA 600/M4-82-020

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
21 / 18013264-021 2nd Floor Ceiling Plaster, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
21 / 18013264-021 2nd Floor Ceiling Plaster, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
22 / 18013264-022 2nd Floor Ceiling Plaster, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
22 / 18013264-022 2nd Floor Ceiling Plaster, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
23 / 18013264-023 2nd Floor Bathroom Wallboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
24 / 18013264-024 2nd Floor Bathroom Wallboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
25 / 18013264-025 2nd Floor Bathroom Surface Plaster, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
25 / 18013264-025 2nd Floor Bathroom Surface Plaster, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected
25 / 18013264-025 2nd Floor Bathroom Surface Plaster, Texture	Grey Non-Fibrous Homogeneous		99.25% Other	0.75% Chrysotile

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Sobieraj
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM EPA 600/M4-82-020

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
26 / 18013264-026 2nd Floor Bathroom Surface Plaster, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
26 / 18013264-026 2nd Floor Bathroom Surface Plaster, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected
26 / 18013264-026 2nd Floor Bathroom Surface Plaster, Texture	Grey Non-Fibrous Homogeneous		99.25% Other	0.75% Chrysotile

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
27 / 18013264-027 2nd Floor Sheetrock	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
28 / 18013264-028 2nd Floor Sheetrock	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
35 / 18013264-035 1st Floor Wall Tile Storage	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
36 / 18013264-036 1st Floor Wall Tile Storage	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Sobieraj
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM EPA 600/M4-82-020

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
37 / 18013264-037 1st Floor Sheetrock	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected
38 / 18013264-038 1st Floor Sheetrock	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected
43 / 18013264-043 1st Floor Wallboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
44 / 18013264-044 1st Floor Wallboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
45 / 18013264-045 1st Floor Wallboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
46 / 18013264-046 1st Floor Wallboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

Certification

Analyst: Nick Cil
Analysis Date: 4/9/2018

Approved Signatory: Sandra Sobieraj
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM EPA 600/M4-82-020

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
47 / 18013264-047 1st Wallboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
48 / 18013264-048 1st Wallboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
49 / 18013264-049 Boiler Packing 1	Grey Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
50 / 18013264-050 Boiler Packing 1	Grey Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
51 / 18013264-051 Boiler Packing 2	Grey Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	% Non-Fibrous	Asbestos Fibers
52 / 18013264-052 Boiler Packing 2	Grey Non-Fibrous Homogeneous		100% Other	None Detected

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Gobigny
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM EPA 600/M4-82-020

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
53 / 18013264-053 Wallboard Ground	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
54 / 18013264-054 Wallboard Ground	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
55 / 18013264-055 Plaster Ground Floor, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
55 / 18013264-055 Plaster Ground Floor, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
56 / 18013264-056 Plaster Ground Floor, Plaster	Grey Non-Fibrous Homogeneous		100% Other	None Detected
56 / 18013264-056 Plaster Ground Floor, Skim Coat	White Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
59 / 18013264-059 Sprinkle Room Wallboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Sobieraj
Date: 4/9/2018

SanAir Technologies Laboratory, Inc.
1551 Oakbridge Drive, Suite B, Powhatan, VA 23139
804.897.1177 Toll Free: 888.895.1177 Fax: 804.897.0070
Web: http://www.sanair.com E-mail: iaq@sanair.com

SanAir ID Number
18013264
FINAL REPORT

Name: McLoughlin Properties, LLC
Address: 16 Harcourt Cosman Drive
Newburgh, NY 12550

Project Number: Herzog WHSE
P.O. Number:
Project Name: Herzog WHSE

Collected Date: Not Provided on COC
Received Date: 4/2/2018 9:55:00 AM
Report Date: 4/9/2018 4:21:48 PM
Analyst: Prep, Sample
Tallert, Jonathan
Pisula, Nicholas

Asbestos Bulk PLM EPA 600/M4-82-020

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
60 / 18013264-060 Sprinkle Room Wallboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
61 / 18013264-061 Mortar Brick Subground Foundation	Grey Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
62 / 18013264-062 Mortar Brick Subground Foundation	Grey Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
65 / 18013264-065 Brick Packing Ground Floor	Grey Non-Fibrous Homogeneous		100% Other	None Detected

SanAir ID / Description	Stereoscopic Appearance	Components % Fibrous	Components % Non-Fibrous	Asbestos Fibers
66 / 18013264-066 Brick Packing Ground Floor	Grey Non-Fibrous Homogeneous		100% Other	None Detected

Certification

Analyst: [signature]
Analysis Date: 4/9/2018

Approved Signatory: Sandra Gobin
Date: 4/9/2018

Disclaimer

Final reports cannot be reproduced, except in full, without written authorization from SanAir. The accuracy of the results of the analysis is dependent upon the method of sample procurement and information provided by the client. SanAir assumes no responsibility or liability for the manner in which the results are used or interpreted. Samples were received in good condition unless otherwise noted on the report. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government.

NY ELAP lab ID 11983

Disclaimer

Final reports cannot be reproduced, except in full, without written authorization from SanAir. The accuracy of the results of the analysis is dependent upon the method of sample procurement and information provided by the client. SanAir assumes no responsibility or liability for the manner in which the results are used or interpreted. Samples were received in good condition unless otherwise noted on the report. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Polarized- light microscopy is not consistently reliable in detecting asbestos in floor covering and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing. Under NY state regulations, None Detected by this method is inconclusive result.

NY ELAP lab ID 11983

Disclaimer

Final reports cannot be reproduced, except in full, without written authorization from SanAir. The accuracy of the results of the analysis is dependent upon the method of sample procurement and information provided by the client. SanAir assumes no responsibility or liability for the manner in which the results are used or interpreted. Samples were received in good condition unless otherwise noted on the report. This report may not be used by the client to claim product endorsement by NVLAP, AIHA or any other agency of the U.S. government; and may not be certified by every local, state and federal regulatory agency.

Polarized- light microscopy is not consistently reliable in detecting asbestos in floor covering and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

NY ELAP lab ID 11983

SanAir Technologies Laboratory

1551 Oakbridge Dr. STE B
Powhatan, VA 23139
804.897.1177 / 888.895.1177
Fax 804.897.0070
sanair.com

Asbestos Chain of Custody
Form 140, Rev 1, 1/20/2017

SanAir ID Number: 18013264

Company: McLoughlin Properties, LLC	Project #: HERZOG WHSE	Collect by: PJ M	
Address: 16 Harcourt Cosman Drive	Project Name: HERZOG WHSE	Phone #: 845-565-9603	
City, St., Zip: Newburgh, NY 12550	Date Collected:	Fax #:	
State of Collection: N.Y. Account#: 3174	P.O. Number:	Email: mcloughlinproperties@gmail	

Bulk

ABB	PLM EPA 600/R-93/116	☐
	Positive Stop ☐	
ABEPA	PLM EPA 400 Point Count	☐
ABB1K	PLM EPA 1000 Point Count	☐
ABBEN	PLM EPA NOB**	☐
ABBCH	TEM Chatfield**	☐
ABBTM	TEM EPA NOB**	☐
ABQ	PLM Qualitative	☐

** Available on 24-hr. to 5-day TAT

Water

ABHE	EPA 100.2	☐

Air

ABA	PCM NIOSH 7400	☐
ABA-2	OSHA w/ TWA*	☐
ABTEM	TEM AHERA	☐
ABATN	TEM NIOSH 7402	☐
ABT2	TEM Level II	☐
Other:		☐

New York ELAP

PLM NY	PLM EPA 600/M4-82-020	☑
ABEPA2	NY ELAP 198.1	☐
ABENY	NY ELAP 198.6 PLM NOB	☑
ABBNY	NY ELAP 198.4 TEM NOB	☐

Soil

ABSE	PLM EPA 600/R-93/116 (Qual.)	☐

Vermiculite & Soil

ABSP	PLM CARB 435 (LOD <1%)	☐
ABSP1	PLM CARB 435 (LOD 0.25%)	☐
ABSP2	PLM CARB 435 (LOD 0.1%)	☐

Dust

ABWA	TEM Wipe ASTM D-6480	☐
ABDMV	TEM Microvac ASTM D-5755	☐

Matrix	Other	
		☐

Turn Around Times	3 HR (4 HR TEM) ☐	6 HR (8HR TEM) ☐	12 HR ☐	24 HR ☐
	☐ 2 Days	☐ 3 Days	☐ 4 Days	☑ 5 Days

Special Instructions

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start – Stop Time*	
1	mortar brick	LG				
2	" "					
3	window caulk	LG				
4	" "					
5	window glazing	LG				
6	" "					
7	wall board 4th	LG				
8	" "					
9	plaster 4th	LG				
10	" "					
11	Ceiling Sheetrock 3RD	LG				
12	" "					

Relinquished by	Date	Time	Received by	Date	Time
PJ	3-30	5:30		APR 02 2018	9:55 am

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or holiday work must be scheduled ahead of time and is charged for rush turnaround time. SanAir covers Standard Overnight FedEx shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

Page 1 of 3

180132 64 Form 140, Revision 1, 1/20/2017

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start – Stop Time*	
13	wall plaster 3RD					
14	" "					
15	wall board 3RD					
16	" "					
17	wall Sheetrock 3RD					
18	" "					
19	2ND floor plaster					
20	" "					
21	2ND floor ceiling plaster					
22	" "					
23	2ND floor bathroom wallboard					
24	" "					
25	2ND floor bathroom Surface	plaster				
26	" "					
27	2ND Floor Sheetrock					
28	" "					
29	main roof Shingle	LG				
30	" "					
31	Roof TAR					
32	" "					
33	paraphet Caulk					
34	" "					
35	1ST floor wall tile Storage					
36	" "					
37	1ST floor Sheetrock					
38	" "					
39	mastic on wood 1ST floor					
40	" "					
41	14" ceiling tile 1ST floor					
42	" "					
43	1ST floor wall board yellow					

Special Instructions	

Relinquished by	Date	Time	Received by	Date	Time
PL	3-30	5:30	AL	APR 0 2 2018	9:55 am

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or holiday work must be scheduled ahead of time and is charged for rush turnaround time. SanAir covers Standard Overnight FedEx shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

Page 2 of 3

18013264 Form 140, Revision 1, 1/20/2017

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start – Stop Time*	
44	1ST Floor wall board yellow					
45	1st floor wall board grey					
46	" "					
47	1ST wall board red					
48	" "					
49	Boiler packing 1					
50	" "					
51	Boiler packing 2					
52	" "					
53	wall board ground					
54	" "					
55	plaster ground floor					
56	" "					
57	foam panel glue					
58	" "					
59	Sprinkle room wall board					
60	" "					
61	mortar brick subground	foundation				
62	" "					
63	Batting insulation					
64	" "					
65	Brick packing ground floor					
66	" "					

Special Instructions	

Relinquished by	Date	Time	Received by	Date	Time
PS	3-30	5:30	[illegible]	APR 0 2 2018	9:55 am

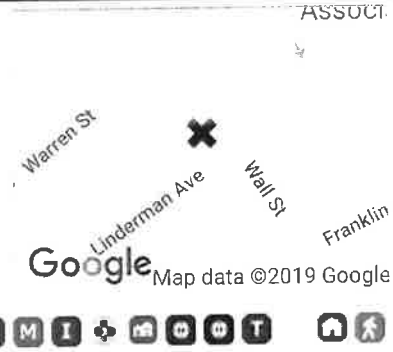
If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or holiday work must be scheduled ahead of time and is charged for rush turnaround time. SanAir covers Standard Overnight FedEx shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

Page 3 of 3

ALL FIELDS DETAIL

MLS #	20185037
Status	SOLD
Type	Single Family
Address	133 Wall Street
City	Kingston
Zip	12401
Area/Town	KINGSTON,CITY
Class	RESIDENTIAL
Asking Price	$329,900

# of Bedrooms	Three
# of Full Baths	Two
# of Half Baths	One
Garage Capacity	None
Garage Type	None
Age	100-200



GENERAL

Client Hit Count	116
VOW Include	Yes
VOW Comment	Yes
Foreclosure (Y/N)	No
Number of Acres	0.15
Listing Office 1	Win Morrlson Realty - Main: 845-339-1144
Listing Office 2	Win Morrison Realty-K - Main: 845-339-9999
BB Comm	2.5
Owners Name	McCloskey
Listing Date	12/10/2018
Year Built	1890
Elementary School	G.WASHINGTON K-4
Survey	N
Lot Dimensions	52 x 128
Living Room -Level	1
Dining Room -Level	1
Kitchen -Level	1
Family Room -Level	N
Bedroom 1 -Room Size	13 x 14.5
Bedroom 2 -Room Size	8.10 x 12
Bedroom 3 -Room Size	10.2 x 12
Utility -Level	B
Attic -Level	3
Other 1 -Room Size	14 x 7.10
Total Rooms	7
Square Feet	1858
SqFt 2nd	929
Page	55
Block	2
Access/Detailed Show Inst	Showing Time

Agent Hit Count	238
VOW Address	Yes
VOW AVM	Yes
Short Sale (Y/N)	No
Agent	Jayne McCloskey
Listing Agent 2	Sharon A Dee - Cell: 646-853-3664
SubAgent Comm	0
BkrAgt Comm	2.5
Occupied	N
Expiration Date	8/10/2019
School District	Kingston Consolidated
Zone	R-1
Neighborhood	UPTOWN
Style	Victorian
Living Room -Room Size	15 x 13.3
Dining Room -Room Size	18.3 x 14.1
Kitchen -Room Size	11.3 x 13
Bedroom 1 -Level	2
Bedroom 2 -Level	2
Bedroom 3 -Level	2
Bedroom 4 -Level	N
Den -Level	N
Other 1 -Level	1
Other 2 -Level	N
Kitchen Description	BREAKFAST BAR
SqFt 1st	929
Liber/Book	3431
Section	56.107
Lot	26
Directions	From NYS Thruway, Exit 19, take Washington Avenue to Linderman Avenue. Take Left on Linderman, go to Wall Street. House on left corner.

Update Date	7/2/2019
Status Date	7/2/2019
Hotsheet Date	7/2/2019
Days On Market	93
State	NY
Listing Type	Exclusive Right
Flood Plain	N
Townships	City of Kingston
Picture Count	35
Input Date	12/10/2018 11:54 AM

Color	White
Input Date	12/10/2018 11:54 AM
FIPS Code	NY111
Days On MLS	93
For Sale	For Sale
County	Ulster County
Listing Agreement	Yes
Lot Block Address	26,2,133 Wall
Sold Price Per SQFT	$173.30
Update Date	7/2/2019 5:04 PM

FEATURES

APPLIANCES
EXHAUST FAN
MICROWAVE
RANGE
RANGE HOOD
REFRIGERATOR
OTHER/SEE REMARKS

ATTIC
WALK UP
OTHER/SEE REMARKS

AMENITIES
OTHER/SEE REMARKS

COOLING/AIR CONDITIONING
CENTRAL

ELECTRICITY
200 AMPS

CONSTRUCTION
FRAME/STICK

OTHER ROOMS
OFFICE
STUDIO

STYLE
VICTORIAN

PLUMBING
COPPER

WATER
MUNICIPAL
OTHER

FEATURES

FLOORS
CARPET
HARDWOOD
FIREPLACE DESCRIPTION
BRICK
FIREPLACE LOCATION
DINING ROOM
LIVING ROOM
BASEMENT
FULL
HEAT SOURCE
FORCED AIR
HEATING FUEL
NATURAL GAS
HOT WATER
ELECTRIC
GARAGE/PARKING EXTRAS
OFF STREET
MISCELLANEOUS FEATURES
HUMIDIFIER
LOT FEATURES
CORNER LOT
LOT/SITE
CITY
TERMS
CASH PREFERRED
TO QUAL. BUYER
ACCESS/SHOWING INFO
LOCK BOX
SEWER
MUNICIPAL
ROOF
ASPH SHINGLE
METAL
KITCHEN DESCRIPTION
BREAKFAST BAR
CUSTOM CABINETS
DRIVEWAY
BLACKTOP

FINANCIAL

Original Price	$329,900	**Associated Document Count**	0
IDX Include	Y	**Tax ID**	NY111
Off Market Date	3/13/2019	**Sign**	Y
Assessed	$201,000	**School Tax**	$3,729
General Tax	$2,693		

SOLD STATUS

How Sold	CONVENTIONAL	**Contract Date**	3/13/2019
Closing Date	4/4/2019	**Sold Price**	$322,000
Selling Agent 1	Mark Kanter - Cell: 845-332-7577	**Selling Office 1**	BHHS HUDSON VALLEY PROP-WDST - Main: 845-679-0006

REMARKS

Remarks Spacious 3 bedroom 2 ½ bath vintage Victorian located in Uptown Kingston. Original crown moldings, hard wood floors throughout, as well as original tin ceilings are some period details. Walk in to a grand foyer which connects to the sun filled living space w/ electric fireplace. Open concept kitchen and dining area makes it a pleasure to entertain, as well as a fireplace in the dining area to add a wonderful touch. There is a ½ bath on the first floor for guest use. On the second floor you'll find 2 smaller bedrooms w/ a shared full bath in the hallway. Sun filled master bedroom with walk-in closet and a beautiful en-suite with 2 linen closets and a gorgeous claw foot tub. Washer/dryer hook up in the main hallway on the 2nd floor, convenient to bedrooms. The 3rd floor has unlimited possibilities. Hot/cold water hook-up with a drain already in place. Whole house water filtration system. Large back patio w/ custom blue stone retaining walls, fenced in back yard with perennial gardens. Driveway can accommodate 2+ cars. Don't miss this one! Disclosure: Seller is related to Primary Listing Agent.

SHOWING ASSIST INSTRUCT

Showing Assist Instruct Showing Time

AGENT REMARKS

Agent Remarks Disclosure: Seller is related to Primary Listing Agent.

ADDITIONAL PICTURES

























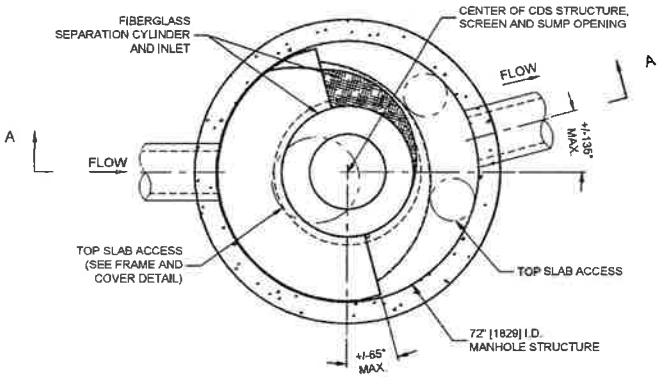




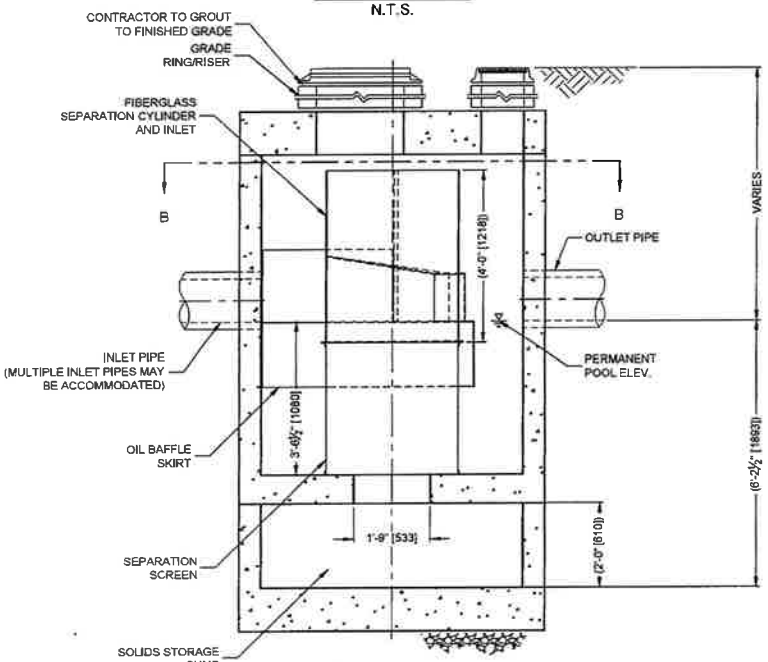




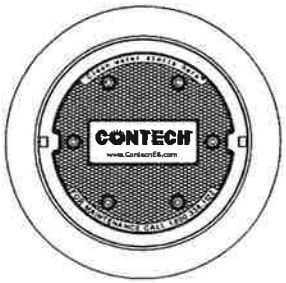
DISCLAIMER



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

CDS-6-C (CDS3030) DESIGN NOTES

THE STANDARD CDS-6-C (CDS3030) CONFIGURATION IS SHOWN.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS OR L/s)	*
PEAK FLOW RATE (CFS OR L/s)	*
RETURN PERIOD OF PEAK FLOW (YRS)	*
SCREEN APERTURE (2400)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. ,www.ContechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET HS20 (AASHTO M 306) AND BE CAST WITH THE CONTECH LOGO.
6. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

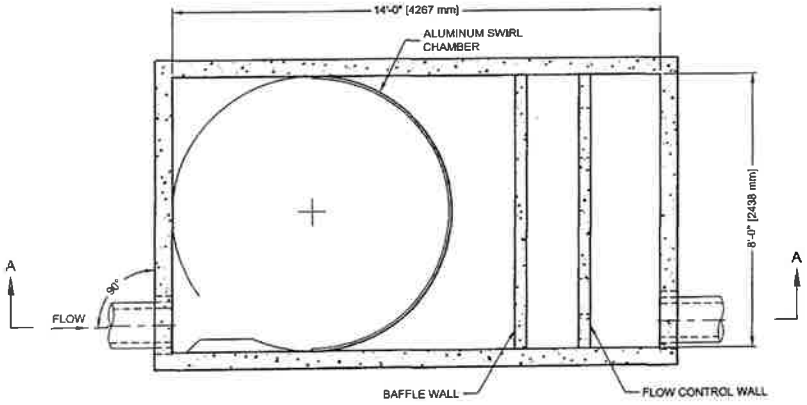
CONTECH
ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS-6-C (CDS3030)
ONLINE CDS
STANDARD DETAIL

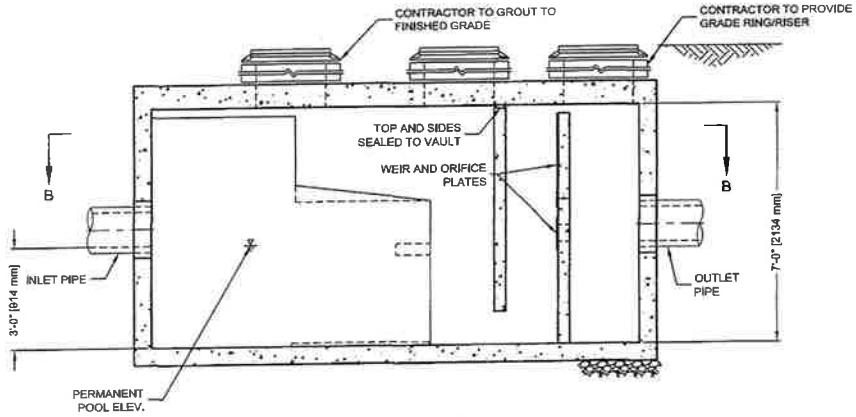
VORTECHS 7000 DESIGN NOTES

VORTECHS 7000 RATED TREATMENT CAPACITY IS 11 CFS, OR PER LOCAL REGULATIONS. IF THE SITE CONDITIONS EXCEED RATED TREATMENT CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

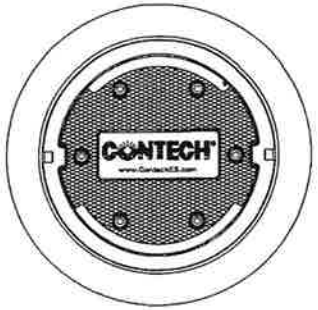
THE STANDARD INLET/OUTLET CONFIGURATION IS SHOWN. FOR OTHER CONFIGURATION OPTIONS , PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.ContechES.com



SECTION B-B



SECTION A-A



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (CFS)	*
PEAK FLOW RATE (CFS)	*
RETURN PERIOD OF PEAK FLOW (YRS)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.ContechES.com
4. VORTECHS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. INLET PIPE(S) MUST BE PERPEDICULAR TO THE VAULT AND AT THE CORNER TO INTRODUCE THE FLOW TANGENTIALLY TO THE SWIRL CHAMBER. DUAL INLETS NOT TO HAVE OPPOSING TANGENTIAL FLOW DIRECTIONS.
7. OUTLET PIPE(S) MUST BE DOWN STREAM OF THE FLOW CONTROL BAFFLE AND MAY BE LOCATED ON THE SIDE OR END OF THE VAULT. THE FLOW CONTROL WALL MAY BE TURNED TO ACCOMODATE OUTLET PIPE KNOCKOUTS ON THE SIDE OF THE VAULT.

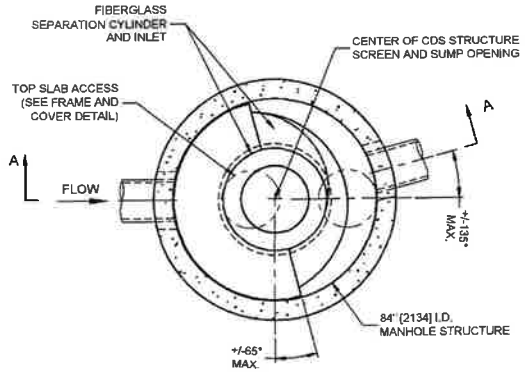
INSTALLATION NOTES

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTECHS STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

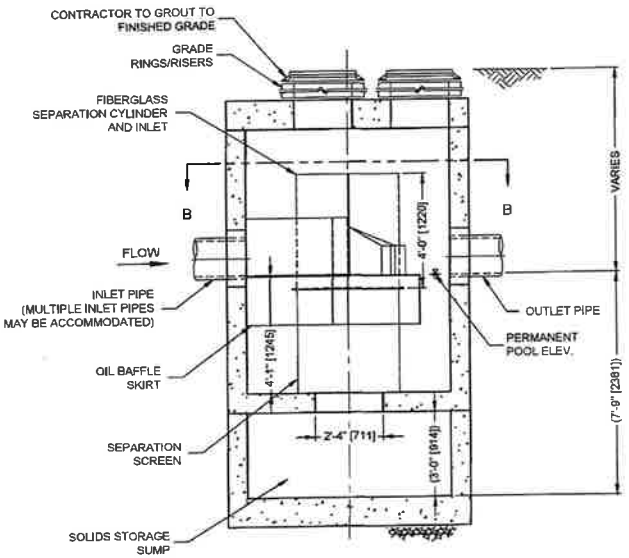
Vortechs®

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

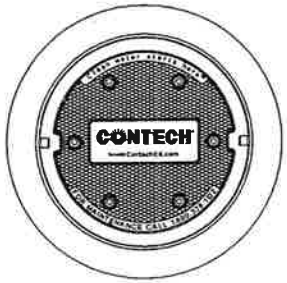
VORTECHS 7000
STANDARD DETAIL



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

CDS-7-C (CDS3535) DESIGN NOTES

THE STANDARD CDS-7-C (CDS3535) CONFIGURATION IS SHOWN.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS OR L/s)	*
PEAK FLOW RATE (CFS OR L/s)	*
RETURN PERIOD OF PEAK FLOW (YRS)	*
SCREEN APERTURE (2400)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET HS20 (AASHTO M 306) AND BE CAST WITH THE CONTECH LOGO.
6. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS-7-C (CDS3535)
ONLINE CDS
STANDARD DETAIL

Maintenance:
Like any stormwater best management practice, the Vortechs and CDS systems requires regular inspection and maintenance to ensure optimal performance. Maintenance frequency will be driven by site conditions. Quarterly visual inspections are recommended, at which time the accumulation of pollutants can be determined. On average, both systems requires annual removal of accumulated pollutants.

CONTECH®
ENGINEERED SOLUTIONS

Sizing Estimate

Provided by Josh Stackhouse on May 13, 2019

Stormwater Treatment System Design Summary
Kingstonian
Kingston, NY

Information provided by Paul Larios, EIT (Brinnier and Larios, PC)

Site information:

Structure ID	WQF: 1-YR Storm Runoff Flow (cfs)	100-YR Peak Flow (cfs)
Unit 1	4.3	11.6
Unit 2	1.84	7.1

- Presiding agency = NYSDEC

Assumptions:

- NYSDEC has adopted the NJCAT/NJDEP verified flow rates for the Vortechs and CDS systems. NYSDEC has effectively created three categories of treatment, new development (standalone), redevelopment and pretreatment. Specific approval and sizing criteria are applied to each category. Per the specifying engineer, this project falls under **Redevelopment**.

Sizing Summary:
The Contech Vortechs® stormwater treatment system is a hydrodynamic separator designed to enhance gravitational separation of floating and settleable materials from stormwater flows. Stormwater flows enter the unit tangentially to the grit chamber, which promotes a gentle swirling motion. As stormwater circles within the grit chamber, pollutants migrate toward the center of the unit where velocities are the lowest. The majority of settleable solids are left behind as stormwater exits the swirl chamber. Stormwater flows then are directed below a floatables baffle wall, where buoyant debris and hydrocarbons are removed.

The CDS Stormwater Treatment System is a high-performance hydrodynamic separator. Using patented continuous deflective separation technology, the CDS system screens, separates and traps debris, sediment, and oil and grease from stormwater runoff. The indirect screening capability of the system allows for 100% removal of floatables and neutrally buoyant material without blinding. Flow and screening controls physically separate captured solids, preventing re-suspension and release of previously trapped pollutants.

Structure ID	System Model Size	NYSDEC Approved Flow Rates (cfs)
Unit 1 – CDS Option	CDS3535-7 (CDS-7) (2 Required)	2.85 ea.
Unit 1 - Vortechs option	Vortechs 7000	4.50
Unit 2	CDS3030-6 (CDS-6)	2.10

The following pages include the standard drawings of the systems.

APPENDIX E

Summary for Pond 9P: Hydro Separator

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 152.91' (Flood elevation advised)

Inflow Area =	1.426 ac,	94.39% Impervious,	Inflow Depth >	3.83"	for 10-yr event
Inflow =	7.18 cfs @	11.99 hrs,	Volume=	0.455 af	
Outflow =	7.18 cfs @	11.99 hrs,	Volume=	0.455 af,	Atten= 0%, Lag= 0.0 min
Primary =	7.18 cfs @	11.99 hrs,	Volume=	0.455 af	

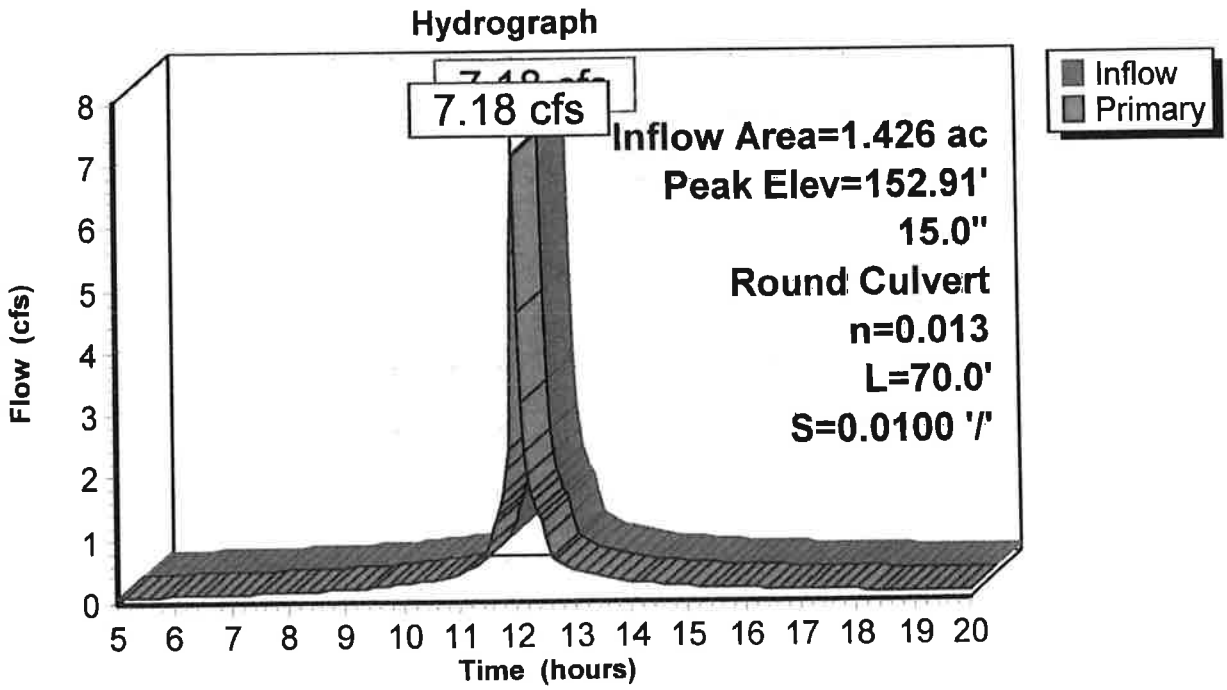
Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 152.91' @ 12.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	150.70'	**15.0" Round Proposed Outlet to City Sewer** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 150.70' / 150.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=6.98 cfs @ 11.99 hrs HW=152.82' (Free Discharge)
↑—**1=Proposed Outlet to City Sewer** (Barrel Controls 6.98 cfs @ 5.69 fps)

Pond 9P: Hydro Separator

Hydrograph



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1 (East) Runoff Area=0.746 ac 79.22% Impervious Runoff Depth>3.94"
Flow Length=231' Tc=2.4 min CN=86 Runoff=4.02 cfs 0.245 af

Subcatchment 2S: Area 2 (West) Runoff Area=1.426 ac 94.39% Impervious Runoff Depth>4.86"
Flow Length=371' Tc=2.8 min CN=96 Runoff=8.76 cfs 0.578 af

Subcatchment 3S: Area 3 (Lower Fair St.) Runoff Area=0.298 ac 100.00% Impervious Runoff Depth>4.99"
Flow Length=371' Tc=1.3 min CN=98 Runoff=1.95 cfs 0.124 af

Subcatchment 6S: Pedestrian Plaza Porous Runoff Area=0.200 ac 0.00% Impervious Runoff Depth>0.36"
Tc=6.0 min CN=40 Runoff=0.02 cfs 0.006 af

Pond 4P: Existing CB1A (Point of Analysis) Inflow=14.60 cfs 0.953 af
Primary=14.60 cfs 0.953 af

Pond 6P: Porous Pavers Peak Elev=175.00' Storage=0.000 af Inflow=0.02 cfs 0.006 af
Outflow=0.02 cfs 0.006 af

Pond 8P: Hydro Separator Peak Elev=153.09' Inflow=4.02 cfs 0.245 af
15.0" Round Culvert n=0.015 L=290.0' S=0.0172 '/' Outflow=4.02 cfs 0.245 af

Pond 9P: Hydro Separator Peak Elev=153.72' Inflow=8.76 cfs 0.578 af
15.0" Round Culvert n=0.013 L=70.0' S=0.0100 '/' Outflow=8.76 cfs 0.578 af

Total Runoff Area = 2.670 ac Runoff Volume = 0.953 af Average Runoff Depth = 4.28"
16.29% Pervious = 0.435 ac 83.71% Impervious = 2.235 ac

Summary for Subcatchment 1S: Area 1 (East)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 4.02 cfs @ 11.99 hrs, Volume= 0.245 af, Depth> 3.94"

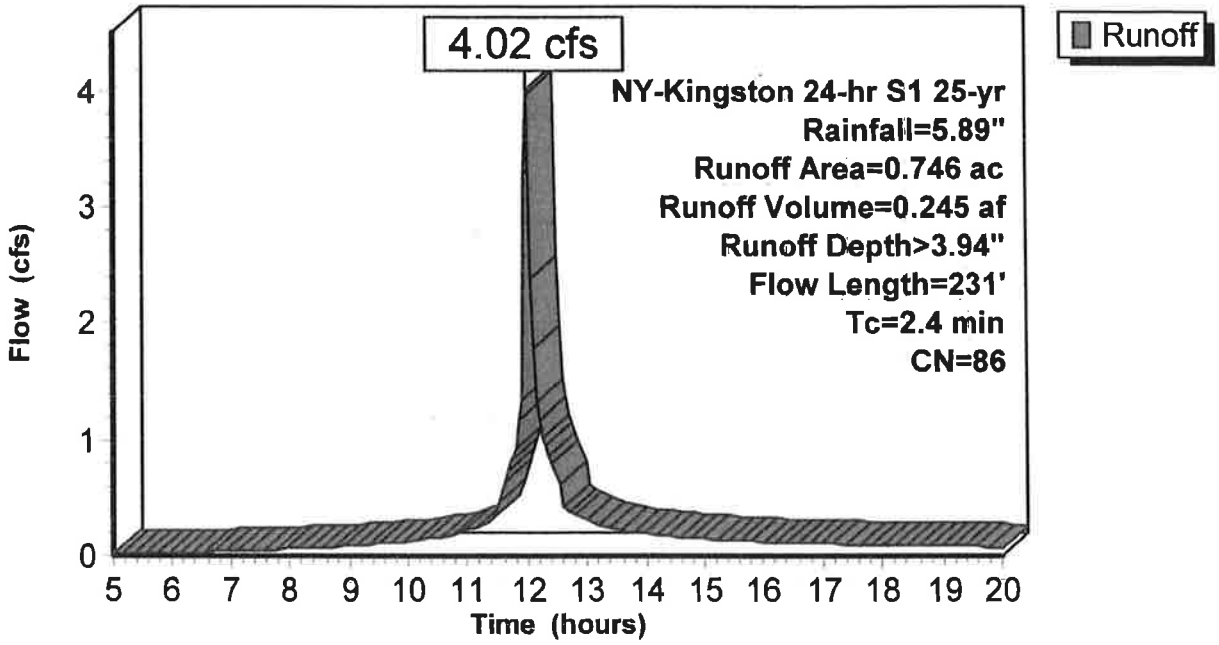
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 25-yr Rainfall=5.89"

Area (ac)	CN	Description
0.503	98	Roofs, HSG B
0.088	98	Paved parking, HSG A
0.155	39	>75% Grass cover, Good, HSG A
0.746	86	Weighted Average
0.155		20.78% Pervious Area
0.591		79.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	30	0.0150	5.56	4.36	**Pipe Channel, Roof Drains** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.2	101	0.0300	9.12	11.19	**Pipe Channel, Garage Drains to Treatment** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	231	Total			

Subcatchment 1S: Area 1 (East)

Hydrograph



Summary for Subcatchment 2S: Area 2 (West)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 8.76 cfs @ 11.99 hrs, Volume= 0.578 af, Depth> 4.86"

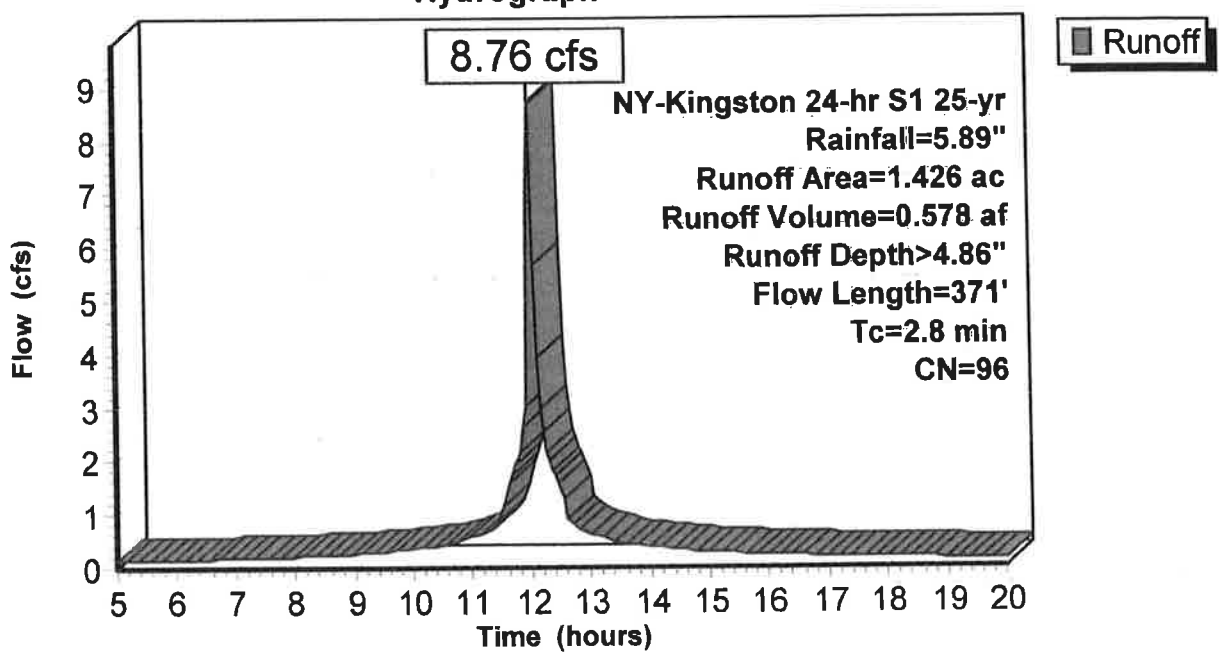
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 25-yr Rainfall=5.89"

Area (ac)	CN	Description
0.752	98	Roofs, HSG B
0.594	98	Paved parking, HSG A
0.080	61	>75% Grass cover, Good, HSG B
1.426	96	Weighted Average
0.080		5.61% Pervious Area
1.346		94.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	30	0.0300	7.86	6.17	**Pipe Channel, Roof Drains** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	241	0.0189	7.24	8.88	**Pipe Channel, Garage Drains to Treatment** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.8	371	Total			

Subcatchment 2S: Area 2 (West)

Hydrograph



Summary for Subcatchment 3S: Area 3 (Lower Fair St.)

[49] Hint: Tc<2dt may require smaller dt

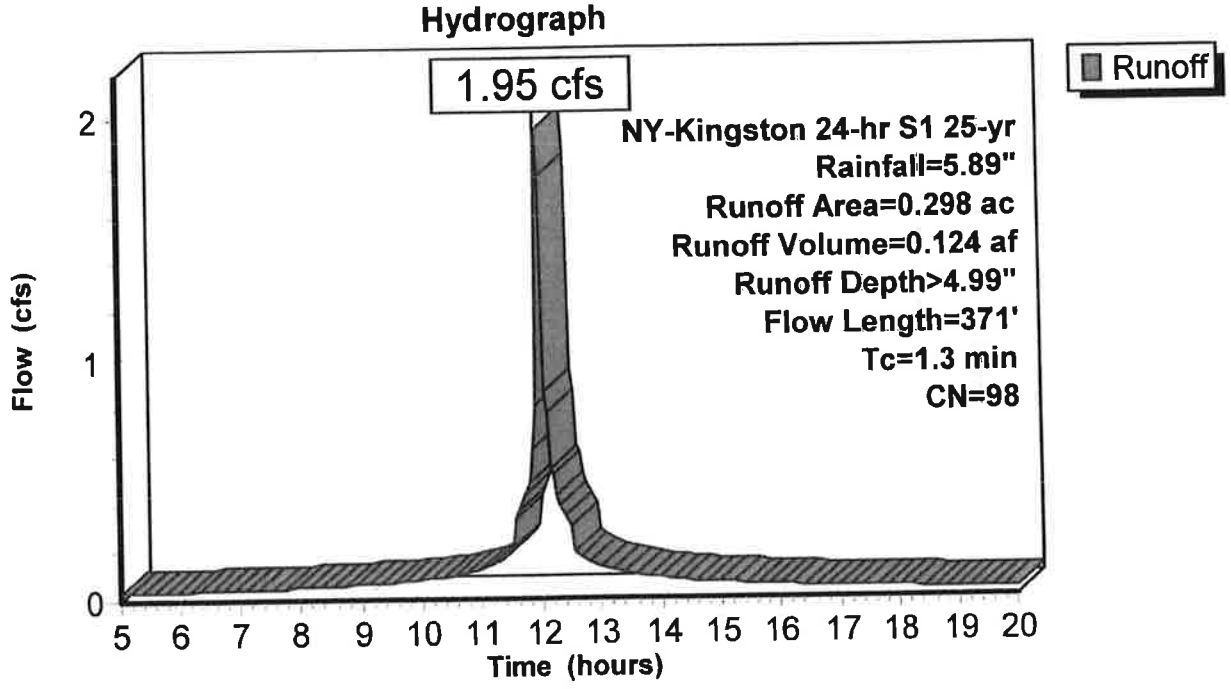
Runoff = 1.95 cfs @ 11.97 hrs, Volume= 0.124 af, Depth> 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 25-yr Rainfall=5.89"

Area (ac)	CN	Description
0.298	98	Paved roads w/curbs & sewers, HSG B
0.298		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	50	0.0400	1.57		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.1	20	0.0650	5.18		**Shallow Concentrated Flow, Flow to Existing CB** Paved Kv= 20.3 fps
0.2	128	0.0470	8.73	10.71	**Pipe Channel, Existing 15" Clay** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel, Existing 24" to Analysis Point** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
1.3	371	Total			

Subcatchment 3S: Area 3 (Lower Fair St.)



Summary for Subcatchment 6S: Pedestrian Plaza Porous Pavers

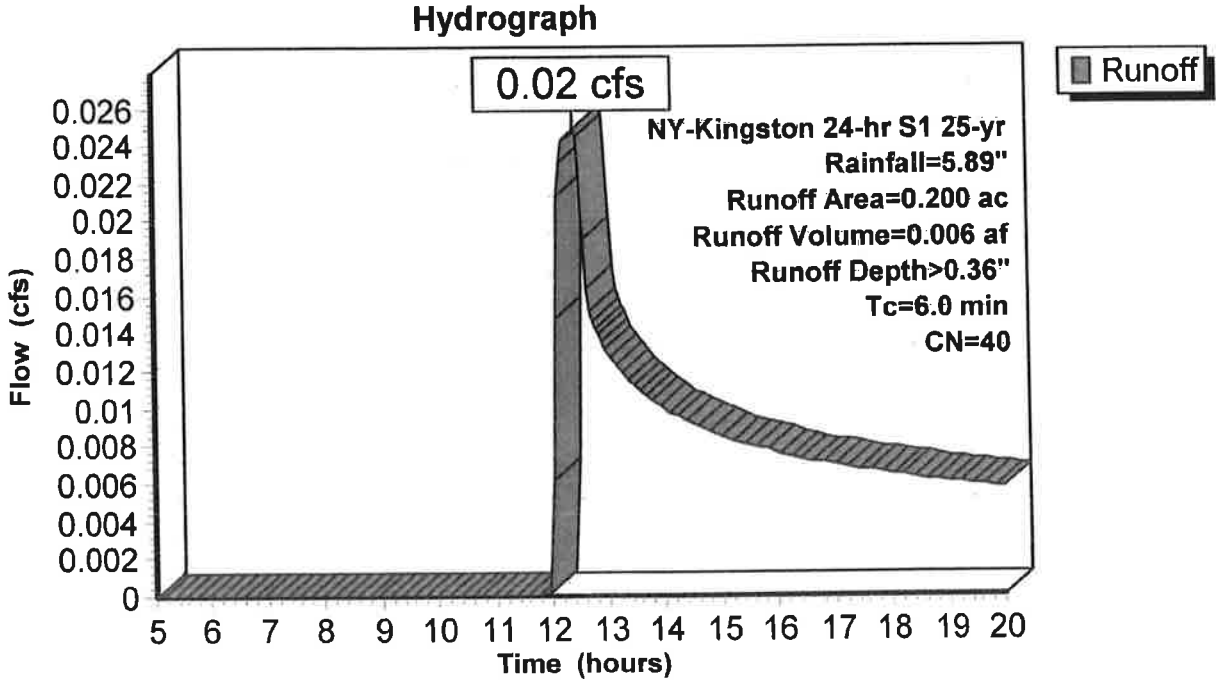
Runoff = 0.02 cfs @ 12.46 hrs, Volume= 0.006 af, Depth> 0.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 25-yr Rainfall=5.89"

	Area (ac)	CN	Description
*	0.200	40	Porous Pavers
	0.200		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Extended Tc Due to Permeable Pavers**

Subcatchment 6S: Pedestrian Plaza Porous Pavers



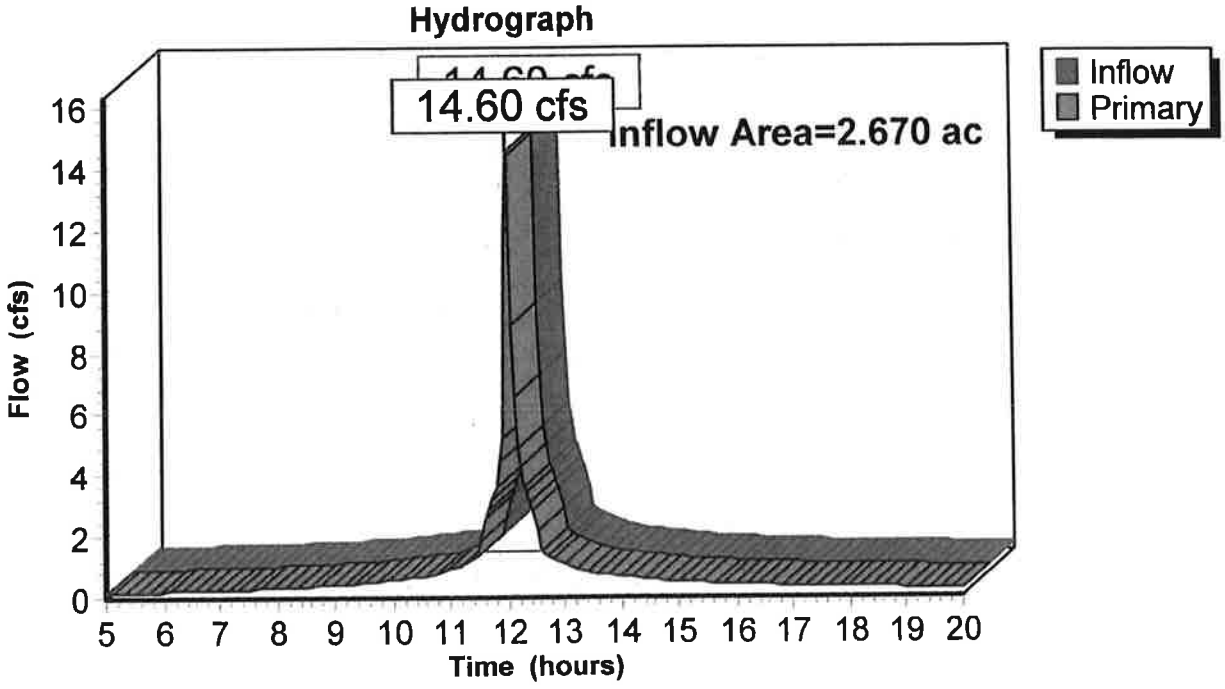
Summary for Pond 4P: Existing CB1A (Point of Analysis)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.670 ac, 83.71% Impervious, Inflow Depth > 4.28" for 25-yr event
Inflow = 14.60 cfs @ 11.99 hrs, Volume= 0.953 af
Primary = 14.60 cfs @ 11.99 hrs, Volume= 0.953 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 4P: Existing CB1A (Point of Analysis)



Summary for Pond 6P: Porous Pavers

Inflow Area = 0.200 ac, 0.00% Impervious, Inflow Depth > 0.36" for 25-yr event
Inflow = 0.02 cfs @ 12.46 hrs, Volume= 0.006 af
Outflow = 0.02 cfs @ 12.50 hrs, Volume= 0.006 af, Atten= 0%, Lag= 2.7 min
Primary = 0.02 cfs @ 12.50 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 175.00' @ 12.50 hrs Surf.Area= 0.129 ac Storage= 0.000 af

Plug-Flow detention time= 0.5 min calculated for 0.006 af (100% of inflow)
Center-of-Mass det. time= 0.3 min (911.0 - 910.8)

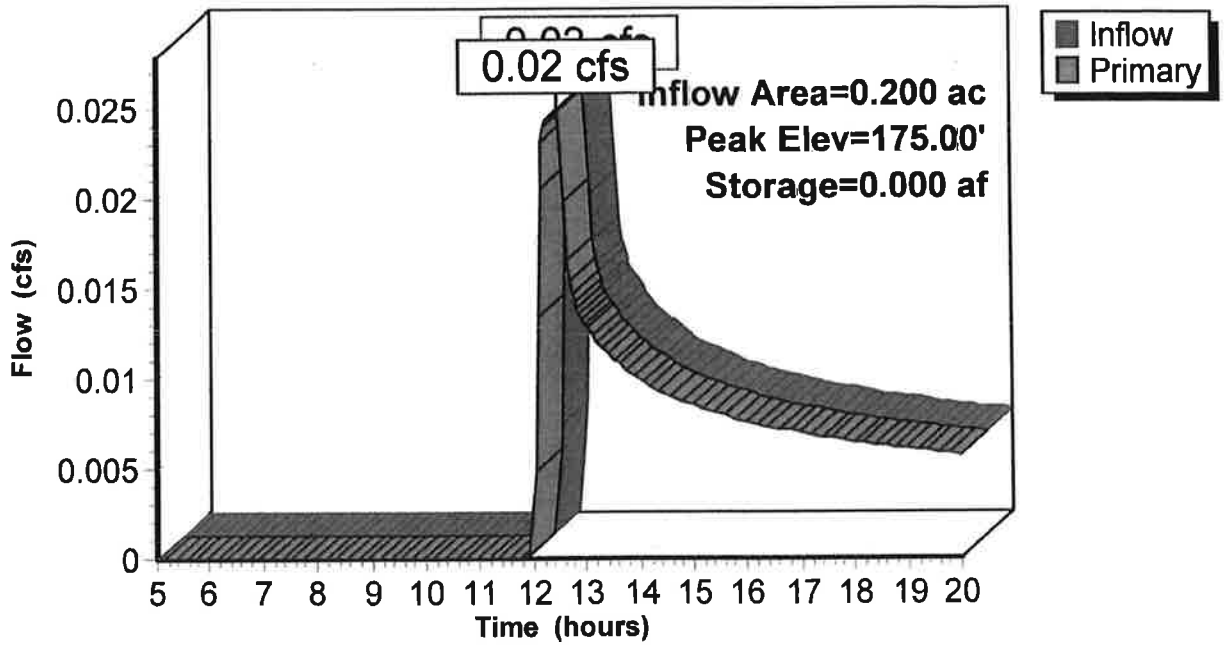
Volume	Invert	Avail.Storage	Storage Description
#1	175.00'	0.233 af	**40.00'W x 140.00'L x 4.00'H Prismatoid Z=1.0** 0.582 af Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	171.00'	**8.0" Round Culvert** L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 171.00' / 163.00' S= 0.1143 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	163.00'	**12.0" Round Outlet Sewer** L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 163.00' / 162.50' S= 0.0167 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	162.50'	**15.0" Round 15" City Sewers** L= 213.0' Ke= 0.500 Inlet / Outlet Invert= 162.50' / 153.56' S= 0.0420 '/' Cc= 0.900 n= 0.017, Flow Area= 1.23 sf
#4	Device 3	153.50'	**24.0" Round 24" City Sewer to Analysis Point** L= 88.0' Ke= 0.500 Inlet / Outlet Invert= 153.50' / 152.62' S= 0.0100 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets, Flow Area= 3.14 sf

Primary OutFlow Max=3.22 cfs @ 12.50 hrs HW=175.00' (Free Discharge)
↑**1=Culvert** (Inlet Controls 3.22 cfs @ 9.22 fps)
↑**2=Outlet Sewer** (Passes 3.22 cfs of 7.56 cfs potential flow)
↑**3=15" City Sewers** (Passes 3.22 cfs of 6.23 cfs potential flow)
↑**4=24" City Sewer to Analysis Point** (Passes 3.22 cfs of 29.31 cfs potential flow)

Pond 6P: Porous Pavers

Hydrograph



Summary for Pond 8P: Hydro Separator

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 153.09' (Flood elevation advised)

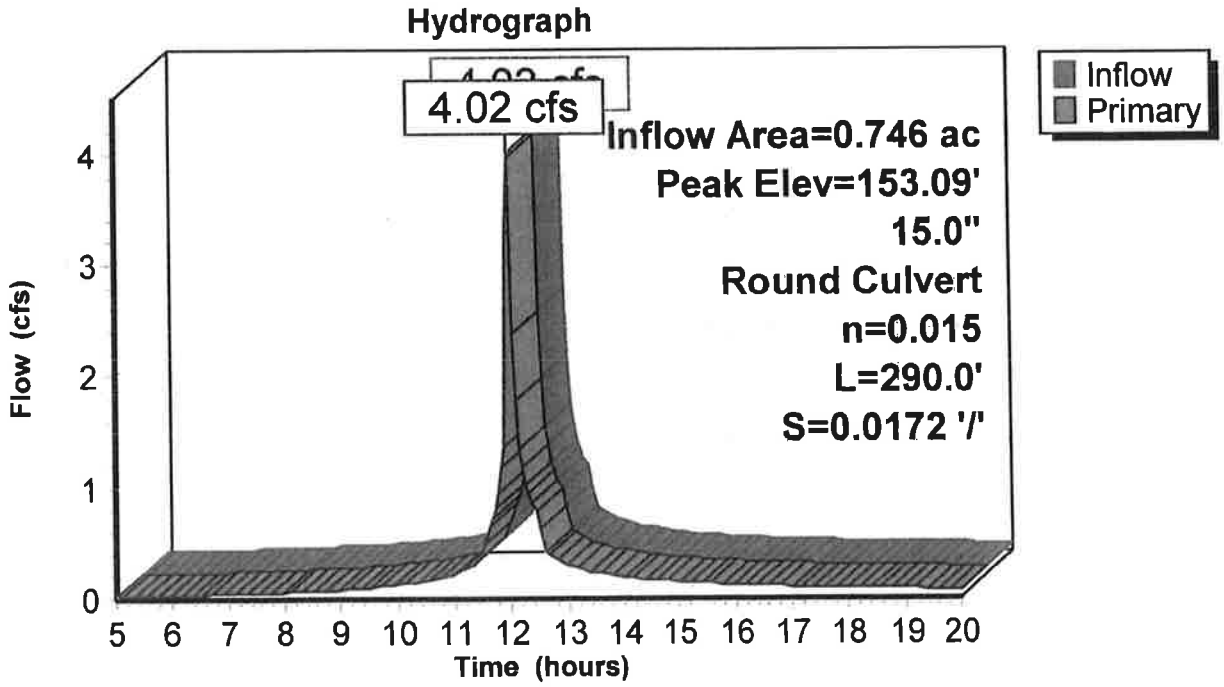
Inflow Area =	0.746 ac, 79.22% Impervious, Inflow Depth >	3.94"	for 25-yr event	
Inflow =	4.02 cfs @	11.99 hrs, Volume=	0.245 af	
Outflow =	4.02 cfs @	11.99 hrs, Volume=	0.245 af, Atten= 0%, Lag= 0.0 min	
Primary =	4.02 cfs @	11.99 hrs, Volume=	0.245 af	

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 153.09' @ 11.99 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	152.00'	**15.0" Round Outlet to Analysis Point** L= 290.0' Ke= 0.500 Inlet / Outlet Invert= 152.00' / 147.00' S= 0.0172 '/' Cc= 0.900 n= 0.015, Flow Area= 1.23 sf

Primary OutFlow Max=3.84 cfs @ 11.99 hrs HW=153.05' (Free Discharge)
↑—**1=Outlet to Analysis Point** (Inlet Controls 3.84 cfs @ 3.49 fps)

Pond 8P: Hydro Separator



Summary for Pond 9P: Hydro Separator

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 153.72' (Flood elevation advised)

Inflow Area =	1.426 ac,	94.39% Impervious,	Inflow Depth >	4.86" for 25-yr event
Inflow =	8.76 cfs @	11.99 hrs, Volume=	0.578 af	
Outflow =	8.76 cfs @	11.99 hrs, Volume=	0.578 af,	Atten= 0%, Lag= 0.0 min
Primary =	8.76 cfs @	11.99 hrs, Volume=	0.578 af	

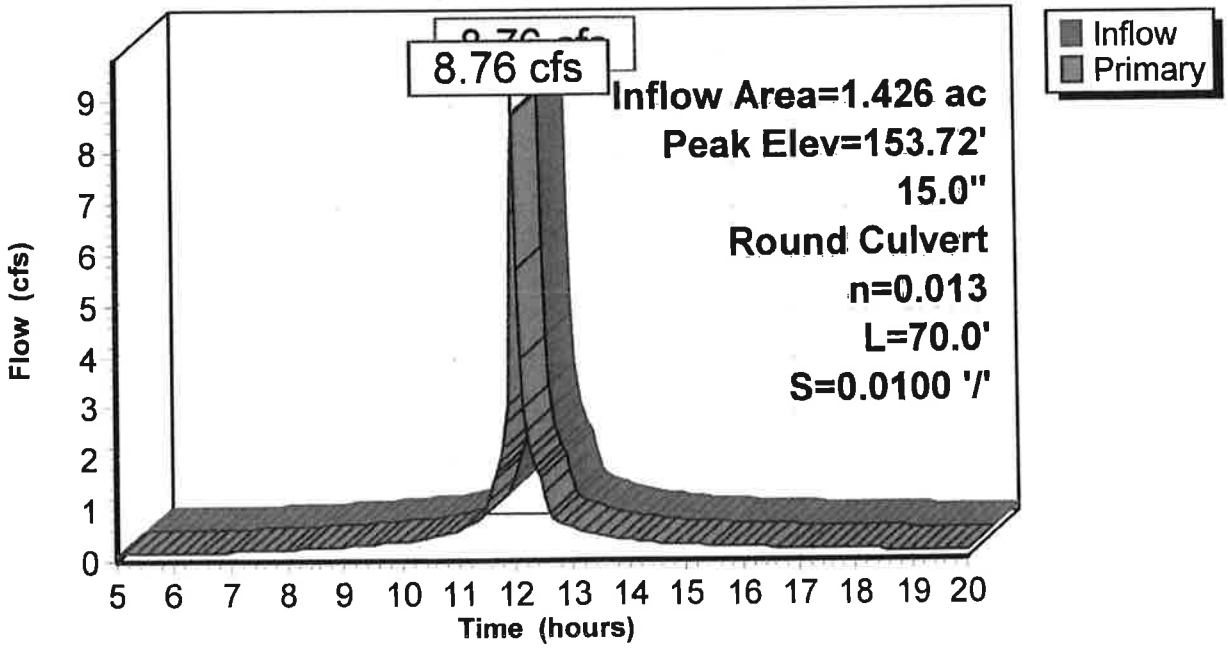
Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 153.72' @ 11.99 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	150.70'	**15.0" Round Proposed Outlet to City Sewer** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 150.70' / 150.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=8.53 cfs @ 11.99 hrs HW=153.60' (Free Discharge)
↑—**1=Proposed Outlet to City Sewer** (Barrel Controls 8.53 cfs @ 6.95 fps)

Pond 9P: Hydro Separator

Hydrograph



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1 (East) Runoff Area=0.746 ac 79.22% Impervious Runoff Depth>6.06"
Flow Length=231' Tc=2.4 min CN=86 Runoff=5.65 cfs 0.377 af

Subcatchment 2S: Area 2 (West) Runoff Area=1.426 ac 94.39% Impervious Runoff Depth>6.95"
Flow Length=371' Tc=2.8 min CN=96 Runoff=11.62 cfs 0.826 af

Subcatchment 3S: Area 3 (Lower Fair St.) Runoff Area=0.298 ac 100.00% Impervious Runoff Depth>7.05"
Flow Length=371' Tc=1.3 min CN=98 Runoff=2.57 cfs 0.175 af

Subcatchment 6S: Pedestrian Plaza Porous Runoff Area=0.200 ac 0.00% Impervious Runoff Depth>1.15"
Tc=6.0 min CN=40 Runoff=0.19 cfs 0.019 af

Pond 4P: Existing CB1A (Point of Analysis) Inflow=19.78 cfs 1.397 af
Primary=19.78 cfs 1.397 af

Pond 6P: Porous Pavers Peak Elev=175.00' Storage=0.000 af Inflow=0.19 cfs 0.019 af
Outflow=0.19 cfs 0.019 af

Pond 8P: Hydro Separator Peak Elev=153.53' Inflow=5.65 cfs 0.377 af
15.0" Round Culvert n=0.015 L=290.0' S=0.0172 '/' Outflow=5.65 cfs 0.377 af

Pond 9P: Hydro Separator Peak Elev=155.60' Inflow=11.62 cfs 0.826 af
15.0" Round Culvert n=0.013 L=70.0' S=0.0100 '/' Outflow=11.62 cfs 0.826 af

Total Runoff Area = 2.670 ac Runoff Volume = 1.397 af Average Runoff Depth = 6.28"
16.29% Pervious = 0.435 ac 83.71% Impervious = 2.235 ac

Summary for Subcatchment 1S: Area 1 (East)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 5.65 cfs @ 11.99 hrs, Volume= 0.377 af, Depth> 6.06"

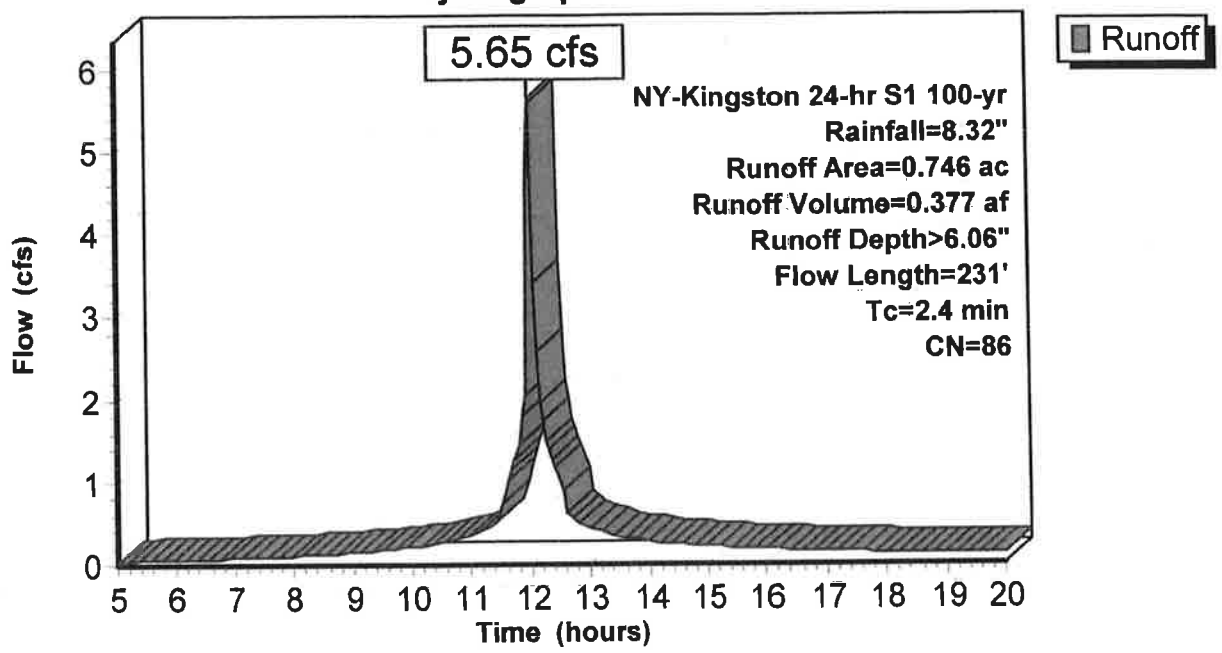
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 100-yr Rainfall=8.32"

Area (ac)	CN	Description
0.503	98	Roofs, HSG B
0.088	98	Paved parking, HSG A
0.155	39	>75% Grass cover, Good, HSG A
0.746	86	Weighted Average
0.155		20.78% Pervious Area
0.591		79.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	30	0.0150	5.56	4.36	**Pipe Channel, Roof Drains** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.2	101	0.0300	9.12	11.19	**Pipe Channel, Garage Drains to Treatment** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	231	Total			

Subcatchment 1S: Area 1 (East)

Hydrograph



Summary for Subcatchment 2S: Area 2 (West)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 11.62 cfs @ 11.99 hrs, Volume= 0.826 af, Depth> 6.95"

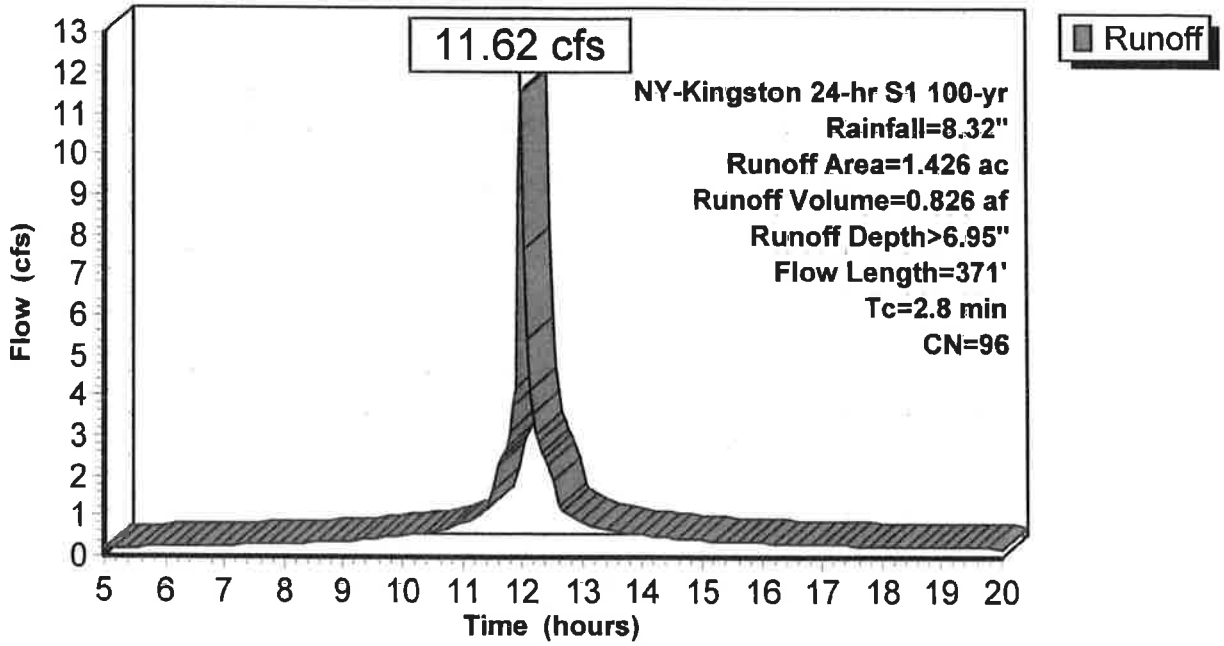
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 100-yr Rainfall=8.32"

Area (ac)	CN	Description
0.752	98	Roofs, HSG B
0.594	98	Paved parking, HSG A
0.080	61	>75% Grass cover, Good, HSG B
1.426	96	Weighted Average
0.080		5.61% Pervious Area
1.346		94.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	30	0.0300	7.86	6.17	**Pipe Channel, Roof Drains** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	241	0.0189	7.24	8.88	**Pipe Channel, Garage Drains to Treatment** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.8	371	Total			

Subcatchment 2S: Area 2 (West)

Hydrograph



Summary for Subcatchment 3S: Area 3 (Lower Fair St.)

[49] Hint: Tc<2dt may require smaller dt

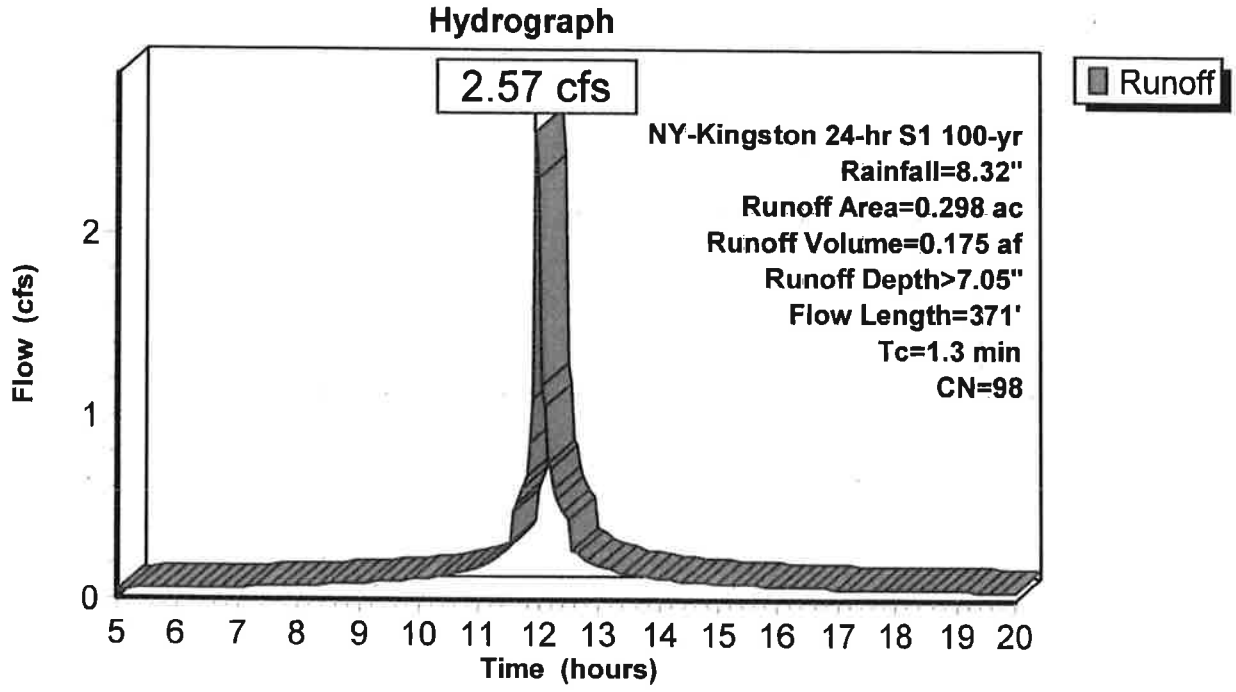
Runoff = 2.57 cfs @ 11.97 hrs, Volume= 0.175 af, Depth> 7.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 100-yr Rainfall=8.32"

Area (ac)	CN	Description
0.298	98	Paved roads w/curbs & sewers, HSG B
0.298		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	50	0.0400	1.57		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.1	20	0.0650	5.18		**Shallow Concentrated Flow, Flow to Existing CB** Paved Kv= 20.3 fps
0.2	128	0.0470	8.73	10.71	**Pipe Channel, Existing 15" Clay** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel, Existing 24" to Analysis Point** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
1.3	371	Total			

Subcatchment 3S: Area 3 (Lower Fair St.)



Summary for Subcatchment 6S: Pedestrian Plaza Porous Pavers

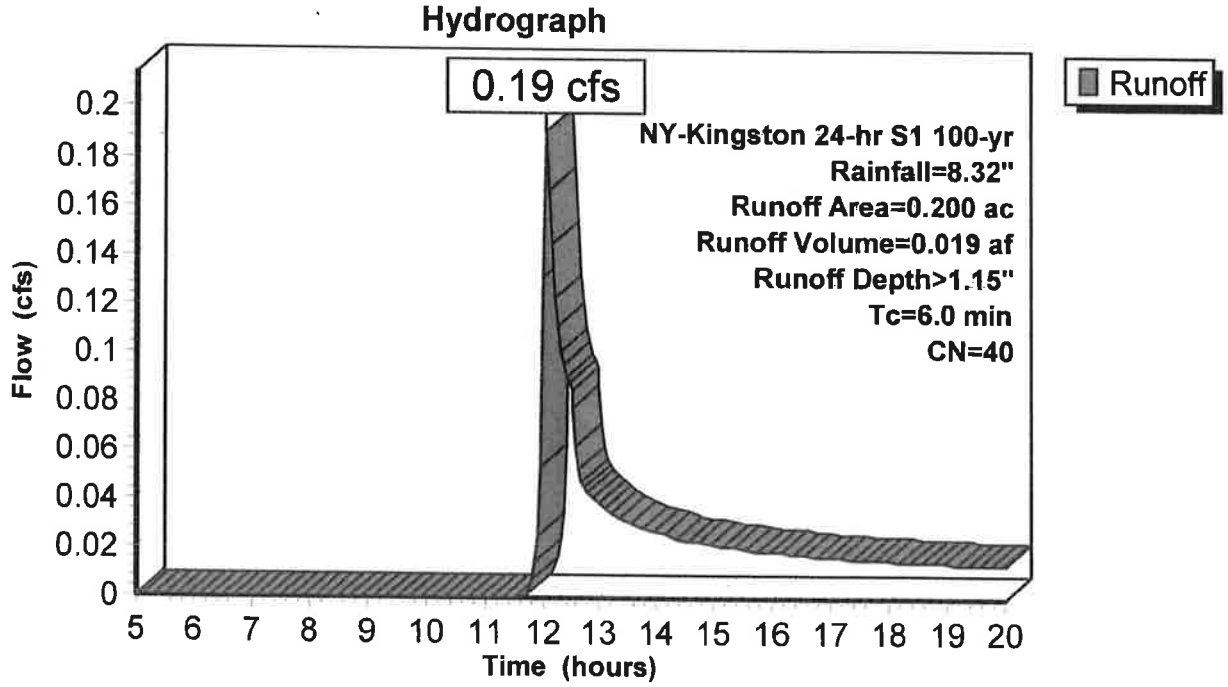
Runoff = 0.19 cfs @ 12.06 hrs, Volume= 0.019 af, Depth> 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 100-yr Rainfall=8.32"

	Area (ac)	CN	Description
*	0.200	40	Porous Pavers
	0.200		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Extended Tc Due to Permeable Pavers

Subcatchment 6S: Pedestrian Plaza Porous Pavers



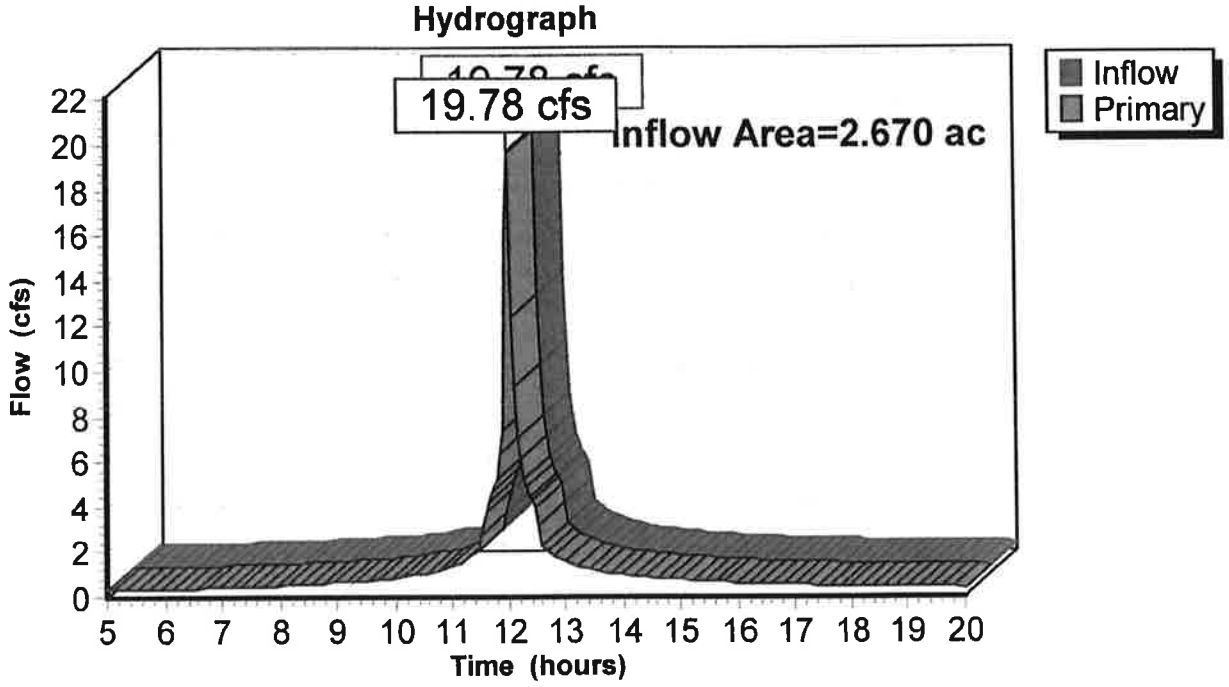
Summary for Pond 4P: Existing CB1A (Point of Analysis)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.670 ac, 83.71% Impervious, Inflow Depth > 6.28" for 100-yr event
Inflow = 19.78 cfs @ 11.99 hrs, Volume= 1.397 af
Primary = 19.78 cfs @ 11.99 hrs, Volume= 1.397 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 4P: Existing CB1A (Point of Analysis)



Summary for Pond 6P: Porous Pavers

Inflow Area = 0.200 ac, 0.00% Impervious, Inflow Depth > 1.15" for 100-yr event
Inflow = 0.19 cfs @ 12.06 hrs, Volume= 0.019 af
Outflow = 0.19 cfs @ 12.07 hrs, Volume= 0.019 af, Atten= 1%, Lag= 0.5 min
Primary = 0.19 cfs @ 12.07 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 175.00' @ 12.07 hrs Surf.Area= 0.129 ac Storage= 0.000 af

Plug-Flow detention time= 0.5 min calculated for 0.019 af (100% of inflow)
Center-of-Mass det. time= 0.3 min (868.3 - 867.9)

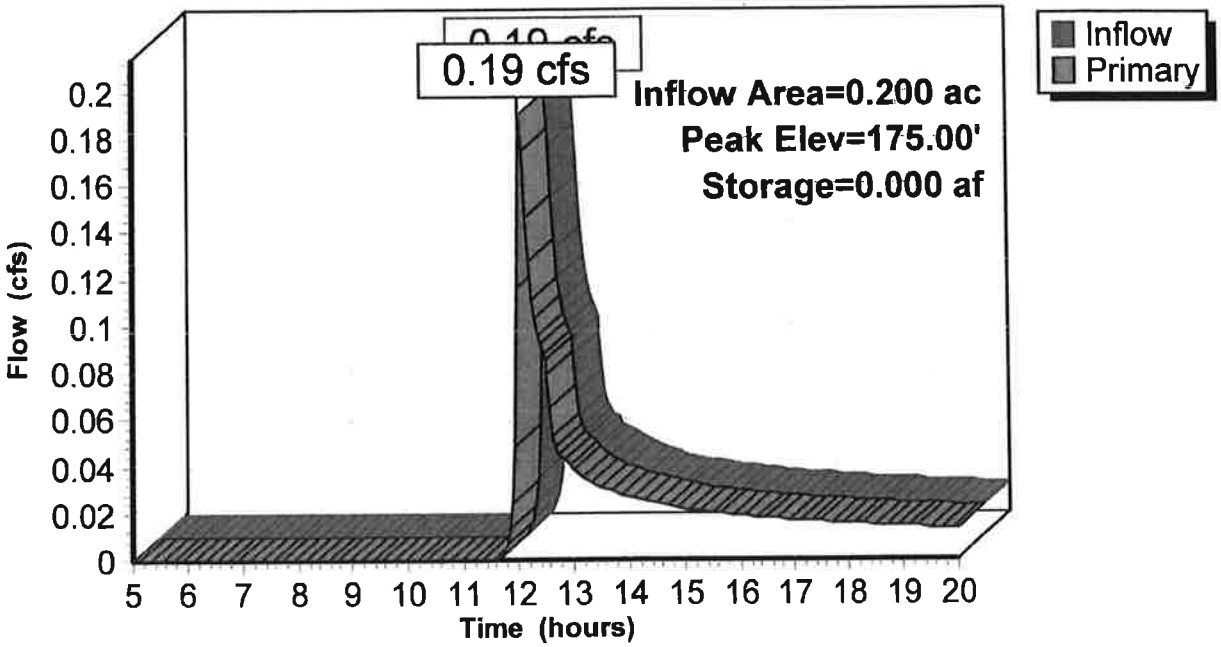
Volume	Invert	Avail.Storage	Storage Description
#1	175.00'	0.233 af	**40.00'W x 140.00'L x 4.00'H Prismatoid Z=1.0** 0.582 af Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	171.00'	**8.0" Round Culvert** L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 171.00' / 163.00' S= 0.1143 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	163.00'	**12.0" Round Outlet Sewer** L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 163.00' / 162.50' S= 0.0167 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	162.50'	**15.0" Round 15" City Sewers** L= 213.0' Ke= 0.500 Inlet / Outlet Invert= 162.50' / 153.56' S= 0.0420 '/' Cc= 0.900 n= 0.017, Flow Area= 1.23 sf
#4	Device 3	153.50'	**24.0" Round 24" City Sewer to Analysis Point** L= 88.0' Ke= 0.500 Inlet / Outlet Invert= 153.50' / 152.62' S= 0.0100 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets, Flow Area= 3.14 sf

Primary OutFlow Max=3.22 cfs @ 12.07 hrs HW=175.00' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.22 cfs @ 9.22 fps)
↑—**2=Outlet Sewer** (Passes 3.22 cfs of 7.57 cfs potential flow)
↑—**3=15" City Sewers** (Passes 3.22 cfs of 6.23 cfs potential flow)
↑—**4=24" City Sewer to Analysis Point** (Passes 3.22 cfs of 29.31 cfs potential flow)

Pond 6P: Porous Pavers

Hydrograph



Summary for Pond 8P: Hydro Separator

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 153.53' (Flood elevation advised)

Inflow Area =	0.746 ac, 79.22% Impervious, Inflow Depth > 6.06"	for 100-yr event		
Inflow =	5.65 cfs @ 11.99 hrs, Volume=	0.377 af		
Outflow =	5.65 cfs @ 11.99 hrs, Volume=	0.377 af, Atten= 0%, Lag= 0.0 min		
Primary =	5.65 cfs @ 11.99 hrs, Volume=	0.377 af		

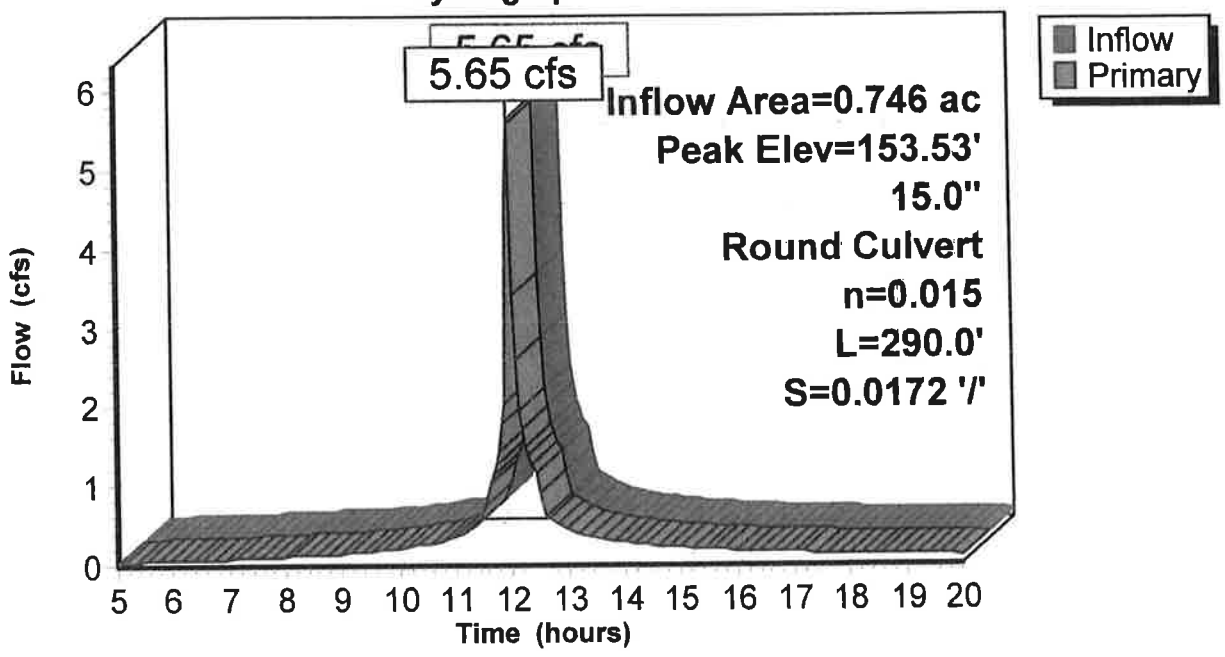
Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 153.53' @ 11.99 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	152.00'	**15.0" Round Outlet to Analysis Point** L= 290.0' Ke= 0.500 Inlet / Outlet Invert= 152.00' / 147.00' S= 0.0172 '/' Cc= 0.900 n= 0.015, Flow Area= 1.23 sf

Primary OutFlow Max=5.41 cfs @ 11.99 hrs HW=153.46' (Free Discharge)
↑—**1=Outlet to Analysis Point** (Inlet Controls 5.41 cfs @ 4.41 fps)

Pond 8P: Hydro Separator

Hydrograph



Summary for Pond 9P: Hydro Separator

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 155.60' (Flood elevation advised)

Inflow Area =	1.426 ac,	94.39% Impervious,	Inflow Depth >	6.95"	for 100-yr event
Inflow =	11.62 cfs @	11.99 hrs,	Volume=	0.826 af	
Outflow =	11.62 cfs @	11.99 hrs,	Volume=	0.826 af,	Atten= 0%, Lag= 0.0 min
Primary =	11.62 cfs @	11.99 hrs,	Volume=	0.826 af	

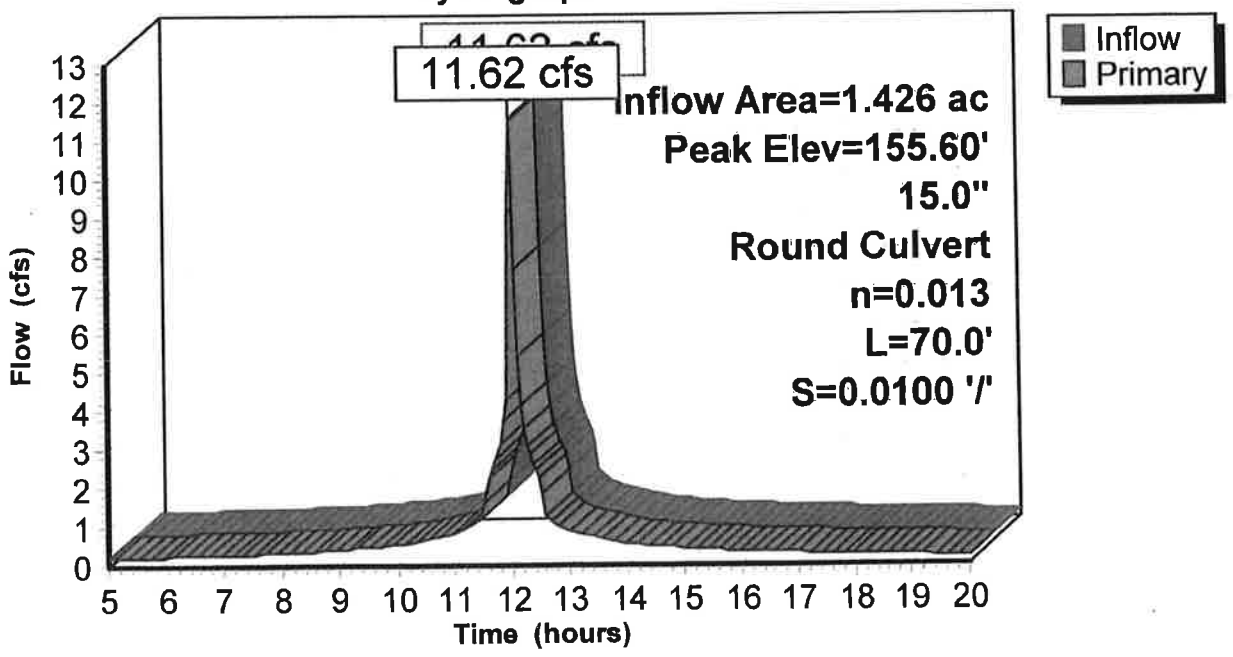
Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 155.60' @ 12.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	150.70'	**15.0" Round Proposed Outlet to City Sewer** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 150.70' / 150.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=11.33 cfs @ 11.99 hrs HW=155.39' (Free Discharge)
↑—**1=Proposed Outlet to City Sewer** (Barrel Controls 11.33 cfs @ 9.23 fps)

Pond 9P: Hydro Separator

Hydrograph



Summary for Pond 8P: Hydro Separator

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 152.91' (Flood elevation advised)

Inflow Area =	0.746 ac,	79.22% Impervious,	Inflow Depth >	2.92"	for 10-yr event
Inflow =	3.11 cfs @	11.99 hrs, Volume=	0.181 af		
Outflow =	3.11 cfs @	11.99 hrs, Volume=	0.181 af,	Atten= 0%,	Lag= 0.0 min
Primary =	3.11 cfs @	11.99 hrs, Volume=	0.181 af		

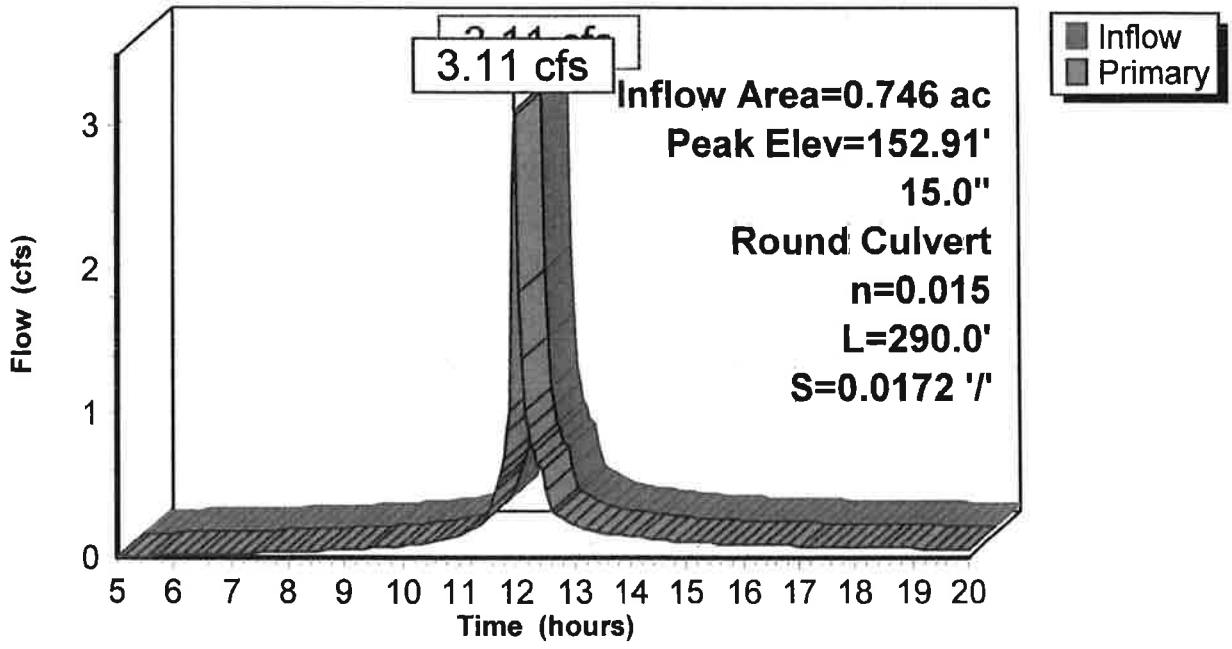
Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 152.91' @ 11.99 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	152.00'	**15.0" Round Outlet to Analysis Point** L= 290.0' Ke= 0.500 Inlet / Outlet Invert= 152.00' / 147.00' S= 0.0172 '/' Cc= 0.900 n= 0.015, Flow Area= 1.23 sf

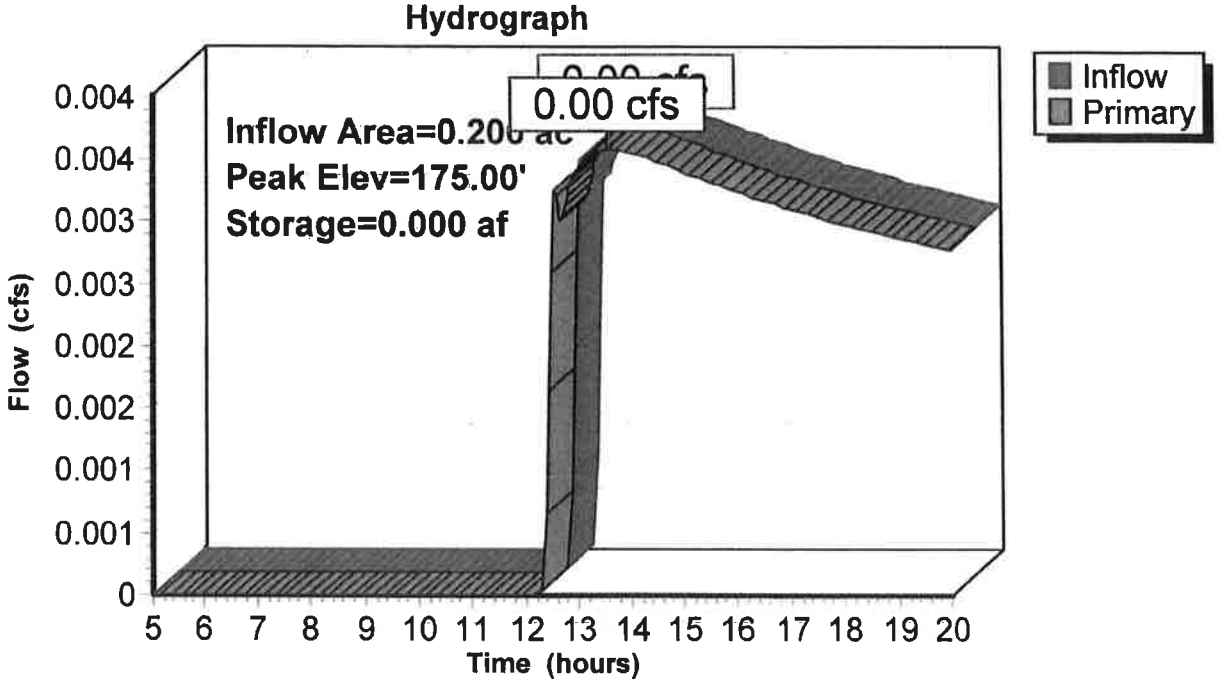
Primary OutFlow Max=2.98 cfs @ 11.99 hrs HW=152.89' (Free Discharge)
↑—**1=Outlet to Analysis Point** (Inlet Controls 2.98 cfs @ 3.20 fps)

Pond 8P: Hydro Separator

Hydrograph



Pond 6P: Porous Pavers



Summary for Pond 6P: Porous Pavers

Inflow Area = 0.200 ac, 0.00% Impervious, Inflow Depth > 0.12" for 10-yr event
Inflow = 0.00 cfs @ 13.65 hrs, Volume= 0.002 af
Outflow = 0.00 cfs @ 13.61 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 13.61 hrs, Volume= 0.002 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 175.00' @ 13.61 hrs Surf.Area= 0.129 ac Storage= 0.000 af

Plug-Flow detention time= 0.5 min calculated for 0.002 af (100% of inflow)
Center-of-Mass det. time= 0.3 min (964.9 - 964.7)

Volume	Invert	Avail.Storage	Storage Description
#1	175.00'	0.233 af	**40.00'W x 140.00'L x 4.00'H Prismatoid Z=1.0** 0.582 af Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	171.00'	**8.0" Round Culvert** L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 171.00' / 163.00' S= 0.1143 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	163.00'	**12.0" Round Outlet Sewer** L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 163.00' / 162.50' S= 0.0167 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	162.50'	**15.0" Round 15" City Sewers** L= 213.0' Ke= 0.500 Inlet / Outlet Invert= 162.50' / 153.56' S= 0.0420 '/' Cc= 0.900 n= 0.017, Flow Area= 1.23 sf
#4	Device 3	153.50'	**24.0" Round 24" City Sewer to Analysis Point** L= 88.0' Ke= 0.500 Inlet / Outlet Invert= 153.50' / 152.62' S= 0.0100 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets, Flow Area= 3.14 sf

Primary OutFlow Max=3.22 cfs @ 13.61 hrs HW=175.00' (Free Discharge)
- **1=Culvert** (Inlet Controls 3.22 cfs @ 9.22 fps)
  - **2=Outlet Sewer** (Passes 3.22 cfs of 7.56 cfs potential flow)
    - **3=15" City Sewers** (Passes 3.22 cfs of 6.23 cfs potential flow)
      - **4=24" City Sewer to Analysis Point** (Passes 3.22 cfs of 29.31 cfs potential flow)

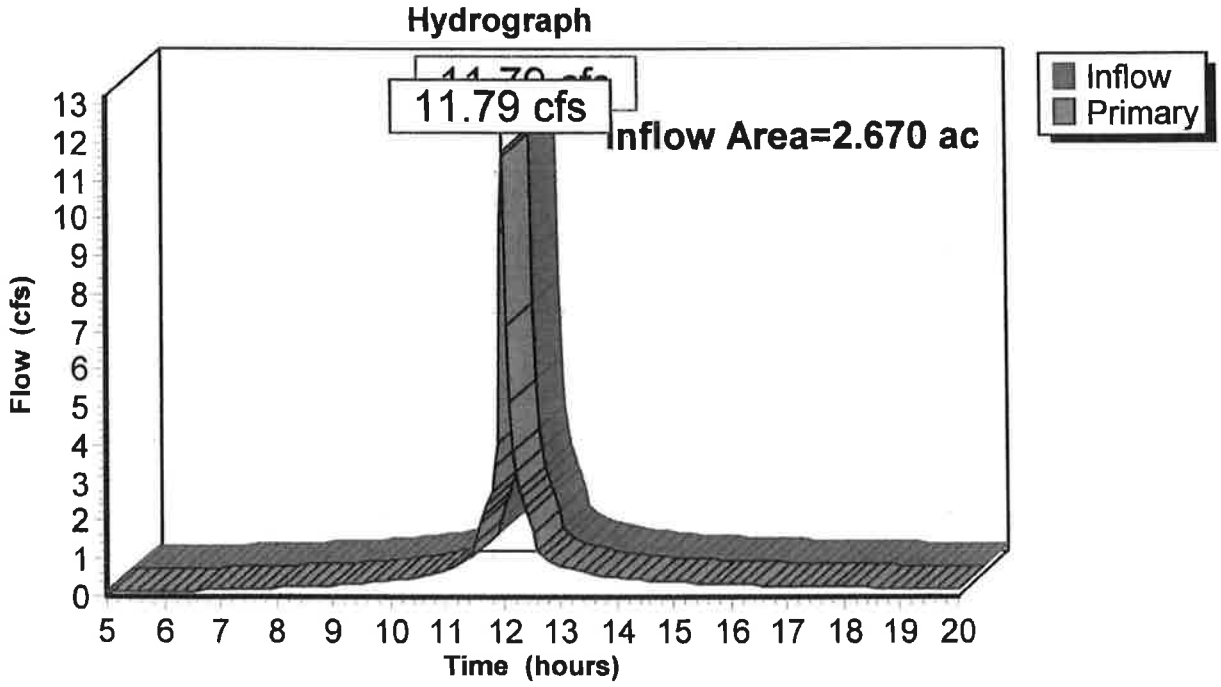
Summary for Pond 4P: Existing CB1A (Point of Analysis)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.670 ac, 83.71% Impervious, Inflow Depth > 3.31" for 10-yr event
Inflow = 11.79 cfs @ 11.99 hrs, Volume= 0.737 af
Primary = 11.79 cfs @ 11.99 hrs, Volume= 0.737 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 4P: Existing CB1A (Point of Analysis)



Summary for Subcatchment 6S: Pedestrian Plaza Porous Pavers

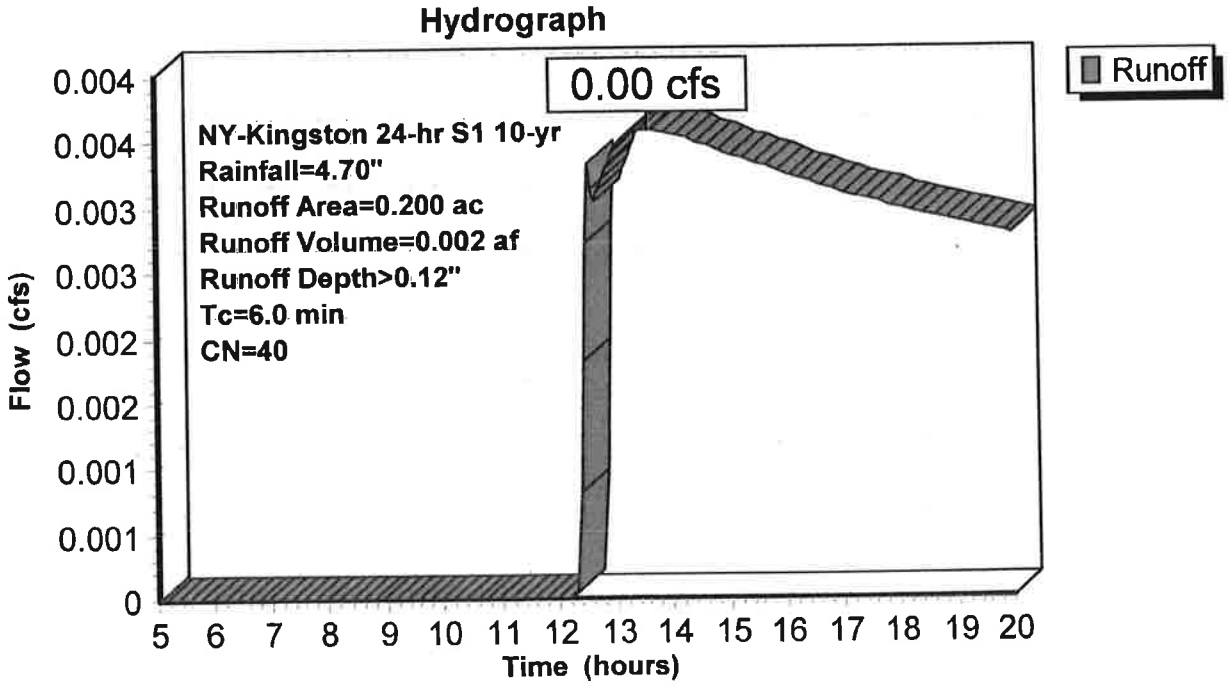
Runoff = 0.00 cfs @ 13.65 hrs, Volume= 0.002 af, Depth> 0.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 10-yr Rainfall=4.70"

	Area (ac)	CN	Description
*	0.200	40	Porous Pavers
	0.200		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Extended Tc Due to Permeable Pavers

Subcatchment 6S: Pedestrian Plaza Porous Pavers



Summary for Subcatchment 3S: Area 3 (Lower Fair St.)

[49] Hint: Tc<2dt may require smaller dt

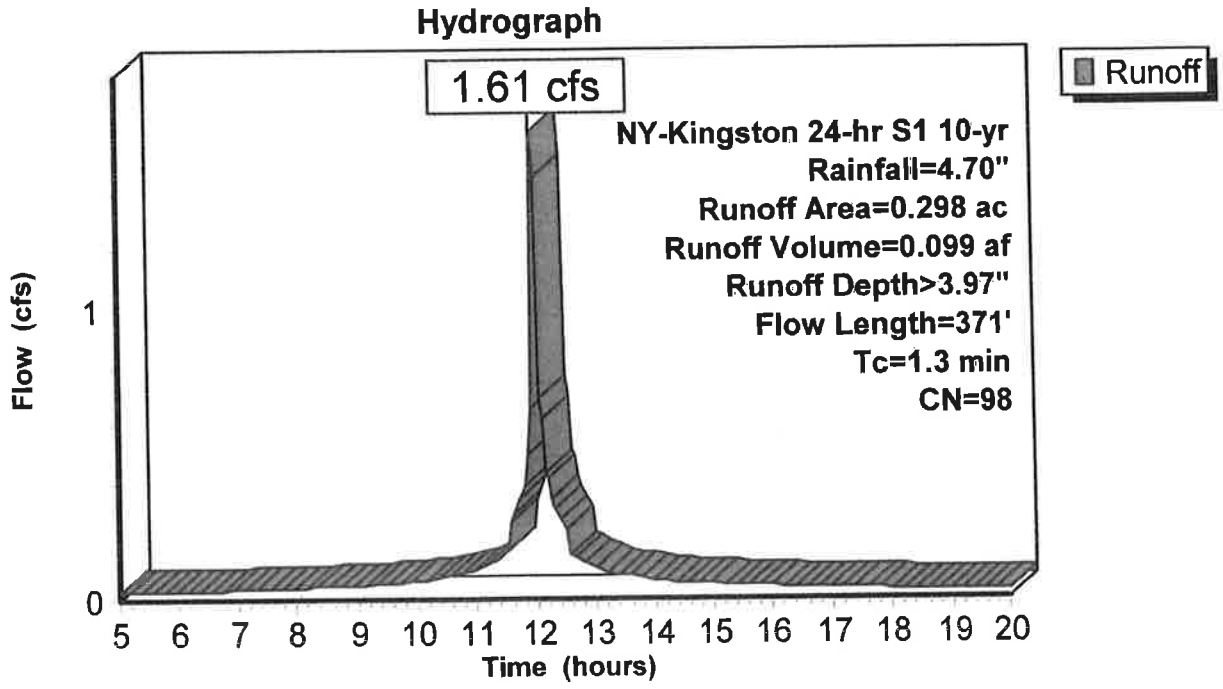
Runoff = 1.61 cfs @ 11.97 hrs, Volume= 0.099 af, Depth> 3.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 10-yr Rainfall=4.70"

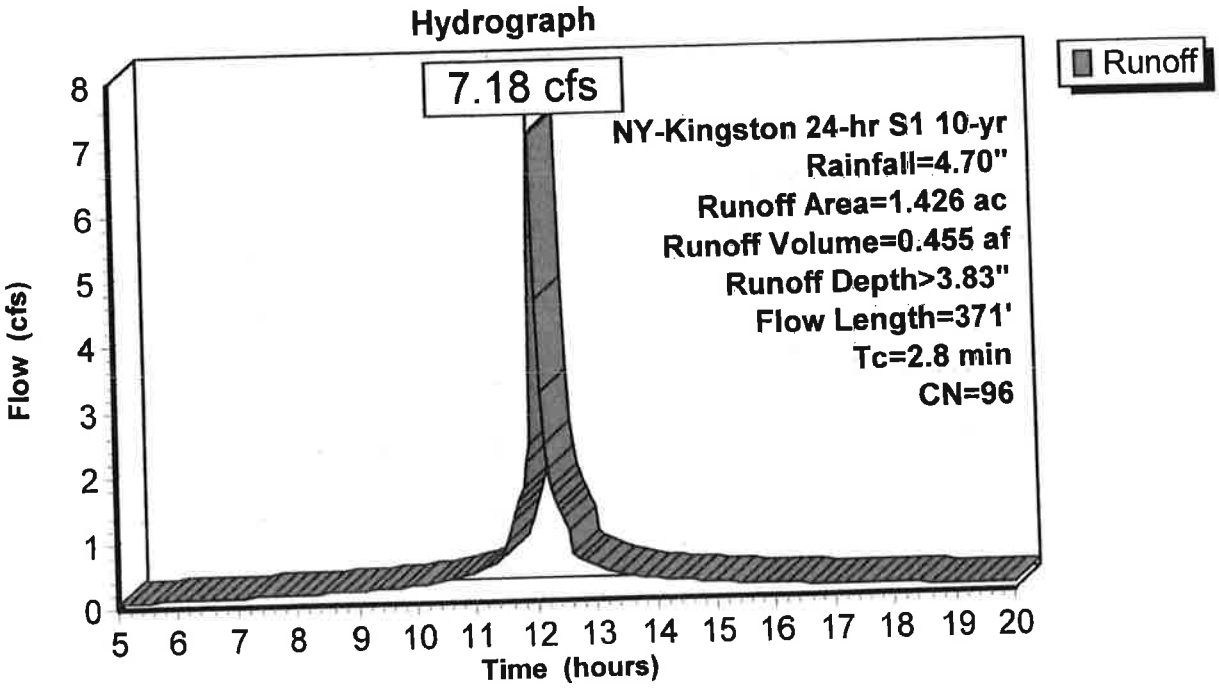
Area (ac)	CN	Description
0.298	98	Paved roads w/curbs & sewers, HSG B
0.298		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	50	0.0400	1.57		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.1	20	0.0650	5.18		**Shallow Concentrated Flow, Flow to Existing CB** Paved Kv= 20.3 fps
0.2	128	0.0470	8.73	10.71	**Pipe Channel, Existing 15" Clay** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel, Existing 24" to Analysis Point** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
1.3	371	Total			

Subcatchment 3S: Area 3 (Lower Fair St.)



Subcatchment 2S: Area 2 (West)



Summary for Subcatchment 2S: Area 2 (West)

[49] Hint: Tc<2dt may require smaller dt

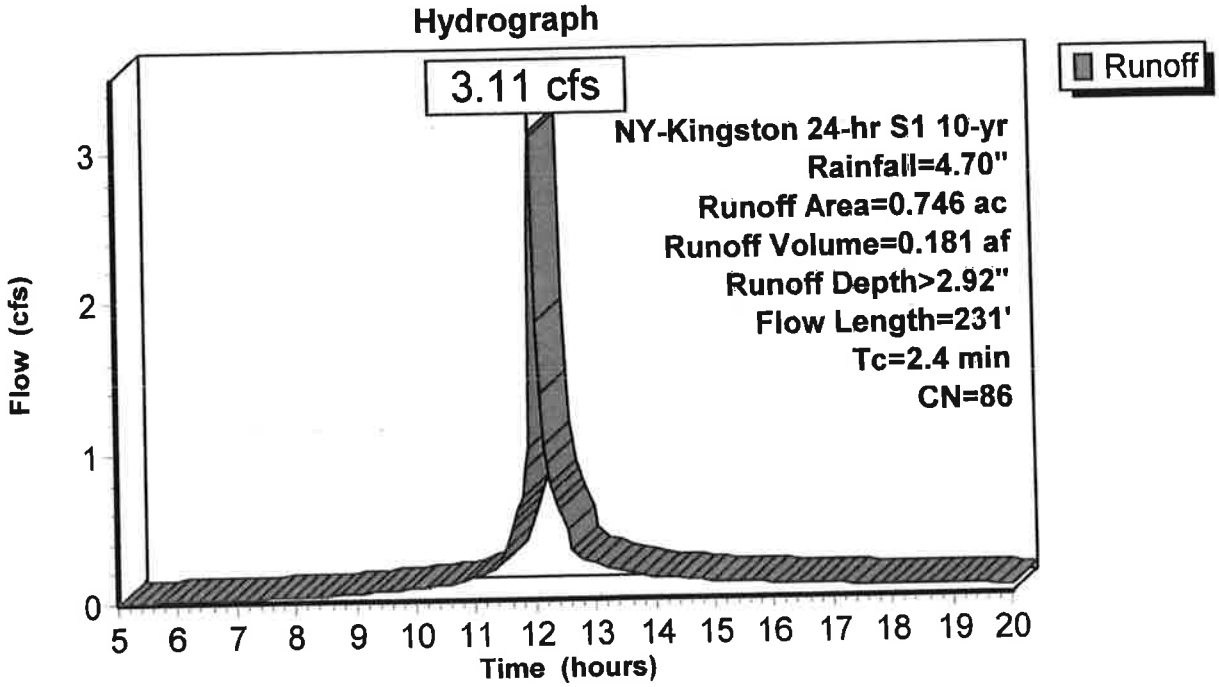
Runoff = 7.18 cfs @ 11.99 hrs, Volume= 0.455 af, Depth> 3.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 10-yr Rainfall=4.70"

Area (ac)	CN	Description
0.752	98	Roofs, HSG B
0.594	98	Paved parking, HSG A
0.080	61	>75% Grass cover, Good, HSG B
1.426	96	Weighted Average
0.080		5.61% Pervious Area
1.346		94.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	30	0.0300	7.86	6.17	**Pipe Channel, Roof Drains** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	241	0.0189	7.24	8.88	**Pipe Channel, Garage Drains to Treatment** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.8	371	Total			

Subcatchment 1S: Area 1 (East)



Summary for Subcatchment 1S: Area 1 (East)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 3.11 cfs @ 11.99 hrs, Volume= 0.181 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 10-yr Rainfall=4.70"

Area (ac)	CN	Description
0.503	98	Roofs, HSG B
0.088	98	Paved parking, HSG A
0.155	39	>75% Grass cover, Good, HSG A
0.746	86	Weighted Average
0.155		20.78% Pervious Area
0.591		79.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	30	0.0150	5.56	4.36	**Pipe Channel, Roof Drains** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.2	101	0.0300	9.12	11.19	**Pipe Channel, Garage Drains to Treatment** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	231	Total			

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1 (East) Runoff Area=0.746 ac 79.22% Impervious Runoff Depth>2.92"
Flow Length=231' Tc=2.4 min CN=86 Runoff=3.11 cfs 0.181 af

Subcatchment 2S: Area 2 (West) Runoff Area=1.426 ac 94.39% Impervious Runoff Depth>3.83"
Flow Length=371' Tc=2.8 min CN=96 Runoff=7.18 cfs 0.455 af

Subcatchment 3S: Area 3 (Lower Fair St.) Runoff Area=0.298 ac 100.00% Impervious Runoff Depth>3.97"
Flow Length=371' Tc=1.3 min CN=98 Runoff=1.61 cfs 0.099 af

Subcatchment 6S: Pedestrian Plaza Porous Runoff Area=0.200 ac 0.00% Impervious Runoff Depth>0.12"
Tc=6.0 min CN=40 Runoff=0.00 cfs 0.002 af

Pond 4P: Existing CB1A (Point of Analysis) Inflow=11.79 cfs 0.737 af
Primary=11.79 cfs 0.737 af

Pond 6P: Porous Pavers Peak Elev=175.00' Storage=0.000 af Inflow=0.00 cfs 0.002 af
Outflow=0.00 cfs 0.002 af

Pond 8P: Hydro Separator Peak Elev=152.91' Inflow=3.11 cfs 0.181 af
15.0" Round Culvert n=0.015 L=290.0' S=0.0172 '/' Outflow=3.11 cfs 0.181 af

Pond 9P: Hydro Separator Peak Elev=152.91' Inflow=7.18 cfs 0.455 af
15.0" Round Culvert n=0.013 L=70.0' S=0.0100 '/' Outflow=7.18 cfs 0.455 af

Total Runoff Area = 2.670 ac Runoff Volume = 0.737 af Average Runoff Depth = 3.31"
16.29% Pervious = 0.435 ac 83.71% Impervious = 2.235 ac

Summary for Pond 9P: Hydro Separator

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 151.84' (Flood elevation advised)

Inflow Area	=	1.426 ac, 94.39% Impervious,	Inflow Depth >	1.98"	for 1-yr event
Inflow	=	4.25 cfs @ 11.99 hrs,	Volume=	0.235 af	
Outflow	=	4.25 cfs @ 11.99 hrs,	Volume=	0.235 af,	Atten= 0%, Lag= 0.0 min
Primary	=	4.25 cfs @ 11.99 hrs,	Volume=	0.235 af	

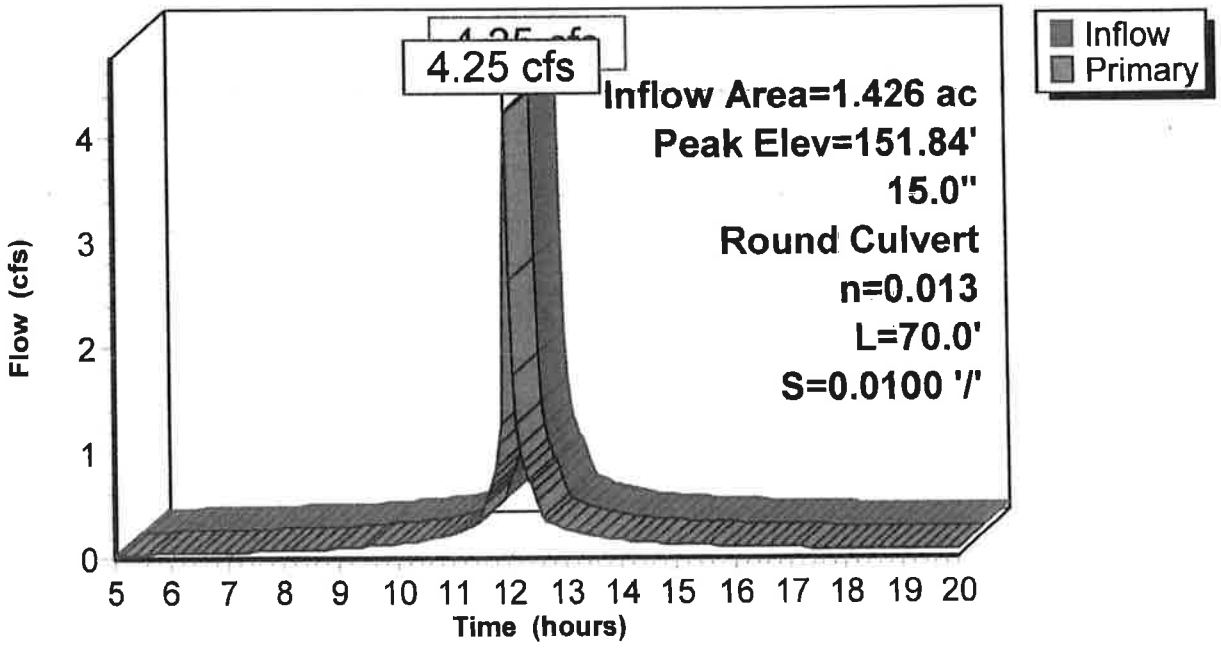
Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 151.84' @ 11.99 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	150.70'	**15.0" Round Proposed Outlet to City Sewer** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 150.70' / 150.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=4.13 cfs @ 11.99 hrs HW=151.82' (Free Discharge)
↑—**1=Proposed Outlet to City Sewer** (Barrel Controls 4.13 cfs @ 4.72 fps)

Pond 9P: Hydro Separator

Hydrograph



Summary for Pond 8P: Hydro Separator

[57] Hint: Peaked at 152.58' (Flood elevation advised)

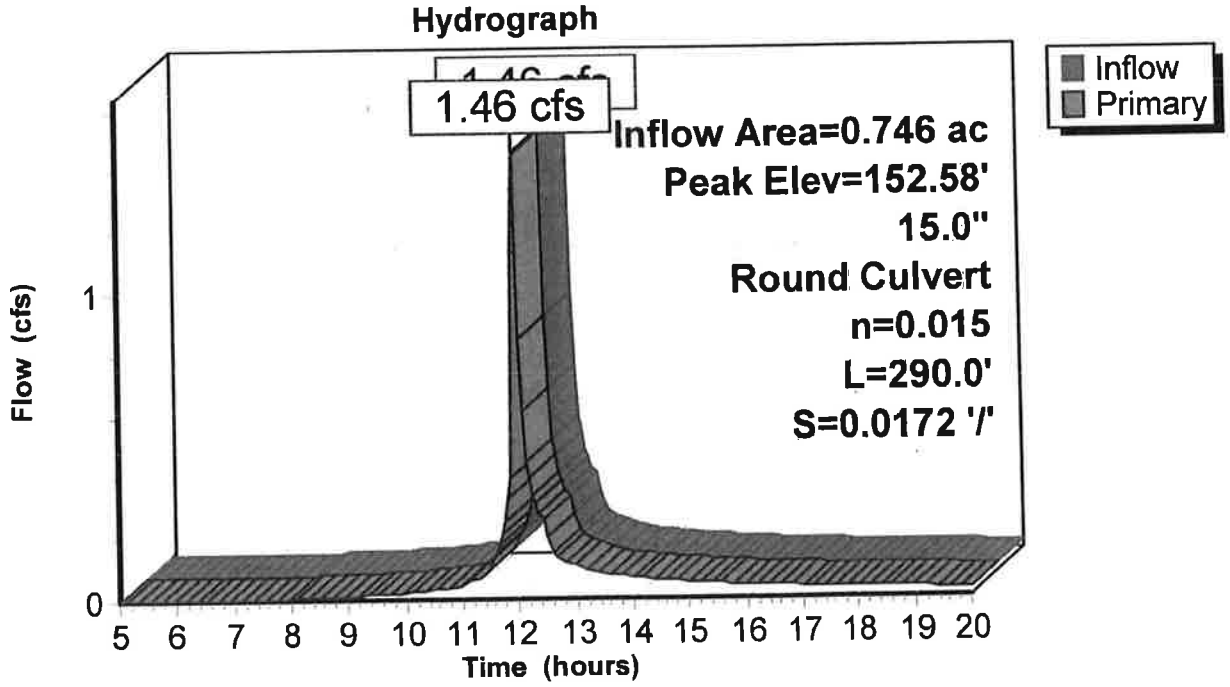
Inflow Area =	0.746 ac, 79.22% Impervious,	Inflow Depth >	1.20"	for 1-yr event
Inflow =	1.46 cfs @	11.99 hrs, Volume=	0.074 af	
Outflow =	1.46 cfs @	11.99 hrs, Volume=	0.074 af, Atten= 0%, Lag= 0.0 min	
Primary =	1.46 cfs @	11.99 hrs, Volume=	0.074 af	

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 152.58' @ 11.99 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	152.00'	**15.0" Round Outlet to Analysis Point** L= 290.0' Ke= 0.500 Inlet / Outlet Invert= 152.00' / 147.00' S= 0.0172 '/' Cc= 0.900 n= 0.015, Flow Area= 1.23 sf

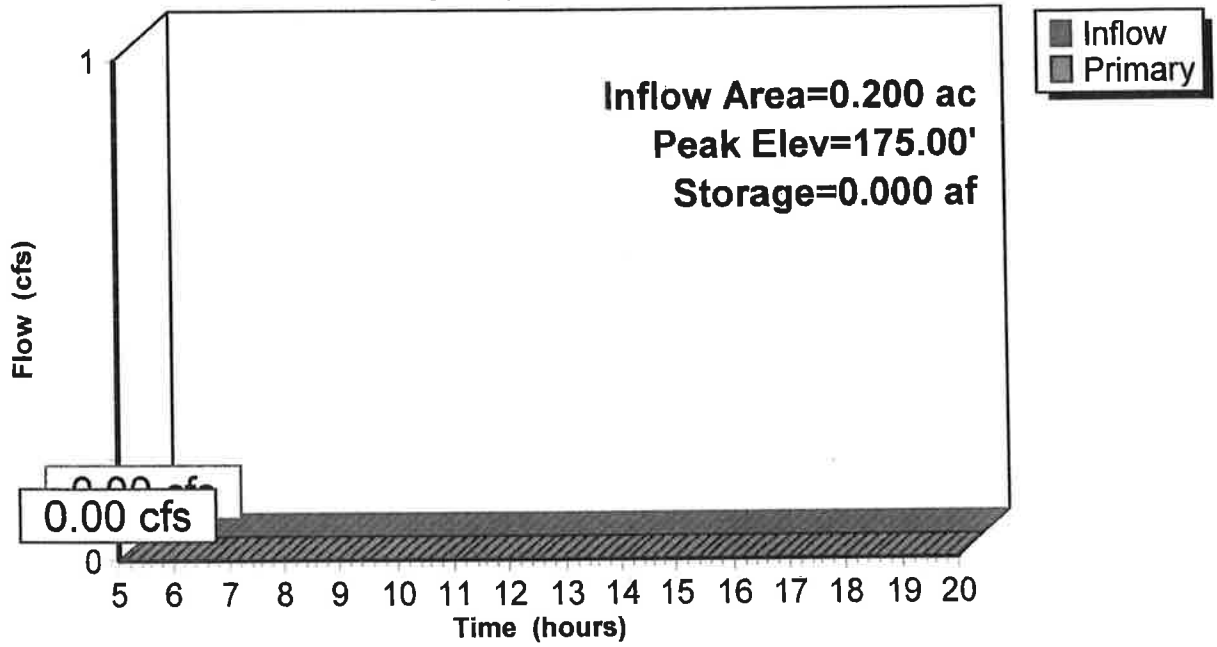
Primary OutFlow Max=1.40 cfs @ 11.99 hrs HW=152.57' (Free Discharge)
↑—**1=Outlet to Analysis Point** (Inlet Controls 1.40 cfs @ 2.57 fps)

Pond 8P: Hydro Separator



Pond 6P: Porous Pavers

Hydrograph



Summary for Pond 6P: Porous Pavers

Inflow Area = 0.200 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 175.00' @ 5.00 hrs Surf.Area= 0.129 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	175.00'	0.233 af	**40.00'W x 140.00'L x 4.00'H Prismatoid Z=1.0** 0.582 af Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	171.00'	**8.0" Round Culvert** L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 171.00' / 163.00' S= 0.1143 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	163.00'	**12.0" Round Outlet Sewer** L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 163.00' / 162.50' S= 0.0167 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	162.50'	**15.0" Round 15" City Sewers** L= 213.0' Ke= 0.500 Inlet / Outlet Invert= 162.50' / 153.56' S= 0.0420 '/' Cc= 0.900 n= 0.017, Flow Area= 1.23 sf
#4	Device 3	153.50'	**24.0" Round 24" City Sewer to Analysis Point** L= 88.0' Ke= 0.500 Inlet / Outlet Invert= 153.50' / 152.62' S= 0.0100 '/' Cc= 0.900 n= 0.015 Concrete sewer w/manholes & inlets, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=175.00' (Free Discharge)
↑—**1=Culvert** (Passes 0.00 cfs of 3.22 cfs potential flow)
↑—**2=Outlet Sewer** (Passes 0.00 cfs of 7.56 cfs potential flow)
↑—**3=15" City Sewers** (Passes 0.00 cfs of 6.23 cfs potential flow)
↑—**4=24" City Sewer to Analysis Point** (Passes 0.00 cfs of 29.31 cfs potential flow)

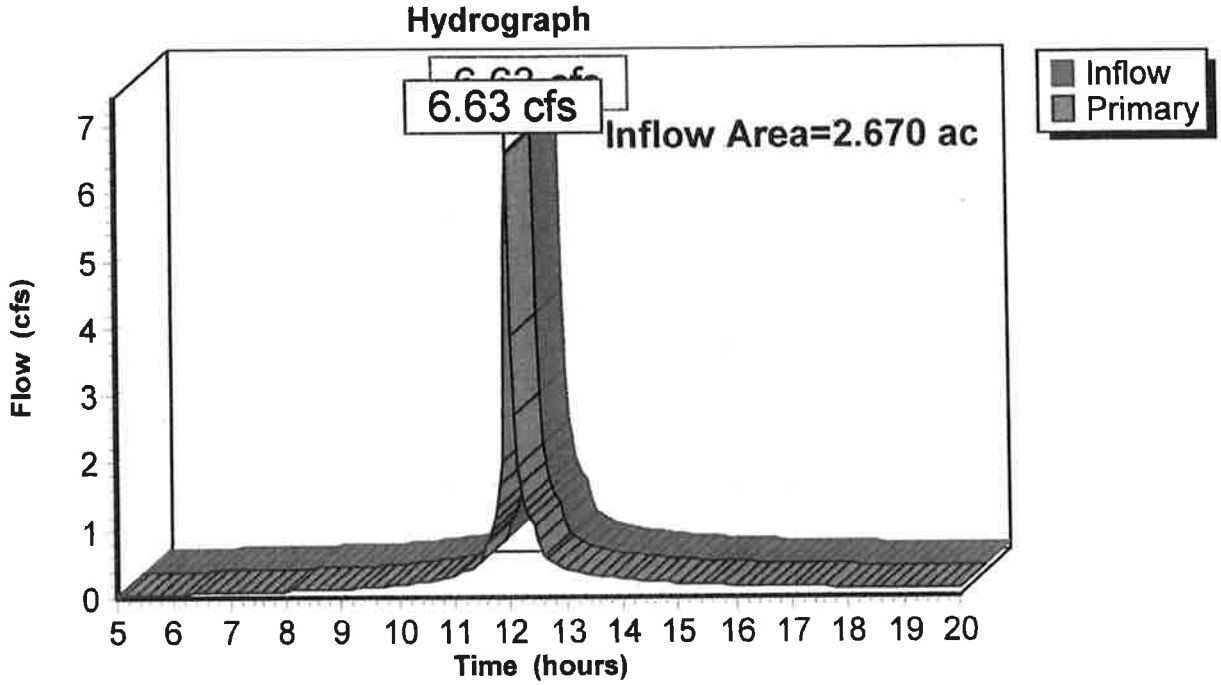
Summary for Pond 4P: Existing CB1A (Point of Analysis)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area =	2.670 ac,	83.71% Impervious,	Inflow Depth >	1.63" for 1-yr event
Inflow =	6.63 cfs @	11.99 hrs, Volume=	0.362 af	
Primary =	6.63 cfs @	11.99 hrs, Volume=	0.362 af,	Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 4P: Existing CB1A (Point of Analysis)



Summary for Subcatchment 6S: Pedestrian Plaza Porous Pavers

[45] Hint: Runoff=Zero

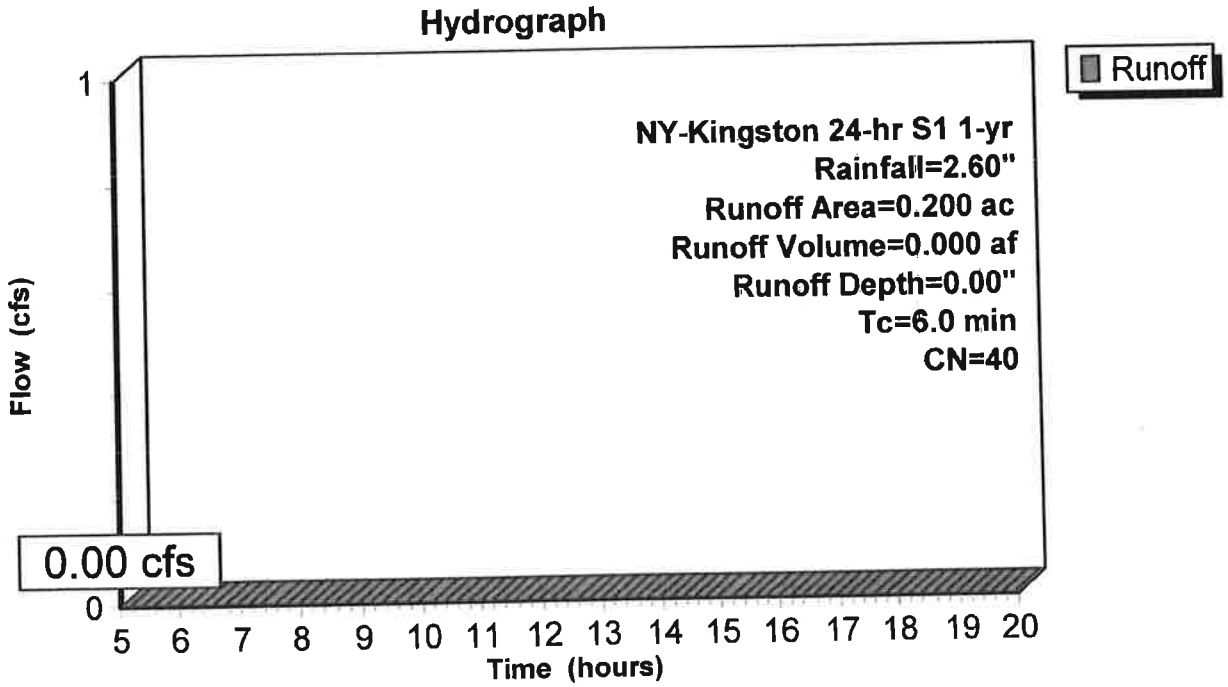
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 1-yr Rainfall=2.60"

	Area (ac)	CN	Description
*	0.200	40	Porous Pavers
	0.200		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Extended Tc Due to Permeable Pavers

Subcatchment 6S: Pedestrian Plaza Porous Pavers



Summary for Subcatchment 3S: Area 3 (Lower Fair St.)

[49] Hint: Tc<2dt may require smaller dt

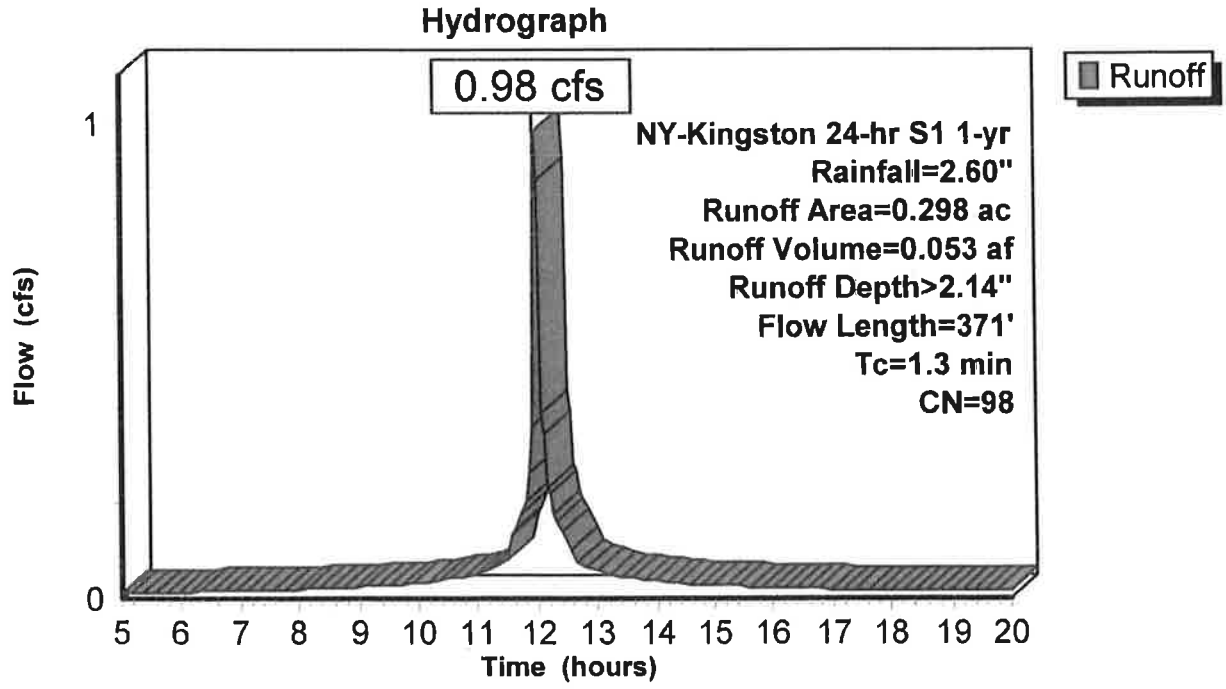
Runoff = 0.98 cfs @ 11.97 hrs, Volume= 0.053 af, Depth> 2.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 1-yr Rainfall=2.60"

Area (ac)	CN	Description
0.298	98	Paved roads w/curbs & sewers, HSG B
0.298		100.00% Impervious Area

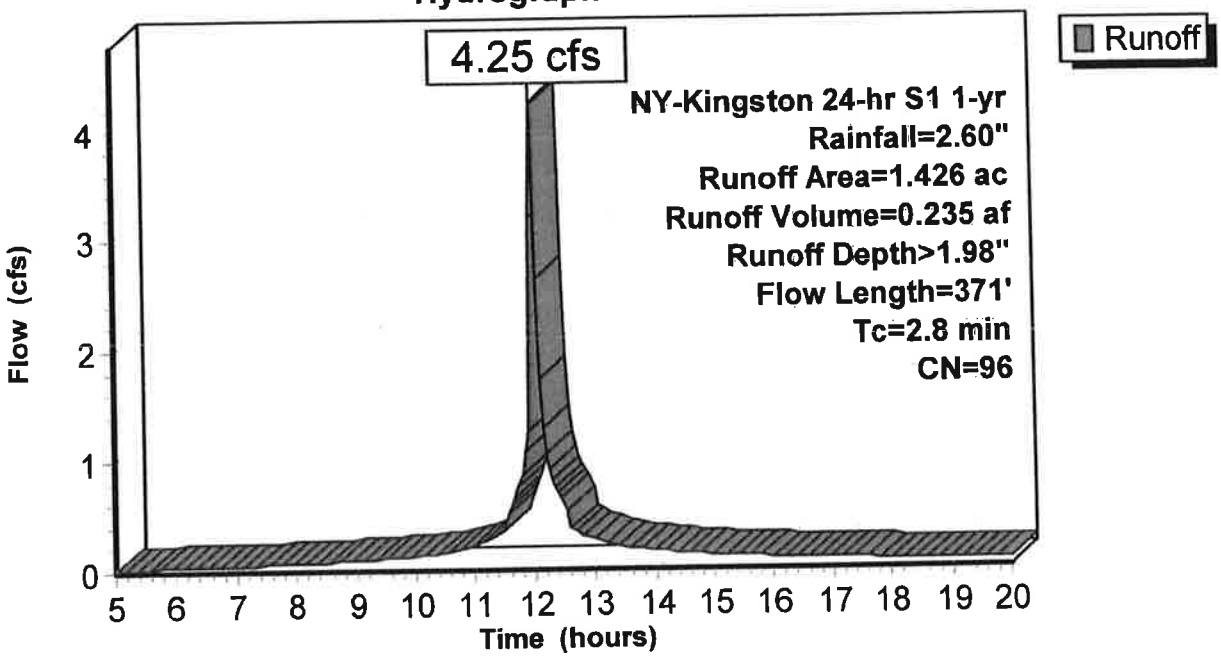
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	50	0.0400	1.57		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.1	20	0.0650	5.18		**Shallow Concentrated Flow, Flow to Existing CB** Paved Kv= 20.3 fps
0.2	128	0.0470	8.73	10.71	**Pipe Channel, Existing 15" Clay** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel, Existing 24" to Analysis Point** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
1.3	371	Total			

Subcatchment 3S: Area 3 (Lower Fair St.)



Subcatchment 2S: Area 2 (West)

Hydrograph



Summary for Subcatchment 2S: Area 2 (West)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 4.25 cfs @ 11.99 hrs, Volume= 0.235 af, Depth> 1.98"

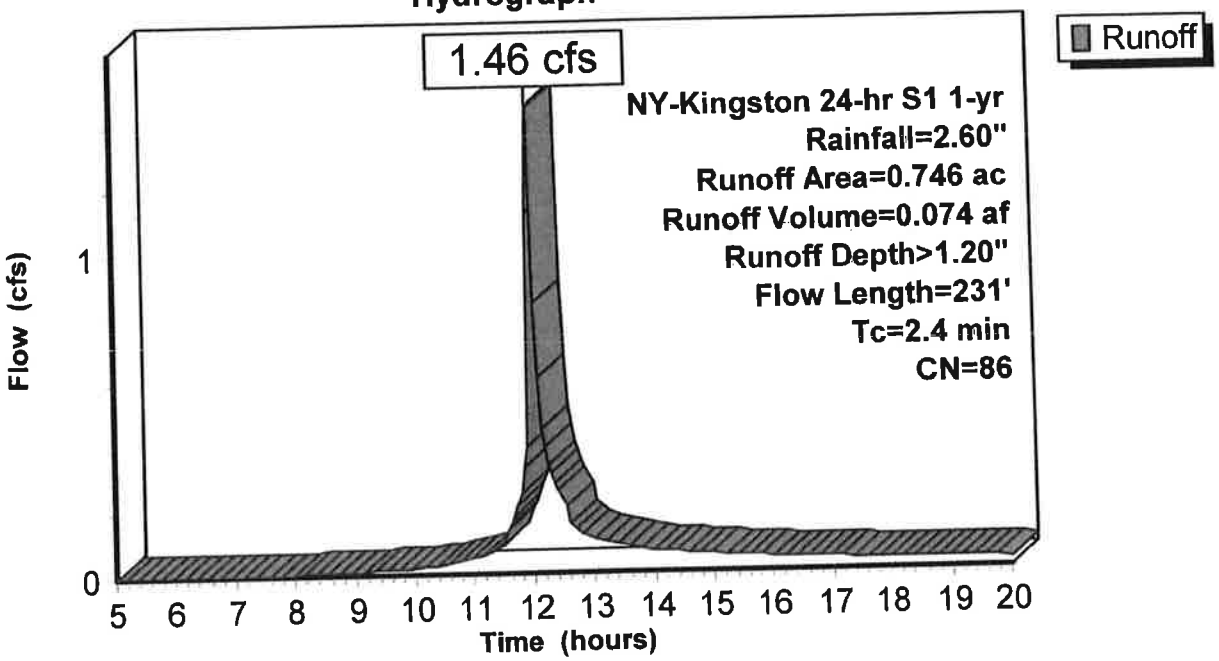
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 1-yr Rainfall=2.60"

Area (ac)	CN	Description
0.752	98	Roofs, HSG B
0.594	98	Paved parking, HSG A
0.080	61	>75% Grass cover, Good, HSG B
1.426	96	Weighted Average
0.080		5.61% Pervious Area
1.346		94.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	30	0.0300	7.86	6.17	**Pipe Channel, Roof Drains** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.6	241	0.0189	7.24	8.88	**Pipe Channel, Garage Drains to Treatment** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.8	371	Total			

Subcatchment 1S: Area 1 (East)

Hydrograph



Summary for Subcatchment 1S: Area 1 (East)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.46 cfs @ 11.99 hrs, Volume= 0.074 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 1-yr Rainfall=2.60"

Area (ac)	CN	Description
0.503	98	Roofs, HSG B
0.088	98	Paved parking, HSG A
0.155	39	>75% Grass cover, Good, HSG A
0.746	86	Weighted Average
0.155		20.78% Pervious Area
0.591		79.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	30	0.0150	5.56	4.36	**Pipe Channel, Roof Drains** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.2	101	0.0300	9.12	11.19	**Pipe Channel, Garage Drains to Treatment** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
2.4	231	Total			

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1 (East) Runoff Area=0.746 ac 79.22% Impervious Runoff Depth>1.20"
Flow Length=231' Tc=2.4 min CN=86 Runoff=1.46 cfs 0.074 af

Subcatchment 2S: Area 2 (West) Runoff Area=1.426 ac 94.39% Impervious Runoff Depth>1.98"
Flow Length=371' Tc=2.8 min CN=96 Runoff=4.25 cfs 0.235 af

Subcatchment 3S: Area 3 (Lower Fair St.) Runoff Area=0.298 ac 100.00% Impervious Runoff Depth>2.14"
Flow Length=371' Tc=1.3 min CN=98 Runoff=0.98 cfs 0.053 af

Subcatchment 6S: Pedestrian Plaza Porous Runoff Area=0.200 ac 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=40 Runoff=0.00 cfs 0.000 af

Pond 4P: Existing CB1A (Point of Analysis) Inflow=6.63 cfs 0.362 af
Primary=6.63 cfs 0.362 af

Pond 6P: Porous Pavers Peak Elev=175.00' Storage=0.000 af Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond 8P: Hydro Separator Peak Elev=152.58' Inflow=1.46 cfs 0.074 af
15.0" Round Culvert n=0.015 L=290.0' S=0.0172 '/' Outflow=1.46 cfs 0.074 af

Pond 9P: Hydro Separator Peak Elev=151.84' Inflow=4.25 cfs 0.235 af
15.0" Round Culvert n=0.013 L=70.0' S=0.0100 '/' Outflow=4.25 cfs 0.235 af

Total Runoff Area = 2.670 ac Runoff Volume = 0.362 af Average Runoff Depth = 1.63"
16.29% Pervious = 0.435 ac 83.71% Impervious = 2.235 ac

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1S	0.00	0.00	30.0	0.0150	0.013	12.0	0.0	0.0
2	1S	0.00	0.00	101.0	0.0300	0.013	15.0	0.0	0.0
3	2S	0.00	0.00	30.0	0.0300	0.013	12.0	0.0	0.0
4	2S	0.00	0.00	241.0	0.0189	0.013	15.0	0.0	0.0
5	3S	0.00	0.00	128.0	0.0470	0.017	15.0	0.0	0.0
6	3S	0.00	0.00	173.0	0.0100	0.015	24.0	0.0	0.0
7	6P	171.00	163.00	70.0	0.1143	0.010	8.0	0.0	0.0
8	6P	163.00	162.50	30.0	0.0167	0.013	12.0	0.0	0.0
9	6P	162.50	153.56	213.0	0.0420	0.017	15.0	0.0	0.0
10	6P	153.50	152.62	88.0	0.0100	0.015	24.0	0.0	0.0
11	8P	152.00	147.00	290.0	0.0172	0.015	15.0	0.0	0.0
12	9P	150.70	150.00	70.0	0.0100	0.013	15.0	0.0	0.0

Ground Covers (all nodes)

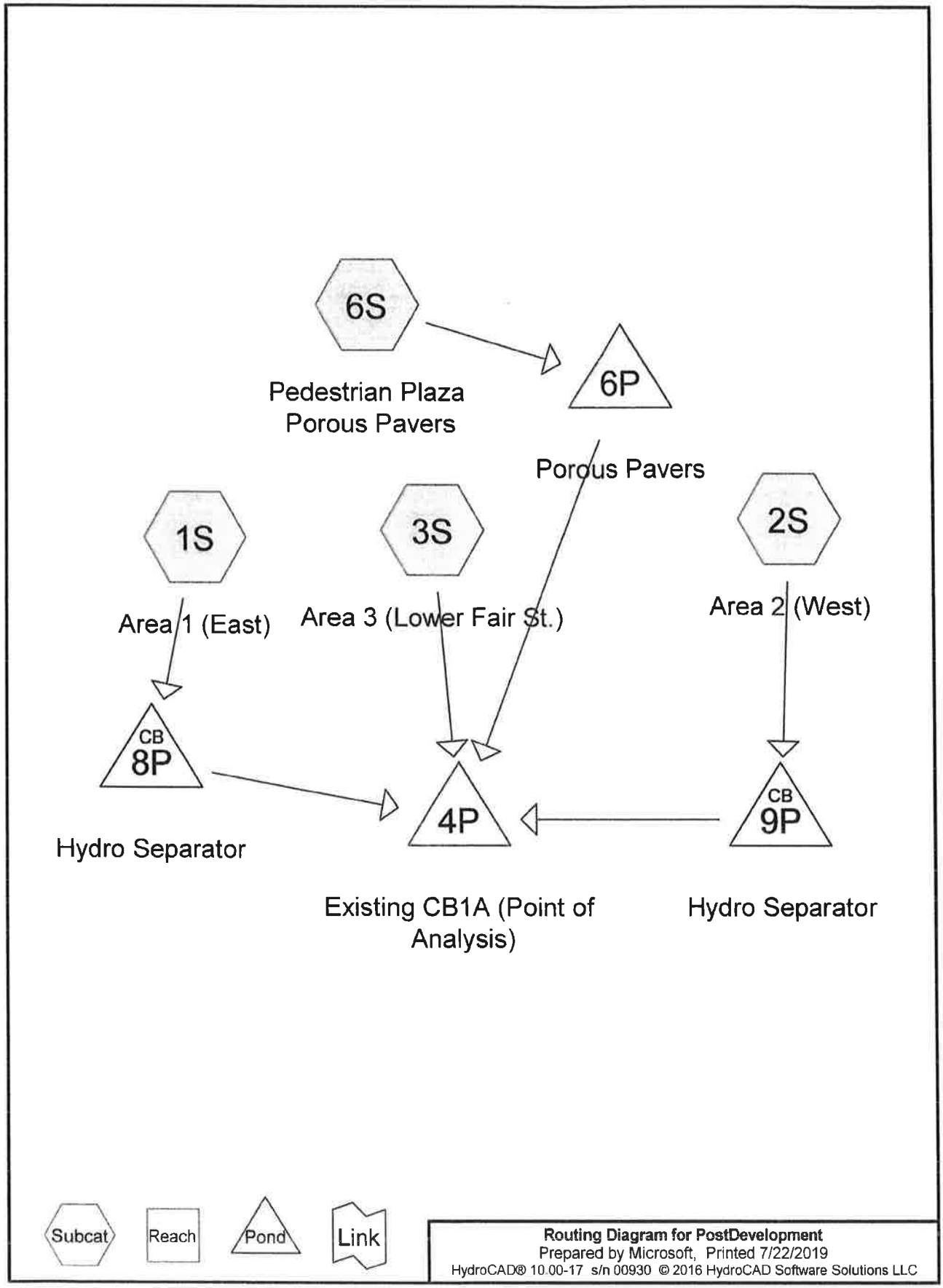
HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchmer Numbers
0.155	0.080	0.000	0.000	0.000	0.235	>75% Grass cover, Good	1S, 2S
0.682	0.000	0.000	0.000	0.000	0.682	Paved parking	1S, 2S
0.000	0.298	0.000	0.000	0.000	0.298	Paved roads w/curbs & sewers	3S
0.000	0.000	0.000	0.000	0.200	0.200	Porous Pavers	6S
0.000	1.255	0.000	0.000	0.000	1.255	Roofs	1S, 2S
0.837	**1.633**	**0.000**	**0.000**	**0.200**	**2.670**	**TOTAL AREA**	

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.837	HSG A	1S, 2S
1.633	HSG B	1S, 2S, 3S
0.000	HSG C	
0.000	HSG D	
0.200	Other	6S
2.670		**TOTAL AREA**

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.155	39	>75% Grass cover, Good, HSG A (1S)
0.080	61	>75% Grass cover, Good, HSG B (2S)
0.682	98	Paved parking, HSG A (1S, 2S)
0.298	98	Paved roads w/curbs & sewers, HSG B (3S)
0.200	40	Porous Pavers (6S)
1.255	98	Roofs, HSG B (1S, 2S)
2.670	**89**	**TOTAL AREA**


6S
Pedestrian Plaza
Porous Pavers
6P
Porous Pavers
1S
3S
2S
Area 1 (East)
Area 3 (Lower Fair St.)
Area 2 (West)
CB
8P
4P
CB
9P
Hydro Separator
Existing CB1A (Point of
Analysis)
Hydro Separator
Subcat
Reach
Pond
Link
Routing Diagram for PostDevelopment
Prepared by Microsoft, Printed 7/22/2019
HydroCAD® 10.00-17 s/n 00930 © 2016 HydroCAD Software Solutions LLC

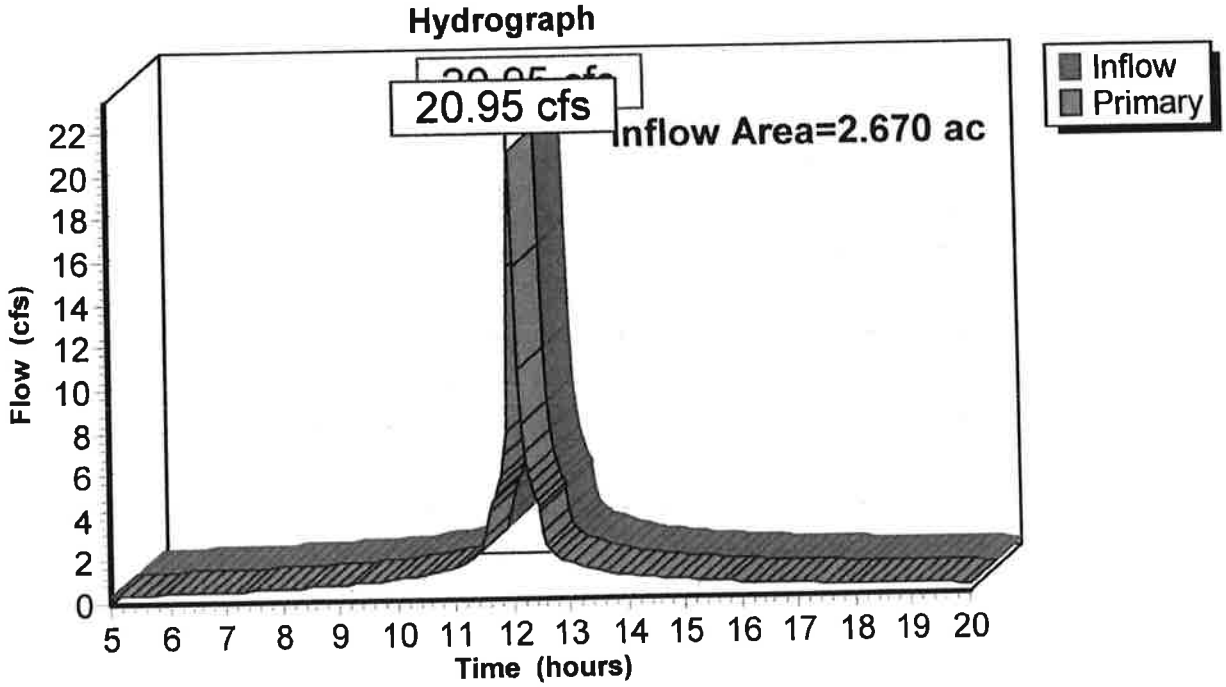
Summary for Pond 4P: Existing CB1A (Point of Analysis)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.670 ac, 94.76% Impervious, Inflow Depth > 6.92" for 100-yr event
Inflow = 20.95 cfs @ 12.00 hrs, Volume= 1.541 af
Primary = 20.95 cfs @ 12.00 hrs, Volume= 1.541 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 4P: Existing CB1A (Point of Analysis)



Summary for Subcatchment 3S: Area 3 (Fair St.)

[49] Hint: Tc<2dt may require smaller dt

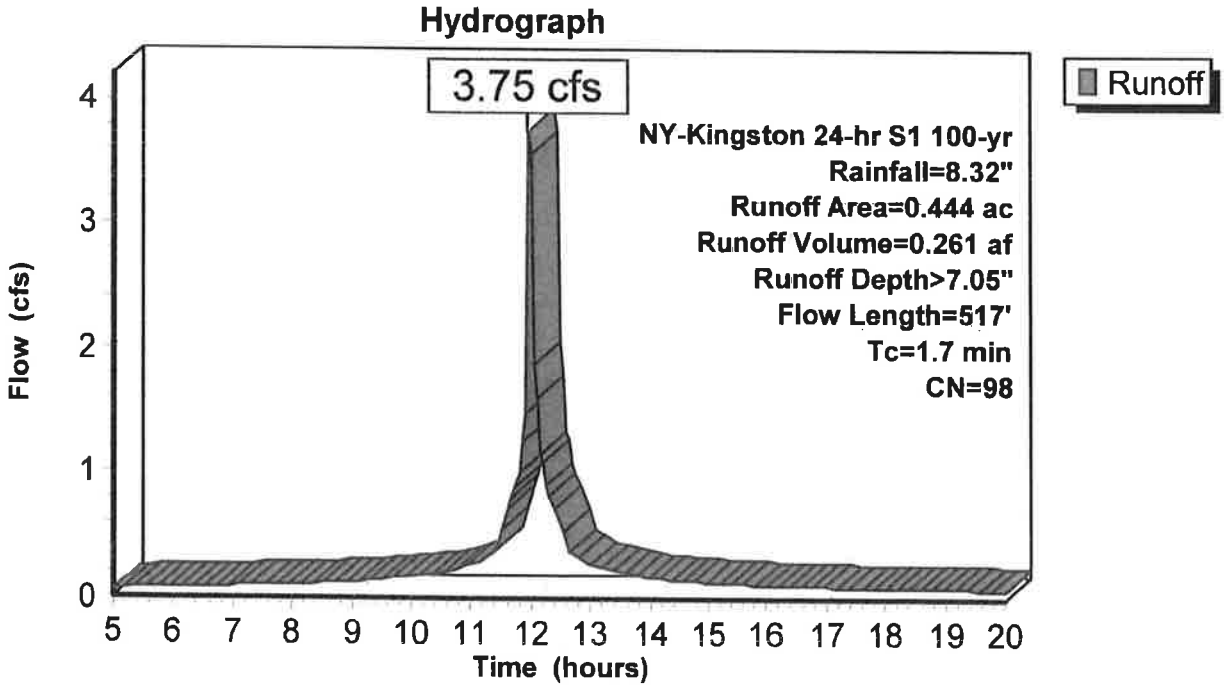
Runoff = 3.75 cfs @ 11.98 hrs, Volume= 0.261 af, Depth> 7.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 100-yr Rainfall=8.32"

Area (ac)	CN	Description
0.444	98	Paved roads w/curbs & sewers, HSG B
0.444		100.00% Impervious Area

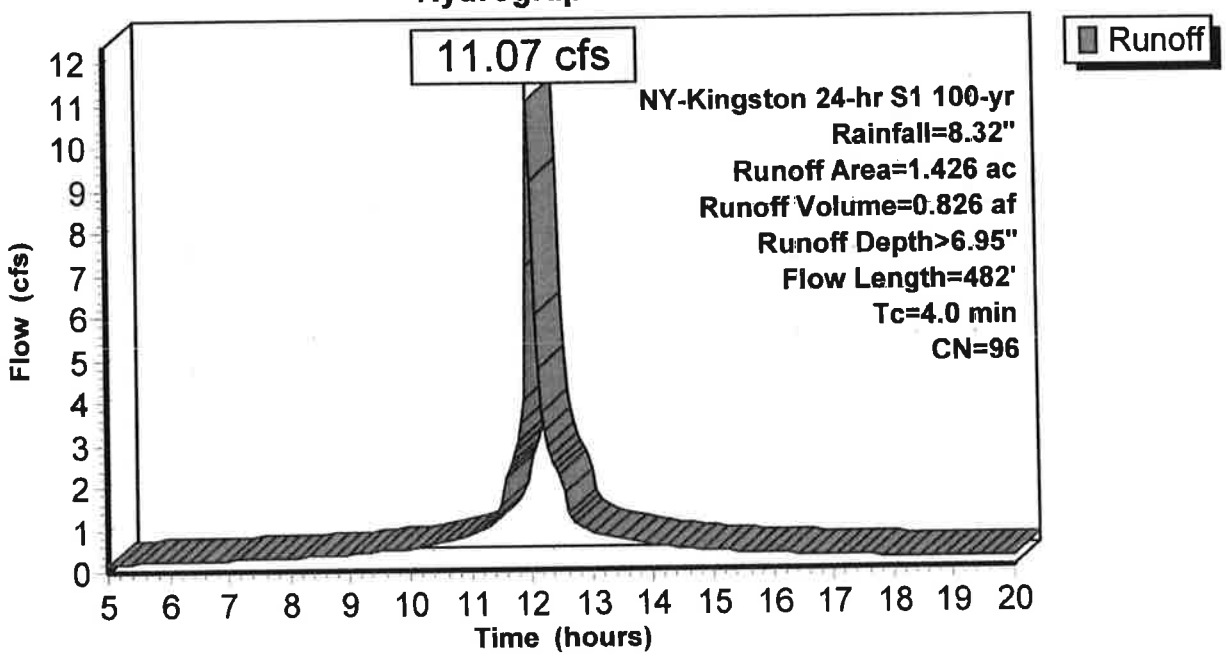
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	100	0.1200	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.4	116	0.0689	5.33		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.2	128	0.0470	8.73	10.71	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
1.7	517	Total			

Subcatchment 3S: Area 3 (Fair St.)



Subcatchment 2S: Area 2 (West)

Hydrograph



Summary for Subcatchment 2S: Area 2 (West)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 11.07 cfs @ 12.01 hrs, Volume= 0.826 af, Depth> 6.95"

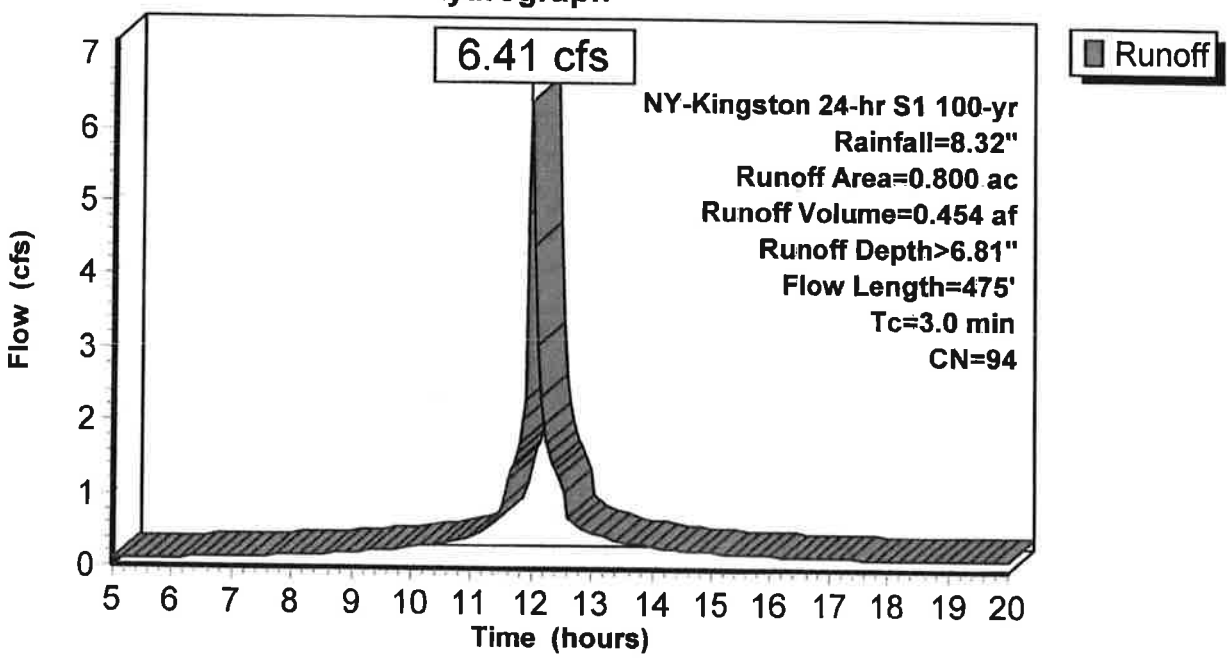
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 100-yr Rainfall=8.32"

Area (ac)	CN	Description
0.752	98	Paved parking, HSG B
0.594	98	Paved parking, HSG A
0.080	61	>75% Grass cover, Good, HSG B
1.426	96	Weighted Average
0.080		5.61% Pervious Area
1.346		94.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	50	0.3800	0.48		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.16"
2.2	380	0.0210	2.94		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	52	0.0100	6.24	19.61	**Pipe Channel, Pipe Flow (diam. and slope assumed)** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
4.0	482	Total			

Subcatchment 1S: Area 1 (East)

Hydrograph



Summary for Subcatchment 1S: Area 1 (East)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 6.41 cfs @ 12.00 hrs, Volume= 0.454 af, Depth> 6.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 100-yr Rainfall=8.32"

Area (ac)	CN	Description
0.503	98	Roofs, HSG B
0.237	98	Paved parking, HSG A
0.060	39	>75% Grass cover, Good, HSG A
0.800	94	Weighted Average
0.060		7.50% Pervious Area
0.740		92.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	37	0.2297	9.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	165	0.0420	8.25	10.12	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
3.0	475	Total			

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1 (East) Runoff Area=0.800 ac 92.50% Impervious Runoff Depth>6.81"
Flow Length=475' Tc=3.0 min CN=94 Runoff=6.41 cfs 0.454 af

Subcatchment 2S: Area 2 (West) Runoff Area=1.426 ac 94.39% Impervious Runoff Depth>6.95"
Flow Length=482' Tc=4.0 min CN=96 Runoff=11.07 cfs 0.826 af

Subcatchment 3S: Area 3 (Fair St.) Runoff Area=0.444 ac 100.00% Impervious Runoff Depth>7.05"
Flow Length=517' Tc=1.7 min CN=98 Runoff=3.75 cfs 0.261 af

Pond 4P: Existing CB1A (Point of Analysis) Inflow=20.95 cfs 1.541 af
Primary=20.95 cfs 1.541 af

Total Runoff Area = 2.670 ac Runoff Volume = 1.541 af Average Runoff Depth = 6.92"
5.24% Pervious = 0.140 ac 94.76% Impervious = 2.530 ac

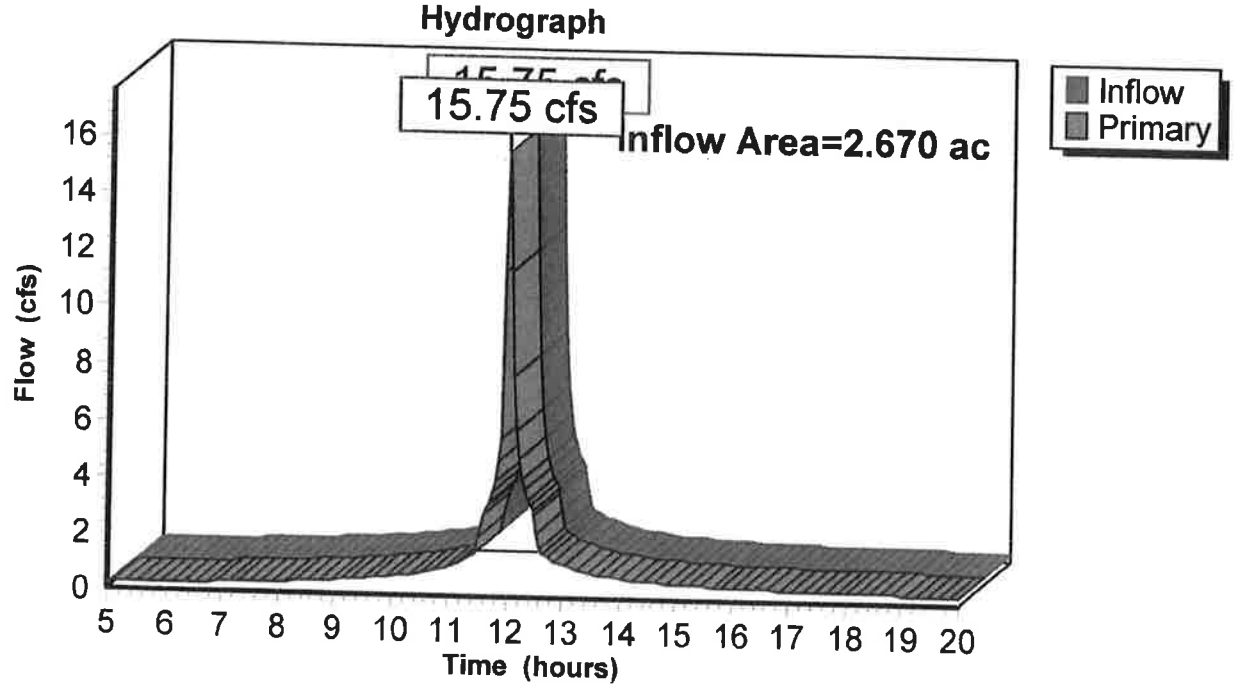
Summary for Pond 4P: Existing CB1A (Point of Analysis)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area =	2.670 ac,	94.76% Impervious,	Inflow Depth >	4.83" for 25-yr event
Inflow =	15.75 cfs @	12.00 hrs, Volume=	1.075 af	
Primary =	15.75 cfs @	12.00 hrs, Volume=	1.075 af,	Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 4P: Existing CB1A (Point of Analysis)



Summary for Subcatchment 3S: Area 3 (Fair St.)

[49] Hint: Tc<2dt may require smaller dt

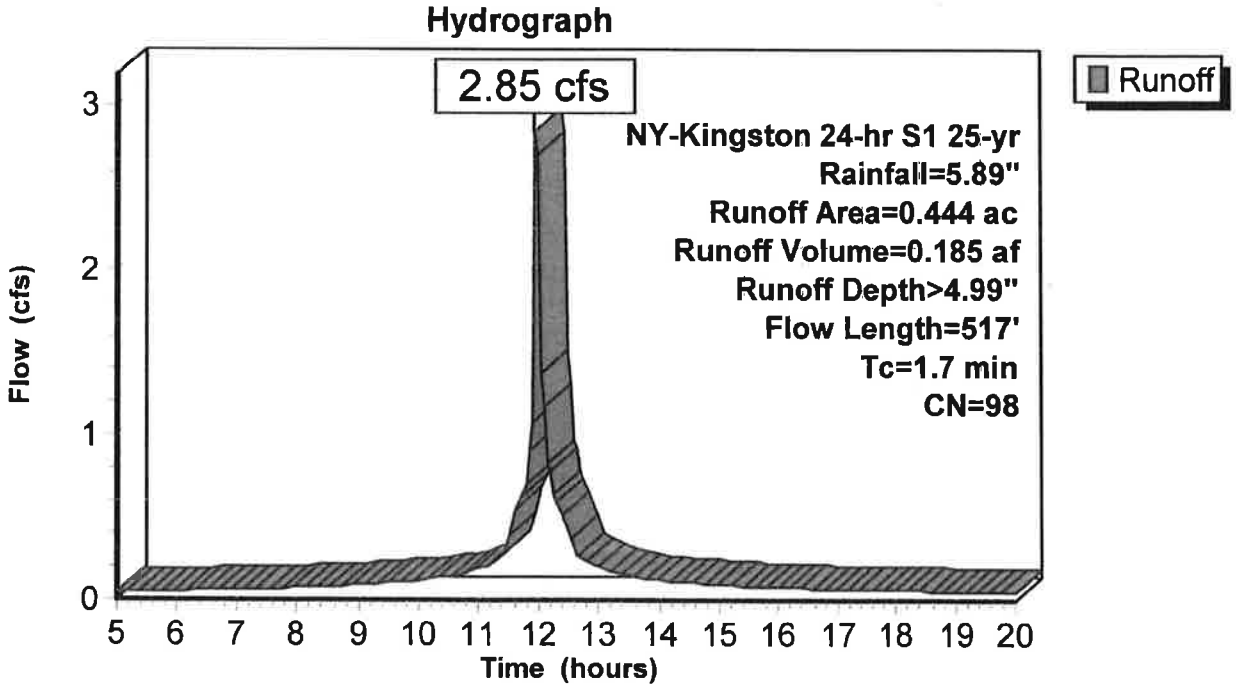
Runoff = 2.85 cfs @ 11.98 hrs, Volume= 0.185 af, Depth> 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 25-yr Rainfall=5.89"

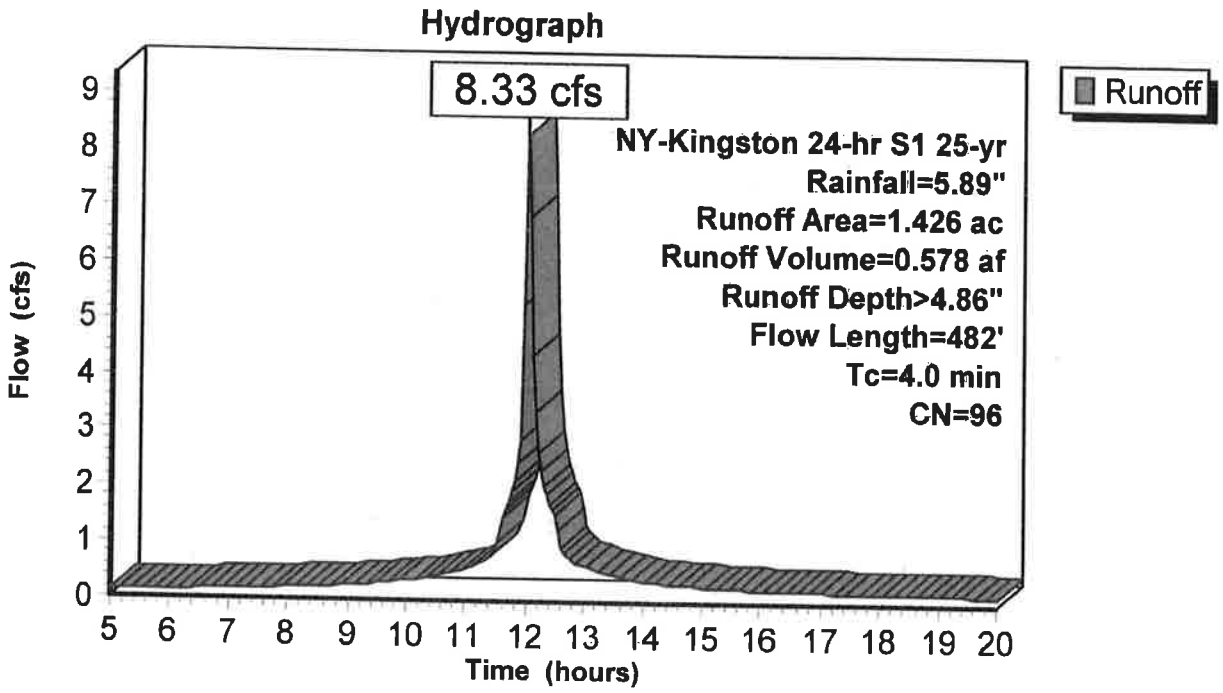
Area (ac)	CN	Description
0.444	98	Paved roads w/curbs & sewers, HSG B
0.444		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	100	0.1200	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.4	116	0.0689	5.33		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.2	128	0.0470	8.73	10.71	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
1.7	517	Total			

Subcatchment 3S: Area 3 (Fair St.)



Subcatchment 2S: Area 2 (West)



Summary for Subcatchment 2S: Area 2 (West)

[49] Hint: Tc<2dt may require smaller dt

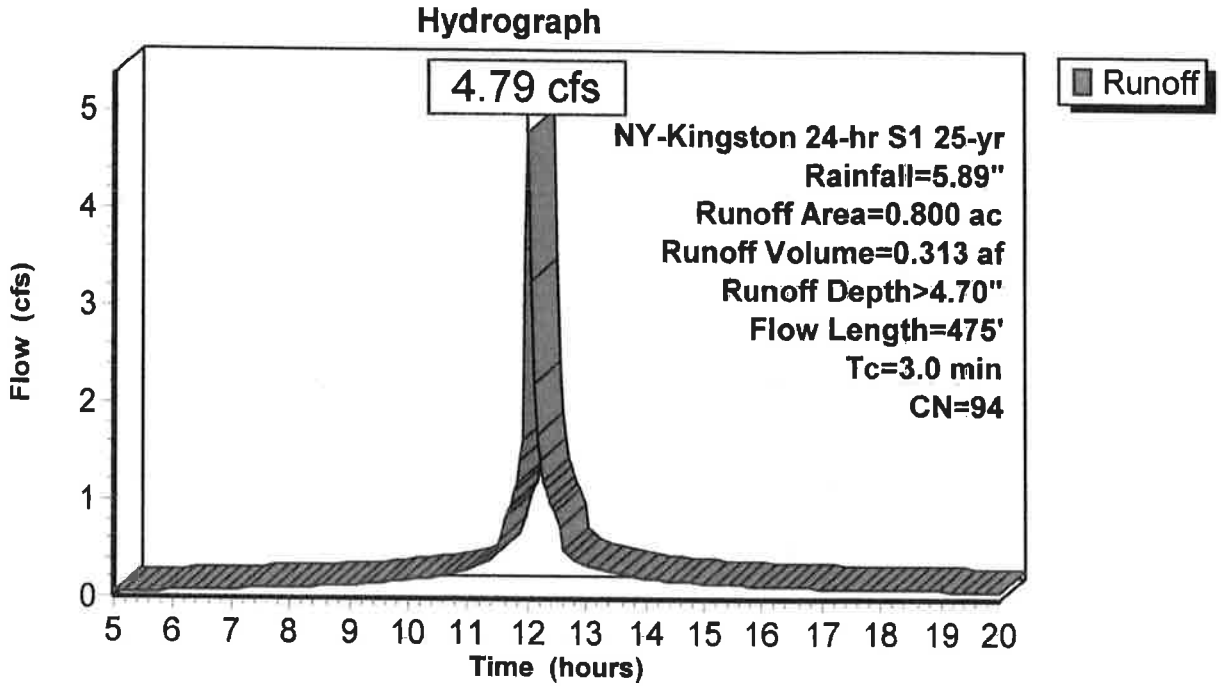
Runoff = 8.33 cfs @ 12.01 hrs, Volume= 0.578 af, Depth> 4.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 25-yr Rainfall=5.89"

Area (ac)	CN	Description
0.752	98	Paved parking, HSG B
0.594	98	Paved parking, HSG A
0.080	61	>75% Grass cover, Good, HSG B
1.426	96	Weighted Average
0.080		5.61% Pervious Area
1.346		94.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	50	0.3800	0.48		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.16"
2.2	380	0.0210	2.94		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	52	0.0100	6.24	19.61	**Pipe Channel, Pipe Flow (diam. and slope assumed)** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
4.0	482	Total			

Subcatchment 1S: Area 1 (East)



Summary for Subcatchment 1S: Area 1 (East)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 4.79 cfs @ 12.00 hrs, Volume= 0.313 af, Depth> 4.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 25-yr Rainfall=5.89"

Area (ac)	CN	Description
0.503	98	Roofs, HSG B
0.237	98	Paved parking, HSG A
0.060	39	>75% Grass cover, Good, HSG A
0.800	94	Weighted Average
0.060		7.50% Pervious Area
0.740		92.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	37	0.2297	9.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	165	0.0420	8.25	10.12	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
3.0	475	Total			

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1 (East) Runoff Area=0.800 ac 92.50% Impervious Runoff Depth>4.70"
Flow Length=475' Tc=3.0 min CN=94 Runoff=4.79 cfs 0.313 af

Subcatchment 2S: Area 2 (West) Runoff Area=1.426 ac 94.39% Impervious Runoff Depth>4.86"
Flow Length=482' Tc=4.0 min CN=96 Runoff=8.33 cfs 0.578 af

Subcatchment 3S: Area 3 (Fair St.) Runoff Area=0.444 ac 100.00% Impervious Runoff Depth>4.99"
Flow Length=517' Tc=1.7 min CN=98 Runoff=2.85 cfs 0.185 af

Pond 4P: Existing CB1A (Point of Analysis) Inflow=15.75 cfs 1.075 af
Primary=15.75 cfs 1.075 af

Total Runoff Area = 2.670 ac Runoff Volume = 1.075 af Average Runoff Depth = 4.83"
5.24% Pervious = 0.140 ac 94.76% Impervious = 2.530 ac

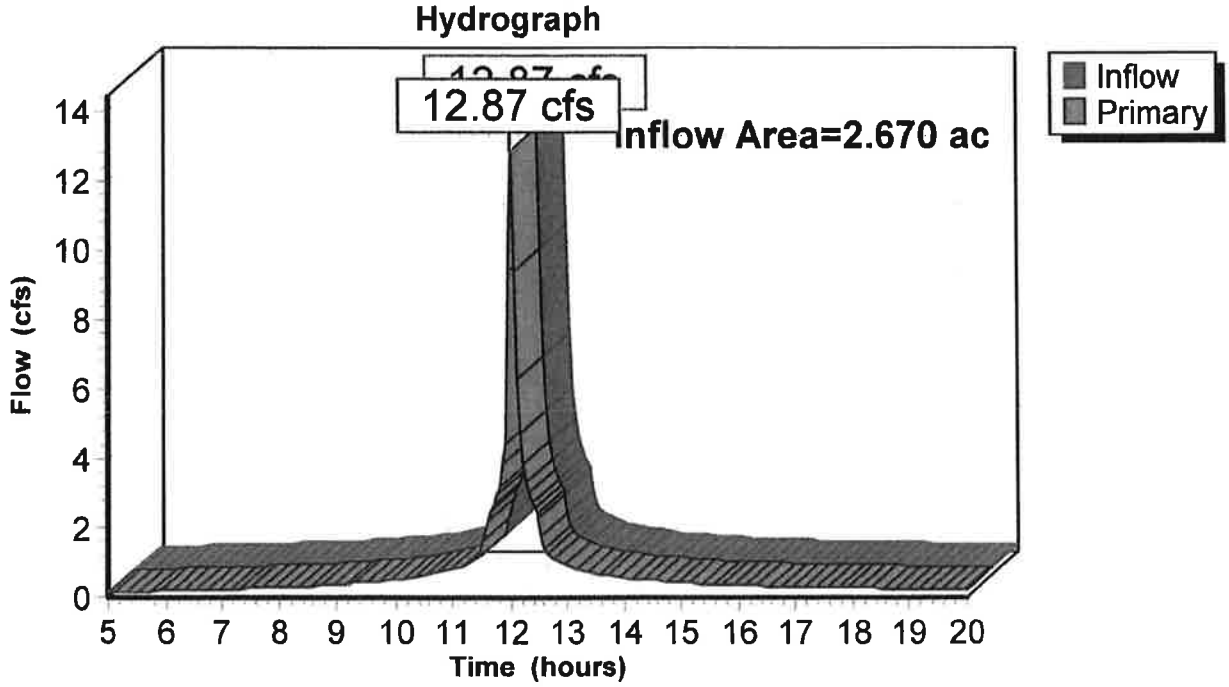
Summary for Pond 4P: Existing CB1A (Point of Analysis)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.670 ac, 94.76% Impervious, Inflow Depth > 3.80" for 10-yr event
Inflow = 12.87 cfs @ 12.00 hrs, Volume= 0.845 af
Primary = 12.87 cfs @ 12.00 hrs, Volume= 0.845 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 4P: Existing CB1A (Point of Analysis)



Summary for Subcatchment 3S: Area 3 (Fair St.)

[49] Hint: Tc<2dt may require smaller dt

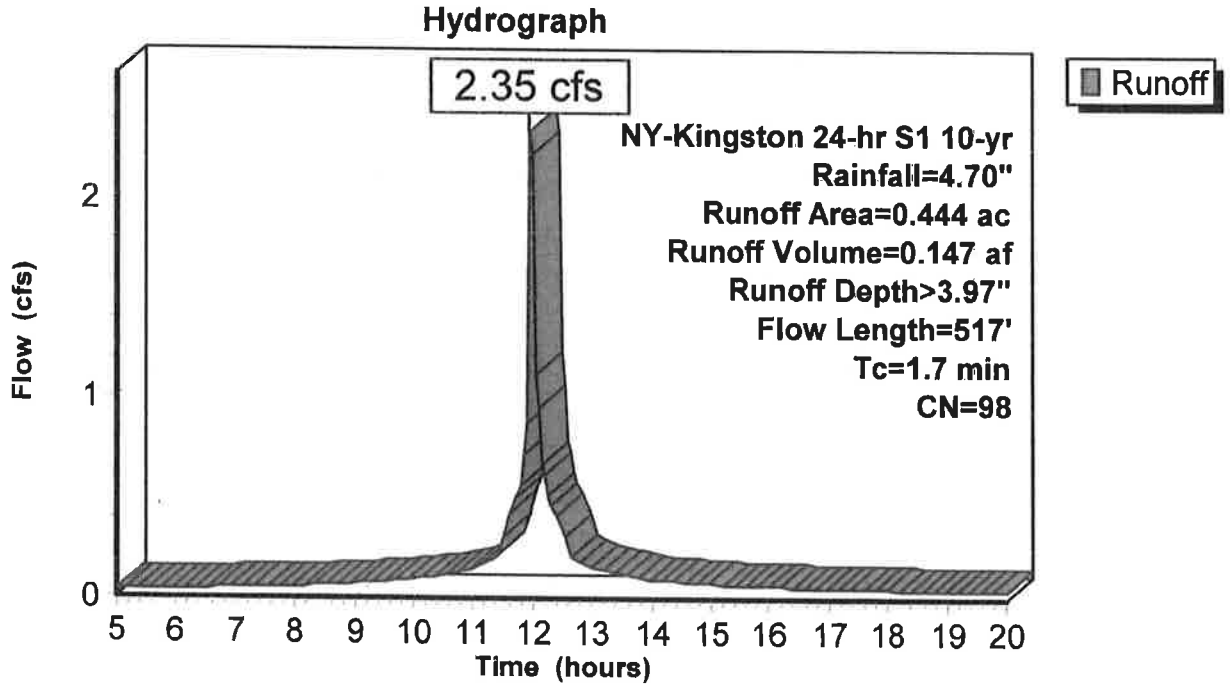
Runoff = 2.35 cfs @ 11.98 hrs, Volume= 0.147 af, Depth> 3.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 10-yr Rainfall=4.70"

Area (ac)	CN	Description
0.444	98	Paved roads w/curbs & sewers, HSG B
0.444		100.00% Impervious Area

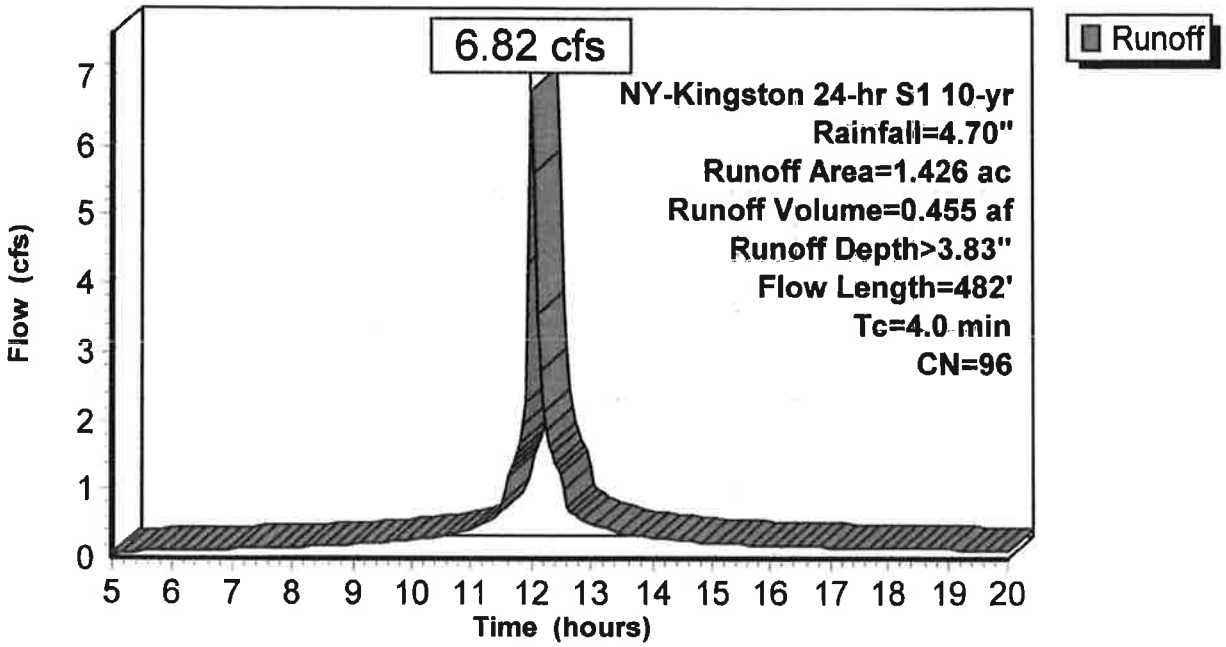
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	100	0.1200	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.4	116	0.0689	5.33		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.2	128	0.0470	8.73	10.71	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
1.7	517	Total			

Subcatchment 3S: Area 3 (Fair St.)



Subcatchment 2S: Area 2 (West)

Hydrograph



Summary for Subcatchment 2S: Area 2 (West)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 6.82 cfs @ 12.01 hrs, Volume= 0.455 af, Depth> 3.83"

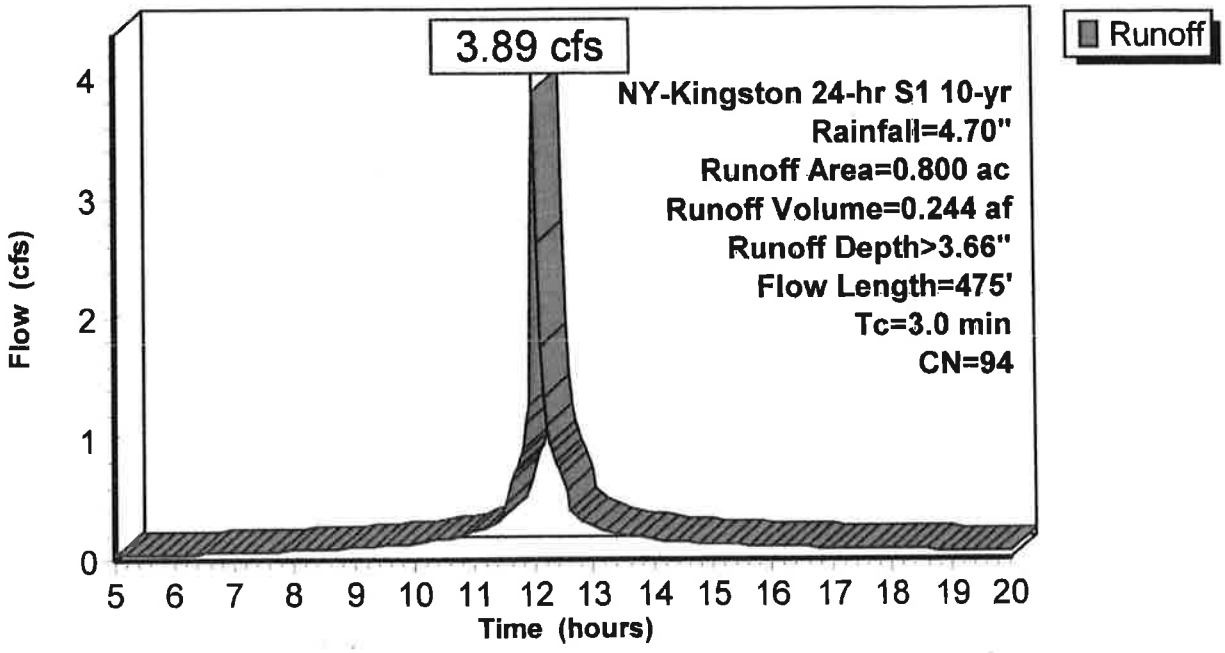
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 10-yr Rainfall=4.70"

Area (ac)	CN	Description
0.752	98	Paved parking, HSG B
0.594	98	Paved parking, HSG A
0.080	61	>75% Grass cover, Good, HSG B
1.426	96	Weighted Average
0.080		5.61% Pervious Area
1.346		94.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	50	0.3800	0.48		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.16"
2.2	380	0.0210	2.94		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	52	0.0100	6.24	19.61	**Pipe Channel, Pipe Flow (diam. and slope assumed)** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
4.0	482	Total			

Subcatchment 1S: Area 1 (East)

Hydrograph



Summary for Subcatchment 1S: Area 1 (East)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 3.89 cfs @ 12.00 hrs, Volume= 0.244 af, Depth> 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 10-yr Rainfall=4.70"

Area (ac)	CN	Description
0.503	98	Roofs, HSG B
0.237	98	Paved parking, HSG A
0.060	39	>75% Grass cover, Good, HSG A
0.800	94	Weighted Average
0.060		7.50% Pervious Area
0.740		92.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	37	0.2297	9.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	165	0.0420	8.25	10.12	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
3.0	475	Total			

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1 (East) Runoff Area=0.800 ac 92.50% Impervious Runoff Depth>3.66"
Flow Length=475' Tc=3.0 min CN=94 Runoff=3.89 cfs 0.244 af

Subcatchment 2S: Area 2 (West) Runoff Area=1.426 ac 94.39% Impervious Runoff Depth>3.83"
Flow Length=482' Tc=4.0 min CN=96 Runoff=6.82 cfs 0.455 af

Subcatchment 3S: Area 3 (Fair St.) Runoff Area=0.444 ac 100.00% Impervious Runoff Depth>3.97"
Flow Length=517' Tc=1.7 min CN=98 Runoff=2.35 cfs 0.147 af

Pond 4P: Existing CB1A (Point of Analysis) Inflow=12.87 cfs 0.845 af
Primary=12.87 cfs 0.845 af

Total Runoff Area = 2.670 ac Runoff Volume = 0.845 af Average Runoff Depth = 3.80"
5.24% Pervious = 0.140 ac 94.76% Impervious = 2.530 ac

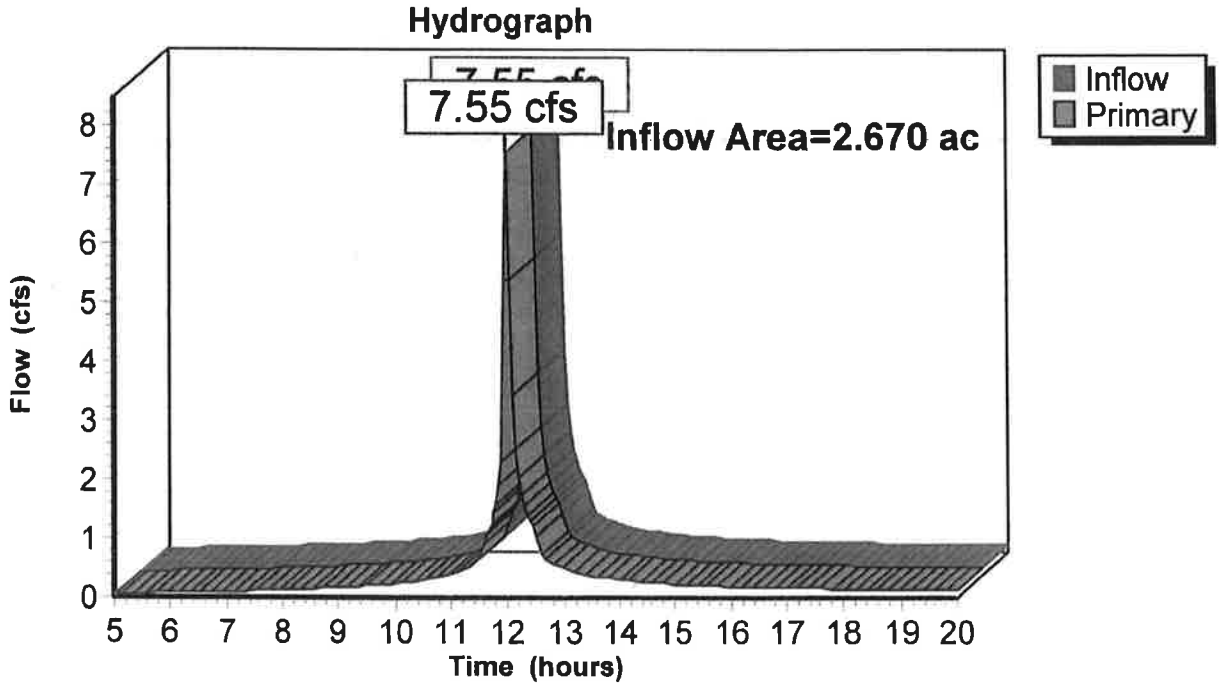
Summary for Pond 4P: Existing CB1A (Point of Analysis)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area =	2.670 ac,	94.76% Impervious,	Inflow Depth >	1.95" for 1-yr event
Inflow =	7.55 cfs @	12.00 hrs, Volume=	0.434 af	
Primary =	7.55 cfs @	12.00 hrs, Volume=	0.434 af,	Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond 4P: Existing CB1A (Point of Analysis)



Summary for Subcatchment 3S: Area 3 (Fair St.)

[49] Hint: Tc<2dt may require smaller dt

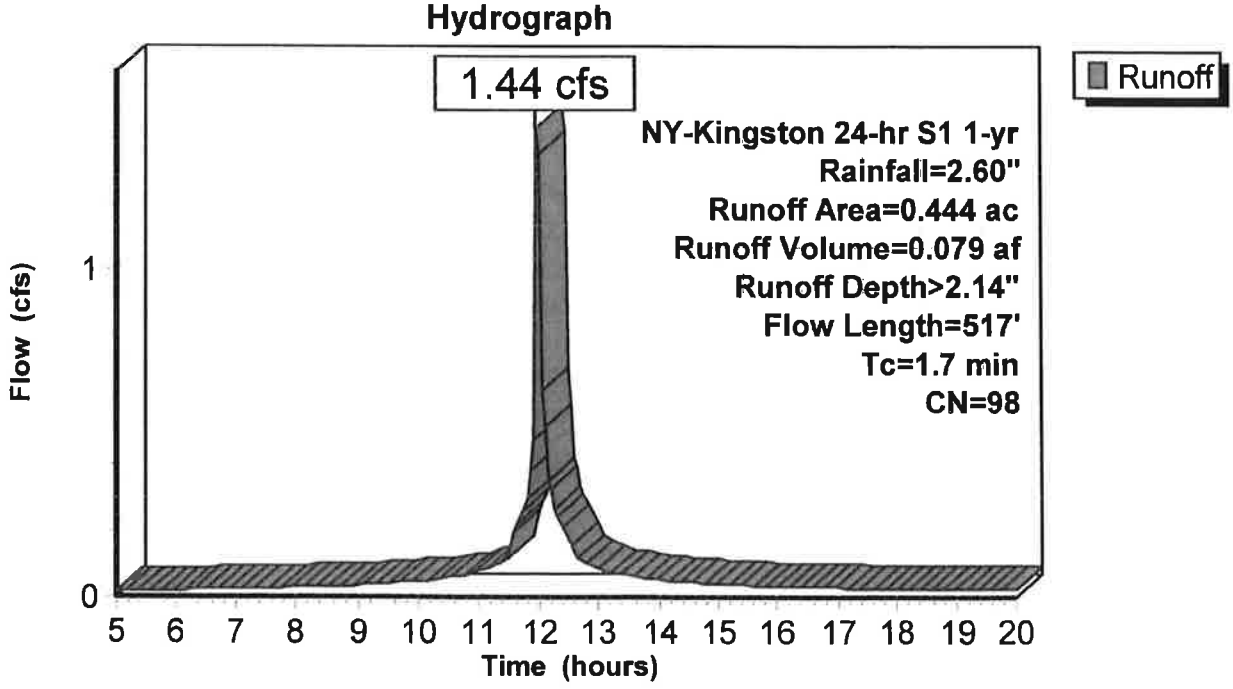
Runoff = 1.44 cfs @ 11.98 hrs, Volume= 0.079 af, Depth> 2.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 1-yr Rainfall=2.60"

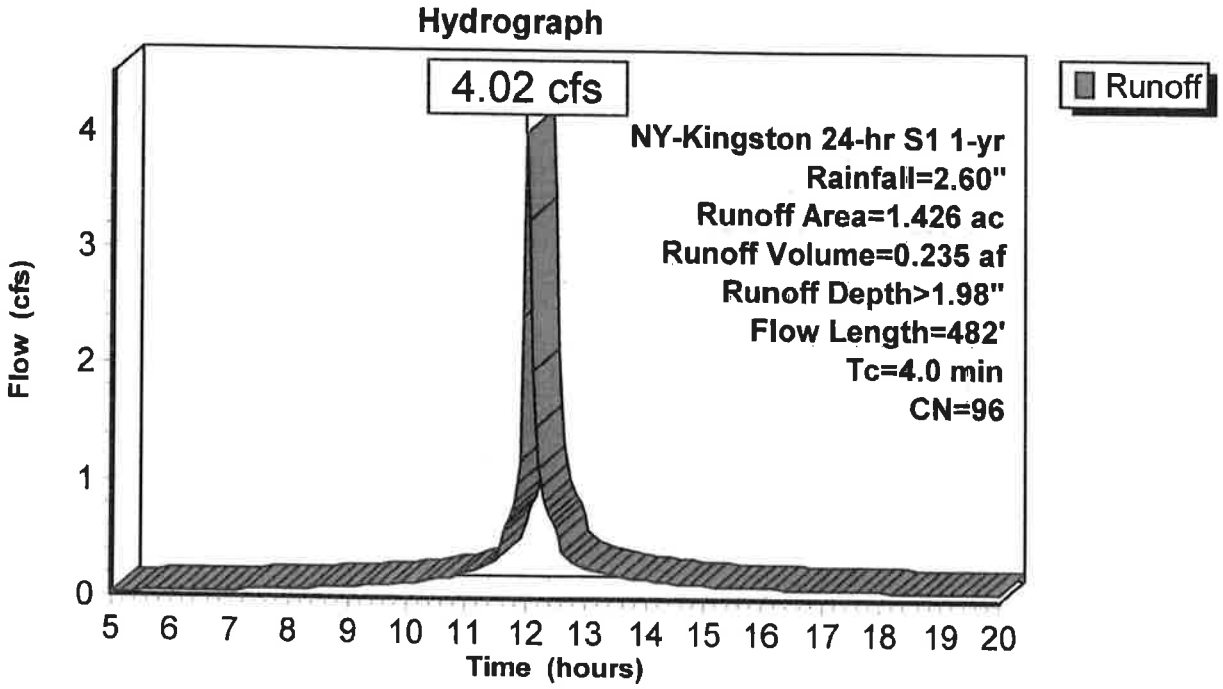
Area (ac)	CN	Description
0.444	98	Paved roads w/curbs & sewers, HSG B
0.444		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	100	0.1200	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.4	116	0.0689	5.33		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.2	128	0.0470	8.73	10.71	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
1.7	517	Total			

Subcatchment 3S: Area 3 (Fair St.)



Subcatchment 2S: Area 2 (West)



Summary for Subcatchment 2S: Area 2 (West)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 4.02 cfs @ 12.01 hrs, Volume= 0.235 af, Depth> 1.98"

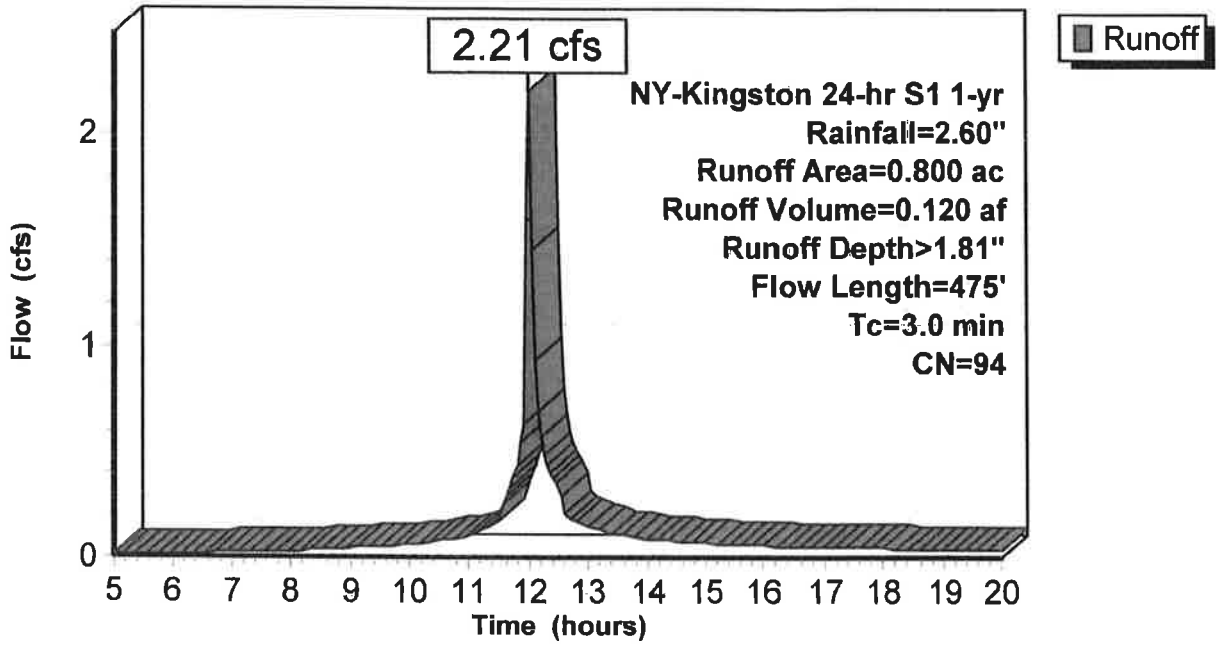
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 1-yr Rainfall=2.60"

Area (ac)	CN	Description
0.752	98	Paved parking, HSG B
0.594	98	Paved parking, HSG A
0.080	61	>75% Grass cover, Good, HSG B
1.426	96	Weighted Average
0.080		5.61% Pervious Area
1.346		94.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	50	0.3800	0.48		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.16"
2.2	380	0.0210	2.94		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	52	0.0100	6.24	19.61	**Pipe Channel, Pipe Flow (diam. and slope assumed)** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
4.0	482	Total			

Subcatchment 1S: Area 1 (East)

Hydrograph



Summary for Subcatchment 1S: Area 1 (East)

[49] Hint: Tc<2dt may require smaller dt

Runoff = 2.21 cfs @ 12.00 hrs, Volume= 0.120 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Kingston 24-hr S1 1-yr Rainfall=2.60"

Area (ac)	CN	Description
0.503	98	Roofs, HSG B
0.237	98	Paved parking, HSG A
0.060	39	>75% Grass cover, Good, HSG A
0.800	94	Weighted Average
0.060		7.50% Pervious Area
0.740		92.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	100	0.0050	0.79		**Sheet Flow, Roof Flow** Smooth surfaces n= 0.011 P2= 3.16"
0.1	37	0.2297	9.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	165	0.0420	8.25	10.12	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.017 Clay tile
0.5	173	0.0100	6.24	19.61	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.015
3.0	475	Total			

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Area 1 (East) Runoff Area=0.800 ac 92.50% Impervious Runoff Depth>1.81"
Flow Length=475' Tc=3.0 min CN=94 Runoff=2.21 cfs 0.120 af

Subcatchment 2S: Area 2 (West) Runoff Area=1.426 ac 94.39% Impervious Runoff Depth>1.98"
Flow Length=482' Tc=4.0 min CN=96 Runoff=4.02 cfs 0.235 af

Subcatchment 3S: Area 3 (Fair St.) Runoff Area=0.444 ac 100.00% Impervious Runoff Depth>2.14"
Flow Length=517' Tc=1.7 min CN=98 Runoff=1.44 cfs 0.079 af

Pond 4P: Existing CB1A (Point of Analysis) Inflow=7.55 cfs 0.434 af
Primary=7.55 cfs 0.434 af

Total Runoff Area = 2.670 ac Runoff Volume = 0.434 af Average Runoff Depth = 1.95"
5.24% Pervious = 0.140 ac 94.76% Impervious = 2.530 ac

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1S	0.00	0.00	165.0	0.0420	0.017	15.0	0.0	0.0
2	1S	0.00	0.00	173.0	0.0100	0.015	24.0	0.0	0.0
3	2S	0.00	0.00	52.0	0.0100	0.015	24.0	0.0	0.0
4	3S	0.00	0.00	128.0	0.0470	0.017	15.0	0.0	0.0
5	3S	0.00	0.00	173.0	0.0100	0.015	24.0	0.0	0.0

Ground Covers (all nodes)

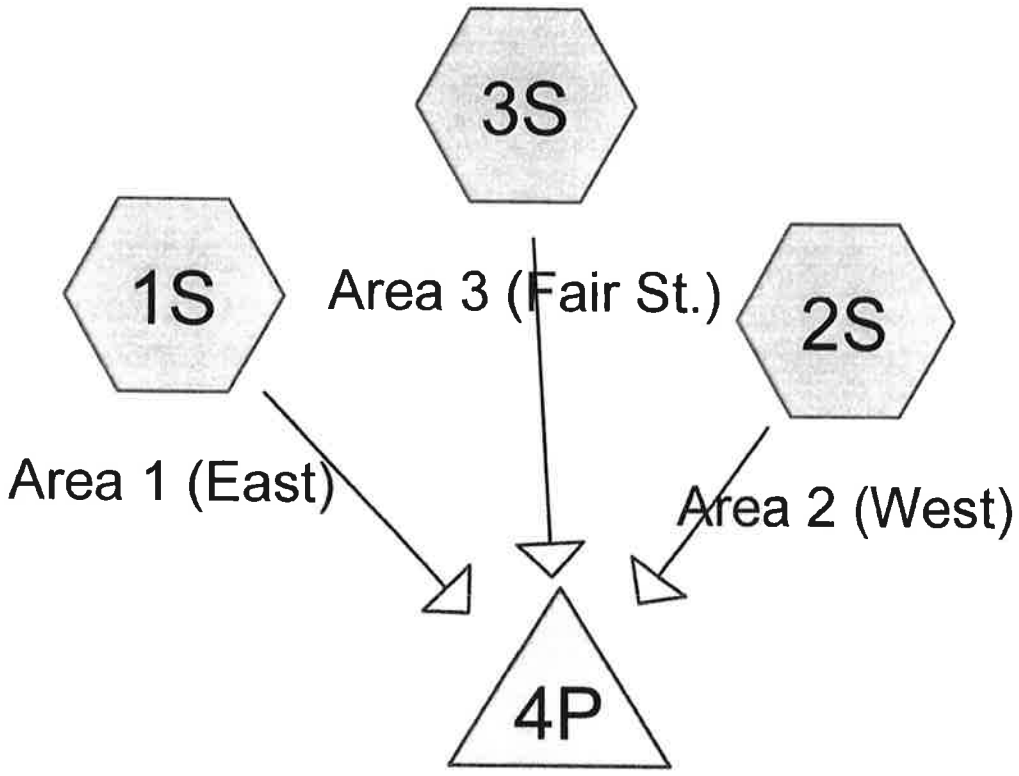
HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.060	0.080	0.000	0.000	0.000	0.140	>75% Grass cover, Good	1S, 2S
0.831	0.752	0.000	0.000	0.000	1.583	Paved parking	1S, 2S
0.000	0.444	0.000	0.000	0.000	0.444	Paved roads w/curbs & sewers	3S
0.000	0.503	0.000	0.000	0.000	0.503	Roofs	1S
0.891	**1.779**	**0.000**	**0.000**	**0.000**	**2.670**	**TOTAL AREA**	

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.891	HSG A	1S, 2S
1.779	HSG B	1S, 2S, 3S
0.000	HSG C	
0.000	HSG D	
0.000	Other	
2.670		**TOTAL AREA**

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.060	39	>75% Grass cover, Good, HSG A (1S)
0.080	61	>75% Grass cover, Good, HSG B (2S)
0.831	98	Paved parking, HSG A (1S, 2S)
0.752	98	Paved parking, HSG B (2S)
0.444	98	Paved roads w/curbs & sewers, HSG B (3S)
0.503	98	Roofs, HSG B (1S)
2.670	**96**	**TOTAL AREA**



Existing CB1A (Point of Analysis)

Subcat Reach Pond Link

Routing Diagram for PreDevelopmentStorm.revised2
Prepared by Microsoft, Printed 7/22/2019

APPENDIX D