May 9, 2019

Boston Conservation Commission
Boston City Hall
1 City Hall Plaza, Rm. 709
Boston, MA 02201

Re: Request for Determination of Applicability
5254 Washington St., West Roxbury, MA (Parcel ID: 2011732000)

Dear Boston Conservation Commission:

Goddard Consulting, LLC is pleased to submit this Request for Determination of Applicability (RDA) on behalf of the applicant the Ganame Realty Trust for the property known as 5254 Washington St. in West Roxbury. This application seeks the confirmation of on-site resource boundaries. As the property, does not contain Bordering Vegetated Wetlands (BVW) an RDA has been determined to be the proper permitting vehicle for confirmation of on-site resource area boundaries. This application is being filed under the Massachusetts Wetlands Protection Act (WPA) and regulations 310 CMR 10.00 et. al.

One original and seven (7) copies of this application packet have been submitted for your review. A list of enclosed documents is as follows:

- RDA Application (WPA form 4A)
- *Wetland Border Report*, Goddard Consulting, LLC, 6/18/18
- *Orthophoto View of Site*, Goddard Consulting, LLC, 6/18/18
- *USGS Site Locus*, Goddard Consulting, LLC, 6/18/18
- *FEMA Flood Insurance Rate Map*, 9/25/09
- *Drainage Diagram for 5254 Washington St*., Webby Engineering, 3/14/19
- *Existing Watershed Plan*, Webby Engineering, 3/14/19

Property Description

5454 Washington St. is a ±1.63 acre parcel developed for commercial use. A commercial building is located along the northwest side of the parcel which has frontage along Washington St. An appurtenant parking area exists behind the building and continues southeast to the approximate mid-point of the property.

The remaining eastern half of the parcel is currently undeveloped. The undeveloped portions of the site are largely forested with a red maple overstory and a dense understory dominant in glossy buckthorn, arrow-wood, high bush blueberry, poison ivy and wetland ferns.

The sole resource on sight consists of portion of an Isolated Vegetated Wetland (IVW) which is located within the undeveloped portions of the site. No hydrologic connections between the IVW and other resource areas were identified on site. Based on the size and topography of this

wetland it has been determined to meet the definition of Isolated Land Subject to Flooding (ILSF) in that it may hold >1/4 acre-foot of water during a 100yr storm event. The floodplain elevation is shown on the accompanying plan set. For a full description of these resources please reference the attached Wetland Border Report.

Function as a Vernal Pool

On April 17, 2019, the site was visited to assess if the IVW functions as a vernal pool. While the wetland was found to hold sufficient water at the time of inspection to serve this function, survey of the site revealed no obligate or facultative indicators that the area functions as a VP. In addition to being heavily laden with trash and debris, the wetland in question is within a heavily developed area – lacking substantial areas of suitable upland habitat, which likely precludes the area from being used by wetland obligate species.

Conclusion

Observations of the site have shown no connections to other resource areas, nor has the site been shown to act as a vernal pool. Lastly, calculations performed by a Registered PE have shown the flood plain elevation to occur at ±99.4ft.

Based on the information presented here, and in the accompanying documents, it is our professional opinion that the boundaries of all resource areas as shown on the submitted plans are accurate We therefore respectfully request that the Commission confirm these boundaries through the issuance of a Determination of Applicability, finding for a Positive 2a.

Please feel free to contact us if you have any questions.

Very truly yours,

Scott Goddard,
Principal & PWS

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

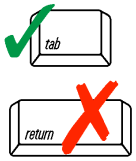
City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:

Marilyn Ganame TTEE, Ganame Realty Trust — Name
mganame@aol.com — E-Mail Address
58 Wedgewood Dr. — Mailing Address
Norwood — City/Town
MA — State
02062 — Zip Code
Phone Number
Fax Number (if applicable)

2. Representative (if any):

Goddard Consulting, LLC — Firm
Scott Goddard — Contact Name
scott@goddardconsultingllc.com — E-Mail Address
291 Main St., STE# 8 — Mailing Address
Northborough — City/Town
MA — State
01532 — Zip Code
(508)393-3784 — Phone Number
Fax Number (if applicable)

B. Determinations

1. I request the Boston (Conservation Commission) make the following determination(s). Check any that apply:

☐ a. whether the **area** depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.

☒ b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.

☐ c. whether the **work** depicted on plan(s) referenced below is subject to the Wetlands Protection Act.

☐ d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any **municipal wetlands ordinance** or **bylaw** of:

Name of Municipality

☐ e. whether the following **scope of alternatives** is adequate for work in the Riverfront Area as depicted on referenced plan(s).

C. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

5254 Washington St.	West Roxbury, MA
Street Address	City/Town
20	11
Assessors Map/Plat Number	Parcel/Lot Number

b. Area Description (use additional paper, if necessary):

The sole on-site resource area consists of Isolated Land Subject to Flooding which existing on the eastern half of the parcel.

c. Plan and/or Map Reference(s):

Title	Date
Title	Date
Title	Date

2. a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):

No work is proposed. This application seeks confirmation of resource boundaries other than Bordering Vegetated Wetland.

C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- ☐ Single family house on a lot recorded on or before 8/1/96
- ☐ Single family house on a lot recorded after 8/1/96
- ☐ Expansion of an existing structure on a lot recorded after 8/1/96
- ☐ Project, other than a single family house or public project, where the applicant owned the lot before 8/7/96
- ☐ New agriculture or aquaculture project
- ☐ Public project where funds were appropriated prior to 8/7/96
- ☐ Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- ☐ Residential subdivision; institutional, industrial, or commercial project
- ☐ Municipal project
- ☐ District, county, state, or federal government project
- ☐ Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Marilyn Ganame TTEE, Ganame Realty Trust
Name

58 Wedgewood Dr.
Mailing Address

Norwood
City/Town

MA
State

02062
Zip Code

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

M. Ganame Trustee
Signature of Applicant

5/8/2019
Date

Signature of Representative (if any)

5/6/19
Date

June 18, 2018

Marilyn Ganame
58 Wedgewood Drive
Norwood, MA 02052

Re: 5254 Washington, St, West Roxbury, MA

Dear Ms. Ganame:

On May 23, 2018 wetland resources were delineated on a portion of land located at the above referenced site. The wetland border was flagged using the criteria in the most recent edition of MA Wetland Protection Act (WPA) and Regulations 310 CMR 10.00 et al. Hydric soil indicators, vegetation changes, hydrological indicators, and topography were all considered for delineation purposes.

A portion of a Vegetated Wetland (closest to the site) was delineated with series GC1-10. This wetland appears to be part of a stormwater detention basin due to the observed, raised stormwater structure located within the eastern section of the wetland.

Looking back at aerial photography this area has been of the similar cover-type (forested with wet substratum) since the 1990s. To determine if this area is jurisdictional an analysis of when the stormwater system was installed needs to be researched. If before 1996 the wetland will not be jurisdictional. If built after other conditions apply.

The wetland is vegetated with red maple, buckthorn, arrow-wood, high bush blueberry, poison ivy and wetland ferns. The adjacent upland is dominant in oak, white pine, Japanese's knotweed and rose. Department of Environmental Protection BVW field data forms were documented at wetland flag # GC-7 (see attached forms).

A small ditch was also observed along the back of the houses associated with Birchwood st. This ditch is not draining a wetland or bordering on another resource area (and is not bordering on the vegetated wetland flagged on site). This ditch is full of Japanese knotweed and no hydric soils were observed within the ditch. No wetland vegetation or hydric soils are located just up-gradient of the ditch. As a result, this ditch is not considered a wetland resource area just a potential hand dug drainage ditch.

According to the Mass GIS data layers for NHESP, this site not is located within Estimated and/or Priority Habitat of Rare Wildlife, and no mapped potential or certified vernal pools are located on site. The site is not located in an ACEC or a jurisdictional FEMA Flood Zone.

Very truly yours,

Scott Goddard,
Principal & PWS

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **Ganame** Prepared by: **Goddard Consulting LLC** Project location: **5254 Washington St, W. Roxbury** DEP File #: _____

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **GC-7** Transect Number: **Upgradient** Date of Delineation: **23-May-18**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
Norway maple	*Acer platanoides*	36%	43.9%	Yes	UPL
Sugar Maple	*Acer saccharum*	36%	43.9%	Yes	FACU
Red maple	*Acer rubrum*	10%	12.2%	No	FAC*
Sapling Layer					
Crab apple	*Pyrus sp.*	20%	100.0%	Yes	UPL
Shrub Layer					
Yard Knotweed	*Polygonum aviculare*	36%	64.3%	Yes	FACU
Rambler rose	*Rosa multiflora*	20%	35.7%	Yes	FACU
Climbing Woody Vine					
American bittersweet	*Celastrus scandens*	20%	100.0%	Yes	FACU
Ground Cover					
Canada mayflower	*Maianthemum canadense*	10%	100.0%	Yes	FACU

Remarks: * An asterisk after common plant name indicates stunted growth; ** indicates extremely stunted growth

Morphological Adaptations: 0 **Description:** _____

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FACW, or OBL.

Vegetation conclusion:

Number of dominant wetland indicator plants: 0 **Number of dominant non-wetland indicator plants: 7**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? no

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Norfolk and Suffolk Counties - 1989**

map number:

soil type mapped: **Charlton hollis rock outcrop**

hydric soil inclusions:

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
A	1-10	10YR3/3	
B	10-20	10YR5/4	

Remarks:

3. Other:

Conclusion: Is soil hydric? ☐ yes ☑ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☐ Depth to free water in observation hole:
- ☐ Depth to soil saturation in observation hole:
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Upgradient of GC-7

	yes	no
Number of wetland indicator plants >= number of non-wetland plants		**X**
Wetland hydrology present:		
hydric soils present		**X**
other indicators of hydrology present		**X**
Sample location is in a BVW		**X**

Submit this form with the Request for Determination of Applicability or Notice of Intent

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **Ganame** Prepared by: **Goddard Consulting LLC** Project location: **5254 Washington St, W. Roxbury** DEP File #: _____

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **GC-7** Transect Number: **Downgradient** Date of Delineation: **23-May-18**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
Red Maple	*Acer rubrum*	36%	50.0%	Yes	FAC*
American elm	*Ulmus americana*	36%	50.0%	Yes	FACW*
Sapling Layer					
Red maple	*Acer rubrum*	10%	100.0%	Yes	FAC*
Shrub Layer					
Highbush blueberry	*Vaccinium corymbosum*	10%	100.0%	Yes	FACW*
Climbing Woody Vine					
Eastern poison ivy	*Toxicodendron radicans*	10%	50.0%	Yes	FAC*
Grape	*Vitis sp.*	10%	50.0%	Yes	UNKNOWN
Ground Cover					
Sweet pepperbush	*Clethra alnifolia*	10%	100.0%	Yes	FAC*

Remarks: * An asterisk after common plant name indicates stunted growth; ** indicates extremely stunted growth

Morphological Adaptations: 0 **Description:** _____

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FACW, or OBL.

Vegetation conclusion:

Number of dominant wetland indicator plants: 6 **Number of dominant non-wetland indicator plants: 1**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Norfolk and Suffolk Counties - 1989**

map number:

soil type mapped: **Whitman**

hydric soil inclusions:

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
O	1-10	10YR2/1	
C	10-20	10YR6/1	

Remarks:

3. Other:

Conclusion: Is soil hydric? ☑ yes ☐ no

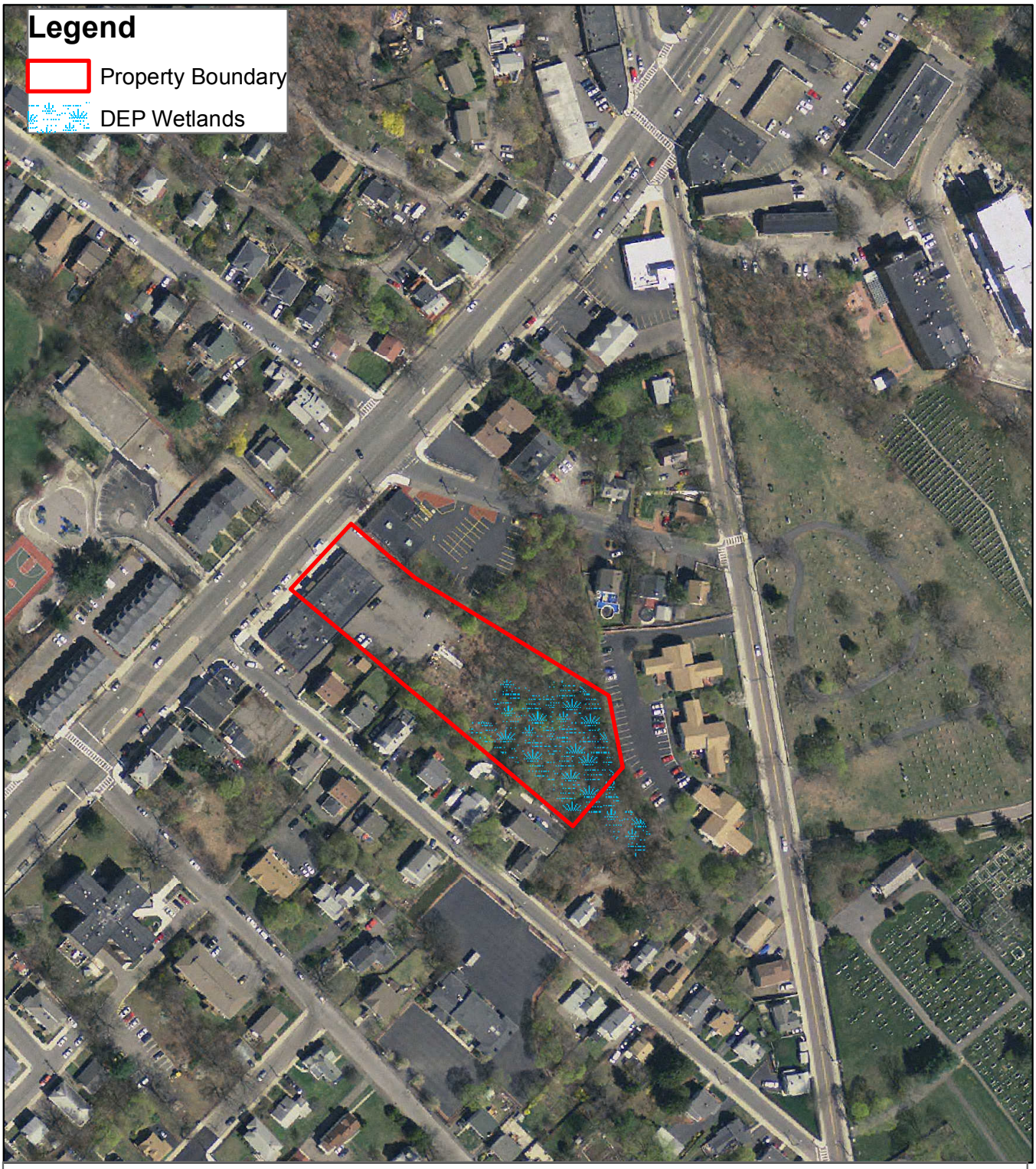
Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☐ Depth to free water in observation hole:
- ☐ Depth to soil saturation in observation hole:
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☑ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☑ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Downgradient of GC-7

	yes	no
Number of wetland indicator plants >= number of non-wetland plants	**X**	
Wetland hydrology present:		
hydric soils present	**X**	
other indicators of hydrology present	**X**	
Sample location is in a BVW	**X**	

Submit this form with the Request for Determination of Applicability or Notice of Intent



Ortho Image of Site

Washington St, West Roxbury MA

N

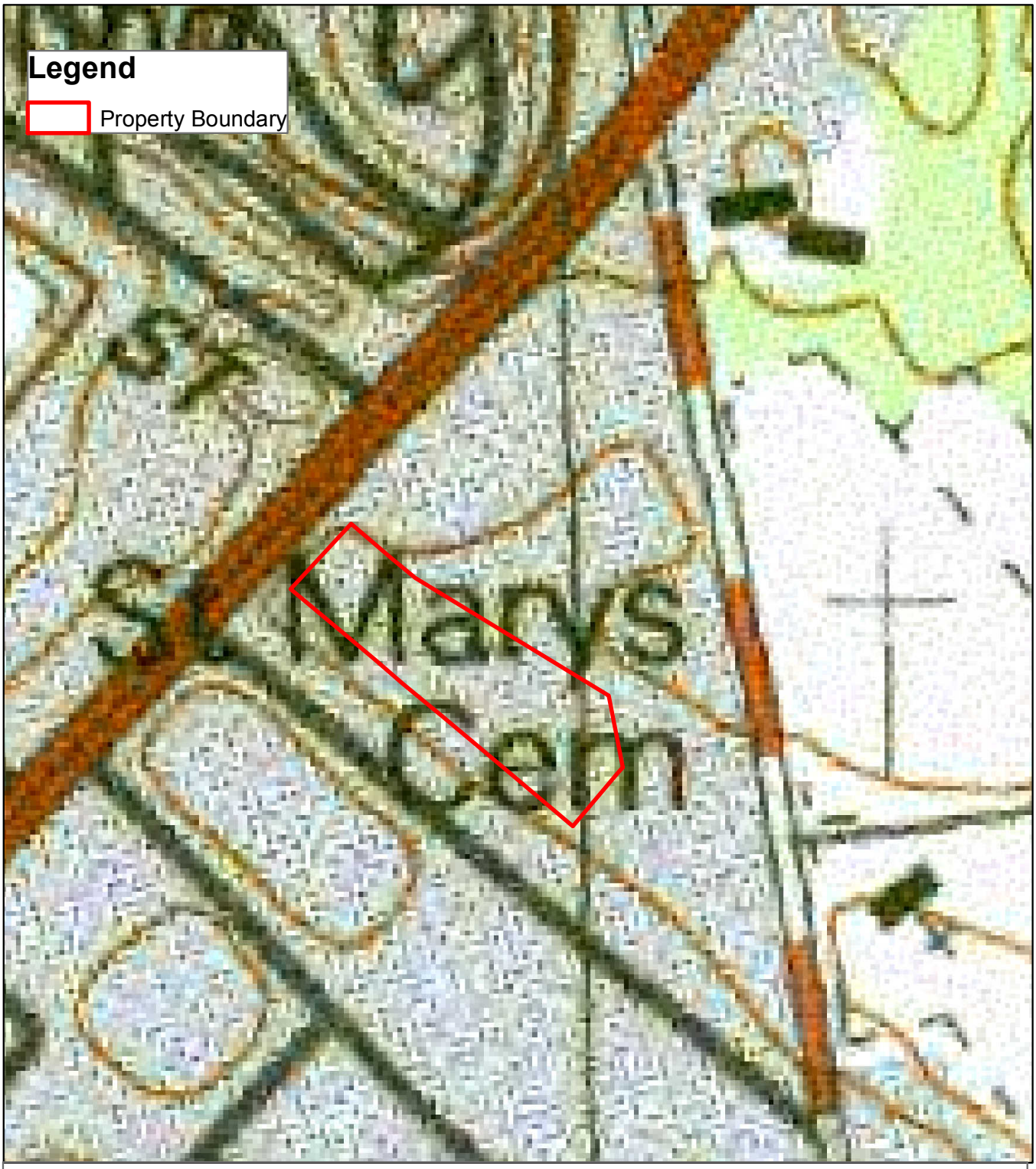
0 50 100 200 Feet

1 inch = 200 feet

Date: 6/18/18

GIS Data Source: "Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, MassIT"

GODDARD CONSULTING LLC
Strategic Wetland Permitting



USGS Site Locus

Washington St, West Roxbury MA

N

0 50 100 200 Feet

1 inch = 200 feet

Date: 6/18/18

GIS Data Source: "Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, MassIT"

GODDARD CONSULTING LLC
Strategic Wetland Permitting

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole- foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Massachusetts State Plane mainland zone (FIPSZONE 2001). The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC- 3, #9202
1315 East- West Highway
Silver Spring, MD 20910- 3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from digital orthophotography. Base map files were provided in digital form by Massachusetts Geographic Information System (MassGIS). Ortho imagery was produced at a scale of 1:5,000. Aerial photography is dated April 2005.

This map reflects more detailed and up- to- date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de- annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1- 800- 358- 9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study report*, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1- 800- 358- 9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1- 877- FEMA MAP** (1- 877- 336- 2627) or visit the FEMA website at http://www.fema.gov/.

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275 000m N — 1000-meter Universal Transverse Mercator grid , zone 19
- 6000000 M — 5000-foot grid : Massachusetts State Plane coordinate system, mainland zone (FIPSZONE 2001), Lambert Conformal Conic
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 25, 2009
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

Approximate Parcel Boundary

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1- 800- 638- 6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0068G

FIRM
FLOOD INSURANCE RATE MAP

SUFFOLK COUNTY, MASSACHUSETTS
(ALL JURISDICTIONS)

PANEL 68 OF 151
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:

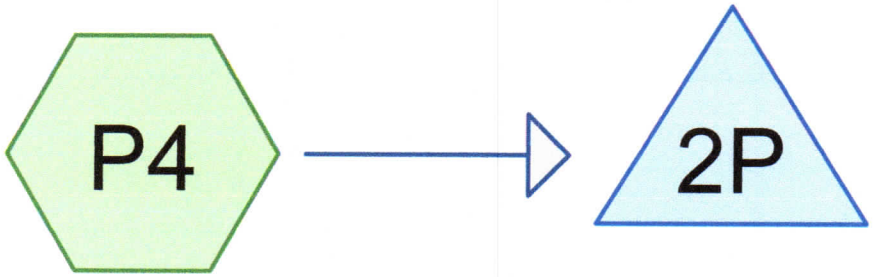
COMMUNITY	NUMBER	PANEL	SUFFIX
BOSTON, CITY OF	250286	0068	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
25025C0068G

EFFECTIVE DATE
SEPTEMBER 25, 2009

Federal Emergency Management Agency



AREA P4 BASIN #2

3/14/2019

COMMONWEALTH OF MASSACHUSETTS
RICHARD
ROBERT
DeBENEDICTIS
No. 28318
REGISTERED
PROFESSIONAL ENGINEER

Subcat Reach Pond Link

Drainage Diagram for 5254 WASHINGTON ST W ROXBURY
Prepared by Webby Engineering Associates, Inc.

Area Listing (all nodes)

Area (acres)	CN	Description (subcats)
2.710	43	Woods/grass comb., Fair, HSG A (P4)
1.094	98	Paved parking & roofs (P4)
3.804		

Time span=0.00-30.00 hrs, dt=0.02 hrs, 1501 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P4: AREA P4 Runoff Area=165,715 sf Runoff Depth=0.45"
Flow Length=227' Tc=0.9 min CN=59 Runoff=1.43 cfs 0.143 af

Pond 2P: BASIN #2 Peak Elev=97.49' Storage=6,226 cf Inflow=1.43 cfs 0.143 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 3.804 ac Runoff Volume = 0.143 af Average Runoff Depth = 0.45"
71.25% Pervious Area = 2.710 ac 28.75% Impervious Area = 1.094 ac

Subcatchment P4: AREA P4

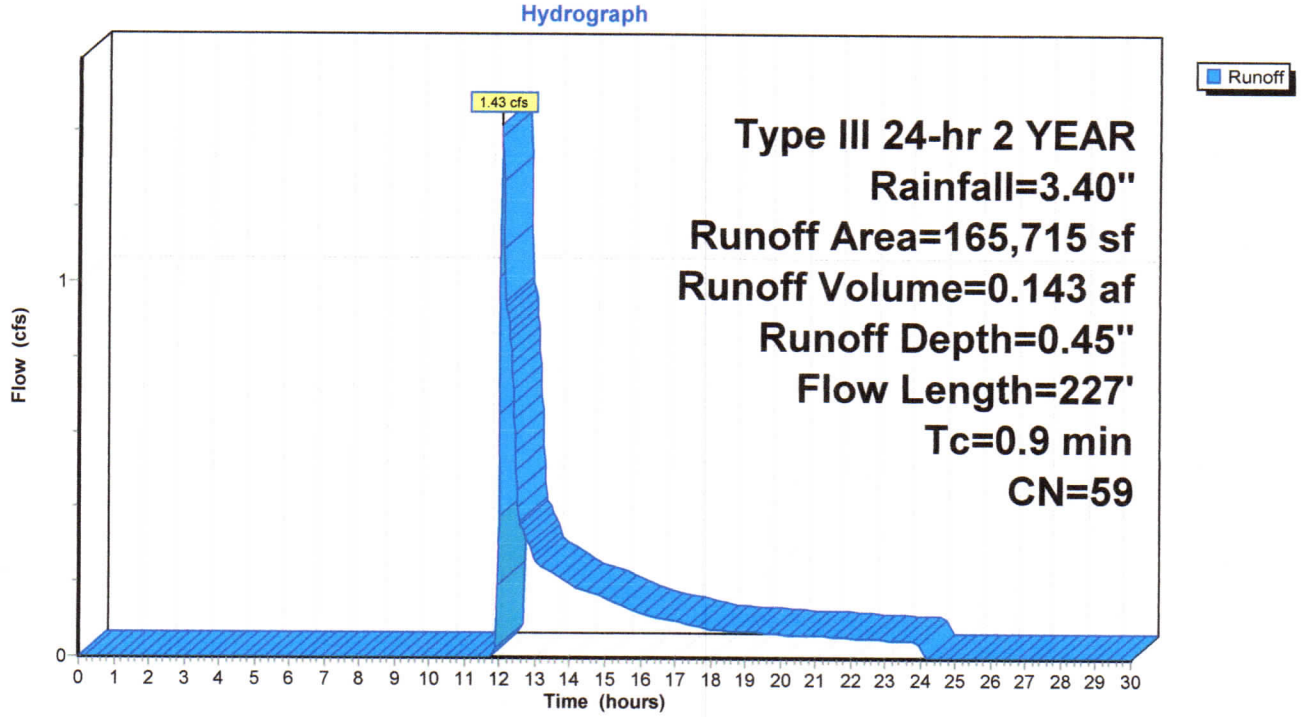
Runoff = 1.43 cfs @ 12.04 hrs, Volume= 0.143 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.02 hrs
Type III 24-hr 2 YEAR Rainfall=3.40"

Area (sf)	CN	Description
47,650	98	Paved parking & roofs
118,065	43	Woods/grass comb., Fair, HSG A
165,715	59	Weighted Average
118,065		Pervious Area
47,650		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	50	0.0700	5.37		**Shallow Concentrated Flow, PAVE** Paved Kv= 20.3 fps
0.5	162	0.0650	5.18		**Shallow Concentrated Flow, PAVE** Paved Kv= 20.3 fps
0.2	15	0.0500	1.12		**Shallow Concentrated Flow, WOODS/GRASS** Woodland Kv= 5.0 fps
0.9	227	Total			

Subcatchment P4: AREA P4



Pond 2P: BASIN #2

Inflow Area = 3.804 ac, Inflow Depth = 0.45" for 2 YEAR event
Inflow = 1.43 cfs @ 12.04 hrs, Volume= 0.143 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Discarded = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.02 hrs / 2
Peak Elev= 97.49' @ 24.06 hrs Surf.Area= 8,237 sf Storage= 6,226 cf

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

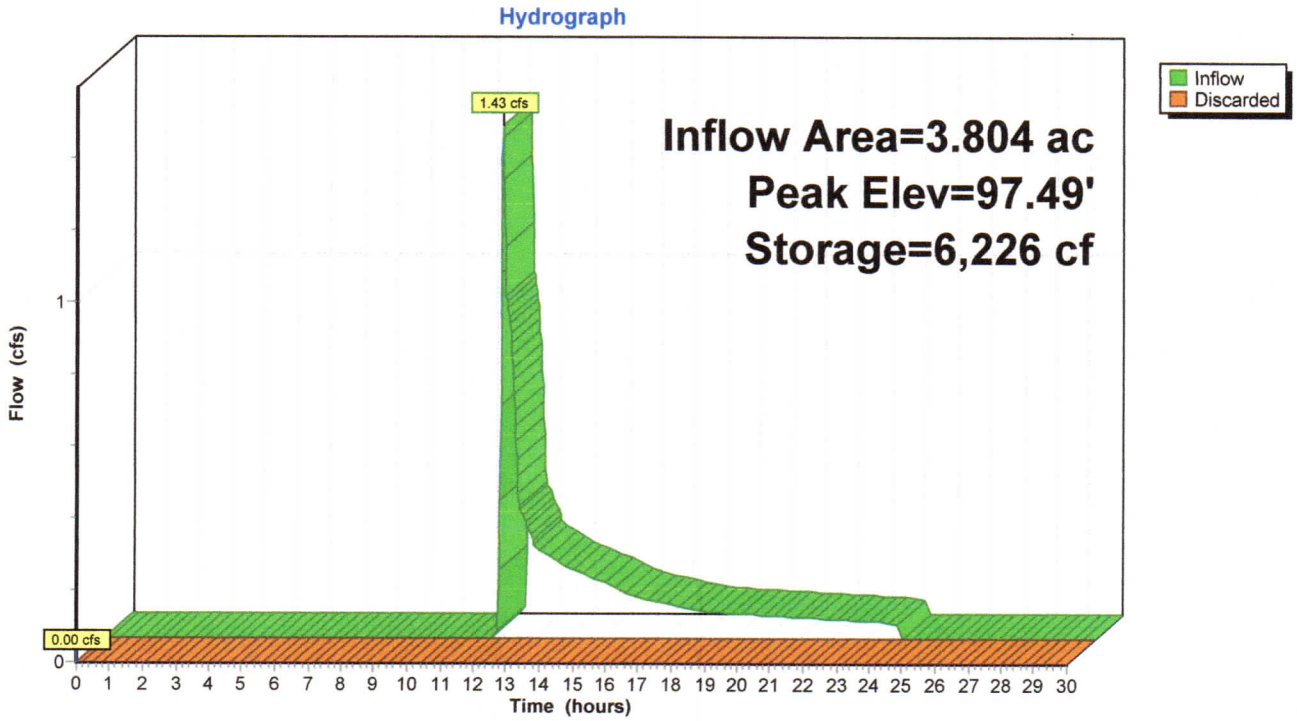
Volume	Invert	Avail.Storage	Storage Description
#1	96.00'	134,840 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
96.00	650	0	0
97.00	5,255	2,953	2,953
98.00	11,400	8,328	11,280
99.00	16,250	13,825	25,105
100.00	30,600	23,425	48,530
102.00	55,710	86,310	134,840

Device	Routing	Invert	Outlet Devices
#1	Discarded	99.00'	**1.020 in/hr Exfiltration over Surface area above invert** Excluded Surface area = 16,250 sf

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=96.00' (Free Discharge)
1=Exfiltration (Controls 0.00 cfs)

Pond 2P: BASIN #2



Time span=0.00-30.00 hrs, dt=0.02 hrs, 1501 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P4: AREA P4 Runoff Area=165,715 sf Runoff Depth=1.12"
Flow Length=227' Tc=0.9 min CN=59 Runoff=5.16 cfs 0.356 af

Pond 2P: BASIN #2 Peak Elev=98.35' Storage=15,502 cf Inflow=5.16 cfs 0.356 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 3.804 ac Runoff Volume = 0.356 af Average Runoff Depth = 1.12"
71.25% Pervious Area = 2.710 ac 28.75% Impervious Area = 1.094 ac

Subcatchment P4: AREA P4

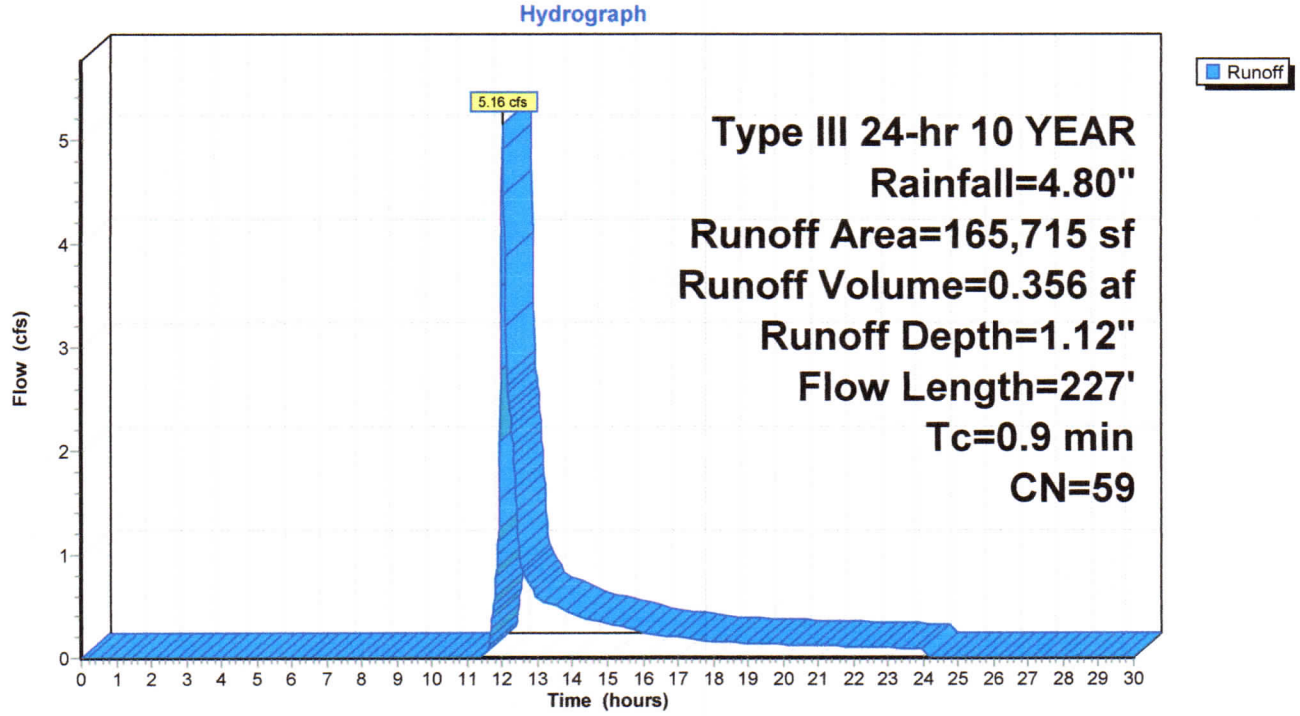
Runoff = 5.16 cfs @ 12.02 hrs, Volume= 0.356 af, Depth= 1.12"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.02 hrs
Type III 24-hr 10 YEAR Rainfall=4.80"

Area (sf)	CN	Description
47,650	98	Paved parking & roofs
118,065	43	Woods/grass comb., Fair, HSG A
165,715	59	Weighted Average
118,065		Pervious Area
47,650		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	50	0.0700	5.37		**Shallow Concentrated Flow, PAVE** Paved Kv= 20.3 fps
0.5	162	0.0650	5.18		**Shallow Concentrated Flow, PAVE** Paved Kv= 20.3 fps
0.2	15	0.0500	1.12		**Shallow Concentrated Flow, WOODS/GRASS** Woodland Kv= 5.0 fps
0.9	227	Total			

Subcatchment P4: AREA P4



Pond 2P: BASIN #2

Inflow Area = 3.804 ac, Inflow Depth = 1.12" for 10 YEAR event
Inflow = 5.16 cfs @ 12.02 hrs, Volume= 0.356 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Discarded = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.02 hrs / 2
Peak Elev= 98.35' @ 24.06 hrs Surf.Area= 13,073 sf Storage= 15,502 cf

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

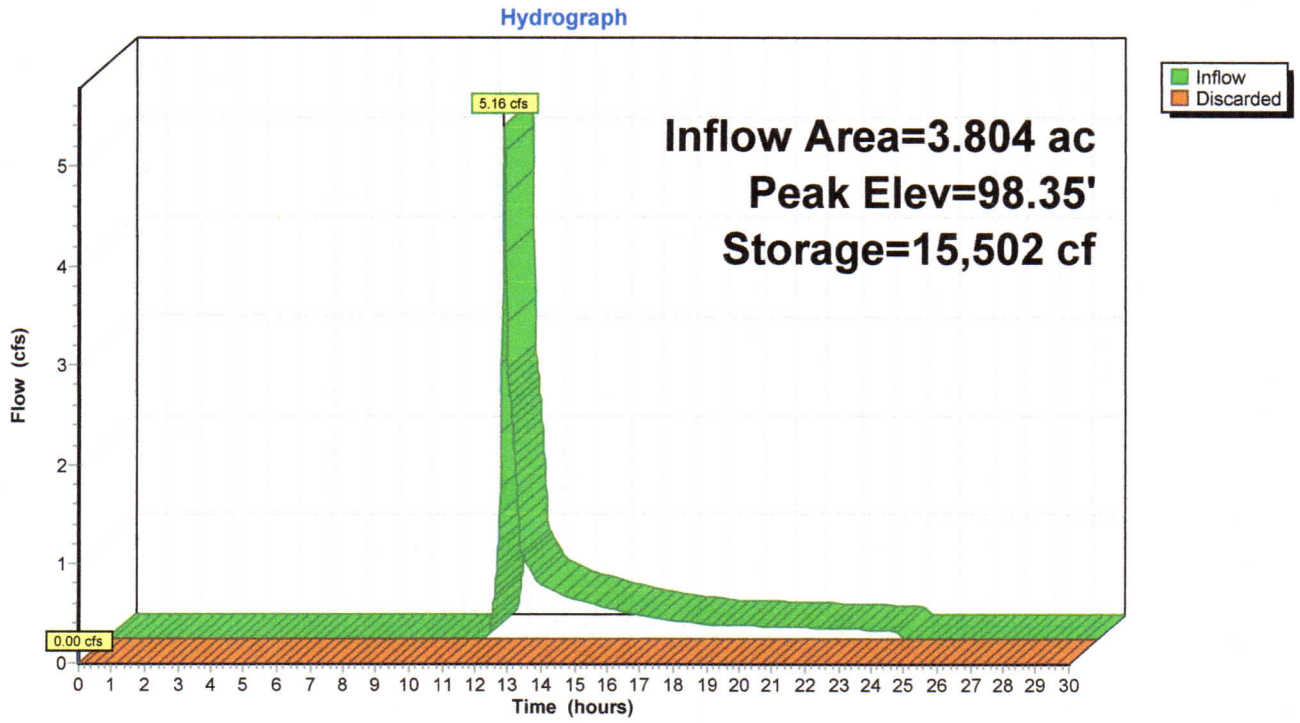
Volume	Invert	Avail.Storage	Storage Description
#1	96.00'	134,840 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
96.00	650	0	0
97.00	5,255	2,953	2,953
98.00	11,400	8,328	11,280
99.00	16,250	13,825	25,105
100.00	30,600	23,425	48,530
102.00	55,710	86,310	134,840

Device	Routing	Invert	Outlet Devices
#1	Discarded	99.00'	**1.020 in/hr Exfiltration over Surface area above invert** Excluded Surface area = 16,250 sf

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=96.00' (Free Discharge)
1=Exfiltration (Controls 0.00 cfs)

Pond 2P: BASIN #2



Time span=0.00-30.00 hrs, dt=0.02 hrs, 1501 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P4: AREA P4 Runoff Area=165,715 sf Runoff Depth=1.59"
Flow Length=227' Tc=0.9 min CN=59 Runoff=7.75 cfs 0.504 af

Pond 2P: BASIN #2 Peak Elev=98.80' Storage=21,933 cf Inflow=7.75 cfs 0.504 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 3.804 ac Runoff Volume = 0.504 af Average Runoff Depth = 1.59"
71.25% Pervious Area = 2.710 ac 28.75% Impervious Area = 1.094 ac

Subcatchment P4: AREA P4

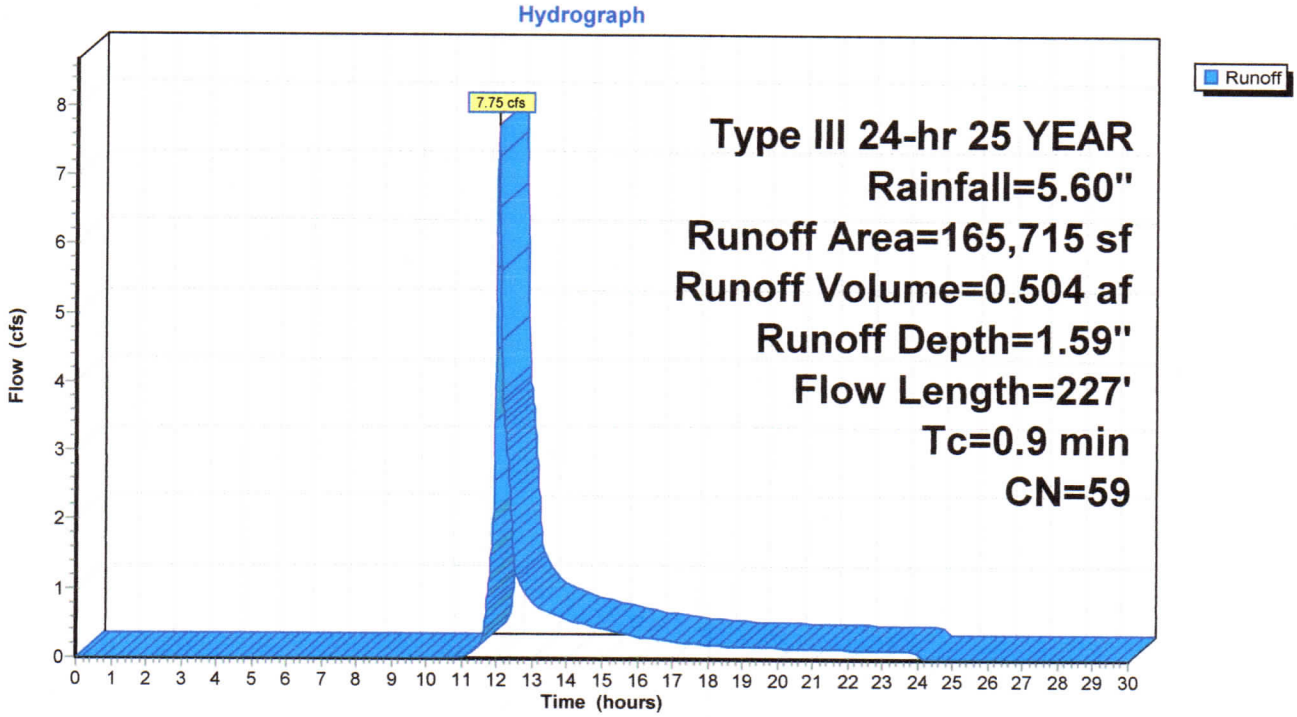
Runoff = 7.75 cfs @ 12.02 hrs, Volume= 0.504 af, Depth= 1.59"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.02 hrs
Type III 24-hr 25 YEAR Rainfall=5.60"

Area (sf)	CN	Description
47,650	98	Paved parking & roofs
118,065	43	Woods/grass comb., Fair, HSG A
165,715	59	Weighted Average
118,065		Pervious Area
47,650		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	50	0.0700	5.37		**Shallow Concentrated Flow, PAVE** Paved Kv= 20.3 fps
0.5	162	0.0650	5.18		**Shallow Concentrated Flow, PAVE** Paved Kv= 20.3 fps
0.2	15	0.0500	1.12		**Shallow Concentrated Flow, WOODS/GRASS** Woodland Kv= 5.0 fps
0.9	227	Total			

Subcatchment P4: AREA P4



Pond 2P: BASIN #2

Inflow Area = 3.804 ac, Inflow Depth = 1.59" for 25 YEAR event
Inflow = 7.75 cfs @ 12.02 hrs, Volume= 0.504 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Discarded = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.02 hrs / 2
Peak Elev= 98.80' @ 24.06 hrs Surf.Area= 15,274 sf Storage= 21,933 cf

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

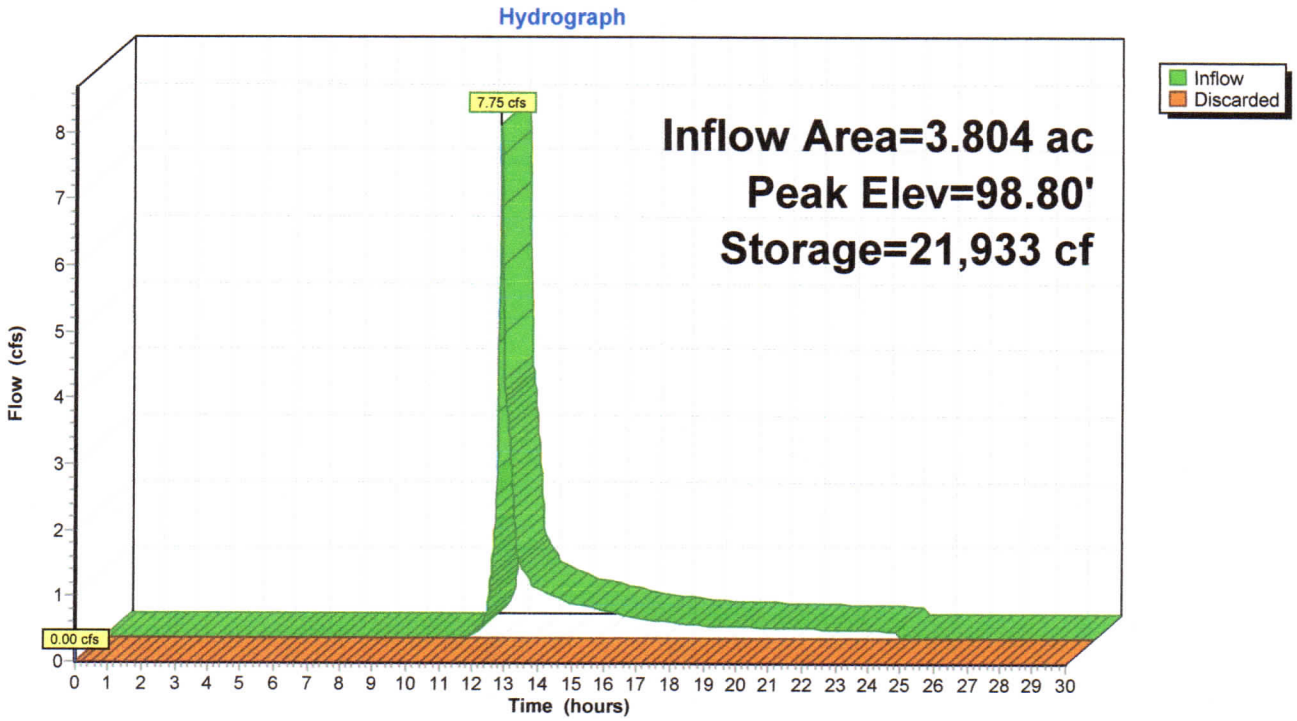
Volume	Invert	Avail.Storage	Storage Description
#1	96.00'	134,840 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
96.00	650	0	0
97.00	5,255	2,953	2,953
98.00	11,400	8,328	11,280
99.00	16,250	13,825	25,105
100.00	30,600	23,425	48,530
102.00	55,710	86,310	134,840

Device	Routing	Invert	Outlet Devices
#1	Discarded	99.00'	**1.020 in/hr Exfiltration over Surface area above invert** Excluded Surface area = 16,250 sf

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=96.00' (Free Discharge)
1=Exfiltration (Controls 0.00 cfs)

Pond 2P: BASIN #2



Time span=0.00-30.00 hrs, dt=0.02 hrs, 1501 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P4: AREA P4 Runoff Area=165,715 sf Runoff Depth=2.51"
Flow Length=227' Tc=0.9 min CN=59 Runoff=12.83 cfs 0.794 af

Pond 2P: BASIN #2 Peak Elev=99.36' Storage=31,797 cf Inflow=12.83 cfs 0.794 af
Outflow=0.12 cfs 0.115 af

Total Runoff Area = 3.804 ac Runoff Volume = 0.794 af Average Runoff Depth = 2.51"
71.25% Pervious Area = 2.710 ac 28.75% Impervious Area = 1.094 ac

Subcatchment P4: AREA P4

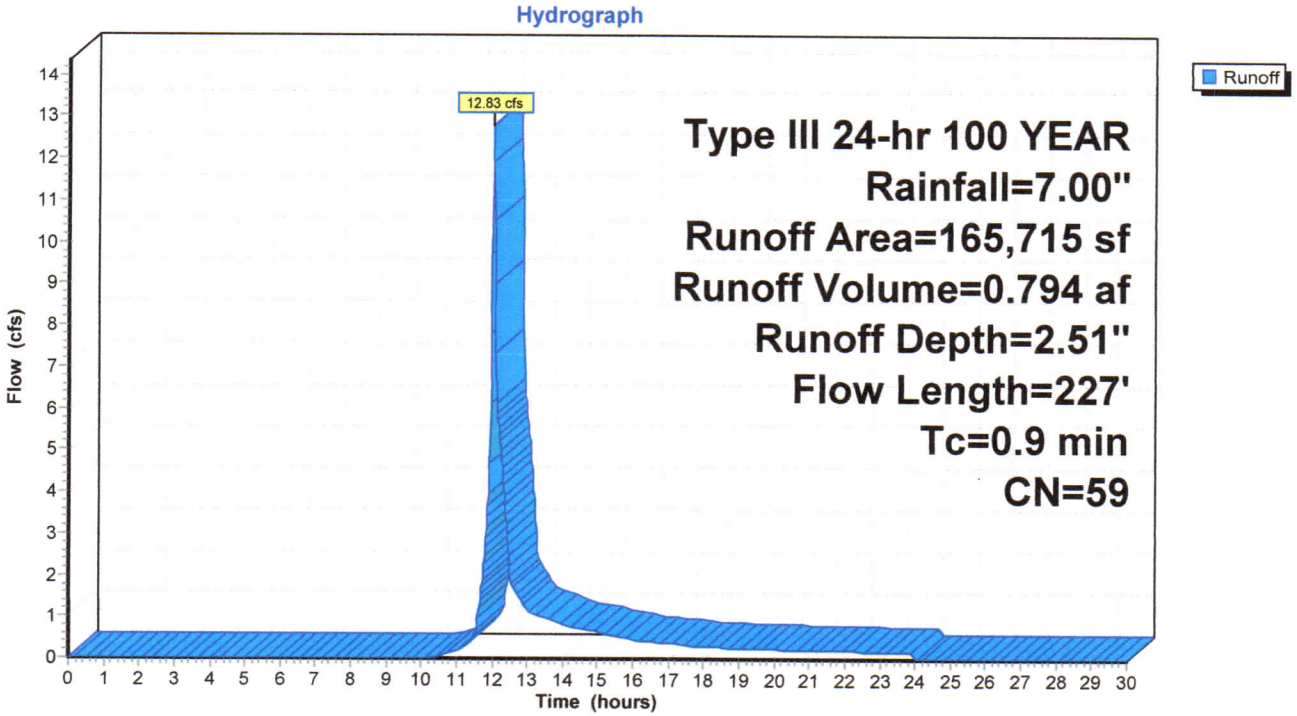
Runoff = 12.83 cfs @ 12.02 hrs, Volume= 0.794 af, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.02 hrs
Type III 24-hr 100 YEAR Rainfall=7.00"

Area (sf)	CN	Description
47,650	98	Paved parking & roofs
118,065	43	Woods/grass comb., Fair, HSG A
165,715	59	Weighted Average
118,065		Pervious Area
47,650		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	50	0.0700	5.37		**Shallow Concentrated Flow, PAVE** Paved Kv= 20.3 fps
0.5	162	0.0650	5.18		**Shallow Concentrated Flow, PAVE** Paved Kv= 20.3 fps
0.2	15	0.0500	1.12		**Shallow Concentrated Flow, WOODS/GRASS** Woodland Kv= 5.0 fps
0.9	227	Total			

Subcatchment P4: AREA P4



Pond 2P: BASIN #2

Inflow Area = 3.804 ac, Inflow Depth = 2.51" for 100 YEAR event
Inflow = 12.83 cfs @ 12.02 hrs, Volume= 0.794 af
Outflow = 0.12 cfs @ 24.00 hrs, Volume= 0.115 af, Atten= 99%, Lag= 718.9 min
Discarded = 0.12 cfs @ 24.00 hrs, Volume= 0.115 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.02 hrs / 2
Peak Elev= 99.36' @ 24.00 hrs Surf.Area= 21,357 sf Storage= 31,797 cf

Plug-Flow detention time= 690.4 min calculated for 0.115 af (14% of inflow)
Center-of-Mass det. time= 541.9 min (1,393.1 - 851.2)

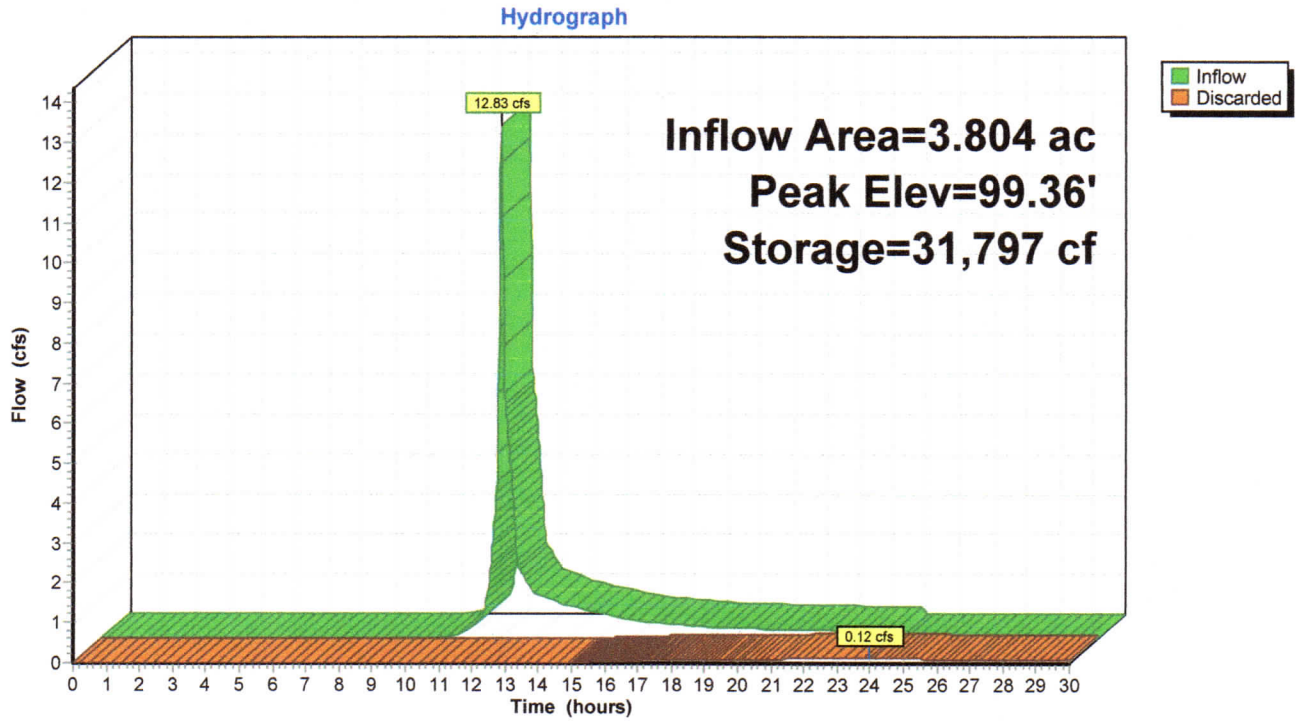
Volume	Invert	Avail.Storage	Storage Description
#1	96.00'	134,840 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
96.00	650	0	0
97.00	5,255	2,953	2,953
98.00	11,400	8,328	11,280
99.00	16,250	13,825	25,105
100.00	30,600	23,425	48,530
102.00	55,710	86,310	134,840

Device	Routing	Invert	Outlet Devices
#1	Discarded	99.00'	**1.020 in/hr Exfiltration over Surface area above invert** Excluded Surface area = 16,250 sf

Discarded OutFlow Max=0.12 cfs @ 24.00 hrs HW=99.36' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.12 cfs)

Pond 2P: BASIN #2



STIMSON STREET

GROVE STREET

WASHINGTON STREET

BIRCHWOOD STREET

PARCEL 2011734000 N/F MOUNT PLEASANT BUILDING ASSOCIATION

PARCEL 2011733000 N/F MOUNT PLEASANT BUILDING ASSOCIATION

EXISTING BUILDING

PARCEL 2011733010 371 S.F. ±

20' WIDE SEWER EASEMENT

EDGE OF PAVEMENT

PARCEL 2011737036 N/F LIAN PING JIN

ISOLATED LAND SUBJECT TO FLOODING AS DELINEATED BY: CODDARD CONSULTING ON NOVEMBER 2018

PARCELS 2011733010, 2011732000 & 2011731000 COMBINED AREA 80,661 S.F. ±

EXISTING BUILDING #5254 SLAB EL = 104.8 F.F. EL=118.5

PARCEL 2011732000 59,968 S.F. ±

EXISTING WATERSHED AREA 165,715± S.F.

CN=58 / Tc=0.9

100 YEAR STORM EVENT ELEVATION = 99.4±

PARCEL 2011728000 N/F LOUIS DAKOYANNIS

PARCEL 2011729000 N/F LIN DING

PARCEL 2011730000 N/F NATASHA CUKO

PARCEL 2011731000 10,321 S.F. ±

PARCEL 2011727020 N/F ANGELITO MUTIA

PARCEL 2011727010 N/F JOHN BOLAND

PARCEL 2011725000 N/F RAMON G ROSALES

PARCEL 2011725050 N/F LILI SHIKURTI

GC1 GC2 GC3 GC4 GC5 GC6 GC7 GC8 GC9 GC10 STOP GC11 GC12 GC13 GC14 GC15 GC16 GC17 GC18 GC19 GC20 GC21 GC22 GC23 GC24 GC25 GC26 GC27 GC28 GC30 GC31 GC32 GC33 GC34 GC35 GC36 GC37 GC38 GC39 GC40 GC41

Scale:1"=40'

40 0 40 80 120

3/14/2019

COMMONWEALTH OF MASSACHUSETTS
RICHARD ROBERT DeBENEDICTIS
No. 28318
REGISTERED PROFESSIONAL ENGINEER

EXISTING WATERSHED PLAN IN WEST ROXBURY NEIGHBORHOOD BOSTON , MASS.

SCALE: 1"=50' MARCH 14, 2019

WEBBY ENGINEERING ASSOCIATES, INC.
ENGINEERS & LAND SURVEYORS
180 COUNTY ROAD - PLYMPTON, MA. 02367 TEL. 1-781-585-1164