210-21A

PLANNING & ZONING
INTER-DEPARTMENTAL REFERRAL
NOTICE OF PROPOSED DEVELOPMENT

APPLICATION: #210-21

DATE OF SUBMISSION: April 8, 2021

DATE OF
RECEIPT: April 12, 2021

SCHEDULED
MEETING: May 10, 2021

NAME & APPLICATION OF PROPOSED DEVELOPMENTS: Site Plan (automotive storage facility)/6 Research, LLC/4A Research Parkway

LOCATION: 4A Research Parkway

REFERRED TO:

X ELECTRIC   **X** HEALTH   **X** BUILDING

X ENGINEERING   **X** INLAND WETLANDS   OTHER

X FIRE   **X** WATER & SEWER

DEPARTMENT COMMENTS: _OK WITH SITE WILL REQUIRE BUILDING PLANS_

SIGNED BY: _____ / _____ (Title)

DATE: _5/14/21_

JAMES SEICHTER
CHAIRMAN-PLANNING & ZONING COMMISSION

KACIE A. HAND, A.I.C.P.
TOWN PLANNER

WALLINGFORD TOWN HALL
45 SOUTH MAIN STREET
WALLINGFORD, CT 06492
TELEPHONE (203) 294-2090
FAX (203) 294-2095

Town of Wallingford, Connecticut

210-21B

April 23, 2021

Six Research LLC
14 North Branford Road
Wallingford, CT 06492

RE: Site Plan Application- 4A Research Parkway- #210-21,

Dear Sirs:

This office has the following preliminary comments regarding your application and associated plans:

1. Application does not include storm water management plan.
2. Application does not include any narrative confirming that this use is permitted in an IX District.
3. There should be a five ft. landscaped area in front of the proposed building.
4. Plan should show at least one tree along each 50ft of the front yard.
5. There are no utility lines to the new building shown on the plan.
6. Stormwater measures lack sufficient detail (e.g., sand table elevations,(outfall rip rap etc.).
7. How are you proposing to pave this lot?
8. Staff recommends a site sedimentation and erosion control bond of $10,000.

Enclosed are comments from the Fire Marshal..
Should you wish to discuss these comments or the application further, please call the Planning Office at 203-294-2090.

Regards,

Thomas Talbot
Planner
Enclosure

Please note: Any responses/correspondence, additional documents and/or revised plans **must** be received by the Planning & Zoning Department by the close of business on **Wednesday, April 28, 2021** in order to be provided to the Planning & Zoning Commission prior to the Monday, May 10, 2021 meeting. If additional information, responses or documents are necessary to address staff comments and have not been submitted by the cutoff date, Commission policy is that the application will not be considered/discussed at the upcoming meeting since the necessary information has not been provided in timely fashion.

Town of Wallingford
Department of Engineering
45 South Main Street
Wallingford, Connecticut 06492
Tel: (203) 294-2035; Fax: (203) 284-4012

Alison Kapushinski, P.E.
Town Engineer

210-21C

MEMO

TO: Planning & Zoning Commission

FROM: Department of Engineering ꓮ·m⸍

RE: PZC Application #210-21
          4A Research Parkway/ Site Plan Application

DATE: April 28, 2021

Dear Commissioners:

We are in receipt of the following materials for the referenced application:
- East Side Auto Transport Automotive Storage Facility Permit Drawings by Winterbourne Land Services and Summer Hill Civil Engineers & Land Surveyors, P.C., dated April 2021.

We offer the following comments based on the submitted materials:

1) Applicant to provide calculations showing attenuation of stormwater peak discharge for up to and including a 100-year storm.

2) Applicant to provide pipe sizing calculations for pipes sized for a minimum 10-year storm.

3) Proposed ground cover to be noted on plans.

4) Limit of disturbance to be shown on plans.

5) Inlet protection to be installed in down-gradient inlets.

6) Proposed slopes from southeast corner of the proposed building appears to be very flat at ±0.35%. To ensure positive drainage and avoid ponding within the parking area, a minimum slope of 1% is suggested.

7) It appears the majority of the proposed parking area is directed to the proposed catch basin and pipe system which is subsequently treated by the proposed oil/grit separator and sand filter. Can the applicant confirm stormwater runoff north of the proposed

building, that does not flow to the proposed catch basins, is treated by existing stormwater quality systems?

8) This Department recommends an emergency spillway set at an elevation above the top of pond elevation for a 100-year storm. This gives an outlet for the stormwater overtopping the basin in a controlled manner with rip-rap to prevent erosion and scour, rather than allowing the excess stormwater to bubble over the entire basin. The top of the basin is typically set at an elevation that allows one-foot of freeboard above the top of pond elevation in a 100-year storm.

9) The top of grate elevation of the outlet control structure to be added to plans and/or detail.

If you have any questions or require any additional information, please let me know. ■

TOWN OF WALLINGFORD
DEPARTMENT OF PUBLIC UTILITIES
WATER AND SEWER DIVISIONS

210-21D

ENGINEERING SECTION
PHONE: 203-949-2672
FAX: 203-949-2678

RECEIVED

APR 30 2021

INTEROFFICE MEMORANDUM

TO: KEVIN PAGINI, TOWN PLANNER

FROM: SCOTT SHIPMAN, ENGINEER – WATER AND SEWER DIVISIONS

SUBJECT: APPLICATION #210-21 SITE PLAN – VEHICLE STORAGE FACILITY
SIX RESEARCH, LLC
4A RESEARCH PARKWAY

DATE: APRIL 29, 2021

CC: N. AMWAKE, PE; E KRUEGER; D. SULLIVAN; J. PAWLOWSK; K QUARTUCCIO, 6 RESEARCH, LLC; M. OTT, SUMMER
     HILL CIVIL ENGINEERS & LAND SURVEYORS, P.C.

The staff of the Water and Sewer Divisions has reviewed the drawings dated April 1, 2021 as submitted for the subject application and this memo consolidates their comments and requirements.

The entire site is within the watershed for MacKenzie Reservoir and is designated as a Watershed Protection District (WPD) by the Planning and Zoning Commission. Watershed protection regulations for the WPD are enumerated in section 4.13 of the Wallingford Zoning Regulations.

The proposed development as shown on the drawings includes a paved parking area and a vehicle storage building. Municipal water and sanitary sewer services are available at the site, but no water, sanitary sewer, or fire line services are proposed for the subject project per discussions with the owner.

It is requested that the following items be made conditions of approval to be addressed prior to issuing a building permit:

1. Per discussions with the Applicant it is our understanding that no vehicle maintenance or washing will be performed at the site. Please be advised that if such activities were proposed the discharge of vehicle maintenance and/or vehicle washing wastewater to a surface water (either directly or via a storm drain) or to the ground water (via a septic tank, leaching field, or drywell) or to the ground surface (paved or unpaved) would not be allowed.

2. As mentioned above, the entire site for this development is in the Watershed Protection District. Therefore all activities on the site during and after construction shall be carried out in accordance with the Water Protection District regulations in section 4.13 of the Zoning Regulations of the Town of Wallingford.

    a. As such, a storm water treatment system will be required for treating the run-off from all parking lots and travel ways in the development. The details of the storm water treatment system, including hydraulic calculations and a hydraulic profile, must be reviewed and approved by the Wallingford Water Division. The storm water treatment system details submitted with the current plans are not sufficient for final approval.

b. Runoff from unpaved, non-traffic areas such as lawns, wooded or natural areas and building roofs should be diverted away from the storm water treatment system.

c. The storm water treatment system shall consist of an oil-water-grit separator followed by a sand filter which shall have a volume equal to the initial ½-inch to 1-inch of runoff for the tributary area with a minimum of 1-foot of freeboard above the maximum water elevation.

d. It appears that the parking area tributary to the oil-water-grit separator is greater than 1 acre but less than 1-1/2 acres. Therefore, the oil-water-grit separator must have a nominal capacity of at least 1,500 gallons. The unit shown on the plans is only 1,250 gallons and is too small for the proposed tributary area.

e. The sand filter basin requires a minimum 24-inch bed of sand. The 18-inch sand bed shown is insufficient.

f. If storage containers are proposed on the site they shall conform to the requirements of section 4.13.C of the Zoning regulations.

g. No sodium chloride shall be used for ice control on the site.

h. Upon conclusion of site work, the existing oil-water-grit separator (located on the 6 Research Parkway lot near the proposed construction entrance) should be cleaned out to remove any debris that may have accumulated during construction.

3. Erosion Controls:

a. Erosion controls and sediment barriers are critical for the protection of the public drinking water supply downstream of the site. Extreme care shall be used in the installation and maintenance of the erosion control systems for the duration of the project.

b. All erosion controls will be subject to the Water Division water quality inspectors review and approval prior to the start of site grading.

4. Site Operations and Maintenance Plan:

a. A site operations and maintenance plan shall be submitted for review and approval by the Wallingford Water Division.

b. The Water Division shall retain the right to sample the effluent of the storm water management system and have such samples analyzed by a State certified laboratory to determine if the runoff is in compliance with the cited water quality standards. Cost of such sampling and analysis shall be paid by the Owner for up to four samples at each treatment system per year.

1. Water quality volume (WQV) and precipitation depth (P) treated

   Total drainage area = 55,740 ft² = 1.28 Ac.

   Stormwater sand filter storage volume:

Elevation ft	Area ft²	Average Area ft²	Incremental Volume ft³	Cummulative Volume ft³	Cummulative Volume Ac-ft
355.75	1,200	1,200	0	0	0.0000
356.00	1,271	1,236	309	309	0.0071
356.50	1,419	1,345	673	981	0.0225
357.00	1,575	1,497	749	1,730	0.0397
357.50	1,739	1,657	829	2,558	0.0587
358.00	1,911	1,825	913	3,471	0.0797
358.50	2,091	2,001	1,001	4,471	0.1026
359.00	2,279	2,185	1,093	5,564	0.1277
359.50	2,475	2,377	1,189	6,752	0.1550

   WQV = storage volume at elevation 358.50 (one foot below top of sand filter slope) = 4,471 ft³

   P = (4,471 ft³ x 12 in/1 ft)/55,740 ft² = 0.96 in

2. Water quality flow (WQF) using SCS (NRCS) TR-55 Graphical Peak Discharge Method

   WQF = (qu)(A)(Q), where:

   WQF, Water Quality Flow (cfs)
   Q_u, Unit Peak Discharge (csm/in)
   A, Area (mi²)
   Q, Runoff Depth (in)

   Runoff Curve Number (CN) = 98

   Precipitation Depth (in) = 0.96

   From Table 4-1, Initial Abstraction (I_a) = 0.041

   I_a/P = 0.041/0.75 = 0.0427

   Drainage area = 55,740 ft² = 1.28 Ac.

   From Exhibit 4-III, Unit Peak Discharge (Q_u) = 700 csm/in (limiting value)

   WQF = (Q_u)(A)(Q) = (700)(0.0022)(0.96) = 1.5 cfs

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3. Flow Diversion Manhole Bypass Weir Crest Elevation Computations

Orifice equation: $Q = (C)(A)(2gh)0.5$, where:

Q, Discharge (cfs)
C, Discharge Coefficient = 0.60
A, Orifice Cross Section Area (ft^2)
g, Gravitational Acceleration Constant = 32.2 ft/s^2
h, Effective Head above Orifice Centroid (ft)

Flow Diversion Manhole
8 Inch Circular Orifice
Centerline EL. 356.73

Stage	H_{o1}	Q_{o1}
(ft)	(ft)	(cfs)
356.50	0.00	0.00
356.75	0.02	0.24
357.00	0.27	0.87
357.25	0.52	1.21
357.50	0.77	1.47
357.75	1.02	1.70
358.00	1.27	1.89
358.25	1.52	2.07
358.50	1.77	2.24
358.75	2.02	2.39
359.00	2.27	2.53

Set weir crest at elevation 357.50

4. Site Hydrologic Analysis

24-Hour Rainfall Depths

Recurrence Interval Year	Rainfall Depth Inches
2	3.38
5	4.40
10	5.25
25	6.41
50	7.27
100	8.21

Drainage Area Model Hydrologic Parameters

Existing Condition

Drainage Area	Area ft²	Area Ac.	CN	T_c hr
EC 1	100,590	1.31	65	0.23

Developed Condition

Drainage Area	Area ft²	Area Ac.	CN	T_c hr
DC 1	73,980	1.68	82	0.10
DC 2	28,190	0.71	36	0.23

Stormwater Management Basin Stage-Storage

Elevation ft	Area ft²	Average Area ft²	Incremental Volume ft³	Cummulative Volume ft³	Cummulative Volume Ac-ft
352.00	2,588	2,588	0	0	0.0000
352.50	3,043	2,816	1,408	1,408	0.0323
353.00	3,524	3,284	1,642	3,050	0.0700
353.50	4,029	3,777	1,888	4,938	0.1134
354.00	4,560	4,295	2,147	7,085	0.1626
354.50	5,116	4,838	2,419	9,504	0.2182
355.00	5,697	5,407	2,703	12,207	0.2802
355.50	6,934	6,316	3,158	15,365	0.3527
356.00	6,304	6,619	3,310	18,675	0.4287
356.50	7,590	6,947	3,474	22,148	0.5084
357.00	8,269	7,930	3,965	26,113	0.5995
357.50	8,975	8,622	4,311	30,424	0.6984
358.00	9,682	9,329	4,664	35,088	0.8055

Summary Comparison of Peak Discharges (cfs)

	Recurrence Interval					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Existing Condition (EC 1)	0.6	1.4	2.0	3.0	3.8	4.7
Developed Condition (DC 1)	3.6	5.5	7.0	9.2	10.8	12.6
Routed Outflow (DC 1)	0.7	0.9	1.0	1.2	1.3	1.4
SWMB Peak Stage	354.3	354.6	354.9	355.3	355.6	356.0
Combined (DC 1 + DC 2)	0.7	0.9	1.0	1.2	1.3	1.5

5. Stormwater management basin outlet control structure grate inlet capacity computations

Grate inlet capacity using ConnDOT Drainage Manual equations:

Capacity of grate inlets operating as a weir (0 ft $\leq$ d $\leq$ 0.4 ft):

$Q_w = CPd^{1.5}/CFS$, where:

Q,   Discharge (cfs)
C,   Weir Discharge Coefficient = 3.0
P,   Grate perimeter (ft)
d,   Depth over grate (ft)
CFS, Factor of safety for clogging = 1.0 - 2.0

Capacity of grate inlets operating as an orifice (d $\geq$ 1.4 ft):

$Q_o = CA(2gd)^{0.5}/CFS$, where:

Q,   Discharge (cfs)
C,   Orifice Discharge Coefficient = 0.67
A,   Grate clear opening area (ft^2)
g,   Gravitational constant = 32.2 (ft/s^2)
d,   Depth over grate (ft)
CFS, Factor of safety for clogging = 1.0 – 2.0

Check grate inlet capacity for 100-year inflow peak discharge = 12.6 cfs:

Grate perimeter (P) = (4 + 4 + 4 +4)ft = 16.0 ft

Grate clear open area (A) (ignore openings at grate perimeter):

4 rows x 10 rows = 40 openings

40 x (0.3125 ft x 0.6458 ft) = 8.1 ft^2

$Q_w = 3.0(16.0)(1.00)^{1.5}/2.0 = 24.0$ cfs

$Q_o = 0.67(8.1)(2(32.2)(1.00))^{0.5}/2.0 = 21.8$ cfs

6. Outlet Protection Computations

Riprap apron dimensions based on ConnDOT Drainage Manual design procedure:

Using critical depth (dc) as tailwater depth (TW), dc for design discharge (Q_{100}) = 12.6 ft^3/s = 1.28 ft

1.28 ft > 0.5R_p = 0.5(2.0) = 1.00 ft

Type B Riprap Apron (maximum tailwater condition) dimensions:

$L_a = (3.0(Q - 5)/S_p^{1.5}) + 10$
$W1 = 3 S_p$ (min.)
$W2 = 3 S_p + 0.4 L_a$

Q   Design Discharge (ft^3/s)
S_p Pipe Span (ft)
R_p Pipe Rise (ft)
L_a Length of Apron (ft)
W_1 Width of Apron at Pipe Outlet (ft)
W_2 Width of Apron at Apron Outlet (ft)

Stormwater Management Basin Outlet

$Q_{100} = 12.6 \text{ ft}^3/\text{s}$
$S_p = 2.0 \text{ ft}$
$R_p = 2.0 \text{ ft}$
$L_a = 3.0(12.6 - 5)/2.0^{1.5} + 10 = 18.1 \text{ ft} - \text{Use 18 ft}$
$W_1 = 3(2.0) = 6.0 \text{ ft}$
$W_2 = 3(2.0) + 0.4(18.0) = 13.2 \text{ ft} - \text{Use 13 ft}$

Use modified riprap ($D_{50} = 0.42 \text{ ft}$)

Depth (d) = 1.0 ft

Worksheet 2: Runoff curve number and runoff

Project __4A Research Parkway__   By ____MJO____   Date ___4-1-21___

Location __Wallingford, Connecticut__   Checked __LJM__   Date ___4-1-21___

Circle one: | Present | Developed   EC 1 _____

1. Runoff Curve Number (CN)

Soil name and hydrologic group (appendix A)	Cover description (cover type, treatment, and hydrolgic condition; percent impervious; unconnected/connected impervious area ratio)	CN [1] Table 2-2	Fig. 2-3	Fig. 2-4	Area [x] acres mi² %	Product of CN x area
B	Woods/Grass Combination (Fair)	65			1.31	85.15
		Totals =			1.31	85.15

[1] Use only one CN source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{85.15}{1.31} = 65.0$$

Use CN = | 65 |

2. Runoff

		Storm #1	Storm #2	Storm #3
Frequency	yr			
Rainfall, P (24-hour)	in			
Runoff, Q	in			

(Use P and CN with table 2-1, fig. 2-1,
or eqs. 2-3 and 2-4.)

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment20: DC 1

Runoff Area=1.680 ac 0.00% Impervious Runoff Depth>1.68"
Tc=6.0 min CN=82 Runoff=3.63 cfs 0.235 af

Subcatchment30: DC 2

Runoff Area=0.710 ac 0.00% Impervious Runoff Depth=0.00"
Tc=14.0 min CN=30 Runoff=0.00 cfs 0.000 af

Pond 25: SWMB

Peak Elev=354.26' Storage=8,323 cf Inflow=3.63 cfs 0.235 af
Outflow=0.68 cfs 0.221 af

Link 35: Outlet

Inflow=0.68 cfs 0.221 af
Primary=0.68 cfs 0.221 af

Total Runoff Area = 2.390 ac Runoff Volume = 0.235 af Average Runoff Depth = 1.18"
100.00% Pervious = 2.390 ac   0.00% Impervious = 0.000 ac

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	CT-Wallingford-2 24-hr S1	2-yr	Default	24.00	1	3.38	2
2	5-yr	CT-Wallingford-2 24-hr S1	5-yr	Default	24.00	1	4.40	2
3	10-yr	CT-Wallingford-2 24-hr S1	10-yr	Default	24.00	1	5.25	2
4	25-yr	CT-Wallingford-2 24-hr S1	25-yr	Default	24.00	1	6.41	2
5	50-yr	CT-Wallingford-2 24-hr S1	50-yr	Default	24.00	1	7.27	2
6	100-yr	CT-Wallingford-2 24-hr S1	100-yr	Default	24.00	1	8.21	2

Worksheet 2: Runoff curve number and runoff

Project 4A Research Parkway   By   MJO   Date   4-1-21

Location Wallingford, Connecticut   Checked LJM   Date   4-1-21

Circle one: Present | Developed | DC 2

1. Runoff Curve Number (CN)

Soil name and hydrologic group (appendix A)	Cover description (cover type, treatment, and hydrolgic condition; percent impervious; unconnected/connected impervious area ratio)	CN [1] Table 2-2	CN [1] Fig. 2-3	CN [1] Fig. 2-4	Area [x] acres mi² [ ] %	Product of CN x area
B	Lawn	30			0.71	21.30
		Totals =			0.71	21.30

[1] Use only one CN source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{21.30}{0.71} = 30.0$$

Use CN =   30

2. Runoff

		Storm #1	Storm #2	Storm #3
Frequency	yr			
Rainfall, P (24-hour)	in			
Runoff, Q	in			

(Use P and CN with table 2-1, fig. 2-1, or eqs. 2-3 and 2-4.)

(After Soil Conservation Service TR-55, Second Edition, June 1986)

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	CT-Wallingford-2 24-hr S1	2-yr	Default	24.00	1	3.38	2
2	5-yr	CT-Wallingford-2 24-hr S1	5-yr	Default	24.00	1	4.40	2
3	10-yr	CT-Wallingford-2 24-hr S1	10-yr	Default	24.00	1	5.25	·2
4	25-yr	CT-Wallingford-2 24-hr S1	25-yr	Default	24.00	1	6.41	2
5	50-yr	CT-Wallingford-2 24-hr S1	50-yr	Default	24.00	1	7.27	2
6	100-yr	CT-Wallingford-2 24-hr S1	100-yr	Default	24.00	1	8.21	2

Worksheet 3: Time of Concentration (T_c) or Travel Time (T_t)

Project	4A Research Parkway	By	MJO	Date	4-1-21
Location	Wallingford, Connecticut	Checked	LJM	Date	4-1-21

Circle one: [Present]   Developed   EC 1 _____

Circle one: [T_c] T_t through subarea   _____

NOTES: Space for as many as two segments per flow type can be used for each worksheet.
Include a map, schematic, or description of flow segments.

Sheet flow (Applicable to T_c only)

Segment ID → **AB**

1. Surface Description (table 3-1) — Dense Grass
2. Manning's roughness coeff., n (table 3-1) — 0.24
3. Flow Length, L (total L $\leq$ 300 ft) — ft — 100
4. Two-yr 24-hr rainfall, P_2 — in — 3.38
5. Land Slope, s — ft/ft — 0.0300
6. $T_t = \dfrac{0.007\,(nL)^{0.8}}{P_2^{0.5}\,s^{0.4}}$ Compute T_t — hr — 0.20 + = 0.20

Shallow concentrated flow

Segment ID → **BC**

7. Surface description (paved or unpaved) — Unpaved
8. Flow length, L — ft — 170
9. Watercourse slope, s — ft/ft — 0.0265
10. Average velocity, V (figure 3-1) — ft/s — 2.6
11. $I_t = \dfrac{L}{3600\,V}$ Compute T_t — hr — 0.02 + = 0.03

Channel flow

Segment ID →

12. Cross sectional flow area, a — ft²
13. Wetted perimeter, p_w — ft
14. Hydraulic radius, $r = \dfrac{a}{p_w}$ — ft
15. Channel slope, s — ft/ft
16. Manning's roughness coeff., n
17. $V = \dfrac{1.49\,r^{2/3}\,s^{1/2}}{n}$ — ft/s
18. Flow length, L — ft
19. $I_t = \dfrac{L}{3600\,V}$ Compute T_t — hr   + =

20. Watershed or subarea T_c or T_t (add T_t in steps 6, 11, and 19)   hr = 0.23

(After Soil Conservation Service TR-55, Second Edition, June 1986)

Worksheet 2: Runoff curve number and runoff

Project	4A Research Parkway	By	MJO	Date	4-1-21

Location	Wallingford, Connecticut	Checked	LJM	Date	4-1-21

Circle one: Present | Developed | DC 1 _____

1. Runoff Curve Number (CN)

Soil name and hydrologic group (appendix A)	Cover description (cover type, treatment, and hydrolgic condition; percent impervious; unconnected/connected impervious area ratio)	CN [1]				Area	Product of CN x area
		Table 2-2	Fig. 2-3	Fig. 2-4	x /	acres mi² %	
B	Lawn	30				0.40	12.00
-	Pavement	98				1.28	125.44
	Totals =					1.68	137.44

[1] Use only one CN source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{137.44}{1.68} = 81.8$$

Use CN = | 82 |

2. Runoff

		Storm #1	Storm #2	Storm #3
Frequency	yr			
Rainfall, P (24-hour)	in			
Runoff, Q	in			

(Use P and CN with table 2-1, fig. 2-1, or eqs. 2-3 and 2-4.)

(After Soil Conservation Service TR-55, Second Edition, June 1986)

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment10: EC

Runoff Area=1.310 ac 0.00% Impervious Runoff Depth>0.69"
Tc=14.0 min CN=65 Runoff=0.64 cfs 0.075 af

Total Runoff Area = 1.310 ac Runoff Volume = 0.075 af Average Runoff Depth = 0.69"
100.00% Pervious = 1.310 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 10: EC

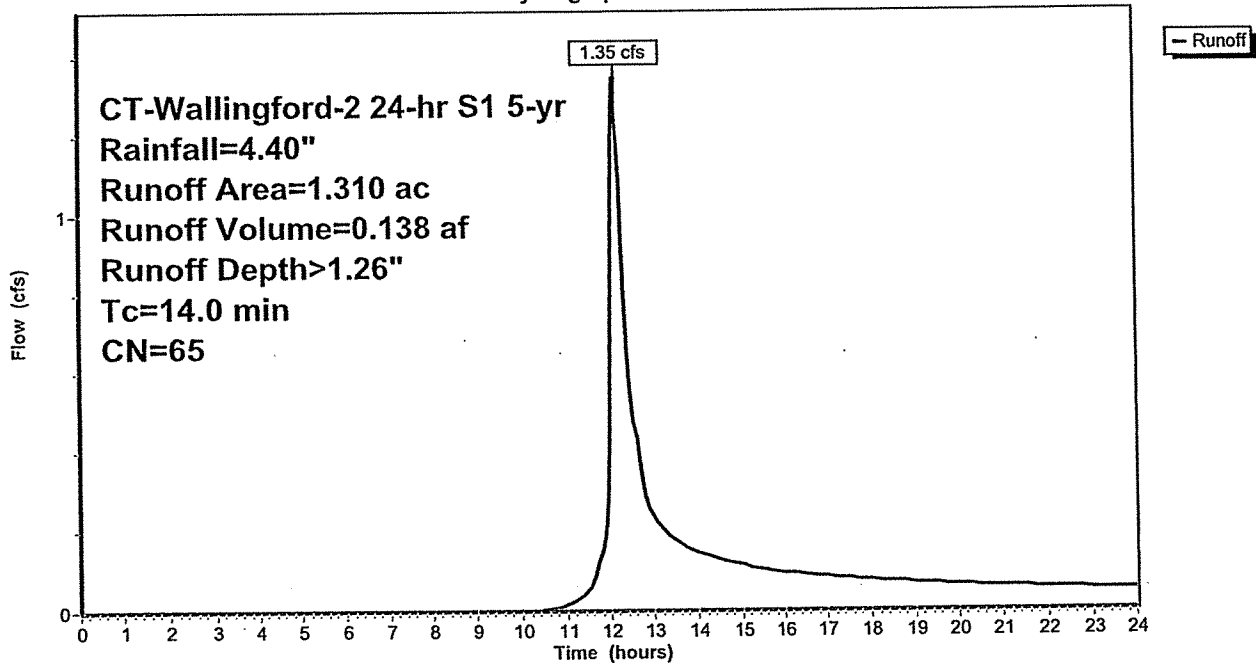Runoff = 0.64 cfs @ 12.17 hrs, Volume= 0.075 af, Depth> 0.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 2-yr Rainfall=3.38"

Area (ac)	CN	Description
1.310	65	Woods/grass comb., Fair, HSG B
1.310		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					Direct Entry,

Subcatchment 10: EC

Hydrograph

CT-Wallingford-2 24-hr S1 2-yr
Rainfall=3.38"
Runoff Area=1.310 ac
Runoff Volume=0.075 af
Runoff Depth>0.69"
Tc=14.0 min
CN=65

0.64 cfs

— Runoff

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment10: EC   Runoff Area=1.310 ac 0.00% Impervious Runoff Depth>1.26"
Tc=14.0 min   CN=65   Runoff=1.35 cfs 0.138 af

Total Runoff Area = 1.310 ac   Runoff Volume = 0.138 af   Average Runoff Depth = 1.26"
100.00% Pervious = 1.310 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 10: EC

Runoff   =   1.35 cfs @ 12.16 hrs, Volume=   0.138 af, Depth> 1.26"

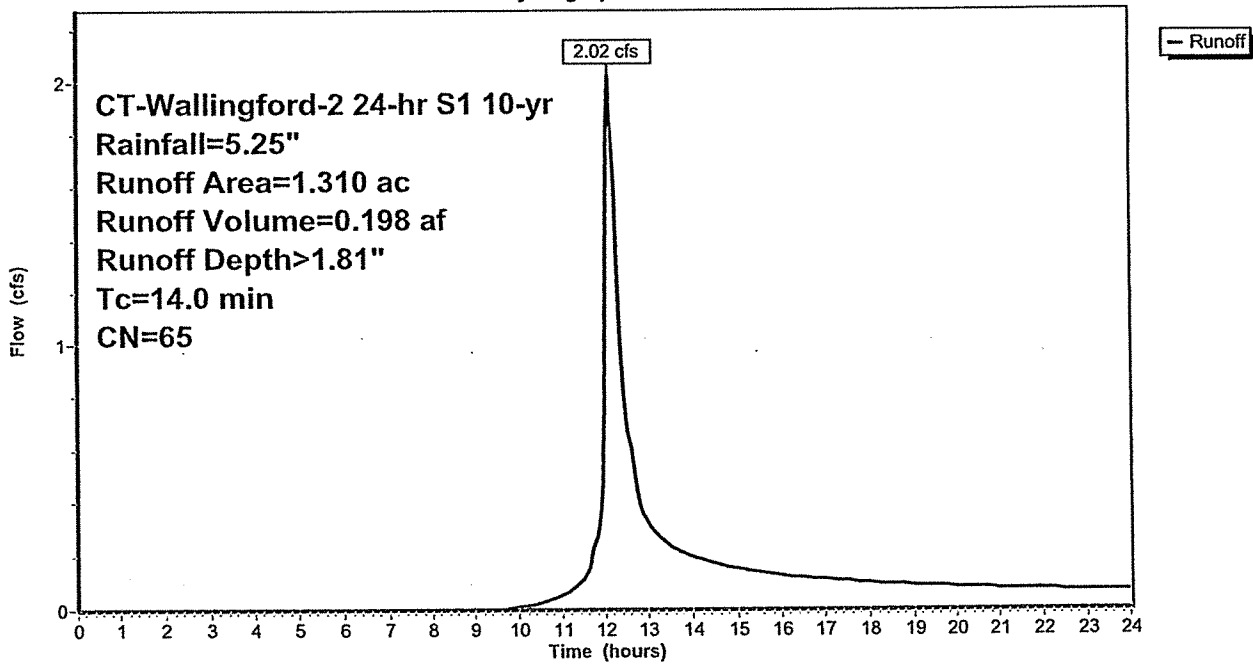Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 5-yr Rainfall=4.40"

Area (ac)	CN	Description
1.310	65	Woods/grass comb., Fair, HSG B
1.310		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					**Direct Entry,**

Subcatchment 10: EC

Hydrograph

CT-Wallingford-2 24-hr S1 5-yr
Rainfall=4.40"
Runoff Area=1.310 ac
Runoff Volume=0.138 af
Runoff Depth>1.26"
Tc=14.0 min
CN=65

1.35 cfs

─ Runoff

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 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 10: EC   Runoff Area=1.310 ac 0.00% Impervious Runoff Depth>1.81"
Tc=14.0 min CN=65 Runoff=2.02 cfs 0.198 af

Total Runoff Area = 1.310 ac   Runoff Volume = 0.198 af   Average Runoff Depth = 1.81"
100.00% Pervious = 1.310 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 10: EC

Runoff   =   2.02 cfs @ 12.15 hrs, Volume=   0.198 af, Depth> 1.81"
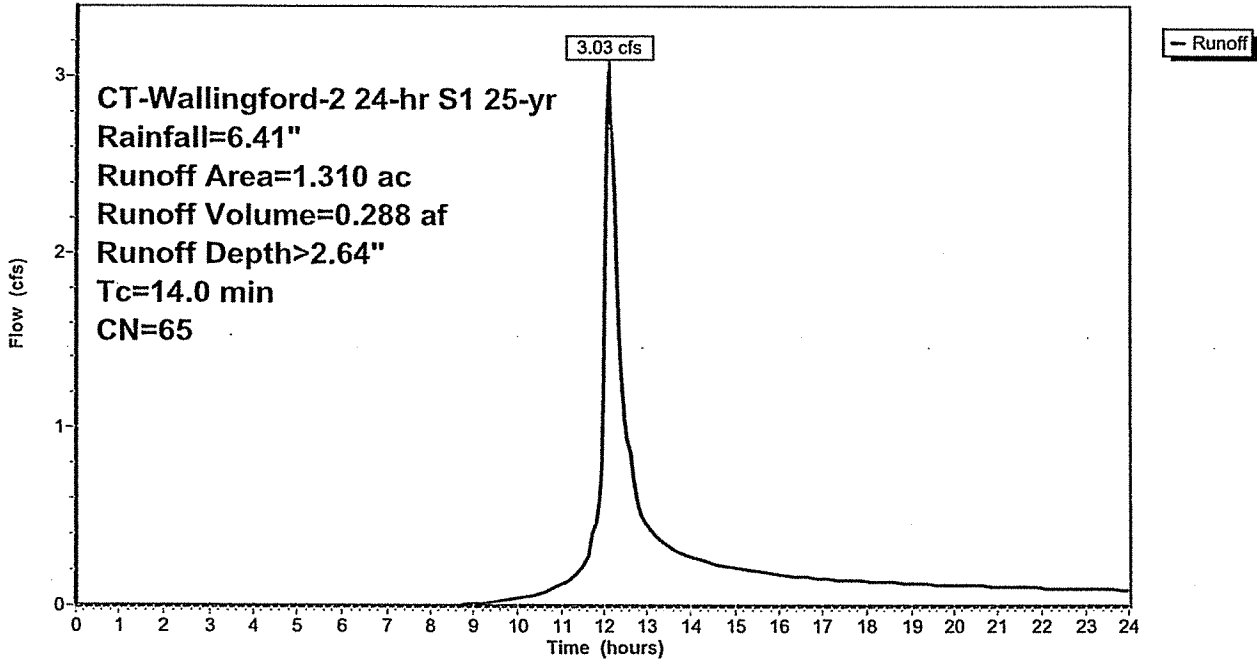
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 10-yr Rainfall=5.25"

Area (ac)	CN	Description
1.310	65	Woods/grass comb., Fair, HSG B
1.310		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					**Direct Entry,**

Subcatchment 10: EC

Hydrograph

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 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 10: EC

Runoff Area=1.310 ac 0.00% Impervious Runoff Depth>2.64"
Tc=14.0 min CN=65 Runoff=3.03 cfs 0.288 af

Total Runoff Area = 1.310 ac Runoff Volume = 0.288 af Average Runoff Depth = 2.64"
100.00% Pervious = 1.310 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 10: EC

Runoff   =   3.03 cfs @ 12.15 hrs, Volume=   0.288 af, Depth> 2.64"
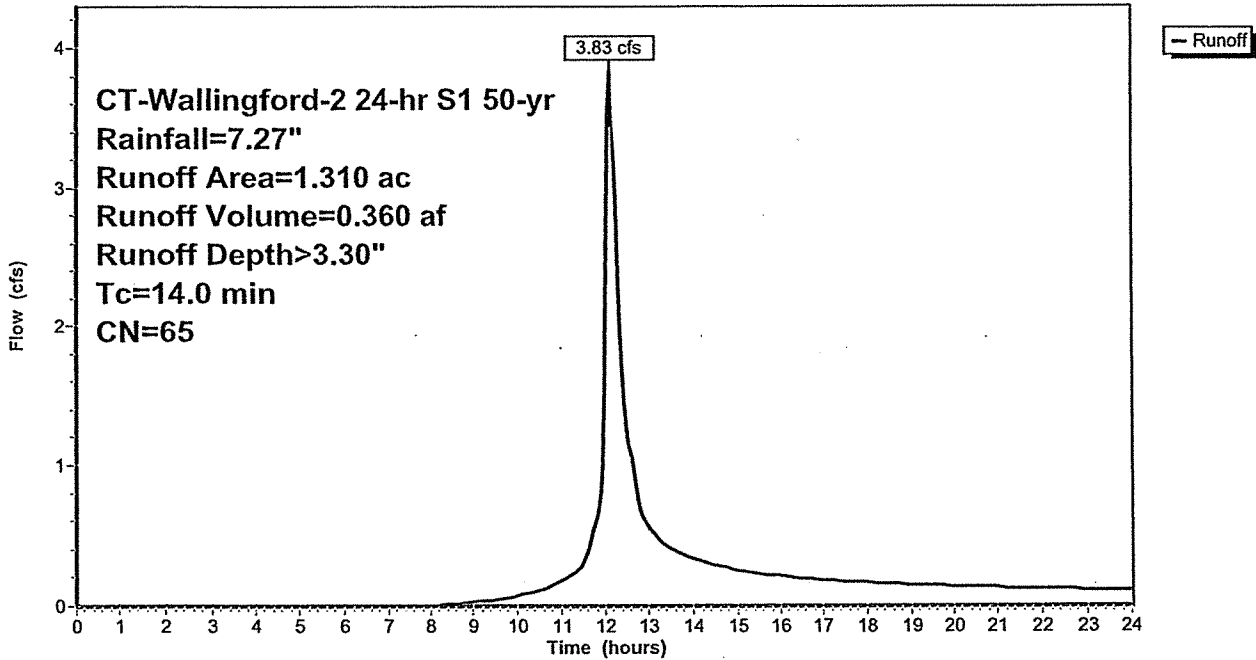
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 25-yr Rainfall=6.41"

Area (ac)	CN	Description
1.310	65	Woods/grass comb., Fair, HSG B
1.310		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					Direct Entry,

Subcatchment 10: EC

Hydrograph

CT-Wallingford-2 24-hr S1 25-yr
Rainfall=6.41"
Runoff Area=1.310 ac
Runoff Volume=0.288 af
Runoff Depth>2.64"
Tc=14.0 min
CN=65

3.03 cfs

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 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 10: EC

Runoff Area=1.310 ac   0.00% Impervious   Runoff Depth>3.30"
Tc=14.0 min   CN=65   Runoff=3.83 cfs 0.360 af

Total Runoff Area = 1.310 ac   Runoff Volume = 0.360 af   Average Runoff Depth = 3.30"
100.00% Pervious = 1.310 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 10: EC

Runoff   =   3.83 cfs @   12.15 hrs, Volume=   0.360 af, Depth> 3.30"
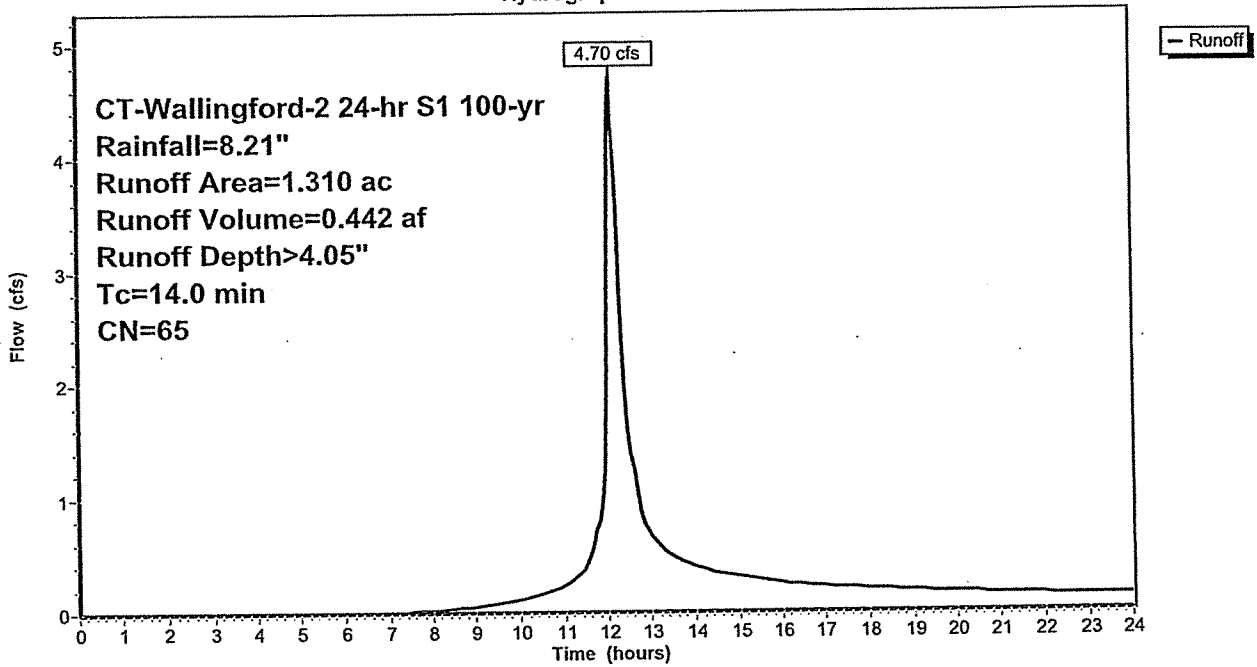
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 50-yr Rainfall=7.27"

Area (ac)	CN	Description
1.310	65	Woods/grass comb., Fair, HSG B
1.310		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					**Direct Entry,**

Subcatchment 10: EC

Hydrograph

CT-Wallingford-2 24-hr S1 50-yr
Rainfall=7.27"
Runoff Area=1.310 ac
Runoff Volume=0.360 af
Runoff Depth>3.30"
Tc=14.0 min
CN=65

3.83 cfs

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment10: EC

Runoff Area=1.310 ac 0.00% Impervious Runoff Depth>4.05"
Tc=14.0 min CN=65 Runoff=4.70 cfs 0.442 af

Total Runoff Area = 1.310 ac Runoff Volume = 0.442 af Average Runoff Depth = 4.05"
100.00% Pervious = 1.310 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 10: EC

Runoff   =   4.70 cfs @ 12.15 hrs, Volume=   0.442 af, Depth> 4.05"
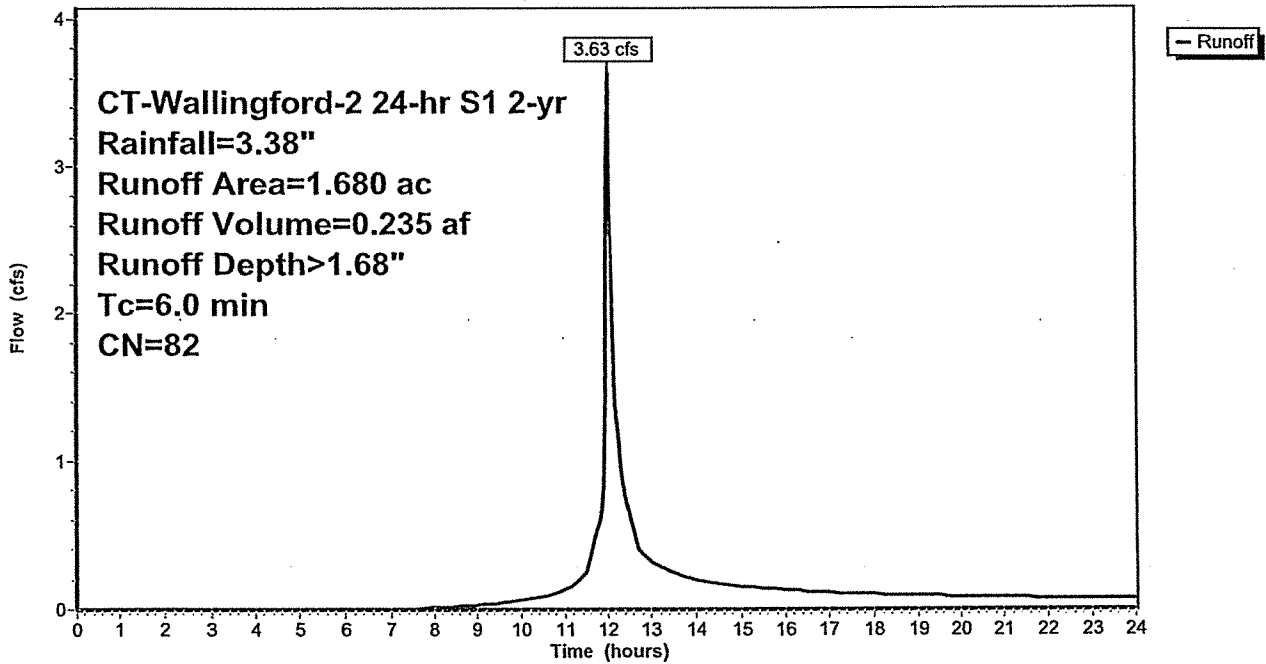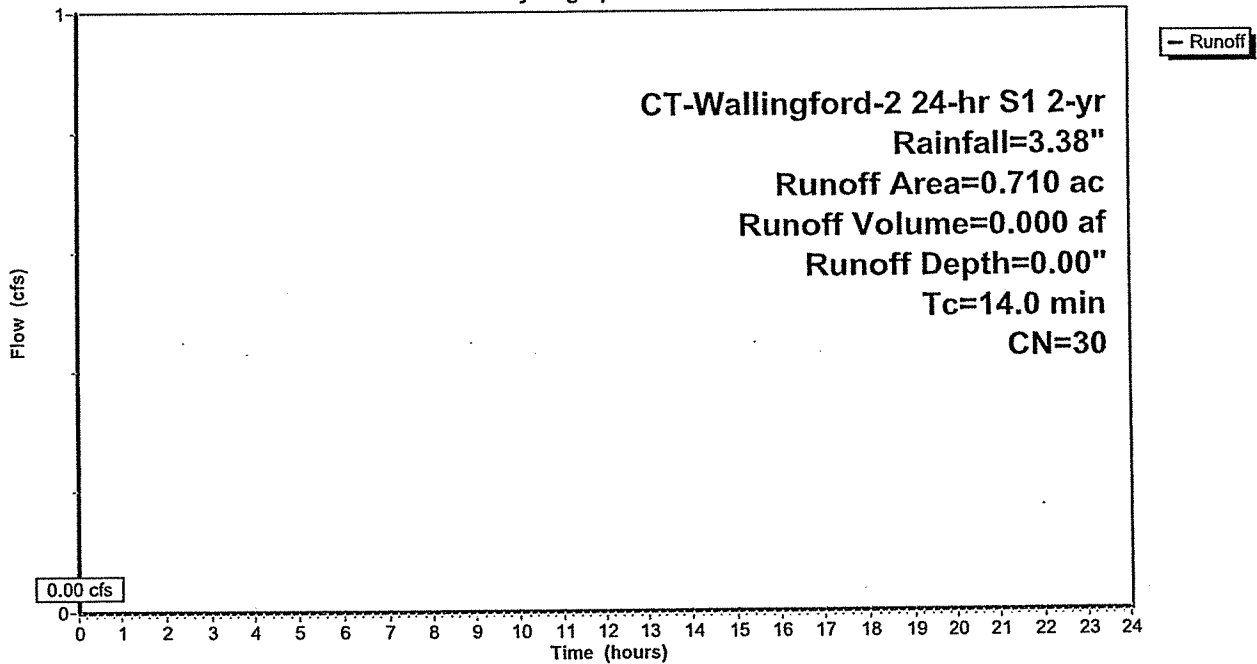
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 100-yr Rainfall=8.21"

Area (ac)	CN	Description
1.310	65	Woods/grass comb., Fair, HSG B
1.310		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					Direct Entry,

Subcatchment 10: EC

Hydrograph

CT-Wallingford-2 24-hr S1 100-yr
Rainfall=8.21"
Runoff Area=1.310 ac
Runoff Volume=0.442 af
Runoff Depth>4.05"
Tc=14.0 min
CN=65

Summary for Subcatchment 20: DC 1

Runoff   =   3.63 cfs @ 12.04 hrs, Volume=   0.235 af, Depth> 1.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 2-yr Rainfall=3.38"

Area (ac)	CN	Description
* 1.680	82	
1.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 20: DC 1

Hydrograph

CT-Wallingford-2 24-hr S1 2-yr
Rainfall=3.38"
Runoff Area=1.680 ac
Runoff Volume=0.235 af
Runoff Depth>1.68"
Tc=6.0 min
CN=82

Summary for Subcatchment 30: DC 2

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

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 2-yr Rainfall=3.38"

Area (ac)	CN	Description
* 0.710	30	
0.710		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					Direct Entry,

Subcatchment 30: DC 2

Hydrograph

CT-Wallingford-2 24-hr S1 2-yr
Rainfall=3.38"
Runoff Area=0.710 ac
Runoff Volume=0.000 af
Runoff Depth=0.00"
Tc=14.0 min
CN=30

Summary for Pond 25: SWMB

Inflow Area =		1.680 ac,	0.00% Impervious,	Inflow Depth > 1.68"	for 2-yr event	
Inflow	=	3.63 cfs @	12.04 hrs,	Volume=	0.235 af	
Outflow	=	0.68 cfs @	12.48 hrs,	Volume=	0.221 af,	Atten= 81%, Lag= 26.4 min
Primary	=	0.68 cfs @	12.48 hrs,	Volume=	0.221 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Starting Elev= 353.50' Surf.Area= 4,029 sf Storage= 4,938 cf
Peak Elev= 354.26' @ 12.48 hrs Surf.Area= 4,852 sf Storage= 8,323 cf (3,385 cf above start)

Plug-Flow detention time= 362.4 min calculated for 0.108 af (46% of inflow)
Center-of-Mass det. time= 60.5 min (915.7 - 855.2)

Volume	Invert	Avail.Storage	Storage Description	
#1	352.00'	35,088 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)	

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
352.00	2,588	0	0
352.50	3,043	1,408	1,408
353.00	3,524	1,642	3,050
353.50	4,029	1,888	4,938
354.00	4,560	2,147	7,085
354.50	5,116	2,419	9,504
355.00	5,697	2,703	12,207
355.50	6,934	3,158	15,365
356.00	6,304	3,310	18,675
356.50	7,590	3,474	22,148
357.00	8,269	3,965	26,113
357.50	8,975	4,311	30,424
358.00	9,682	4,664	35,088

Device	Routing	Invert	Outlet Devices
#1	Primary	353.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.68 cfs @ 12.48 hrs HW=354.26' (Free Discharge)
└─1=Orifice/Grate (Orifice Controls 0.68 cfs @ 3.45 fps)
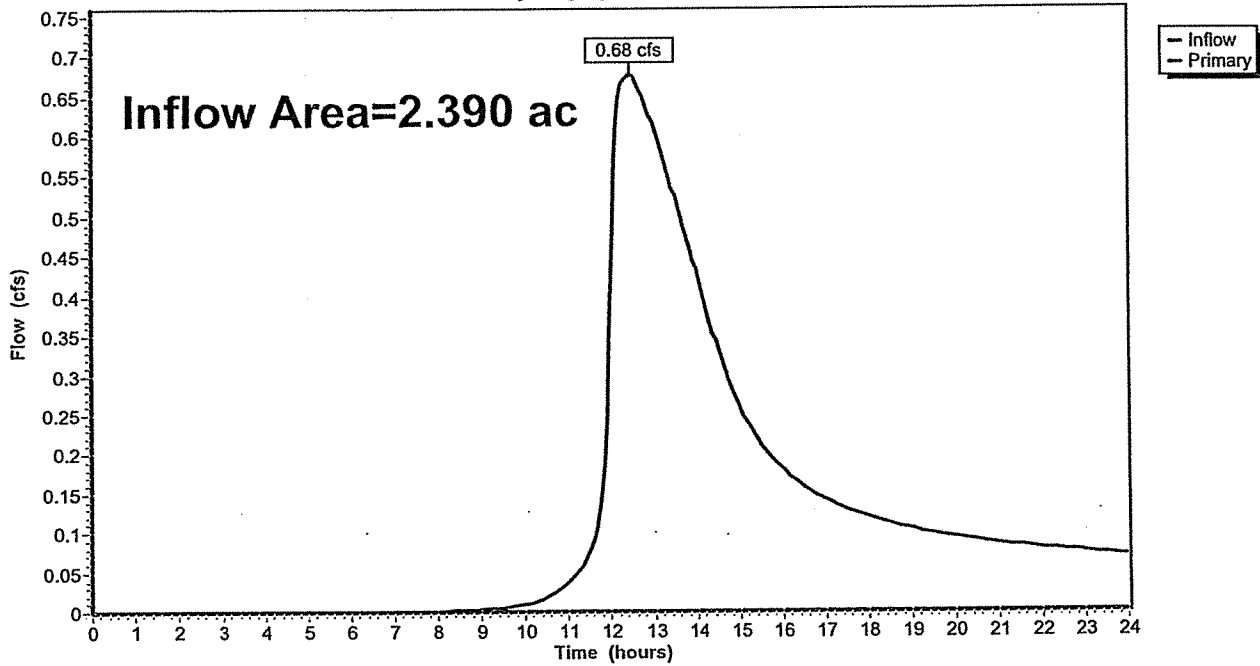
Pond 25: SWMB

Hydrograph

Inflow Area=1.680 ac
Peak Elev=354.26'
Storage=8,323 cf

3.63 cfs

0.68 cfs
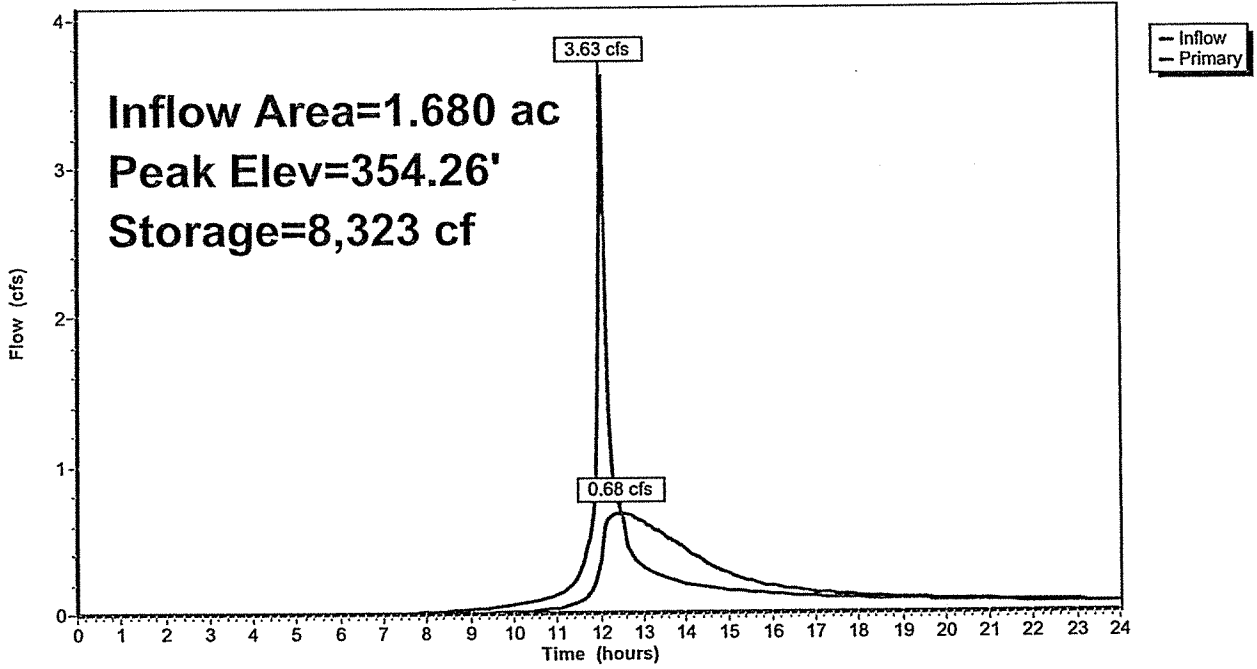
— Inflow
— Primary

Summary for Link 35: Outlet

Inflow Area =	2.390 ac,	0.00% Impervious,	Inflow Depth >	1.11"	for 2-yr event
Inflow	=	0.68 cfs @	12.48 hrs, Volume=	0.221 af	
Primary	=	0.68 cfs @	12.48 hrs, Volume=	0.221 af,	Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 35: Outlet

Hydrograph

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment20: DC 1 Runoff Area=1.680 ac 0.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=82 Runoff=5.46 cfs 0.356 af

Subcatchment30: DC 2 Runoff Area=0.710 ac 0.00% Impervious Runoff Depth=0.00"
Tc=14.0 min CN=30 Runoff=0.00 cfs 0.000 af

Pond 25: SWMB Peak Elev=354.63' Storage=10,188 cf Inflow=5.46 cfs 0.356 af
Outflow=0.89 cfs 0.339 af

Link 35: Outlet Inflow=0.89 cfs 0.339 af
Primary=0.89 cfs 0.339 af

Total Runoff Area = 2.390 ac Runoff Volume = 0.356 af Average Runoff Depth = 1.79"
100.00% Pervious = 2.390 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 20: DC 1

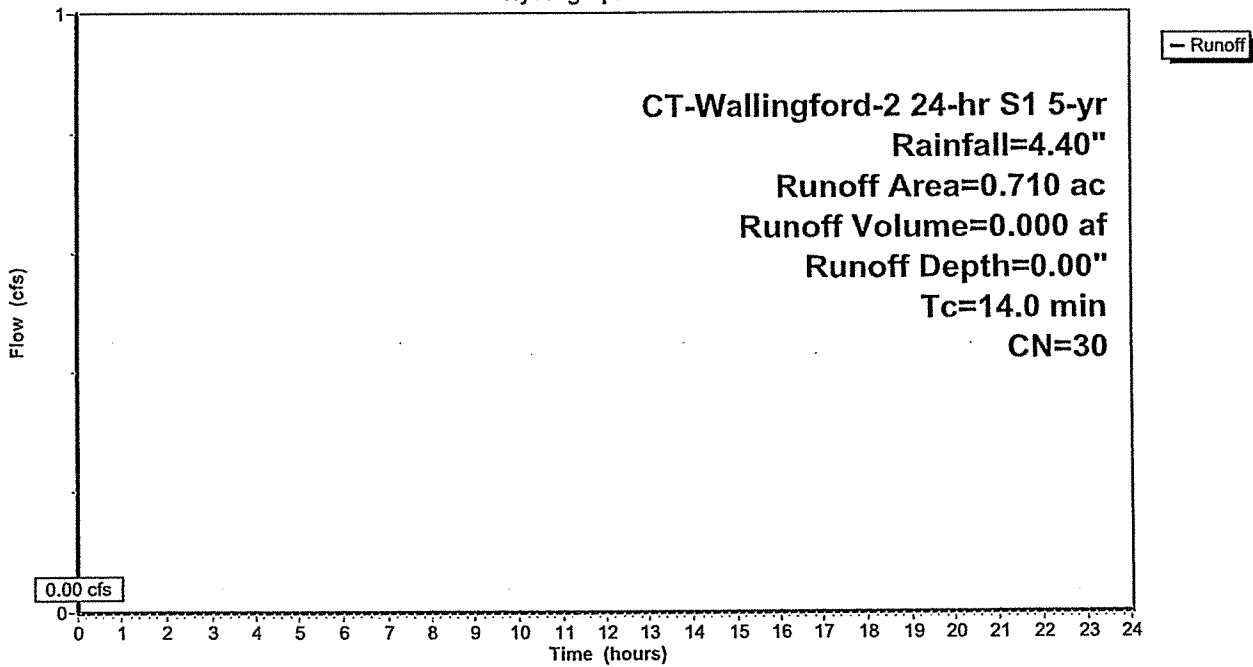Runoff   =   5.46 cfs @ 12.04 hrs, Volume=   0.356 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 5-yr Rainfall=4.40"

Area (ac)	CN	Description
* 1.680	82	
1.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 20: DC 1

Hydrograph

CT-Wallingford-2 24-hr S1 5-yr
Rainfall=4.40"
Runoff Area=1.680 ac
Runoff Volume=0.356 af
Runoff Depth>2.54"
Tc=6.0 min
CN=82

Summary for Subcatchment 30: DC 2

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

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 5-yr Rainfall=4.40"

Area (ac)	CN	Description
* 0.710	30	
0.710		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					**Direct Entry,**

Subcatchment 30: DC 2

Hydrograph

CT-Wallingford-2 24-hr S1 5-yr
Rainfall=4.40"
Runoff Area=0.710 ac
Runoff Volume=0.000 af
Runoff Depth=0.00"
Tc=14.0 min
CN=30

Summary for Pond 25: SWMB

Inflow Area =	1.680 ac,	0.00% Impervious,	Inflow Depth > 2.54"	for 5-yr event	
Inflow	=	5.46 cfs @	12.04 hrs, Volume=	0.356 af	
Outflow	=	0.89 cfs @	12.53 hrs, Volume=	0.339 af,	Atten= 84%, Lag= 29.1 min
Primary	=	0.89 cfs @	12.53 hrs, Volume=	0.339 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Starting Elev= 353.50' Surf.Area= 4,029 sf Storage= 4,938 cf
Peak Elev= 354.63' @ 12.53 hrs Surf.Area= 5,269 sf Storage= 10,188 cf (5,250 cf above start)

Plug-Flow detention time= 280.8 min calculated for 0.225 af (63% of inflow)
Center-of-Mass det. time= 65.1 min (906.3 - 841.2)

Volume	Invert	Avail.Storage	Storage Description
#1	352.00'	35,088 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
352.00	2,588	0	0
352.50	3,043	1,408	1,408
353.00	3,524	1,642	3,050
353.50	4,029	1,888	4,938
354.00	4,560	2,147	7,085
354.50	5,116	2,419	9,504
355.00	5,697	2,703	12,207
355.50	6,934	3,158	15,365
356.00	6,304	3,310	18,675
356.50	7,590	3,474	22,148
357.00	8,269	3,965	26,113
357.50	8,975	4,311	30,424
358.00	9,682	4,664	35,088

Device	Routing	Invert	Outlet Devices
#1	Primary	353.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.89 cfs @ 12.53 hrs HW=354.63' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.89 cfs @ 4.52 fps)

Pond 25: SWMB

Hydrograph

Inflow Area=1.680 ac
Peak Elev=354.63'
Storage=10,188 cf
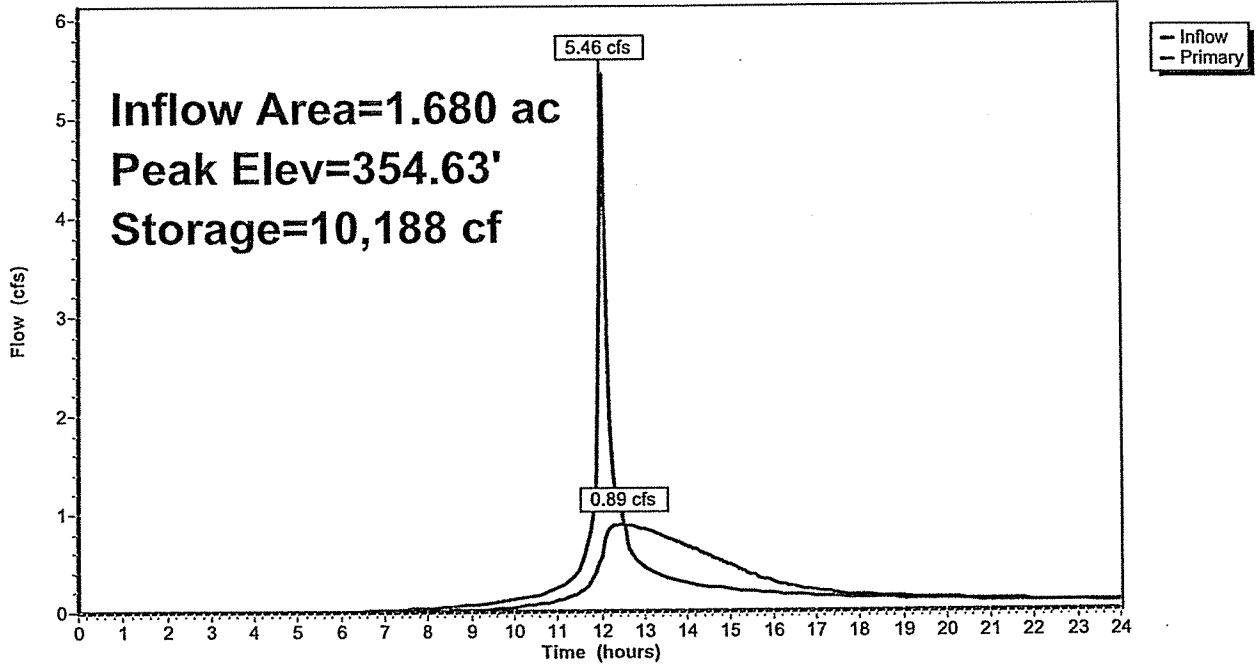
Summary for Link 35: Outlet

Inflow Area =	2.390 ac,	0.00% Impervious, Inflow Depth > 1.70"	for 5-yr event
Inflow =	0.89 cfs @	12.53 hrs, Volume=	0.339 af
Primary =	0.89 cfs @	12.53 hrs, Volume=	0.339 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 35: Outlet

Hydrograph
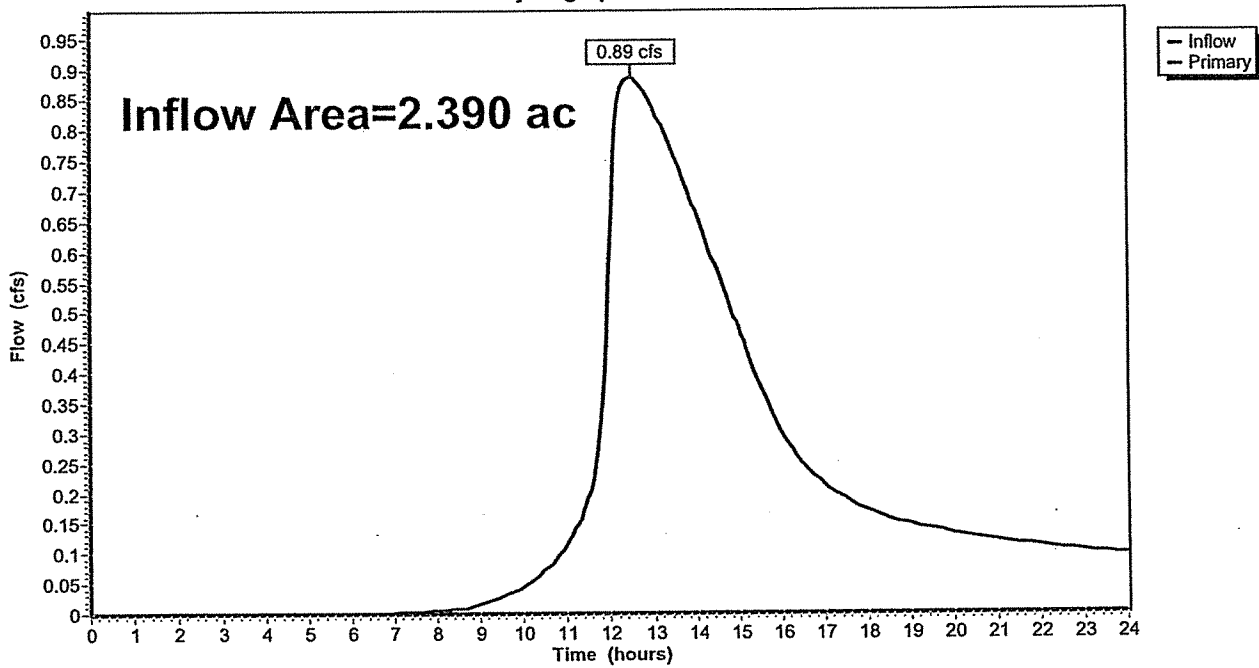
Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment20: DC 1

Runoff Area=1.680 ac 0.00% Impervious Runoff Depth>3.30"
Tc=6.0 min CN=82 Runoff=7.04 cfs 0.462 af

Subcatchment30: DC 2

Runoff Area=0.710 ac 0.00% Impervious Runoff Depth>0.01"
Tc=14.0 min CN=30 Runoff=0.00 cfs 0.001 af

Pond 25: SWMB

Peak Elev=354.94' Storage=11,864 cf Inflow=7.04 cfs 0.462 af
Outflow=1.03 cfs 0.442 af

Link 35: Outlet

Inflow=1.03 cfs 0.443 af
Primary=1.03 cfs 0.443 af

Total Runoff Area = 2.390 ac Runoff Volume = 0.463 af Average Runoff Depth = 2.32"
100.00% Pervious = 2.390 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 20: DC 1

Runoff   =   7.04 cfs @ 12.04 hrs, Volume=   0.462 af, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 10-yr Rainfall=5.25"

Area (ac)	CN	Description
* 1.680	82	
1.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 20: DC 1

Hydrograph

CT-Wallingford-2 24-hr S1 10-yr
Rainfall=5.25"
Runoff Area=1.680 ac
Runoff Volume=0.462 af
Runoff Depth>3.30"
Tc=6.0 min
CN=82
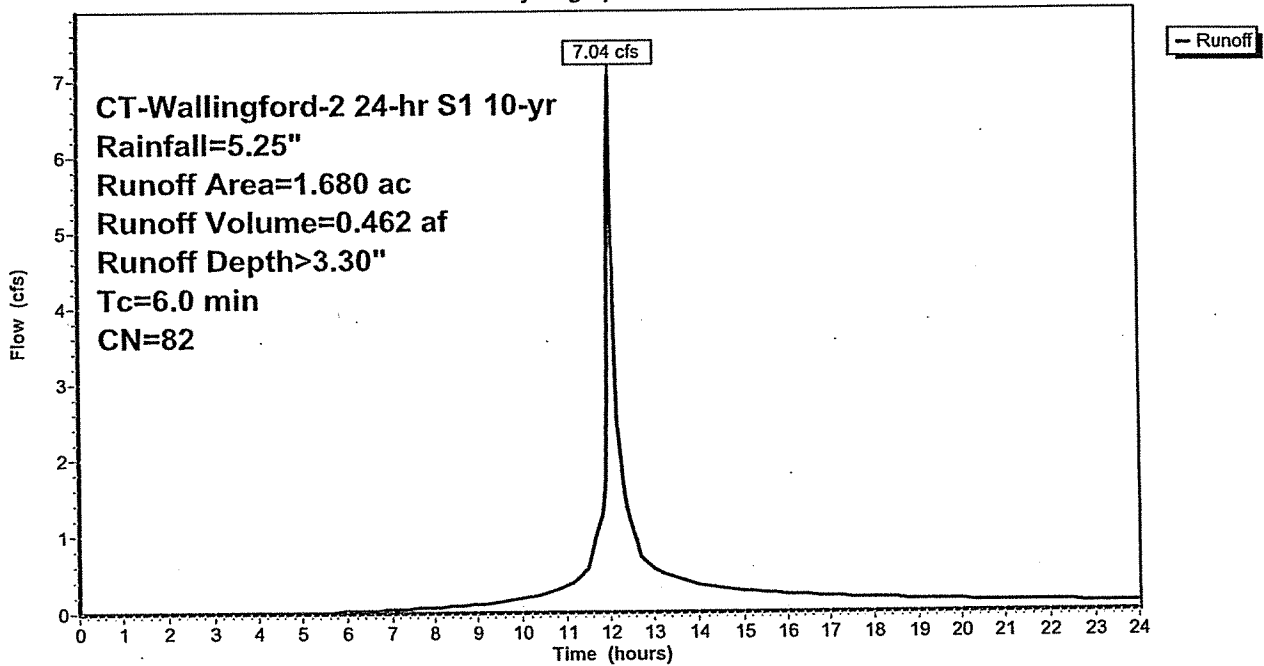
Summary for Subcatchment 30: DC 2

Runoff   =   0.00 cfs @ 24.00 hrs, Volume=   0.001 af, Depth> 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 10-yr Rainfall=5.25"

Area (ac)	CN	Description
* 0.710	30	
0.710		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					Direct Entry,

Subcatchment 30: DC 2

Hydrograph

CT-Wallingford-2 24-hr S1 10-yr
Rainfall=5.25"
Runoff Area=0.710 ac
Runoff Volume=0.001 af
Runoff Depth>0.01"
Tc=14.0 min
CN=30
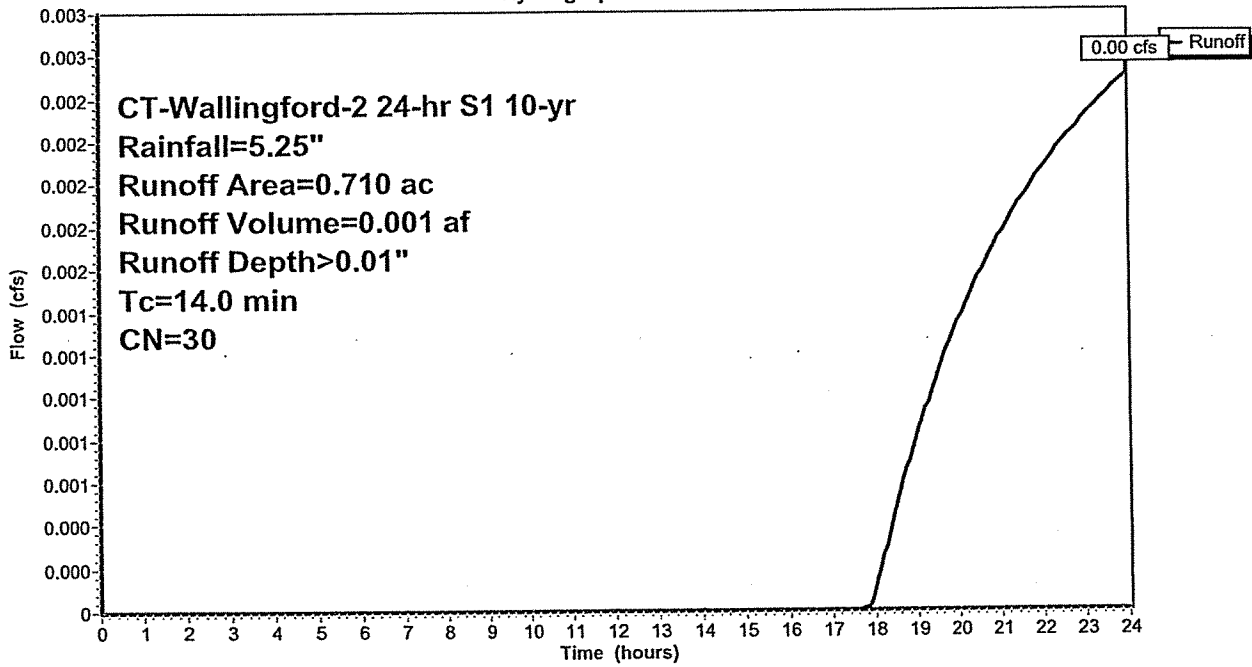
Summary for Pond 25: SWMB

Inflow Area =		1.680 ac,	0.00% Impervious,	Inflow Depth >	3.30"	for 10-yr event
Inflow	=	7.04 cfs @	12.04 hrs,	Volume=	0.462 af	
Outflow	=	1.03 cfs @	12.56 hrs,	Volume=	0.442 af,	Atten= 85%, Lag= 30.9 min
Primary	=	1.03 cfs @	12.56 hrs,	Volume=	0.442 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Starting Elev= 353.50' Surf.Area= 4,029 sf Storage= 4,938 cf
Peak Elev= 354.94' @ 12.56 hrs Surf.Area= 5,626 sf Storage= 11,864 cf (6,926 cf above start)

Plug-Flow detention time= 251.4 min calculated for 0.328 af (71% of inflow)
Center-of-Mass det. time= 70.7 min (902.8 - 832.1)

Volume	Invert	Avail.Storage	Storage Description
#1	352.00'	35,088 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
352.00	2,588	0	0
352.50	3,043	1,408	1,408
353.00	3,524	1,642	3,050
353.50	4,029	1,888	4,938
354.00	4,560	2,147	7,085
354.50	5,116	2,419	9,504
355.00	5,697	2,703	12,207
355.50	6,934	3,158	15,365
356.00	6,304	3,310	18,675
356.50	7,590	3,474	22,148
357.00	8,269	3,965	26,113
357.50	8,975	4,311	30,424
358.00	9,682	4,664	35,088

Device	Routing	Invert	Outlet Devices
#1	Primary	353.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.03 cfs @ 12.56 hrs HW=354.94' (Free Discharge)
↳—1=Orifice/Grate (Orifice Controls 1.03 cfs @ 5.25 fps)

Pond 25: SWMB

Hydrograph

Inflow Area=1.680 ac
Peak Elev=354.94'
Storage=11,864 cf

7.04 cfs

1.03 cfs

— Inflow
— Primary

Flow (cfs)

Time (hours)
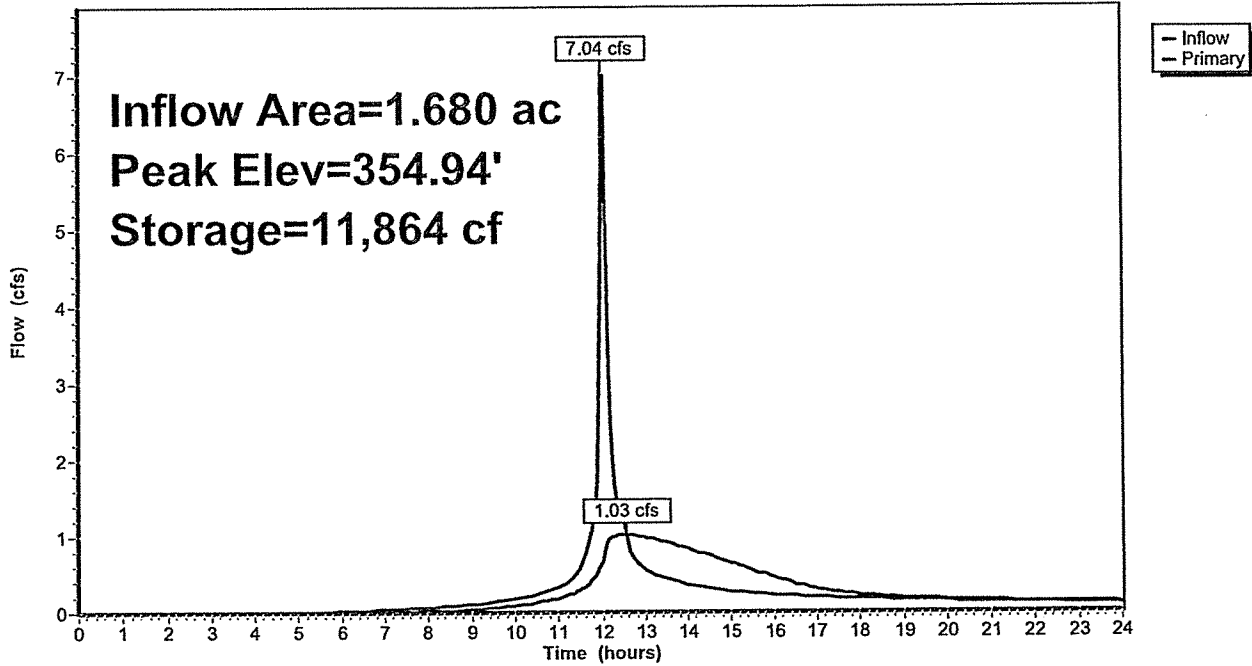
Summary for Link 35: Outlet

Inflow Area =   2.390 ac,   0.00% Impervious, Inflow Depth > 2.22"   for 10-yr event
Inflow   =   1.03 cfs @   12.56 hrs, Volume=   0.443 af
Primary   =   1.03 cfs @   12.56 hrs, Volume=   0.443 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 35: Outlet

Hydrograph

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment20: DC 1

Runoff Area=1.680 ac 0.00% Impervious Runoff Depth>4.36"
Tc=6.0 min   CN=82   Runoff=9.20 cfs 0.610 af

Subcatchment30: DC 2

Runoff Area=0.710 ac 0.00% Impervious Runoff Depth>0.12"
Tc=14.0 min   CN=30   Runoff=0.01 cfs 0.007 af

Pond 25: SWMB

Peak Elev=355.34' Storage=14,317 cf Inflow=9.20 cfs 0.610 af
Outflow=1.19 cfs 0.588 af

Link 35: Outlet

Inflow=1.19 cfs 0.595 af
Primary=1.19 cfs 0.595 af

Total Runoff Area = 2.390 ac   Runoff Volume = 0.617 af   Average Runoff Depth = 3.10"
100.00% Pervious = 2.390 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 20: DC 1

Runoff   =   9.20 cfs @ 12.04 hrs, Volume=   0.610 af, Depth> 4.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 25-yr Rainfall=6.41"

Area (ac)	CN	Description
* 1.680	82	
1.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 20: DC 1

Hydrograph

CT-Wallingford-2 24-hr S1 25-yr
Rainfall=6.41"
Runoff Area=1.680 ac
Runoff Volume=0.610 af
Runoff Depth>4.36"
Tc=6.0 min
CN=82

9.20 cfs
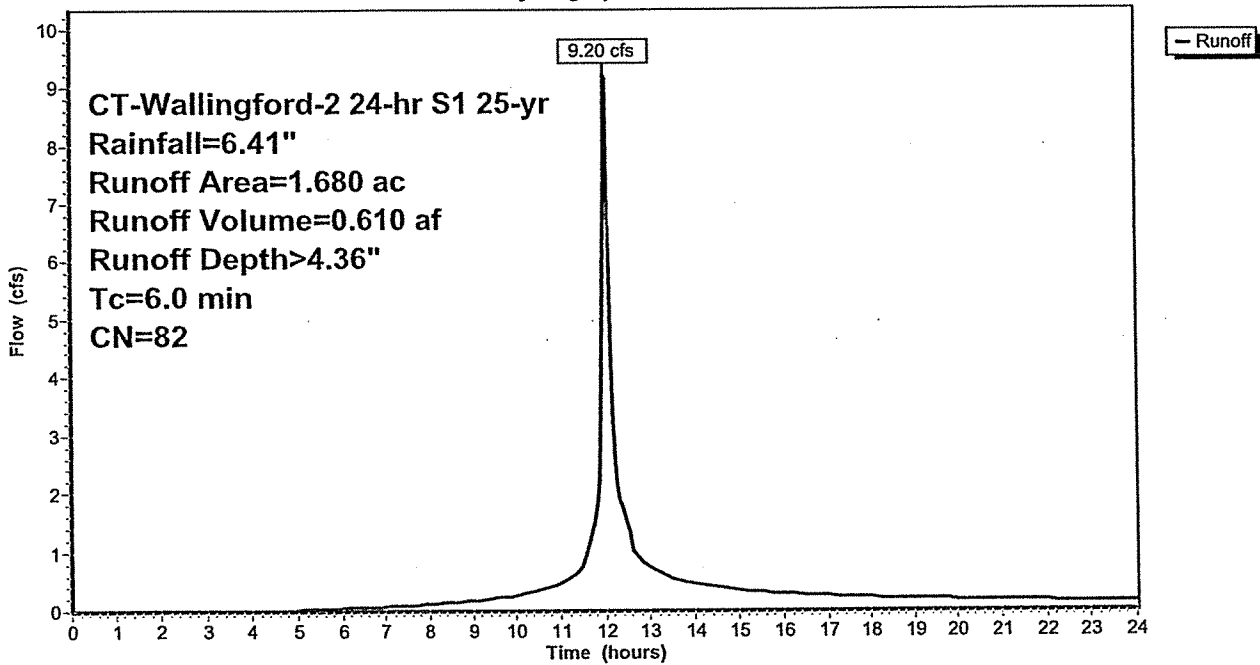
Summary for Subcatchment 30: DC 2

Runoff   =   0.01 cfs @   20.10 hrs, Volume=   0.007 af, Depth> 0.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 25-yr Rainfall=6.41"

Area (ac)	CN	Description
* 0.710	30	
0.710		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					**Direct Entry,**

Subcatchment 30: DC 2

Hydrograph
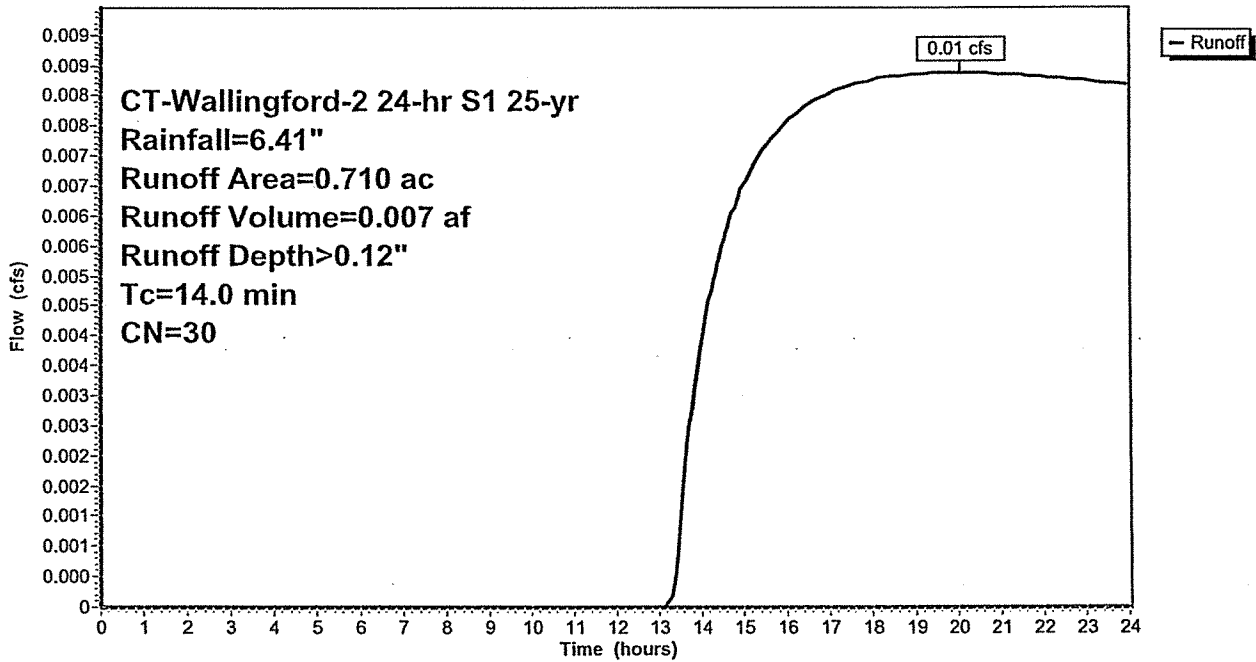
Summary for Pond 25: SWMB

Inflow Area =		1.680 ac,	0.00% Impervious, Inflow Depth > 4.36" for 25-yr event	
Inflow	=	9.20 cfs @	12.04 hrs, Volume=	0.610 af
Outflow	=	1.19 cfs @	12.59 hrs, Volume=	0.588 af, Atten= 87%, Lag= 33.2 min
Primary	=	1.19 cfs @	12.59 hrs, Volume=	0.588 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Starting Elev= 353.50' Surf.Area= 4,029 sf Storage= 4,938 cf
Peak Elev= 355.34' @ 12.59 hrs Surf.Area= 6,549 sf Storage= 14,317 cf (9,379 cf above start)

Plug-Flow detention time= 232.3 min calculated for 0.475 af (78% of inflow)
Center-of-Mass det. time= 79.4 min (901.3 - 821.9)

Volume	Invert	Avail.Storage	Storage Description
#1	352.00'	35,088 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
352.00	2,588	0	0
352.50	3,043	1,408	1,408
353.00	3,524	1,642	3,050
353.50	4,029	1,888	4,938
354.00	4,560	2,147	7,085
354.50	5,116	2,419	9,504
355.00	5,697	2,703	12,207
355.50	6,934	3,158	15,365
356.00	6,304	3,310	18,675
356.50	7,590	3,474	22,148
357.00	8,269	3,965	26,113
357.50	8,975	4,311	30,424
358.00	9,682	4,664	35,088

Device	Routing	Invert	Outlet Devices
#1	Primary	353.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.19 cfs @ 12.59 hrs HW=355.34' (Free Discharge)
└─1=Orifice/Grate (Orifice Controls 1.19 cfs @ 6.08 fps)

Pond 25: SWMB

Hydrograph

Inflow Area=1.680 ac
Peak Elev=355.34'
Storage=14,317 cf

9.20 cfs

1.19 cfs
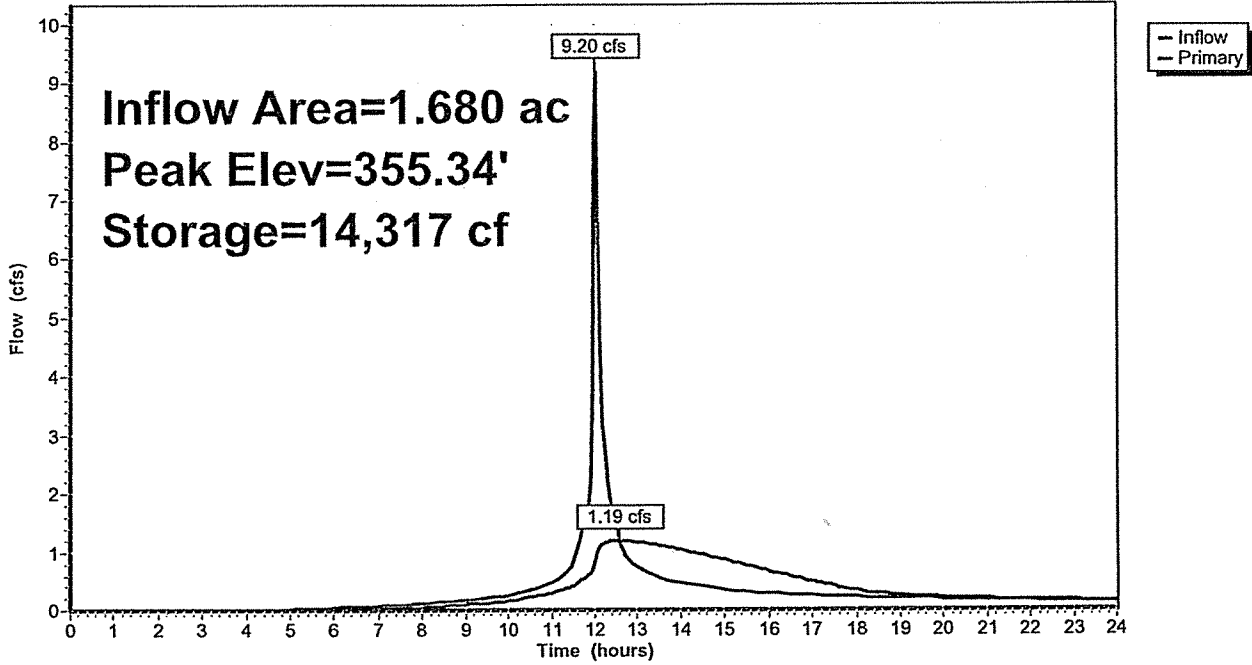
— Inflow
— Primary

Summary for Link 35: Outlet

Inflow Area =   2.390 ac,   0.00% Impervious, Inflow Depth > 2.99"   for 25-yr event
Inflow   =   1.19 cfs @ 12.59 hrs, Volume=   0.595 af
Primary   =   1.19 cfs @ 12.59 hrs, Volume=   0.595 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 35: Outlet

Hydrograph

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment20: DC 1

Runoff Area=1.680 ac 0.00% Impervious Runoff Depth>5.16"
Tc=6.0 min CN=82 Runoff=10.84 cfs 0.723 af

Subcatchment30: DC 2

Runoff Area=0.710 ac 0.00% Impervious Runoff Depth>0.26"
Tc=14.0 min CN=30 Runoff=0.02 cfs 0.015 af

Pond 25: SWMB

Peak Elev=355.63' Storage=16,239 cf Inflow=10.84 cfs 0.723 af
Outflow=1.30 cfs 0.698 af

Link 35: Outlet

Inflow=1.30 cfs 0.714 af
Primary=1.30 cfs 0.714 af

Total Runoff Area = 2.390 ac Runoff Volume = 0.738 af Average Runoff Depth = 3.71"
100.00% Pervious = 2.390 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 20: DC 1

Runoff   =   10.84 cfs @ 12.04 hrs, Volume=   0.723 af, Depth> 5.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 50-yr Rainfall=7.27"

Area (ac)	CN	Description
* 1.680	82	
1.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 20: DC 1

Hydrograph

CT-Wallingford-2 24-hr S1 50-yr
Rainfall=7.27"
Runoff Area=1.680 ac
Runoff Volume=0.723 af
Runoff Depth>5.16"
Tc=6.0 min
CN=82

10.84 cfs
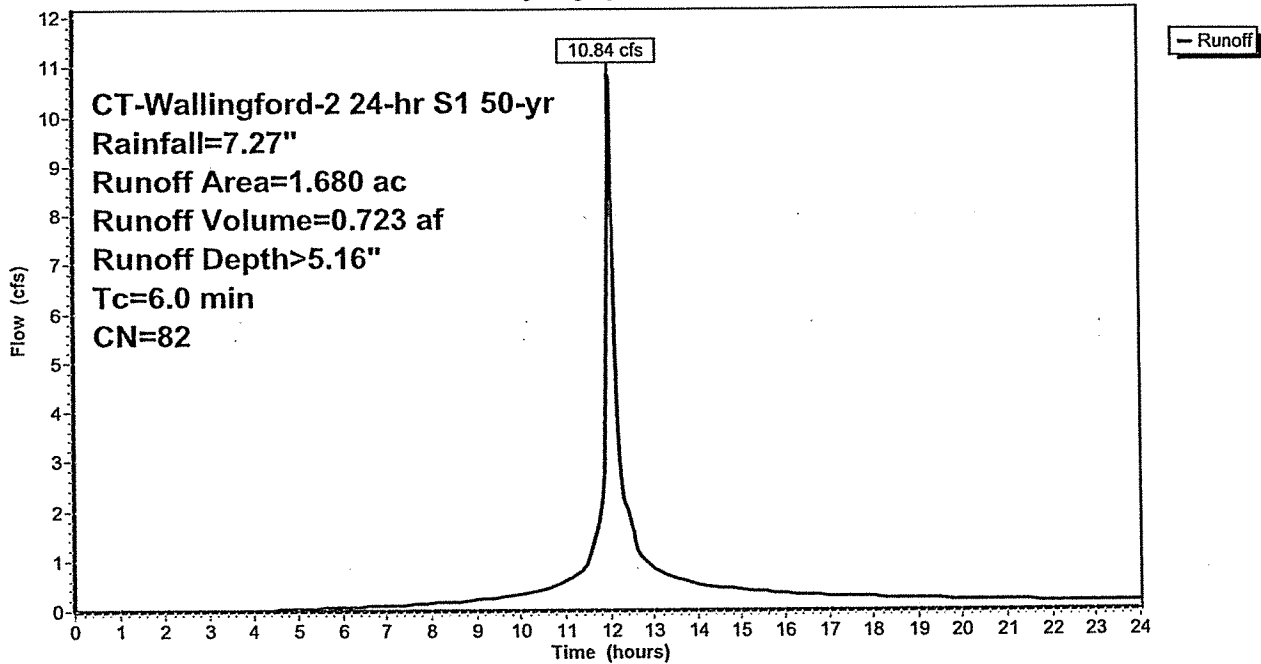
Summary for Subcatchment 30: DC 2

Runoff = 0.02 cfs @ 14.24 hrs, Volume= 0.015 af, Depth> 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 50-yr Rainfall=7.27"

Area (ac)	CN	Description
* 0.710	30	
0.710		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					Direct Entry,

Subcatchment 30: DC 2

Hydrograph

CT-Wallingford-2 24-hr S1 50-yr
Rainfall=7.27"
Runoff Area=0.710 ac
Runoff Volume=0.015 af
Runoff Depth>0.26"
Tc=14.0 min
CN=30
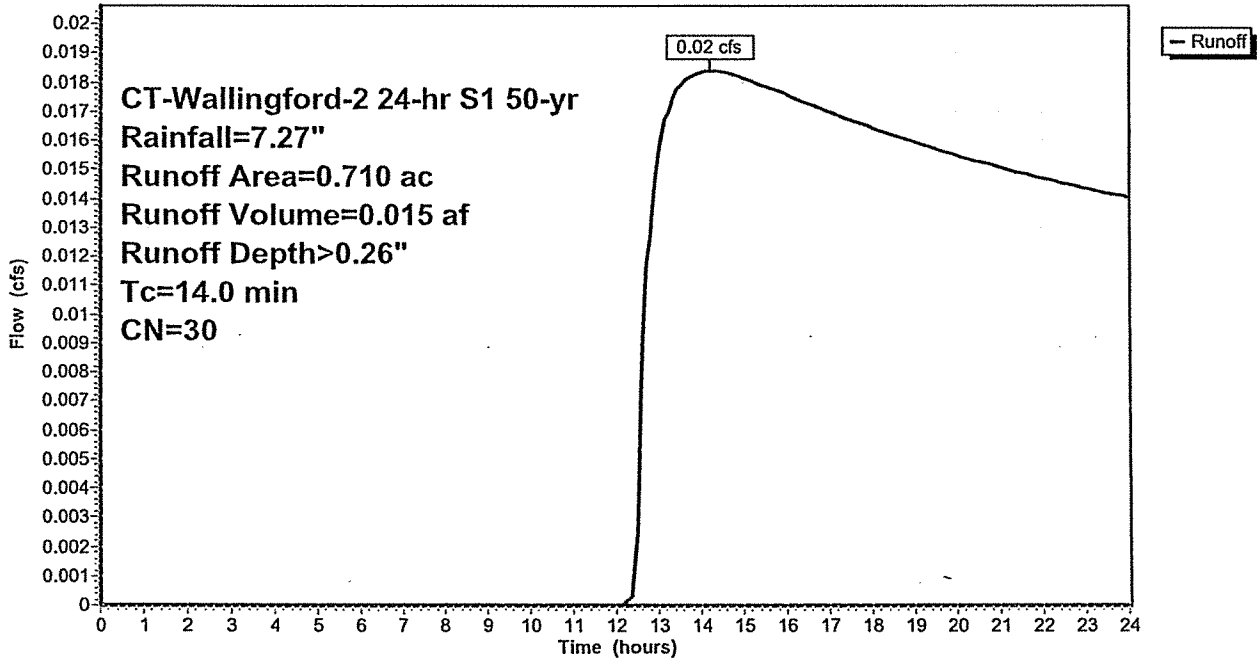
Summary for Pond 25: SWMB

Inflow Area =		1.680 ac,	0.00% Impervious,	Inflow Depth >	5.16"	for 50-yr event
Inflow	=	10.84 cfs @	12.04 hrs,	Volume=	0.723 af	
Outflow	=	1.30 cfs @	12.62 hrs,	Volume=	0.698 af,	Atten= 88%, Lag= 34.6 min
Primary	=	1.30 cfs @	12.62 hrs,	Volume=	0.698 af	

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Starting Elev= 353.50' Surf.Area= 4,029 sf Storage= 4,938 cf
Peak Elev= 355.63' @ 12.62 hrs Surf.Area= 6,773 sf Storage= 16,239 cf   (11,301 cf above start)

Plug-Flow detention time= 225.4 min calculated for 0.585 af (81% of inflow)
Center-of-Mass det. time= 86.6 min (902.3 - 815.7)

Volume	Invert	Avail.Storage	Storage Description
#1	352.00'	35,088 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
352.00	2,588	0	0
352.50	3,043	1,408	1,408
353.00	3,524	1,642	3,050
353.50	4,029	1,888	4,938
354.00	4,560	2,147	7,085
354.50	5,116	2,419	9,504
355.00	5,697	2,703	12,207
355.50	6,934	3,158	15,365
356.00	6,304	3,310	18,675
356.50	7,590	3,474	22,148
357.00	8,269	3,965	26,113
357.50	8,975	4,311	30,424
358.00	9,682	4,664	35,088

Device	Routing	Invert	Outlet Devices
#1	Primary	353.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.30 cfs @ 12.62 hrs HW=355.63' (Free Discharge)
└─1=Orifice/Grate (Orifice Controls 1.30 cfs @ 6.60 fps)

Pond 25: SWMB

Hydrograph

Inflow Area=1.680 ac
Peak Elev=355.63'
Storage=16,239 cf

10.84 cfs
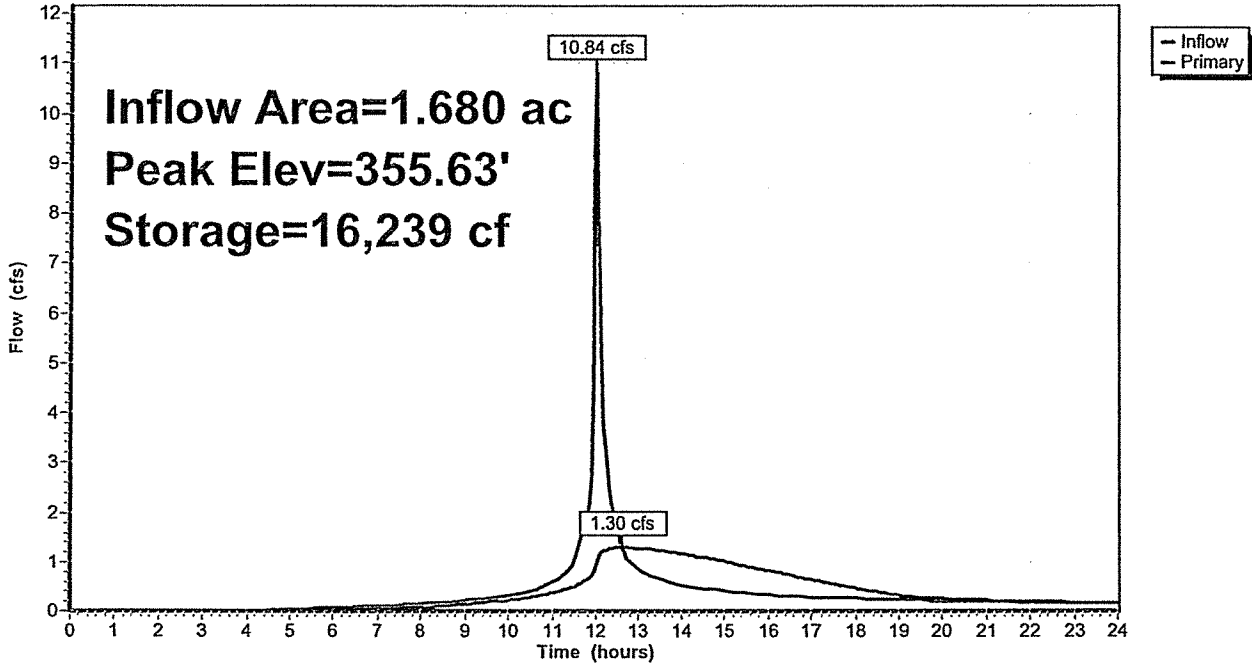
1.30 cfs

Summary for Link 35: Outlet

Inflow Area =   2.390 ac,   0.00% Impervious, Inflow Depth > 3.58"   for 50-yr event
Inflow   =   1.30 cfs @ 12.68 hrs, Volume=   0.714 af
Primary   =   1.30 cfs @ 12.68 hrs, Volume=   0.714 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 35: Outlet

Hydrograph

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment20: DC 1

Runoff Area=1.680 ac 0.00% Impervious Runoff Depth>6.05"
Tc=6.0 min CN=82 Runoff=12.56 cfs 0.847 af

Subcatchment30: DC 2

Runoff Area=0.710 ac 0.00% Impervious Runoff Depth>0.46"
Tc=14.0 min CN=30 Runoff=0.05 cfs 0.027 af

Pond 25: SWMB

Peak Elev=355.95' Storage=18,330 cf Inflow=12.56 cfs 0.847 af
Outflow=1.40 cfs 0.821 af

Link 35: Outlet

Inflow=1.45 cfs 0.848 af
Primary=1.45 cfs 0.848 af

Total Runoff Area = 2.390 ac   Runoff Volume = 0.875 af   Average Runoff Depth = 4.39"
100.00% Pervious = 2.390 ac   0.00% Impervious = 0.000 ac

Summary for Subcatchment 20: DC 1

Runoff   =   12.56 cfs @ 12.04 hrs, Volume=   0.847 af, Depth> 6.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 100-yr Rainfall=8.21"

Area (ac)	CN	Description
* 1.680	82	
1.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 20: DC 1

Hydrograph

CT-Wallingford-2 24-hr S1 100-yr
Rainfall=8.21"
Runoff Area=1.680 ac
Runoff Volume=0.847 af
Runoff Depth>6.05"
Tc=6.0 min
CN=82

12.56 cfs
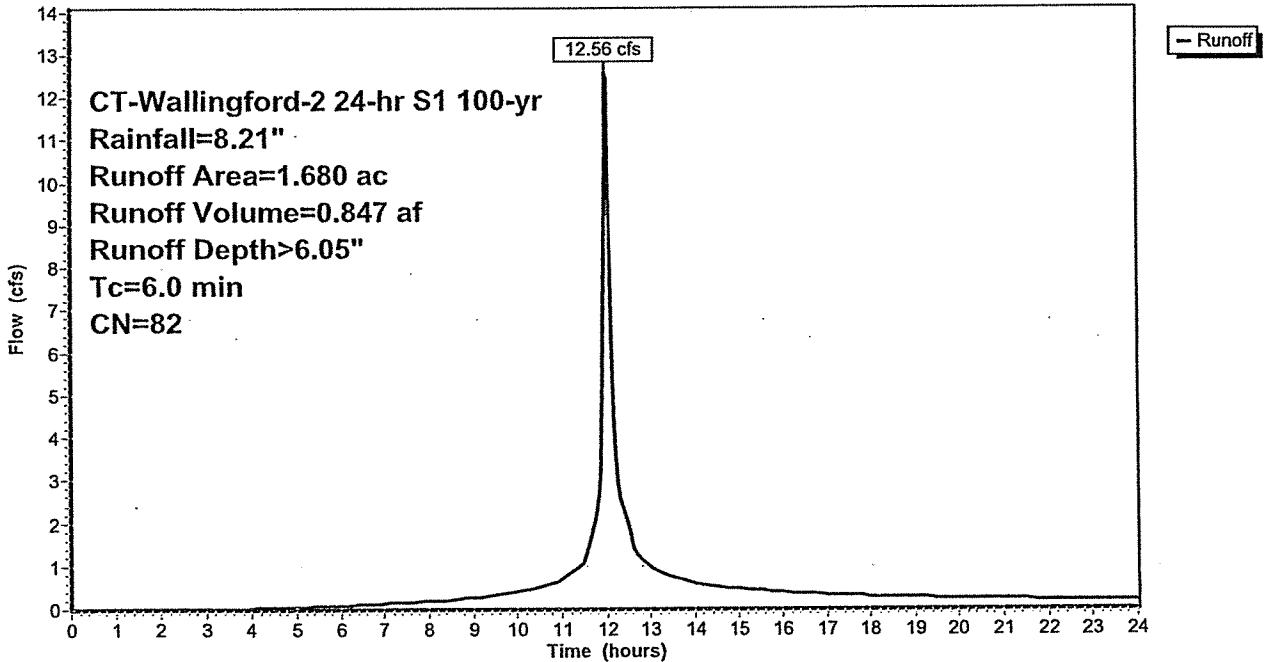
Summary for Subcatchment 30: DC 2

Runoff   =   0.05 cfs @ 12.60 hrs, Volume=   0.027 af, Depth> 0.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
CT-Wallingford-2 24-hr S1 100-yr Rainfall=8.21"

Area (ac)	CN	Description
* 0.710	30	
0.710		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0					**Direct Entry,**

Subcatchment 30: DC 2

Hydrograph
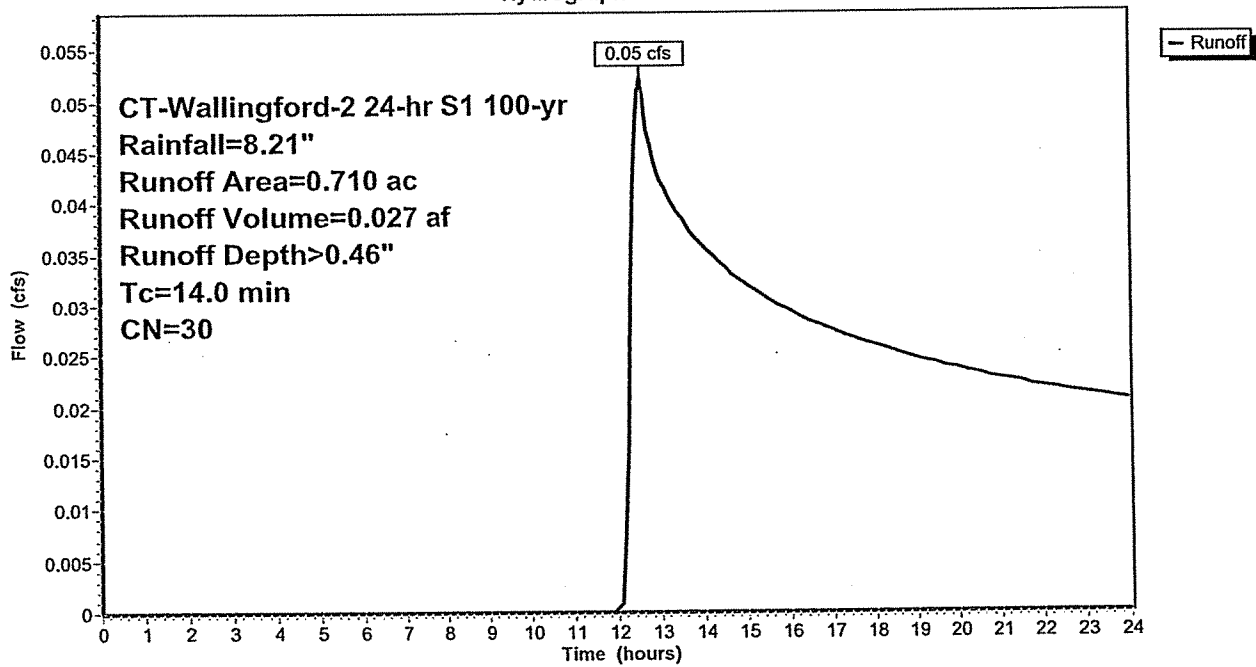
Summary for Pond 25: SWMB

Inflow Area =		1.680 ac,	0.00% Impervious,	Inflow Depth > 6.05"	for 100-yr event
Inflow	=	12.56 cfs @	12.04 hrs,	Volume=	0.847 af
Outflow	=	1.40 cfs @	12.64 hrs,	Volume=	0.821 af, Atten= 89%, Lag= 36.3 min
Primary	=	1.40 cfs @	12.64 hrs,	Volume=	0.821 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Starting Elev= 353.50' Surf.Area= 4,029 sf Storage= 4,938 cf
Peak Elev= 355.95' @ 12.64 hrs Surf.Area= 6,373 sf Storage= 18,330 cf (13,392 cf above start)

Plug-Flow detention time= 221.5 min calculated for 0.706 af (83% of inflow)
Center-of-Mass det. time= 94.2 min (904.5 - 810.2)

Volume	Invert	Avail.Storage	Storage Description
#1	352.00'	35,088 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
352.00	2,588	0	0
352.50	3,043	1,408	1,408
353.00	3,524	1,642	3,050
353.50	4,029	1,888	4,938
354.00	4,560	2,147	7,085
354.50	5,116	2,419	9,504
355.00	5,697	2,703	12,207
355.50	6,934	3,158	15,365
356.00	6,304	3,310	18,675
356.50	7,590	3,474	22,148
357.00	8,269	3,965	26,113
357.50	8,975	4,311	30,424
358.00	9,682	4,664	35,088

Device	Routing	Invert	Outlet Devices
#1	Primary	353.50'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.40 cfs @ 12.64 hrs HW=355.95' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 1.40 cfs @ 7.13 fps)

Pond 25: SWMB

Hydrograph

Inflow Area=1.680 ac
Peak Elev=355.95'
Storage=18,330 cf

12.56 cfs

1.40 cfs
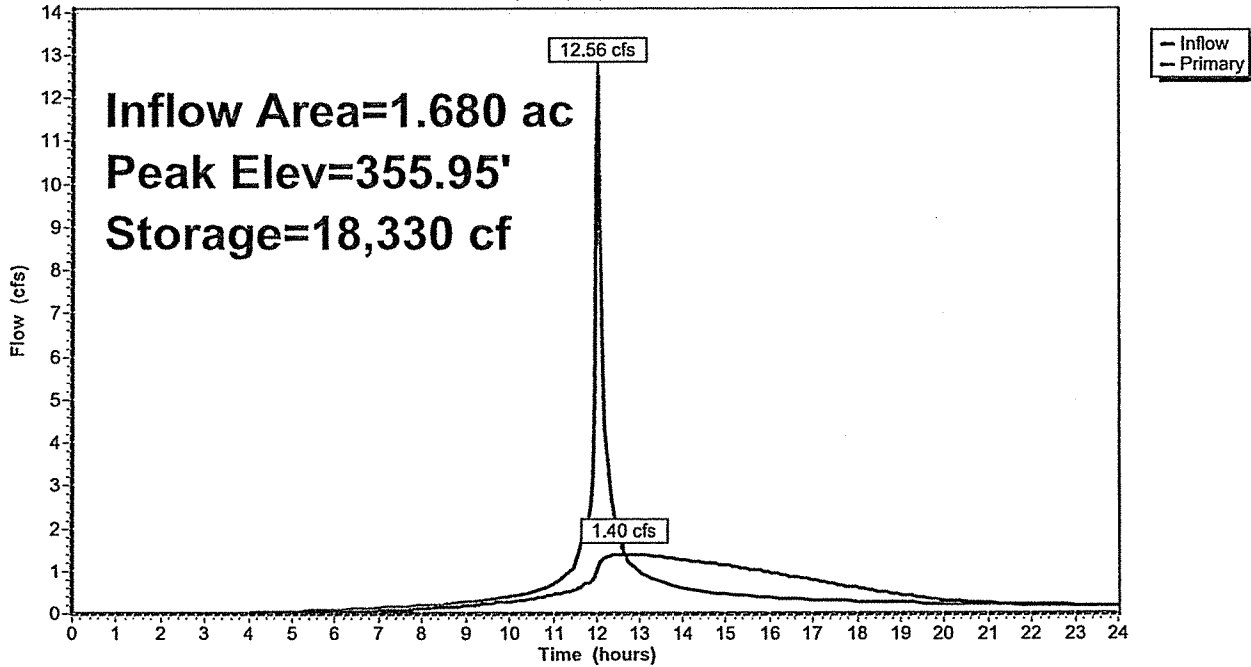
— Inflow
— Primary

Summary for Link 35: Outlet

Inflow Area =   2.390 ac,   0.00% Impervious, Inflow Depth > 4.26"   for 100-yr event
Inflow   =   1.45 cfs @ 12.62 hrs, Volume=   0.848 af
Primary   =   1.45 cfs @ 12.62 hrs, Volume=   0.848 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 35: Outlet

Hydrograph
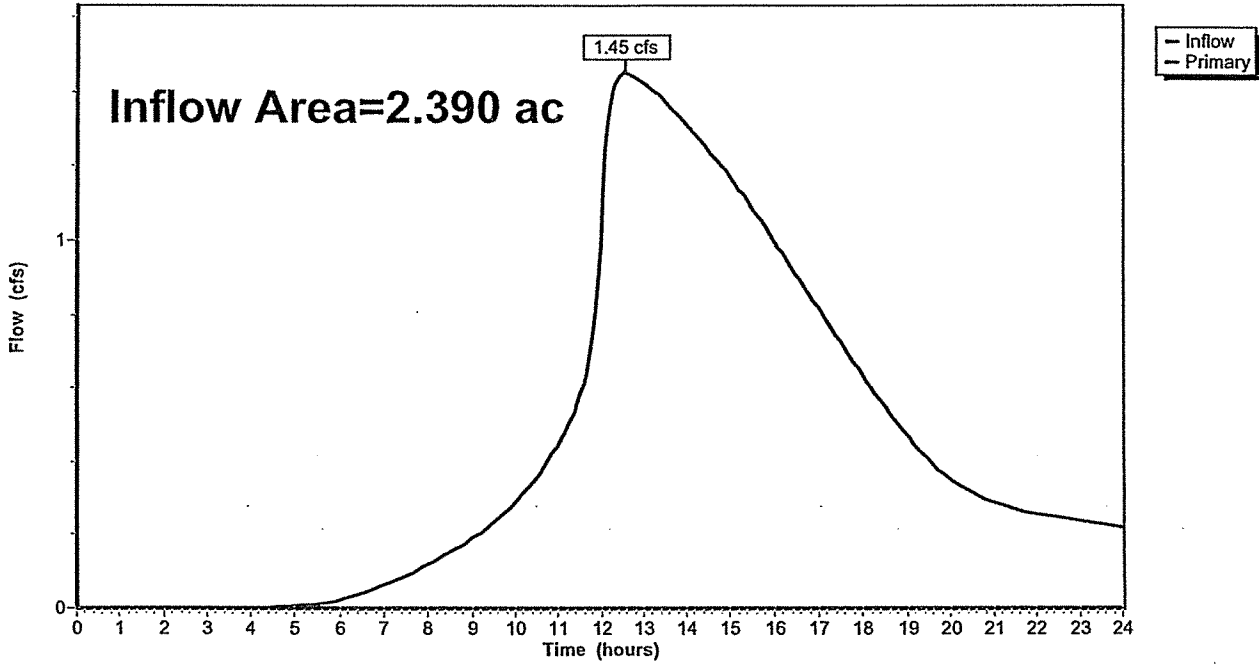
NOAA Atlas 14, Volume 10, Version 3
Location name: Wallingford, Connecticut, USA*
Latitude: 41.483°, Longitude: -72.7644°
Elevation: 357.99 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF tabular | PF graphical | Maps & aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]									
Duration	**Average recurrence interval (years)**								
	1	**2**	**5**	**10**	**25**	**50**	**100**	**200**	**500**	**1000**
5-min	0.336 (0.262-0.418)	0.409 (0.319-0.510)	0.528 (0.410-0.662)	0.628 (0.484-0.790)	0.764 (0.570-1.01)	0.867 (0.635-1.17)	0.974 (0.692-1.36)	1.09 (0.738-1.57)	1.27 (0.821-1.88)	1.41 (0.891-2.14)
10-min	0.476 (0.371-0.593)	0.580 (0.451-0.722)	0.749 (0.581-0.936)	0.889 (0.686-1.12)	1.08 (0.808-1.43)	1.23 (0.898-1.65)	1.38 (0.981-1.93)	1.55 (1.04-2.22)	1.80 (1.16-2.67)	2.00 (1.26-3.03)
15-min	0.560 (0.437-0.697)	0.682 (0.531-0.849)	0.881 (0.683-1.10)	1.05 (0.807-1.32)	1.27 (0.951-1.68)	1.44 (1.06-1.95)	1.62 (1.15-2.27)	1.82 (1.23-2.61)	2.11 (1.37-3.14)	2.35 (1.49-3.56)
30-min	0.771 (0.601-0.960)	0.935 (0.728-1.17)	1.20 (0.933-1.50)	1.43 (1.10-1.79)	1.73 (1.29-2.28)	1.96 (1.43-2.64)	2.20 (1.57-3.08)	2.47 (1.67-3.54)	2.86 (1.86-4.25)	3.18 (2.02-4.83)
60-min	0.983 (0.766-1.22)	1.19 (0.925-1.48)	1.52 (1.18-1.91)	1.80 (1.39-2.27)	2.19 (1.64-2.88)	2.48 (1.81-3.34)	2.78 (1.98-3.89)	3.12 (2.10-4.47)	3.62 (2.34-5.37)	4.02 (2.54-6.10)
2-hr	1.30 (1.02-1.61)	1.56 (1.22-1.93)	1.98 (1.55-2.46)	2.33 (1.81-2.91)	2.81 (2.12-3.69)	3.17 (2.35-4.26)	3.56 (2.56-4.97)	4.01 (2.71-5.70)	4.67 (3.04-6.90)	5.24 (3.32-7.89)
3-hr	1.51 (1.20-1.86)	1.81 (1.43-2.23)	2.29 (1.81-2.84)	2.70 (2.11-3.35)	3.25 (2.46-4.24)	3.66 (2.72-4.89)	4.10 (2.97-5.72)	4.63 (3.14-6.56)	5.42 (3.53-7.97)	6.09 (3.88-9.14)
6-hr	1.92 (1.53-2.34)	2.30 (1.83-2.81)	2.92 (2.32-3.58)	3.43 (2.71-4.24)	4.14 (3.17-5.37)	4.67 (3.49-6.20)	5.23 (3.81-7.26)	5.92 (4.03-8.33)	6.95 (4.55-10.2)	7.84 (5.00-11.7)
12-hr	2.36 (1.90-2.85)	2.85 (2.29-3.45)	3.65 (2.92-4.44)	4.31 (3.43-5.28)	5.22 (4.02-6.73)	5.90 (4.45-7.79)	6.63 (4.86-9.15)	7.52 (5.14-10.5)	8.86 (5.81-12.8)	10.0 (6.40-14.8)
24-hr	2.76 (2.24-3.32)	3.38 (2.74-4.07)	4.40 (3.56-5.32)	5.25 (4.21-6.38)	6.41 (4.98-8.22)	7.27 (5.53-9.56)	8.21 (6.07-11.3)	9.37 (6.43-13.0)	11.2 (7.34-16.1)	12.7 (8.15-18.7)
2-day	3.12 (2.55-3.72)	3.89 (3.18-4.64)	5.15 (4.20-6.17)	6.19 (5.02-7.47)	7.63 (5.99-9.75)	8.68 (6.68-11.4)	9.85 (7.38-13.6)	11.3 (7.83-15.7)	13.7 (9.07-19.7)	15.9 (10.2-23.2)
3-day	3.39 (2.79-4.02)	4.24 (3.49-5.04)	5.63 (4.62-6.72)	6.79 (5.53-8.15)	8.37 (6.60-10.7)	9.53 (7.37-12.5)	10.8 (8.15-14.9)	12.5 (8.64-17.2)	15.2 (10.1-21.7)	17.6 (11.3-25.6)
4-day	3.64 (3.01-4.31)	4.54 (3.75-5.39)	6.02 (4.96-7.17)	7.25 (5.93-8.68)	8.95 (7.08-11.3)	10.2 (7.89-13.3)	11.6 (8.72-15.8)	13.3 (9.24-18.3)	16.2 (10.7-23.0)	18.7 (12.1-27.2)
7-day	4.34 (3.62-5.10)	5.35 (4.45-6.30)	7.00 (5.80-8.28)	8.37 (6.89-9.96)	10.3 (8.15-12.9)	11.6 (9.05-15.0)	13.2 (9.95-17.8)	15.1 (10.5-20.6)	18.2 (12.1-25.7)	20.9 (13.5-30.1)
10-day	5.04 (4.22-5.91)	6.10 (5.11-7.17)	7.85 (6.54-9.25)	9.30 (7.69-11.0)	11.3 (9.00-14.1)	12.8 (9.94-16.4)	14.4 (10.8-19.3)	16.3 (11.4-22.2)	19.4 (13.0-27.4)	22.1 (14.4-31.8)
20-day	7.23 (6.12-8.41)	8.38 (7.08-9.76)	10.2 (8.62-12.0)	11.8 (9.85-13.9)	13.9 (11.2-17.2)	15.5 (12.1-19.6)	17.2 (13.0-22.6)	19.2 (13.5-25.8)	22.0 (14.8-30.7)	24.4 (15.8-34.8)
30-day	9.07 (7.72-10.5)	10.3 (8.71-11.9)	12.2 (10.3-14.2)	13.8 (11.6-16.1)	16.0 (12.9-19.5)	17.7 (13.8-22.1)	19.4 (14.5-25.1)	21.3 (15.0-28.4)	23.8 (16.0-33.1)	25.9 (16.9-36.7)
45-day	11.4 (9.71-13.1)	12.6 (10.7-14.5)	14.6 (12.4-16.9)	16.2 (13.7-18.9)	18.5 (14.9-22.4)	20.3 (15.9-25.1)	22.0 (16.5-28.1)	23.8 (16.9-31.6)	26.1 (17.6-36.0)	27.8 (18.1-39.2)
60-day	13.3 (11.4-15.2)	14.5 (12.4-16.7)	16.6 (14.1-19.1)	18.3 (15.5-21.2)	20.6 (16.7-24.8)	22.4 (17.6-27.6)	24.2 (18.1-30.7)	25.9 (18.4-34.3)	28.0 (18.9-38.5)	29.4 (19.3-41.5)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.
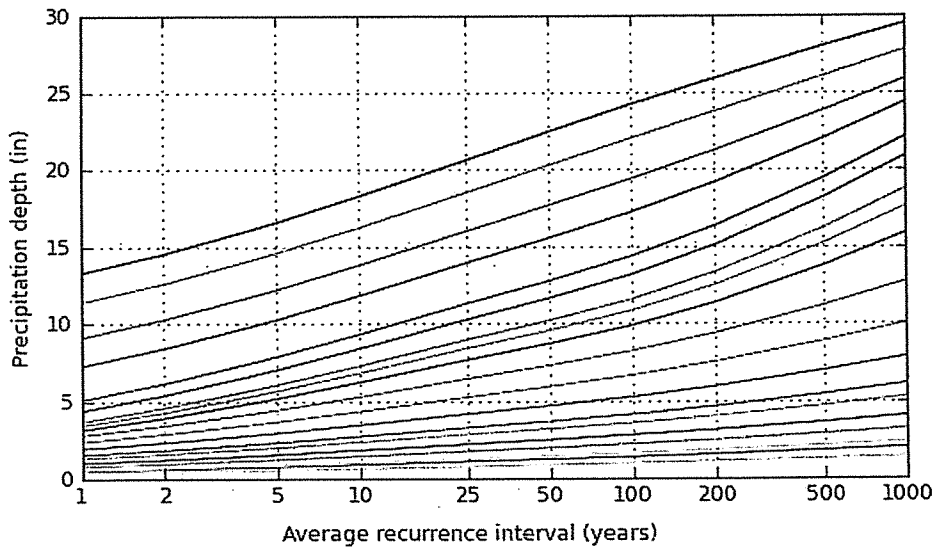Please refer to NOAA Atlas 14 document for more information.

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PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 41.4830°, Longitude: -72.7644°
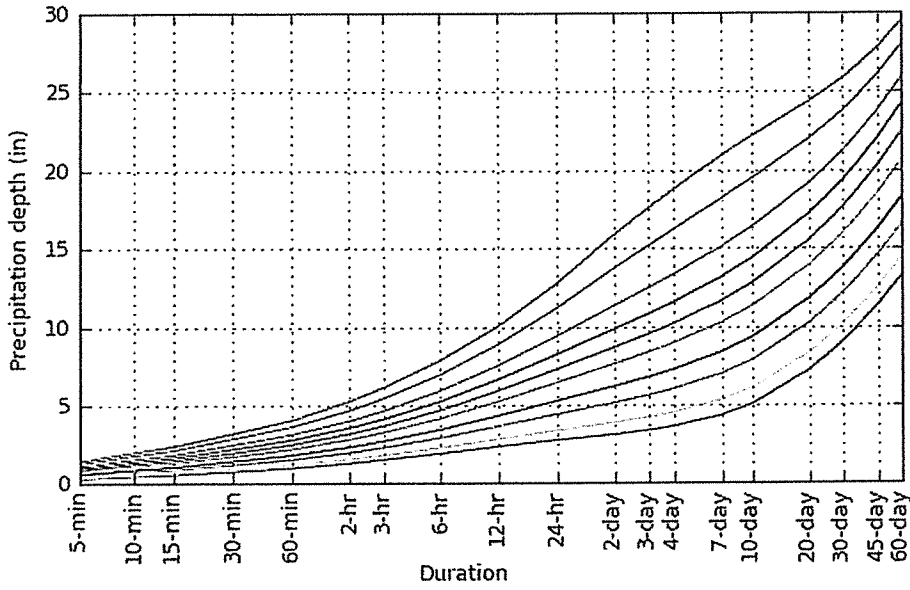
Average recurrence interval (years)

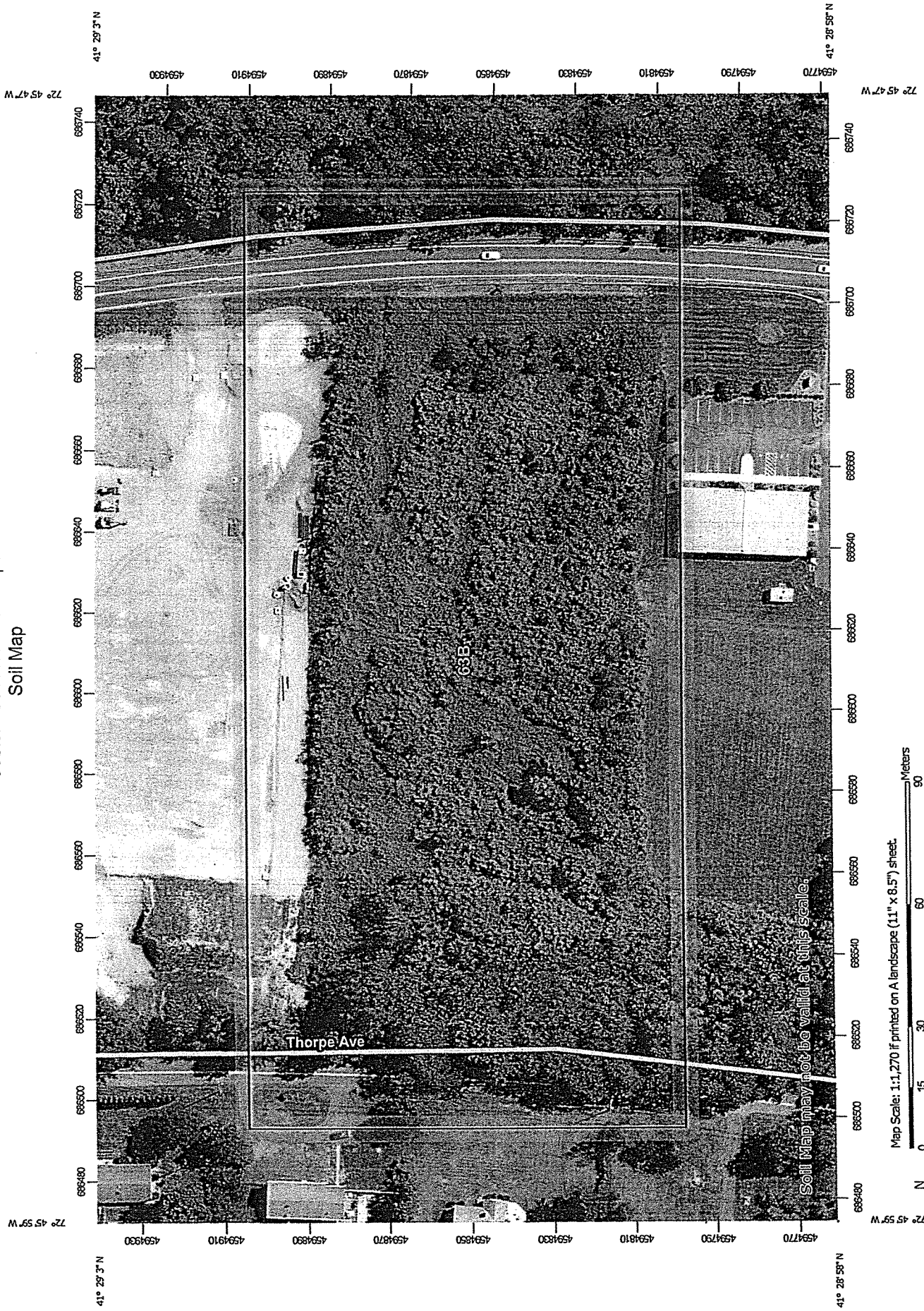|	
—	1
---	2
—	5
—	10
—	25
—	50
—	100
—	200
—	500
—	1000

Duration

---	5-min	—	2-day
—	10-min	—	3-day
----	15-min	—	4-day
—	30-min	—	7-day
—	60-min	—	10-day
—	2-hr	—	20-day
—	3-hr	—	30-day
—	6-hr	—	45-day
—	12-hr	—	60-day
—	24-hr		

NOAA Atlas 14, Volume 10, Version 3

Created (GMT): Sun Apr 25 13:16:56 2021

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Maps & aerials

Small scale terrain

Custom Soil Resource Report
Soil Map

Map Scale: 1:1,270 if printed on A landscape (11" x 8.5") sheet.

Meters
0   15   30   60   90

Feet
0   50   100   200   300

Map projection: Web Mercator   Corner coordinates: WGS84   Edge tics: UTM Zone 18N WGS84

9

MAP LEGEND

Area of Interest (AOI)
☐ Area of Interest (AOI)

Soils
☐ Soil Map Unit Polygons
〰 Soil Map Unit Lines
▣ Soil Map Unit Points

Special Point Features
ʊ Blowout
⊠ Borrow Pit
✕ Clay Spot
○ Closed Depression
✕ Gravel Pit
∴ Gravelly Spot
⊗ Landfill
⋏ Lava Flow
⊣ Marsh or swamp
⊹ Mine or Quarry
◎ Miscellaneous Water
○ Perennial Water
⋗ Rock Outcrop
✛ Saline Spot
∴ Sandy Spot
⫶ Severely Eroded Spot
⟡ Sinkhole
⚲ Slide or Slip
⊘ Sodic Spot

ⅲ Spoil Area
◁ Stony Spot
⊛ Very Stony Spot
⚹ Wet Spot
△ Other
‚‛ Special Line Features

Water Features
Streams and Canals

Transportation
┼┼┼ Rails
⤻ Interstate Highways
⤻ US Routes
⤻ Major Roads
Local Roads

Background
▨ Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 20, Jun 9, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 30, 2019—Oct 15, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
63B	Cheshire fine sandy loam, 3 to 8 percent slopes	6.1	100.0%
Totals for Area of Interest		6.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

State of Connecticut

63B—Cheshire fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9lpw
Elevation: 0 to 1,200 feet
Mean annual precipitation: 43 to 54 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Cheshire and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cheshire

Setting

Landform: Till plains, hills
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-loamy melt-out till derived from basalt and/or sandstone and shale

Typical profile

Ap - 0 to 8 inches: fine sandy loam
Bw1 - 8 to 16 inches: fine sandy loam
Bw2 - 16 to 26 inches: fine sandy loam
C - 26 to 65 inches: gravelly sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F145XY013CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Wilbraham

Percent of map unit: 5 percent
Landform: Depressions, drainageways

Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Yalesville

Percent of map unit: 3 percent
Landform: Hills, ridges
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Watchaug

Percent of map unit: 3 percent
Landform: Hills, till plains
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Wethersfield

Percent of map unit: 3 percent
Landform: Drumlins, hills
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Menlo

Percent of map unit: 2 percent
Landform: Depressions, drainageways
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Unnamed, brown subsoil

Percent of map unit: 2 percent
Hydric soil rating: No

Unnamed, less sloping

Percent of map unit: 2 percent
Hydric soil rating: No

TOWN OF WALLINGFORD   ENGINEERING SECTION
DEPARTMENT OF PUBLIC UTILITIES   RECEIVED   PHONE: 203-949-2672
WATER AND SEWER DIVISIONS   FAX: 203-949-2678

                                         MAY 10 2021

                                      WALLINGFORD   210·21 F
                                   PLANNING & ZONING
                    INTEROFFICE MEMORANDUM

TO: KEVIN PAGINI, TOWN PLANNER
FROM: ERIK KRUEGER, SENIOR ENGINEER – WATER AND SEWER DIVISIONS
SUBJECT: APPLICATION #210-21 SITE PLAN – VEHICLE STORAGE FACILITY
               SIX RESEARCH, LLC
               4A RESEARCH PARKWAY
DATE: MAY 10, 2021

CC: N. AMWAKE, PE; S. SHIPMAN; D. SULLIVAN; J. PAWLOWSK; K·QUARTUCCIO, 6 RESEARCH, LLC; M. OTT, SUMMER HILL CIVIL ENGINEERS & LAND SURVEYORS, P.C.

It is requested that one additional item be made a condition of approval to be addressed prior to issuing a building permit:

- Posting of Water Utility Performance and Maintenance Bonds to cover the installation of the storm water treatment system in accordance with the requirements of the Water Division. The total amount of the bond is estimated to be $10,000 which shall be adjusted based upon the final layout of the storm water treatment system.

O:\Engineering\P&Z Applications\Research Parkway 4A - Site Plan 210-21 - Vehicle Storage - 2.docx

From: Dennis Ceneviva Dennis@cenevivalaw.com
Subject: Fwd: 4A RESEARCH PARKWAY P & Z APPLICATION
Date: May 6, 2021 at 10:14 AM
To: Kacie Hand kacie.costello@wallingfordct.gov

210·21 #6

Dennis A. Ceneviva, Esq.
Ceneviva Law Firm, LLC
721 Broad Street
Meriden, CT 06450
203-237-8808
FAX 203-237-4240

**WIRE FRAUD ALERT- Please contact Debbie Mischler or Attorney Ariana F. Ceneviva for specific
wiring Instructions BEFORE wiring funds. If you ever receive an email appearing to be from our firm
stating that our wire Instructions have changed or requesting a wire transfer, please contact us
Immediately at 203-237-8808 as you may have fallen victim of a scam. Law Firms, Realtors and other
professionals are being targeted by sophisticated hackers in an attempt to steal funds by Initiating
fraudulent wire transfers.**

BEST PRACTICES
CERTIFIED by ALTA.
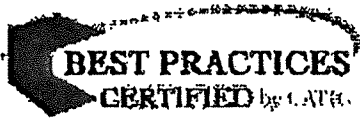
Begin forwarded message:

From: Dennis Ceneviva <dennis@cenevivalaw.com>
Subject: 4A RESEARCH PARKWAY P & Z APPLICATION
Date: May 6, 2021 at 10:13:33 AM EDT
To: kacie.hand@wallingfordct.gov
Cc: Michael Ott <ottm@SUMMERHILLCIVILENGINEERS.COM>, rosalind page <rcpwls@att.net>

Tom-

The IWWC continued my client's application last night until its June, 2021 meeting. Thus, I ask that the P & Z hearing on this application be CONTINUED until the June 14, 2021 meeting.

Thank you.

Dennis
Dennis A. Ceneviva, Esq.
Ceneviva Law Firm, LLC
721 Broad Street
Meriden, CT 06450
203-237-8808
FAX 203-237-4240

WIRE FRAUD ALERT- Please contact Debbie Mischler or Attorney Ariana F. Ceneviva for specific wiring Instructions BEFORE
wiring funds. If you ever receive an email appearing to be from our firm stating that our wire Instructions have changed or
requesting a wire transfer, please contact us immediately at 203-237-8808 as you may have fallen victim of a scam. Law Firms,
Realtors and other professionals are being targeted by sophisticated hackers in an attempt to steal funds by initiating fraudulent
wire transfers.

BEST PRACTICES
CERTIFIED by ALTA.

Town of Wallingford, Connecticut

INLAND WETLANDS & WATERCOURSES COMMISSION

MEMORANDUM

RECEIVED

JUN - 8 2021

**WALLINGFORD
PLANNING & ZONING**

To:	Kevin Pagini, Town Planner
From:	Erin O'Hare, Environmental Planner
Date:	June 8, 2021
Subject:	IWWC

Re: Report to PZC as per CGS Sec. 8-3(g) regarding applications and/or requests:

Site Plan #210-21 Six Research, LLC/ 4A Research Parkway

IWWC #A21-4.2 / 4A Research Parkway – Six Research, LLC – (industrial development - automotive storage)

This memorandum provides the PZC with a report from the IWWC in accordance with CGS Section 8-3(g), as amended, relative to the disposition of certain matters pending before the PZC - subject applications.

At its (Remote) Regular Meeting, June 2, 2021, the IWWC acted to approve IWWC #A21-4.2 / 4A Research Parkway – Six Research, LLC – (industrial development - automotive storage) with certain conditions of approval, as per revised document submittals up to and including those plan revisions and requested new information presented to the IWWC at the Remote Meeting on June 2, 2021.

Conditions of Approval
1. Environmental Planner is contacted in advance to schedule an inspection of the required erosion control installations for installation placement and adequacy prior to commencement of any other work on the site.

2. Silt fencing at site low-point is to be regularly monitored and inspected prior to anticipated storm events and after storm events to insure adequacy.

Regulated Activities
The following regulated activity was approved:
- Under Section 2.1.z. 2. *The creation of any surfaced area (which is any impervious or semi-impervious area) which totals 20,000 square feet as a single or aggregate area on any property, likely to impact or affect wetlands or watercourses;".*

   Proposed creation of approx. 61,000 s.f. of surfaced area on existing undeveloped property.

CC: Dennis Ceneviva, Esq.

1

Town of Wallingford
Department of Engineering
45 South Main Street
Wallingford, Connecticut 06492
Tel: (203) 294-2035; Fax: (203) 284-4012

Alison Kapushinski, P.E.
Town Engineer

MEMO

TO: Planning & Zoning Commission

FROM: Department of Engineering AMK

RE: PZC Application #210-21
             4A Research Parkway/ Site Plan Application

DATE: June 2, 2021

Dear Commissioners:

We are in receipt of the following materials for the referenced application:

- East Side Auto Transport Automotive Storage Facility Permit Drawings by Winterbourne Land Services and Summer Hill Civil Engineers & Land Surveyors, P.C., dated April 2021 and last revised May 24, 2021.
- Stormwater Management Design Report, East Side Auto Transport Automotive Storage Facility, by Summer Hill Civil Engineering & Land Surveyor, P.C., dated April 2021.

We offer the following comments based on the submitted materials:

1) The stormwater report appears to be missing a diagram to show the routing of subcatchment areas and ponds. Please provide.

2) Applicant to provide pipe sizing calculations, including hydraulic grade line elevations, for pipes sized for a minimum 10-year storm.

3) Proposed ground cover to be noted on plans.

4) Proposed slopes from southeast corner of the proposed building appears to be very flat at ±0.35%. To ensure positive drainage and avoid ponding within the parking area, a minimum slope of 1% is suggested.

5) It appears the majority of the proposed parking area is directed to the proposed catch basin and pipe system which is subsequently treated by the proposed oil/grit separator and sand filter. Can the applicant confirm stormwater runoff north of the proposed

building, that does not flow to the proposed catch basins, is treated by existing stormwater quality systems?

6) This Department recommends an emergency spillway set at an elevation above the top of pond elevation for a 100-year storm. This gives an outlet for the stormwater overtopping the basin in a controlled manner with rip-rap to prevent erosion and scour, rather than allowing the excess stormwater to bubble over the entire basin. The top of the basin is typically set at an elevation that allows one-foot of freeboard above the top of pond elevation in a 100-year storm.

Many of these comments are the same as our April 28th review. We would like to request the applicant **provides a memo** outlining how they are addressing these comments with their next submission.

If you have any questions or require any additional information, please let me know.

210-21J

REVISED

APPLICATION: **#210-21**

DATE OF SUBMISSION: April 8, 2021

**DATE OF
RECEIPT:**   April 12, 2021

**SCHEDULED
MEETING:**   May 10, 2021

NAME & APPLICATION OF PROPOSED DEVELOPMENTS: Site Plan (automotive storage facility)/6 Research, LLC/4A Research Parkway

LOCATION: 4A Research Parkway

REFERRED TO:

_**X**_ ELECTRIC   _**X**_ HEALTH   _**X**_ BUILDING
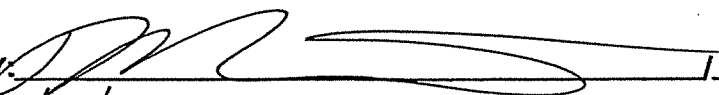
_**X**_ ENGINEERING   _**X**_ INLAND WETLANDS   ____OTHER

_**X**_ FIRE   _**X**_ WATER & SEWER
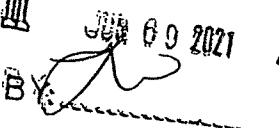
DEPARTMENT COMMENTS: FMO OK WITH SITE

RECEIVED

JUN 11 2021

WALLINGFORD
PLANNING & ZONING

SIGNED BY: _____ / FM
                                                    (Title)
DATE: 6/10/21

RECEIVED
JUN 0 9 2021
BY_____

Town of Wallingford, Connecticut

10

LEGAL NOTICE

The Wallingford Zoning Board of Appeals, at its meeting of May 17, 2021, voted to take the following actions:
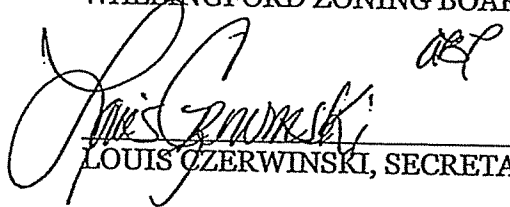
They voted to approve:

1. #21-004 – Variance Requests/Frank/side yard of 11.5 ft. (20 ft. required), front yard of 20.5 ft. (40 ft. required) and building coverage of 16% (max 15% permitted) to construct a 2 story, 2 car attached garage at 3 Beechwood Drive in an R-18 District.

They denied:

1. #21-008 – Variance Request/Torelli/side yard of 5.1 ft. (15 ft. required) to construct an attached 22 ft. x 22 ft. garage at 15 Town Farm Road in an R-15 District.

WALLINGFORD ZONING BOARD OF APPEALS

LOUIS CZERWINSKI, SECRETARY

DATED AT WALLINGFORD
May 18, 2021

POSTING DATE
May 21, 2021

Town of Wallingford, Connecticut   //11

LEGAL NOTICE

The Wallingford Zoning Board of Appeals will hold the following public hearing(s) REMOTELY ONLY at their meeting of Monday June 21, 2021, 7:00 p.m.

The meeting can be accessed through:
> https:/global.gotomeeting.com/join/596643045
> YOU CAN ALSO DIAL IN USING YOUR PHONE:
> United States (Toll Free): +1 (866)-899-4679
> Access Code: 596-643-045

Live Stream of the meeting will also be available on the Town of Wallingford You Tube Channel:
> https://www.youtube.com/c/wallingfordgovernmenttelevision

1. #21-009 – Variance Request/Leahy/front yard of 18 ft. (40 ft. required) to construct an attached 23 ft. x 26 ft. attached garage at 58 Nod Brook Road in an R-18 District.
2. #20-010 – Variance Requests/Choate Rosemary Hall/height of 70 ft. (50 ft. max permitted), up-lighting (no up-lighting permitted), and sign 25 ft. W x 10 ft. H (12 sq. ft. max area permitted) to erect light poles and scoreboard at Athletic Field at 333- 356 Christian Street in an R-18 District.
3. #20-011 – Variance Request/Benson/side yard of 11.2 ft. (12 ft. required) to construct a single story addition at 15 Atkinson Lane in an R-11 District.
4. #20-012 – Variance Requests/Maghery/front yard of 24.5 ft. (40 ft. required) and building coverage of 23% (15% max permitted) to construct a handicap accessible addition at 48 Apple Street in an R-18 District.
5. #21-013 – Variance Request/Booth/front yard of 65.5 ft. (75 ft. required) to construct a detached 23.5 ft. x 35 ft. garage at 2 Bartholomew Lane in an RU-120 District.
6. #21-014 – Variance Requests/Moran/front yard of 28 ft. (40 ft. required) and parking of 30 spaces (36 required) to construct an attached covered patio addition at 321 (325) Church Street in a CA-12 District.

Should you wish to review any of the above-listed application(s), or have any questions regarding these matters, please contact the Wallingford Planning Office at 203-294-2090.

WALLINGFORD ZONING BOARD OF APPEALS

LOUIS CZERWINSKI, SECRETARY

DATED AT WALLINGFORD
June 2, 2021

POSTING DATES
June 8, 2021
June 15, 2021

"Individuals in need of auxiliary aids for effective communication in programs and services of the Town of Wallingford are invited to make their needs and preferences known to the ADA Compliance Coordinator at 203-294-2070 five (5) days prior to meeting date."

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Current Zoning Complaints Closed

12A

Complaint Closed	Complaint ID	Complaint Open	Violation	Street #	Street Name	Owner Last Name	Owner First Name
5/24/2021	2021-009	4/12/2021	Outside Storage	648	South Elm Street	Charneco	Oscar & Lupersina
5/24/2021	2021-010	3/18/2021	Animals	181	Parker Farms Road	Santore	Robert and Errica
5/27/2021	2020-002	1/8/2020	Animal(s)	11	Deer Run Road	Kieslich	Kaitlyn
5/27/2021	2019-038	5/30/2019	Use	991	North Colony Road	Papale	Samuel Jr.
6/3/2021	2018-015	5/7/2018	Signage	156	Center Street	DHI Too	
6/4/2021	2021-002	12/10/2020	Special Permit/Site Plan	14	North Cherry Street	c/o Imagineers, LLC	Crossing Commons of W
6/7/2021	2021-011	4/28/2021	Vehicle Storage	58	South Orchard Street	Sbordone	Brandon

Current Zoning Complaints

12B

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
Accessory Structure					
	1/1/2014	2014-001	14	School House Road	Sagnella
Animal(s)					
Rooster(s)	7/31/2018	2018-032	610R	South Elm Street	Joaquim
Donkey, Mini Horse	5/1/2017	2017-020	79	Kondracki Lane	Briles
Commercial in Residential					
	1/17/2020	2020-008	5	Audette Drive	Jean Schwindenhammer
Commercial Vehicle					
	4/3/2013	2013-016	5	Stegos Drive	Shuda
Coverage					
outbuildings, Garage	6/14/2019	2019-045	408	North Elm Street	Sousa
Dwelling Unit(s)					
potentially 2 illegal u	3/25/2020	2020-011	7	Wisk Key Wind Road	Francis
3+ dwelling units in	1/7/2020	2020-004	5	Cedar Street	
illegal dwelling in ou	10/8/2019	2019-077	297	Grieb Road	Oldani
illegal 2 family	9/13/2019	2019-073	40	Third Street	Giarratana

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
Dwelling in camper	8/21/2019	2019-060	108	North Whittlesey Avenue	Lariviere
Garage Height, illega	5/29/2019	2019-031	15	Hemingway Drive	Diana
Detached Garage as	5/28/2019	2019-035	310	North Main Street	Corbett & Craig
8-10 rooms rented-	5/1/2019	2019-026	162	Mansion Road	Lebov
2 Units	4/1/2019	2019-019	160	Woodhouse Avenue	McCoy
2 Units	3/18/2019	2019-018	59	Sawmill Drive	
4 Units	11/28/2018	2018-040	91	North Orchard Street	Rocco
3-4 units	3/2/2018	2018-008	184	North Airline Road	Cerrone
3 Units	1/16/2018	2018-001	15	Washington Street	Valentino
	9/14/2017	2017-047	1266	Barnes Road	Joan and Graham Dale, Catherine McDowell
	8/10/2017	2017-044	58	North Branford Road	Ibar
Accessory Apartmen	2/27/2017	2017-011	68	Old Lane	McManus
Accessory Apartmen	3/16/2016	2016-003	283	Highland Avenue	Drucker
Accessory Apartmen	3/7/2016	2016-002	10	Cooke Road	Soderman
Garage	3/4/2016	2016-004	14	Overlook Drive	Berube

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
	6/18/2015	2015-101	1179	Old Colony Road	Smith
4th unit	5/5/2014	2014-023	73	Pent Highway	Venegas
2nd unit	12/1/2013	2013-050	19	South Whittlesey Avenue	Cone
2nd unit	5/20/2013	2013-026	6	Pauline Court	You and Zhen
3rd unit	4/27/2012	2012-012	505	Church Street, Yalesville	Laudano Family LLC
3rd unit	2/7/2012	2012-007	30	Duncan Street	Lewko
3rd unit	2/7/2012	2012-008	104	North Cherry Street	Ostrofsky
3rd unit	2/7/2012	2012-009	19	North Street	Souza
4th unit	2/7/2012	2012-006	85	Christian Street	Bennett
2 units	2/6/2012	2012-005	30-34	Hope Hill Road	Ridley
Accessory Apt	9/24/2009	2009-070	52	Grieb Trail	Citak
	7/18/2008	2008-050	57	Jobs Rd	

Excavation/filling

| | 8/11/2016 | 2016-035 | 980 | New Rock Hill Road | Dubec |

Excavation/Filling, Stockpiling

| Material being brou | 9/26/2019 | 2019-070 | 1173 | South Broad Street | Romar Properties LLC (Robert Cone) |

Floodplain

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
unpermitted filling	5/20/2020	2020-013	950	South Colony Road	
Illegal Rooming/Boarding House					
renting rooms indivi	12/19/2019	2019-089	180	Cook Hill Road	Rivers
illegal subdivision					
	3/26/2003	2003-025	84	Chimney Hill Road	Lippold
Lighting					
	1/25/2019	2019-012	54	Williams Road	Gagliardi
Open Space					
	6/29/2016	2016-023	19	Harvest Lane	Pugliese
	7/13/2015	2015-120	159	Pond Hill Road	
	5/26/2009	2009-029	5	Megan Lane	Yu
Outside Storage					
Camper in front yar	1/22/2020	2020-006	627	North Elm Street	Vumback
	4/8/2019	2019-021	19	Claremont Avenue	Yasensky
Container	3/1/2018	2018-005	11	Backes Court	Girard
signage, Site Plan	6/27/2017	2017-032	283	South Colony Road	Philip Scagnelli (Estate)
Camper/Boat/Com	6/26/2017	2017-030	14	Martin Trail	Scranton

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
Fill, Floodplain	10/31/2016	2006-046b	8-10	Summerwood Drive	Lohmann
	7/1/2012	2012-028	25	Meadow Street	Allen
	7/1/2012	2012-029	37	Meadow Street	McInvale
Boat/Camper/Com	8/17/2009	2009-056	140-144	Dudley Avenue	Thorsen, LLC
	7/3/2009	2008-048	136	Dudley Ave	Nalcerio
, Streamline Encroac	12/12/2006	2008-009	471	South Elm Street	Miller
	9/18/2006	2006-046	1150	Old Colony Road	Lohmann
	7/11/2005	2005-072	84	Grieb Road	Self

Outside Storage, Site Plan/Special

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
unscreened dumpst	7/10/2019	2019-053	99	North Colony Street	Checker's Food Store

Parking

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
	3/17/2015	2015-067	189	South Cherry Street	Torelli

Signage

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
	5/7/2018	2018-011	144	Center Street	Words on Wood
	5/7/2018	2018-013	88	Center Street	Catalyst Studio
	5/7/2018	2018-016	18	Center Street	Center Street Luncheonette
	10/2/2017	2017-050	400	North Colony Street	Wallingford Tire & Auto

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
	6/28/2017	2017-033	424	North Colony Street	Rick's Antiques
Site Plan					
Parking subleased fo	1/20/2020	2021-012	61	Barnes Industrial Park Road, North	
Site Plan/Special Permit					
	3/4/2019	2019-014	30	Barnes Industrial Road South	
Notice Requirement	6/27/2018	2018-028	12-15	Wind Swept Hill Road	Paradise Hills Winery
Also Signage	11/20/2017	2016-008	765	North Colony Road	Rick's on 5
Stockpiling, Illegal re	4/24/2017	2005-026b	400	Washington Street	Taylor
	2/23/2017	2017-012	60	Prince Street	Henry McCully, Director
	4/21/2016	2016-011	250	Main Street	Brother's Pool
	7/13/2011	2011-051	315	North Colony Street	Wallingford Sam's Gulf
	5/4/2011	2011-023	128	East Street	Eagle Realty, LLC
	8/3/2009	2009-054	384	South Colony Street	dba Cheap Auto Rental
	7/27/2009	2009-045	197	Ward Street	Doolittle (CDZ, LLC)
	11/7/2007	2007-090	120	Church Street	Yalesville Properties, LLC
Stockpiling, Illegal re	1/3/2005	2005-026	400	Washington Street	Taylor
Stockpiling					

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
	6/10/2015	2015-108	279	Parker Farms Road	
Subdivision Approval					
	9/27/2009	2009-044	1370	Durham Road	DeBaise Construction Company, Inc.
Use					
Storage	5/29/2019	2019-032	156	Center Street	DHI too (business)
Commercial in Resid	1/11/2017	2017-001	63	Carriage Drive	Summers
Auto Repair	4/25/2016	2016-001	323	North Cherry Street Extension	
Commercial in Resid	10/19/2015	2015-154	6	Blakeslee Road	Smith
	6/4/2014	2014-036	187	Williams Road	Maier
Commercial in Resid	5/19/2014	2014-029	97	Saw Mill Road	Valley Racing Pigeon Club, LLC
Commercial in Resid	4/24/2014	2014-009	27	Bailey Avenue	Bailey Ave Associates
Scrap Yard Expansio	4/15/2013	2013-024	1131	South Broad Street	DFT Inc.
Commercial Vehicle	4/2/2013	2013-013	715	North Farms Road	Binnix and Mappa
motor vehicle	9/15/2012	2012-039	253	South Cherry Street	Acosta
Greenbelt	6/15/2012	2012-051	151	North Plains Industrial Road	151 North Plains Industrial Road, LLC
	9/21/2011	2011-061	130	East Street	Yumbla

Violation	Complaint Date	Complaint ID	Street #	Street Name	Business/Owner Last Name
	4/12/2011	2011-032	940	Church Street	Verner
Signage	2/3/2011	2011-010	391	Main Street	Duszynski
	10/23/2009	2009-080	412	Main Street, Yalesville	Splitting Images
Motor vehicle	9/30/2009	2003-027b	20	North Plains Highway	Stone
	4/11/2001	2013-021	12 & 15	Wind Swept Hill Road	Ruggiero
Use & Excavation/Filling					
filling in wetlands/fi	6/3/2019	2019-036	1245	Old Colony Road	Pytel
Use, Dwelling Unit(s)					
3 residential units wi	9/17/2019	2019-071	340	Quinnipiac Street	Delta Arsenal
Variance, Conditions of Variance					
	2/7/2017	2017-009	369	North Colony Street	North Colony Properties, LLC