HAYES ENGINEERING, INC.

To: Richard L. Seegel
Chairman
Zoning Board of Appeals
525 Washington Street lower level
Wellesley, Ma 02482

J. Derenzo & Associates LLC
(#680 Worcester Rd. LLC.)
43 Charles Street
Needham, Ma. 02494
jd@jderenzoproperties.com
Tel 781-449-0300

From: William R. Bergeron, P.E.
Project Engineer

Date: October 19, 2018

Subject: #680 Worcester Street, Wellesley, Massachusetts Supplemental Information

Dear Board Members,

Based upon comments received at the public hearing on September 25, 2018, along with supplemental information from a meeting with the Engineering Division and Fire Department on October 4, 2018, we are providing the following supplemental information for your consideration.

1. Please find attached a revised set of Civil Plans dated October 19, 2018 showing adjustments to the plans. We have also added two new plans showing the 680 Worcester Street and 16 Stearns Road sites on an area wide plan as well as the two sites shown on and aerial plan.
2. .We have included the requested shadow study done by the site Architect James Velleco,
3. The revised plan includes a reconfiguration of the parking layout in order to provide more significant room for delivery vehicles. The adjustment required the relocation of the rubbish area to where the tandem parking area had been previously located. The change also relocated the stacker spaces that were previously above the sewer easement. The Town Engineering Department had a concern with the location of the stacker spaces even though there will not be any utilities in this location. The adjusted parking plan has eliminated one parking space from the total allotment, although the delivery space is effectively a parking space but not being counted in the total.
4. The meeting with Charles DiGiandomenico Fire Prevention-Deputy Chief on October 4, 2018 reconfirmed that the original findings outlined in a letter dated November 3, 2017(attached)

5. The site plan has been enhanced to add supplemental snow storage. The modified plan also relocated the rubbish area which required an adjustment of the wall behind to be closer to the rear lot line.
6. The Engineering Division requested clarification for a portion of the subsurface drainage system and the need for a 4 inch overflow pipe. The plan has been revised to show open grate inspection covers and the overflow pipe has been removed per the Town's request. Revised hydraulic calculations confirms that there is no overflow condition for the 100 year design storm.
7. The adequacy of the existing 6 inch municipal sewer main serving the site was discussed. A memo dated October 17, 2018 was submitted to David J. Hickey, Jr. P.E. Town Engineer (attached) indicating that the existing sewer main has a minimum capacity seven times the required peak flow capacity.

We look forward to discussing the modified plans at the next scheduled public hearing.

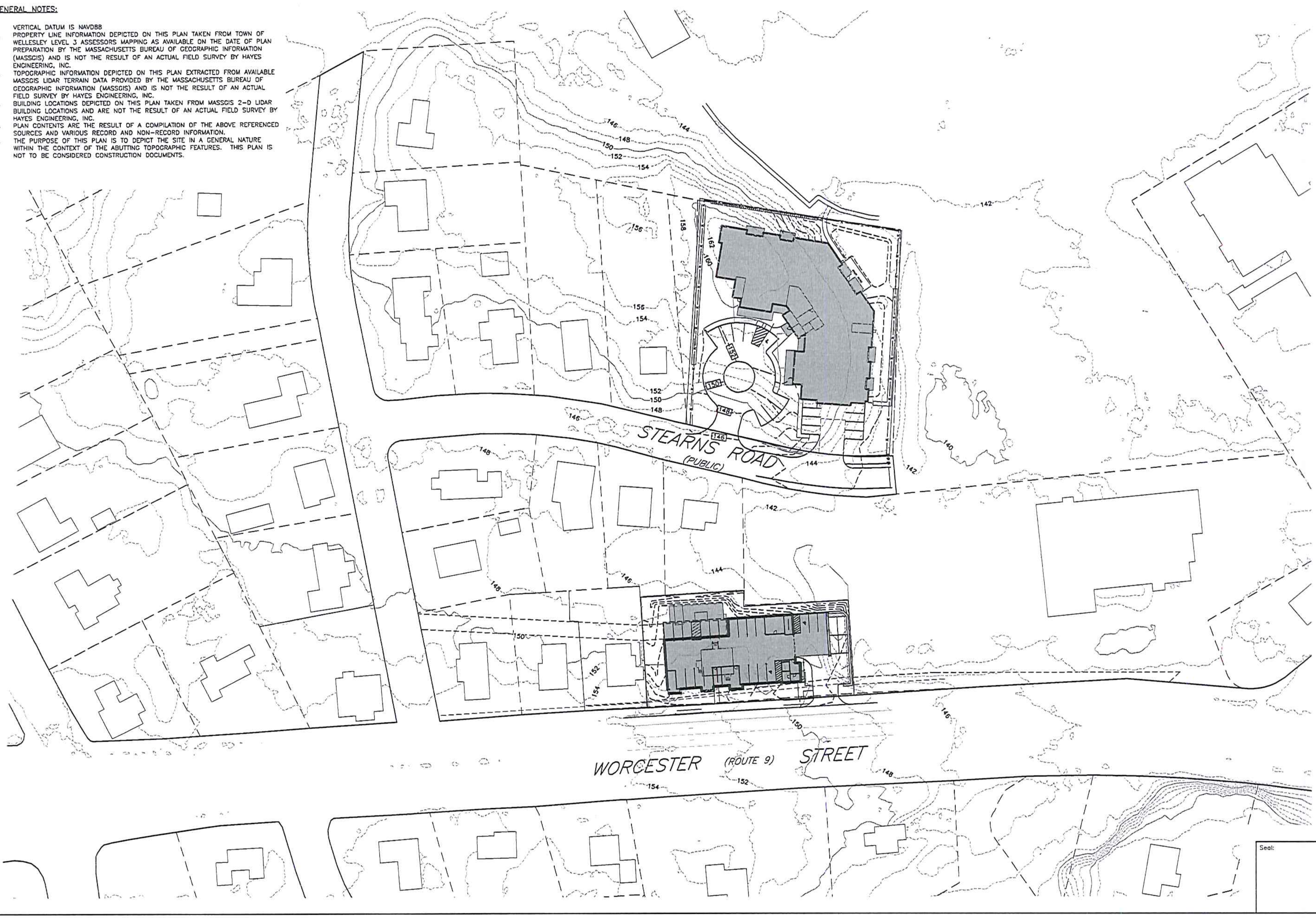
William R Bergeron, P.E.

William R. Bergeron, P.E.
Project Engineer
Hayes Engineering, Inc.

cc
J. Derenzo Properties, LLC (#680 Worcester St. LLC)
43 Charles Street
Needham, Ma. 02494

GENERAL NOTES:

1. VERTICAL DATUM IS NAVD88
2. PROPERTY LINE INFORMATION DEPICTED ON THIS PLAN TAKEN FROM TOWN OF WELLESLEY LEVEL 3 ASSESSORS MAPPING AS AVAILABLE ON THE DATE OF PLAN PREPARATION BY THE MASSACHUSETTS BUREAU OF GEOGRAPHIC INFORMATION (MASSGIS) AND IS NOT THE RESULT OF AN ACTUAL FIELD SURVEY BY HAYES ENGINEERING, INC.
3. TOPOGRAPHIC INFORMATION DEPICTED ON THIS PLAN EXTRACTED FROM AVAILABLE MASSGIS LIDAR TERRAIN DATA PROVIDED BY THE MASSACHUSETTS BUREAU OF GEOGRAPHIC INFORMATION (MASSGIS) AND IS NOT THE RESULT OF AN ACTUAL FIELD SURVEY BY HAYES ENGINEERING, INC.
4. BUILDING LOCATIONS DEPICTED ON THIS PLAN TAKEN FROM MASSGIS 2-D LIDAR BUILDING LOCATIONS AND ARE NOT THE RESULT OF AN ACTUAL FIELD SURVEY BY HAYES ENGINEERING, INC.
5. PLAN CONTENTS ARE THE RESULT OF A COMPILATION OF THE ABOVE REFERENCED SOURCES AND VARIOUS RECORD AND NON-RECORD INFORMATION.
6. THE PURPOSE OF THIS PLAN IS TO DEPICT THE SITE IN A GENERAL NATURE WITHIN THE CONTEXT OF THE ABUTTING TOPOGRAPHIC FEATURES. THIS PLAN IS NOT TO BE CONSIDERED CONSTRUCTION DOCUMENTS.



Prepared For:

Owner / Applicant
Jay Derenzo
43 Charles Street
Needham, MA 02494

Prepared By:

Hayes Engineering, Inc
603 Salem Street
Wakefield, MA 01880
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Design By: WRB
Drawn By: AMC
Checked By: AMC
Project File: WEL
Comp. No: WEL11

- [ ] Issued For Permit
- [ ] Issued For Review
- [ ] Issued For Bid
- [ ] Issued For Construction
- [ ] Not For Construction

No	Revision	Date
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Scale: 1"=40'
0' 20' 40' 80'

Date: October 10, 2018

Drawing Title:

CONTEXT MAP
STEARNS ROAD AND WORCESTER ROAD
WELLESLEY, MASS.

Seal:

Drawing No.: C1

SHEET 1 OF 1

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GENERAL NOTES:

1. VERTICAL DATUM IS NAVD88
2. PROPERTY LINE INFORMATION DEPICTED ON THIS PLAN TAKEN FROM TOWN OF WELLESLEY LEVEL 3 ASSESSORS MAPPING AS AVAILABLE ON THE DATE OF PLAN PREPARATION BY THE MASSACHUSETTS BUREAU OF GEOGRAPHIC INFORMATION (MASSGIS) AND IS NOT THE RESULT OF AN ACTUAL FIELD SURVEY BY HAYES ENGINEERING, INC.
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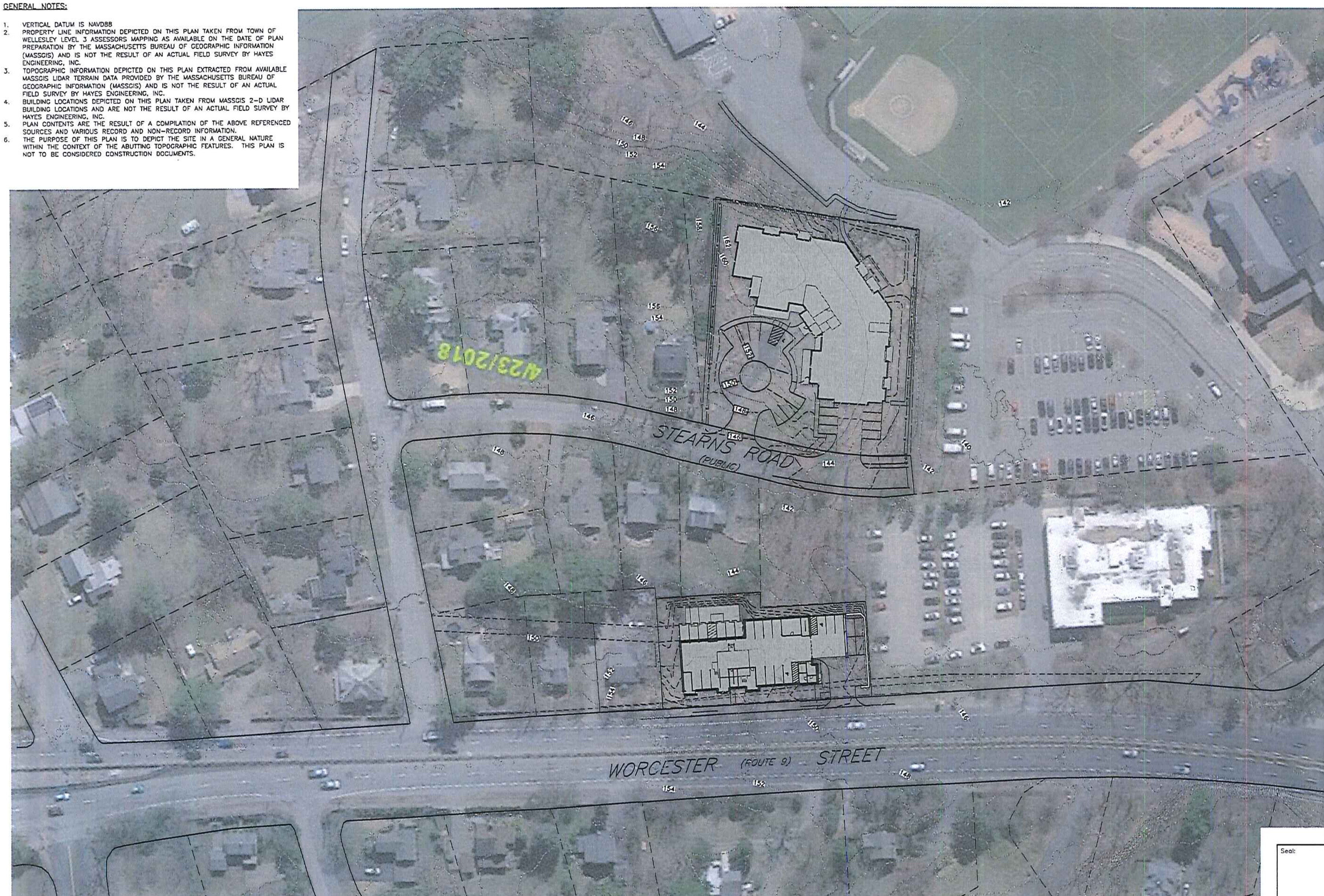

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Owner / Applicant
Jay Derenzo
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Needham, MA 02494

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No.	Revision	Date
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Scale: 1"=40'
0' 20' 40' 80'
Date: October 10, 2018

Drawing Title:

CONTEXT MAP
STEARNS ROAD AND
WORCESTER ROAD
WELLESLEY, MASS.

Seal:

Drawing No.:

C1

SHEET 1 OF 1

6:40 AM

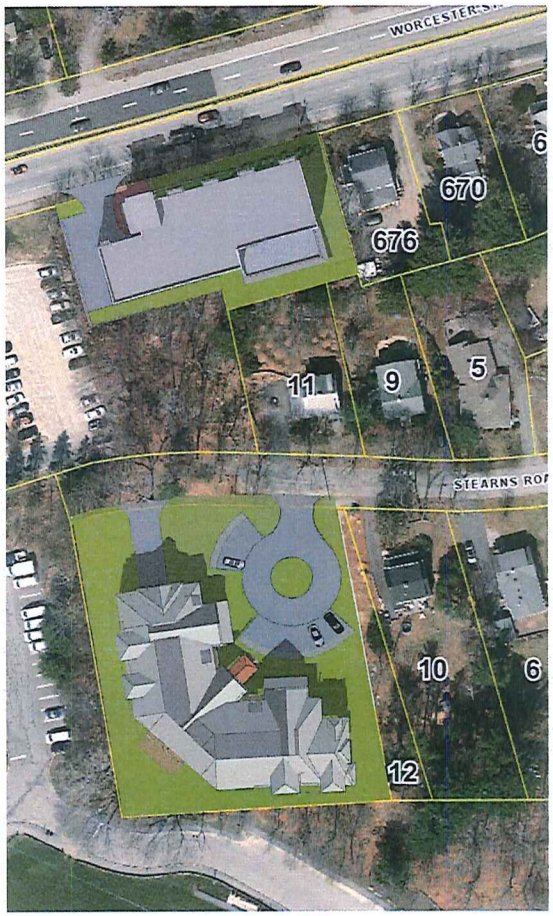
NOON

5:00 PM

16 STEARNS ROAD AND 680 WORCESTER STREET

SHADOW STUDY DIAGRAM
SUMMER SOLSTICE
JUNE 21

8 AM

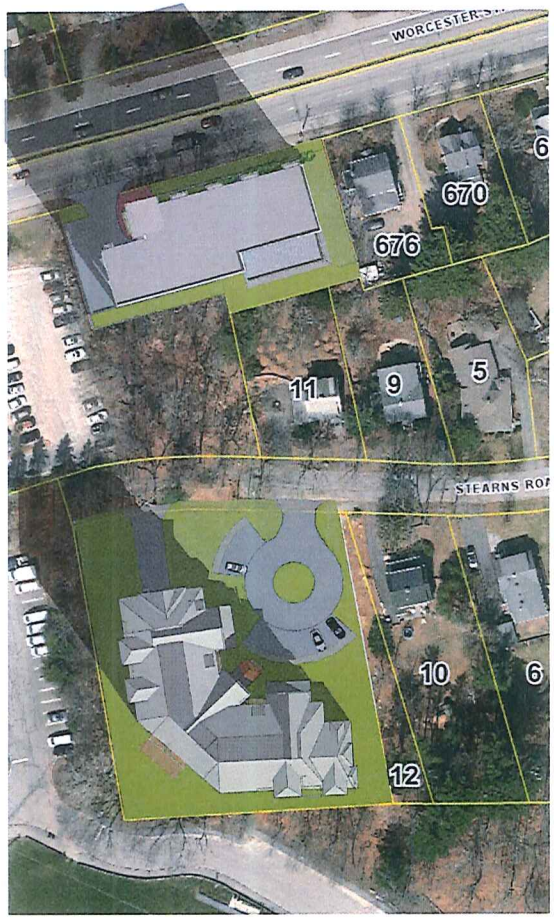


NOON

3:30 PM

16 STEARNS ROAD AND 680 WORCESTER STREET

SHADOW STUDY DIAGRAM
AUTUMNAL EQUINOX (SPRING SIMILAR)
SEPTEMBER 22



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NOON

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16 STEARNS ROAD AND 680 WORCESTER STREET

SHADOW STUDY DIAGRAM
WINTER SOLITICE
DECEMBER 22

HAYES ENGINEERING, INC.

To: David J. Hickey, Jr. P.E.
Town Engineer
Department of Public Works
20 Municipal Way
Wellesley, Ma 02481

J. Derenzo & Associates LLC
(#680 Worcester Rd. LLC.)
43 Charles Street
Needham, Ma. 02494
jd@jderenzoproperties.com
tel 781-449-0300

COMMONWEALTH OF MASSACHUSETTS
William R Bergeron
CIVIL
No. 29464
REGISTERED PROFESSIONAL ENGINEER

William R Bergeron PE.
10-17-2018

From: William R. Bergeron, P.E.
Project Engineer

Date: October 17, 2018

Subject: #680 Worcester Street, Wellesley, Massachusetts Existing Sewer Main

Dear Mr. Hickey,

The property located at #680 Worcester Street has been purchased by J. Derenzo & Associates LLC under the name of #680 Worcester Rd, LLC.

As you know Mr. Derenzo will be pursuing the development of this lot as a 40B site. The plan will be to request that a portion of the existing sewers, drains or utilities easement be modified by reducing the limits of the easement to be within eight to ten feet of the property line. I understand from our meeting on October 4, 2018 in your office that Public Works still has no objection to the removal of this easement after it goes through the appropriate review process since it serves no practical purpose. I believe that we will pursue the adjustment of the easement limits as we move further along in the approval process.

I also understand that it is the desire of the Board of Public Works to replace 6 inch sewer mains with 8 inch mains when possible. I have reviewed the existing plans for the sewer main constructed from 680 Worcester Street to Francis Road in the rear yards of the existing homes. There are currently four homes and 13 bedrooms connected to this sewer line. The existing average daily flow would be approximately 1 gallon per minute. Applying a peaking factor of 5 would bring the potential peak flow to 5 gallons per minute.
The proposed project will add 38 new bedrooms to the sewer main. (41 new-3 existing) which will potentially have an average daily flow of 3.9 gallon per minutes. Applying the peaking factor of 5 results in a potential peak flow of 19.5 gallons per minute. The capacity of the existing 6 inch sewer main is approximately 138 gallons per minute. Therefore there is no hydraulic capacity reason to require the replacement of this existing sewer main. The existing sewer main easement is also narrow and the abutters have encroached with items that would make

replacement of the main unduly disruptive to them. As I indicated we would offer to TV the existing sewer main to insure its condition and repair any leaks through an approved sealing method.

I must also point out that the sewer generation rates that I have used is consistent with the required use of 110 gallons per bedroom per day that have been in place for over 40 years. The plumbing fixtures and appliances have significantly become more efficient through the years. I conducted a review of actual water use for a 132 unit condominium complex in Reading Massachusetts very similar in building style to this proposal consisting of 1, 2 and 3 bedroom units. The average daily flow per unit by actual water readings was found to be 111.6 gallons per day. This would result in the new project adding only 1.55 gallons per minute average daily flow and a peaking factor of 7.75 gallons per day. This is probably a more accurate actual condition that will exist after the new structure is completed.

Therefore it is my professional opinion that there are no capacity issues with the existing sewer main that would require replacement.

I would be pleased to meet with you and your staff regarding this matter at your convenience. Thank you for your assistance on this matter.

William R. Bergeron P.E.

William R. Bergeron, P.E.
Project Engineer
Hayes Engineering, Inc.

cc
J. Derenzo Properties, LLC (#680 Worcester St. LLC)
43 Charles Street
Needham, Ma. 02494

HAYES ENGINEERING, INC.

Memorandum

To: Charles DiGiandomenico
Fire Prevention-Deputy Chief
Wellesley Fire Department
457 Worcester Street
Wellesley, Massachusetts 02481

JOB #: WEL-0011A

From: William R. Bergeron, P.E.

Date: November 3, 2017

Subject: Project Information
680 Worcester Street

Charles I would like to thank you for meeting with us yesterday to go over the proposed new project to be located at 680 Worcester Street in Wellesley Massachusetts. The purpose of the meeting was to provide you with additional information and plans that have evolved based upon concerns raised by the Town on the preliminary conceptual submittal to the Massachusetts Housing Authority.

As I explained yesterday the submittal to Massachusetts Housing is not expected to be a final design but more of a concept for them to determine if the project meets the community needs. It is not intended to be a final design that the community has to approve. As with all our projects we try to accommodate the technical requirements to the extent that the law allows by having meetings with the various Town Departments to determine specific areas of concern. Based upon the items outlined in the letter from the Selectmen to MassHousing dated July 19, 2017 the Fire Department pointed out several concerns. We have now had an opportunity to adjust the plans to address them as we talked about yesterday.

1. I provided you with new plans showing the ability of the SU-30 vehicle to access and turn around on the site at the proposed driveway to provide the second means of access in addition to the frontage along Worcester Street (Rte. 9). I know that you indicated that the primary purpose for the extra entrance was for ambulance vehicles that can now easily enter and turn around on the site. I have attached an additional turning movement plan showing ambulance movements on site.
2. The modified plans increase the clear height under the garage to 13.5 feet to allow fire trucks to actually go under the structure if needed. You acknowledged that all of the Wellesley Fire Department vehicles are less than this clear height.

Additional adjustments to the plan that we went over was the addition of a new hydrant on the westerly side of the driveway on site. We discussed the adequacy of the location and you determined that the proposed location was appropriate.

I also explained in more detail about the building that may not have been immediately evident on the concept submittal plans.

1. There are no garage doors for the garage under so there is a 24 foot wide unobstructed access aisle that increases to 27 feet under the structure.
2. There is no back wall behind the visitor spaces.
3. There is no wall from the garage adjacent to the 60 plus feet of patio area which is at the garage elevation so walking through the garage structure allows free movement and air circulation in multiple locations.
4. The addition of a hydrant in front of the structure provides two locations for the fire connections as well as having the full length of the Worcester Street access for the Fire Department with the ability to have access to all points of the building in less than the 250 foot requirement outlined in 18.2.3.2.2 of the adopted Mass NFPA requirements.
5. I asked about response time to the site and as you indicated it would be very quick since it is very close and on the same street as the fire station.

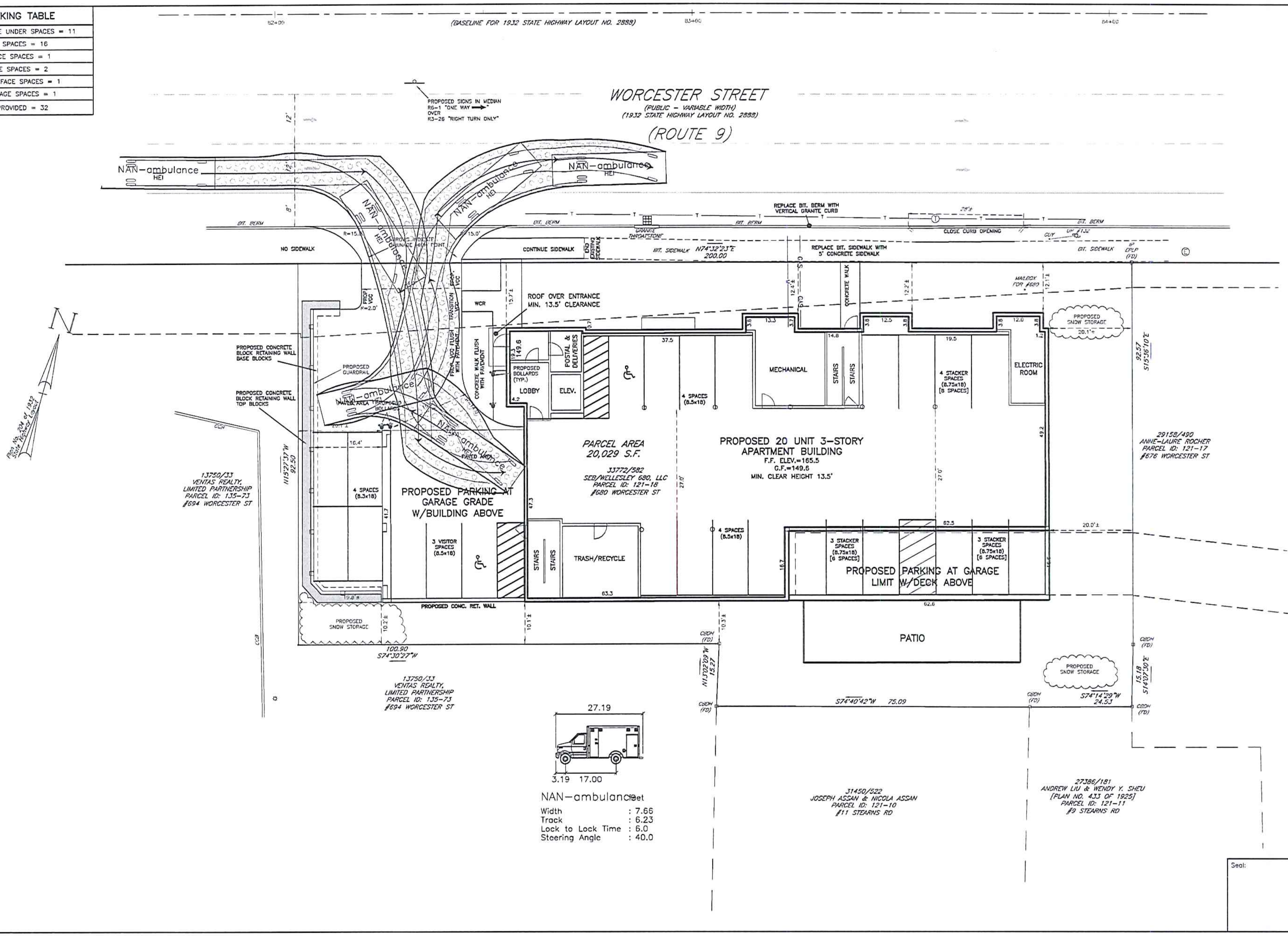
I believe that the results of the meeting were that your previous concerns had been addressed. We understand that when the actual building permit design is performed that all the formal fire engineering requirements will be reviewed. We look forward to working with you and the Wellesley Fire Department on this project.

Please feel free to call if you have any questions or concerns regarding this matter.
Thanks

William R. Bergeron, P.E.
Project Engineer
Hayes Engineering, Inc.

COMMONWEALTH OF MASSACHUSETTS
William R. Bergeron
CIVIL
No 29464
REGISTERED
PROFESSIONAL ENGINEER
11/03/2017

PARKING TABLE
REGULAR GARAGE UNDER SPACES = 11
TANDEM GARAGE SPACES = 16
REGULAR SURFACE SPACES = 1
TANDEM SURFACE SPACES = 2
ACCESSIBLE SURFACE SPACES = 1
ACCESSIBLE GARAGE SPACES = 1
TOTAL SPACES PROVIDED = 32



Prepared For:

Owner / Applicant
SEB/Wellesley 680, LLC
165 Chestnut Hill Ave. #2
Brighton, MA 01945

Prepared By:

Hayes Engineering Inc.
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Wakefield MA 01880
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www.hayeseng.com

Design By:
Drawn By: EBL
Checked By: WRD
Project File: WCL-0011
Comp. No: WEL10

- ☐ Issued For Permit
- ☐ Issued For Review
- ☐ Issued For Bid
- ☐ Issued For Construction
- ☐ Not For Construction

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Scale: 1" = 10'
0' 5' 10' 20'

Date: May 9, 2016

Drawing Title:

LAYOUT PLAN
#680 WORCESTER STREET
CHAPTER 40B COMPREHENSIVE PERMIT
WELLESLEY, MASS.

Seal:

Drawing No.:

C3

SHEET 3 OF 8

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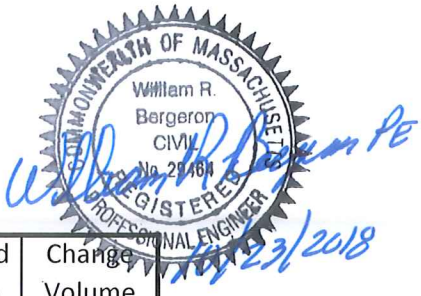
SUPPLEMENTAL DRAINAGE INFORMATION

680 Worcester Street, Wellesley, Massachusetts

October 23, 2018



West

Storm	Existing Q (C.F.S.)	Proposed Q (C.F.S.)	Change Q (C.F.S.)	Existing Volume (C.F.)	Proposed Volume (C.F)	Change Volume (C.F.)
2 Year	0.00	0.00	0.00	0	0	0
10 Year	0.00	0.00	0.00	0	0	0
25 Year	0.00	0.00	0.00	13	3	-10
100 Year	0.00	0.00	0.00	75	18	-57

Southwest

Storm	Existing Q (C.F.S.)	Proposed Q (C.F.S.)	Change Q (C.F.S.)	Existing Volume (C.F.)	Proposed Volume (C.F)	Change Volume (C.F.)
2 Year	0.00	0.00	0.00	0	0	0
10 Year	0.00	0.00	0.00	49	11	-38
25 Year	0.01	0.00	-0.01	130	24	-106
100 Year	0.03	0.01	-0.02	296	51	-245

South

Storm	Existing Q (C.F.S.)	Proposed Q (C.F.S.)	Change Q (C.F.S.)	Existing Volume (C.F.)	Proposed Volume (C.F)	Change Volume (C.F.)
2 Year	0.07	0.02	-0.05	243	139	-104
10 Year	0.17	0.11	-0.06	539	450	-89
25 Year	0.23	0.18	-0.05	718	663	-55
100 Year	0.31	0.29	-0.02	980	996	16

Southeast

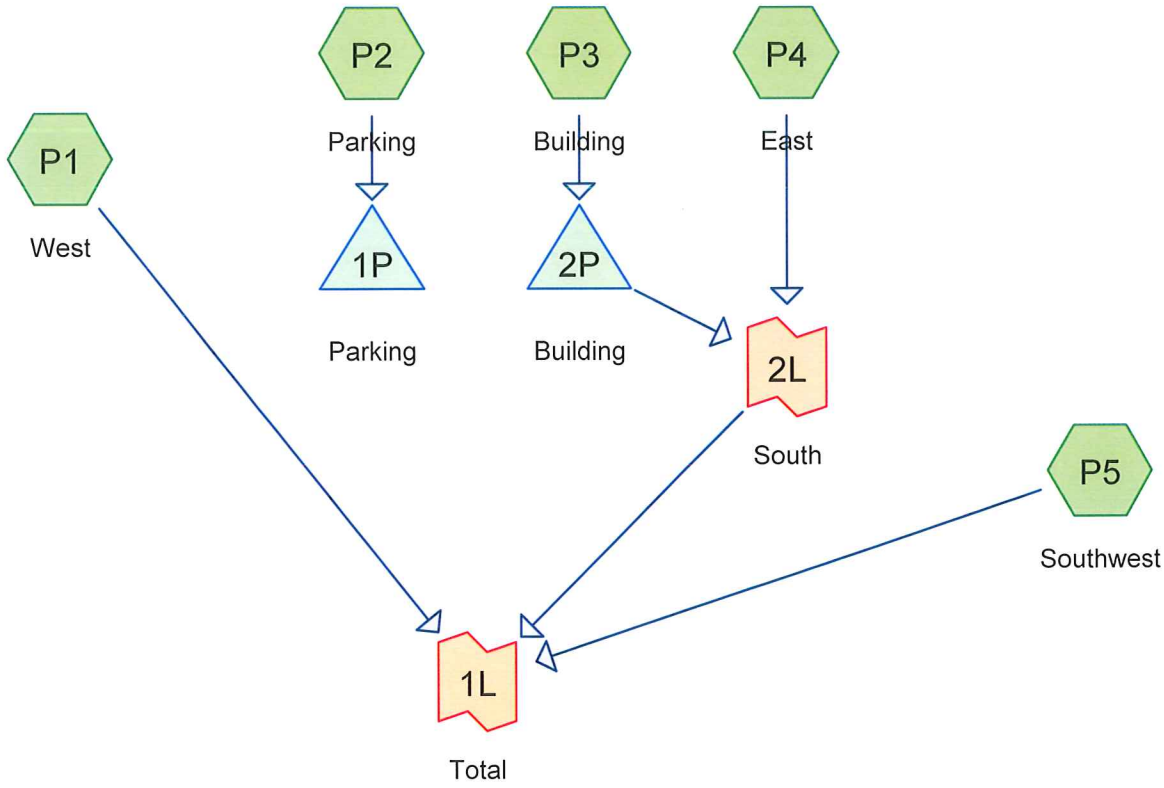
Storm	Existing Q (C.F.S.)	Proposed Q (C.F.S.)	Change Q (C.F.S.)	Existing Volume (C.F.)	Proposed Volume (C.F)	Change Volume (C.F.)
2 Year	0.00	0.00	0.00	0	0	0
10 Year	0.00	0.00	0.00	15	0	-15
25 Year	0.00	0.00	0.00	51	0	-51
100 Year	0.01	0.00	-0.01	132	0	-132

Total

Storm	Existing Q (C.F.S.)	Proposed Q (C.F.S.)	Change Q (C.F.S.)	Existing Volume (C.F.)	Proposed Volume (C.F)	Change Volume (C.F.)
2 Year	0.07	0.02	-0.05	243	139	-104
10 Year	0.17	0.11	-0.06	602	461	-141
25 Year	0.23	0.18	-0.05	912	691	-221
100 Year	0.31	0.29	-0.02	1483	1065	-418

Total Runoff Peak Rate and Volume

Storm	Existing Q (C.F.S.)	Proposed Q (C.F.S.)	Change Q (C.F.S.)	Existing Volume (C.F.)	Proposed Volume (C.F)	Change Volume (C.F.)
2 Year	0.07	0.02	-0.05	243	139	-104
10 Year	0.17	0.11	-0.06	602	461	-141
25 Year	0.23	0.18	-0.05	912	691	-221
100 Year	0.31	0.29	-0.02	1483	1065	-418



Subcat Reach Pond Link

Routing Diagram for PR-680worcesterR
Prepared by Microsoft, Printed 10/22/2018

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 P1: West Runoff Area=1,644 sf 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf

Subcatchment P2: Parking Runoff Area=3,988 sf 69.63% Impervious Runoff Depth=1.33"
Tc=6.0 min CN=80 Runoff=0.14 cfs 441 cf

Subcatchment P3: Building Runoff Area=8,892 sf 100.00% Impervious Runoff Depth=2.87"
Tc=6.0 min CN=98 Runoff=0.60 cfs 2,125 cf

Subcatchment P4: East Runoff Area=6,012 sf 30.94% Impervious Runoff Depth=0.28"
Flow Length=230' Tc=6.8 min CN=57 Runoff=0.02 cfs 139 cf

Subcatchment P5: Southwest Runoff Area=1,014 sf 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=39 Runoff=0.00 cfs 0 cf

Pond 1P: Parking Peak Elev=143.97' Storage=30 cf Inflow=0.14 cfs 441 cf
Outflow=0.08 cfs 441 cf

Pond 2P: Building Peak Elev=147.12' Storage=353 cf Inflow=0.60 cfs 2,125 cf
Outflow=0.17 cfs 2,125 cf

Link 1L: Total Inflow=0.02 cfs 139 cf
Primary=0.02 cfs 139 cf

Link 2L: South Inflow=0.02 cfs 139 cf
Primary=0.02 cfs 139 cf

Total Runoff Area = 21,550 sf Runoff Volume = 2,704 cf Average Runoff Depth = 1.51"
37.22% Pervious = 8,021 sf 62.78% Impervious = 13,529 sf

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 P1: West Runoff Area=1,644 sf 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf

Subcatchment P2: Parking Runoff Area=3,988 sf 69.63% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=80 Runoff=0.27 cfs 846 cf

Subcatchment P3: Building Runoff Area=8,892 sf 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=0.90 cfs 3,234 cf

Subcatchment P4: East Runoff Area=6,012 sf 30.94% Impervious Runoff Depth=0.90"
Flow Length=230' Tc=6.8 min CN=57 Runoff=0.11 cfs 450 cf

Subcatchment P5: Southwest Runoff Area=1,014 sf 0.00% Impervious Runoff Depth=0.13"
Tc=6.0 min CN=39 Runoff=0.00 cfs 11 cf

Pond 1P: Parking Peak Elev=144.54' Storage=155 cf Inflow=0.27 cfs 846 cf
Outflow=0.08 cfs 846 cf

Pond 2P: Building Peak Elev=147.64' Storage=756 cf Inflow=0.90 cfs 3,234 cf
Outflow=0.17 cfs 3,234 cf

Link 1L: Total Inflow=0.11 cfs 461 cf
Primary=0.11 cfs 461 cf

Link 2L: South Inflow=0.11 cfs 450 cf
Primary=0.11 cfs 450 cf

Total Runoff Area = 21,550 sf Runoff Volume = 4,541 cf Average Runoff Depth = 2.53"
37.22% Pervious = 8,021 sf 62.78% Impervious = 13,529 sf

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 P1: West Runoff Area=1,644 sf 0.00% Impervious Runoff Depth=0.02"
Tc=6.0 min CN=30 Runoff=0.00 cfs 3 cf

Subcatchment P2: Parking Runoff Area=3,988 sf 69.63% Impervious Runoff Depth=3.24"
Tc=6.0 min CN=80 Runoff=0.34 cfs 1,078 cf

Subcatchment P3: Building Runoff Area=8,892 sf 100.00% Impervious Runoff Depth=5.16"
Tc=6.0 min CN=98 Runoff=1.05 cfs 3,825 cf

Subcatchment P4: East Runoff Area=6,012 sf 30.94% Impervious Runoff Depth=1.32"
Flow Length=230' Tc=6.8 min CN=57 Runoff=0.18 cfs 663 cf

Subcatchment P5: Southwest Runoff Area=1,014 sf 0.00% Impervious Runoff Depth=0.29"
Tc=6.0 min CN=39 Runoff=0.00 cfs 24 cf

Pond 1P: Parking Peak Elev=144.85' Storage=247 cf Inflow=0.34 cfs 1,078 cf
Outflow=0.08 cfs 1,078 cf

Pond 2P: Building Peak Elev=147.94' Storage=985 cf Inflow=1.05 cfs 3,825 cf
Outflow=0.17 cfs 3,825 cf

Link 1L: Total Inflow=0.18 cfs 691 cf
Primary=0.18 cfs 691 cf

Link 2L: South Inflow=0.18 cfs 663 cf
Primary=0.18 cfs 663 cf

Total Runoff Area = 21,550 sf Runoff Volume = 5,595 cf Average Runoff Depth = 3.12"
37.22% Pervious = 8,021 sf 62.78% Impervious = 13,529 sf

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 P1: West Runoff Area=1,644 sf 0.00% Impervious Runoff Depth=0.13"
Tc=6.0 min CN=30 Runoff=0.00 cfs 18 cf

Subcatchment P2: Parking Runoff Area=3,988 sf 69.63% Impervious Runoff Depth=4.24"
Tc=6.0 min CN=80 Runoff=0.44 cfs 1,408 cf

Subcatchment P3: Building Runoff Area=8,892 sf 100.00% Impervious Runoff Depth=6.26"
Tc=6.0 min CN=98 Runoff=1.27 cfs 4,640 cf

Subcatchment P4: East Runoff Area=6,012 sf 30.94% Impervious Runoff Depth=1.99"
Flow Length=230' Tc=6.8 min CN=57 Runoff=0.29 cfs 996 cf

Subcatchment P5: Southwest Runoff Area=1,014 sf 0.00% Impervious Runoff Depth=0.60"
Tc=6.0 min CN=39 Runoff=0.01 cfs 51 cf

Pond 1P: Parking Peak Elev=145.33' Storage=387 cf Inflow=0.44 cfs 1,408 cf
Outflow=0.08 cfs 1,408 cf

Pond 2P: Building Peak Elev=148.57' Storage=1,311 cf Inflow=1.27 cfs 4,640 cf
Outflow=0.17 cfs 4,640 cf

Link 1L: Total Inflow=0.29 cfs 1,065 cf
Primary=0.29 cfs 1,065 cf

Link 2L: South Inflow=0.29 cfs 996 cf
Primary=0.29 cfs 996 cf

Total Runoff Area = 21,550 sf Runoff Volume = 7,112 cf Average Runoff Depth = 3.96"
37.22% Pervious = 8,021 sf 62.78% Impervious = 13,529 sf