**DEPARTMENT OF DEVELOPMENT SERVICES – PLANNING DIVISION**
*REPORT:* Subdivision of Edge 400 Subdivision, 330 New Park Avenue
for consideration on October 13th, 2020

**STAFF REPORT**

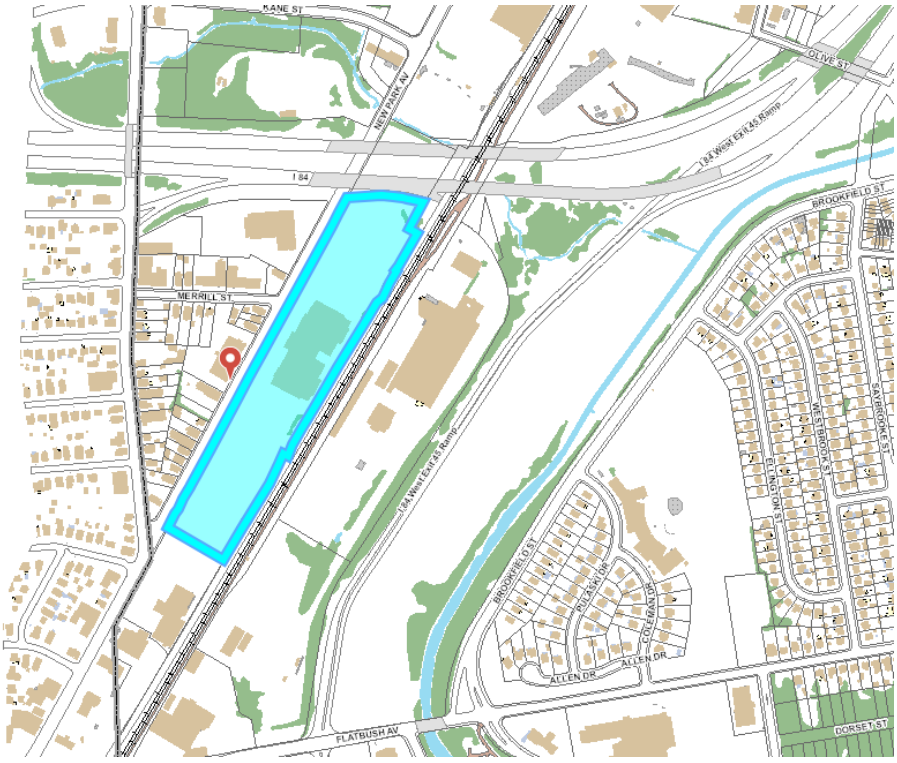
**TO:** **Planning and Zoning Commission**
**PREPARED BY:** **Grant Losapio, Consultant**
**oneplan@hartford.gov**

**PROJECT:** **Edge 400 Subdivision**
**330 New Park Avenue, Hartford, CT 06105**
**PARCEL ID: 116-475-022**
**ENERGOV ID: COMM-2020-0261**

**ZONE:** **MS-3 Main Street District underlying zoning district**
**Transit Oriented Development (T.O.D.) Overlay**

**TYPE:** **Resubdivision of Land per City of Hartford Planning and Zoning Subdivision Regulations last amended February 11, 2020 and Effective March 12, 2020. (From here on referred to as "The Subdivision Regulations") and Zoning Regulations, Last Amended June 5, 2020 (hereinafter "Zoning Regulations")**

**APPLICANT:** Dakota Partners, Inc.
**OWNER:** DP 103 LLC



CITY OF HARTFORD GIS MAP, 330 New Park Avenue shown in blue.

## BACKGROUND INFORMATION

The following is an excerpt from an attachment to the application (Attachment 1-A of this report):

"The property consists of an existing movie theater and associated parking infrastructure, currently undergoing renovation. The property is zoned Main Street 3 (MS-3) with a Transit Oriented Development (TOD) Overlay. As such, under the City's form-based zoning, both DT-3 or MX-2 zoning are being considered for the Downtown General and Apartment Building Types proposed for development on the newly created parcels.

The applicant seeks to divide the existing lot into four (4) lots. The northern lot shall remain as the site's current movie theater use. The three (3) southern lots will be sold to the Applicant for development into mixed-use residential and commercial buildings being proposed. Concurrent with this subdivision application is a variance application dated 09/16/2020 as well as a Site Plan Review application dated 06/26/2020. Those applications are currently under review with the Planning and Zoning department, with the nature of the project's funding necessitating this unconventional sequence and schedule."

The above-mentioned variance application relates to the non-compliant first-floor uses and lot coverage of the proposed buildings on the future parcels. The variance request was reviewed and approved at the Zoning Board of Appeals hearing on October 6, 2020, conditioned on the subdivision and funding approval.

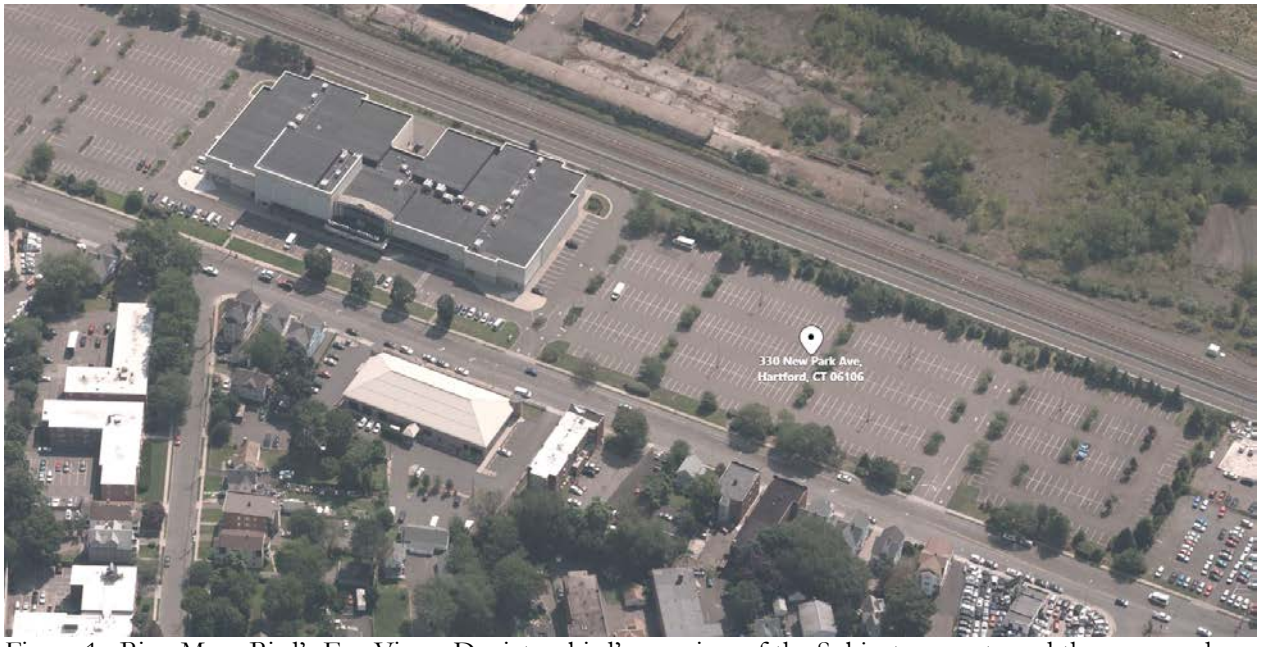



Figure 1. Bing Maps Bird's Eye View. Depicts a bird's eye view of the Subject property and the proposed area of development, as seen from the west. The existing railway and CT-Fastrak are located east of the subject property (upper right in the image).

## KEY APPLICATION TIMELINES

- Application Submission Date: September 18, 2020.
- Date Application was Accepted as Complete: September 18, 2020.
- Application Date of Receipt: October 13, 2020 (sooner of either: date of next regularly scheduled meeting, or 35 days after acceptance of complete application).
- Public Hearing is scheduled to open on Tuesday, October 13, 2020; Open Hearing Deadline: Thursday, December 17, 2020.
- Close Hearing Deadline (if opens October 13, 2020): Tuesday, November 17, 2020.
- CT General Statutes Sec.8-7D allow that the Applicant may consent to one or more extensions of time, provided the total extension of all time periods shall not be for longer than 65 days*.
- On March 10, 2020, State of Connecticut Governor Ned Lamont declared a public health and civil preparedness emergency ("state of emergency") as a result of coronavirus disease 2019 (COVID-19) outbreak and pandemic.
- The Planning Division is operating under a series of Executive Orders issued by Governor Lamont (7.E & 7.I) which modify public hearing noticing requirements.
    - o *Time periods that may pass or expire during the state of emergency may be further extended by no more than an additional 90 days, for a total of 155 extension days available, which may be applied towards all time periods, as needed.

## STANDARD SPECIFIC TO THE USE

**City of Hartford Zoning Regulations**

**Chapter 4, Sec. 4.3.2.A**: Downtown Storefront Building Type requirements for DT-3 district.
**Chapter 4, Sec. 4.11.2.A**: Apartment Building Type requirements for MX-2 district.
**Chapter 5, Sec. 5.3**: Transit Oriented Development Overlay.

**City of Hartford Subdivision Regulations**

**Article I, Sec. 4**: Definitions.
**Article III, Sec. 30**: General Requirements "(d) The commission shall not approve any subdivision application that creates a zoning nonconformity, prior to the applicant obtaining a variance for such nonconformity."
**Article III, Sec. 36**: Ownership & maintenance of common use facilities: "No private common use improvement shall be permitted unless the owner or owners of all properties to be served thereby are or will be made parties to, and their properties made subject to, an effective recorded agreement in a form satisfactory to the corporation counsel for the continuous maintenance, operation, management and eventual replacement of such improvements."
**Article IV, Sec. 64**: Vehicular access to lots
**Article IV, Sec. 69**: Easements

**FINDING OF FACTS**

- The parcel 330 New Park Avenue is approx. 584,146 square feet per the property record card.
- The parcel currently holds a movie theater building and associated parking infrastructure.
- The property is not located within a Historic District.
- The property is not located within a FEMA Flood Zone.
- The proposed lots are as follows (and as seen in Figure 5, Attachment 4, and Attachment 1-E of this report):
    - Lot 1: approx. 85,277 SF, Downtown Storefront building proposed, location of proposed access drive is shared with Lot 2
    - Lot 2: approx. 70,690 SF, Apartment building proposed, location of proposed access drives are shared with Lots 1 and 3
    - Lot 3: approx. 59,291 SF, Downtown Storefront building proposed, location of proposed access drive is shared with Lot 2.
    - Lot 4: approx. 362,268 SF, contains the existing Movie Theater structure and parking infrastructure to remain
- The proposed Downtown Storefront Type Buildings and Apartment Type Building comply with the Transit Oriented Development Overlay.
- The Transit Oriented Development Overlay, per Section 5.3.1.A, intends that lot lines shall be adjusted to provide smaller lots that can accommodate the siting of structures with greater density and building types with a mixture of uses.

- Per Sec. 4.3.2.A.8. there is no minimum lot width required for a Downtown Storefront building, therefore the proposed lot lines on the map comply.
- Per Sec. 4.11.2.A.8. the minimum lot width is 65' for an Apartment Building in the MX-2 zone. According to the "Subdivision Plan" provided by the Applicant, Attachment 1-E of this report, the proposed Lot 2 has an approximate lot width of 364.74', therefore the proposed lot lines on the map comply.
- Existing easements, as shown in Attachment 3, are present on the subject property related to Eversource, the "Gateway Project", and the Department of Transportation. No conflicts are anticipated with these easements and the proposed lot subdivision.
- The included traffic report states "We would consider the number of trips added by this development to be insignificant in an urban setting. Additionally, we are unaware of any significant traffic issues in the area surrounding the Edge 400 site and believe that the roadway network can accommodate small number of trips that will be generated by the proposed residential development."
- The proposed four-story mixed-use design is not concurrent with the scale of the high-density mixed-use (5+ stories) envisioned in the Future Land Use Map for 2035; it is otherwise concurrent with the intent of the Plan of Conservation and Development (POCD).
- The non-conformities addressed in the concurrent request for variance, which was reviewed and approved by the Zoning Board of Appeals on 10/6/2020 are related to Building Type Use and Coverage regulations and are not non-conformities that are generated by the subdivision itself. The proposed subdivision is compliant with the Zoning Regulations and Subdivision Regulations applicable to the proposal.

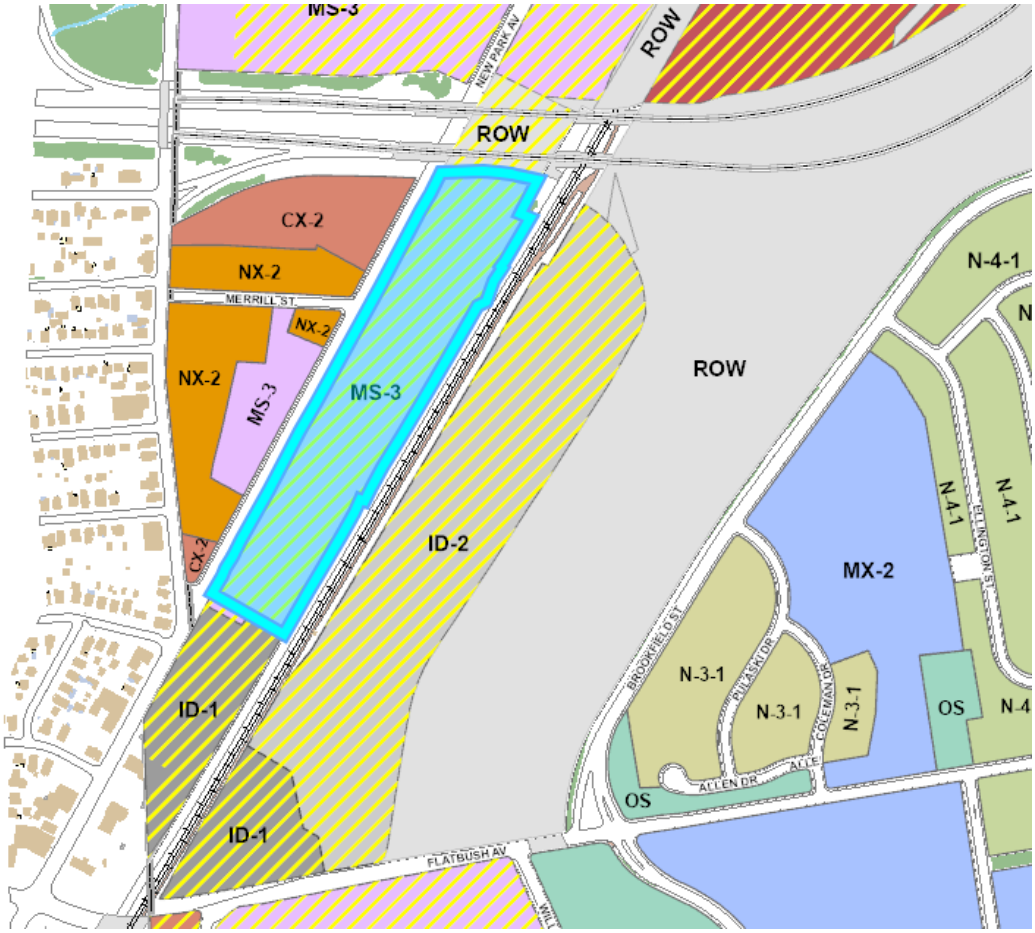


Figure 2. Zoning Districts Map, taken from City of Hartford, GIS. Depicts the zoning districts of the subject property and surrounding lots. The light purple in the subject property is the MS-3 underlying district and the yellow line hatch is the Transit Oriented Development Overlay.

Figure 3. Google Streetview, dated June 2019. Depicts a view looking North along New Park Avenue. The southern-most existing curb cut on the subject property are shown on the right. The area of the property that is to be subdivided into Lots 1-3 is also depicted here on the right.


Figure 4. Google Streetview, dated June 2019. Depicts a view looking South along New Park Avenue. The southern-most existing curb cut on the subject property is shown on the left. The area of the property that is to be subdivided into Lots 1-3 is also depicted here on the left.

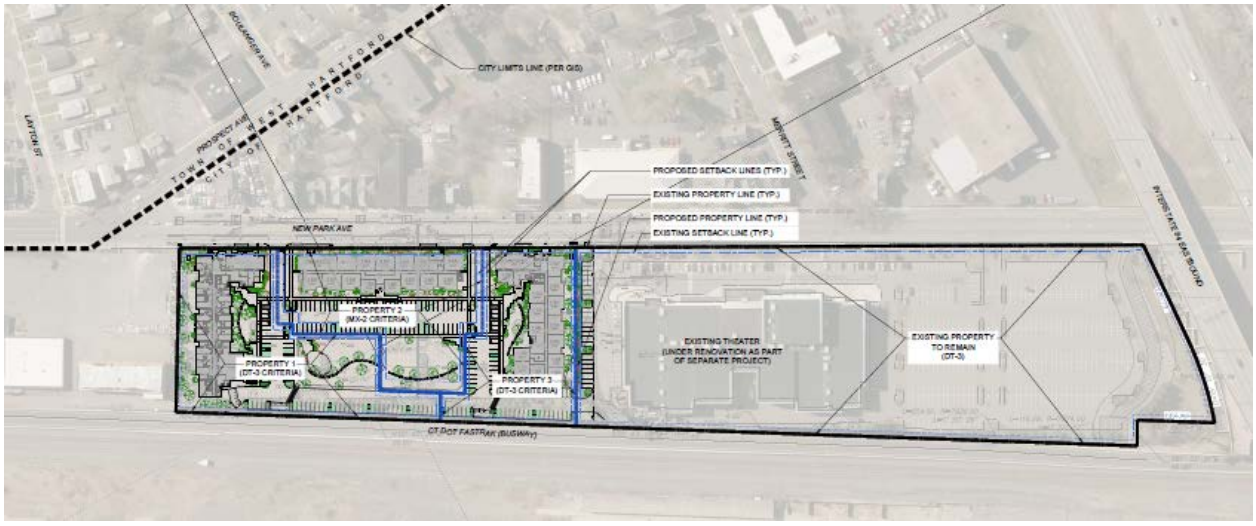



Figure 5. Variance Application Overall Plan, provided by the Applicant as part of the Variance Application plan set, Attachment 4 of this report. Depicts full proposed lot division and proposed improvements.

## COMMENTS RECEIVED (DEPARTMENTS, AGENCIES, NRZS, PUBLIC)

A Traffic Impact Study (Attachment 1-F), dated June 22, 2020, and a Stormwater Management Plan (Attachment 1-G), dated June 2020, both by Benesch were included with the application.
Will serve letters from Eversource Energy (Attachment 1-D), Connecticut Gas (Attachment 1-C), and comments from MDC (Attachment 2) were submitted with the application.

## ANALYSIS

The subdivision of 330 New Park Avenue meets the legal requirements for a subdivision per the City of Hartford Subdivision Regulations. All utilities service requirements (electric, gas, and MDC) have been met.

The subdivision of 330 New Park and the resulting lots are compliant with the applicable Zoning Regulations and Subdivision Regulations and will allow for the construction of a Downtown Storefront building on each of Lots 1 & 3 and an Apartment building on Lot 2. The concurrent request for variances, relating to the building coverage and non-compliant first floor uses in the proposed buildings on lots 1 and 3, were approved by the Zoning Board of Appeals on 10/6/2020.

While the proposed four-story mixed-use development is not concurrent with the 5+ story density envisioned in the Future Land Use Map for 2035, the subdivision will allow for the development of quality homes near the CT-Fastrak station as concurrent with the goals of the City of Hartford's Plan of Conservation and Development, "One City, One Plan POCD 2020" (the "POCD"). The proposed plan for this subdivision is one of the first to develop the under-utilized land within this Transit Oriented Development district and will provide an increased density of mixed uses in close vicinity to the CT-Fastrak public transit stations, while being sensitive to the density of the surrounding neighborhood.

Per Article I, Sec. 4 and Article IV, Sections 64 and 69, the appropriate easements must be established for any shared driveway access, drainage, power lines, or like uses across the proposed lots.

Per Article I, Sec 36 an agreement for the maintenance, operation, management, and replacement of shared private common use improvements must be provided.

## STAFF RECOMMENDATION

Staff recommends approval of this subdivision application and map titled "Subdivision Plan, Prepared for Dakota Partners, Inc 300 New Park Avenue, Hartford, Connecticut April 3, 2020" Scale 1"=80'. Prepared by Alfred Benesch & Company, 120 Hebron Avenue – 2nd Floor, Glastonbury, Connecticut, with the following conditions:

1. Applicant must provide an Easement Agreement, detailing the appropriate easements needed across the proposed lots, and a Maintenance Agreement, detailing the maintenance, operation, management, and replacement of shared private common use improvements.

**A draft resolution follows.**

## ATTACHMENTS

1. Application and attachments
    A. Background Information
    B. Boundary Descriptions
    C. Letter from Connecticut Natural Gas Corporation, September 10, 2020
    D. Letter from Eversource Energy, September 10, 2020
    E. "Subdivision Plan, Prepared for Dakota Partners, Inc 300 New Park Avenue, Hartford, Connecticut April 3, 2020" Scale 1"=80'. Prepared by Alfred Benesch & Company, 120 Hebron Avenue – 2nd Floor, Glastonbury, Connecticut.

F. 330 New Park Avenue Traffic Impacts Letter, 6/22/2020
G. 330 New Park Avenue Stormwater Management Report, June 2020

2. Letter from The Metropolitan District (MDC), September 22, 2020
3. Existing Easements Information
4. Variance Application Plans (provided by the Applicant as part of a separate Request for Variance application, which was reviewed by the ZBA on 10/6/2020)

**REVIEWED AND EDITED BY,**

Digitally signed by Aimee Chambers
DN: cn=Aimee Chambers, o=City of Hartford, ou=Director of Planning, email=aimee.chambers@hartford.gov, c=US
Date: 2020.10.09 10:35:34 -04'00'

Aimee Chambers, Director

**CITY OF HARTFORD**
**PLANNING AND ZONING COMMISSION**
**DRAFT SUBDIVISION APPROVAL RESOLUTION**
**330 NEW PARK AVENUE**

**Whereas,** The City of Hartford Planning and Zoning Commission has reviewed the requested subdivision of the existing the 13.41 acre lot known as 330 New Park Avenue; and

**Whereas,** The existing lot known as 330 New Park Avenue is located in the MS-3 zoning district and the Transit Oriented Development Overlay; and

**Whereas,** The subdivision of the lot at 330 New Park Avenue will create Lot 1, a 1.96 acre parcel on the South end of the lot, Lot 2, a 1.62 acre parcel to the North of Lot 1, Lot 3, a 1.36 acre parcel to the North of Lots 1 & 2, and Lot 4, a 8.31 acre parcel on the North end of the lot containing the existing movie theater building; and

**Whereas,** The parcels resulting from the subdivision allow for the construction of a Downtown Storefront building on each of Lots 1 & 3, and an Apartment building on Lot 2; and

**Whereas,** The variances approved by the Zoning Board of Appeals on October 6, 2020, permit noncompliances that result from the buildings proposed on this subdivision. The variances allow the noncompliant first floor uses within the proposed building types and the building coverage of the proposed Downtown Storefront buildings on Lots 1 & 3.

**Whereas,** The applicant has supplied letters from The Metropolitan District Commission, Connecticut Natural Gas, and Eversource stating that the entities have reviewed the proposed plans and the proposed development can be connected to and served by the respective utility companies; and

**Whereas,** The applicant has submitted a Traffic Impact Study stating that the proposed resubdivision and development will have a negligible impact on the traffic on New Park Avenue; and

**Whereas,** The proposed work is consistent with the intent of the Transit Oriented Development Overlay, to provide mixed uses and increased density near fixed nodes of public transportation; and

**Whereas,** The proposed work is consistent with the goal of the City of Hartford's Plan of Conservation and Development, "One City, One Plan POCD 2020" (the "POCD"), to

provide quality housing near a CT-Fastrak station; and

Now Therefore Be It

**Resolved,** The City of Hartford Planning and Zoning Commission hereby approves the application for subdivision of 330 New Park Avenue as shown on the drawing entitled "Subdivision Plan, Prepared for Dakota Partners, Inc 300 New Park Avenue, Hartford, Connecticut April 3, 2020" Scale 1"=80'. Prepared by Alfred Benesch & Company, 120 Hebron Avenue – 2nd Floor, Glastonbury, Connecticut, with the following conditions:

1. Applicant must provide an Easement Agreement, detailing the appropriate easements needed across the proposed lots, and a Maintenance Agreement, detailing the maintenance, operation, management, and replacement of shared private common use improvements.

Be It Further,

**Resolved,** This 13th day of October 2020.

Attachment 1: Application

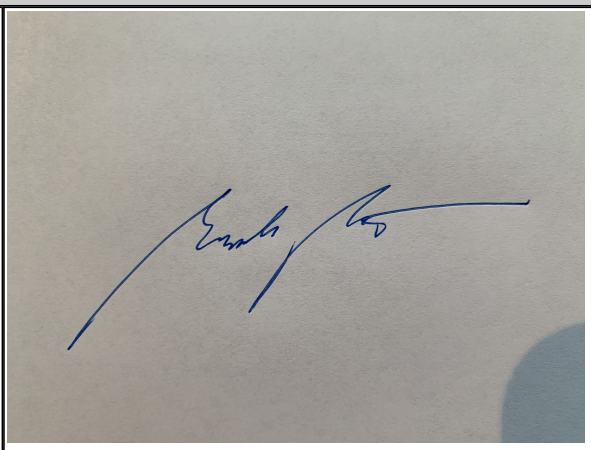
# DDS- Planning & Zoning: Plan Review Application

Submission date: 18 September 2020, 9:47AM

Receipt number: 39

| Question | Response |
|---|---|
| Application Type | |
| Check all that apply: | Subdivision |
| Property Information | |
| Property Address: | 330 New Park Ave, Hartford, CT 06106, USA Map (41.7472444, -72.7124481) |
| Zoning District: | MS-3 (With TOD Overlay) |
| Parcel ID: | 116475022 |
| Property Owner: | DP 103 LLC |
| Address of Property Owner: | 333 North Bedford Rd |
| Email: | info@diamondproperties.com |
| Applicant | |
| Name of Applicant: | Dakota Partners, Inc. |
| File Date: | 09/18/2020 |
| Address: | 1264 Main Street No coordinates found |
| Phone: | 781-899-4001 ex. 201 |
| Email: | mpilotte@dakotapartners.net |
| Primary Point of Contact | |
| Name: | Mark Pilotte |
| Phone: | 781-899-4001 ex. 201 |
| Email | mpilotte@dakotapartners.net |
| Project Narrative | |
| Please describe your application action(s) and provide as much detail as possible. Attach additional pages if necessary: | Refer to Uploaded Supporting Materials |
| Zoning Map Change Application | |
| Proposed Zone: | |
| Describe the existing use of land and buildings in the zone change area: | |
| Reason for this request: | |
| Zoning Appeal Application | |
| Are you an aggrieved party? | |
| Permit or Violation Number: | |
| State your reason for appealing the decision of the administrator or enforcement officer: | |

| Variance Application | |
|---|---|
| Please state the paticular hardship* or unnecessary difficulty that prompts this application and the site the section of the zoning regulations that you are seeking relief from: | |
| **Subdivision Application** | |
| Number of lots to be created: | 4 |
| Area of each lot in square feet: | Lot 1: 85,277SF Lot 2: 70,690SF Lot 3: 59,291SF Lot 4: 362,268SF |
| Street frontage of each of the new lots in feet: | Lot 1: 174.50' Lot 2: 364.74' Lot 3: 165.50' Lot 4: 1010.17' |
| **Lot Combination Application** | |
| Addresses of lots to be combined | |
| Map/Block/Lot for each property to be combined: | |
| **Liquor Permit Application** | |
| Please upload a copy of your State of CT Liquor Permit below. | |
| **Sign Permit Application** | |
| 1. Is this sign proposed outside of the building line? | |
| Maximum extention from building line: | |
| 2. Is this sign proposed outside of the street line? | |
| Maximum extension from the Street line | |
| 3. Is the sign luminated? | |
| 4. Engineer Name (if any): | |
| Phone: | |
| Address: | |
| 5. Minimum distance from lowest point to the sidewalk: | |
| 6. Maximum height of sign from lowest point of established grade: | |
| 7. Distance from the nearest outdoor sign: | |
| 8. Square feet of surface for one face of the sign: | |
| 9. Wording of the sign (include all words): | |
| Description of work (upload additional files if necessary) | |

| | |
|---|---|
| Upload any supporting materials below. | 70610 - Edge 400 - SUBDIVISION PLAN-SV.03.pdf<br>70610 - Edge 400 - Supporting Narrative.pdf<br>70610 - Edge 400 - Property Restrictions.pdf<br>70610 - Edge 400 - Traffic Impacts Letter_A.Chambers 2020.06.26.pdf<br>70610 - Edge 400 - Stormwater Management Report.pdf |
| Signatures | |
| Signature of Applicant |  <br>Uploaded signature image: MP signature.jpeg |
| Printed Name of Applicant: | Mark Pilotte |
| Date: | 09/18/2020 |
| Signature of Property Owner: |  <br>Uploaded signature image: JD_Signature.bmp |
| Printed Name of Property Owner: | Jim Diamond |
| Date: | 09/18/2020 |

Attachment 1-A:
Background Information

# Subdivision Application Supporting Materials

## Edge 400 Subdivision

**300 New Park Avenue**
**Hartford, CT**

**PREPARED FOR**

**Dakota Partners, Inc.**
1264 Main Street
Waltham, MA 02451

**September 2020**

benesch

# TABLE OF CONTENTS

**BACKGROUND INFORMATION**

This document supports the application, electronically filed, for subdivision of Parcel ID # 116475022 located at 300 New Park Avenue. Alfred Benesch and Company (Benesch) of Glastonbury has prepared these materials on behalf of our client, Dakota Partners Inc. (Applicant) Of Waltham Massachusetts.

The property consists of an existing movie theater and associated parking infrastructure, currently undergoing renovation The property is zoned Main Street 3 (MS-3) with a Transit Oriented Development (TOD) Overlay. As such, under the City's form-based zoning, both DT-3 or MX-2 zoning are being considered for the Downtown General and Apartment Building Types proposed for development on the newly created parcels.

The applicant seeks to divide the existing lot into four (4) lots. The northern lot shall remain as the site's current movie theater use. The three (3) southern lots will be sold to the Applicant for development into mixed-use residential and commercial buildings being proposed. Concurrent with this subdivision application is a variance application dated 09/16/2020 as well as a Site Plan Review application dated 06/26/2020. Those applications are currently under review with the Planning and Zoning department, with the nature of the project's funding necessitating this unconventional sequence and schedule.

Public utilities have been contacted and will-serve letters have or will be forthcoming. Those received to date are embedded in this document.

The Subdivision is further detailed in the legal descriptions on the following pages. The subdivision plan, stormwater report, and traffic impacts letter further describe the subdivision and associated development, demonstrating its validity and suitability for the Parkville Neighborhood and the City as a whole. The initial Site Plan Review submission dated June 26, 2020, illustrates the proposed building, parking, and community green to populate the Southern 3 parcels. Feedback already received from the Planning and Zoning department's review has been incorporated into the submitted subdivision plan.

## LEGAL DESCRIPTIONS AND UTILITY LETTERS

Lot 1 Boundary Description

Said property is located in the City of Hartford, State of Connecticut and is being more particularly described as follows:

Commencing at a point, said point is located on the easterly side of New Park Avenue said point is the northwest corner of land n/f New Park Avenue Associates, LLC and being the southwesterly corner of the herein described parcel:

Thence running along the easterly street line of New Park Avenue N28° 42' 09"E, a distance of 174.50' to a point;

Thence running S61° 17' 51"E, a distance of 134.41' to a point;

Thence running N28° 42' 09"E, a distance of 27.74' to a point;

Thence running S61° 17' 51"E, a distance of 17.82' to a point;

Thence running N28° 42' 09"E, a distance of 154.63' to a point;

Thence running S61° 17' 51"E, a distance of 100.19' to a point;

Thence running N30° 51' 43"E, a distance of 107.66' to a point;

Thence running S61° 17' 57"E, to the westerly line of land n/f the State of Connecticut, a distance of 50.87' to a point;

Thence running along the westerly line of land n/f the state of Connecticut S30° 43' 09"W, to the northerly line of land n/f New Park Avenue Associates LLC, a distance of 470.90' to a point;

Thence running along the northerly line of land n/f New Park Avenue Associates LLC N60° 05' 02"W, a distance of 291.00 to the point and place of beginning

Parcel contains 85,277 Sq. Ft = 1.958 Acres

Lot 2 Boundary Description

Said property is located in the City of Hartford, State of Connecticut and is being more particularly described as follows:

Commencing at a point, said point is located on the easterly side of New Park Avenue said point is the northwest corner Lot 1 and being the southwesterly corner of the herein described parcel:

Thence running along the easterly street line of New Park Avenue N28° 42' 09"E, a distance of 229.92 a point;

Thence running along the easterly street line of New Park Avenue N28° 26' 39"E, a distance of 134.82 a point;

Thence running S61° 17' 51"E, a distance of 152.99' to a point;

Thence running S28° 42' 09"W, a distance of 30.85' to a point;

Thence running S61° 17' 51"E, a distance of 105.76' to a point;

Thence running S30° 51' 43"W, a distance of 43.96' to a point;

Thence running S30° 51' 43"W, a distance of 107.66' to a point;

Thence running N61° 17' 51"W, a distance of 100.19' to a point;

Thence running S28° 42' 09"W, a distance of 154.63' to a point;

Thence running N61° 17' 51"W, a distance of 17.82' to a point;

Thence running S28° 42' 09"W, a distance of 27.74' to a point;

Thence running N61° 17' 51"W, a distance of 134.41' to the point and place of beginning

Parcel contains 70,690 Sq. Ft = 1.623 Acres

Lot 3 Boundary Description

Said property is located in the City of Hartford, State of Connecticut and is being more particularly described as follows:

Commencing at a point, said point is located on the easterly side of New Park Avenue said point is the northwest corner Lot 2 and being the southwesterly corner of the herein described parcel:

Thence running along the easterly street line of New Park Avenue N28° 26' 39"E, a distance of 165.50 a point;

Thence running S61° 33' 25"E, to the westerly line of land n/f the State of Connecticut, a distance of 317.37' to a point;

Thence running along the westerly line of land n/f the State of Connecticut S30° 43' 09"W, a distance of 241.88 a point;

Thence running N61° 17' 57"W, a distance of 50.87' to a point;

Thence running N30° 51' 43"E, a distance of 43.96' to a point;

Thence running N61° 17' 51"W, a distance of 105.76' to a point;

Thence running N28° 42' 09"E, a distance of 30.85' to a point;

Thence running N61° 17' 51"W, a distance of 152.99' to the point and place of beginning

Parcel contains 59,291 Sq. Ft = 1.361 Acres

Lot 4 Boundary Description

Said property is located in the City of Hartford, State of Connecticut and is being more particularly described as follows:

Commencing at a point, said point is located on the easterly side of New Park Avenue said point is the northwest corner Lot 3 and being the southwesterly corner of the herein described parcel:

Thence running along the easterly street line of New Park Avenue N28° 26' 39"E, TO LAND N/F THE State of Connecticut, a distance of 1010.17 a point;

Thence running S86° 35' 36"E, a distance of 186.79' to a point;

Thence running along a curve to the right having a radius of 586.75', a delta angle of 15° 07' 30", and a arc length of 154.89' to a point;

Thence running S30° 44' 44"W, a distance of 137.79' to a point;

Thence running S61° 33' 21"E, a distance of 46.00' to a point;

Thence running S30° 43' 09"W, a distance of 998.70' to a point;

Thence running N61° 33' 25"W, a distance of 317.37' to the point and place of beginning

Parcel contains 62,361 Sq. Ft = 1.432 Acres

Connecticut Natural Gas Letter

September 10, 2020

John Oliveto

Alfred Benesch & Company

120 Hebron Ave. Floor 2

Glastonbury, CT 06033

Dear John,

This letter serves as confirmation that a natural gas main is available in the vicinity of 330 New Park Ave, Hartford, Connecticut.

Connecticut Natural Gas will be able to serve the building contingent upon a signed service installation agreement and the payment of any required customer contribution.

Yours Sincerely,

*Anthony Sherman*

Anthony Sherman
Commercial Account Manager

Eversource Energy Letter

107 Selden Street, Berlin, CT 06037
P.O. Box 270, Hartford, CT 06141-0270

EVERSOURCE ENERGY

September 10, 2020

John Oliveto,
120 Hebron Avenue
2nd Floor
Glastonbury, CT 06033

Re: Provision of Electric Service to 330 New Park Avenue Hartford CT

Dear John,

I am responding to the recent inquiry you submitted to Eversource Energy ("Eversource"). You asked whether Eversource could provide electric service to the property mentioned above.

This letter confirms that electric service can be provided to the Property under certain conditions, including but not limited to:

1. If any utility equipment that is necessary or appropriate to provide utility service to the Property must be installed on land owned by any third party, then the Property owner is responsible for obtaining (at the Property owner's sole cost and expense) necessary easements that authorize Eversource to install necessary utility equipment on land not exclusively owned by the Property owner. The form and content of the easements, including the survey map(s) showing the easement area(s), must be acceptable to Eversource and its legal counsel.
2. Eversource's tariffs, policies and procedures identify the costs and work that are the responsibility of Eversource and the Property owner, for the provision of utility service to the Property. The Property owner is responsible for timely payment of all costs owed to Eversource, and for timely the performance of the Property Owner's obligations required under Eversource's tariffs, policies and procedures.
3. The Property is within the territorial limits of Eversource's franchise as established by charter, Connecticut state statute or regulations or authority to furnish service, and the provision of service is consistent with the same.
4. If you require an estimate of the cost of providing utility service to the Property, please contact Nelson Blanco of Eversource Energy at 1-860-280-2336.

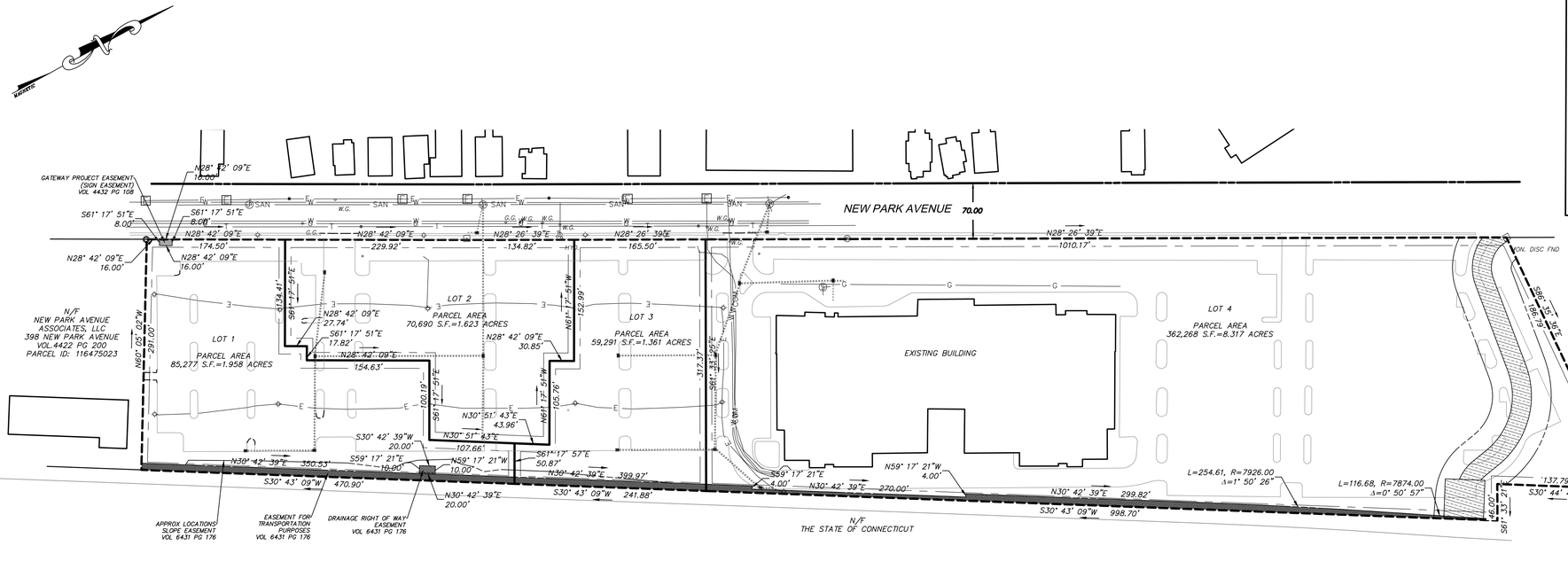
Sincerely,

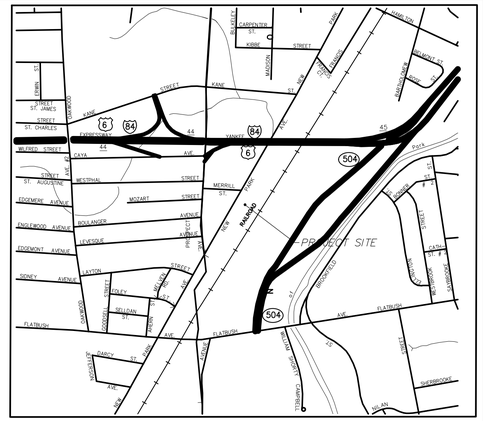
Orwin Watson

Orwin Watson
Supervisor, Field Engineering Design
Eversource Energy

cc:

Attachment 1-E: Subdivision Plan




LOCATION PLAN N.T.S.

## LEGEND

### UTILITY SERVICES (UNDERGROUND OR OVERHEAD)

| | |
|---|---|
| E | ELECTRIC SERVICE |
| G | GAS PIPES |
| SAN | SANITARY SEWER PIPES |
| | STORM WATER PIPES (LESS THAN 12") |
| | STORM WATER PIPES (12" OR LARGER) |
| STM | STEAM PIPES (SUPPLY & COND.) |
| T | TELEPHONE SERVICE |
| W | WATER PIPES |
| COM | COMMUNICATION/FIBER OPTIC SERVICE |
| FP | FIRE PROTECTION PIPES |
| | UNKNOWN UTILITY SERVICE |
| OH | OVERHEAD WIRES |

### PROPERTY/BOUNDARY LINES

| | |
|---|---|
| | PROPERTY/BOUNDARY LINES (CLASS A-2) |
| | PROPERTY/BOUNDARY LINES (CLASS D) |
| | EASEMENT LINES |

### FEATURE LINES

| | |
|---|---|
| | CURBED ROADWAY |
| | EDGE OF PAVED ROAD/DRIVE |
| | BUILDING ROOFLINE (AERIAL PHOTOS) |
| | RETAINING WALL |
| | STOCKADE FENCE |
| | CHAIN LINK/WIRE FENCE |
| | TREE/VEGATATION LINE |
| | STONE WALL |
| | SURFACE WATER (WATERCOURSE) |
| | WETLANDS LIMIT |
| | EDGE OF LANDSCAPING |
| | INTERMEDIATE CONTOUR |
| 80 | INDEX CONTOUR |

### SYMBOL LEGEND

| | |
|---|---|
| | CATCH BASIN |
| | ROUND DRAIN |
| | SQUARE DRAIN |
| | STORM DRAIN MANHOLE |
| E | ELECTRIC MANHOLE |
| S | SANITARY MANHOLE |
| S | STEAM MANHOLE |
| T | TELEPHONE MANHOLE |
| W | WATER MANHOLE |
| ? | MANHOLE (OF UNKNOWN TYPE) |
| | HAND HOLE (SQ. / REC.) |
| W.G. | WATER VALVE |
| G.G. | GAS VALVE |
| | HYDRANT |
| | COMBO STANDPIPE |
| | GUY WIRE |
| | SIGN (SINGLE POST) |
| | SIGN (DOUBLE POST) |
| | BORING (AS DRILLED) |
| | BORING (AS STAKED) |
| x 427.3 | SPOT ELEVATION |
| | WETLANDS FLAG |
| | PROPERTY MONUMENT |
| | UTILITY MONUMENT (SET AS 2" OFFSET) |
| | IRON PIPE OR REBAR FOUND |
| | IRRIGATION CONTROL BOX |
| | EMERGENCY PHONE |
| | TRAFFIC CONTROLLER CABINET |
| | UTILITY POLE |
| | UTILITY POLE W/ LIGHT |
| | STREET LIGHT |
| | LIGHT POST |
| | BOLLARD LIGHT |
| | BOULDER / ROCK |
| | CONIFER SHRUB |
| | DECIDUOUS SHRUB |
| | DECIDUOUS TREE (SAPLING) |
| | DECIDUOUS TREE |
| | CONIFER TREE |

### ABBREVIATIONS

| | |
|---|---|
| A/C | AIR CONDITIONER |
| AT&T | AMERICAN TELEPHONE & TELEGRAPH COMPANY |
| BIT. | BITUMINOUS |
| BLK. | BLACK |
| CB | CATCH BASIN |
| COM | COMMUNICATION |
| CON. | CONIFER |
| CONC. | CONCRETE |
| CNG | CONNECTICUT NATURAL GAS |
| CL | CENTERLINE |
| CLF | CHAIN LINK FENCE |
| CL&P | CONNECTICUT LIGHT & POWER COMPANY |
| CP | CONTROL POINT |
| DEC. | DECIDUOUS |
| DMH | DRAINAGE MANHOLE |
| E | EAST OR ELECTRIC |
| EL. | ELECTRIC |
| ELEV | ELEVATION |
| EMH | ELECTRIC MANHOLE |
| F.L. | FLOW LINE |
| FND. | FOUND |
| GRAN. | GRANITE |
| GSTC. | GRANITE STONE CURB |
| HELCO | HARTFORD ELECTRIC COMPANY |
| HYD. | HYDRANT |
| H.H. | HAND HOLE |
| L.P. | LIGHT POLE |
| MH | MANHOLE |
| M | METER |
| M.W. | MONITOR WELL |
| N | NORTH |
| NAD | NORTH AMERICAN DATUM |
| NAVD | NATIONAL AMERICAN VERTICAL DATUM |
| NE | NORTHEAST |
| N/F | NOW OR FORMERLY |
| NW | NORTHWEST |
| PVC | POLYVINYL CHLORIDE |
| P.I.V. | POST INDICATOR VALVE |
| RET. | RETAINING |
| RCP | REINFORCED CONCRETE PIPE |
| R.L. | RAIN LEADER |
| S | SOUTH OR SUPPLY |
| SE | SOUTHEAST |
| SW | SOUTHWEST |
| SAN. | SANITARY |
| SMH | SANITARY MANHOLE |
| SNET | SOUTHERN NEW ENGLAND TELEPHONE |
| SQ. | SQUARE |
| STM | STEAM |
| TMH | TELEPHONE MANHOLE |
| TEL. | TELEPHONE |
| T.F. | TOP OF FRAME |
| UNK. | UNKNOWN |
| W | WATER OR WEST |
| W.G. | WATER GATE |

### MAP REFERENCES

1. "ALTA/NSPS LAND TITLE SURVEY 330 NEW PARK AVENUE HARTFORD, CT 06106 SHEET 2 OF 2, SCALE 1" = 50'." BY LMS SURVEYING LTD
2. "CROWN THEATRES – 17 SCREEN COMPLEX NEW PARK AVENUE HARTFORD CONNECTICUT STARWOOD CERUZZI HARTFORD, LLC – DEVELOPER GRADING AND UTILITY PLAN DRAWING NUMBER 4 OF 12, SCALE 1"=50', DATED 6/8/98." BY TPA DESIGN GROUP, 85 WILLOW STREET NEW HAVEN, CT 06511

### SURVEY NOTES

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300B-1 THRU 20-300B-20 AND THE "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.
   1.1. THE TYPE OF SURVEY IS A PROPERTY/BOUNDARY, AND GENERAL LOCATION SURVEY.
   1.2. THE BOUNDARY DETERMINATION CATEGORY IS DEPENDENT RESURVEY.
   1.3. THE ACCURACIES ARE AS FOLLOWS:

| | |
|---|---|
| HORIZONTAL CONTROL | CLASS "A-2" |
| BOUNDARY | CLASS "A-2" |

2. THE COORDINATES AND ELEVATIONS DEPICTED ON THE PLAN REPRESENT THE NAD '83 AND THE NAVD '88 DATUMS. COORDINATES WERE ESTABLISHED ON THE SITE BASED UPON GPS OBSERVATIONS TAKEN ON 03/31/20 USING TRIMBLE GNSS RTK R10 RECEIVERS AND SOLUTIONS PROVIDED THROUGH THE KEYNET NETWORK.
3. UNDERGROUND UTILITIES (IF DEPICTED) HAVE BEEN COMPILED, IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. THIS INFORMATION IS TO BE CONSIDERED APPROXIMATE AND ALFRED BENESCH & COMPANY DOES NOT TAKE RESPONSIBILITY FOR SUBSEQUENT ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THIS PLAN AS A RESULT. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCES OF WHICH ARE UNKNOWN TO ALFRED BENESCH & COMPANY. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION. CALL "CALL BEFORE YOU DIG" 1-800-922-4455.
4. THE SUBJECT PROPERTY'S CURRENT DEED CAN BE FOUND IN VOLUME 7292 PAGE 264 OF THE CITY OF HARTFORD LAND RECORDS.
5. THE PROPERTY IS LOCATED IN THE "MS-3 TOD" MAIN STREET DISTRICT – TRANSIT ORIENTED DEVELOPMENT OVERLAY DISTRICT ZONE PER THE CITY OF HARTFORD.
6. THE PROPERTY LIES WITHIN THE "ZONE 'X' – AREAS OF MINIMAL FLOOD HAZARD." PER THE FEMA FLOOD INSURANCE RATE MAP HARTFORD COUNTY, CONNECTICUT (ALL JURISDICTIONS) PANEL 502 OF 675 MAP NUMBER: 09009C0439J EFFECTIVE DATE: JULY 8, 2013 AND FEMA FLOOD INSURANCE RATE MAP NEW HAVEN COUNTY, CONNECTICUT (ALL JURISDICTIONS) PANEL 443 OF 635 MAP NUMBER: 09003C0502F EFFECTIVE DATE: SEPTEMBER 26, 2008.
7. TOTAL PARCEL AREA IS 584,146 SQ. FT. = 13.41 AC.
8. THE CURRENT PROPERTY OWNER IS
   DP 103 LLC
   333 NORTH BEDFORD ROAD
   MOUNT KISCO, NY 10549
9. THE SUBDIVIDER IS
   DAKOTA PARTNERS, INC
   1264 MAIN STREET
   WALTHAM, MA 02451
10. REGISTERED LAND SURVEYOR
    DAVID A. CARICCHIO LS 70036
    ALFRED BENESCH & CO
    120 HEBRON AVE 2nd FLOOR
    GLASTONBURY, CT 06033
11. PER THE CIUTY OF HARTFORD INLAND WETLANDS MAP THER ARE NO WETLANDS LOCATED ON THIS PARCEL

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS DEPICTED AND NOTED HEREON.

STATE OF CONNECTICUT · DAVID A. CARICCHIO · No. 70036 · LICENSED LAND SURVEYOR

9-17-2020

DAVID A. CARICCHIO, P.L.S. No. 70036 — DATE
ALFRED BENESCH & COMPANY, GLASTONBURY, CONNECTICUT
(not valid without original signature and embossed seal)

| No. | DESCRIPTION | DATE |
|---|---|---|
| | REVISIONS | |

SURVEY BOOK: 19-03
SURVEYOR: NC
DRAWN: CS
CHECKED: DAC
APPROVED: DAC

SCALE: HORZ.: 1" = 80'
VERT.:
SURVEY DATUM: HORZ.: NAD 1983
VERT.: NAVD 1988

GRAPHIC SCALE 80 0 40 80

Prepared By:


benesch
Alfred Benesch & Company
120 Hebron Avenue 2nd Floor
Glastonbury, Connecticut 06033
Phone (860) 633-8341, Fax: (860) 633-1068
www.benesch.com


SUBDIVISION PLAN
PREPARED FOR
DAKOTA PARTNERS, INC.
300 NEW PARK AVENUE
HARTFORD CONNECTICUT

PROJ. No.: 70610.00
DATE: APRIL 3, 2020

SV.03

File Location/Name - Y:\Glastonbury\70600s\70610.00_Dakota_Hartford\Survey\ACAD\70610 SUBDIVISION.dwg
Date of Plot: September 17, 2020 - 9:10 PM

attached xrefs ECW_blank.dwg

PAPER SPACE LAYOUT NAME:
TWISTVIEW:
VIEW NAME:
LAYER MANAGER NAME:
PLOT TABLE: .STB

Attachment 1-F: Traffic Impacts Letter

Alfred Benesch & Company
120 Hebron Avenue, 2nd Floor
Glastonbury, CT 06033
www.benesch.com
P 860-633-8341
F 860-633-1068

June 26, 2020

**Ms. Aimee Chambers, AICP**
**Director of Planning**
Department of Development Services
Planning Division
250 Constitution Plaza, 4th Floor
Hartford, Connecticut 06103

**Re: Edge 400 Residential Development**
**330 New Park Avenue**
**Hartford, Connecticut**

Dear Ms. Chambers:

At your request, we have reviewed the proposed traffic impacts associated with new Edge 400 residential development located at 330 New Park Avenue in Hartford CT. The developments will consist of 180 apartment units with 4,488 square feet of commercial space on the first floor fronting New Park Avenue. The vehicular access to the development will be from two driveways to New Park Avenue. The site is near two CTfastrak stations, the Flatbush Station is approximately 1,400 feet to the south and the Keene Street station is approximately 2,000 feet to the north, a 5 to 8 minute walk from the Edge 400 complex. The CT-Transit local Route 31 "Park Street – New Park Avenue" serves the site as well.

Normally a full traffic impact study is conducted for a project such as this, however, with the presence of the COVID-19 pandemic, the movie theatre on the site has been closed since mid-March and will not re-open as a Bow-Tie theater. In addition to the closure of the movie theater, traffic volumes on the surrounding roadway network have been significantly reduced due to the State of Connecticut Stay at Home orders. It is unknown when traffic volumes on the roadway surrounding the site will return to "normal" levels so that traffic counts would not be appropriate.

Crash data from the UCONN Crash repository was obtained for the three-year period from 1/1/2017 through 12/31/2019 for the intersections and roadways surrounding the site. Review of this data show that there are no crash patterns that would indicate geometric improvements should be made. The crash data is presented in the attached supplemental data.

The traffic impact of the proposed development is determined by calculating the number of new trips that are expected to be generated by the development. The trip generation volumes represent the

number of trips expected to be added to the roadway network during the peak hours of the proposed development. The commercial spaces located on the first floor fronting New Park Avenue is assumed to be an ancillary use and not expected to generate any vehicle trips. The anticipated site generated traffic volumes for the Edge 400 development were calculated using existing empirical data from the Institute of Transportation Engineers (ITE) publication Trip Generation, 10th edition, 2017, supplemented in 2020. Land Use 221 "Multifamily Housing (Mid-Rise)" using the "Dense Multi-Use Urban" formulas are the land use that most closely represents the proposed development. The dense urban data represents developments where there are many more transit / walking opportunities available to residents than would be expected in a normal sub-urban location. The number of new trips that will be generated by the proposed 180 dwelling unit residential development is as follows:

| | | |
|---|---|---|
| | Land Use | 221 |
| | Description | Multifamily Housing (Mid-Rise) Dense Multi-Use Urban |
| | Units | 180 |
| AM Peak Hour Traffic | | 36 |
| Entering | | 4 |
| Exiting | | 32 |
| PM Peak Hour Traffic | | 30 |
| Entering | | 22 |
| Exiting | | 8 |

The proposed residential development will generate 36 vehicle trips during the AM peak Hour with 4 vehicles entering and 32 vehicles exiting and during the PM peak hour there will be 30 vehicle trips with 22 vehicles entering and 8 vehicles exiting the site.

The ITE Trip generation also provided the anticipated number of Walking / Bicycle / Transit (WBT) trips associated with a residential development in a dense urban location. Combining the total of vehicle

trips and WBT trips creates a total "person trip" calculation for the development. The total person trips assumed for the development are:

| | Vehicles | Walk + Bike + Transit | Person Trips |
|---|---|---|---|
| AM Peak Hour Traffic | 36 | 30 | 66 |
| Entering | 4 | 4 | 8 |
| Exiting | 32 | 27 | 58 |
| | | | |
| PM Peak Hour Traffic | 30 | 44 | 74 |
| Entering | 22 | 31 | 53 |
| Exiting | 8 | 12 | 21 |

The above table indicates that the proposed residential development will generate 66 person trips during the AM peak hour and 74 person trips during the PM peak hour. This number of total person trips is similar to the total vehicle trips that would be associated with a residential development located in a suburban location. The comparison between the dense urban trip generation and suburban trip generation as well as the trip generation graphs are presented in the attached supplemental data.

We would consider the number of trips added by this development to be insignificant in an urban setting. Additionally, we are unaware of any significant traffic issues in the area surrounding the Edge 400 site and believe that the roadway network can accommodate small number of trips that will be generated by the proposed residential development.

If you have any questions or need additional information, please contact us.

Very truly yours,
Alfred Benesch & Company

Stephen R. Ulman, PTOE
Senior Project Engineer
(70610)

# Supplemental Traffic Data

## Edge 400 Residential Development

### 330 New Park Avenue
### Hartford, CT

**PREPARED FOR**

**Dakota Partners, Inc.**
1264 Main Street
Waltham, MA 02451

**June 22, 2020**

benesch

# CRASH DATA

# City of Hartford
## Crash Data - 1/1/2017 - 12/31/2019
## Edge 400 - New Park Avenue

| CrashId | Town Name | Date Of Crash | Day of the Week | Time of Crash | Crash Severity | Most Severe Injury | Number Of Motor Vehicles | Milemarker | Road Description | Roadway Name | Intersecting Roadway Name | Landmark Description | Distance From Nearest Landmark | Direction From Nearest Landmark | First Harmful Event | Manner of Crash / Collision Impact | Location of First Harmful Event | Weather Condition | Light Condition | Road Surface Condition | Contributing Circumstances, Environment | Contributing Circumstances, Road | Crash Specific Location | School Bus Related | Work Zone Related |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 362949 | Hartford | 2/16/2017 | Thursday | 5:11:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.16 | NEW PARK AV | New Park Avenue | unknown | MERRILL ST | 500 Feet | S | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Dark-Lighted | Dry | None | None | Non-Junction | No | No |
| 370891 | Hartford | 3/24/2017 | Friday | 6:33:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.02 | NEW PARK AV | New Park Avenue | unknown | PROSPECT AV | 100 Feet | N | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Dark-Lighted | Dry | None | None | Non-Junction | No | No |
| 376825 | Hartford | 4/9/2017 | Sunday | 2:15:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0 | NEW PARK AV | New Park Avenue | PROSPECT AV | | | | Motor Vehicle in Operation | Angle | On Roadway | Clear | Daylight | Dry | None | None | Intersection | No | No |
| 399686 | Hartford | 5/19/2017 | Friday | 8:44:00 AM | Property Damage Only | No Apparent Injury (O) | 2 | 0 | NEW PARK AV | New Park Avenue | PROSPECT AV | | | | Motor Vehicle in Operation | Sideswipe, same direction | On Roadway | Clear | Daylight | Dry | None | None | Intersection | No | No |
| 403267 | Hartford | 5/28/2017 | Sunday | 2:25:00 AM | Property Damage Only | No Apparent Injury (O) | 3 | 0.2 | NEW PARK AV | 370 New Park Avenue | unknown | PROSPECT AV | 400 Feet | N | Parked Motor Vehicle | Front to rear | In Parking Lane or Zone | Clear | Dark-Lighted | Dry | None | None | Non-Junction | No | No |
| 409339 | Hartford | 7/16/2017 | Sunday | 3:24:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.24 | NEW PARK AV | New Park Avenue | unknown | MERRILL ST | 99 Feet | S | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | None | None | Intersection-Related | No | No |
| 420948 | Hartford | 5/8/2017 | Monday | 3:15:00 PM | Injury of any type (Serious, Minor, Possible) | Possible Injury (C) | 2 | 0.26 | NEW PARK AV | 330 New Park Avenue | unknown | MERRILL ST | 75 Feet | N | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | None | None | Intersection-Related | No | No |
| 452723 | Hartford | 8/9/2017 | Wednesday | 12:30:00 PM | Injury of any type (Serious, Minor, Possible) | Possible Injury (C) | 2 | 0.25 | NEW PARK AV | New Park Ave. | MERRILL ST | | | | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | None | None | Intersection-Related | No | No |
| 458796 | Hartford | 9/1/2017 | Friday | 6:22:00 PM | Injury of any type (Serious, Minor, Possible) | Possible Injury (C) | 2 | 0.26 | NEW PARK AV | New Park Ave. | unknown | MERRILL ST | 75 Feet | N | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | None | None | Intersection | No | No |
| 458939 | Hartford | 9/15/2017 | Friday | 2:50:00 PM | Injury of any type (Serious, Minor, Possible) | Suspected Minor Injury (B) | 2 | 0.08 | NEW PARK AV | 355 New Park Ave | unknown | PROSPECT AV-CON | 52 Feet | N | Motor Vehicle in Operation | Sideswipe, same direction | On Roadway | Clear | Daylight | Dry | None | None | Non-Junction | No | No |
| 460650 | Hartford | 11/21/2017 | Tuesday | 9:47:00 PM | Injury of any type (Serious, Minor, Possible) | Suspected Minor Injury (B) | 3 | 0.2 | NEW PARK AV | New Park Avenue | unknown | MERRILL ST | 261 Feet | S | Motor Vehicle in Operation | Front to front | On Roadway | Clear | Dark-Lighted | Dry | None | None | Non-Junction | No | No |
| 468451 | Hartford | 11/17/2017 | Friday | 7:28:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.31 | NEW PARK AV | New Park Avenue | unknown | MERRILL ST | 300 Feet | N | Motor Vehicle in Operation | Angle | On Roadway | Clear | Dark-Lighted | Dry | None | None | Driveway Access-Related | No | No |
| 568899 | Hartford | 6/8/2018 | Friday | 2:08:00 PM | Injury of any type (Serious, Minor, Possible) | Suspected Minor Injury (B) | 2 | 0.39 | NEW PARK AV | NEW PARK AV | unknown | Kane Street | 250 Feet | S | Other Non-Collision | Not Applicable | On Roadway | Clear | Daylight | Dry | None | None | Non-Junction | No | No |
| 587180 | Hartford | 10/30/2018 | Tuesday | 10:14:00 AM | Property Damage Only | No Apparent Injury (O) | 2 | 0.25 | NEW PARK AV | NEW PARK AV | MERRILL ST | | | | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | Weather Conditions | None | Non-Junction | No | No |
| 611210 | Hartford | 1/3/2019 | Thursday | 1:26:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.08 | NEW PARK AV | NEW PARK AV | unknown | Prospect Avenue | 370 Feet | N | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | None | None | Intersection | No | No |
| 639395 | Hartford | 5/18/2019 | Saturday | 2:10:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0 | NEW PARK AV | NEW PARK AV | unknown | | | | Motor Vehicle in Operation | Angle | On Roadway | Clear | Daylight | Dry | None | None | Intersection | No | No |
| 692223 | Hartford | 10/25/2018 | Thursday | 11:07:00 PM | Injury of any type (Serious, Minor, Possible) | Suspected Minor Injury (B) | 2 | 0.21 | NEW PARK AV | NEW PARK AV | unknown | Prospect Avenue | 150 Feet | N | Parked Motor Vehicle | Front to rear | In Parking Lane or Zone | Clear | Dark-Lighted | Dry | None | None | Through Roadway | No | No |
| 694162 | Hartford | 8/19/2019 | Monday | 9:43:00 PM | Fatal (Kill) | Fatal Injury (K) | 2 | 0.24 | NEW PARK AV | NEW PARK AV | unknown | Merrill Street | 75 Feet | S | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Dark-Lighted | Dry | None | None | Intersection-Related | No | No |

City of Hartford
Crash Data - 1/1/2017 - 12/31/2019
Edge 400 - New Park Avenue

| CrashId | Town Name | Date Of Crash | Day of the Week | Time of Crash | Crash Severity | Most Severe Injury | Number Of Motor Vehicles | Milemarker | Road Description | Roadway Name | Intersecting Roadway Name | Landmark Description | Distance From Nearest Landmark | Direction From Nearest Landmark | First Harmful Event | Manner of Crash / Collision Impact | Location of First Harmful Event | Weather Condition | Light Condition | Road Surface Condition | Contributing Circumstances, Environment | Contributing Circumstances, Road | Crash Specific Location | School Bus Related | Work Zone Related |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 697473 | Hartford | 1/28/2019 | Monday | 7:22:00 AM | Property Damage Only | No Apparent Injury (O) | 2 | 0.06 | NEW PARK AV | NEW PARK AV | unknown | Prospect Avenue | 295 Feet | N | Parked Motor Vehicle | Other | On Roadway | Clear | Daylight | Dry | None | None | Non-Junction | No | No |
| 697812 | Hartford | 10/10/2019 | Thursday | 12:38:00 PM | Injury of any type (Serious, Minor, Possible) | Possible Injury (C) | 2 | 0.25 | NEW PARK AV | NEW PARK AV | MERRILL ST | | | | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | None | None | Intersection | No | No |
| 698398 | Hartford | 9/27/2019 | Friday | 12:36:00 PM | Property Damage Only | No Apparent Injury (O) | 4 | 0.11 | NEW PARK AV | NEW PARK AV | unknown | Prospect Avenue | 400 Feet | N | Motor Vehicle in Operation | Front to front | On Roadway | Clear | Daylight | Dry | None | None | Non-Junction | No | No |
| 712406 | Hartford | 11/16/2019 | Saturday | 2:10:00 PM | Injury of any type (Serious, Minor, Possible) | Possible Injury (C) | 2 | 0.02 | NEW PARK AV | NEW PARK AV | unknown | Prospect Ave | 50 Feet | N | Motor Vehicle in Operation | Sideswipe, same direction | On Roadway | Clear | Daylight | Dry | None | Backup Due to Regular Congestion | Intersection-Related | No | No |
| 716625 | Hartford | 11/27/2019 | Wednesday | 6:42:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.03 | NEW PARK AV | NEW PARK AV | unknown | Prospect Avenue | 88 Feet | N | Motor Vehicle in Operation | Front to rear | On Roadway | Rain | Dark-Not Lighted | Wet | None | None | Intersection | No | No |
| 731207 | Hartford | 12/31/2019 | Tuesday | 2:51:00 PM | Property Damage Only | No Apparent Injury (O) | 3 | 0.19 | NEW PARK AV | NEW PARK AV | unknown | Merrill Street | 100 Feet | S | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | None | None | Non-Junction | No | No |
| 458810 | Hartford | 9/3/2017 | Sunday | 9:01:00 AM | Property Damage Only | No Apparent Injury (O) | 2 | 0.09 | MERRILL ST | Merrill St | unknown | PROSPECT AV | 162 Feet | E | Motor Vehicle in Operation | Angle | On Roadway | Rain | Daylight | Wet | None | None | Driveway Access-Related | No | No |
| 570524 | Hartford | 9/23/2018 | Sunday | 9:54:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.05 | MERRILL ST | MERRILL ST | unknown | New Park Avenue | 1 Tenths of Mile | E | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Unknown | Dry | None | None | Non-Junction | No | No |
| 586258 | Hartford | 9/23/2018 | Sunday | 9:56:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.02 | MERRILL ST | MERRILL ST | unknown | New Park Avenue | 87 Feet | W | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Dark-Lighted | Dry | None | None | Non-Junction | No | No |
| 629385 | Hartford | 4/1/2019 | Monday | 9:49:00 AM | Property Damage Only | No Apparent Injury (O) | 2 | 0.57 | PROSPECT AV | PROSPECT AV | MERRILL ST | | | | Motor Vehicle in Operation | Sideswipe, same direction | On Roadway | Clear | Daylight | Dry | None | None | Intersection | No | No |
| 673045 | Hartford | 8/8/2019 | Thursday | 9:12:00 PM | Injury of any type (Serious, Minor, Possible) | Suspected Minor Injury (B) | 2 | 0.71 | PROSPECT AV | PROSPECT AV | LEVESQUE AV | | | | Motor Vehicle in Operation | Front to front | On Roadway | Clear | Dark-Lighted | Dry | None | None | Intersection | No | No |
| 677903 | Hartford | 9/29/2018 | Saturday | 4:31:00 AM | Property Damage Only | No Apparent Injury (O) | 2 | 0.79 | PROSPECT AV | PROSPECT AV | NEW PARK AV | | Feet | | Other Non-Collision | Sideswipe, opposite direction | On Roadway | Clear | Dark-Lighted | Dry | None | None | Intersection | No | No |
| 678518 | Hartford | 5/11/2019 | Saturday | 6:37:00 AM | Property Damage Only | No Apparent Injury (O) | 2 | 0.77 | PROSPECT AV | PROSPECT AV | unknown | NEW PARK AV | 50 Feet | W | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | None | None | Intersection-Related | No | No |
| 678519 | Hartford | 5/18/2019 | Saturday | 3:09:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.79 | PROSPECT AV | PROSPECT AV | NEW PARK AV | | | | Motor Vehicle in Operation | Angle | On Roadway | Clear | Daylight | Dry | None | None | Intersection | No | No |
| 679036 | Hartford | 2/1/2018 | Thursday | 1:53:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.79 | PROSPECT AV | PROSPECT AV | NEW PARK AV | | | | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | None | None | Intersection | No | No |
| 679037 | Hartford | 9/28/2018 | Friday | 7:52:00 PM | Injury of any type (Serious, Minor, Possible) | Possible Injury (C) | 2 | 0.79 | PROSPECT AV | PROSPECT AV | NEW PARK AV | | | | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Dark-Lighted | Dry | None | None | Intersection | No | No |
| 679514 | Hartford | 6/13/2019 | Thursday | 9:48:00 PM | Property Damage Only | No Apparent Injury (O) | 2 | 0.79 | PROSPECT AV | PROSPECT AV | NEW PARK AV | | | | Motor Vehicle in Operation | Sideswipe, same direction | On Roadway | Clear | Dark-Lighted | Dry | None | None | Intersection | No | No |
| 692177 | Hartford | 9/22/2018 | Saturday | 10:20:00 AM | Injury of any type (Serious, Minor, Possible) | Possible Injury (C) | 2 | 0.79 | PROSPECT AV | PROSPECT AV | NEW PARK AV | | | | Motor Vehicle in Operation | Front to rear | On Roadway | Clear | Daylight | Dry | None | None | Intersection | No | No |

City of Hartford
Crash Data (Vehicle Information) - 1/1/2017 - 12/31/2019
Edge 400 - New Park Avenue

| CrashId | VehicleId | Vehicle Unit Type Text Format | # Occupants | Direction of Travel Before Crash | Most Harmful Event Text Format | Vehicle Maneuver/Action | Contributing Circumstances Motor Vehicle | Contributing Circumstances, Motor Vehicle Text Format | Towed Status Text Format | Trafficway Description Text Format | Total Lanes In Roadway | Roadway Alignment Text Format | Roadway Grade Text Format | Initial Contact Point Text Format | Extent of Damage Text Format | Body Type Text Format | Vehicle Action Text Format | Contributing Circumstances of Vehicle | Traffic Control Device Type Text Format | Traffic Control Device Functional? | Special Function Of Vehicle In Operation Text Format | Emergency Vehicle Use Text Format | Bike Lanes/Sharrows Present | Name Of Roadway On Which Vehicle Was Traveling | Vehicle Was Not On Roadway |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 362949 | 1 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Minor Damage | (Sport) Utility Vehicle | Stopped in Traffic | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 362949 | 2 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avevue | FALSE |
| 370891 | 1 | Vehicle in Operation | 3 | S | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Not Towed | Two-Way, Divided, Unprotected (Painted > 4 Feet) Median | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Stopped in Traffic | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 370891 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Towed But not Due to Disabling Damage | Two-Way, Divided, Unprotected (Painted > 4 Feet) Median | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 376825 | 1 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 9 (West) in the 12-point Clock Diagram | Functional Damage | (Sport) Utility Vehicle | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 376825 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Turning Right | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 1 (North by NorthEast) in the 12-point Clock Diagram | Minor Damage | (Sport) Utility Vehicle | Turning Right | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 399686 | 1 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Turning Left | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Curve Left | Level | Sector 8 (SouthWest) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Turning Left | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 399686 | 2 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Turning Left | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Curve Left | Level | Sector 2 (NorthEast) in the 12-point Clock Diagram | Functional Damage | Passenger Car | Turning Left | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 403267 | 1 | Vehicle in Operation | 1 | N | Parked Vehicle | Straight Ahead | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided | 2 | Straight | Level | Sector 3 (East) in the 12-point Clock Diagram | Disabling Damage | Pick Up | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | TRUE | New Park Avenue | FALSE |
| 403267 | 2 | Parked Vehicle | 0 | N | Motor Vehicle In Transport | Parked | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Disabling Damage | Passenger Car | Parked | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Unoccupied Park facing | FALSE |
| 403267 | 3 | Parked Vehicle | 0 | E | Motor Vehicle In Transport | Parked | None | Not Applicable | Not Towed | Two-Way, Not Divided | | Straight | Level | Sector 10 (NorthWest) in the 12-point Clock Diagram | Disabling Damage | Passenger Car | Parked | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | unoccupied facing south | FALSE |
| 409339 | 1 | Vehicle in Operation | 2 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 3 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 409339 | 2 | Vehicle in Operation | 6 | N | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Not Towed | Two-Way, Not Divided | 3 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Stopped in Traffic | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 420948 | 1 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | No Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 420948 | 2 | Vehicle in Operation | 2 | S | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Stopped in Traffic | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 452723 | 1 | Vehicle in Operation | 2 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Ave. | FALSE |
| 452723 | 2 | Vehicle in Operation | 2 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Ave. | FALSE |
| 458796 | 1 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Slowing | None | Not Applicable | Not Towed | Two-Way, Divided, Unprotected (Painted > 4 Feet) Median | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Functional Damage | (Sport) Utility Vehicle | Slowing | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Ave. | FALSE |

City of Hartford
Crash Data (Vehicle Information) - 1/1/2017 - 12/31/2019
Edge 400 - New Park Avenue

| CrashId | VehicleId | Vehicle Unit Type Text Format | # Occupants | Direction of Travel Before Crash | Most Harmful Event Text Format | Vehicle Maneuver/Action | Contributing Circumstances Motor Vehicle | Contributing Circumstances, Motor Vehicle Text Format | Towed Status Text Format | Trafficway Description Text Format | Total Lanes In Roadway | Roadway Alignment Text Format | Roadway Grade Text Format | Initial Contact Point Text Format | Extent of Damage Text Format | Body Type Text Format | Vehicle Action Text Format | Contributing Circumstances of Vehicle | Traffic Control Device Type Text Format | Traffic Control Device Functional? | Special Function Of Vehicle In Operation Text Format | Emergency Vehicle Use Text Format | Bike Lanes/Sharrows Present | Name Of Roadway On Which Vehicle Was Traveling | Vehicle Was Not On Roadway |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 458796 | 2 | Vehicle in Operation | 1 | | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Divided, Unprotected (Painted > 4 Feet) Median | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | (Sport) Utility Vehicle | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | None | TRUE |
| 458939 | 1 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Entering Traffic Lane | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | Passenger Car | Entering Traffic Lane | None | No Control Device | Not Applicable | No Special Function | Not applicable | TRUE | New Park Ave | FALSE |
| 458939 | 2 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 3 (East) in the 12-point Clock Diagram | Functional Damage | (Sport) Utility Vehicle | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | TRUE | New Park Ave | FALSE |
| 460650 | 1 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided, With a Continuous Left Turn Lane | 3 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | Pick Up | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | NEW PARK AVENUE | FALSE |
| 460650 | 2 | Vehicle in Operation | 2 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided, With a Continuous Left Turn Lane | 3 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | (Sport) Utility Vehicle | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 460650 | 3 | Vehicle in Operation | 1 | S | Reentering Roadway | Unknown | Unknown | Not Applicable | Not Towed | Two-Way, Not Divided, With a Continuous Left Turn Lane | 3 | Straight | Level | Unknown | No Damage | Unknown | Unknown | Unknown | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 468451 | 1 | Vehicle in Operation | 2 | W | Motor Vehicle In Transport | Turning Left | None | Not Applicable | Towed But not Due to Disabling Damage | Two-Way, Not Divided, With a Continuous Left Turn Lane | 3 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | Passenger Car | Turning Left | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 468451 | 2 | Parked Vehicle | 1 | S | Motor Vehicle In Transport | Turning Left | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided, With a Continuous Left Turn Lane | 3 | Straight | Level | Sector 9 (West) in the 12-point Clock Diagram | Disabling Damage | (Sport) Utility Vehicle | Turning Left | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 568899 | 1 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Top | No Damage | Other | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 568899 | 2 | Vehicle in Operation | 1 | S | Unknown | Unknown | Unknown | Not Applicable | Unknown | Two-Way, Not Divided | 2 | Straight | Level | Unknown | Minor Damage | Unknown | Unknown | Unknown | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 587180 | 1 | Vehicle in Operation | 1 | W | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | No Damage | Passenger Car | Stopped in Traffic | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 587180 | 2 | Vehicle in Operation | 1 | W | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | No Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 611210 | 1 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Functional Damage | Passenger Car | Stopped in Traffic | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 611210 | 2 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 639395 | 1 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Turning Left | None | Not Applicable | Not Towed | Two-Way, Divided, Unprotected (Painted > 4 Feet) Median | 4 | Straight | Level | Sector 1 (North by NorthEast) in the 12-point Clock Diagram | Functional Damage | Passenger Van | Turning Left | None | Traffic Control Signal | Yes | Taxi | Not applicable | FALSE | New Park Avenue | FALSE |
| 639395 | 2 | Vehicle in Operation | 2 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 4 | Straight | Level | Sector 11 (North by NorthWest) in the 12-point Clock Diagram | Functional Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 692223 | 1 | Parked Vehicle | 0 | N | Motor Vehicle In Transport | Parked | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Minor Damage | Cargo Van (10,000 lbs/4,536 kg or less) | Parked | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Parked on New Park Avenue | TRUE |

City of Hartford
Crash Data (Vehicle Information) - 1/1/2017 - 12/31/2019
Edge 400 - New Park Avenue

| CrashId | VehicleId | Vehicle Unit Type Text Format | # Occupants | Direction of Travel Before Crash | Most Harmful Event Text Format | Vehicle Maneuver/Action | Contributing Circumstances Motor Vehicle | Contributing Circumstances, Motor Vehicle Text Format | Towed Status Text Format | Trafficway Description Text Format | Total Lanes In Roadway | Roadway Alignment Text Format | Roadway Grade Text Format | Initial Contact Point Text Format | Extent of Damage Text Format | Body Type Text Format | Vehicle Action Text Format | Contributing Circumstances of Vehicle | Traffic Control Device Type Text Format | Traffic Control Device Functional? | Special Function Of Vehicle In Operation Text Format | Emergency Vehicle Use Text Format | Bike Lanes/Sharrows Present | Name Of Roadway On Which Vehicle Was Traveling | Vehicle Was Not On Roadway |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 692223 | 2 | Vehicle in Operation | 1 | N | Parked Vehicle | Straight Ahead | None | Not Applicable | Towed But not Due to Disabling Damage | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 694162 | 1 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided | 3 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Disabling Damage | Moped | Stopped in Traffic | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 694162 | 2 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided | 3 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | Motorcycle | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 697473 | 1 | Vehicle in Operation | 1 | N | Unknown | Unknown | Unknown | Not Applicable | Not Towed | Two-Way, Not Divided | 3 | Straight | Level | Unknown | Unknown | Unknown | Unknown | Unknown | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 697473 | 2 | Parked Vehicle | 0 | S | Motor Vehicle In Transport | Parked | Not Applicable | | Not Towed | Two-Way, Not Divided | 3 | Straight | Level | Sector 11 (North by NorthWest) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Parked | Not Applicable | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | 377 New Park Avenue | FALSE |
| 697812 | 1 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 697812 | 2 | Vehicle in Operation | 2 | N | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Minor Damage | (Sport) Utility Vehicle | Stopped in Traffic | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 698398 | 1 | Parked Vehicle | 0 | | Motor Vehicle In Transport | Parked | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Divided, Positive Median Barrier | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | Passenger Car | Parked | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | None | TRUE |
| 698398 | 2 | Vehicle in Operation | 1 | E | Parked Vehicle | Leaving Traffic Lane | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Divided, Positive Median Barrier | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | (Sport) Utility Vehicle | Leaving Traffic Lane | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | NEW PARK AVENUE | FALSE |
| 698398 | 3 | Parked Vehicle | 0 | | Motor Vehicle In Transport | Parked | None | Not Applicable | Not Towed | Two-Way, Divided, Positive Median Barrier | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Parked | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | None | TRUE |
| 698398 | 4 | Parked Vehicle | 0 | | Motor Vehicle In Transport | Parked | None | Not Applicable | Not Towed | Two-Way, Divided, Positive Median Barrier | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Parked | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | None | TRUE |
| 712406 | 1 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Divided, Unprotected (Painted > 4 Feet) Median | 2 | Straight | Level | Sector 1 (North by NorthEast) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Ave | FALSE |
| 712406 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Divided, Unprotected (Painted > 4 Feet) Median | 2 | Straight | Level | Sector 11 (North by NorthWest) in the 12-point Clock Diagram | Minor Damage | (Sport) Utility Vehicle | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Ave | FALSE |
| 716625 | 1 | Vehicle in Operation | 4 | S | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Not Towed | Two-Way, Not Divided | 4 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Minor Damage | (Sport) Utility Vehicle | Stopped in Traffic | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park | FALSE |
| 716625 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Towed But not Due to Disabling Damage | Two-Way, Not Divided | 4 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park | FALSE |
| 731207 | 1 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Ave | FALSE |
| 731207 | 2 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Ave | FALSE |
| 731207 | 3 | Vehicle in Operation | 2 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | New Park Ave | FALSE |

City of Hartford
Crash Data (Vehicle Information) - 1/1/2017 - 12/31/2019
Edge 400 - New Park Avenue

| CrashId | VehicleId | Vehicle Unit Type Text Format | # Occupants | Direction of Travel Before Crash | Most Harmful Event Text Format | Vehicle Maneuver/Action | Contributing Circumstances Motor Vehicle | Contributing Circumstances, Motor Vehicle Text Format | Towed Status Text Format | Trafficway Description Text Format | Total Lanes In Roadway | Roadway Alignment Text Format | Roadway Grade Text Format | Initial Contact Point Text Format | Extent of Damage Text Format | Body Type Text Format | Vehicle Action Text Format | Contributing Circumstances of Vehicle | Traffic Control Device Type Text Format | Traffic Control Device Functional? | Special Function Of Vehicle In Operation Text Format | Emergency Vehicle Use Text Format | Bike Lanes/Sharrows Present | Name Of Roadway On Which Vehicle Was Traveling | Vehicle Was Not On Roadway |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 458810 | 1 | Vehicle in Operation | 1 | W | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 3 (East) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Merrill St | FALSE |
| 458810 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Entering Traffic Lane | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | (Sport) Utility Vehicle | Entering Traffic Lane | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Merrill St | FALSE |
| 570524 | 1 | Vehicle in Operation | 5 | E | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Functional Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Merrill Street | FALSE |
| 570524 | 2 | Vehicle in Operation | 1 | E | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Merrill Street | FALSE |
| 586258 | 1 | Vehicle in Operation | 5 | E | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | Functional Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Merrill Street | FALSE |
| 586258 | 2 | Vehicle in Operation | 1 | E | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Merrill Street | FALSE |
| 629385 | 1 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 3 | Straight | Level | Sector 1 (North by NorthEast) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Prospect Avenue | FALSE |
| 629385 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Changing Lanes | None | Not Applicable | Not Towed | Two-Way, Not Divided | 3 | Straight | Level | Sector 9 (West) in the 12-point Clock Diagram | Minor Damage | Cargo Van (10,000 lbs/4,536 kg or less) | Changing Lanes | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Prospect Avenue | FALSE |
| 673045 | 1 | Vehicle in Operation | 1 | E | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided | 2 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | Passenger Car | Straight Ahead | None | Stop Sign | Yes | No Special Function | Not applicable | FALSE | Boulanger | FALSE |
| 673045 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided | 4 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | Passenger Car | Straight Ahead | None | No Control Device | Not Applicable | No Special Function | Not applicable | FALSE | Prospect Ave | FALSE |
| 677903 | 1 | Vehicle in Operation | 1 | N | Other Non-Collision | Turning Left | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 1 (North by NorthEast) in the 12-point Clock Diagram | Functional Damage | Passenger Car | Turning Left | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 677903 | 2 | Vehicle in Operation | 1 | S | Unknown | Unknown | Unknown | Not Applicable | Unknown | Two-Way, Not Divided | 2 | Straight | Level | Unknown | Functional Damage | Unknown | Unknown | Unknown | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 678518 | 1 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Towed But not Due to Disabling Damage | Two-Way, Not Divided | 4 | Curve Right | Level | Sector 12 (North) in the 12-point Clock Diagram | Functional Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | Prospect Ave | FALSE |
| 678518 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Not Towed | Two-Way, Not Divided | 4 | Curve Right | Level | Sector 6 (South) in the 12-point Clock Diagram | Functional Damage | Passenger Car | Stopped in Traffic | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | Prospect Ave | FALSE |
| 678519 | 1 | Vehicle in Operation | 4 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | | Straight | Level | Sector 1 (North by NorthEast) in the 12-point Clock Diagram | Minor Damage | (Sport) Utility Vehicle | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 678519 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Turning Right | None | Not Applicable | Not Towed | Two-Way, Not Divided | | Straight | Level | Sector 7 (South by SouthWest) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Turning Right | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | Prospect Ave | FALSE |
| 679036 | 1 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 4 | Straight | Level | Sector 11 (North by NorthWest) in the 12-point Clock Diagram | Minor Damage | (Sport) Utility Vehicle | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 679036 | 2 | Vehicle in Operation | 1 | N | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 4 | Straight | Level | Sector 5 (South by SouthEast) in the 12-point Clock Diagram | Minor Damage | Passenger Car | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |

City of Hartford
Crash Data (Vehicle Information) - 1/1/2017 - 12/31/2019
Edge 400 - New Park Avenue

| CrashId | VehicleId | Vehicle Unit Type Text Format | # Occupants | Direction of Travel Before Crash | Most Harmful Event Text Format | Vehicle Maneuver/Action | Contributing Circumstances Motor Vehicle | Contributing Circumstances, Motor Vehicle Text Format | Towed Status Text Format | Trafficway Description Text Format | Total Lanes In Roadway | Roadway Alignment Text Format | Roadway Grade Text Format | Initial Contact Point Text Format | Extent of Damage Text Format | Body Type Text Format | Vehicle Action Text Format | Contributing Circumstances of Vehicle | Traffic Control Device Type Text Format | Traffic Control Device Functional? | Special Function Of Vehicle In Operation Text Format | Emergency Vehicle Use Text Format | Bike Lanes/Sharrows Present | Name Of Roadway On Which Vehicle Was Traveling | Vehicle Was Not On Roadway |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 679037 | 1 | Unknown | 0 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | | Two-Way, Not Divided | 2 | Straight | Level | Unknown | Unknown | Unknown | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 679037 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 2 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | No Damage | (Sport) Utility Vehicle | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Ave | FALSE |
| 679514 | 1 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Changing Lanes | None | Not Applicable | Not Towed | Two-Way, Not Divided | 4 | Curve Right | Level | Sector 4 (SouthEast) in the 12-point Clock Diagram | Minor Damage | (Sport) Utility Vehicle | Changing Lanes | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Ave | FALSE |
| 679514 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Straight Ahead | None | Not Applicable | Not Towed | Two-Way, Not Divided | 4 | Curve Right | Level | Sector 11 (North by NorthWest) in the 12-point Clock Diagram | Minor Damage | (Sport) Utility Vehicle | Straight Ahead | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Ave | FALSE |
| 692177 | 1 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Slowing | Truck Coupling/Trailer Hitch/Safety | Not Applicable | Towed Due to Disabling Damage | Two-Way, Not Divided | 3 | Straight | Level | Sector 12 (North) in the 12-point Clock Diagram | Disabling Damage | (Sport) Utility Vehicle | Slowing | Truck Coupling/Trailer Hitch/Safet | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |
| 692177 | 2 | Vehicle in Operation | 1 | S | Motor Vehicle In Transport | Stopped in Traffic | None | Not Applicable | Not Towed | Two-Way, Not Divided | 3 | Straight | Level | Sector 6 (South) in the 12-point Clock Diagram | No Damage | (Sport) Utility Vehicle | Stopped in Traffic | None | Traffic Control Signal | Yes | No Special Function | Not applicable | FALSE | New Park Avenue | FALSE |

# TRIP GENERATION

Generation rates from the 2017 Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition - 2020 Supplement

| Land Use | 221 | | | 221 |
|---|---|---|---|---|
| Description | Multifamily Housing (Mid-Rise) Dense Multi-Use Urban | | | Multifamily Housing (Mid-Rise) General Urban / Suburban |
| Units | 180 | | | 180 |
| | Vehicles | Walk + Bike + Transit | Person Trips | Vehicles |
| AM Peak Hour Traffic (Bet. 7-9AM) | 36 | 30 | 66 | 61 |
| Entering (WBT Dist Assumed to be same as Car) | 4 | 4 | 8 | 16 |
| Exiting | 32 | 27 | 58 | 45 |
| PM Peak Hour Traffic (Bet. 4-6PM) | 30 | 44 | 74 | 78 |
| Entering | 22 | 31 | 53 | 48 |
| Exiting | 8 | 12 | 21 | 30 |

# Land Use: 221
# Multifamily Housing (Mid-Rise)

## Description

Mid-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have between three and 10 levels (floors). Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (Land Use 225), and mid-rise residential with 1st-floor commercial (Land Use 231) are related land uses.

## Additional Data

In prior editions of *Trip Generation Manual*, the mid-rise multifamily housing sites were further divided into rental and condominium categories. An investigation of vehicle trip data found no clear differences in trip making patterns between the rental and condominium sites within the ITE database. As more data are compiled for future editions, this land use classification can be reinvestigated.

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.46 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 95.7 percent of the total dwelling units were occupied.

Time-of-day distribution data for this land use are presented in Appendix A. For the eight general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:00 and 8:00 a.m. and 4:45 and 5:45 p.m., respectively.

For the four dense multi-use urban sites with 24-hour count data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:15 and 8:15 a.m. and 4:15 and 5:15 p.m., respectively. For the three center city core sites with 24-hour count data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 6:45 and 7:45 a.m. and 5:00 and 6:00 p.m., respectively.

For the six sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.46 residents per occupied dwelling unit.

For the five sites for which data were provided for both occupied dwelling units and total dwelling units, an average of 95.7 percent of the units were occupied.

The average numbers of person trips per vehicle trip at the five center city core sites at which both person trip and vehicle trip data were collected were as follows:

- 1.84 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.94 during Weekday, AM Peak Hour of Generator
- 2.07 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 2.59 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 32 dense multi-use urban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.90 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.90 during Weekday, AM Peak Hour of Generator
- 2.00 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 2.08 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 13 general urban/suburban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.56 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.88 during Weekday, AM Peak Hour of Generator
- 1.70 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 2.07 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), British Columbia (CAN), California, Delaware, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, Ontario, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Utah, Virginia, and Wisconsin.

### Source Numbers

168, 188, 204, 305, 306, 321, 357, 390, 436, 525, 530, 579, 638, 818, 857, 866, 901, 904, 910, 912, 918, 934, 936, 939, 944, 947, 948, 949, 959, 963, 964, 966, 967, 969, 970

# Multifamily Housing (Mid-Rise)
(221)

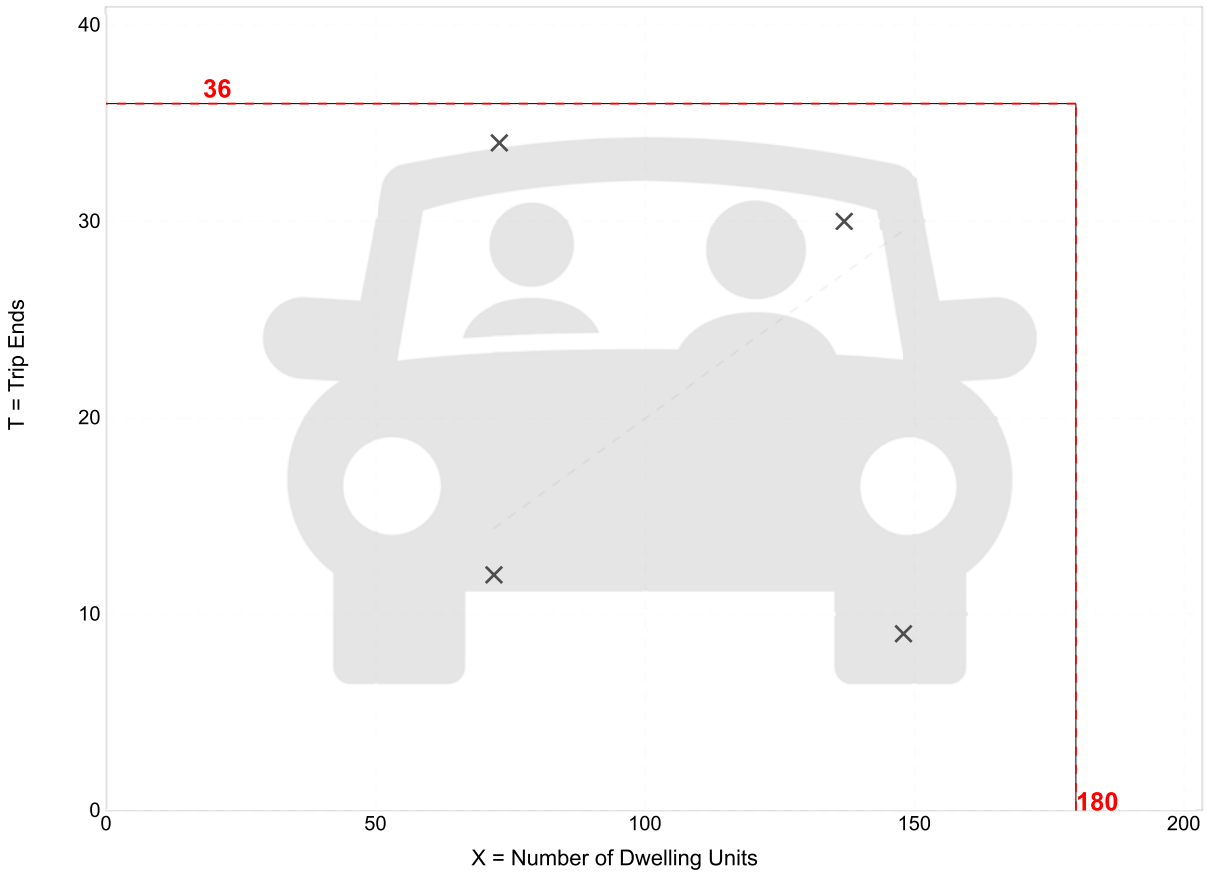
**Vehicle Trip Ends vs:** **Dwelling Units**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 7 and 9 a.m.**
**Setting/Location:** **Dense Multi-Use Urban**
Number of Studies: 4
Avg. Num. of Dwelling Units: 108
Directional Distribution: 12% entering, 88% exiting

## Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.20 | 0.06 - 0.47 | 0.16 |

## Data Plot and Equation

***Caution – Small Sample Size***




**Fitted Curve Equation: Not Given**

**$R^2$= ****

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# Multifamily Housing (Mid-Rise)
(221)

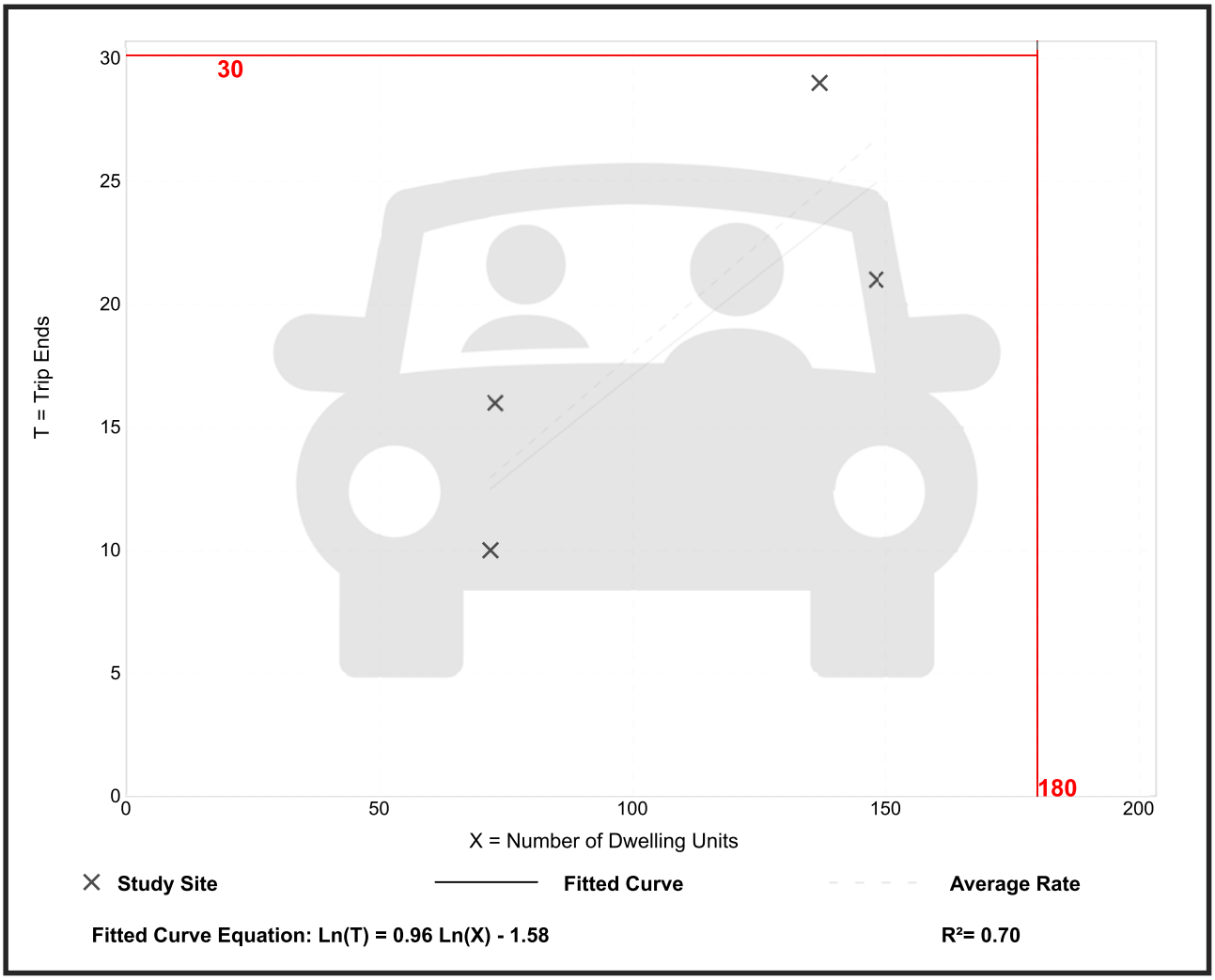
**Vehicle Trip Ends vs:** **Dwelling Units**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 4 and 6 p.m.**
**Setting/Location:** **Dense Multi-Use Urban**
Number of Studies: 4
Avg. Num. of Dwelling Units: 108
Directional Distribution: 72% entering, 28% exiting

## Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.18 | 0.14 - 0.22 | 0.04 |

## Data Plot and Equation

***Caution – Small Sample Size***

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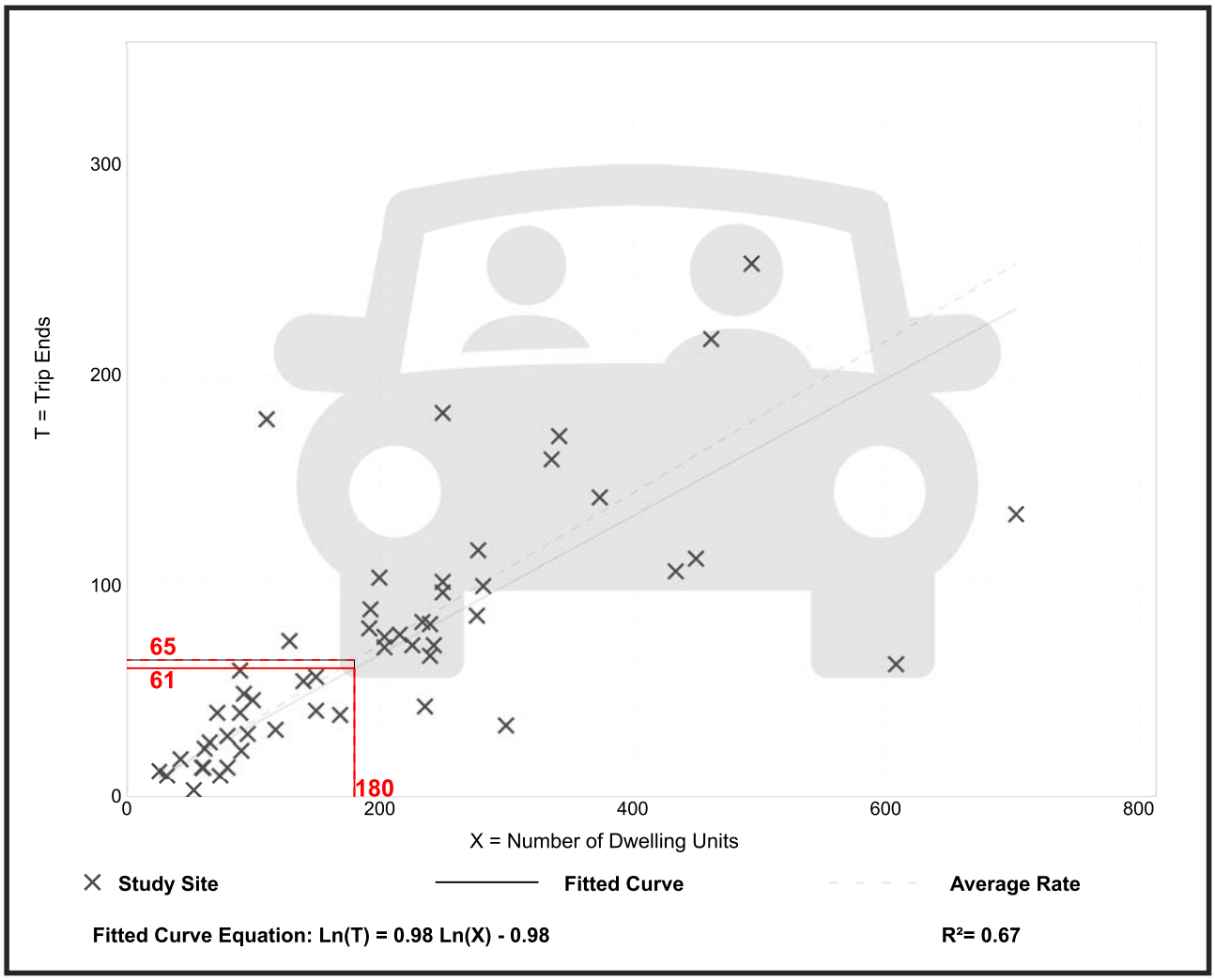
# Multifamily Housing (Mid-Rise)
(221)

**Vehicle Trip Ends vs:** **Dwelling Units**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 7 and 9 a.m.**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 53
Avg. Num. of Dwelling Units: 207
Directional Distribution: 26% entering, 74% exiting

## Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.36 | 0.06 - 1.61 | 0.19 |

## Data Plot and Equation

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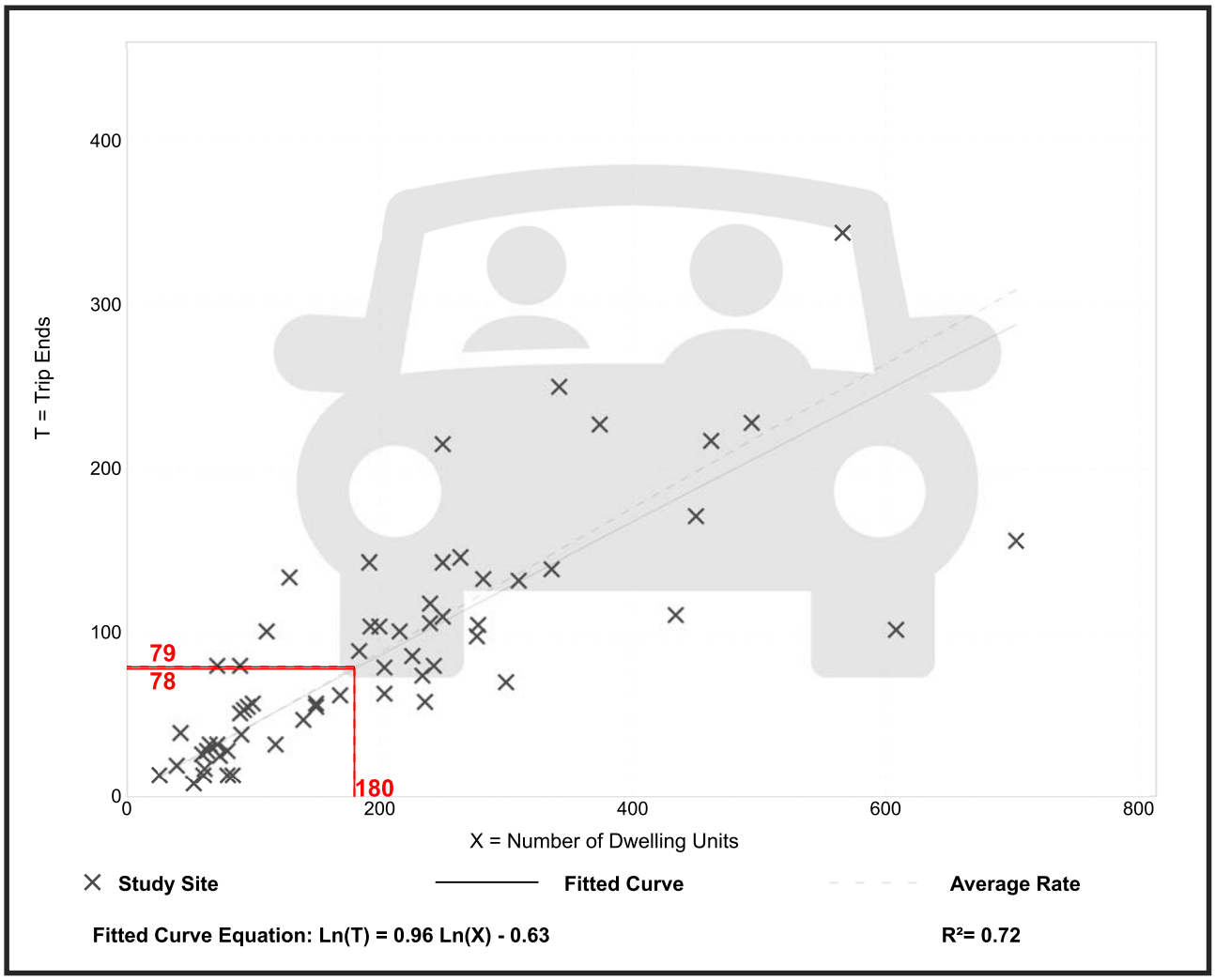
# Multifamily Housing (Mid-Rise)
(221)

**Vehicle Trip Ends vs:** **Dwelling Units**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 4 and 6 p.m.**
**Setting/Location:** **General Urban/Suburban**
Number of Studies: 60
Avg. Num. of Dwelling Units: 208
Directional Distribution: 61% entering, 39% exiting

## Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.44 | 0.15 - 1.11 | 0.19 |

## Data Plot and Equation

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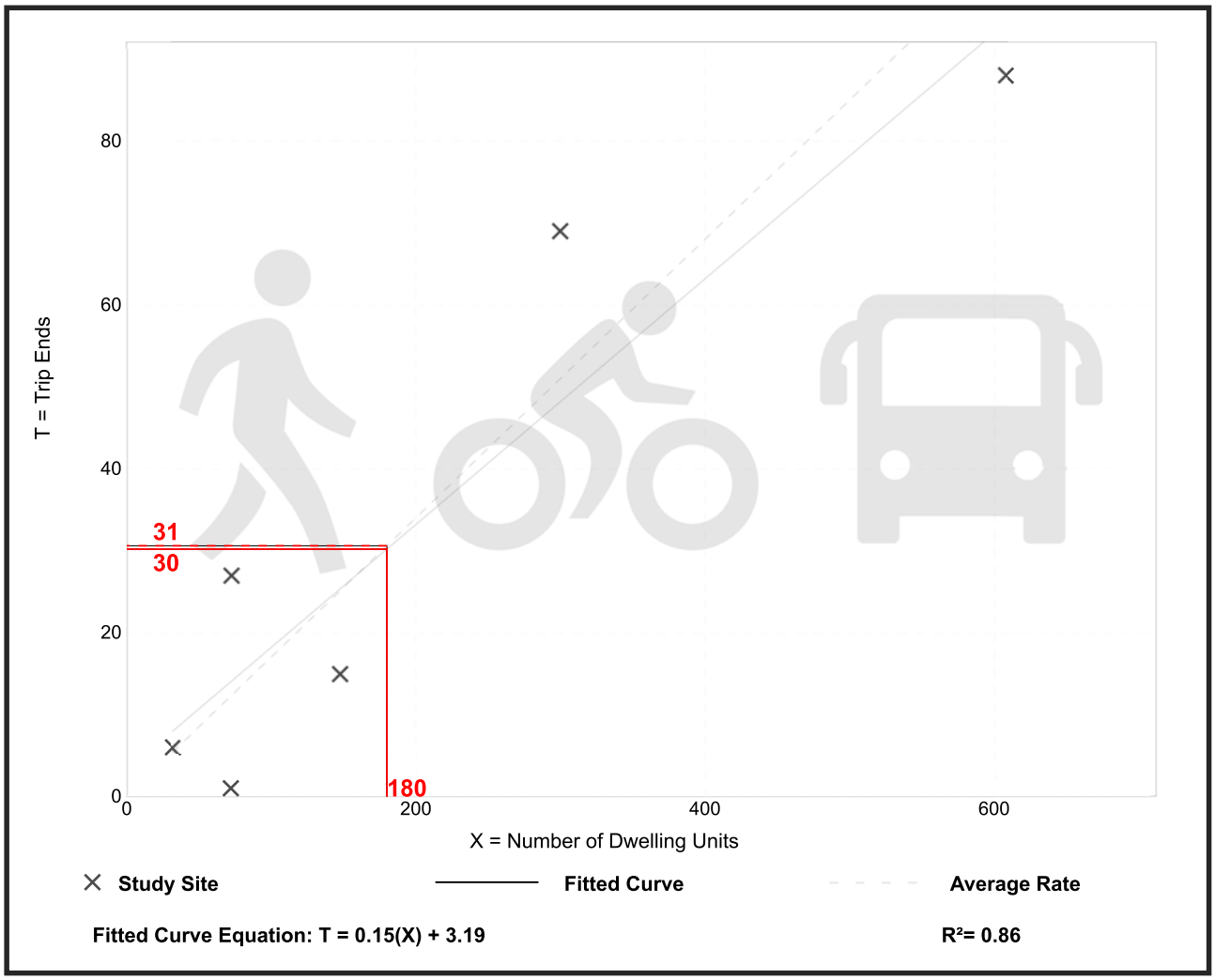
# Multifamily Housing (Mid-Rise)
(221)

**Walk+Bike+Transit Trip Ends vs:** **Dwelling Units**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 7 and 9 a.m.**
**Setting/Location:** **Dense Multi-Use Urban**
Number of Studies: 6
Avg. Num. of Dwelling Units: 206
Directional Distribution: Not Available

## Walk+Bike+Transit Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.17 | 0.01 - 0.37 | 0.08 |

## Data Plot and Equation

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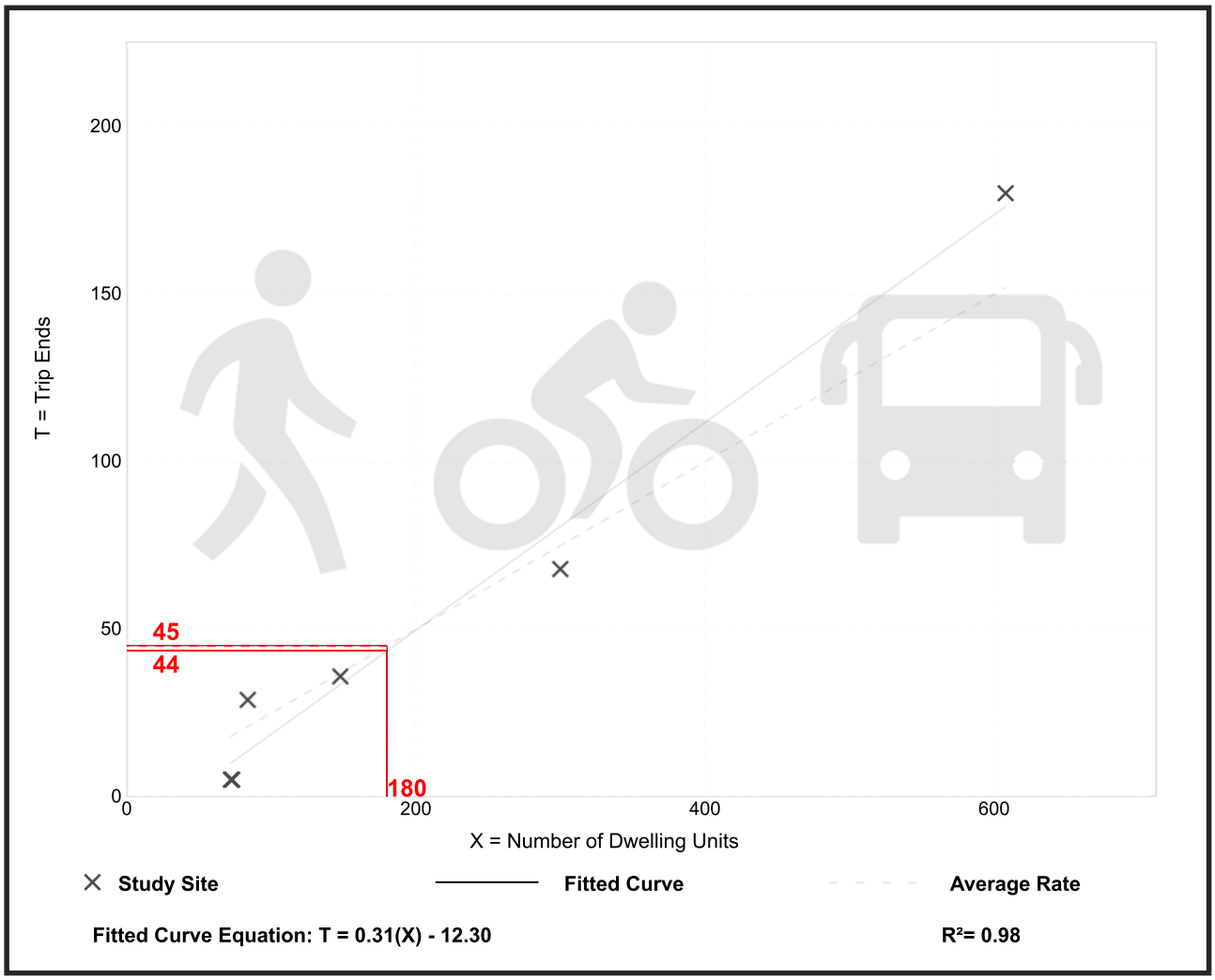
# Multifamily Housing (Mid-Rise)
(221)

**Walk+Bike+Transit Trip Ends vs:** **Dwelling Units**
**On a:** **Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 4 and 6 p.m.**
**Setting/Location:** **Dense Multi-Use Urban**
Number of Studies: 6
Avg. Num. of Dwelling Units: 214
Directional Distribution: Not Available

## Walk+Bike+Transit Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.25 | 0.07 - 0.35 | 0.08 |

## Data Plot and Equation

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Attachment 1-G: Stormwater Management Report

# Stormwater Management Report

## 400 Edge Subdivision

**330 New Park Avenue**
**Hartford, CT**

**PREPARED FOR**
**City of Hartford**
250 Constitution Plaza #4
Hartford, CT 06103

**June 2020**

benesch

# TABLE OF CONTENTS

## SECTION 1 - INTRODUCTION

The site is situated at 330 New Park Avenue in Hartford, Connecticut. It consists of approximately 5.12 acres and currently consists of the portion of the parking lot southwest of the Bow Tie Cinema. The parking lot was previously used for the 17-screen theater. The project proposes three (3) multi-family residential apartment style buildings which will occur in three phases (one building per phase). Phase 1 consists of the southern-most building, phase 2 consists of the central building, and phase 3 consists of the northern-most building. In addition to the buildings, the project proposes paved parking lots, walkways, landscaping, usable open space and other associated amenities. It is bordered to the south by Mac Mitsubishi car dealership, to the east by the CTFastTrak busway, to the north by Bow Tie Cinema and to the west by New Park Avenue.


The project was designed utilizing the City of Hartford Zoning Regulations, the 2000 Connecticut Department of Transportation (ConnDOT) Drainage Manual for pipe sizing, and the 2004 Connecticut Department of Energy and Environmental (CT DEEP) Water Quality Manual.

## SECTION 2 – HYDROLOGY

The intent of the hydrologic analysis is to determine rates of runoff for maximum storm frequencies of two, ten, 25, and 100-year intervals under existing and proposed conditions for the designated offsite discharge points.

### Methodology

The analysis to determine peak flows generated from the site was prepared using TR-55 procedures for calculating peak rates of runoff resulting from precipitation events and procedures for developing runoff hydrographs. HydroCAD software was utilized to perform hydrologic computations. Rainfall Frequency Estimates for precipitation frequency, based on National Oceanic and Atmospheric Administration (NOAA) data from the weather station in Hartford, were utilized to generate the flows. The following 24-hour, precipitation estimates were utilized:

| | |
|---|---|
| 2-Year | 3.13 inches |
| 10-Year | 5.00 inches |
| 25-Year | 6.16 inches |
| 100-Year | 7.95 inches |

### Existing Conditions

Topography generally slopes from the western portion of the site near New Park Avenue, at approximate elevation 72, to the eastern portion of the site near the CTFastTrak busway and railroad, at approximate elevation 67. The majority of the site was previously developed as a parking lot, is currently impervious, and generally exhibits minor grade change. The eastern portion of the site, adjacent the railroad ROW, is undeveloped overgrowth/woods. The parking lot's drainage is collected into a stormwater collection system consisting of catch basins and piping which ties into the trunk line in New Park Avenue. There are two offsite discharge points (catch basins): 1) a catch basin located along the center of the eastern property line near the busway and 2) a catch basin located along the center of the northern property line near Bow Tie Cinema.

NRCS soils mapping indicates the entire portion of the site is Urban Land, considered to be generally of low permeability and classified as Hydrologic Soil Group "D." Drainage from the site is split into two (2) separate sub-watersheds:

- Subwatershed E1: This consists of the majority of the site which contains the parking lot and is collected into the storm drain system which eventually drains into New Park Avenue.
- Subwatershed E2: This consists of a tiny slice of the site on the eastern property line which sheet flows east offsite towards the CTFastTrak busway.

Existing Watershed Data (Existing Conditions Cover Characteristics and Existing Watershed Area Map) have been included as Appendix A.

**Proposed Conditions**

Due to the nature of the existing site, which consists of a large portion of impervious cover due to the existing parking lot, imperviousness is being reduced from 3.66 acres under existing conditions to 2.97 acres under proposed conditions. The discharge points remain the same under proposed conditions (pipe flow to New Park Avenue and sheet flow east towards to busway:

- Sub watershed P1-1: This sub-watershed is located in the southern portion of the site and discharges to Bioretention Area 1 and eventually into New Park Avenue.
- Sub watershed P1-2: This sub-watershed is located in the center portion of the site and discharges to Bioretention Area 2 and eventually into New Park Avenue.
- Sub watershed P1-3: This sub-watershed is located in the southern portion of the site and discharges to Bioretention Area 3 and eventually into New Park Avenue.
- Sub watershed P1-4: This sub-watershed is located in the northern portion of the site and discharges to Bioretention Area 4 and eventually into New Park Avenue.
- Sub watershed P1-5: This sub-watershed is located along the perimeter of the site and discharges to New Park Avenue after being treated by a proprietary treatment unit.
- Sub watershed P2-1: This sub-watershed is the tiny slice of the site that remains discharged toward the busway.

All four of the proposed bioretention areas will have an area drain constructed with its rim elevation approximately 1' above the bottom of the pond. This will provide the required water quality volume and allow stormwater to slowly percolate. Additionally, the site parking areas will be constructed with pervious tree islands at least every eight (8) parking spaces. On either side of the tree islands in the parking lot, there will be permeable "Hanover Ecogrid" pavers with 39% open space to allow for further infiltration. The tree islands and permeable pavers together provide additional water quality volume, however, as a conservative approach, these LID measures have not been accounted for in the water quality volume computations.

Proposed Watershed Data (Proposed Conditions Cover Characteristics and Proposed Watershed Area Map) have been included as Appendix B.

### Peak Flow Comparison

Peak flows at the off-site analysis points are as follows:

| Watershed | Storm Event (Type III) | Discharge Existing (cfs) | Discharge Proposed (cfs) |
|---|---|---|---|
| 1 (Drain to New Park Ave) | 2-Year | 12.73 | 4.97 |
| | 10-Year | 20.91 | 11.81 |
| | 25-Year | 25.95 | 21.68 |
| | 100-Year | 33.68 | 30.01 |
| 2 (Sheet flow to FastTrak) | 2-Year | 1.25 | 0.35 |
| | 10-Year | 2.50 | 0.76 |
| | 25-Year | 3.29 | 1.03 |
| | 100-Year | 4.50 | 1.45 |

It can be seen that peak flow rates will be reduced under proposed conditions for all design storms.

## SECTION 3 – HYDRAULICS

The intent of the hydraulic analysis is to ensure that new on-site drainage facilities could accommodate and safely convey the 25-year, 24-hour design storm.

### Methodology

The storm drain system was analyzed using the Rational Method for estimating runoff for a 25-year design storm. It was designed using guidance from the 2002 ConnDOT Drainage Manual. The software "Hydraflow Stormsewers" was used to model pipe flow through the pipe network and the software "HydroCAD" was used to model the flow through the bypass manholes.

### Proposed Conditions

The site has been designed with a series of drainage facilities, including catch basins, manholes, treatment units, piping and overflow area drain structures, designed to remove stormwater from paved and pervious surfaces, and convey it to water quality treatment and discharge areas.

- System 1: This system consists of five (5) manholes, five (5) area drains, and one (1) proprietary treatment unit with associated piping and conveys storm flow from the phase 1 building and parking lot to Bioretention Areas 1 and 2 and ultimately into the New Park Avenue system.
- System 2: This system consists of one (1) area drain and collects and conveys storm flow from the southeastern portion of the Phase 2 building to Bioretention Area 2. Overflow is directed into system 1.

- System 3: This system consists of one (1) area drain and collects and conveys storm flow from the northeastern portion of the Phase 2 building to Bioretention Area 3. Overflow is directed into system 4.
- System 4: This system consists of three (3) manholes and three (3) area drains with associated piping and conveys storm flow from the southern portion of the phase 3 building and parking lot to Bioretention Area 4 and ultimately into the New Park Avenue system.
- System 5: This system consists of one (1) drainage manhole and one (1) treatment unit with associated piping and conveys storm flow from the northern portion of the phase 3 building and parking lot into the New Park Avenue system.

The drainage systems have been designed to safely convey storm flows from the 25-Year Design Storm, with all pipes designed with sufficient capacity and the hydraulic grade lines through the entire systems sufficiently below grade. Detailed calculations (Catchment Map and computations) for the on-site stormwater system hydraulics are included in Appendix C.

**Outlet Protection**

The four (4) bioretention areas have been designed with a 5' by 5' modified riprap landings at their pipe outlets to provide outlet protection.

## SECTION 4 – STORMWATER QUALITY

The project has been designed to address both short-term and long-term stormwater quality. Short term (during construction) treatment has been provided in the form of erosion control measures and long-term (post construction) treatment has been provided through the use of Low Impact Development principals. Erosion control has been designed per the 2002 Connecticut Erosion Control Guidelines. Long-term stormwater quality has been designed to meet the stormwater quality standards set forth in the 2004 CT DEEP Stormwater Quality Manual.

**Short Term Erosion Control**

The proposed erosion and sedimentation controls consider the specific characteristics of the site and the anticipated construction activities, and have been designed in accordance with the 2002 CT DEEP Guidelines for Soil Erosion and Sediment Control, as required by Standard 3 of the LID Manual.

Construction Entrances

Construction entrances will be utilized to remove sediment from construction vehicle tires and prevent it from being tracked onto adjoining paved roadway areas.

Erosion Control Barriers

Prior to any construction activity, hay bales, silt fence, or combination hay bale/silt fence barriers will be placed at the downgradient limits of construction, adjacent Beaver Pond. These barriers will be inspected once every seven calendar days and within 24 hours after every rainfall generating a

discharge and replaced as necessary. Collected silt will be removed when one-half the barrier height is reached.

Temporary Seeding

Temporary Seeding will be utilized on portions where the phasing and sequencing require an initial disturbance followed by an extended period of inactivity that is greater than 30 days but less than 1 year. Temporary seeding will be conducted within 7 days after the suspension of grading work in disturbed areas where the suspension of work is expected to be more than 30 days but less than 1 year.

Soil Stabilization- Mulches

Structural (non-living) soil stabilization will be utilized to protect the soil surface on a temporary basis without the intention of promoting plant growth. When grading of the disturbed area will be suspended for a period of 30 or more consecutive days, but less than 5 months, disturbed areas will be stabilized within 7 days of the suspension of grading through the use of mulch, non-bituminous tackifiers, erosion control netting, or other approved materials appropriate for use as a temporary soil protector. For surfaces that are not to be reworked within 5 months but will be reworked within 1 year, use temporary seeding, seeding-type mulch (hay, straw, or cellulose fiber) or when slopes are less than 3:1, wood chips, bark chips or shredded bark.

Temporary Filter Inserts

Temporary Filter Inserts will be placed in each existing catch basin and yard drains prior to the start of construction, and in each new catch basin or yard drain during construction. These devices will be removed upon final site stabilization. Filter inserts will be inspected once every seven (7) calendar days and within 24 hours after every rainfall generating a discharge. Replacement of the inserts will be as often as necessary to maintain function of the drainage structure and prevent excessive ponding due to clogged fabric. Ripped or otherwise damaged inserts will be replaced immediately.

Stockpile Management

The topsoil stockpiles which will be idle for at least 30 days will be stabilized with temporary seed and mulch no later than 7 days from the last use. Small stockpiles may be covered with impervious tarps or erosion control matting in lieu of seeding and mulching.

A geotextile silt fence or hay bale barrier will be installed around the stockpile area approximately 10 feet from the proposed toe of the slope.

**Long Term Stormwater Quality**

The project was designed with guidance and direction from the CT DEEP 2004 Connecticut Stormwater Quality Manual (2004 Manual).

The design intent of the 2004 Connecticut Stormwater Quality Manual is to provide a "stormwater treatment train," where stormwater quality is achieved through a series of treatment measures. Harmful pollutants, such as sediment, pathogens, organic material, hydrocarbons, metals, synthetic organic chemicals and deicing compounds, are carried by the low-flow storms. Many of these pollutants are associated with vehicular exhaust, engine leaks and deicing, therefore key areas of on-site treatment include parking lots and access drives. Additionally, rooftops are a concern as a result of atmospheric ambient accumulation. Since pollutants typically attach themselves to solid particles, treatment practices are designed to remove suspended solids.

The treatment train for this site includes:

- Parking lot sweeping
- Biofiltration in the form of biofiltration areas.

In order to provide for treatment of the water quality volume, four biofiltration areas have been designed to provide the required volume for each phase individually. They have been placed in the "green areas" adjacent to all of the buildings and have been designed to fully receive the 1-inch storm. The biofiltration areas will be approximately 30" deep with side slopes of 3:1. The biofiltration areas will be built in open space between walking areas and will give off an aesthetically pleasing look. The required WQV for the entire site is 10,602 cf and the biofiltration areas provide a WQV of 17,325 cf. Since this site is assumed to be hydrologic soil group "D," the requirement for groundwater recharge volume is waived (groundwater recharge depth D = 0 inches) per the 2004 CT Stormwater Quality Manual.

Computations for WQV and GRV can be viewed in Appendix E.

**Maintenance and Operation**

Maintenance and operation will be provided as follows.

<u>During Construction</u>

- Dust Control: Moisten disturbed soil areas with water periodically, or use a non-asphaltic soil tacifier to minimize dust.
- Temporary Soil Protection: Inspect seeded areas weekly and within 24 hours after a storm generating a discharge.
- Catch Basin Filter Inserts: Inspect the fabric at least once a week and within 24 hours after the end of a storm generating a discharge. Check the fabric for structural soundness (i.e. tears), proper anchoring/alignment within the grate and ability to drain runoff (i.e. percent of clogging by sediment). Remove the sediment every week, or sooner if ponding is excessive. Each time the sediment is removed, replace the section of fabric removed with a new section. Do not remove the sediment and reuse the same section of fabric.

- Hay Bale/ Silt Fence Barrier: Inspect the barrier at least once a week and within 24 hours after the end of a storm generating a discharge. For dewatering operations, inspect frequently before, during and after pumping operations. Remove the sediment deposits when the depth reaches one half the barrier heights. Repair or replace a barrier within 24 hours of observed failure. Maintain the barrier until the contributing disturbed area is stabilized.

- Construction Entrance/Exit Pad: Maintain the pad in a condition that will prevent tracking and washing of sediment onto paved surfaces. Place additional clean gravel on top of gravel that has become silted, or remove the silted gravel and replace the gravel to the depth removed with clean gravel, as conditions warrant. Remove immediately all sediment spilled, dropped, washed or tracked onto paved surfaces. Roads adjacent to the construction site shall be cleaned at the end of each day by hand sweeping or sweeper truck.

- Dewatering Settling Basin (if used): Inspect the basin at least every two hours during periods of use. Remove accumulated sediments when the volume equals one half the provided storage volume.

- Existing Catch Basins and Sumps: Inspect the filter baskets as specified above. After final removal of the filter baskets at the end of construction, clean the sump of all silt and debris.

- New Catch Basins and Sumps: As new catch basins are constructed, a sediment trap shall be installed in the unit and a sediment barrier installed around the grate. Inspect the trap and barrier weekly and within 24 hours after a storm generating a discharge. After stabilization of the drainage area entering the catch basin, remove the trap and barrier and clean the basin sump of all silt and debris.

- Temporary Stockpiles: Inspect temporary stockpiles at the end of each workday to ensure that tarps are in place and secured. Temporary stockpiles that are expected to be inactive for more than 30 days should be temporarily seeded (see above).

<u>After Construction</u>

- Biofiltration Areas: Inspect several times during the first few months to ensure that seed mix/grass cover is established. Inspect semi-annually and after major rain events for the first year. Inspect swales annually after the first year. Trash should be removed as accumulated. Sediment build-up should be removed when its depth is greater than four (4) inches. Grass should be reseeded if the side or bottom slopes exhibit erosion. Grass should be mowed once per month and should be cut to leave at least two (2) inches of height. The seed mix should be mowed 2 – 3 times per year. Mowing should not occur when the ground is soft, to avoid ruts.

- Parking Lot and Site Cleanup: Inspect on a regular basis not to exceed weekly for litter and debris.

- Parking Lot and Driveway Sweeping: At least twice a year, with the first occurring as soon as possible after snowmelt and the second not less than 90 days following the first.

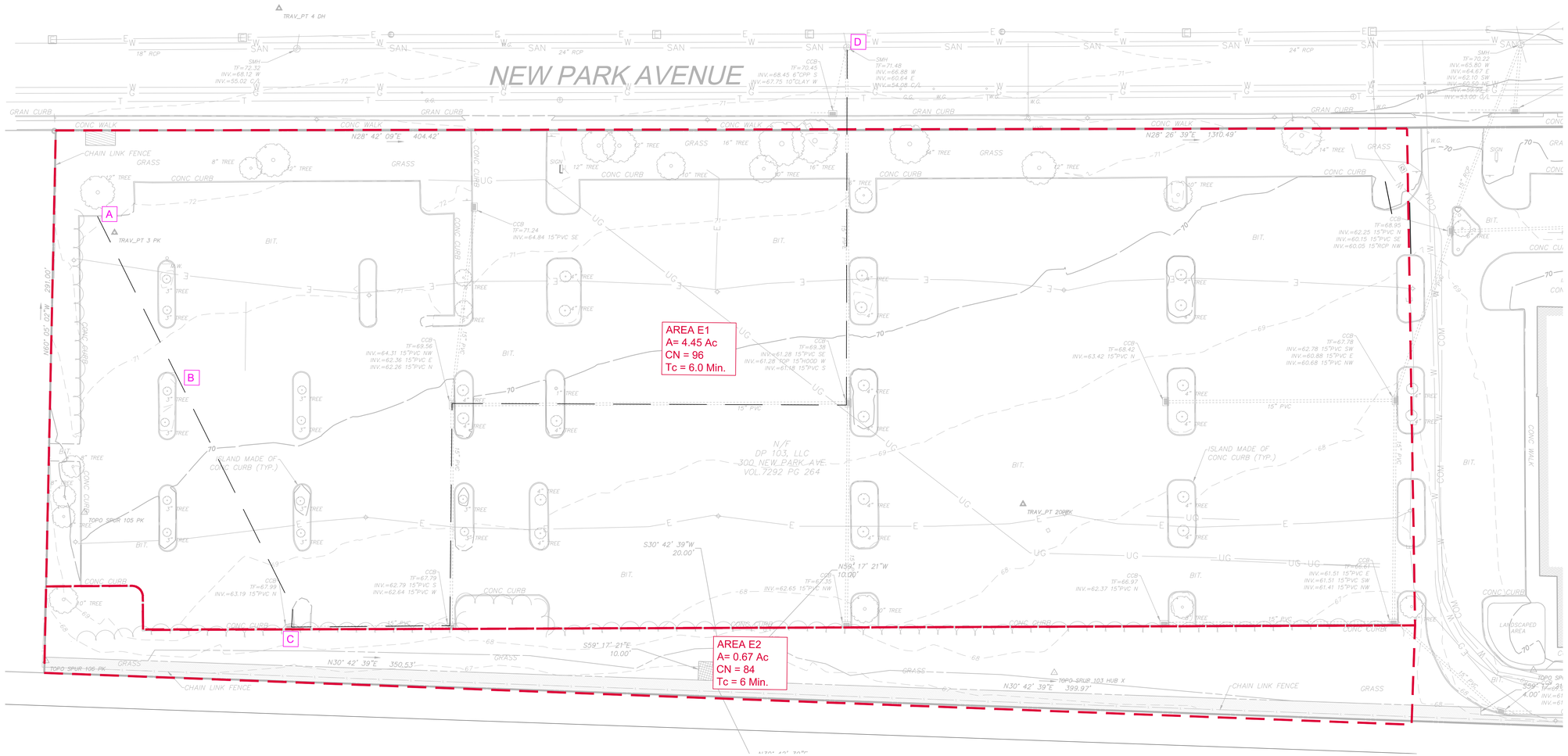
- Catch Basins and Sumps: Maintenance includes removal of trash from the grate and the sump, as well as sediment from the sump. They shall be inspected semi-annually and cleaned when the sump is one half full of sediment. One of the inspections shall be after the snow and ice removal season is over, and prior to the spring rainfall events. If the sumps is filled more than half-filled with sediment at the semi-annual inspections, they shall be inspected quarterly.
- Landscaped Areas: Inspect semi-annually for erosion or dying vegetation. Repair and stabilize any bare or eroded areas and replace vegetation as soon as possible.

# APPENDIX A

## EXISTING WATERSHED DATA

**Existing Watershed Cover Characteristics**
**400 Edge Subdivision - Hartford, CT**
***Project # 70610.00***

| Watershed | Area (ac) | Impervious "D" | Fair Grass Cover "D" | CN | Tc (min) |
|---|---|---|---|---|---|
| E1 | 4.45 | 3.66 | 0.79 | 96 | 6.0 |
| E2 | 0.67 | 0.00 | 0.67 | 84 | 6.0 |
| **Total** | 5.12 | 3.66 | 1.46 | 94.4 | - |




WATERSHED LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION PATH
- A — TIME OF CONCENTRATION PATH SEGMENT

FOR PERMITTING AND REVIEW PURPOSES ONLY
NOT FOR CONSTRUCTION

30 0 30 60
1" = 30'


Prepared by:

benesch

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Prepared for:

DAKOTA PARTNERS

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# PERMITTING PLANS
# EDGE 400 SUBDIVISION

330 NEW PARK AVENUE

HARTFORD, CONNECTICUT

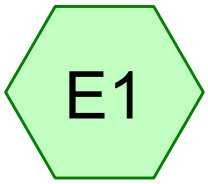
| DATE: | REVISION: |
|---|---|
| | |

PROJECT NO.: 70610
SCALE: AS SHOWN
DATE: JUNE 26, 2020

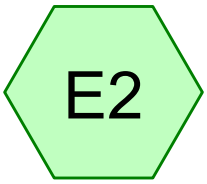
DRAWN BY: JPE
CHECKED BY: WCW

## EXISTING WATERSHED AREA MAP

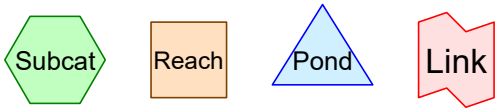
DRAWING NO.:
**EWAM**




Drain to New Park Ave




Sheet Flow to FastTrak




**Routing Diagram for 70610 Existing**
Prepared by {enter your company name here}, Printed 6/22/2020

## Area Listing (all nodes)

| Area (acres) | CN | Description (subcatchment-numbers) |
|---|---|---|
| 1.460 | 84 | 50-75% Grass cover, Fair, HSG D (E1, E2) |
| 3.660 | 98 | Paved parking, HSG D (E1) |
| **5.120** | **94** | **TOTAL AREA** |

## Soil Listing (all nodes)

| Area (acres) | Soil Group | Subcatchment Numbers |
|---|---|---|
| 0.000 | HSG A | |
| 0.000 | HSG B | |
| 0.000 | HSG C | |
| 5.120 | HSG D | E1, E2 |
| 0.000 | Other | |
| **5.120** | | **TOTAL AREA** |

## Ground Covers (all nodes)

| HSG-A (acres) | HSG-B (acres) | HSG-C (acres) | HSG-D (acres) | Other (acres) | Total (acres) | Ground Cover | Subcatchment Numbers |
|---|---|---|---|---|---|---|---|
| 0.000 | 0.000 | 0.000 | 1.460 | 0.000 | 1.460 | 50-75% Grass cover, Fair | E1, E2 |
| 0.000 | 0.000 | 0.000 | 3.660 | 0.000 | 3.660 | Paved parking | E1 |
| **0.000** | **0.000** | **0.000** | **5.120** | **0.000** | **5.120** | **TOTAL AREA** | |

## Pipe Listing (all nodes)

| Line# | Node Number | In-Invert (feet) | Out-Invert (feet) | Length (feet) | Slope (ft/ft) | n | Diam/Width (inches) | Height (inches) | Inside-Fill (inches) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | E1 | 0.00 | 0.00 | 606.0 | 0.0042 | 0.010 | 15.0 | 0.0 | 0.0 |

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

**SubcatchmentE1: Drain to New Park Ave** Runoff Area=4.450 ac 82.25% Impervious Runoff Depth>2.68"
Flow Length=896' Tc=10.1 min CN=96 Runoff=11.25 cfs 0.993 af

**SubcatchmentE2: Sheet Flow to FastTrak** Runoff Area=0.670 ac 0.00% Impervious Runoff Depth>1.62"
Flow Length=304' Tc=6.0 min CN=84 Runoff=1.25 cfs 0.091 af

**Total Runoff Area = 5.120 ac Runoff Volume = 1.083 af Average Runoff Depth = 2.54"**
**28.52% Pervious = 1.460 ac 71.48% Impervious = 3.660 ac**

## Summary for Subcatchment E1: Drain to New Park Ave

Runoff = 11.25 cfs @ 12.14 hrs, Volume= 0.993 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.13"

| Area (ac) | CN | Description |
|---|---|---|
| 3.660 | 98 | Paved parking, HSG D |
| 0.790 | 84 | 50-75% Grass cover, Fair, HSG D |
| 4.450 | 96 | Weighted Average |
| 0.790 | | 17.75% Pervious Area |
| 3.660 | | 82.25% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 5.7 | 50 | 0.0200 | 0.15 | | **Sheet Flow, AB**<br>Grass: Short n= 0.150 P2= 3.13" |
| 0.8 | 50 | 0.0140 | 1.03 | | **Sheet Flow, BC**<br>Smooth surfaces n= 0.011 P2= 3.13" |
| 1.3 | 190 | 0.0140 | 2.40 | | **Shallow Concentrated Flow, CD**<br>Paved Kv= 20.3 fps |
| 2.3 | 606 | 0.0042 | 4.43 | 5.44 | **Pipe Channel, DE**<br>15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'<br>n= 0.010 PVC, smooth interior |
| 10.1 | 896 | Total | | | |

## Summary for Subcatchment E2: Sheet Flow to FastTrak

Runoff = 1.25 cfs @ 12.09 hrs, Volume= 0.091 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.13"

| Area (ac) | CN | Description |
|---|---|---|
| 0.670 | 84 | 50-75% Grass cover, Fair, HSG D |
| 0.670 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | 304 | | 0.84 | | **Direct Entry, Direct to Meet Min.** |

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

**SubcatchmentE1: Drain to New Park Ave** Runoff Area=4.450 ac 82.25% Impervious Runoff Depth>4.53"
Flow Length=896' Tc=10.1 min CN=96 Runoff=18.49 cfs 1.679 af

**SubcatchmentE2: Sheet Flow to FastTrak** Runoff Area=0.670 ac 0.00% Impervious Runoff Depth>3.27"
Flow Length=304' Tc=6.0 min CN=84 Runoff=2.50 cfs 0.182 af

**Total Runoff Area = 5.120 ac Runoff Volume = 1.861 af Average Runoff Depth = 4.36"**
**28.52% Pervious = 1.460 ac 71.48% Impervious = 3.660 ac**

## Summary for Subcatchment E1: Drain to New Park Ave

Runoff = 18.49 cfs @ 12.14 hrs, Volume= 1.679 af, Depth> 4.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.00"

| Area (ac) | CN | Description |
|---|---|---|
| 3.660 | 98 | Paved parking, HSG D |
| 0.790 | 84 | 50-75% Grass cover, Fair, HSG D |
| 4.450 | 96 | Weighted Average |
| 0.790 | | 17.75% Pervious Area |
| 3.660 | | 82.25% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 5.7 | 50 | 0.0200 | 0.15 | | **Sheet Flow, AB**<br>Grass: Short n= 0.150 P2= 3.13" |
| 0.8 | 50 | 0.0140 | 1.03 | | **Sheet Flow, BC**<br>Smooth surfaces n= 0.011 P2= 3.13" |
| 1.3 | 190 | 0.0140 | 2.40 | | **Shallow Concentrated Flow, CD**<br>Paved Kv= 20.3 fps |
| 2.3 | 606 | 0.0042 | 4.43 | 5.44 | **Pipe Channel, DE**<br>15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'<br>n= 0.010 PVC, smooth interior |
| 10.1 | 896 | Total | | | |

## Summary for Subcatchment E2: Sheet Flow to FastTrak

Runoff = 2.50 cfs @ 12.09 hrs, Volume= 0.182 af, Depth> 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.00"

| Area (ac) | CN | Description |
|---|---|---|
| 0.670 | 84 | 50-75% Grass cover, Fair, HSG D |
| 0.670 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | 304 | | 0.84 | | **Direct Entry, Direct to Meet Min.** |

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

**SubcatchmentE1: Drain to New Park Ave** Runoff Area=4.450 ac 82.25% Impervious Runoff Depth>5.68"
Flow Length=896' Tc=10.1 min CN=96 Runoff=22.94 cfs 2.106 af

**SubcatchmentE2: Sheet Flow to FastTrak** Runoff Area=0.670 ac 0.00% Impervious Runoff Depth>4.34"
Flow Length=304' Tc=6.0 min CN=84 Runoff=3.29 cfs 0.242 af

**Total Runoff Area = 5.120 ac Runoff Volume = 2.349 af Average Runoff Depth = 5.50"**
**28.52% Pervious = 1.460 ac 71.48% Impervious = 3.660 ac**

## Summary for Subcatchment E1: Drain to New Park Ave

Runoff = 22.94 cfs @ 12.14 hrs, Volume= 2.106 af, Depth> 5.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.16"

| Area (ac) | CN | Description |
|---|---|---|
| 3.660 | 98 | Paved parking, HSG D |
| 0.790 | 84 | 50-75% Grass cover, Fair, HSG D |
| 4.450 | 96 | Weighted Average |
| 0.790 | | 17.75% Pervious Area |
| 3.660 | | 82.25% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 5.7 | 50 | 0.0200 | 0.15 | | **Sheet Flow, AB**<br>Grass: Short n= 0.150 P2= 3.13" |
| 0.8 | 50 | 0.0140 | 1.03 | | **Sheet Flow, BC**<br>Smooth surfaces n= 0.011 P2= 3.13" |
| 1.3 | 190 | 0.0140 | 2.40 | | **Shallow Concentrated Flow, CD**<br>Paved Kv= 20.3 fps |
| 2.3 | 606 | 0.0042 | 4.43 | 5.44 | **Pipe Channel, DE**<br>15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'<br>n= 0.010 PVC, smooth interior |
| 10.1 | 896 | Total | | | |

## Summary for Subcatchment E2: Sheet Flow to FastTrak

Runoff = 3.29 cfs @ 12.09 hrs, Volume= 0.242 af, Depth> 4.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.16"

| Area (ac) | CN | Description |
|---|---|---|
| 0.670 | 84 | 50-75% Grass cover, Fair, HSG D |
| 0.670 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | 304 | | 0.84 | | **Direct Entry, Direct to Meet Min.** |

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

**SubcatchmentE1: Drain to New Park Ave** Runoff Area=4.450 ac 82.25% Impervious Runoff Depth>7.46"
Flow Length=896' Tc=10.1 min CN=96 Runoff=29.78 cfs 2.767 af

**SubcatchmentE2: Sheet Flow to FastTrak** Runoff Area=0.670 ac 0.00% Impervious Runoff Depth>6.04"
Flow Length=304' Tc=6.0 min CN=84 Runoff=4.50 cfs 0.337 af

**Total Runoff Area = 5.120 ac Runoff Volume = 3.105 af Average Runoff Depth = 7.28"**
**28.52% Pervious = 1.460 ac 71.48% Impervious = 3.660 ac**

## Summary for Subcatchment E1: Drain to New Park Ave

Runoff = 29.78 cfs @ 12.14 hrs, Volume= 2.767 af, Depth> 7.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=7.95"

| Area (ac) | CN | Description |
|---|---|---|
| 3.660 | 98 | Paved parking, HSG D |
| 0.790 | 84 | 50-75% Grass cover, Fair, HSG D |
| 4.450 | 96 | Weighted Average |
| 0.790 | | 17.75% Pervious Area |
| 3.660 | | 82.25% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 5.7 | 50 | 0.0200 | 0.15 | | **Sheet Flow, AB**<br>Grass: Short n= 0.150 P2= 3.13" |
| 0.8 | 50 | 0.0140 | 1.03 | | **Sheet Flow, BC**<br>Smooth surfaces n= 0.011 P2= 3.13" |
| 1.3 | 190 | 0.0140 | 2.40 | | **Shallow Concentrated Flow, CD**<br>Paved Kv= 20.3 fps |
| 2.3 | 606 | 0.0042 | 4.43 | 5.44 | **Pipe Channel, DE**<br>15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31'<br>n= 0.010 PVC, smooth interior |
| 10.1 | 896 | Total | | | |

## Summary for Subcatchment E2: Sheet Flow to FastTrak

Runoff = 4.50 cfs @ 12.09 hrs, Volume= 0.337 af, Depth> 6.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=7.95"

| Area (ac) | CN | Description |
|---|---|---|
| 0.670 | 84 | 50-75% Grass cover, Fair, HSG D |
| 0.670 | | 100.00% Pervious Area |

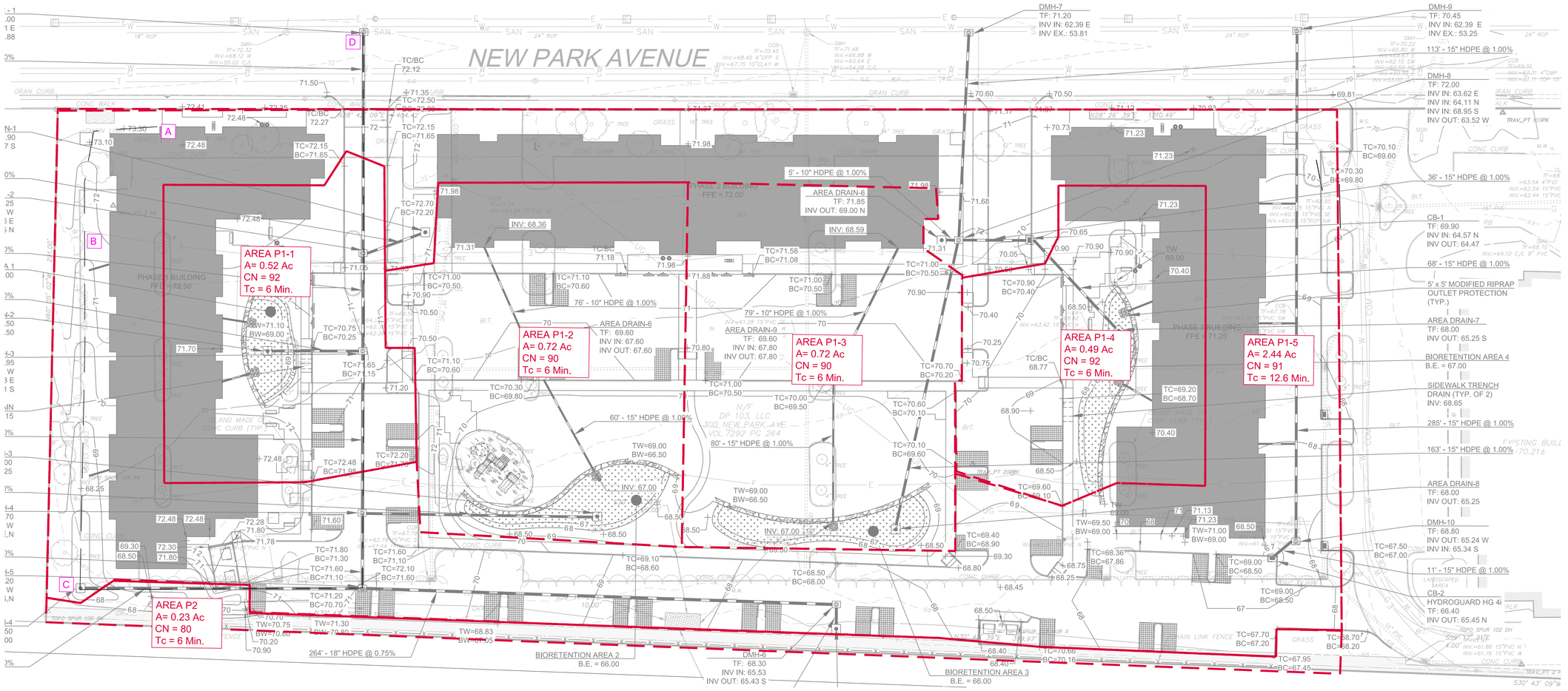
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | 304 | | 0.84 | | **Direct Entry, Direct to Meet Min.** |

# APPENDIX B

## PROPOSED WATERSHED DATA

**Proposed Watershed Cover Characteristics**
**400 Edge Subdivision - Hartford, CT**
***Project # 70610.00***

| Watershed | Area (ac) | Impervious "D" | Good Grass Cover "D" | CN | Tc (min) |
|---|---|---|---|---|---|
| P1-1 | 0.52 | 0.36 | 0.16 | 92 | 6.0 |
| P1-2 | 0.72 | 0.40 | 0.32 | 90 | 6.0 |
| P1-3 | 0.72 | 0.40 | 0.32 | 90 | 6.0 |
| P1-4 | 0.49 | 0.34 | 0.15 | 92 | 6.0 |
| P1-5 | 2.44 | 1.46 | 0.98 | 91 | 12.6 |
| P2 | 0.23 | 0.00 | 0.23 | 80 | 6.0 |
| **Total** | 5.12 | 2.96 | 2.16 | | - |




WATERSHED LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION PATH
- A — TIME OF CONCENTRATION PATH SEGMENT

FOR PERMITTING AND REVIEW PURPOSES ONLY
NOT FOR CONSTRUCTION

30 0 30 60
1" = 30'

## SURVEY REFERENCE

SURVEY INFORMATION FROM PLAN ENTITLED: "BOUNDARY - TOPOGRAPHIC SURVEY" PREPARED BY ALFRED BENESCH AND COMPANY FOR DAKOTA PARTNERS, 1" = 30', DATED APRIL 2020.


Prepared by:

benesch

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860-633-8341

Prepared for:

DAKOTA PARTNERS

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P: 781-786-7538


# PERMITTING PLANS
# EDGE 400 SUBDIVISION

HARTFORD, CONNECTICUT

330 NEW PARK AVENUE

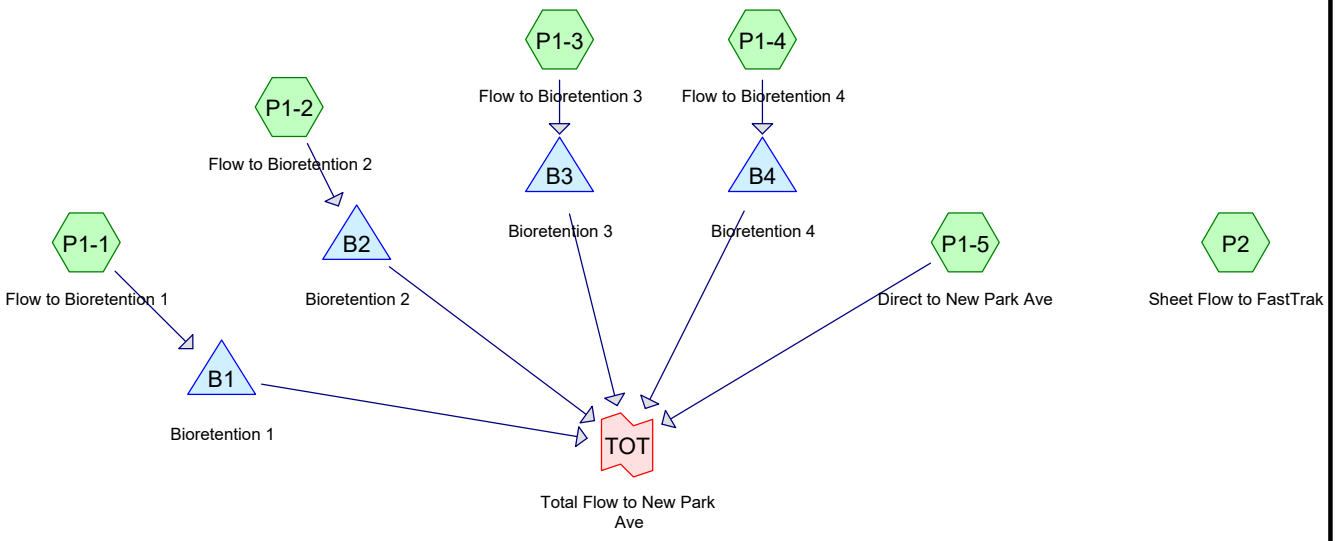
| DATE: | REVISION: |
|---|---|
| | |

PROJECT NO.: 70610
SCALE: AS SHOWN
DATE: JUNE 26, 2020

DRAWN BY: JPE
CHECKED BY: WGW

## PROPOSED WATERSHED AREA MAP

DRAWING NO.:
**PWAM**




Subcat Reach Pond Link

**Routing Diagram for 70610 Proposed**

Prepared by {enter your company name here}, Printed 6/24/2020

## Area Listing (all nodes)

| Area (acres) | CN | Description (subcatchment-numbers) |
|---|---|---|
| 2.160 | 80 | >75% Grass cover, Good, HSG D (P1-1, P1-2, P1-3, P1-4, P1-5, P2) |
| 2.960 | 98 | Paved parking, HSG D (P1-1, P1-2, P1-3, P1-4, P1-5) |
| **5.120** | **90** | **TOTAL AREA** |

## Soil Listing (all nodes)

| Area (acres) | Soil Group | Subcatchment Numbers |
|---|---|---|
| 0.000 | HSG A | |
| 0.000 | HSG B | |
| 0.000 | HSG C | |
| 5.120 | HSG D | P1-1, P1-2, P1-3, P1-4, P1-5, P2 |
| 0.000 | Other | |
| **5.120** | | **TOTAL AREA** |

## Ground Covers (all nodes)

| HSG-A (acres) | HSG-B (acres) | HSG-C (acres) | HSG-D (acres) | Other (acres) | Total (acres) | Ground Cover | Subcatchment Numbers |
|---|---|---|---|---|---|---|---|
| 0.000 | 0.000 | 0.000 | 2.160 | 0.000 | 2.160 | >75% Grass cover, Good | P1-1, P1-2, P1-3, P1-4, P1-5, P2 |
| 0.000 | 0.000 | 0.000 | 2.960 | 0.000 | 2.960 | Paved parking | P1-1, P1-2, P1-3, P1-4, P1-5 |
| **0.000** | **0.000** | **0.000** | **5.120** | **0.000** | **5.120** | **TOTAL AREA** | |

## Pipe Listing (all nodes)

| Line# | Node Number | In-Invert (feet) | Out-Invert (feet) | Length (feet) | Slope (ft/ft) | n | Diam/Width (inches) | Height (inches) | Inside-Fill (inches) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | P1-5 | 0.00 | 0.00 | 475.0 | 0.0100 | 0.012 | 12.0 | 0.0 | 0.0 |
| 2 | B1 | 66.50 | 66.00 | 49.0 | 0.0102 | 0.012 | 15.0 | 0.0 | 0.0 |
| 3 | B2 | 64.25 | 62.97 | 142.0 | 0.0090 | 0.012 | 15.0 | 0.0 | 0.0 |
| 4 | B3 | 65.25 | 63.62 | 163.0 | 0.0100 | 0.012 | 15.0 | 0.0 | 0.0 |
| 5 | B4 | 65.25 | 64.25 | 100.0 | 0.0100 | 0.012 | 15.0 | 0.0 | 0.0 |

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 P1-1: Flow to Bioretention 1** Runoff Area=0.520 ac 69.23% Impervious Runoff Depth>2.28"
Tc=6.0 min CN=92 Runoff=1.33 cfs 0.099 af

**Subcatchment P1-2: Flow to Bioretention 2** Runoff Area=0.720 ac 55.56% Impervious Runoff Depth>2.10"
Tc=6.0 min CN=90 Runoff=1.72 cfs 0.126 af

**Subcatchment P1-3: Flow to Bioretention 3** Runoff Area=0.720 ac 55.56% Impervious Runoff Depth>2.10"
Tc=6.0 min CN=90 Runoff=1.72 cfs 0.126 af

**Subcatchment P1-4: Flow to Bioretention 4** Runoff Area=0.490 ac 69.39% Impervious Runoff Depth>2.28"
Tc=6.0 min CN=92 Runoff=1.25 cfs 0.093 af

**Subcatchment P1-5: Direct to New Park Ave** Runoff Area=2.440 ac 59.84% Impervious Runoff Depth>2.19"
Flow Length=771' Tc=12.6 min CN=91 Runoff=4.97 cfs 0.445 af

**Subcatchment P2: Sheet Flow to FastTrak** Runoff Area=0.230 ac 0.00% Impervious Runoff Depth>1.35"
Flow Length=304' Tc=6.0 min CN=80 Runoff=0.35 cfs 0.026 af

**Pond B1: Bioretention 1** Peak Elev=69.71' Storage=2,630 cf Inflow=1.33 cfs 0.099 af
Outflow=0.18 cfs 0.040 af

**Pond B2: Bioretention 2** Peak Elev=68.01' Storage=4,945 cf Inflow=1.72 cfs 0.126 af
Outflow=0.03 cfs 0.013 af

**Pond B3: Bioretention 3** Peak Elev=68.02' Storage=4,521 cf Inflow=1.72 cfs 0.126 af
Outflow=0.06 cfs 0.023 af

**Pond B4: Bioretention 4** Peak Elev=67.78' Storage=3,534 cf Inflow=1.25 cfs 0.093 af
Outflow=0.03 cfs 0.013 af

**Link TOT: Total Flow to New Park Ave** Inflow=4.97 cfs 0.533 af
Primary=4.97 cfs 0.533 af

**Total Runoff Area = 5.120 ac Runoff Volume = 0.915 af Average Runoff Depth = 2.14"**
**42.19% Pervious = 2.160 ac 57.81% Impervious = 2.960 ac**

## Summary for Subcatchment P1-1: Flow to Bioretention 1

Runoff = 1.33 cfs @ 12.09 hrs, Volume= 0.099 af, Depth> 2.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.13"

| Area (ac) | CN | Description |
|---|---|---|
| 0.360 | 98 | Paved parking, HSG D |
| 0.160 | 80 | >75% Grass cover, Good, HSG D |
| 0.520 | 92 | Weighted Average |
| 0.160 | | 30.77% Pervious Area |
| 0.360 | | 69.23% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-2: Flow to Bioretention 2

Runoff = 1.72 cfs @ 12.09 hrs, Volume= 0.126 af, Depth> 2.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.13"

| Area (ac) | CN | Description |
|---|---|---|
| 0.400 | 98 | Paved parking, HSG D |
| 0.320 | 80 | >75% Grass cover, Good, HSG D |
| 0.720 | 90 | Weighted Average |
| 0.320 | | 44.44% Pervious Area |
| 0.400 | | 55.56% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-3: Flow to Bioretention 3

Runoff = 1.72 cfs @ 12.09 hrs, Volume= 0.126 af, Depth> 2.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.13"

| Area (ac) | CN | Description |
|---|---|---|
| 0.400 | 98 | Paved parking, HSG D |
| 0.320 | 80 | >75% Grass cover, Good, HSG D |
| 0.720 | 90 | Weighted Average |
| 0.320 | | 44.44% Pervious Area |
| 0.400 | | 55.56% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-4: Flow to Bioretention 4

Runoff = 1.25 cfs @ 12.09 hrs, Volume= 0.093 af, Depth> 2.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.13"

| Area (ac) | CN | Description |
|---|---|---|
| 0.340 | 98 | Paved parking, HSG D |
| 0.150 | 80 | >75% Grass cover, Good, HSG D |
| 0.490 | 92 | Weighted Average |
| 0.150 | | 30.61% Pervious Area |
| 0.340 | | 69.39% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-5: Direct to New Park Ave

Runoff = 4.97 cfs @ 12.17 hrs, Volume= 0.445 af, Depth> 2.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.13"

| Area (ac) | CN | Description |
|---|---|---|
| 1.460 | 98 | Paved parking, HSG D |
| 0.980 | 80 | >75% Grass cover, Good, HSG D |
| 2.440 | 91 | Weighted Average |
| 0.980 | | 40.16% Pervious Area |
| 1.460 | | 59.84% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 9.5 | 100 | 0.0220 | 0.17 | | **Sheet Flow, AB**<br>Grass: Short n= 0.150 P2= 3.13" |
| 1.5 | 196 | 0.0220 | 2.22 | | **Shallow Concentrated Flow, BC**<br>Grassed Waterway Kv= 15.0 fps |
| 1.6 | 475 | 0.0100 | 4.91 | 3.86 | **Pipe Channel, CD**<br>12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'<br>n= 0.012 Corrugated PP, smooth interior |
| 12.6 | 771 | Total | | | |

## Summary for Subcatchment P2: Sheet Flow to FastTrak

Runoff = 0.35 cfs @ 12.10 hrs, Volume= 0.026 af, Depth> 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.13"

| Area (ac) | CN | Description |
|---|---|---|
| 0.230 | 80 | >75% Grass cover, Good, HSG D |
| 0.230 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | 304 | | 0.84 | | **Direct Entry, Direct to Meet Min.** |

## Summary for Pond B1: Bioretention 1

Inflow Area = 0.520 ac, 69.23% Impervious, Inflow Depth > 2.28" for 2 year event
Inflow = 1.33 cfs @ 12.09 hrs, Volume= 0.099 af
Outflow = 0.18 cfs @ 12.66 hrs, Volume= 0.040 af, Atten= 87%, Lag= 34.1 min
Primary = 0.18 cfs @ 12.66 hrs, Volume= 0.040 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 69.71' @ 12.66 hrs Surf.Area= 1,200 sf Storage= 2,630 cf

Plug-Flow detention time= 279.1 min calculated for 0.040 af (40% of inflow)
Center-of-Mass det. time= 157.4 min ( 955.5 - 798.1 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 66.50' | 3,662 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 66.50 | 1,403 | 0.0 | 0 | 0 |
| 67.00 | 1,403 | 40.0 | 281 | 281 |
| 67.50 | 1,403 | 30.0 | 210 | 491 |
| 68.00 | 1,403 | 20.0 | 140 | 631 |
| 69.00 | 1,024 | 100.0 | 1,214 | 1,845 |
| 70.00 | 1,273 | 100.0 | 1,149 | 2,993 |
| 70.50 | 1,403 | 100.0 | 669 | 3,662 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 66.50' | **15.0" Round Culvert**<br>L= 49.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 66.50' / 66.00' S= 0.0102 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 69.65' | **12.0" x 12.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=0.17 cfs @ 12.66 hrs HW=69.71' (Free Discharge)
↑—**1=Culvert** (Passes 0.17 cfs of 9.49 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 0.17 cfs @ 0.77 fps)

## Summary for Pond B2: Bioretention 2

Inflow Area = 0.720 ac, 55.56% Impervious, Inflow Depth > 2.10" for 2 year event
Inflow = 1.72 cfs @ 12.09 hrs, Volume= 0.126 af
Outflow = 0.03 cfs @ 18.64 hrs, Volume= 0.013 af, Atten= 98%, Lag= 392.9 min
Primary = 0.03 cfs @ 18.64 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.01' @ 18.64 hrs Surf.Area= 2,162 sf Storage= 4,945 cf

Plug-Flow detention time= 641.3 min calculated for 0.013 af (10% of inflow)
Center-of-Mass det. time= 435.4 min ( 1,242.7 - 807.2 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 5,876 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 2,174 | 0.0 | 0 | 0 |
| 65.00 | 2,174 | 40.0 | 435 | 435 |
| 65.50 | 2,174 | 30.0 | 326 | 761 |
| 66.00 | 2,174 | 20.0 | 217 | 978 |
| 67.00 | 1,768 | 100.0 | 1,971 | 2,949 |
| 68.00 | 2,174 | 100.0 | 1,971 | 4,920 |
| 68.50 | 1,650 | 100.0 | 956 | 5,876 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 64.25' | **15.0" Round Culvert**<br>L= 142.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 64.25' / 62.97' S= 0.0090 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 68.00' | **18.0" x 18.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=0.02 cfs @ 18.64 hrs HW=68.01' (Free Discharge)
↑—**1=Culvert** (Passes 0.02 cfs of 9.22 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 0.02 cfs @ 0.35 fps)

## Summary for Pond B3: Bioretention 3

Inflow Area = 0.720 ac, 55.56% Impervious, Inflow Depth > 2.10" for 2 year event
Inflow = 1.72 cfs @ 12.09 hrs, Volume= 0.126 af
Outflow = 0.06 cfs @ 15.88 hrs, Volume= 0.023 af, Atten= 97%, Lag= 227.2 min
Primary = 0.06 cfs @ 15.88 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.02' @ 15.88 hrs Surf.Area= 2,051 sf Storage= 4,521 cf

Plug-Flow detention time= 491.2 min calculated for 0.023 af (18% of inflow)
Center-of-Mass det. time= 327.8 min ( 1,135.1 - 807.2 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 5,655 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 2,024 | 0.0 | 0 | 0 |
| 65.00 | 2,024 | 40.0 | 405 | 405 |
| 65.50 | 2,024 | 30.0 | 304 | 708 |
| 66.00 | 2,024 | 20.0 | 202 | 911 |
| 67.00 | 1,544 | 100.0 | 1,784 | 2,695 |
| 68.00 | 2,024 | 100.0 | 1,784 | 4,479 |
| 68.50 | 2,682 | 100.0 | 1,177 | 5,655 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 65.25' | **15.0" Round Culvert**<br>L= 163.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 65.25' / 63.62' S= 0.0100 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 68.00' | **18.0" x 18.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=0.06 cfs @ 15.88 hrs HW=68.02' (Free Discharge)
↑—**1=Culvert** (Passes 0.06 cfs of 8.03 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 0.06 cfs @ 0.47 fps)

## Summary for Pond B4: Bioretention 4

Inflow Area = 0.490 ac, 69.39% Impervious, Inflow Depth > 2.28" for 2 year event
Inflow = 1.25 cfs @ 12.09 hrs, Volume= 0.093 af
Outflow = 0.03 cfs @ 17.31 hrs, Volume= 0.013 af, Atten= 98%, Lag= 313.4 min
Primary = 0.03 cfs @ 17.31 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 67.78' @ 17.31 hrs Surf.Area= 1,587 sf Storage= 3,534 cf

Plug-Flow detention time= 590.8 min calculated for 0.013 af (13% of inflow)
Center-of-Mass det. time= 390.3 min ( 1,188.4 - 798.1 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 4,795 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 1,867 | 0.0 | 0 | 0 |
| 65.00 | 1,867 | 40.0 | 373 | 373 |
| 65.50 | 1,867 | 30.0 | 280 | 653 |
| 66.00 | 1,867 | 20.0 | 187 | 840 |
| 67.00 | 1,280 | 100.0 | 1,574 | 2,414 |
| 68.00 | 1,673 | 100.0 | 1,477 | 3,890 |
| 68.50 | 1,948 | 100.0 | 905 | 4,795 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 65.25' | **15.0" Round Culvert**<br>L= 100.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 65.25' / 64.25' S= 0.0100 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 67.75' | **18.0" W x 18.0" H Vert. Orifice/Grate** C= 0.600 |

**Primary OutFlow** Max=0.03 cfs @ 17.31 hrs HW=67.78' (Free Discharge)
↑—**1=Culvert** (Passes 0.03 cfs of 7.97 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 0.57 fps)

## Summary for Link TOT: Total Flow to New Park Ave

Inflow Area = 4.890 ac, 60.53% Impervious, Inflow Depth > 1.31" for 2 year event
Inflow = 4.97 cfs @ 12.17 hrs, Volume= 0.533 af
Primary = 4.97 cfs @ 12.17 hrs, Volume= 0.533 af, Atten= 0%, Lag= 0.0 min

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

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 P1-1: Flow to Bioretention 1** Runoff Area=0.520 ac 69.23% Impervious Runoff Depth>4.09"
Tc=6.0 min CN=92 Runoff=2.31 cfs 0.177 af

**Subcatchment P1-2: Flow to Bioretention 2** Runoff Area=0.720 ac 55.56% Impervious Runoff Depth>3.87"
Tc=6.0 min CN=90 Runoff=3.09 cfs 0.232 af

**Subcatchment P1-3: Flow to Bioretention 3** Runoff Area=0.720 ac 55.56% Impervious Runoff Depth>3.87"
Tc=6.0 min CN=90 Runoff=3.09 cfs 0.232 af

**Subcatchment P1-4: Flow to Bioretention 4** Runoff Area=0.490 ac 69.39% Impervious Runoff Depth>4.09"
Tc=6.0 min CN=92 Runoff=2.18 cfs 0.167 af

**Subcatchment P1-5: Direct to New Park Ave** Runoff Area=2.440 ac 59.84% Impervious Runoff Depth>3.97"
Flow Length=771' Tc=12.6 min CN=91 Runoff=8.80 cfs 0.808 af

**Subcatchment P2: Sheet Flow to FastTrak** Runoff Area=0.230 ac 0.00% Impervious Runoff Depth>2.89"
Flow Length=304' Tc=6.0 min CN=80 Runoff=0.76 cfs 0.055 af

**Pond B1: Bioretention 1** Peak Elev=69.94' Storage=2,921 cf Inflow=2.31 cfs 0.177 af
Outflow=2.08 cfs 0.118 af

**Pond B2: Bioretention 2** Peak Elev=68.16' Storage=5,253 cf Inflow=3.09 cfs 0.232 af
Outflow=1.25 cfs 0.119 af

**Pond B3: Bioretention 3** Peak Elev=68.18' Storage=4,869 cf Inflow=3.09 cfs 0.232 af
Outflow=1.52 cfs 0.129 af

**Pond B4: Bioretention 4** Peak Elev=68.03' Storage=3,939 cf Inflow=2.18 cfs 0.167 af
Outflow=0.71 cfs 0.086 af

**Link TOT: Total Flow to New Park Ave** Inflow=11.81 cfs 1.260 af
Primary=11.81 cfs 1.260 af

**Total Runoff Area = 5.120 ac Runoff Volume = 1.672 af Average Runoff Depth = 3.92"**
**42.19% Pervious = 2.160 ac 57.81% Impervious = 2.960 ac**

## Summary for Subcatchment P1-1: Flow to Bioretention 1

Runoff = 2.31 cfs @ 12.09 hrs, Volume= 0.177 af, Depth> 4.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.00"

| Area (ac) | CN | Description |
|---|---|---|
| 0.360 | 98 | Paved parking, HSG D |
| 0.160 | 80 | >75% Grass cover, Good, HSG D |
| 0.520 | 92 | Weighted Average |
| 0.160 | | 30.77% Pervious Area |
| 0.360 | | 69.23% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-2: Flow to Bioretention 2

Runoff = 3.09 cfs @ 12.09 hrs, Volume= 0.232 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.00"

| Area (ac) | CN | Description |
|---|---|---|
| 0.400 | 98 | Paved parking, HSG D |
| 0.320 | 80 | >75% Grass cover, Good, HSG D |
| 0.720 | 90 | Weighted Average |
| 0.320 | | 44.44% Pervious Area |
| 0.400 | | 55.56% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-3: Flow to Bioretention 3

Runoff = 3.09 cfs @ 12.09 hrs, Volume= 0.232 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.00"

| Area (ac) | CN | Description |
|---|---|---|
| 0.400 | 98 | Paved parking, HSG D |
| 0.320 | 80 | >75% Grass cover, Good, HSG D |
| 0.720 | 90 | Weighted Average |
| 0.320 | | 44.44% Pervious Area |
| 0.400 | | 55.56% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-4: Flow to Bioretention 4

Runoff = 2.18 cfs @ 12.09 hrs, Volume= 0.167 af, Depth> 4.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.00"

| Area (ac) | CN | Description |
|---|---|---|
| 0.340 | 98 | Paved parking, HSG D |
| 0.150 | 80 | >75% Grass cover, Good, HSG D |
| 0.490 | 92 | Weighted Average |
| 0.150 | | 30.61% Pervious Area |
| 0.340 | | 69.39% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-5: Direct to New Park Ave

Runoff = 8.80 cfs @ 12.17 hrs, Volume= 0.808 af, Depth> 3.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.00"

| Area (ac) | CN | Description |
|---|---|---|
| 1.460 | 98 | Paved parking, HSG D |
| 0.980 | 80 | >75% Grass cover, Good, HSG D |
| 2.440 | 91 | Weighted Average |
| 0.980 | | 40.16% Pervious Area |
| 1.460 | | 59.84% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 9.5 | 100 | 0.0220 | 0.17 | | **Sheet Flow, AB**<br>Grass: Short n= 0.150 P2= 3.13" |
| 1.5 | 196 | 0.0220 | 2.22 | | **Shallow Concentrated Flow, BC**<br>Grassed Waterway Kv= 15.0 fps |
| 1.6 | 475 | 0.0100 | 4.91 | 3.86 | **Pipe Channel, CD**<br>12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'<br>n= 0.012 Corrugated PP, smooth interior |
| 12.6 | 771 | Total | | | |

## Summary for Subcatchment P2: Sheet Flow to FastTrak

Runoff = 0.76 cfs @ 12.09 hrs, Volume= 0.055 af, Depth> 2.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.00"

| Area (ac) | CN | Description |
|---|---|---|
| 0.230 | 80 | >75% Grass cover, Good, HSG D |
| 0.230 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | 304 | | 0.84 | | **Direct Entry, Direct to Meet Min.** |

## Summary for Pond B1: Bioretention 1

Inflow Area = 0.520 ac, 69.23% Impervious, Inflow Depth > 4.09" for 10 year event
Inflow = 2.31 cfs @ 12.09 hrs, Volume= 0.177 af
Outflow = 2.08 cfs @ 12.13 hrs, Volume= 0.118 af, Atten= 10%, Lag= 2.6 min
Primary = 2.08 cfs @ 12.13 hrs, Volume= 0.118 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 69.94' @ 12.13 hrs Surf.Area= 1,259 sf Storage= 2,921 cf

Plug-Flow detention time= 170.8 min calculated for 0.118 af (67% of inflow)
Center-of-Mass det. time= 75.5 min ( 857.7 - 782.3 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 66.50' | 3,662 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 66.50 | 1,403 | 0.0 | 0 | 0 |
| 67.00 | 1,403 | 40.0 | 281 | 281 |
| 67.50 | 1,403 | 30.0 | 210 | 491 |
| 68.00 | 1,403 | 20.0 | 140 | 631 |
| 69.00 | 1,024 | 100.0 | 1,214 | 1,845 |
| 70.00 | 1,273 | 100.0 | 1,149 | 2,993 |
| 70.50 | 1,403 | 100.0 | 669 | 3,662 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 66.50' | **15.0" Round Culvert**<br>L= 49.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 66.50' / 66.00' S= 0.0102 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 69.65' | **12.0" x 12.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=2.02 cfs @ 12.13 hrs HW=69.94' (Free Discharge)
↑—**1=Culvert** (Passes 2.02 cfs of 9.91 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 2.02 cfs @ 1.75 fps)

## Summary for Pond B2: Bioretention 2

Inflow Area = 0.720 ac, 55.56% Impervious, Inflow Depth > 3.87" for 10 year event
Inflow = 3.09 cfs @ 12.09 hrs, Volume= 0.232 af
Outflow = 1.25 cfs @ 12.32 hrs, Volume= 0.119 af, Atten= 60%, Lag= 14.2 min
Primary = 1.25 cfs @ 12.32 hrs, Volume= 0.119 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.16' @ 12.32 hrs Surf.Area= 2,007 sf Storage= 5,253 cf

Plug-Flow detention time= 224.5 min calculated for 0.119 af (51% of inflow)
Center-of-Mass det. time= 114.3 min ( 904.5 - 790.2 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 5,876 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 2,174 | 0.0 | 0 | 0 |
| 65.00 | 2,174 | 40.0 | 435 | 435 |
| 65.50 | 2,174 | 30.0 | 326 | 761 |
| 66.00 | 2,174 | 20.0 | 217 | 978 |
| 67.00 | 1,768 | 100.0 | 1,971 | 2,949 |
| 68.00 | 2,174 | 100.0 | 1,971 | 4,920 |
| 68.50 | 1,650 | 100.0 | 956 | 5,876 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 64.25' | **15.0" Round Culvert**<br>L= 142.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 64.25' / 62.97' S= 0.0090 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 68.00' | **18.0" x 18.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=1.20 cfs @ 12.32 hrs HW=68.16' (Free Discharge)
↑—**1=Culvert** (Passes 1.20 cfs of 9.40 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 1.20 cfs @ 1.29 fps)

## Summary for Pond B3: Bioretention 3

Inflow Area = 0.720 ac, 55.56% Impervious, Inflow Depth > 3.87" for 10 year event
Inflow = 3.09 cfs @ 12.09 hrs, Volume= 0.232 af
Outflow = 1.52 cfs @ 12.26 hrs, Volume= 0.129 af, Atten= 51%, Lag= 10.4 min
Primary = 1.52 cfs @ 12.26 hrs, Volume= 0.129 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.18' @ 12.26 hrs Surf.Area= 2,264 sf Storage= 4,869 cf

Plug-Flow detention time= 206.4 min calculated for 0.129 af (55% of inflow)
Center-of-Mass det. time= 100.7 min ( 890.9 - 790.2 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 5,655 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 2,024 | 0.0 | 0 | 0 |
| 65.00 | 2,024 | 40.0 | 405 | 405 |
| 65.50 | 2,024 | 30.0 | 304 | 708 |
| 66.00 | 2,024 | 20.0 | 202 | 911 |
| 67.00 | 1,544 | 100.0 | 1,784 | 2,695 |
| 68.00 | 2,024 | 100.0 | 1,784 | 4,479 |
| 68.50 | 2,682 | 100.0 | 1,177 | 5,655 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 65.25' | **15.0" Round Culvert**<br>L= 163.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 65.25' / 63.62' S= 0.0100 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 68.00' | **18.0" x 18.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=1.50 cfs @ 12.26 hrs HW=68.18' (Free Discharge)
↑—**1=Culvert** (Passes 1.50 cfs of 8.23 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 1.50 cfs @ 1.39 fps)

## Summary for Pond B4: Bioretention 4

Inflow Area = 0.490 ac, 69.39% Impervious, Inflow Depth > 4.09" for 10 year event
Inflow = 2.18 cfs @ 12.09 hrs, Volume= 0.167 af
Outflow = 0.71 cfs @ 12.39 hrs, Volume= 0.086 af, Atten= 67%, Lag= 18.1 min
Primary = 0.71 cfs @ 12.39 hrs, Volume= 0.086 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.03' @ 12.39 hrs Surf.Area= 1,689 sf Storage= 3,939 cf

Plug-Flow detention time= 232.1 min calculated for 0.086 af (51% of inflow)
Center-of-Mass det. time= 119.9 min ( 902.2 - 782.3 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 4,795 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 1,867 | 0.0 | 0 | 0 |
| 65.00 | 1,867 | 40.0 | 373 | 373 |
| 65.50 | 1,867 | 30.0 | 280 | 653 |
| 66.00 | 1,867 | 20.0 | 187 | 840 |
| 67.00 | 1,280 | 100.0 | 1,574 | 2,414 |
| 68.00 | 1,673 | 100.0 | 1,477 | 3,890 |
| 68.50 | 1,948 | 100.0 | 905 | 4,795 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 65.25' | **15.0" Round Culvert**<br>L= 100.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 65.25' / 64.25' S= 0.0100 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 67.75' | **18.0" W x 18.0" H Vert. Orifice/Grate** C= 0.600 |

**Primary OutFlow** Max=0.71 cfs @ 12.39 hrs HW=68.03' (Free Discharge)
↑—**1=Culvert** (Passes 0.71 cfs of 8.39 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 0.71 cfs @ 1.69 fps)

## Summary for Link TOT: Total Flow to New Park Ave

Inflow Area = 4.890 ac, 60.53% Impervious, Inflow Depth > 3.09" for 10 year event
Inflow = 11.81 cfs @ 12.22 hrs, Volume= 1.260 af
Primary = 11.81 cfs @ 12.22 hrs, Volume= 1.260 af, Atten= 0%, Lag= 0.0 min

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

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 P1-1: Flow to Bioretention 1** Runoff Area=0.520 ac 69.23% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=92 Runoff=2.91 cfs 0.226 af

**Subcatchment P1-2: Flow to Bioretention 2** Runoff Area=0.720 ac 55.56% Impervious Runoff Depth>5.00"
Tc=6.0 min CN=90 Runoff=3.93 cfs 0.300 af

**Subcatchment P1-3: Flow to Bioretention 3** Runoff Area=0.720 ac 55.56% Impervious Runoff Depth>5.00"
Tc=6.0 min CN=90 Runoff=3.93 cfs 0.300 af

**Subcatchment P1-4: Flow to Bioretention 4** Runoff Area=0.490 ac 69.39% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=92 Runoff=2.75 cfs 0.213 af

**Subcatchment P1-5: Direct to New Park Ave** Runoff Area=2.440 ac 59.84% Impervious Runoff Depth>5.11"
Flow Length=771' Tc=12.6 min CN=91 Runoff=11.15 cfs 1.038 af

**Subcatchment P2: Sheet Flow to FastTrak** Runoff Area=0.230 ac 0.00% Impervious Runoff Depth>3.92"
Flow Length=304' Tc=6.0 min CN=80 Runoff=1.03 cfs 0.075 af

**Pond B1: Bioretention 1** Peak Elev=70.00' Storage=2,998 cf Inflow=2.91 cfs 0.226 af
Outflow=2.75 cfs 0.167 af

**Pond B2: Bioretention 2** Peak Elev=68.30' Storage=5,529 cf Inflow=3.93 cfs 0.300 af
Outflow=3.25 cfs 0.186 af

**Pond B3: Bioretention 3** Peak Elev=68.31' Storage=5,160 cf Inflow=3.93 cfs 0.300 af
Outflow=3.32 cfs 0.196 af

**Pond B4: Bioretention 4** Peak Elev=68.23' Storage=4,289 cf Inflow=2.75 cfs 0.213 af
Outflow=1.60 cfs 0.132 af

**Link TOT: Total Flow to New Park Ave** Inflow=21.68 cfs 1.720 af
Primary=21.68 cfs 1.720 af

**Total Runoff Area = 5.120 ac Runoff Volume = 2.153 af Average Runoff Depth = 5.05"**
**42.19% Pervious = 2.160 ac 57.81% Impervious = 2.960 ac**

## Summary for Subcatchment P1-1: Flow to Bioretention 1

Runoff = 2.91 cfs @ 12.09 hrs, Volume= 0.226 af, Depth> 5.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.16"

| Area (ac) | CN | Description |
|---|---|---|
| 0.360 | 98 | Paved parking, HSG D |
| 0.160 | 80 | >75% Grass cover, Good, HSG D |
| 0.520 | 92 | Weighted Average |
| 0.160 | | 30.77% Pervious Area |
| 0.360 | | 69.23% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-2: Flow to Bioretention 2

Runoff = 3.93 cfs @ 12.09 hrs, Volume= 0.300 af, Depth> 5.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.16"

| Area (ac) | CN | Description |
|---|---|---|
| 0.400 | 98 | Paved parking, HSG D |
| 0.320 | 80 | >75% Grass cover, Good, HSG D |
| 0.720 | 90 | Weighted Average |
| 0.320 | | 44.44% Pervious Area |
| 0.400 | | 55.56% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-3: Flow to Bioretention 3

Runoff = 3.93 cfs @ 12.09 hrs, Volume= 0.300 af, Depth> 5.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.16"

| Area (ac) | CN | Description |
|---|---|---|
| 0.400 | 98 | Paved parking, HSG D |
| 0.320 | 80 | >75% Grass cover, Good, HSG D |
| 0.720 | 90 | Weighted Average |
| 0.320 | | 44.44% Pervious Area |
| 0.400 | | 55.56% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-4: Flow to Bioretention 4

Runoff = 2.75 cfs @ 12.09 hrs, Volume= 0.213 af, Depth> 5.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.16"

| Area (ac) | CN | Description |
|---|---|---|
| 0.340 | 98 | Paved parking, HSG D |
| 0.150 | 80 | >75% Grass cover, Good, HSG D |
| 0.490 | 92 | Weighted Average |
| 0.150 | | 30.61% Pervious Area |
| 0.340 | | 69.39% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-5: Direct to New Park Ave

Runoff = 11.15 cfs @ 12.17 hrs, Volume= 1.038 af, Depth> 5.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.16"

| Area (ac) | CN | Description |
|---|---|---|
| 1.460 | 98 | Paved parking, HSG D |
| 0.980 | 80 | >75% Grass cover, Good, HSG D |
| 2.440 | 91 | Weighted Average |
| 0.980 | | 40.16% Pervious Area |
| 1.460 | | 59.84% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 9.5 | 100 | 0.0220 | 0.17 | | **Sheet Flow, AB**<br>Grass: Short n= 0.150 P2= 3.13" |
| 1.5 | 196 | 0.0220 | 2.22 | | **Shallow Concentrated Flow, BC**<br>Grassed Waterway Kv= 15.0 fps |
| 1.6 | 475 | 0.0100 | 4.91 | 3.86 | **Pipe Channel, CD**<br>12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'<br>n= 0.012 Corrugated PP, smooth interior |
| 12.6 | 771 | Total | | | |

## Summary for Subcatchment P2: Sheet Flow to FastTrak

Runoff = 1.03 cfs @ 12.09 hrs, Volume= 0.075 af, Depth> 3.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.16"

| Area (ac) | CN | Description |
|---|---|---|
| 0.230 | 80 | >75% Grass cover, Good, HSG D |
| 0.230 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | 304 | | 0.84 | | **Direct Entry, Direct to Meet Min.** |

## Summary for Pond B1: Bioretention 1

Inflow Area = 0.520 ac, 69.23% Impervious, Inflow Depth > 5.22" for 25 year event
Inflow = 2.91 cfs @ 12.09 hrs, Volume= 0.226 af
Outflow = 2.75 cfs @ 12.12 hrs, Volume= 0.167 af, Atten= 6%, Lag= 1.7 min
Primary = 2.75 cfs @ 12.12 hrs, Volume= 0.167 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 70.00' @ 12.12 hrs Surf.Area= 1,274 sf Storage= 2,998 cf

Plug-Flow detention time= 150.2 min calculated for 0.167 af (74% of inflow)
Center-of-Mass det. time= 64.5 min ( 840.5 - 775.9 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 66.50' | 3,662 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 66.50 | 1,403 | 0.0 | 0 | 0 |
| 67.00 | 1,403 | 40.0 | 281 | 281 |
| 67.50 | 1,403 | 30.0 | 210 | 491 |
| 68.00 | 1,403 | 20.0 | 140 | 631 |
| 69.00 | 1,024 | 100.0 | 1,214 | 1,845 |
| 70.00 | 1,273 | 100.0 | 1,149 | 2,993 |
| 70.50 | 1,403 | 100.0 | 669 | 3,662 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 66.50' | **15.0" Round Culvert**<br>L= 49.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 66.50' / 66.00' S= 0.0102 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 69.65' | **12.0" x 12.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=2.68 cfs @ 12.12 hrs HW=70.00' (Free Discharge)
↑—**1=Culvert** (Passes 2.68 cfs of 10.01 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 2.68 cfs @ 1.93 fps)

## Summary for Pond B2: Bioretention 2

Inflow Area = 0.720 ac, 55.56% Impervious, Inflow Depth > 5.00" for 25 year event
Inflow = 3.93 cfs @ 12.09 hrs, Volume= 0.300 af
Outflow = 3.25 cfs @ 12.16 hrs, Volume= 0.186 af, Atten= 17%, Lag= 4.5 min
Primary = 3.25 cfs @ 12.16 hrs, Volume= 0.186 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.30' @ 12.16 hrs Surf.Area= 1,858 sf Storage= 5,529 cf

Plug-Flow detention time= 185.5 min calculated for 0.186 af (62% of inflow)
Center-of-Mass det. time= 85.3 min ( 868.7 - 783.4 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 5,876 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 2,174 | 0.0 | 0 | 0 |
| 65.00 | 2,174 | 40.0 | 435 | 435 |
| 65.50 | 2,174 | 30.0 | 326 | 761 |
| 66.00 | 2,174 | 20.0 | 217 | 978 |
| 67.00 | 1,768 | 100.0 | 1,971 | 2,949 |
| 68.00 | 2,174 | 100.0 | 1,971 | 4,920 |
| 68.50 | 1,650 | 100.0 | 956 | 5,876 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 64.25' | **15.0" Round Culvert**<br>L= 142.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 64.25' / 62.97' S= 0.0090 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 68.00' | **18.0" x 18.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=3.07 cfs @ 12.16 hrs HW=68.29' (Free Discharge)
↑—**1=Culvert** (Passes 3.07 cfs of 9.56 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 3.07 cfs @ 1.76 fps)

## Summary for Pond B3: Bioretention 3

Inflow Area = 0.720 ac, 55.56% Impervious, Inflow Depth > 5.00" for 25 year event
Inflow = 3.93 cfs @ 12.09 hrs, Volume= 0.300 af
Outflow = 3.32 cfs @ 12.15 hrs, Volume= 0.196 af, Atten= 15%, Lag= 3.7 min
Primary = 3.32 cfs @ 12.15 hrs, Volume= 0.196 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.31' @ 12.15 hrs Surf.Area= 2,427 sf Storage= 5,160 cf

Plug-Flow detention time= 174.5 min calculated for 0.196 af (65% of inflow)
Center-of-Mass det. time= 77.9 min ( 861.3 - 783.4 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 5,655 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 2,024 | 0.0 | 0 | 0 |
| 65.00 | 2,024 | 40.0 | 405 | 405 |
| 65.50 | 2,024 | 30.0 | 304 | 708 |
| 66.00 | 2,024 | 20.0 | 202 | 911 |
| 67.00 | 1,544 | 100.0 | 1,784 | 2,695 |
| 68.00 | 2,024 | 100.0 | 1,784 | 4,479 |
| 68.50 | 2,682 | 100.0 | 1,177 | 5,655 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 65.25' | **15.0" Round Culvert**<br>L= 163.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 65.25' / 63.62' S= 0.0100 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 68.00' | **18.0" x 18.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=3.32 cfs @ 12.15 hrs HW=68.31' (Free Discharge)
↑—**1=Culvert** (Passes 3.32 cfs of 8.39 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 3.32 cfs @ 1.81 fps)

## Summary for Pond B4: Bioretention 4

Inflow Area = 0.490 ac, 69.39% Impervious, Inflow Depth > 5.22" for 25 year event
Inflow = 2.75 cfs @ 12.09 hrs, Volume= 0.213 af
Outflow = 1.60 cfs @ 12.21 hrs, Volume= 0.132 af, Atten= 42%, Lag= 7.5 min
Primary = 1.60 cfs @ 12.21 hrs, Volume= 0.132 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.23' @ 12.21 hrs Surf.Area= 1,799 sf Storage= 4,289 cf

Plug-Flow detention time= 194.3 min calculated for 0.132 af (62% of inflow)
Center-of-Mass det. time= 93.5 min ( 869.4 - 775.9 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 4,795 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 1,867 | 0.0 | 0 | 0 |
| 65.00 | 1,867 | 40.0 | 373 | 373 |
| 65.50 | 1,867 | 30.0 | 280 | 653 |
| 66.00 | 1,867 | 20.0 | 187 | 840 |
| 67.00 | 1,280 | 100.0 | 1,574 | 2,414 |
| 68.00 | 1,673 | 100.0 | 1,477 | 3,890 |
| 68.50 | 1,948 | 100.0 | 905 | 4,795 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 65.25' | **15.0" Round Culvert**<br>L= 100.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 65.25' / 64.25' S= 0.0100 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 67.75' | **18.0" W x 18.0" H Vert. Orifice/Grate** C= 0.600 |

**Primary OutFlow** Max=1.58 cfs @ 12.21 hrs HW=68.22' (Free Discharge)
↑**1=Culvert** (Passes 1.58 cfs of 8.71 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 1.58 cfs @ 2.21 fps)

## Summary for Link TOT: Total Flow to New Park Ave

Inflow Area = 4.890 ac, 60.53% Impervious, Inflow Depth > 4.22" for 25 year event
Inflow = 21.68 cfs @ 12.16 hrs, Volume= 1.720 af
Primary = 21.68 cfs @ 12.16 hrs, Volume= 1.720 af, Atten= 0%, Lag= 0.0 min

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

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 P1-1: Flow to Bioretention 1** Runoff Area=0.520 ac 69.23% Impervious Runoff Depth>6.99"
Tc=6.0 min CN=92 Runoff=3.83 cfs 0.303 af

**Subcatchment P1-2: Flow to Bioretention 2** Runoff Area=0.720 ac 55.56% Impervious Runoff Depth>6.75"
Tc=6.0 min CN=90 Runoff=5.21 cfs 0.405 af

**Subcatchment P1-3: Flow to Bioretention 3** Runoff Area=0.720 ac 55.56% Impervious Runoff Depth>6.75"
Tc=6.0 min CN=90 Runoff=5.21 cfs 0.405 af

**Subcatchment P1-4: Flow to Bioretention 4** Runoff Area=0.490 ac 69.39% Impervious Runoff Depth>6.99"
Tc=6.0 min CN=92 Runoff=3.61 cfs 0.285 af

**Subcatchment P1-5: Direct to New Park Ave** Runoff Area=2.440 ac 59.84% Impervious Runoff Depth>6.86"
Flow Length=771' Tc=12.6 min CN=91 Runoff=14.74 cfs 1.396 af

**Subcatchment P2: Sheet Flow to FastTrak** Runoff Area=0.230 ac 0.00% Impervious Runoff Depth>5.57"
Flow Length=304' Tc=6.0 min CN=80 Runoff=1.45 cfs 0.107 af

**Pond B1: Bioretention 1** Peak Elev=70.12' Storage=3,154 cf Inflow=3.83 cfs 0.303 af
Outflow=3.32 cfs 0.244 af

**Pond B2: Bioretention 2** Peak Elev=68.40' Storage=5,708 cf Inflow=5.21 cfs 0.405 af
Outflow=4.98 cfs 0.291 af

**Pond B3: Bioretention 3** Peak Elev=68.39' Storage=5,372 cf Inflow=5.21 cfs 0.405 af
Outflow=4.80 cfs 0.301 af

**Pond B4: Bioretention 4** Peak Elev=68.45' Storage=4,703 cf Inflow=3.61 cfs 0.285 af
Outflow=2.83 cfs 0.204 af

**Link TOT: Total Flow to New Park Ave** Inflow=30.01 cfs 2.436 af
Primary=30.01 cfs 2.436 af

**Total Runoff Area = 5.120 ac Runoff Volume = 2.901 af Average Runoff Depth = 6.80"**
**42.19% Pervious = 2.160 ac 57.81% Impervious = 2.960 ac**

## Summary for Subcatchment P1-1: Flow to Bioretention 1

Runoff = 3.83 cfs @ 12.09 hrs, Volume= 0.303 af, Depth> 6.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=7.95"

| Area (ac) | CN | Description |
|---|---|---|
| 0.360 | 98 | Paved parking, HSG D |
| 0.160 | 80 | >75% Grass cover, Good, HSG D |
| 0.520 | 92 | Weighted Average |
| 0.160 | | 30.77% Pervious Area |
| 0.360 | | 69.23% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-2: Flow to Bioretention 2

Runoff = 5.21 cfs @ 12.09 hrs, Volume= 0.405 af, Depth> 6.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=7.95"

| Area (ac) | CN | Description |
|---|---|---|
| 0.400 | 98 | Paved parking, HSG D |
| 0.320 | 80 | >75% Grass cover, Good, HSG D |
| 0.720 | 90 | Weighted Average |
| 0.320 | | 44.44% Pervious Area |
| 0.400 | | 55.56% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-3: Flow to Bioretention 3

Runoff = 5.21 cfs @ 12.09 hrs, Volume= 0.405 af, Depth> 6.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=7.95"

| Area (ac) | CN | Description |
|---|---|---|
| 0.400 | 98 | Paved parking, HSG D |
| 0.320 | 80 | >75% Grass cover, Good, HSG D |
| 0.720 | 90 | Weighted Average |
| 0.320 | | 44.44% Pervious Area |
| 0.400 | | 55.56% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-4: Flow to Bioretention 4

Runoff = 3.61 cfs @ 12.09 hrs, Volume= 0.285 af, Depth> 6.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=7.95"

| Area (ac) | CN | Description |
|---|---|---|
| 0.340 | 98 | Paved parking, HSG D |
| 0.150 | 80 | >75% Grass cover, Good, HSG D |
| 0.490 | 92 | Weighted Average |
| 0.150 | | 30.61% Pervious Area |
| 0.340 | | 69.39% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | | | | | **Direct Entry, Direct to Meet Min.** |

## Summary for Subcatchment P1-5: Direct to New Park Ave

Runoff = 14.74 cfs @ 12.17 hrs, Volume= 1.396 af, Depth> 6.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=7.95"

| Area (ac) | CN | Description |
|---|---|---|
| 1.460 | 98 | Paved parking, HSG D |
| 0.980 | 80 | >75% Grass cover, Good, HSG D |
| 2.440 | 91 | Weighted Average |
| 0.980 | | 40.16% Pervious Area |
| 1.460 | | 59.84% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 9.5 | 100 | 0.0220 | 0.17 | | **Sheet Flow, AB**<br>Grass: Short n= 0.150 P2= 3.13" |
| 1.5 | 196 | 0.0220 | 2.22 | | **Shallow Concentrated Flow, BC**<br>Grassed Waterway Kv= 15.0 fps |
| 1.6 | 475 | 0.0100 | 4.91 | 3.86 | **Pipe Channel, CD**<br>12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'<br>n= 0.012 Corrugated PP, smooth interior |
| 12.6 | 771 | Total | | | |

## Summary for Subcatchment P2: Sheet Flow to FastTrak

Runoff = 1.45 cfs @ 12.09 hrs, Volume= 0.107 af, Depth> 5.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=7.95"

| Area (ac) | CN | Description |
|---|---|---|
| 0.230 | 80 | >75% Grass cover, Good, HSG D |
| 0.230 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 6.0 | 304 | | 0.84 | | **Direct Entry, Direct to Meet Min.** |

## Summary for Pond B1: Bioretention 1

Inflow Area = 0.520 ac, 69.23% Impervious, Inflow Depth > 6.99" for 100 year event
Inflow = 3.83 cfs @ 12.09 hrs, Volume= 0.303 af
Outflow = 3.32 cfs @ 12.13 hrs, Volume= 0.244 af, Atten= 13%, Lag= 2.8 min
Primary = 3.32 cfs @ 12.13 hrs, Volume= 0.244 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 70.12' @ 12.13 hrs Surf.Area= 1,305 sf Storage= 3,154 cf

Plug-Flow detention time= 130.5 min calculated for 0.244 af (80% of inflow)
Center-of-Mass det. time= 56.6 min ( 825.4 - 768.8 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 66.50' | 3,662 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 66.50 | 1,403 | 0.0 | 0 | 0 |
| 67.00 | 1,403 | 40.0 | 281 | 281 |
| 67.50 | 1,403 | 30.0 | 210 | 491 |
| 68.00 | 1,403 | 20.0 | 140 | 631 |
| 69.00 | 1,024 | 100.0 | 1,214 | 1,845 |
| 70.00 | 1,273 | 100.0 | 1,149 | 2,993 |
| 70.50 | 1,403 | 100.0 | 669 | 3,662 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 66.50' | **15.0" Round Culvert**<br>L= 49.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 66.50' / 66.00' S= 0.0102 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 69.65' | **12.0" x 12.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=3.28 cfs @ 12.13 hrs HW=70.11' (Free Discharge)
↑—**1=Culvert** (Passes 3.28 cfs of 10.22 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 3.28 cfs @ 3.28 fps)

## Summary for Pond B2: Bioretention 2

Inflow Area = 0.720 ac, 55.56% Impervious, Inflow Depth > 6.75" for 100 year event
Inflow = 5.21 cfs @ 12.09 hrs, Volume= 0.405 af
Outflow = 4.98 cfs @ 12.11 hrs, Volume= 0.291 af, Atten= 4%, Lag= 1.6 min
Primary = 4.98 cfs @ 12.11 hrs, Volume= 0.291 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.40' @ 12.11 hrs Surf.Area= 1,754 sf Storage= 5,708 cf

Plug-Flow detention time= 156.9 min calculated for 0.291 af (72% of inflow)
Center-of-Mass det. time= 68.3 min ( 843.9 - 775.6 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 5,876 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 2,174 | 0.0 | 0 | 0 |
| 65.00 | 2,174 | 40.0 | 435 | 435 |
| 65.50 | 2,174 | 30.0 | 326 | 761 |
| 66.00 | 2,174 | 20.0 | 217 | 978 |
| 67.00 | 1,768 | 100.0 | 1,971 | 2,949 |
| 68.00 | 2,174 | 100.0 | 1,971 | 4,920 |
| 68.50 | 1,650 | 100.0 | 956 | 5,876 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 64.25' | **15.0" Round Culvert**<br>L= 142.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 64.25' / 62.97' S= 0.0090 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 68.00' | **18.0" x 18.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=4.85 cfs @ 12.11 hrs HW=68.39' (Free Discharge)
↑—**1=Culvert** (Passes 4.85 cfs of 9.68 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 4.85 cfs @ 2.05 fps)

## Summary for Pond B3: Bioretention 3

Inflow Area = 0.720 ac, 55.56% Impervious, Inflow Depth > 6.75" for 100 year event
Inflow = 5.21 cfs @ 12.09 hrs, Volume= 0.405 af
Outflow = 4.80 cfs @ 12.12 hrs, Volume= 0.301 af, Atten= 8%, Lag= 2.1 min
Primary = 4.80 cfs @ 12.12 hrs, Volume= 0.301 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.39' @ 12.12 hrs Surf.Area= 2,539 sf Storage= 5,372 cf

Plug-Flow detention time= 148.7 min calculated for 0.301 af (74% of inflow)
Center-of-Mass det. time= 64.0 min ( 839.7 - 775.6 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 5,655 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 2,024 | 0.0 | 0 | 0 |
| 65.00 | 2,024 | 40.0 | 405 | 405 |
| 65.50 | 2,024 | 30.0 | 304 | 708 |
| 66.00 | 2,024 | 20.0 | 202 | 911 |
| 67.00 | 1,544 | 100.0 | 1,784 | 2,695 |
| 68.00 | 2,024 | 100.0 | 1,784 | 4,479 |
| 68.50 | 2,682 | 100.0 | 1,177 | 5,655 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 65.25' | **15.0" Round Culvert**<br>L= 163.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 65.25' / 63.62' S= 0.0100 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 68.00' | **18.0" x 18.0" Horiz. Orifice/Grate** C= 0.600<br>Limited to weir flow at low heads |

**Primary OutFlow** Max=4.67 cfs @ 12.12 hrs HW=68.38' (Free Discharge)
↑—**1=Culvert** (Passes 4.67 cfs of 8.48 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 4.67 cfs @ 2.03 fps)

## Summary for Pond B4: Bioretention 4

Inflow Area = 0.490 ac, 69.39% Impervious, Inflow Depth > 6.99" for 100 year event
Inflow = 3.61 cfs @ 12.09 hrs, Volume= 0.285 af
Outflow = 2.83 cfs @ 12.16 hrs, Volume= 0.204 af, Atten= 22%, Lag= 4.2 min
Primary = 2.83 cfs @ 12.16 hrs, Volume= 0.204 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.45' @ 12.16 hrs Surf.Area= 1,922 sf Storage= 4,703 cf

Plug-Flow detention time= 166.6 min calculated for 0.204 af (72% of inflow)
Center-of-Mass det. time= 77.2 min ( 846.0 - 768.8 )

| Volume | Invert | Avail.Storage | Storage Description |
|---|---|---|---|
| #1 | 64.50' | 4,795 cf | **Custom Stage Data (Prismatic)** Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Voids (%) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---|---|---|---|---|
| 64.50 | 1,867 | 0.0 | 0 | 0 |
| 65.00 | 1,867 | 40.0 | 373 | 373 |
| 65.50 | 1,867 | 30.0 | 280 | 653 |
| 66.00 | 1,867 | 20.0 | 187 | 840 |
| 67.00 | 1,280 | 100.0 | 1,574 | 2,414 |
| 68.00 | 1,673 | 100.0 | 1,477 | 3,890 |
| 68.50 | 1,948 | 100.0 | 905 | 4,795 |

| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 65.25' | **15.0" Round Culvert**<br>L= 100.0' CPP, square edge headwall, Ke= 0.500<br>Inlet / Outlet Invert= 65.25' / 64.25' S= 0.0100 '/' Cc= 0.900<br>n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf |
| #2 | Device 1 | 67.75' | **18.0" W x 18.0" H Vert. Orifice/Grate** C= 0.600 |

**Primary OutFlow** Max=2.80 cfs @ 12.16 hrs HW=68.45' (Free Discharge)
↑—**1=Culvert** (Passes 2.80 cfs of 9.05 cfs potential flow)
↑—**2=Orifice/Grate** (Orifice Controls 2.80 cfs @ 2.68 fps)

## Summary for Link TOT: Total Flow to New Park Ave

Inflow Area = 4.890 ac, 60.53% Impervious, Inflow Depth > 5.98" for 100 year event
Inflow = 30.01 cfs @ 12.15 hrs, Volume= 2.436 af
Primary = 30.01 cfs @ 12.15 hrs, Volume= 2.436 af, Atten= 0%, Lag= 0.0 min

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

# APPENDIX C

## HYDRAULIC COMPUTATIONS

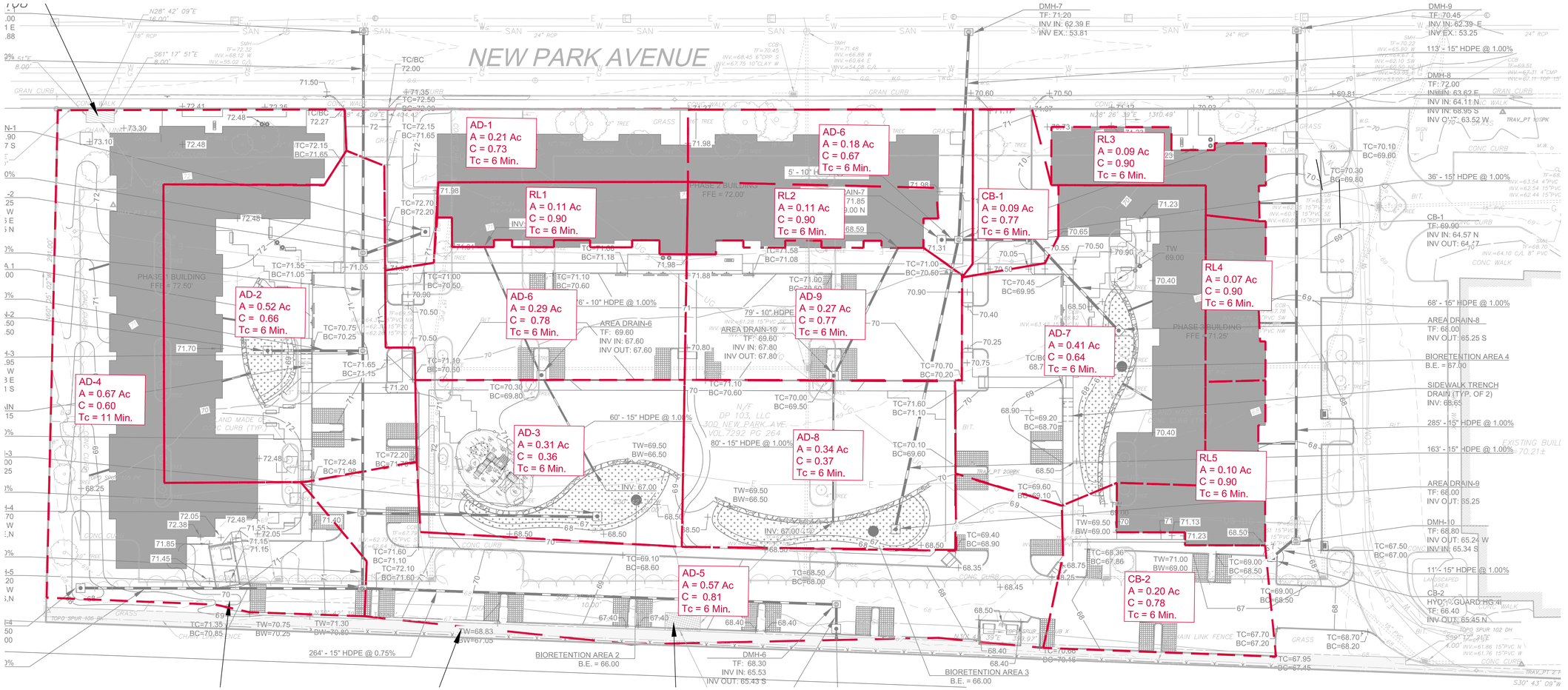
Drainage Analysis for Proposed Conditions
400 Edge Subdivision
Hartford, CT

**6/17/2020**

*Job Number:* 70610.00 **JCO**

**Drainage Areas**

| BASIN | TOTAL (AC.) | IMPERVIOUS (AC.) | PERVIOUS (AC.) | C-Value | Tc (Min.) |
|---|---|---|---|---|---|
| AD-1 | 0.21 | 0.15 | 0.06 | 0.73 | 6.00 |
| AD-2 | 0.52 | 0.31 | 0.21 | 0.66 | 6.00 |
| AD-3 | 0.31 | 0.03 | 0.28 | 0.36 | 6.00 |
| AD-4 | 0.67 | 0.33 | 0.34 | 0.60 | 11.00 |
| AD-5 | 0.57 | 0.48 | 0.09 | 0.81 | 6.00 |
| AD-6 | 0.18 | 0.11 | 0.07 | 0.67 | 6.00 |
| AD-7 | 0.41 | 0.23 | 0.18 | 0.64 | 6.00 |
| AD-8 | 0.34 | 0.04 | 0.30 | 0.37 | 6.00 |
| AD-9 | 0.27 | 0.21 | 0.06 | 0.77 | 6.00 |
| CB-1 | 0.09 | 0.07 | 0.02 | 0.77 | 6.00 |
| CB-2 | 0.20 | 0.16 | 0.04 | 0.78 | 6.00 |
| RL1 | 0.11 | 0.11 | 0.00 | 0.90 | 6.00 |
| RL2 | 0.11 | 0.11 | 0.00 | 0.90 | 6.00 |
| RL3 | 0.09 | 0.09 | 0.00 | 0.90 | 6.00 |
| RL4 | 0.07 | 0.07 | 0.00 | 0.90 | 6.00 |
| RL5 | 0.10 | 0.10 | 0.00 | 0.90 | 6.00 |
| | **4.250** | **2.600** | **1.650** | 0.67 | |




WATERSHED LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION PATH
- A — TIME OF CONCENTRATION PATH SEGMENT



30 0 30 60
1" = 30'

## SURVEY REFERENCE

SURVEY INFORMATION FROM PLAN ENTITLED: "BOUNDARY - TOPOGRAPHIC SURVEY" PREPARED BY ALFRED BENESCH AND COMPANY FOR DAKOTA PARTNERS, 1" = 30', DATED APRIL 2020.

Prepared by:
benesch
Alfred Benesch & Company
120 Hebron Avenue
Glastonbury, Connecticut 06033
860-633-8341

Prepared for:
DAKOTA PARTNERS
Dakota Partners, Inc.
1264 Main Street
Waltham, MA 02451
P: 781-786-7538

# PERMITTING PLANS
# EDGE 400 SUBDIVISION

330 NEW PARK AVENUE
HARTFORD, CONNECTICUT

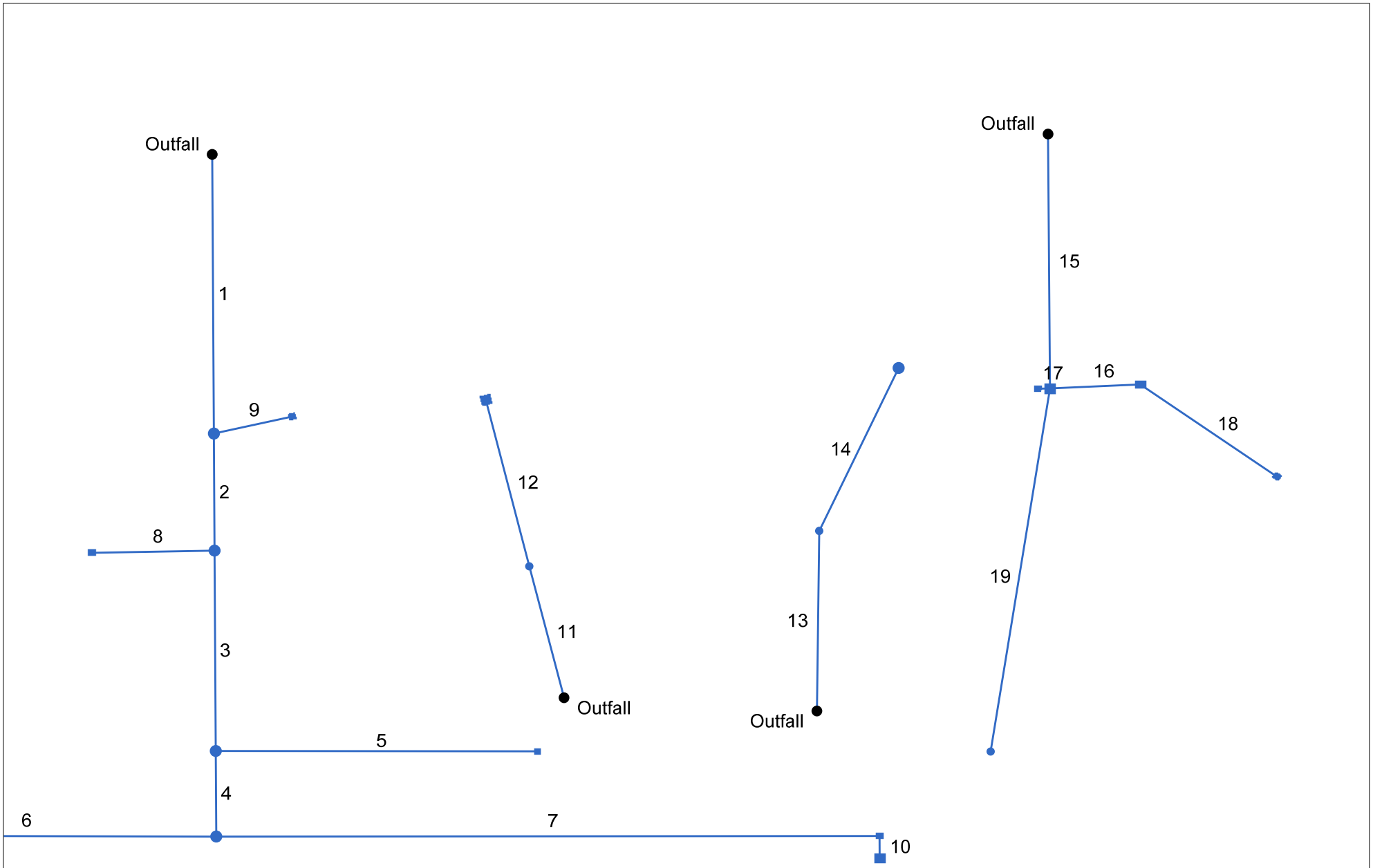
| DATE: | REVISION: |
|---|---|
| | |

PROJECT NO.: 70610
SCALE: AS SHOWN
DATE: JUNE 26, 2020
DRAWN BY: JPE
CHECKED BY: WGW

## CATCHMENT AREA MAP

DRAWING NO.:
**CAM**

# 330 New Park Ave, Hartford CT




| | | |
|---|---|---|
| Project File: Drainage Network.stm | Number of lines: 27 | Date: 6/24/2020 |

# Storm Sewer Inventory Report



| Line No. | Alignment | | | | Flow Data | | | | Physical Data | | | | | | | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Dnstr Line No. | Line Length (ft) | Defl angle (deg) | Junc Type | Known Q (cfs) | Drng Area (ac) | Runoff Coeff (C) | Inlet Time (min) | Invert El Dn (ft) | Line Slope (%) | Invert El Up (ft) | Line Size (in) | Line Shape | N Value (n) | J-Loss Coeff (K) | Inlet/ Rim El (ft) | |
| 1 | End | 124.000 | 89.694 | MH | 0.00 | 0.00 | 0.00 | 0.0 | 58.13 | 1.00 | 59.37 | 24 | Cir | 0.012 | 1.00 | 71.10 | DMH2 |
| 2 | 1 | 52.000 | 0.000 | MH | 0.00 | 0.00 | 0.00 | 0.0 | 59.47 | 1.00 | 59.99 | 24 | Cir | 0.012 | 1.00 | 70.95 | DMH3 |
| 3 | 2 | 89.000 | 0.000 | MH | 0.00 | 0.00 | 0.00 | 0.0 | 60.09 | 1.00 | 60.98 | 24 | Cir | 0.012 | 1.00 | 71.70 | DMH4 |
| 4 | 3 | 38.000 | 0.000 | MH | 0.00 | 0.00 | 0.00 | 0.0 | 61.08 | 1.00 | 61.46 | 18 | Cir | 0.012 | 1.00 | 71.00 | DMH5 |
| 5 | 3 | 128.000 | -89.624 | Genr | 3.25 | 0.00 | 0.00 | 6.0 | 62.97 | 1.00 | 64.25 | 15 | Cir | 0.012 | 1.00 | 68.00 | AD3 |
| 6 | 4 | 155.000 | 90.451 | Grate | 0.00 | 0.67 | 0.60 | 11.0 | 62.45 | 1.00 | 64.00 | 18 | Cir | 0.012 | 1.00 | 67.50 | AD4 |
| 7 | 4 | 264.000 | -89.747 | MH | 0.00 | 0.57 | 0.81 | 6.0 | 61.56 | 1.00 | 64.20 | 18 | Cir | 0.012 | 1.00 | 67.70 | DMH6 |
| 8 | 2 | 49.000 | 89.140 | Genr | 2.75 | 0.00 | 0.00 | 6.0 | 66.01 | 1.00 | 66.50 | 15 | Cir | 0.012 | 1.00 | 70.50 | AD2 |
| 9 | 1 | 32.000 | -103.285 | Grate | 0.00 | 0.21 | 0.73 | 6.0 | 68.25 | 1.00 | 68.57 | 15 | Cir | 0.012 | 1.00 | 70.90 | AD1 |
| 10 | 7 | 10.000 | 89.689 | Curb | 0.00 | 0.57 | 0.81 | 6.0 | 64.30 | 2.00 | 64.50 | 18 | Cir | 0.012 | 1.00 | 67.50 | AD5 |
| 11 | End | 60.000 | -103.325 | Grate | 0.00 | 0.29 | 0.79 | 6.0 | 66.50 | 1.00 | 67.10 | 12 | Cir | 0.012 | 0.50 | 69.60 | AD6 |
| 12 | 11 | 76.000 | 0.153 | Genr | 0.00 | 0.11 | 0.90 | 6.0 | 67.10 | 1.66 | 68.36 | 10 | Cir | 0.012 | 1.00 | 71.50 | RL1 |
| 13 | End | 80.000 | -89.342 | Grate | 0.00 | 0.34 | 0.37 | 6.0 | 66.50 | 1.00 | 67.30 | 12 | Cir | 0.012 | 0.67 | 69.60 | AD9 |
| 14 | 13 | 79.000 | 22.941 | Genr | 0.00 | 0.11 | 0.90 | 6.0 | 67.30 | 1.63 | 68.59 | 10 | Cir | 0.012 | 1.00 | 71.50 | RL2 |
| 15 | End | 113.000 | 89.608 | MH | 0.00 | 0.00 | 0.00 | 0.0 | 62.39 | 1.00 | 63.52 | 15 | Cir | 0.012 | 1.00 | 71.00 | DMH8 |
| 16 | 15 | 36.000 | -92.482 | Comb | 0.00 | 0.09 | 0.77 | 6.0 | 64.11 | 1.00 | 64.47 | 15 | Cir | 0.012 | 1.03 | 69.90 | CB1 |
| 17 | 15 | 5.000 | 88.886 | Grate | 0.00 | 0.18 | 0.67 | 6.0 | 66.75 | 1.00 | 66.80 | 10 | Cir | 0.012 | 1.00 | 69.80 | AD6 |
| 18 | 16 | 68.000 | 39.864 | Genr | 1.60 | 0.00 | 0.00 | 6.0 | 64.57 | 1.00 | 65.25 | 15 | Cir | 0.012 | 1.00 | 67.75 | AD7 |
| 19 | 15 | 163.000 | 8.723 | Genr | 3.32 | 0.00 | 0.00 | 6.0 | 63.62 | 1.00 | 65.25 | 15 | Cir | 0.012 | 1.00 | 68.00 | AD8 |
| 20 | End | 96.000 | 89.383 | None | 0.00 | 0.00 | 0.00 | 0.0 | 60.09 | 1.02 | 61.07 | 15 | Cir | 0.012 | 1.00 | 69.50 | |
| 21 | 20 | 67.000 | -0.421 | None | 0.00 | 0.00 | 0.00 | 0.0 | 61.07 | 1.00 | 61.74 | 15 | Cir | 0.012 | 1.00 | 69.10 | |
| 22 | 21 | 68.000 | -0.421 | None | 0.00 | 0.00 | 0.00 | 0.0 | 61.74 | 1.00 | 62.42 | 15 | Cir | 0.012 | 1.00 | 68.90 | |
| 23 | 22 | 52.000 | -0.421 | MH | 0.00 | 0.00 | 0.00 | 0.0 | 62.42 | 1.00 | 62.94 | 15 | Cir | 0.012 | 0.74 | 68.80 | DMH10 |

**330 New Park Ave, Hartford CT** | Number of lines: 27 | Date: 6/24/2020

# Storm Sewer Inventory Report



| Line No. | Alignment | | | | Flow Data | | | | Physical Data | | | | | | | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Dnstr Line No. | Line Length (ft) | Defl angle (deg) | Junc Type | Known Q (cfs) | Drng Area (ac) | Runoff Coeff (C) | Inlet Time (min) | Invert El Dn (ft) | Line Slope (%) | Invert El Up (ft) | Line Size (in) | Line Shape | N Value (n) | J-Loss Coeff (K) | Inlet/ Rim El (ft) | |
| 24 | 23 | 11.000 | 44.219 | Comb | 0.00 | 0.20 | 0.78 | 6.0 | 63.04 | 1.00 | 63.15 | 15 | Cir | 0.012 | 1.00 | 68.20 | CB2 |
| 25 | 20 | 21.000 | 89.383 | None | 0.00 | 0.09 | 0.90 | 6.0 | 63.37 | 1.00 | 63.58 | 10 | Cir | 0.012 | 1.00 | 70.50 | RL3 |
| 26 | 21 | 21.000 | 89.383 | None | 0.00 | 0.07 | 0.90 | 6.0 | 64.04 | 1.00 | 64.25 | 10 | Cir | 0.012 | 1.00 | 70.50 | RL4 |
| 27 | 22 | 21.000 | 89.383 | None | 0.00 | 0.10 | 0.90 | 6.0 | 64.72 | 1.00 | 64.93 | 10 | Cir | 0.012 | 1.00 | 70.50 | RL5 |

# Storm Sewer Summary Report



| Line No. | Line ID | Flow rate (cfs) | Line Size (in) | Line shape | Line length (ft) | Invert EL Dn (ft) | Invert EL Up (ft) | Line Slope (%) | HGL Down (ft) | HGL Up (ft) | Minor loss (ft) | HGL Junct (ft) | Dns Line No. | Junction Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DMH2 | 14.13 | 24 | Cir | 124.000 | 58.13 | 59.37 | 1.000 | 61.22* | 61.63* | 0.31 | 61.95 | End | Manhole |
| 2 | DMH3 | 13.35 | 24 | Cir | 52.000 | 59.47 | 59.99 | 1.000 | 61.95* | 62.10* | 0.28 | 62.38 | 1 | Manhole |
| 3 | DMH4 | 10.73 | 24 | Cir | 89.000 | 60.09 | 60.98 | 1.000 | 62.38 | 62.47 | 0.29 | 62.75 | 2 | Manhole |
| 4 | DMH5 | 7.53 | 18 | Cir | 38.000 | 61.08 | 61.46 | 1.000 | 62.75 | 62.90 | 0.29 | 63.19 | 3 | Manhole |
| 5 | AD3 | 3.25 | 15 | Cir | 128.000 | 62.97 | 64.25 | 1.000 | 63.57 | 64.98 | n/a | 64.98 | 3 | Generic |
| 6 | AD4 | 2.49 | 18 | Cir | 155.000 | 62.45 | 64.00 | 1.000 | 63.19 | 64.60 | n/a | 64.60 j | 4 | Grate |
| 7 | DMH6 | 7.65 | 18 | Cir | 264.000 | 61.56 | 64.20 | 1.000 | 63.19 | 65.27 | n/a | 65.27 j | 4 | Manhole |
| 8 | AD2 | 2.75 | 15 | Cir | 49.000 | 66.01 | 66.50 | 1.000 | 66.55 | 67.17 | 0.27 | 67.17 | 2 | Generic |
| 9 | AD1 | 1.28 | 15 | Cir | 32.000 | 68.25 | 68.57 | 1.000 | 68.61 | 69.02 | n/a | 69.02 | 1 | Grate |
| 10 | AD5 | 3.85 | 18 | Cir | 10.000 | 64.30 | 64.50 | 2.000 | 65.27 | 65.25 | n/a | 65.25 j | 7 | Curb-Horiz |
| 11 | AD6 | 2.58 | 12 | Cir | 60.000 | 66.50 | 67.10 | 1.000 | 67.72 | 67.94 | 0.10 | 68.05 | End | Grate |
| 12 | RL1 | 0.82 | 10 | Cir | 76.000 | 67.10 | 68.36 | 1.658 | 68.05 | 68.76 | n/a | 68.76 j | 11 | Generic |
| 13 | AD9 | 1.76 | 12 | Cir | 80.000 | 66.50 | 67.30 | 1.000 | 67.60 | 67.86 | n/a | 67.86 j | End | Grate |
| 14 | RL2 | 0.82 | 10 | Cir | 79.000 | 67.30 | 68.59 | 1.633 | 67.86 | 68.99 | n/a | 68.99 j | 13 | Generic |
| 15 | DMH8 | 6.37 | 15 | Cir | 113.000 | 62.39 | 63.52 | 1.000 | 64.92* | 65.86* | 0.42 | 66.28 | End | Manhole |
| 16 | CB1 | 2.14 | 15 | Cir | 36.000 | 64.11 | 64.47 | 1.000 | 66.28* | 66.31* | 0.05 | 66.36 | 15 | Combination |
| 17 | AD6 | 1.00 | 10 | Cir | 5.000 | 66.75 | 66.80 | 1.000 | 67.13 | 67.24 | 0.18 | 67.24 | 15 | Grate |
| 18 | AD7 | 1.60 | 15 | Cir | 68.000 | 64.57 | 65.25 | 1.000 | 66.36 | 66.39 | 0.03 | 66.42 | 16 | Generic |
| 19 | AD8 | 3.32 | 15 | Cir | 163.000 | 63.62 | 65.25 | 1.000 | 66.28* | 66.65* | 0.11 | 66.76 | 15 | Generic |
| 20 | | 2.80 | 15 | Cir | 96.000 | 60.09 | 61.07 | 1.021 | 63.11* | 63.26* | 0.08 | 63.34 | End | None |
| 21 | | 2.29 | 15 | Cir | 67.000 | 61.07 | 61.74 | 1.000 | 63.34* | 63.42* | 0.05 | 63.47 | 20 | None |
| 22 | | 1.91 | 15 | Cir | 68.000 | 61.74 | 62.42 | 1.000 | 63.47 | 63.51 | 0.04 | 63.56 | 21 | None |
| 23 | DMH10 | 1.28 | 15 | Cir | 52.000 | 62.42 | 62.94 | 1.000 | 63.56 | 63.39 | 0.12 | 63.39 | 22 | Manhole |
| 24 | CB2 | 1.30 | 15 | Cir | 11.000 | 63.04 | 63.15 | 1.000 | 63.41 | 63.60 | n/a | 63.60 | 23 | Combination |

**330 New Park Ave, Hartford CT** | Number of lines: 27 | Run Date: 6/24/2020

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

# Storm Sewer Summary Report



| Line No. | Line ID | Flow rate (cfs) | Line Size (in) | Line shape | Line length (ft) | Invert EL Dn (ft) | Invert EL Up (ft) | Line Slope (%) | HGL Down (ft) | HGL Up (ft) | Minor loss (ft) | HGL Junct (ft) | Dns Line No. | Junction Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | RL3 | 0.67 | 10 | Cir | 21.000 | 63.37 | 63.58 | 1.000 | 63.67 | 63.94 | 0.14 | 63.94 | 20 | None |
| 26 | RL4 | 0.52 | 10 | Cir | 21.000 | 64.04 | 64.25 | 1.000 | 64.31 | 64.57 | n/a | 64.57 | 21 | None |
| 27 | RL5 | 0.75 | 10 | Cir | 21.000 | 64.72 | 64.93 | 1.000 | 65.04 | 65.31 | n/a | 65.31 | 22 | None |

**330 New Park Ave, Hartford CT** | Number of lines: 27 | Run Date: 6/24/2020

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

# Storm Sewer Tabulation



| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 1 | End | 124.000 | 0.00 | 2.02 | 0.00 | 0.00 | 1.48 | 0.0 | 13.6 | 5.5 | 14.13 | 24.50 | 4.50 | 24 | 1.00 | 58.13 | 59.37 | 61.22 | 61.63 | 72.00 | 71.10 | DMH2 |
| 2 | 1 | 52.000 | 0.00 | 1.81 | 0.00 | 0.00 | 1.33 | 0.0 | 13.4 | 5.5 | 13.35 | 24.50 | 4.25 | 24 | 1.00 | 59.47 | 59.99 | 61.95 | 62.10 | 71.10 | 70.95 | DMH3 |
| 3 | 2 | 89.000 | 0.00 | 1.81 | 0.00 | 0.00 | 1.33 | 0.0 | 13.0 | 5.6 | 10.73 | 24.50 | 3.85 | 24 | 1.00 | 60.09 | 60.98 | 62.38 | 62.47 | 70.95 | 71.70 | DMH4 |
| 4 | 3 | 38.000 | 0.00 | 1.81 | 0.00 | 0.00 | 1.33 | 0.0 | 12.8 | 5.7 | 7.53 | 11.38 | 4.29 | 18 | 1.00 | 61.08 | 61.46 | 62.75 | 62.90 | 71.70 | 71.00 | DMH5 |
| 5 | 3 | 128.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.0 | 6.0 | 0.0 | 3.25 | 7.00 | 5.00 | 15 | 1.00 | 62.97 | 64.25 | 63.57 | 64.98 | 71.70 | 68.00 | AD3 |
| 6 | 4 | 155.000 | 0.67 | 0.67 | 0.60 | 0.40 | 0.40 | 11.0 | 11.0 | 6.2 | 2.49 | 11.38 | 3.32 | 18 | 1.00 | 62.45 | 64.00 | 63.19 | 64.60 | 71.00 | 67.50 | AD4 |
| 7 | 4 | 264.000 | 0.57 | 1.14 | 0.81 | 0.46 | 0.92 | 6.0 | 6.1 | 8.3 | 7.65 | 11.38 | 5.00 | 18 | 1.00 | 61.56 | 64.20 | 63.19 | 65.27 | 71.00 | 67.70 | DMH6 |
| 8 | 2 | 49.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.0 | 6.0 | 0.0 | 2.75 | 7.00 | 4.75 | 15 | 1.00 | 66.01 | 66.50 | 66.55 | 67.17 | 70.95 | 70.50 | AD2 |
| 9 | 1 | 32.000 | 0.21 | 0.21 | 0.73 | 0.15 | 0.15 | 6.0 | 6.0 | 8.3 | 1.28 | 7.00 | 3.79 | 15 | 1.00 | 68.25 | 68.57 | 68.61 | 69.02 | 71.10 | 70.90 | AD1 |
| 10 | 7 | 10.000 | 0.57 | 0.57 | 0.81 | 0.46 | 0.46 | 6.0 | 6.0 | 8.3 | 3.85 | 16.09 | 3.77 | 18 | 2.00 | 64.30 | 64.50 | 65.27 | 65.25 | 67.70 | 67.50 | AD5 |
| 11 | End | 60.000 | 0.29 | 0.40 | 0.79 | 0.23 | 0.33 | 6.0 | 6.8 | 7.9 | 2.58 | 3.86 | 3.47 | 12 | 1.00 | 66.50 | 67.10 | 67.72 | 67.94 | 67.00 | 69.60 | AD6 |
| 12 | 11 | 76.000 | 0.11 | 0.11 | 0.90 | 0.10 | 0.10 | 6.0 | 6.0 | 8.3 | 0.82 | 3.05 | 2.34 | 10 | 1.66 | 67.10 | 68.36 | 68.05 | 68.76 | 69.60 | 71.50 | RL1 |
| 13 | End | 80.000 | 0.34 | 0.45 | 0.37 | 0.13 | 0.22 | 6.0 | 6.9 | 7.8 | 1.76 | 3.86 | 3.05 | 12 | 1.00 | 66.50 | 67.30 | 67.60 | 67.86 | 67.00 | 69.60 | AD9 |
| 14 | 13 | 79.000 | 0.11 | 0.11 | 0.90 | 0.10 | 0.10 | 6.0 | 6.0 | 8.3 | 0.82 | 3.03 | 2.64 | 10 | 1.63 | 67.30 | 68.59 | 67.86 | 68.99 | 69.60 | 71.50 | RL2 |
| 15 | End | 113.000 | 0.00 | 0.27 | 0.00 | 0.00 | 0.19 | 0.0 | 7.2 | 7.7 | 6.37 | 7.00 | 5.20 | 15 | 1.00 | 62.39 | 63.52 | 64.92 | 65.86 | 71.80 | 71.00 | DMH8 |
| 16 | 15 | 36.000 | 0.09 | 0.09 | 0.77 | 0.07 | 0.07 | 6.0 | 6.9 | 7.8 | 2.14 | 7.00 | 1.75 | 15 | 1.00 | 64.11 | 64.47 | 66.28 | 66.31 | 71.00 | 69.90 | CB1 |
| 17 | 15 | 5.000 | 0.18 | 0.18 | 0.67 | 0.12 | 0.12 | 6.0 | 6.0 | 8.3 | 1.00 | 2.37 | 3.78 | 10 | 1.00 | 66.75 | 66.80 | 67.13 | 67.24 | 71.00 | 69.80 | AD6 |
| 18 | 16 | 68.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.0 | 6.0 | 0.0 | 1.60 | 7.00 | 1.33 | 15 | 1.00 | 64.57 | 65.25 | 66.36 | 66.39 | 69.90 | 67.75 | AD7 |
| 19 | 15 | 163.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.0 | 6.0 | 0.0 | 3.32 | 7.00 | 2.71 | 15 | 1.00 | 63.62 | 65.25 | 66.28 | 66.65 | 71.00 | 68.00 | AD8 |
| 20 | End | 96.000 | 0.00 | 0.46 | 0.00 | 0.00 | 0.39 | 0.0 | 8.3 | 7.2 | 2.80 | 7.07 | 2.28 | 15 | 1.02 | 60.09 | 61.07 | 63.11 | 63.26 | 0.00 | 69.50 | |
| 21 | 20 | 67.000 | 0.00 | 0.37 | 0.00 | 0.00 | 0.31 | 0.0 | 7.7 | 7.4 | 2.29 | 7.00 | 1.87 | 15 | 1.00 | 61.07 | 61.74 | 63.34 | 63.42 | 69.50 | 69.10 | |
| 22 | 21 | 68.000 | 0.00 | 0.30 | 0.00 | 0.00 | 0.25 | 0.0 | 7.0 | 7.8 | 1.91 | 7.00 | 1.62 | 15 | 1.00 | 61.74 | 62.42 | 63.47 | 63.51 | 69.10 | 68.90 | |
| 23 | 22 | 52.000 | 0.00 | 0.20 | 0.00 | 0.00 | 0.16 | 0.0 | 6.2 | 8.2 | 1.28 | 7.00 | 2.18 | 15 | 1.00 | 62.42 | 62.94 | 63.56 | 63.39 | 68.90 | 68.80 | DMH10 |
| 24 | 23 | 11.000 | 0.20 | 0.20 | 0.78 | 0.16 | 0.16 | 6.0 | 6.0 | 8.3 | 1.30 | 7.00 | 3.81 | 15 | 1.00 | 63.04 | 63.15 | 63.41 | 63.60 | 68.80 | 68.20 | CB2 |

**330 New Park Ave, Hartford CT**

Number of lines: 27

Run Date: 6/24/2020

NOTES:Intensity = 45.22 / (Inlet time + 4.00) ^ 0.73; Return period =Yrs. 25 ; c = cir e = ellip b = box

# Storm Sewer Tabulation

| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (ac) | Total (ac) | (C) | Incr | Total | Inlet (min) | Syst (min) | (in/hr) | (cfs) | (cfs) | (ft/s) | Size (in) | Slope (%) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | Dn (ft) | Up (ft) | |
| 25 | 20 | 21.000 | 0.09 | 0.09 | 0.90 | 0.08 | 0.08 | 6.0 | 6.0 | 8.3 | 0.67 | 2.37 | 3.36 | 10 | 1.00 | 63.37 | 63.58 | 63.67 | 63.94 | 69.50 | 70.50 | RL3 |
| 26 | 21 | 21.000 | 0.07 | 0.07 | 0.90 | 0.06 | 0.06 | 6.0 | 6.0 | 8.3 | 0.52 | 2.37 | 3.12 | 10 | 1.00 | 64.04 | 64.25 | 64.31 | 64.57 | 69.10 | 70.50 | RL4 |
| 27 | 22 | 21.000 | 0.10 | 0.10 | 0.90 | 0.09 | 0.09 | 6.0 | 6.0 | 8.3 | 0.75 | 2.37 | 3.47 | 10 | 1.00 | 64.72 | 64.93 | 65.04 | 65.31 | 68.90 | 70.50 | RL5 |

**330 New Park Ave, Hartford CT** | Number of lines: 27 | Run Date: 6/24/2020

NOTES:Intensity = 45.22 / (Inlet time + 4.00) ^ 0.73; Return period =Yrs. 25 ; c = cir e = ellip b = box

# APPENDIX D

## WATER QUALITY VOLUME COMPUTATIONS

400 Edge Subdivision
330 New Park Avenue
Hartford, CT

benesch

*Job Number:* *70610.00*

*Date* **6/10/2020**
*Prepared by* **JCO**
*Checked by* **WGW**

**Water Quality Volume ($WQ_v$) Required - Phase 1**

Compute Water Quality Volume, WQV per CTDEEP Standards
WQV = (1")*(R)*(A) / 12
I = % Impervious = 1.07 / 1.97 = 54.3
R = 0.05 + 0.009*(I) = 0.05 + 0.009*(54.3) = 0.539
WQV = (1") * (0.539) * 1.97 / 12 = 0.0885 ac-ft
WQV = 0.0885 ac-ft *(43,560 $ft^2$) = **3,855 $ft^3$**

**Water Quality Volume ($WQ_v$) Provided -Phase 1**

| | |
|---|---|
| Bioretention Area 1 ($ft^3$) (from HydroCAD) | 2,592 |
| Bioretention Area 2 ($ft^3$) (from HydroCAD) | 4,920 |
| **Total Water Quality Volume Provided ($ft^3$)** | 7,512 |

**$WQ_v$ Provided = 7,511 $ft^3$ > $WQ_v$ Required = 3,855 $ft^3$ ∴ meets CTDEEP standard for water quality volume**

400 Edge Subdivision
330 New Park Avenue
Hartford, CT

benesch

*Job Number:* *70610.00*

*Date* **6/10/2020**
*Prepared by* **JCO**
*Checked by* **WGW**

**Water Quality Volume ($WQ_v$) Required - Phase 2**

Compute Water Quality Volume, WQV per CTDEEP Standards
WQV = (1")*(R)*(A) / 12
I = % Impervious = 0.93 / 1.52 = 61.2
R = 0.05 + 0.009*(I) = 0.05 + 0.009*(61.2) = 0.601
WQV = (1") * (0.601) * 1.52 / 12 = 0.0761 ac-ft
WQV = 0.0761 ac-ft *(43,560 $ft^2$) = **3,315 $ft^3$**

**Water Quality Volume ($WQ_v$) Provided -Phase 2**

| | |
|---|---|
| Bioretention Area 3 ($ft^3$) (from HydroCAD) | 4,479 |
| **Total Water Quality Volume Provided ($ft^3$)** | 4,479 |

**$WQ_v$ Provided = 4,479 $ft^3$ > $WQ_v$ Required = 3,315 $ft^3$ ∴ meets CTDEEP standard for water quality volume**

400 Edge Subdivision
330 New Park Avenue
Hartford, CT

benesch

*Job Number:* *70610.00*

*Date* **6/10/2020**
*Prepared by* **JCO**
*Checked by* **WGW**

**Water Quality Volume ($WQ_v$) Required - Phase 3**

Compute Water Quality Volume, WQV per CTDEEP Standards
WQV = (1")*(R)*(A) / 12
I = % Impervious = 0.97 / 1.45 = 66.9
R = 0.05 + 0.009*(I) = 0.05 + 0.009*(66.9) = 0.652
WQV = (1") * (0.652) * 1.45 / 12 = 0.0788 ac-ft
WQV = 0.0788 ac-ft *(43,560 $ft^2$) = **3,432 $ft^3$**

**Water Quality Volume ($WQ_v$) Provided -Phase 3**

| | |
|---|---|
| Bioretention Area 4 ($ft^3$) (from HydroCAD) | 3,522 |
| **Total Water Quality Volume Provided ($ft^3$)** | 3,522 |

**$WQ_v$ Provided = 3,521 $ft^3$ > $WQ_v$ Required = 3,432 $ft^3$ ∴ meets CTDEEP standard for water quality volume**

Water Quality Flow
400 Edge Subdivision
Hartford, CT

*Job Number:* 70610.00

*Date* **6/19/2020**
*Prepared by* **JCO**
*Checked by* **WGW**

**Water Quality Volume/Flow for AD5**

Compute WQF for Area AD5 (Hydroworks Hydroguard HG4i)
CN for Area P1C = 95

% Impervious = 0.48 ac / 0.57 ac = 84.2%
$R_{P1C}$ = 0.05 + 0.009 (84.2) = 0.81
$WQV_{AD5}$ = (1")*(0.81)*(0.57 ac)/12 = 0.038 ac-ft

WQF = $(q_u)$*(A)*(Q)
P = 1"
$I_a$ = 0.105 (CN = 94, Table 4-1, TR-55)
$I_a$/P = 0.105
$t_c$ = 6 min = 0.1 hrs
$q_u$ = unit peak discharge = 650 csm/in (Exhibit 4-III, TR-55)
Q = runoff depth = (0.038 ac-ft)*(12 in/ft)/(0.57 ac) = 0.8 in
WQF = (650 csm/in)*(8.9 x $10^{-4}$ sq. mi)*(0.8 in) = **0.46 cfs**

$Q_{TREATMENT\ FLOWRATE}$ = **1.1 cfs** for Hydroguard HG4i ∴ Sufficient

# APPENDIX E

## NATURAL RESOURCES CONSERVATION SERVICE

## SOIL MAPPING

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for State of Connecticut

## 400 Edge Subdivision


June 11, 2020

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

# Contents

# How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

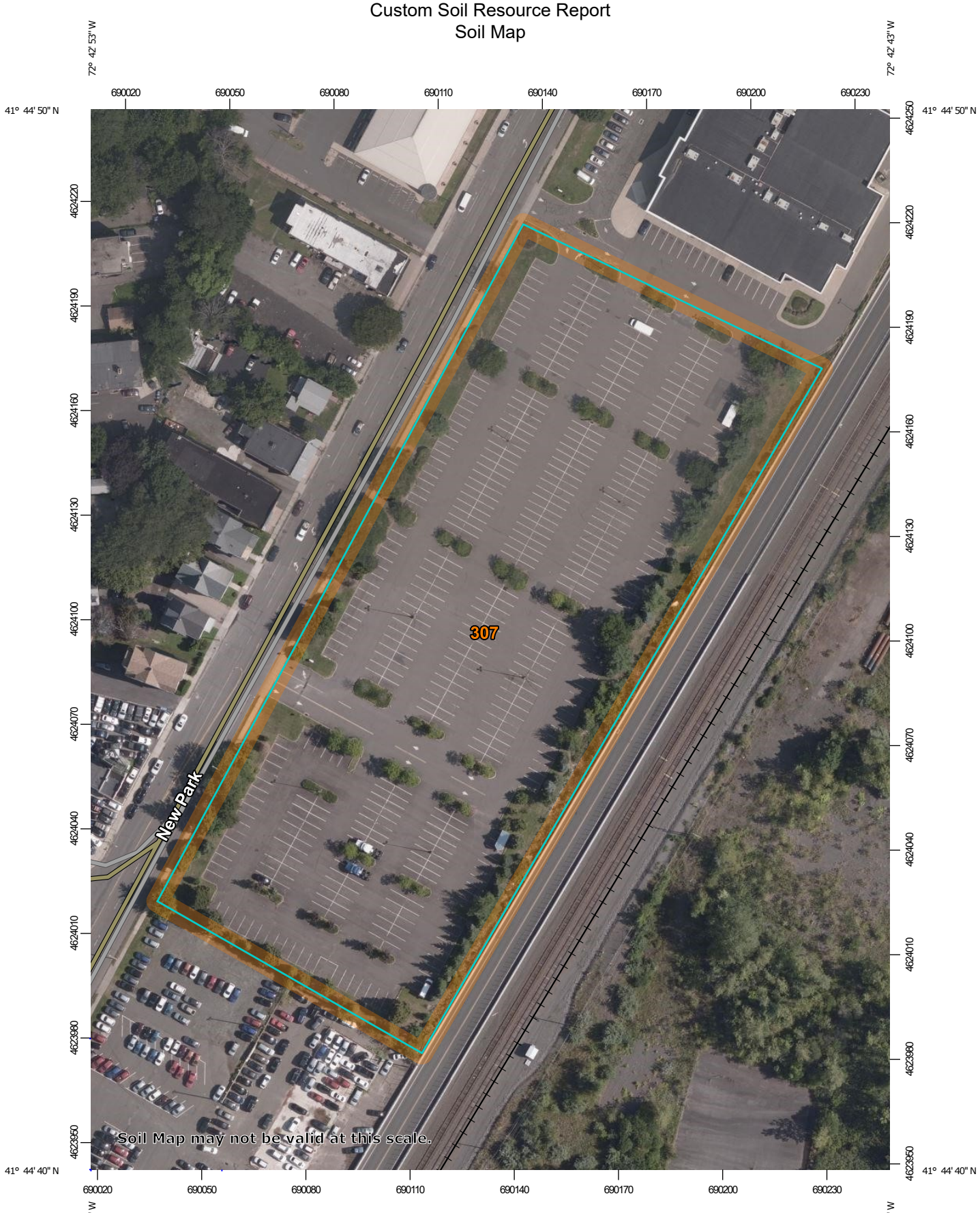
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report
## Soil Map




Map Scale: 1:1,480 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

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

## 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**
- 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
- 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 19, Sep 13, 2019

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

Date(s) aerial images were photographed: Jul 15, 2019—Aug 29, 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 |
|---|---|---|---|
| 307 | Urban land | 5.1 | 100.0% |
| **Totals for Area of Interest** | | **5.1** | **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

## 307—Urban land

### Map Unit Setting

*National map unit symbol:* 9lmh
*Elevation:* 0 to 2,000 feet
*Mean annual precipitation:* 43 to 56 inches
*Mean annual air temperature:* 45 to 55 degrees F
*Frost-free period:* 120 to 185 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Urban land:* 80 percent
*Minor components:* 20 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Urban Land

#### Typical profile

*H - 0 to 6 inches:* material

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydrologic Soil Group:* D
*Hydric soil rating:* Unranked

### Minor Components

#### Unnamed, undisturbed soils

*Percent of map unit:* 10 percent
*Hydric soil rating:* No

#### Udorthents, wet substratum

*Percent of map unit:* 10 percent
*Down-slope shape:* Convex
*Across-slope shape:* Linear
*Hydric soil rating:* No

# References

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Attachment 2: Letter from The Metropolitan District (MDC)

MDC

The Metropolitan District
water supply • environmental services • geographic information

September 22, 2020

Jon Oliveto
Designer II
Alfred Benesch & Company
120 Hebron Avenue, Floor 2
Glastonbury, CT 06033

Re: Water & Sewer Utility Availability
Site Redevelopment, 330 New Park Avenue, Hartford

Dear Mr. Oliveto:

In response to your email request on September 17, 2020, we are confirming the availability of public water and sewer mains located in New Park Avenue which may be used to service the above referenced project located in Hartford. Our water distribution infrastructure in New Park Avenue consists of two 1903 cast iron water mains, existing 8-inch and 12-inch mains. Existing sewer system consist of one 1896 clay tile combined sewer ranging in size from 15-inch to 20-inch with flow in the northerly direction towards Kane Brook.

It should be noted that this site is served by combined sewers which take both sanitary and storm flows. As such proposed private property drainage improvements must meet the MDC's "No Net Increase" Storm Water Management Policy for storm events up to and including the 10-yr design storm. It should also be noted that groundwater discharges into the combined sewer system are discouraged due to Federal EPA and State mandates requiring control of overflows and sanitary sewer by-passes District-wide. However, if sufficient capacity exists in the local sewer system, groundwater discharges may be permitted at the current flat rate of $0.13 per gallon.

Once final development plans have been submitted to Michael Curley, Manager of Technical Services, we will complete a comprehensive capacity analysis of the water distribution system, sanitary sewer and storm sewer systems. Any water and/or sewer connection charges that may be due for the proposed development will also be determined at that time.

If you have any additional questions, please feel free to contact Michael Curley at (860) 278-7850, extension #3445.

THE METROPOLITAN DISTRICT

Very Truly Yours,

Michael Curley, P.E.
Director of Engineering

pc: Chris Levesque, MDC, Susan Negrelli, MDC, Jennifer Ottalagana, MDC, Peter Miller, MDC, MDC Utility Services

Attachment 3: Existing Easement Information



**City of Hartford**
**Gateway Project Easement**

Map not found

**Know ye that Starwood Ceruzzi Hartford, LLC, a Delaware Limited Liability Company, having an office in the Town of Fairfield, County of Fairfield and State of Connecticut, owner of property known as 330 New Park Avenue, in the City of Hartford, Connecticut, grants to the City of Hartford**, a Connecticut municipal corporation, and its successors and assigns forever, a sixteen (16') foot by eight (8') foot easement for the purposes of installing, constructing, operating, maintaining, using, repairing, altering and/or replacing a welcome sign and the necessary electrical equipment, on, under and over a certain piece or parcel of land situated in said City of Hartford on the easterly side of New Park Avenue, and shown on a map entitled "CITY OF HARTFORD MAP SHOWING EASEMENT ACQUIRED FROM STARWOOD CERUZZI HARTFORD LLC AT #330 NEW PARK AVENUE BY THE CITY OF HARTFORD, CONNECTICUT GATEWAY PROJECT, SCALE: 1 INCH = 20 FEET, AUGUST 2000, PREPARED BY PURCELL ASSOCIATES, Lic.#14205", which map is filed in the Hartford Town Clerk's Office. Said easement area is bounded as described below:

Beginning at a point in the easterly street line of New Park Avenue, which point is sixteen (16) feet northeasterly of an iron pin marking the southeasterly corner of land of the aforementioned Starwood Ceruzzi Hartford, LLC and the northwesterly corner of land now or formerly of Heublein, Inc.

Said point is also 157.14 feet northeasterly of a Connecticut Highway Department monument set in the easterly street line of New Park Avenue.

Thence, running along a line making an interior angle of 90 degrees with the said easterly street line of New Park Avenue, a distance of eight (8) feet to a point;

Thence along a line making an interior angle of 90 degrees with the previous line, a distance of sixteen (16) feet to a point;

Thence along a line making an interior angle of 90 degrees with the previous line, to a distance of eight (8) feet to a point in the easterly street line of New Park Avenue.

Thence southerly along the easterly street line of New Park Avenue, a distance of sixteen (16) feet to the point and place of beginning.

Further, that the City of Hartford, within said parcel above described, shall have the right to construct, maintain, inspect use, operate, repair and replace said welcome sign and its appurtenances, and to enter in and upon said parcel and to pass over the same and to excavate therein for said purposes; said City of Hartford shall have all the right within said parcel to perform all work necessary or convenient for the maintenance, inspection, use, operation, repair, replacement or protection of said welcome sign and shall be responsible for all damages and expenses including those to trees, shrubs, flowers, lawn, driveway, sidewalk and surface restoration that might arise from the foregoing; and

Further, that Starwood Ceruzzi Hartford, LLC herein reserves the right to itself and its successors and assigns to continue to use the land within which aforesaid easement is granted for

NO CONVEYANCE TAX COLLECTED
David M. Carey
TOWN CLERK OF HARTFORD

any uses and purposes which shall not in any way interfere with the use thereof by the City of Hartford, its successors and assigns, in fulfilling the purposes for which this easement is granted.

To Have and Hold the above-granted rights, privilege and authority unto the said Grantee and its successors and assigns forever, to it and their own proper use behoof.

Now therefore, in witness wherof, Starwood Ceruzzi Hartford, LLC has hereunto set its hand and seal this 7th day of November, 2000.

Signed in presence:

STARWOOD CERUZZI
HARTFORD, LLC

BY _____
Louis L. Ceruzzi, Jr.
Its President

Arthur W. Hooper, Jr.

John Ceruzzi

STATE OF CONNECTICUT }
.ss : FAIRFIELD
COUNTY OF FAIRFIELD }

On this 7th day of November 2000, before me, personally appeared Louis L. Ceruzzi, Jr., who acknowledged himself to be the President of Starwood Ceruzzi, LLC, the sole member of Starwood Ceruzzi Hartford, LLC, and that he, as such President, being authorized so to do, executed the foregoing instrument, as his free act and deed, and the free act and deed of said Limited Liability Company, for the purposes therein contained, by signing the name of the Limited Liability Company as said President.

_____
Commissioner of the Superior Court

Rec. for Record SEP 7 2001
at 11:40 A M. Patty Carey Town Clerk

VOL: 6431 PG: 176

Return to:
State of Connecticut Department of Transportation
Office of Rights of Way- Unit 403
2800 Berlin Turnpike P.O. Box 317546
Newington, CT 06131-7546

00002428
Mar 31,2011 12:05P
Hartford, CT

## CERTIFICATE OF CONDEMNATION

THIS IS TO CERTIFY that the State of Connecticut, acting herein by its Acting Commissioner of Transportation, James Redeker, pursuant to the provisions of Section 13b-36(a) of the General Statutes of Connecticut, as revised, has taken by filing an Assessment and Notice of Condemnation on March 31, 2011 with the Clerk of the Superior Court in the Judicial District of Hartford, the following described easements located on premises owned by Inland Western Hartford New Park, L.L.C. c/o Inland Western Retail Real Estate Trust, Member, 2901 Butterfield Road, Oak Brook, Illinois 60523 and which the following persons and/or corporations had an interest of record therein:.

Keybank National Association
127 Public Square
Cleveland, Ohio 44114 (Mortgagee)

Crown Theatres, L.P.
64 North Main Street
Norwalk, Connecticut 06854 (Lessee)

## DESCRIPTION OF THE EASEMENTS

Said easements are located upon premises situated in the City of Hartford, County of Hartford and State of Connecticut, on the westerly side of Proposed Busway, as more particularly shown on a map to be filed in the Hartford City Clerk's Office entitled: "CITY OF HARTFORD MAP SHOWING EASEMENT ACQUIRED FROM INLAND WESTERN HARTFORD NEW PARK, L.L.C. BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION NEW BRITAIN – HARTFORD BUSWAY SCALE 1"=40' DECEMBER 2007 MICHAEL W. LONERGAN, P.E. – ACTING TRANSPORTATION CHIEF ENGINEER BUREAU OF ENGINEERING AND HIGHWAY OPERATIONS", ((63)171-305-96), Sheets 1 and 2 of 2, Last Revised 11-18-10, and further described as follows:

1. A full and perpetual easement for transportation purposes, within an area totaling 11,848 square feet, more or less, located between and opposite approximate Station 363+00 and Station 380+50, left of the Base Line of the Proposed Busway, along a line designated "TRANSPORTATION EASEMENT LINE", as shown on Sheets 1 and 2 of said map.

2. A full and perpetual easement to slope for the drainage of the highway and remove, use or retain excavated material within an area of 5,101 square feet, more or less, located between and opposite approximate Stations 363+00 and 383+50, left of the Base Line of the Proposed Busway, within an area designated "APPROXIMATE CUT SLOPE LIMITS", as shown on Sheet 1 of said map.

3. A full and perpetual drainage right of way easement, within an area of 200 square feet, more or less, located opposite approximate Station 367+00, left of the Base Line of the Proposed Busway, as shown on Sheet 1 of said map.

Inland Western Hartford New Park, L.L.C.
(63)171-305-96

The above-described easements are taken subject to such easements and rights as appear of record.

Dated at Newington, Connecticut, this 21 day of March A.D., 2011.

James Redeker
Acting Commissioner of Transportation
State of Connecticut

By _____ (L.S.)
James Redeker
Bureau Chief
Bureau of Public Transportation
Duly Authorized

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF CONNECTICUT
(NEW HAVEN)



| | | |
|---|---|---|
| **CAITFLO, L.L.C. and CALABASH, L.L.C., for themselves and all others similarly situated,** | ) | No. 3:11-cv-00497-WWE |
| **Plaintiffs,** | ) | |
| **v.** | ) | |
| **SPRINT COMMUNICATIONS COMPANY L.P. and WILTEL COMMUNICATIONS, LLC,** | ) | |
| **Defendants.** | ) | |



**EASEMENT DEED BY COURT ORDER IN SETTLEMENT OF LANDOWNER ACTION (ACTIVE RAILROAD LINES)**

WHEREAS, the parties to the above-captioned class action (the "Action") entered into an Connecticut Class Settlement Agreement as of August 24, 2012 and agreed to an Amendment to Connecticut Class Settlement Agreement on May 23, 2013 (collectively the "Settlement Agreement") (terms capitalized herein and not otherwise defined shall have the meanings ascribed to them in the Settlement Agreement);

WHEREAS, on June 24, 2013, the Court entered a final Order and Judgment approving the Settlement Agreement and ordering that this Action may be settled as a class action on behalf of the following class:

> [A] class under the Settlement Agreement (the "Settlement Class"), defined as follows:
>
> a class comprising all Persons who own or who claim to own, for any period of time during a Compensation Period, any Covered Property, *provided*, that "Settlement Class" or "Class" does not include: (1) Right-of-Way Providers and their predecessors, successors, parents, subsidiaries, and affiliates, past or

present; (2) federal, state, and local governmental entities; (3) Native American nations and tribes; or (4) any Person who files a valid and timely exclusion on or before the Opt-Out Deadline.

Members of this Class are referred to below as Class Members; and

WHEREAS, the Settlement Agreement provides for the entry of an Easement Deed by Court Order in Settlement of Landowner Action by which the Settling Defendants acquire, to the extent that Class Members have the right to transfer it, a permanent telecommunications easement in the Right of Way adjacent to the property of each Class Member;

THEREFORE, IT IS HEREBY ORDERED AND ADJUDGED THAT:

1. To the extent that each Class Member owns rights in the Easement Premises (as hereafter defined), the Class Member (the "Grantor") hereby grants to whichever of Sprint Communications Company L.P. and WilTel Communications, Inc., has Designated for inclusion under the Settlement Agreement the Right of Way which adjoins, underlies or includes Covered Property owned by the Class Member, together with its successors, assigns, and licensees (the "Grantee"), a permanent telecommunications easement in the Easement Premises. For each municipality in which this Easement Deed by Court Order in Settlement of Landowner Action is being recorded, a list of affected Class Members and their affected parcels is attached as Exhibit 1. Exhibit 1 shall describe Class Members' affected parcels with the following information, to the extent that it is in the Database of Identification Information: owner name; owner mailing address; tax map identification number; tax parcel identification number; lot number; and section, township, and range. Exhibit 1 may describe Class Members' affected parcels with any other available information.

2. The terms and conditions of the permanent telecommunications easement that is the subject of this Easement Deed by Court Order in Settlement of Landowner Action are:

a perpetual easement and right of way (hereinafter, together with the rights and privileges herein granted, the "Easement") and right to place, lay, bury, construct, install, operate, repair, maintain (including aerial patrol), renew, rebuild, replace, upgrade, expand, relocate, and remove fiber optic cables, copper cables, coaxial cables or other cables through which voice, data, video or other signals are transmitted, conduits, inner ducts, hand holes, splice vaults, poles, optical or electronic equipment, regenerator huts, marker posts or signs, and other related facilities appropriate for installation, use, or maintenance of such cables (collectively, the "Telecommunications Cable System"), in, on, over, under, through and/or across the Easement Premises. The Easement Premises means all that real property that (a) either (i) is included within a parcel of property that is described in Exhibit 1 or (ii) has a common boundary with a parcel of property described in Exhibit 1 (the "Grantor's Property") (for purposes of this Telecommunications Cable System Easement Deed, a parcel of property shall be deemed to have a common boundary with the Easement Premises if it is separated by a non-navigable river or a street, road, or highway, other than a numbered state or federal highway) and that (b) (i) is or was used as a railroad right of way ("Railroad Right of Way") and (ii) is on a side of the centerline of the Railroad Right of Way that is next to the Grantor's Property (the "Grantor Side"), and (iii) extends no more than ten (10) feet on each side of the Grantee's Telecommunications Cable System (A) as it existed on November 2, 2012 (B) where the actively used components of the Grantee's Telecommunications Cable System are moved or placed, provided, however, that only a single 20-foot easement per moved component may exist at any point in time in the Easement Premises, and the width of the moved component's Easement Premises shall be reduced on one side and increased by an equal linear footage on the other side wherever necessary in order that it shall in all places remain solely within the limits of a single

Grantor Side of the Railroad Right of Way, and (C) where new components are installed to connect the existing Telecommunications Cable System to the edge of the Right of Way. The Easement shall be construed to grant Grantee all rights necessary to abandon in place unused components of Grantee's Telecommunications Cable System.

The Easement shall not include the right to construct on the Easement Premises regenerator huts and similar structures ("Buildings") in addition to those existing on November 2, 2012. The Easement shall include the rights to repair, replace, and expand existing Buildings, provided, however, that no such repair, replacement, or expansion shall increase the site that the Buildings occupy, or the height of any Building, by more than twenty-five percent. The Easement does not permit the construction of microwave towers, cell towers, or other components of a primarily aboveground statewide Telecommunications Cable System.

The Easement includes the right to temporarily use the entire Grantor Side of the Railroad Right of Way for construction or maintenance, so long as Grantee uses its best efforts not to interfere with any real property which, although within the boundaries of the Easement Premises, is actually being used by Grantor; provided, however, that in no event shall Grantee be prohibited from using such real property if it is commercially reasonable to do so under the circumstances or if Grantee's Telecommunications Cable System is currently located within such area. The Easement shall include the right of reasonable ingress and egress to and from the Easement Premises over that portion of the Grantor's real property that underlies the Railroad Right of Way and, for repair and maintenance, over any existing private roads of Grantor, where access from public or railroad roads is not reasonably practical, provided Grantee has made commercially reasonable efforts to give prior notice to Grantor of Grantee's use of Grantor's private roads. Grantee shall not be liable for damages caused by its removal of trees,

undergrowth, and brush within the Easement Premises necessary or appropriate for the enjoyment of the Easement. Nothing contained herein shall constitute a waiver of any right that Grantor may have for any damages to Grantor's property outside of the Easement Premises caused by Grantee's action. If Grantee's action causes damage to any of Grantor's existing improvements, including houses, garages, shops, sheds, and fences, or growing crops, which are within the Easement Premises, Grantee shall pay reasonable compensation to the Grantor for such damage to the extent provided by law.

From and after June 24, 2013, subject to all the restrictions and limitations stated herein, the Easement includes the right to construct and install additional components of a Telecommunications Cable System within the Easement Premises. Grantee agrees that, unless (a) it is required to do so by the railroad or other owner of Railroad Right of Way or (b) it is commercially reasonable under the circumstances to do so, it will not install additional components of a Telecommunications Cable System in the area of the Easement Premises that is outside a parallel fence constructed by the railroad or other owner of Railroad Right of Way or is actually being used by the Grantor or its successor, provided, however, that the foregoing shall not be binding upon Grantee if Grantee's Telecommunications Cable System is currently located within such area. If Grantee's action causes damage to any of Grantor's existing improvements, including houses, garages, shops, sheds, and fences, or growing crops, which are within the Easement Premises, Grantee shall pay reasonable compensation to the Grantor for such damage to the extent provided by law.

The Easement includes all rights necessary to the lawful occupation of the Easement Premises by an existing Telecommunications Cable System, and by any additional Telecommunications Cable System that is constructed and installed by or on behalf of Grantee in

the Easement Premises and that is owned or operated by either (a) Grantee or (b) any person or entity to which Grantee sold, granted, leased, or otherwise transferred or may hereafter sell, grant, lease, assign, or otherwise transfer, all or any part of the rights in or use of such Telecommunications Cable System.

The Easement, however, does not apply to any Telecommunications Cable System that existed on November 2, 2012, but that was acquired by Grantee after that date (unless such Telecommunications Cable System or component thereof was acquired from any of Sprint Communications Company L.P.; Qwest Communications Company, LLC, f/k/a Qwest Communications Corporation; Level 3 Communications, LLC, Level 3 Communications, Inc., and Level 3 Telecom Holdings, Inc.; WilTel Communications, Inc.; WilTel Communications, LLC; and Williams Communications, LLC, f/k/a Williams Communications, Inc., f/k/a Vyvx, Inc.).

No oil, gas, or other mineral rights are granted and no existing oil, gas, or other mineral rights are expanded, limited, or affected by this instrument, provided, however, that Grantor shall not use a method of extraction that interferes with or impairs in any way the Easement, the Telecommunications Cable System, or the exercise of Grantee's rights herein.

Grantor shall not, nor shall Grantor authorize others to, construct or create any road, reservoir, excavation, obstruction, structure, or building or change the land grade on, in, over, under, through, or across the Easement Premises without the prior written consent of Grantee, provided that nothing herein shall be construed to affect the rights and obligations of any railroad with respect to the use, improvement, or alteration of its Railroad Right of Way, as provided in any agreement between the railroad and the Grantee, by applicable law, or otherwise.

It is understood and agreed that the Easement is not exclusive and is subject to all pre-existing uses and pre-existing rights to use the Easement Premises, whether such uses are by Grantor or others and whether for surface uses, crossings, or encroachments by communication companies or utilities. It is further understood and agreed that Grantor retains all of its existing rights, if any, to grant, convey, assign, and restrict any and all rights (including future rights and uses) on the Easement Premises, provided, however, and notwithstanding the foregoing, that Grantor shall not use or authorize others to use the Easement Premises in a manner that interferes with or impairs in any way Grantee's Telecommunications Cable System or the exercise by Grantee of the rights granted herein.

Subject to the terms hereof, Grantee shall have all other rights and benefits necessary or useful to the full and complete enjoyment and use of the Easement for the purposes stated herein, including the right to sell, grant, lease, or otherwise transfer all or any part of the rights in or use of the Telecommunications Cable System.

Grantor conveys the Easement without warranty of title to any property interest in the Easement Premises. This instrument does not address and shall not affect any real property rights, including the priority of interests, between Grantor and any railroad or between Grantee and any railroad, or any of their predecessors, successors, past or present predecessors in interest, successors in interest, successors in title, members, partners, parents, subsidiaries, affiliates, lessees, assigns, and past, current, or future licensees or assignees. This Easement is not intended to impact or diminish any railroad's existing rights or property interests in the Right of Way. This Easement shall not be construed to permit Grantee to interfere with railroad operations. This Easement also shall not permit any component of a Telecommunications Cable System to remain in a Railroad Right of Way except (a) under existing or future agreements with

the railroad or (b) in any Railroad Right of Way in which no railroad operates and no railroad retains any right, title, or interest. This Easement also shall not permit any new components to be installed to connect the existing Telecommunications Cable System to the edge of the Right of Way in any Railroad Right of Way as to which the Interstate Commerce Commission or the Surface Transportation Board has entered an order, pursuant to 49 U.S.C. § 10903, that the railroad is authorized to cease to provide or maintain rail service over that right of way and the railroad no longer provides or maintains rail service over that line, provided that if the railroad does not cease such rail service or later reactivates such service, then this limitation shall not apply.

This Telecommunications Cable System Easement Deed is executed and delivered on behalf of Grantor for the purpose of granting the Easement to Grantee in, on, over, under, through and/or across the Easement Premises to the full extent of Grantor's right, title or interest, if any, in or to the Easement Premises, and the Easement granted hereby shall affect the Easement Premises only to the extent of Grantor's right, title, and interest therein. Grantor and Grantee agree that this Telecommunications Cable System Easement Deed shall not grant any rights to the Easement Premises, or any portion thereof, in which Grantor holds no right, title or interest.

No rights reserved to Grantor herein shall be deemed to expand rights reserved to Grantor under any other easement, right of way, license, lease, or any similar instrument or court order. No limitation herein on the rights of Grantee shall be deemed to limit rights heretofore granted by Grantor or its predecessors in interest under any other easement, right of way, license, lease, or any similar instrument or court order.

The terms and provisions of this instrument shall constitute covenants running with the land and shall be binding upon and inure to the benefit of the Settling Defendants, the Grantor, their successors, assigns, personal representatives, and heirs.

This instrument fully sets forth the terms and conditions of the Easement. There are no oral or other written agreements between Grantor and Grantee that modify, alter, or amend this instrument.

TO HAVE AND TO HOLD the Easement, rights and privileges unto Grantee, its successors and assigns in perpetuity or until such time as Grantee shall cause the Easement to be released of record.

3. Settling Defendants may record this Easement under the terms and conditions set forth in the Settlement Agreement.

Date: June 24, 2013

Honorable Warren W. Eginton
Senior United States District Judge

**Exhibit 1**
**Hartford, CT**

| DMS ID | ASSESSOR PARCEL ID | MUNICIPALITY | GRANTOR | ADDRESS | GRANTEE |
|---|---|---|---|---|---|
| CT003_00472 | 640-001-002 | Hartford | Unable to Determine Ownership | No Address Provided | WilTel Communications, LLC |
| CT003_00474 | 137-481-111 | Hartford | Rodriguez, Jesus & Gloria | 98 Roslyn St, Hartford, CT, 06106-4127 | WilTel Communications, LLC |
| CT003_00475 | 137-481-080 | Hartford | Mendes, Anthony | 62 New Park Ave, Hartford, CT, 06106-2125 | WilTel Communications, LLC |
| CT003_00476 | 137-481-080 | Hartford | Mendes, Antonny | 62 New Park Ave, Hartford, CT, 06106-2125 | WilTel Communications, LLC |
| CT003_00477 | 137-481-081 | Hartford | Steele, Carol | 4006 3rd Ave, PO Box 570-280, Bronx, NY, 10457-7533 | WilTel Communications, LLC |
| CT003_00478 | 137-481-082 | Hartford | Santo, Joaquim Espirito | 1835 Park St, Hartford, CT, 06106-2121 | WilTel Communications, LLC |
| CT003_00479 | 137-481-083 | Hartford | 82 New Park Ave LLC | 86 New Park Ave, Hartford, CT, 06106-2125 | WilTel Communications, LLC |
| CT003_00480 | 137-481-084 | Hartford | Chung, Hanh K & Thien P | 29 Osage Rd, West Hartford, CT, 06117-1334 | WilTel Communications, LLC |
| CT003_00481 | 137-481-085 | Hartford | Botelho, Maria M & Albert | 92 New Park Ave, Hartford, CT, 06106-2125 | WilTel Communications, LLC |
| CT003_00482 | 317-001-010 | Hartford | Francisca, Arceo | 94 New Park Ave, Hartford, CT, 06106-2125 | WilTel Communications, LLC |
| CT003_00483 | 137-481-087 | Hartford | Lesperance, Itolise & Salnave | 98-100 New Park Ave, Hartford, CT, 06106 | WilTel Communications, LLC |
| CT003_00484 | 137-481-088 | Hartford | Morabito, Nello | PO Box 340895, Hartford, CT, 06134-0895 | WilTel Communications, LLC |
| CT003_00485 | 116-474-005 | Hartford | Colley, Phillip W | 54 Prospect Ave, Hartford, CT, 06106-2932 | WilTel Communications, LLC |
| CT003_00486 | 137-481-090 | Hartford | Ramirez, Jesus | 1047 Boulevard, West Hartford, CT, 06119-1802 | WilTel Communications, LLC |
| CT003_00487 | 137-481-091 | Hartford | DeJesus, Miguel A & Maria C | 114 New Park Ave, Hartford, CT, 06106-2125 | WilTel Communications, LLC |
| CT003_00488 | 137-481-092 | Hartford | Magnani Press Inc | 120 New Park Ave, Hartford, CT, 06106 | WilTel Communications, LLC |

**Exhibit 1**
**Hartford, CT**

| | | | | | |
|---|---|---|---|---|---|
| CT003_00489 | 137-481-093 | Hartford | Duong, Tong | 122 New Park Ave, Hartford, CT, 06106-2125 | WilTel Communications, LLC |
| CT003_00491 | 160-482-002 | Hartford | Bartholomew Hamilton Association LP | 245 Hamilton St, Hartford, CT, 06106-2911 | WilTel Communications, LLC |
| CT003_00494 | 159-484-049 | Hartford | Parkville Association LLC | 15 Porter Rd, West Hartford, CT, 06117 | WilTel Communications, LLC |
| CT003_00495 | 159-484-049 | Hartford | Parkville Association LLC | 15 Porter Rd, West Hartford, CT, 06117 | WilTel Communications, LLC |
| CT003_00497 | 159-484-051 | Hartford | Francis Avenue Association LLC | 81 Lake Winds Rd, Diamond Point, NY, 12824-2021 | WilTel Communications, LLC |
| CT003_00498 | 159-484-052 | Hartford | Colon, Ida S | 54 Francis Ave, Hartford, CT, 06106-2101 | WilTel Communications, LLC |
| CT003_00499 | 159-484-053 | Hartford | Simao, Maria & Daniel | 16 Sidney Ave, West Hartford, CT, 06110 | WilTel Communications, LLC |
| CT003_00500 | 159-484-054 | Hartford | Simao, Daniel R | 16 Sidney Ave, West Hartford, CT, 06110-1163 | WilTel Communications, LLC |
| CT003_00501 | 159-484-055 | Hartford | Cardoso, Joao Tomas & Albertina | 66 Francis Ave, Hartford, CT, 06106-2101 | WilTel Communications, LLC |
| CT003_00502 | 159-484-057 | Hartford | Duarte, Manuel & Susana | 76 Francis Ave, Hartford, CT, 06106-2101 | WilTel Communications, LLC |
| CT003_00503 | 159-484-058 | Hartford | Valentin, Wilfredo | 78 Francis Ave, Hartford, CT, 06106-2101 | WilTel Communications, LLC |
| CT003_00504 | 160-484-003 | Hartford | Khybery, Hashem M & Behishta | 84 Francis Ave, Hartford, CT, 06106-2101 | WilTel Communications, LLC |
| CT003_00506 | 158-403-062 | Hartford | Arec 9 LLC | PO Box 29046, Phoenix, AZ, 85038-9046 | WilTel Communications, LLC |
| CT003_00507 | 158-403-075 | Hartford | 30 Arbor Street LLC | 1429 Park St, Ste 205, Hartford, CT, 06106-2051 | WilTel Communications, LLC |
| CT003_00508 | 158-403-076 | Hartford | Sixty-Six LLC | 56 Arbor St, Hartford, CT, 06106-1222 | WilTel Communications, LLC |
| CT003_00509 | 158-403-076 | Hartford | Sixty-Six LLC | 56 Arbor St, Hartford, CT, 06106-1222 | WilTel Communications, LLC |
| CT003_00510 | 159-403-076 | Hartford | 1st Class Rentals LLC | 212 Matianuck Ave, Windsor, CT, 06095-4322 | WilTel Communications, LLC |

**Exhibit 1**
**Hartford, CT**

| | | | | | |
|---|---|---|---|---|---|
| CT003_00511 | 159-403-077 | Hartford | Rivera Sr, Carmelo | 1516 Park St, Hartford, CT, 06106-2209 | WilTel Communications, LLC |
| CT003_00512 | 180-405-002 | Hartford | O'Leary LP | PO Box 205, Manchester, CT, 06045-0205 | WilTel Communications, LLC |
| CT003_00515 | 180-412-078 | Hartford | Camal Assoc | 69 Hawthorn St, Hartford, CT, 06105-3514 | WilTel Communications, LLC |
| CT003_00516 | 202-416-080 | Hartford | The Hartford Courant Company | PO Box 61126, c/o Equity Property Tax Group, Chicago, IL, 60606-6115 | WilTel Communications, LLC |
| CT003_00523 | 202-416-001 | Hartford | Aetna Life Insurance Company | 151 Farmington Ave, RTB1, Hartford, CT, 06156-0002 | WilTel Communications, LLC |
| CT003_00530 | 223-326-023 | Hartford | 460 Church Realty LLC | 5151 Collins Ave, Apt 1727, c/o Francis Moezinia, Miami Beach, FL, 33140-2717 | WilTel Communications, LLC |
| CT003_00534 | 222-281-067 | Hartford | Spruce Realty LLC | 74 Union Pl, Hartford, CT, 06103-1416 | WilTel Communications, LLC |
| CT003_00545 | 244-282-001 | Hartford | Walnut Huntley LLC | PO Box 340683, Hartford, CT, 06134-0683 | WilTel Communications, LLC |
| CT003_00546 | 222-282-069 | Hartford | Walnut Huntley LLC | PO Box 340683, Hartford, CT, 06134-0683 | WilTel Communications, LLC |
| CT003_00550 | 244-249-059 | Hartford | 1400 Main Association LLC | 69 Clinton Rd, c/o MMR Investments, Brookline, MA, 02445 | WilTel Communications, LLC |
| CT003_00551 | 244-249-096 | Hartford | 1400 Main Association LLC | 69 Clinton Rd, c/o MMR Investments, Brookline, MA, 02445 | WilTel Communications, LLC |
| CT003_00552 | 244-249-097 | Hartford | The Church of the Sacred Heart | 49 Winthrop St, Hartford, CT, 06103-1016 | WilTel Communications, LLC |
| CT003_00553 | 267-249-013 | Hartford | Rensselaer Hartford Graduate Center Inc | 275 Windsor St, Hartford, CT, 06120-2910 | WilTel Communications, LLC |
| CT003_00554 | 266-074-009 | Hartford | Marpeq North LLC | 15 Lewis St, Hartford, CT, 06103-2502 | WilTel Communications, LLC |

**Exhibit 1**
**Hartford, CT**

| | | | | | |
|---|---|---|---|---|---|
| CT003_00555 | 218-158-121 | Hartford | Buchanan, Stanley | 148 Edgerton St, Apt AC, Manchester, CT, 06040-4052 | WilTel Communications, LLC |
| CT003_00556 | 266-074-008 | Hartford | The Travelers Indemnity Company | 1 Tower Square, 1MS, Attn Thomas M Luszczak, Hartford, CT, 06183-0001 | WilTel Communications, LLC |
| CT003_00558 | 116-475-022 | Hartford | Inland Western Hartford New Park LLC | PO Box 9273, Attn Property Tax Dept, Oak Brook, IL, 60522-9273 | WilTel Communications, LLC |
| CT003_00560 | 116-475-022 | Hartford | Inland Western Hartford New Park LLC | PO Box 9273, Attn Property Tax Dept, Oak Brook, IL, 60522-9273 | WilTel Communications, LLC |
| CT003_00561 | 116-475-023 | Hartford | New Park Avenue Associates LLC | 223 Broad St, Bristol, CT, 06010-6675 | WilTel Communications, LLC |
| CT003_00562 | 106-001-003 | Hartford | Unable to Determine Ownership | No Address Provided | WilTel Communications, LLC |
| CT003_00563 | 116-475-023 | Hartford | New Park Avenue Associates LLC | 223 Broad St, Bristol, CT, 06010-6675 | WilTel Communications, LLC |

CONNECTICUT NAD 83 (92) COORDINATE GRID

N 830500 E 1008800

Subject To An Easement For A Welcome Sign In Favor Of The City Of Hartford

PRESENT NEW PARK AVENUE

Street Line

CONC.CURB

GRASS AREA

HANDICAP PARKING

CONC.WALK

PLANTER

CONCRETE WALK

INLAND WESTERN HARTFORD NEW PARK, L.L.C.

Easement for transportation purposes acquired.
Easement Area = 8,763± SQ. FT. (0.201± Acres)

Easement to slope for the drainage of the highway and remove, use or retain excavated material acquired.
Easement Area = 5,101± SQ. FT. (0.117± Acres)

Drainage Right of Way acquired
D.R.O.W. Area = 200 SQ. FT. (0.005± Acres)

BITUMINOUS PARKING

BITUMINOUS STRIPED PARKING LOT

2 STORY CONC.BLOCK
CROWN PALACE THEATER

N/F
NEW PARK AVENUE
ASSOCIATES,LLC

Property line

APPROXIMATE CUT SLOPE LIMITS

TRANSPORTATION EASEMENT LINE

LIMIT OF D.R.O.W.

PROPOSED CATCH BASIN

PROPOSED 18" RC PIPE

6" PINES

RCLC

CONTROL VALVE

BIT DRIVE

CONC. CURB

SPIKE-1720
EL=98.79

W.C.S.

CH. LINK FENCE

Railroad R.O.W. Line

TO NEW BRITAIN

TO HARTFORD

PROPOSED BUSWAY

N 30° 42'39" E

364+00 365+00 366+00 367+00 368+00 369+00 370+00 371+00 372+00 373+00 374+00 375+00

772'± 180' WINGWALLS, TYP. 1212'± 270.00' 170.00'

+90.03

N/F
NATIONAL RAILROAD
PASSENGER CORPORATION

PROPOSED BUSWAY ℄

PT STA. 356+66.39
N 831548.915
E 1009598.868

SEE MATCH LINE STA. 375+50 SEE SHEET NO. 2

| SHEET 1 & 2 TOTALS |
|---|
| Easement for transportation purposes acquired. Easement Area = 11,848± SQ. FT. (0.272± Acres) |
| Easement to slope for the drainage of the highway and remove, use or retain excavated material acquired. Easement Area = 5,101± SQ. FT. (0.117± Acres) |
| Drainage Right of Way acquired D.R.O.W. Area = 200± SQ. FT. (0.005± Acres) |

N 832500 E 1009400

*References:*

1. General Location Survey and Title Search Update provided by CDOT Mapping edited by Garg Consulting Services, Inc. Project No. 171-305 Digital Filenames: garg-sheet2.dgn, garg-sheet10.dgn
2. CDOT Construction Project entitled "New Britain - Hartford Busway"
3. Project No. 171-305 Title Search Roll, sheet no. 16-19 of 27
4. Map No. 2213
5. Vol. 4075, p. 266
6. Vol. 4432, p. 108
7. Vol Map 55-72/34

Notes:

1. This plan has been prepared by Michael Baker Engineering, Inc. and in accordance with the Regulations of Connecticut State Agencies, Sections 20-300b-1 through 20-300b-20, the Minimum Standards For Surveys and Maps In The State of Connecticut as adopted by The Connecticut Association of Land Surveyors, Inc. on September 26, 1996.

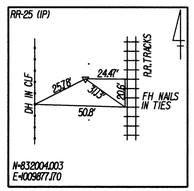
   This plan was compiled from other maps, record research and/or other sources of information. It is not to be construed as having been obtained as a result of a field survey and is subject to change as an accurate field survey may disclose.
2. The property lines, street lines and topography depicted hereon have been compiled from various sources as may be referenced hereon and are not to be construed as necessarily being obtained as a result of a field survey, nor do they represent a property/boundary opinion.

MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED ON CADD FILE.

| DRAWN BY J.C. | DATE 09-07 |
|---|---|
| CHECKED BY A.M. | DATE 11-10 |

FILE: 1710305096-V8.PM1

RR-25 (IP)

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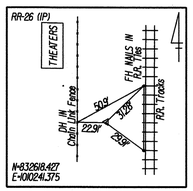



ORIGINAL INK ON MYLAR
PRODUCED BY
MICHAEL BAKER ENGINEERING, INC.
ROCKY HILL, CT 06067

SCALE IN FEET
5 0 20 40 60 80
SCALE 1"=40'

| DATE | REVISION | REQ. BY |
|---|---|---|
| 03-12-10 | INCORPORATE DESIGN REVISIONS | URS |
| 05-06-10 | INCORPORATE TITLES COMMENTS | MLM |
| 11-18-10 | REVISED TRANS. EASEMENT | BTC |
| | | |

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

LS #70194

VOID WITHOUT LIVE SIGNATURE AND EMBOSSED SEAL

TOWN NO. 63
PROJECT NO. 171-305
SERIAL NO. 96
SHEET 1 OF 2

PETER ROWE, L.S.
GARG CONSULTING SERVICES, INC.
TITLE LICENSED SURVEYOR
DATE 2-16-11

FTA PROJECT NO.
STATE PROJECT NO. 171-305
CONTRACT NO. 155-H025

# RIGHT OF WAY SURVEY

## CITY OF HARTFORD

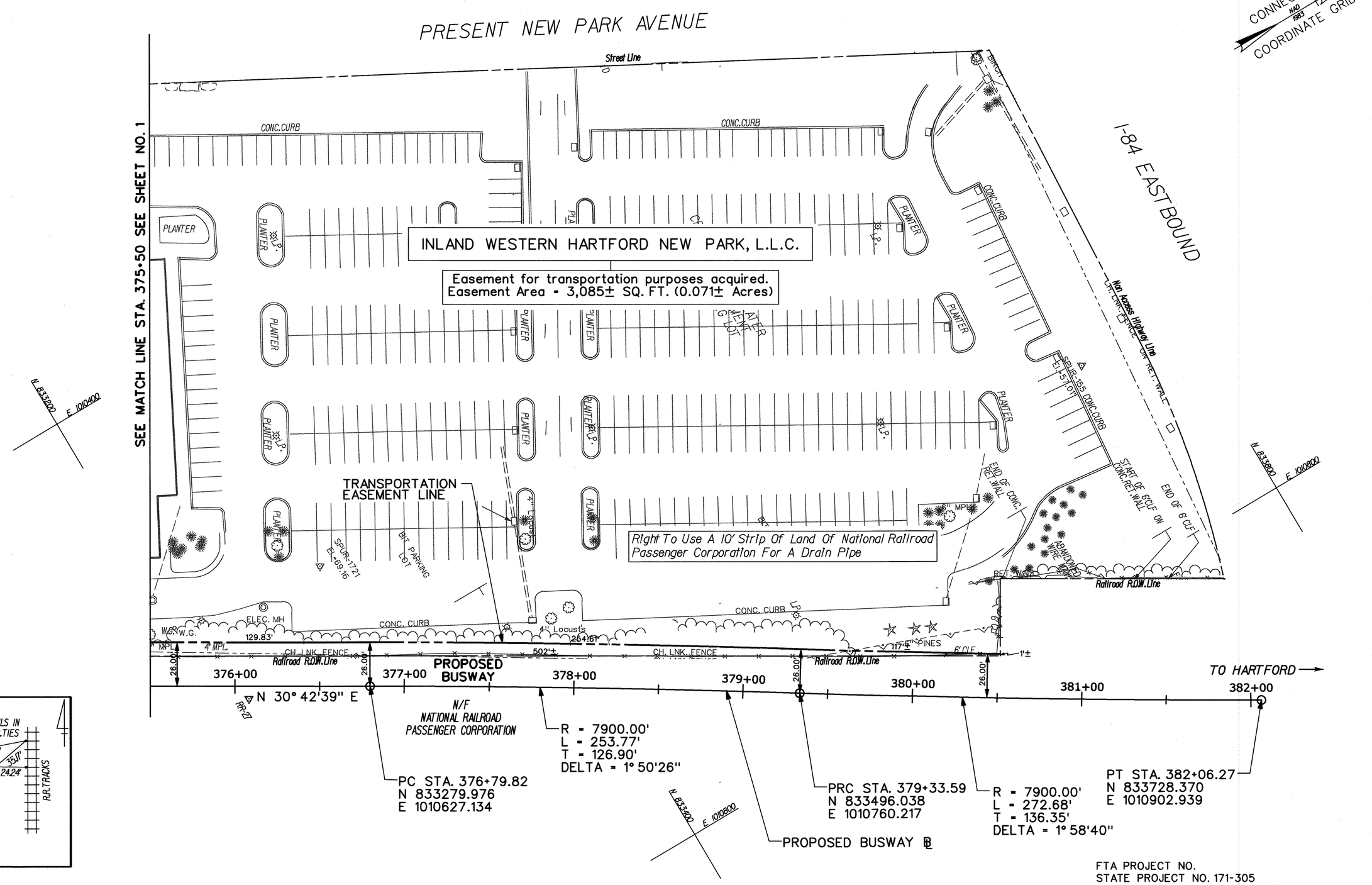
MAP SHOWING EASEMENT ACQUIRED FROM
INLAND WESTERN HARTFORD NEW PARK, L.L.C.
BY

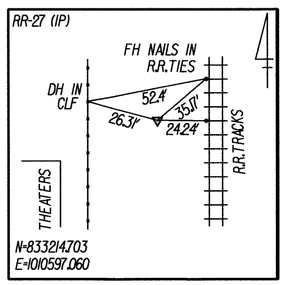
# THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

NEW BRITAIN - HARTFORD BUSWAY

SCALE 1"=40' SEPTEMBER 2007

MICHAEL W. LONERGAN, P.E. - ACTING TRANSPORTATION CHIEF ENGINEER
BUREAU OF ENGINEERING AND HIGHWAY OPERATIONS




*References:*

1. *General Location Survey and Title Search Update provided by CDOT Mapping edited by Garg Consulting Services, Inc. Project No. 171-305 Digital Filename: garg-sheet10.dgn*
2. *CDOT Construction Project entitled "New Britain - Hartford Busway"*
3. *Project No. 171-305 Title Search Roll, sheet no.18 and 19 of 27*
4. *Map No. 2213*
5. *Vol. 4075, p. 266*
6. *Vol. 4432, p. 108*
7. *Val Map 55-72/34*

| | | | |
|---|---|---|---|
| DRAWN BY | J.C. | DATE | 09-07 |
| CHECKED BY | A.M. | DATE | 11-10 |

FILE: 1710305096-V8.PM2

*Notes:*

1. *This plan has been prepared by Michael Baker Engineering, Inc. In accordance with the Regulations of Connecticut State Agencies, Sections 20-300b-1 through 20-300b-20, the Minimum Standards For Surveys and Maps In The State of Connecticut as adopted by The Connecticut Association of Land Surveyors, Inc. on September 26, 1996.*

   *This plan was compiled from other maps, record research and/or other sources of information. It is not to be construed as having been obtained as a result of a field survey and is subject to change as an accurate field survey may disclose.*

2. *The property lines, street lines and topography depicted hereon have been compiled from various sources as may be referenced hereon and are not to be construed as necessarily being obtained as a result of a field survey, nor do they represent a property/boundary opinion.*

MANUAL REVISIONS TO THIS DOCUMENT ARE PROHIBITED. ALL REVISIONS MUST BE PERFORMED ON CADD FILE

ORIGINAL INK ON MYLAR
PRODUCED BY
MICHAEL BAKER ENGINEERING, INC.
ROCKY HILL, CT 06067

SCALE IN FEET
10 0 20 40 60 80
SCALE 1"=40'

| DATE | REVISION | REQ. BY |
|---|---|---|
| 03-12-10 | INCORPORATE DESIGN REVISIONS | URS |
| 05-06-10 | INCORPORATE TITLES COMMENTS | MLM |
| 11-18-10 | REVISED TRANS. EASEMENT | BTC |
| | | |

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

LS #70194

VOID WITHOUT LIVE SIGNATURE AND EMBOSSED SEAL

TOWN NO. 63
PROJECT NO. 171-305
SERIAL NO. 96
SHEET 2 OF 2

PETER ROWE, L.S.
GARG CONSULTING SERVICES, INC.
TITLE LICENSED SURVEYOR
DATE 2·16·11

FTA PROJECT NO.
STATE PROJECT NO. 171-305
CONTRACT NO. 155-H025

# RIGHT OF WAY SURVEY

CITY OF HARTFORD

MAP SHOWING EASEMENT ACQUIRED FROM

**INLAND WESTERN HARTFORD NEW PARK, L.L.C.**

BY

## THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

NEW BRITAIN - HARTFORD BUSWAY

SCALE 1"=40' SEPTEMBER 2007

MICHAEL W. LONERGAN, P.E. - ACTING TRANSPORTATION CHIEF ENGINEER
BUREAU OF ENGINEERING AND HIGHWAY OPERATIONS

LL 5339
**Return Original To:**
Eversource Energy Legal Dept.
107 Selden Street
Berlin, CT 06037
Attn: Jeff Cochran, Esq.

# GRANT OF PERMANENT EASEMENT AND TEMPORARY LICENSE AGREEMENT

This grant of easement is made this 29th day of November, 2018, BETWEEN **DP 103, LLC**, a Connecticut limited liability company organized and existing under the laws of the State, having an office at 333 North Bedford Road, Suite 145, Mount Kisco, New York 10549, Grantor, AND **THE CONNECTICUT LIGHT AND POWER COMPANY DBA EVERSOURCE ENERGY,** a specially chartered Connecticut corporation having an office at 107 Selden Street in the Town of Berlin, County of Hartford, State of Connecticut, Grantee, WITNESSETH

WHEREAS, the Grantor is the fee owner of a certain parcel of land located at 330 New Park Avenue, Hartford Connecticut 06106;

WHEREAS, Grantor and Grantee desire to memorialize the grant of a permanent easement and temporary license by Grantor to Grantee for the following permanent and, except to the extent hereinafter specifically set forth, exclusive rights and easements in the area(s) of land described in Exhibit A, all as set forth herein (herein, the "Easement Area", or "Permanent Easement") and together with temporary use rights of land described and delineated in Exhibit A as Temporary Work Area attached hereto (the "Temporary Work Area") as set forth in the applicable sections below.

SUBJECT to any easements, restrictions or rights-of-way of record.

NOW, THEREFORE, the Grantor, for valuable consideration, receipt and sufficiency of which are hereby acknowledged, in lawful money of the United States, does hereby grant and release to the Grantee, their successors and assigns,

1. The right, from time to time, to erect, install, construct, reconstruct, repair, maintain, replace, relocate, upgrade, inspect, patrol, expand, operate and remove upon, over, under, along, and across the approximately 50' x 50' Easement Area (hereinafter "Easement Area 1") as depicted and delineated on Exhibit A, poles, towers, crossarms, guys, foundations, anchors, braces, ducts, manholes, fences, gates, and other structures, lines, wires, filament, cables, including fiber optic and communication cables, other conductors, antennas, and other equipment, fixtures and appurtenances useful for the conducting and the transmission and distribution of electric current, energy, intelligence, wireless signals, light and communications of any character (collectively, the "Facilities"), and monuments and signs to locate the Easement Area 1. The easements and other rights granted herein to use and occupy the Easement Area 1 include all surface and subsurface rights and air rights thereover; and

The right, from time to time, to erect, install, construct, reconstruct, repair, maintain, replace, relocate, upgrade, inspect, patrol, expand, operate and remove upon, over, under, along, and across the approximately 24' x 350' Easement Area (hereinafter "Easement Area 2"), manholes, and other subsurface structures, lines, wires, filament, cables, including fiber optic and communication cables, other

conductors, antennas, and other equipment, fixtures and appurtenances useful for the conducting and the transmission and distribution of electric current, energy, intelligence, wireless signals, light and communications of any character; provided that such facilities, other than manholes covers, which may extend at most slightly above the surface of the grade level, do not include any above-grade level structures or equipment (collectively, the "UG Facilities"), and monuments and signs to locate the Easement Area 2, as delineated and depicted on Exhibit A; and

2. The right to conduct, distribute and transmit electricity, energy, intelligence, light, wireless signals and/or communications of any character and to provide the service or services relating to said right(s) by means of the equipment, structures and facilities described in this instrument; and

3. The right to trim and keep trimmed, cut, clear and remove, by mechanical means or otherwise, trees or limbs and branches thereof, underbrush and other growth, other than crops, any parts of which (i) are within the limits of the Easement Area, or (ii) are on adjoining land of the Grantor and which directly interfere with the exercise of any of the rights and/or easements herein granted, or (iii) may create a hazard; the right to control the growth of such trees, limbs, branches, underbrush and other growth by the use of chemicals or otherwise, provided that the right to use chemicals shall not apply to any area that at the time of exercising such right is used for growing crops, other than trees, or for mowing or grassland; the right to dispose of all wood cut; the right to remove any structures within or projecting into the Easement Area that may interfere with the exercise of any of the rights and/or easements herein granted or may create a hazard; and

4. The right to enter upon, travel and transport materials and equipment over and upon the Easement Area and, if necessary or convenient in connection therewith, the right to grade, excavate, fill or otherwise improve the Easement Area; and

5. The right to protect the Easement Area and Temporary Work Area and the right of access over and across adjoining land of the Grantor to the Easement Area; and

6. In addition to the above rights as to the Easement Area, the Grantee has temporary and except to the extent hereinafter specifically set forth, exclusive rights and easements for use of the Temporary Work Area as described in Exhibit A. The right to use the Temporary Work Area is hereby granted for use by the Grantee, its agents, employees, and contractors to conduct the activities described below, in connection with the Grantee's construction and installation of the Facilities, associated appurtenances and construction and installation of the UG Facilities. The Grantee shall have the right to use the Temporary Work Area to construct, install, inspect, adjust and relocate the Facilities and the UG Facilities, and to store, assemble and prepare structures, equipment and materials to be used for the Facilities and/or the UG Facilities or comparable facilities, which structures, equipment and materials will be located in the Easement Area and/or on abutting or nearby property or properties owned by others, and other lawful activities in support of such construction and installation of the Facilities and/or the UG Facilities and associated work activities described herein; and

7. The use of the Temporary Work Area hereunder may begin on or after the execution date of this agreement and continue until six (6) months after the date on which construction and installation of the Facilities and the UG Facilities and associated activities as described herein are completed (hereinafter "Temporary License Term"). Based upon actual timing of completion of work in the Temporary Work Area, Grantor may agree in writing to extend the Temporary License Term to allow the Grantee to fully complete the work specifically set forth in this agreement, provided Grantee requests such extension in

writing. Following completion of the Grantee's use of the Temporary Work Area, the Grantee shall restore the Temporary Work Area to substantially the same or superior condition as existed prior to the Grantee's use of thereof. Upon completion of the restoration and discontinuance of Grantee's use of the Temporary Work Area, the Grantee shall provide written notice of completion to Grantor; and

8. The right to trim and keep trimmed, cut, clear and remove, by mechanical means or otherwise, trees or limbs and branches thereof, underbrush and other growth, other than crops, any parts of which are (i) within the limits of the Temporary Work Area or (ii) on adjoining of the Grantor and which directly interfere with the exercise of any of the rights and/or easements herein granted or may create a hazard; the right to control the growth of such trees, limbs, branches, underbrush and other growth by the use of chemicals or otherwise, provided that the right to use chemicals shall not apply to any area which at the time of exercising such right is used for growing crops, other than trees, or for mowing or grassland; the right to dispose of all wood cut; the right to remove any building or structures within or projecting into the Temporary Work Area (during the Temporary License Term) that interfere with the work; and

9. The right to enter upon, travel and transport materials and equipment over and upon the Temporary Work Area and, if necessary or convenient in connection therewith, the right to grade, excavate, fill or otherwise improve the Temporary Work Area; and

10. The right of access over and across adjoining land of the Grantor to the Temporary Work Area;

11. The Grantee agrees to hold harmless and indemnify the Grantor, its employees, and officers ("Grantor Indemnified Parties"), from and against any and all claims, action, liabilities or responsibilities for damage, loss, cost or expense resulting from personal injury and/or damage to property owned by any person or entity other than the Grantor or its company affiliates, that is caused by the use or exercise by the Grantee or any of its employees, agents or contractors of the easements and/or rights granted under the Easement; provided that this indemnity obligation shall not apply if the personal injury and/or property damage results from, in whole or in part, the negligence or intentional misconduct of the Grantor, its representatives, contractors and/or consultants, and/or any of their respective officers or employees, or a third-party who is not under the control of, or an invitee of, the Grantee;

12. The Grantee agrees to maintain its facilities in the Easement Area and its vehicles, equipment, materials and supplies in the Temporary Work Area a safe condition, in compliance with applicable law and regulations and free from hazards. Under no circumstances shall the Grantor be required to pay the cost to repair, improve, or in any way alter the Easement Area or Temporary Work Area in preparation for the Grantee's installations, or to remedy damage to the Property caused by the Grantee's exercise of any rights under this Easement; and

13. Subject to the other provisions and limitations of this Easement, the Grantor hereby reserves the right to use the Easement Area and the Temporary Work Area for purposes that, (i) do not interfere with the exercise of any of the rights and/or easements herein granted, and (ii) do not create a hazard. The Grantor and its agents, invitees and/or tenants shall have the right to pass and repass on foot and with motor vehicles, place or store any materials on, park or store any vehicles on, over and across portions of the Temporary Work Area, at times and via routes in the Temporary Work Area that, do not interfere with the exercise of any of the rights and/or easements herein granted to the Grantee or create a hazard.

The Grantor, by its granting of said easements and rights, and the Grantee, by its acceptance of same, hereby acknowledge, covenant and agree for themselves and their respective heirs, devisees, successors and assigns as follows:

(a) except to the extent specifically limited herein, the easements and other rights granted herein are intended to be permanent rights and easements for the benefit of the Grantee, its successors and assigns, and are to be fully apportionable and fully assignable or transferable, all or in part, without the need of any consent of the Grantor or the Grantor's heirs, devisees, successors and/or assigns;

(b) the Grantor shall not erect any building or structure on, place or store any materials on, park or store any vehicles on, grade, excavate, fill or flood the Easement Area 1 as depicted and delineated on Exhibit A or Temporary Work Area (during the Temporary License Term), or otherwise use the Easement Area 1 or Temporary Work Area in any manner that, in the opinion of the Grantee, (i) may interfere with the exercise of any of the rights and/or easements herein granted to the Grantee or (ii) may create a hazard. In addition, the Grantor, shall not erect any building or structure on Easement Area 2. Except during the Grantee's use of Easement Area 2 for installation of the UG Facilities, or its repair or modification thereof, the Grantor shall have the right to exercise temporary uses of the surface area of Easement Area 2 that include access over by, and temporary parking of, any vehicles that do not exceed AASHTO's H-20 loading weights, and storage or passage of movable equipment or materials that do not exceed equivalent weights and do not otherwise create a hazard or interfere with the rights granted to Eversource. No trees or vegetation (other than ground cover vegetation such as grasses) shall be planted or grown in Easement Area 2, The Grantee shall have the right to have any temporary uses by the Grantor such as parked vehicles or stored equipment and/or materials relocated to adjoining land of the Grantor, if the Grantee determines that such relocation is needed for purposes of exercising its rights under this Easement.

(c) nothing shall be attached to the property of the Grantee installed by virtue of this instrument except such things as are placed thereon by the Grantee;

(d) prior to the Grantor's conducting any repair, paving, resurfacing or any other work in the Easement Area 1 or any excavation or other work in Easement Area 2 that could potentially impact the Facilities, UG Facilities, or equipment and/or appurtenances located in the Easement Area, the Grantor shall give not less than thirty (30) days prior written notice to the Grantee of the intention to perform such work and a description of such work so that the Grantee can examine whether the Grantor's proposed work violates any of the Grantee's rights in this Easement, and if the Grantee reasonably concludes that the Grantor's proposed work does not violate any of the Grantee's rights in this Easement, approve such work, which approval shall not be unreasonably withheld, conditioned, or delayed, and provided that the Grantor shall cooperate with the Grantee so that the Grantee may take any action that it deems reasonably necessary to preserve access to and/or to protect the Facilities or UG Facilities, which may include, without limitation, raising the level of manholes or vault access covers. Notwithstanding anything in the foregoing, no prior written notice or consent shall be required for any de minimis or routine repairs, paving, resurfacing, or any other work in the Easement Area 1 or any excavation less than 6 inches below the surface in Easement Area 2, provided that any work in Easement Area 1 or Easement Area 2 shall comply with the pertinent requirements for call before you dig notification and shall also comply with pertinent worker safety requirements regarding maintenance of minimum clearance distance from energized transmission line facilities under the Occupational Safety and Health Administration regulations, if applicable to such work;

(e) no cessation of use or operation of all or any portion of said easements or rights in the Easement Area and/or Temporary Work Area by the Grantee shall be deemed an abandonment thereof resulting in the termination of any aspect of the easements and/or rights in the Easement Area and/or Temporary Work Area, unless the holder of same at the time of such cessation of use or operation releases, in a written instrument in recordable form, its rights in such easements and rights in the Easement Area and/or Temporary Work Area; and

(f) the Grantor shall not convey any new or additional easements to any third parties within or across the Easement Area and/or Temporary Work Area (during the Temporary License Term) that may, in the opinion of the Grantee, (i) interfere with the exercise of any of the rights and/or easements granted herein without the Grantee's prior review and consent, which will not be unreasonably withheld, conditioned, or delayed and/or (ii) create a hazard; provided that the Grantor shall be able to convey, in new or additional easements to third parties, the same rights that the Grantor has under Section 13(b) and such conveyed rights would be subject to the same requirements and limitations as included in Sections 13(b) and 13(d), above.

The words "Grantor" and "Grantee" in this instrument are intended, where the context requires, permits or is appropriate to include the plural number as well as the singular and their heirs, devisees, executors, administrators, successors and assigns. The terms "Easement Area", "Temporary Work Area" and/or "easement" are intended to extend to more than one Easement Area, Work Area and/or easement where the context so requires or permits.

If any part of the Easement Area and/or Temporary Work Area is now or shall hereafter become a public street or highway or a part thereof, permission as provided in the General Statutes of Connecticut relating to adjoining land owners is hereby given to the Grantee to use that part for the purpose and the manner above described.

TO HAVE AND TO HOLD the above granted and bargained rights and easements unto it, the said Grantee, its successors and assigns, forever.

IN WITNESS WHEREOF the Grantor has hereunto set James Diamond hand this 29th day of November, 2018

**Signed and delivered in the presence of:**

Witness 1

Sign Gianna Grandinetti

Print Gianna Grandinetti

Witness 2

Sign Elizabeth Volpe

Print Elizabeth Volpe

**Grantor**
**DP 103, LLC**
**By DIAMOND PROPERTIES, LLC, its Managing Member**

JAMES DIAMOND

CO-MANAGER

# Exhibit A

## Easement from DP 103, LLC to The Connecticut Light and Power Company d/b/a Eversource Energy

I. Easement Area 1

The Easement described in this Section I and more clearly designated and defined as "EASEMENT AREA 1" as depicted on a certain map entitled "EASEMENT MAP SHOWING EASEMENTS TO BE ACQUIRED ACROSS PROPERTY OF DP 103, LLC., 330 NEW PARK AVENUE, HARTFORD, CT, SCALE: 1" = 20', DATED: 09/28/2018", By VHB Inc. EVERSOURCE R.E. DWG: 23907, (the "Map"), which has been or will be filled in the Hartford City Clerk's Office, being more particularly described as follows:

Beginning at a point on the easterly property line of the grantor and the westerly line of land of the Railroad, said point being S30°42'50"W a distance of 17.58' from a north easterly corner of land of the grantor, more clearly designated as P.O.B. #1 on the above referenced Map, thence;

S30°42'50"W A distance of fifty and zero hundredths (50.00') feet along the westerly line of land of the Railroad to a point, thence;

N59°17'10"W A distance of fifty and zero hundredths (50.00') feet to a point, thence;

N30°42'50"E A distance of fifty and zero hundredths (50.00') feet along the easterly line of Permanent Access Easement, in part, to a point, thence;

S59°17'10"E A distance of fifty and zero hundredths (50.00') feet to the point of beginning. The last three courses being across land of the grantor.

Easement Area 1 as described above contains approximately 2,500 Sq. Ft. or 0.057 Acre, more or less.

II. Easement Area 2

The Easement described in this Section II and more clearly designated and defined as "EASEMENT AREA 2" as depicted on the Map (referenced in Section I above), which has been or will be filled in the Hartford City Clerk's Office, being more particularly described as follows:

Beginning at a point at the north westerly corner of land of the grantor, said point being along the easterly line of New Park Ave, further defined by a CHD MON with Disc found and more clearly designated as P.O.B. #2 as shown on the above reference Map, thence;

S86°35'26"E A distance of four and nine hundredths (4.09') feet along the northerly line of land of the grantor also being along the southerly line of Route 84, to a point, thence;
Along a curve to the left having a radius of 38.00', a distance of fifty five and forty seven hundredths (55.47') feet through a central angle of 83°38'09", with a chord distance of fifty and sixty seven hundredths (50.67') feet, having a chord bearing of S40°12'14" E, thence;

S82°01'18"E A distance of one hundred sixteen and thirty nine hundredths (116.39') feet to a point thence;

Along a curve to the right having a radius of 112.00', a distance one hundred thirty nine and seventy hundredths (139.70) feet through a central angle of 71°27'51", with a chord distance of one hundred thirty and eighty one hundredths (130.81') feet, having a chord bearing of S46°17'23" E, thence;

S10°33'27"E A distance of twenty one and seventy seven hundredths (21.77') feet to a point thence;
Along a curve to the left having a radius of 38.00', a distance of eight and one hundredth (8.01) feet through a central angle of 12°05'02", with a chord distance of eight and zero hundredths (8.00') feet, having a chord bearing of S16°35'58" E, to a point on the westerly line of the "PERMANENT EASEMENT AREA" as described herein above, thence;

S30°42'50"W A distance of twenty seven and twenty one hundredths (27.21') feet along the westerly limit of said "PERMANENT EASEMENT AREA," thence;
Along a curve to the right having a radius of 62.00', a distance of twenty nine and fifty one hundredths (29.51') feet through a central angle of 27°16'15", with a chord distance of twenty nine and twenty three hundredths (29.23') feet, having a chord bearing of N24°11'35" W, thence;

N10°33'27"W A distance of twenty one and seventy seven hundredths (21.77') feet to a point thence;
Along a curve to the left having a radius of 88.00', a distance of one hundred nine and seventy six hundredths (109.76') feet through a central angle of 71°27'51", with a chord distance of one hundred two and seventy eight hundredths (102.78') feet, having a chord bearing of N46°17'23" W, thence;

N82°01'18"W A distance of one hundred sixteen and thirty nine hundredths (116.39') feet to a point thence;
Along a curve to the right having a radius of 62.00', a distance of sixty two and fifty seven hundredths (62.57') feet through a central angle of 57°49'25", with a chord distance of fifty nine and ninety five hundredths (59.95') feet, having a chord bearing of N53°06'36" W, to a point on the easterly street line of New Park Ave, thence;

N28°26'49"E A distance of thirty and forty hundredths (30.40') feet along the easterly line of New Park Ave to the point of beginning.

Easement Area 2 as described above contains approximately 8,218 Sq. Ft. or 0.189 Acre, more or less.

III. Temporary Work Area

The Temporary Work Area described in this Section III and more clearly designated and defined as "Temporary Work Area" as depicted on the Map (referenced in Section I above), which has been or will be filled in the Hartford City Clerk's Office, being more particularly described as follows:
The Temporary Work Area is clearly designated and depicted as two areas on the Map, which are labelled: TEMPORARY WORK AREA, TOTAL AREA = 18,055 SQ. FT. (0.414 ACRE).

**ACKNOWLEDGEMENT**

STATE OF NY )
) ss: Mt. Kisco
COUNTY OF WESTCHESTER )

On this the 29th day of November, 2018, before me, personally appeared James A. Diamond, who acknowledged himself/herself to be a manager/member of Diamond Properties, LLC, which is the Managing Member of DP 103, LLC and as such being authorized to do so, executed the foregoing instrument for the purpose therein contained as his/her free act and deed and as the free act and deed of DP 103, LLC.

In witness whereof I hereunto set my hand and official seal.

Fatima Arash

Commissioner of the Superior Court

Notary Public

My Commission Expires: 08-2020

FATIMA ARASH
NOTARY PUBLIC-STATE OF NEW YORK
No. 02AR6345791
Qualified In Queens County
My Commission Expires 08-01-2020

**Attachment 2**

Return Original to:
Eversource Energy Legal Dept., 107 Selden St., Berlin, CT 06037
Attn: Real Estate Attorney (J.Cochran)

## SUBORDINATION AGREEMENT

M&T Bank, a New York Bank corporation having an office at one M&T Plaza, Buffalo, NY 14203, for a valuable consideration, does hereby subordinate its interest in and under the Mortgage from DP 103, LLC to M&T Bank dated January 19, 2018 and recorded in the land records of the City of Hartford, CT in Volume 7292, Page 268 to the Easement granted by DP 103, LLC to The Connecticut Light and Power Company doing business as Eversource Energy dated November ___, 2018 and recorded in Volume _____, Page _____ of said land records, so that the lien created by said Mortgage is subordinate and subject to the Easement with the same force and effect as if the Easement had been recorded prior to the recording of said Mortgage.

This Subordination Agreement will not in any other way subordinate, release, or otherwise adversely affect the lien of the Mortgage.

In Witness Whereof, the undersigned has caused this instrument to be executed in its corporate name and on its behalf by NICOLE VONELM, its VICE PRESIDENT, duly authorized, on this 27th day of NOVEMBER, 2018.

Signed and delivered in the presence of:

Peggy E Montgomery
Signature of First Witness
Peggy E Montgomery
Print Name of First Witness

Signature of Second Witness
John P. Gibbs
Print Name of Second Witness

M&T Bank

By: Nicole Von Elm

Print Name: NICOLE VON ELM

Title: VICE PRESIDENT, Duly Authorized

STATE OF NEW YORK

ss: ~~BUFFALO~~

COUNTY OF ~~ERIE~~ WESTCHESTER

On this the 27th day of NOVEMBER, 2018, before me, personally appeared NICOLE VON ELM, who acknowledged himself / herself to be the VICE PRESIDENT of M&T Bank, a corporation, and that, being authorized to do so, executed the foregoing instrument for the purpose therein contained as his/her free act and deed as such officer and the free act and deed of said corporation.

Sign: Donna L Puff
Print: Donna L Puff

DONNA L. PUFF
NOTARY PUBLIC STATE OF NEW YORK
WESTCHESTER
LIC. #01PU5002999
COMM. EXP. OCT. 13, 2022

Notary Public: My Commission Expires: 10/13/2022

## LLC RESOLUTION

The undersigned, being a Member of Diamond Properties, LLC, the Managing Member of DP 103, LLC, a limited liability corporation of the State of Connecticut, does hereby adopt the following resolutions pursuant to the General Limited Liability Company Act of the State of Connecticut:

RESOLVED: that it is hereby determined by the Members that it is in the best interest of the DP 103, LLC to grant to The Connecticut Light and Power Company d/b/a Eversource Energy a Permanent Easement and Temporary License Agreement over and across a strip of land on certain real property owned by the DP 103, LLC at 330 New Park Avenue in Hartford, Connecticut for consideration in the amount of One Hundred Thirty-Five Thousand Dollars ($135,000), in substantially the form of the Permanent Easement and Temporary License Agreement attached hereto; and

RESOLVED: that James A. Diamond, as a member of Diamond Properties, LLC, is hereby authorized in the name and on behalf of the DP 103, LLC to execute and deliver said Permanent Easement and Temporary License Agreement and such other instruments and documents, to pay necessary expenses and to take such other actions as may be necessary or advisable to carry out the purposes and intent of the foregoing resolution, the taking of such actions and the execution and delivery of such documents to be sufficient and conclusive evidence that the same are within the authority conferred by these resolutions.

IN WITNESS WHEREOF, the undersigned have signed this Written Consent as of this 29th day of November 2018.

By: Sign: _____

Print: James A. Diamond

Its: Co-manager

Eversource – GHCCRP
LI# 5339 Hartford, CT

STATE OF NEW YORK
COUNTY OF WESTCHESTER ss. Mount Kisco

The undersigned, DP 103, LLC being the owner of certain premises located in the City of Hartford, County of Hartford and State of Connecticut, which is property known as 330 New Park Avenue, which is located in Hartford, Connecticut, being duly sworn, hereby depose(s) and say(s):

SECTION I **OWNER'S AFFIDAVIT**

1. Within the last ninety (90) days, including the date hereof, no person, firm and/or corporation has furnished any labor, services or materials to or for the undersigned in connection with the construction or repair of any buildings or improvements on the above-referenced premises for which a lien could be filed.

2. No security interest which secures payment or the performance of any obligation has been given by the undersigned or to the knowledge of the undersigned, been granted, in any personal property or fixtures placed upon or installed in said premises.

3. At the date hereof there are no tenants or parties who are/or have the right to be in possession of said premises except: None.

SECTION II **CONDOMINIUM AFFIDAVIT**

As to section I, the undersigned hereby make(s) this affidavit for the purpose of inducing OLD REPUBLIC NATIONALTITLE INSURANCE COMPANY to issue its policy or policies of title insurance on the above premises, knowing that it will do so in reliance upon the truth and accuracy of the statements herein made. The above statements in section I are true to the best of my knowledge.

**DP 103, LLC**

By: Diamond Properties, LLC
Its: Managing Member

By: _____
James A Diamond
Its: Member

Subscribed and sworn to before me this 29th day of November 2018.

Sign: Fatima Arash
Print: Fatima Arash

Notary Public: My Commission expires on: 08-2020

FATIMA ARASH
NOTARY PUBLIC-STATE OF NEW YORK
No. 02AR6345791
Qualified In Queens County
My Commission Expires 08-01-2020

Eversource GHCCRP
LL# 5339 Hartford

**TRANFEROR'S NON-FOREIGN AFFIDAVIT**
[I.R.C. §1445(b) (2)]

State of NEW YORK:

ss: Mount Kisco November 29 , 2018

County of WESTCHESTER:

Section 1445 of the Internal Revenue Code provides that a transferee of a U.S real property interest must withhold tax if the transferor is a foreign person. To inform the transferee that withholding of tax is not required upon the disposition of a U.S. property interest by DP 103, LLC ("Transferor"), the undersigned hereby certifies the following on behalf of the Transferor:

1. Transferor is not a foreign corporation, foreign partnership, foreign trust or foreign estate as those terms are defined in the Internal Revenue Code and Income Tax Regulations;

2. Transferor's U.S. Taxpayer Identification Number is 13-4035787 ; and

3. Transferor's office address is:

   Diamond Properties

   333 North Bedford Road - Suite 145

   Mount Kisco, New York 10549

Transferor understands that the above information may be disclosed to the Internal Revenue Service by the transferee and that any false statement contained herein could be punished by fine, imprisonment, or both.

**DP 103, LLC**

By: Diamond Properties, LLC
Its: Managing Member

By: _____
James A Diamond
Its: Member

Subscribed to and sworn before me this 29th day of Novemberr, 2018

Sign: Fatima Arash
Print: Fatima Arash

Notary Public: My Commission expires: 08-2020

FATIMA ARASH
NOTARY PUBLIC-STATE OF NEW YORK
No. 02AR6345791
Qualified In Queens County
My Commission Expires 08-01-2020

Eversource – GHCCRP
LL 5339 - Hartford, CT

Form **W-9**
(Rev. October 2007)
Department of the Treasury
Internal Revenue Service

# Request for Taxpayer Identification Number and Certification

**Give form to the requester. Do not send to the IRS.**

Print or type See Specific Instructions on page 2.

Name (as shown on your income tax return)
**DP 103, LLC**

Business name, if different from above

Check appropriate box: ☐ Individual/Sole proprietor ☐ Corporation ☐ Partnership
☑ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ► -------
☐ Other (see instructions) ►

☐ Exempt payee

Address (number, street, and apt. or suite no.)
**333 North Bedford Road - Suite 145**

Requester's name and address (optional)

City, state, and ZIP code
**Mount Kisco, New York 10549**

List account number(s) here (optional)

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

**Note.** If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

**Social security number**
: :

**or**

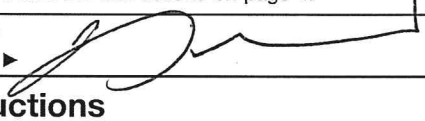
**Employer identification number**
13 :4035787

## Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

**Sign Here** Signature of U.S. person ►  Date ► 11/29/2018

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

## Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

**Note.** If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

INFORMATION FOR REAL ESTATE 1099-S REPORT FILING
as required by the Internal Revenue Service

Section 6045 of the Internal Revenue Code, as amended by the Tax Reform Act of 1986, requires the reporting of certain information on every real estate transaction. From the information you provide below, a Form 1099-S will be produced, and a copy of it will be furnished to the I.R.S. and to you no later than January 31 of the next year. If you fail to furnish adequate information (in particular, a taxpayer ID number), then you will be subject to all I.R.S. Regulations, including the possible withholding of twenty percent (20%) of the current sales price.

Taxpayer ID or SS Number: 13-4035787

Taxpayer ID Type: Limited Liability Corporation

SELLER NAME(s): DP 103, LLC

MAILING ADDRESS (as of January 31 of next year):

c/o Diamond Properties
333 North Bedford Road – Suite 145
Mount Kisco, NY 10549

TRANSACTION INFORMATION:

Closing Date: November 29th, 2018

Contract Sale Price: $ 135,000

Description of Property: Residential – Commercial – Industrial – Farm (Easement)
MBL 116 – 475 – 022 -- 330 New Park Avenue, Hartford, CT

Credit to Seller for Prepaid Real Estate Tax
(Form 1099 S Box 5): $ n/a

Will the Transferor receive property or services?
as part of the consideration ? Yes **X No**

Under the penalties of perjury, I certify that the number shown on this form is the Seller's correct Taxpayer Identification Number and that the other information is correct to the best of my understanding and I understand that it will appear on a Form 1099-S that will be sent to the Seller and to the Internal Revenue Service.

James A. Diamond, Authorized Representative

Department of Revenue Services
State of Connecticut
PO Box 5035
Hartford CT 06102-5035
OP236 0417W 01 9999

# OP-236
## Connecticut Real Estate Conveyance Tax Return
(Rev. 04/17)

**For Town Clerk Use Only** ► Town Code ____ Land Record Vol. ► ____ Pg. ► ____

Complete Form OP-236 in blue or black ink only.

1. Town ► HARTFORD
2. Location of property conveyed (number and street) ► 330 NEW PARK AVENUE
Amended return

3. Are there more than two grantors/sellers? ► Yes If Yes, attach **OP-236 Schedule A - Grantors**, *Supplemental Information for Real Estate Conveyance Tax Return.*

4. Grantor/seller #1 (last name, first name, middle initial) ► DP 103, LLC
Taxpayer Identification Number ► ____ ► X FEIN SSN
► 330 NORTH BEDFORD ROAD SUITE 145
City/town ► MOUNT KISCO State NY ZIP code 10549

5. Grantor/seller #2 (last name, first name, middle initial) ►
Taxpayer Identification Number ► ____ ► FEIN SSN
Grantor/seller address (street and number) after conveyance ►
City/town ► State ZIP code

6. Is the grantor a partnership, S corporation, LLC, estate, or trust? ► Yes
If *Yes*, attach **OP-236 Schedule A - Grantors**
7. Was more than one deed filed with this conveyance? ► Yes

8. If this conveyance is for no consideration or less than adequate consideration, which gift tax returns will be filed? ► Federal only State only Both fed. & state None

9. Is there more than one grantee/buyer or, is the grantee a partnership, S corporation, LLC, estate, or trust? ► Yes
If Yes, attach **OP-236 Schedule B - Grantees**, *Supplemental Information for Real Estate Conveyance Tax Return.*

10. Grantee/buyer (last name, first name, middle initial) ► THE CONNECTICUT LIGHT AND POWER COMPANY DBA EVERSOURCE ENERGY
Taxpayer Identification Number ► 06-0303850 ► X FEIN SSN
Grantee/buyer address (street and number) after conveyance ► 107 SELDEN STREET
City/town ► BERLIN State CT ZIP code 06037

11. Date conveyed (MM - DD - YYYY) ► 11 - 29 - 2018
12. Date recorded (MM - DD - YYYY) ► - -
13. Type of instrument: ► Warranty Quitclaim X Easement Other

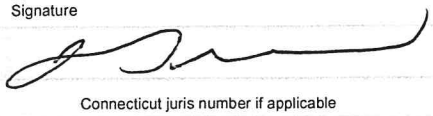
14. The grantor claims no tax is due because (See instructions.): ► Conveyance was for no consideration or consideration was less than $2,000.
► Conveyance is exempt under Conn. Gen. Stat. §12-498. Enter exemption code:
If exemption code is 01 or 09, enter citation or docket number:

**Computation of Tax** - Enter consideration for conveyance on the appropriate line. See Instructions.

| | | | | |
|---|---|---|---|---|
| ► 15. | Consideration for unimproved land | | x 0.0075 = | 0.00 |
| ► 16. | Total consideration for residential dwelling | | | |
| ► 16a. | Portion of Line 16 that is $800,000 or less | | x 0.0075 = | 0.00 |
| ► 16b. | Portion of Line 16 that exceeds $800,000 | 0.00 | x 0.0125 = | 0.00 |
| ► 17. | Residential property other than residential dwelling | | x 0.0075 = | 0.00 |
| ► 18. | Nonresidential property other than unimproved land | 135,000.00 | x 0.0125 = | 1,687.50 |
| ► 19. | Property conveyed by a delinquent mortgagor | | x 0.0075 = | 0.00 |
| ► 20. | **Total State of Connecticut tax due:** Add Lines 15, 16a through 19. | | | 1,687.50 |

**Declaration:** I declare under penalty of law that I have examined this return (including any accompanying schedules and statements) and, to the best of my knowledge and belief, it is true, complete, and correct. I understand the penalty for willfully delivering a false return to the Department of Revenue Services (DRS) is a fine of not more than $5,000, or imprisonment for not more than five years, or both. The declaration of a paid preparer other than the taxpayer is based on all information of which the preparer has any knowledge.

Indicate who is signing this return: Grantor Grantor's attorney X Grantor's authorized agent

Name of person signing the return (type or print): DP 103,LLC-DIAMOND PROP
Signature: 
Date: 11/29/2018

Name of grantor's representative (type or print): JAMES A. DIAMOND, MEMBER ►
Connecticut juris number if applicable
Telephone number: (914) 773-6253

# Town Clerk Copy

## OP-236

**Connecticut Real Estate Conveyance Tax Return**
(Rev. 04/17)

**For Town Clerk Use Only** Town Code | Land Record Vol. | Pg.

1. Town: HARTFORD
2. Location of property conveyed (number and street): 330 NEW PARK AVENUE
Amended return

3. Are there more than two grantors/sellers? Yes
4. Grantor/seller #1 (last name, first name, middle initial): DP 103, LLC
Grantor/seller address (street and number) after conveyance: 330 NORTH BEDFORD ROAD SUITE 145
City/town: MOUNT KISCO
State: NY ZIP code: 10549
5. Grantor/seller #2 (last name, first name, middle initial)
Grantor/seller address (street and number) after conveyance
City/town
State ZIP code

6. Is the grantor a partnership, S corporation, LLC, estate, or trust? Yes
7. Was more than one deed filed with this conveyance? Yes
8. If this conveyance is for no consideration or less than adequate consideration, which gift tax returns will be filed? Federal only | State only | Both fed. & state | None
9. Is there more than one grantee/buyer or, is the grantee a partnership, S corporation, LLC, estate, or trust? Yes
10. Grantee/buyer (last name, first name, middle initial): THE CONNECTICUT LIGHT AND POWER COMPANY DBA EVERSOURCE
Grantee/buyer address (street and number) after conveyance: 107 SELDEN STREET
City/town: BERLIN
State: CT ZIP code: 06037
11. Date conveyed (MM - DD - YYYY): 11 - 29 - 2018
12. Date recorded (MM - DD - YYYY):
13. Type of instrument: Warranty | Quitclaim | X Easement | Other
14. The grantor claims no tax is due because (See instructions.): Conveyance was for no consideration or consideration was less than $2,000.
Conveyance is exempt under Conn. Gen. Stat. §12-498. Enter exemption code:
If exemption code is 01 or 09, enter citation or docket number:

**Computation of Tax** - Enter consideration for conveyance on the appropriate line. See Instructions.

| | | | | |
|---|---|---|---|---|
| 15. | Consideration for unimproved land | | x 0.0075 = | 0.00 |
| 16. | Total consideration for residential dwelling | | | |
| 16a. | Portion of Line 16 that is $800,000 or less | | x 0.0075 = | 0.00 |
| 16b. | Portion of Line 16 that exceeds $800,000 | 0.00 | x 0.0125 = | 0.00 |
| 17. | Residential property other than residential dwelling | | x 0.0075 = | 0.00 |
| 18. | Nonresidential property other than unimproved land | 135,000.00 | x 0.0125 = | 1,687.50 |
| 19. | Property conveyed by a delinquent mortgagor | | x 0.0075 = | 0.00 |
| 20. | **Total State of Connecticut tax due:** Add Lines 15, 16a through 19. | | | 1,687.50 |

Department of Revenue Services
State of Connecticut

OP236A 1016W 01 9999

# OP-236 Schedule A - Grantors

**Supplemental Information for Connecticut Real Estate Conveyance Tax Return**

(Rev. 10/16)

Use OP-236 Schedule A to provide the required information if there are additional grantors/sellers. If the grantor is a partnership, S corporation, limited liability company (LLC), estate, or trust, enter the name, address, and taxpayer identification number of the partners, shareholders, members, or beneficiaries. If a partner, shareholder, member or beneficiary of the grantor is an LLC or a qualified subchapter S corporation (QSS), enter the name of such entity, its address and tax identification number. Do **not** combine grantors/sellers and grantee/buyers on the same schedule.

| Town | Was the transaction completed on one deed? ☐ Yes ☐ No | Date conveyed 11 / 29 / 2018 (m m / d d / y y y y) |
|---|---|---|
| Location of property conveyed | | Date recorded ___ / ___ / ____ (m m / d d / y y y y) |
| Name of grantor as shown on the deed | | |

| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
|---|---|
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |

Department of Revenue Services
State of Connecticut

OP236B 1016W 01 9999

# OP-236 Schedule B - Grantees

**Supplemental Information for Connecticut Real Estate Conveyance Tax Return**

(Rev. 10/16)

Use OP-236 Schedule B to provide the required information if there are additional grantees/buyers. If the grantee is a partnership, S corporation, limited liability company (LLC), estate, or trust, enter the name, address, and taxpayer identification number of the partners, shareholders, members, or beneficiaries. If a partner, shareholder, member or beneficiary of the grantor is an LLC or a qualified subchapter S corporation (QSS), enter the name of such entity, its address and tax identification number. Do **not** combine grantors/sellers and grantee/buyers on the same schedule.

| Town | Was the transaction completed on one deed? ☐ Yes ☐ No | Date conveyed 11 / 29 / 2018 (m m / d d / y y y y) |
|---|---|---|
| Location of property conveyed | | Date recorded ___ / ___ / ____ (m m / d d / y y y y) |
| Name of grantee as shown on the deed | | |

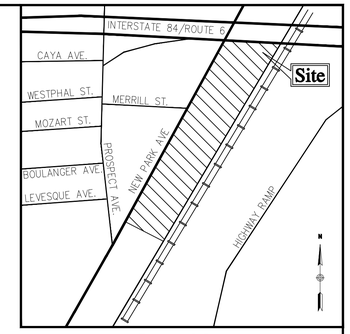
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
|---|---|
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |
| Last name, first name, middle initial | Taxpayer identification number ☐ SSN ☐ FEIN |
| Address after conveyance | City or town / State / ZIP code |

## General Notes

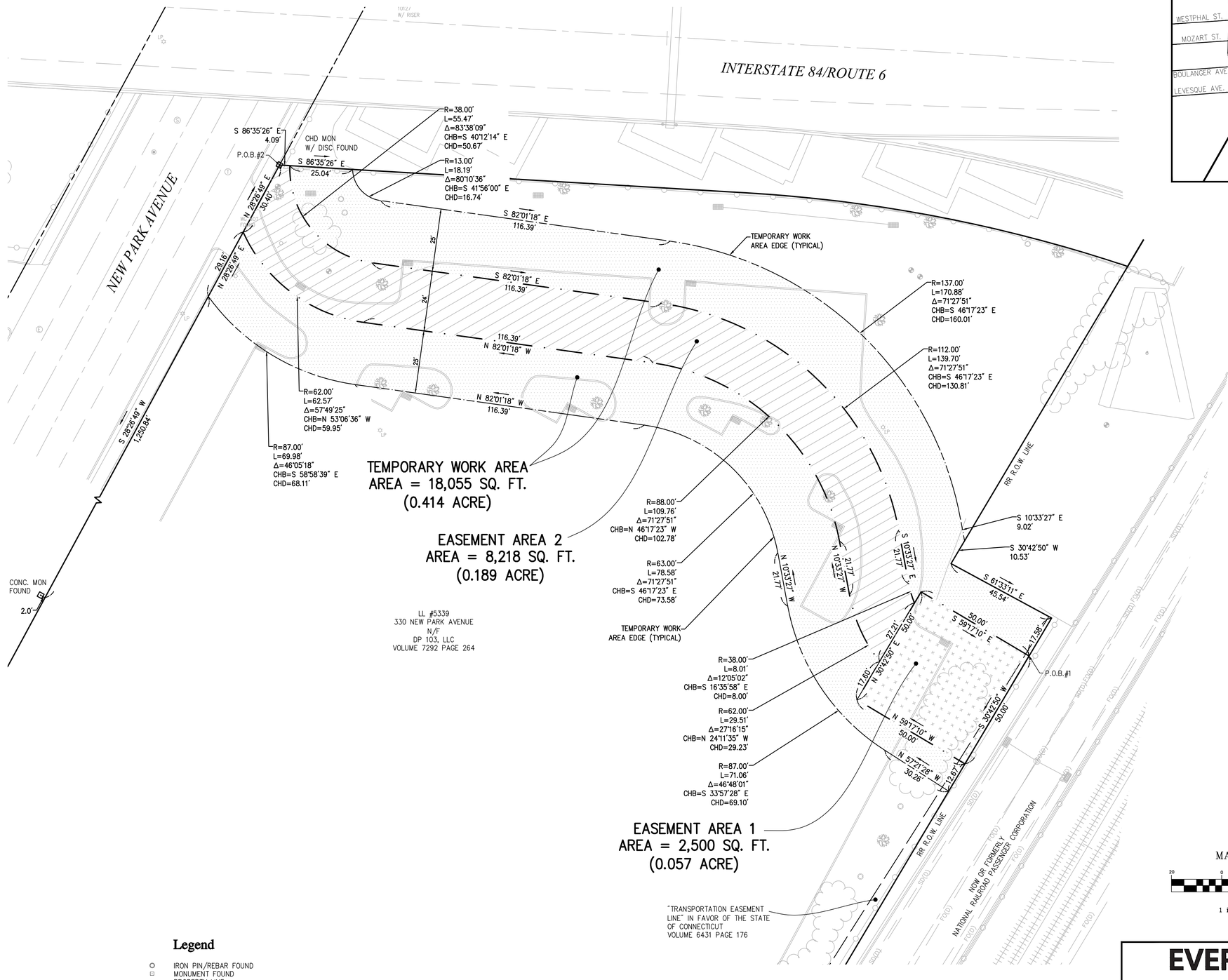
1. RAILROAD RIGHT OF WAY LINE SHOWN WAS PROVIDED BY STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION.
2. FEATURES DEPICTED ARE FROM A COMBINATION OF GROUND SURVEY AND AERIAL MAPPING CAPTURED IN MARCH, 2016 BY KAPPA MAPPING, INC., 6 STATE STREET, SUITE 301, BANGOR, MAINE 04401.
3. HORIZONTAL DATUM IS BASED ON CONNECTICUT STATE PLANE COORDINATE SYSTEM, NAD 83.

## Map References

1. RIGHT OF WAY AND TRACK MAP, THE NEW YORK, NEW HAVEN AND HARTFORD R.R. CO. OPERATED BY THE NEW YORK, NEW HAVEN AND HARTFORD R.R. CO. FROM NEW HAVEN TO SPRINGFIELD, STATION 1742+40 TO STATION 1795+20, TOWN OF WEST ARTFORD/HARTFORD, STATE OF CONN. SCALE: 1"=100FT. DATED JUNE 30, 1915. OFFICE OF VALUATION ENGINEER, BOSTON, MASS.
2. RIGHT OF WAY SURVEY, CITY OF HARTFORD, MAP SHOWING EASEMENT ACQUIRED FROM INLAND WESTERM HARTFORD NEW PARK, L.L.C. BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, NEW BRITAIN – HARTFORD BUSWAY. SCALE: 1"=40'. DATED SEPTEMBER, 2007. SHEETS 1&2 OF 2.
3. ALTA/NSPS LAND TITLE SURVEY, PROJECT ADDRESS, 330 NEW PARK AVENUE, HARTFORD, CT 06106, PROJECT NAME: CROWN THEATER–858354, CDS PROJECT NUMBER: 17–07–0296. SCALE: 1"=50'. SHEETS 1 &2 OF 2.
4. PROPERTY SURVEY OF PREMISES OWNED BY HEULEIN, INC. 330 NEW PARK AVENUE, HARTFORD, CONNECTICUT. SCALE: 1"=50'. DATED NOVEMBER, 1995.




**Locus Map**
(NOT TO SCALE)




MAP SCALE

20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

## Legend

- IRON PIN/REBAR FOUND
- MONUMENT FOUND
- PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED PERMANENT EASEMENT LINE
- PROPOSED TEMPORARY WORK AREA
- TOWN LAYOUT LINE
- ASSESSORS PARCEL LINE
- TEMPORARY WORK AREA
- EASEMENT
- EASEMENT

THIS SURVEY AND MAP HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20–300b–1 THROUGH 20–300b–20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

THIS IS AN EASEMENT MAP CONFORMING TO A HORIZONTAL CLASS A–2 ACCURACY. THE BOUNDARY DETERMINATION IS A DEPENDENT RESURVEY.

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED THIS PLAN IS NOT VALID WITHOUT A LIVE SIGNATURE AND EMBOSSED SEAL.

CHRISTOPHER C. DANFORTH, L.S. #70118 DATE

STATE OF CONNECTICUT · CHRISTOPHER C. DANFORTH · NO. 70118 · LICENSED LAND SURVEYOR

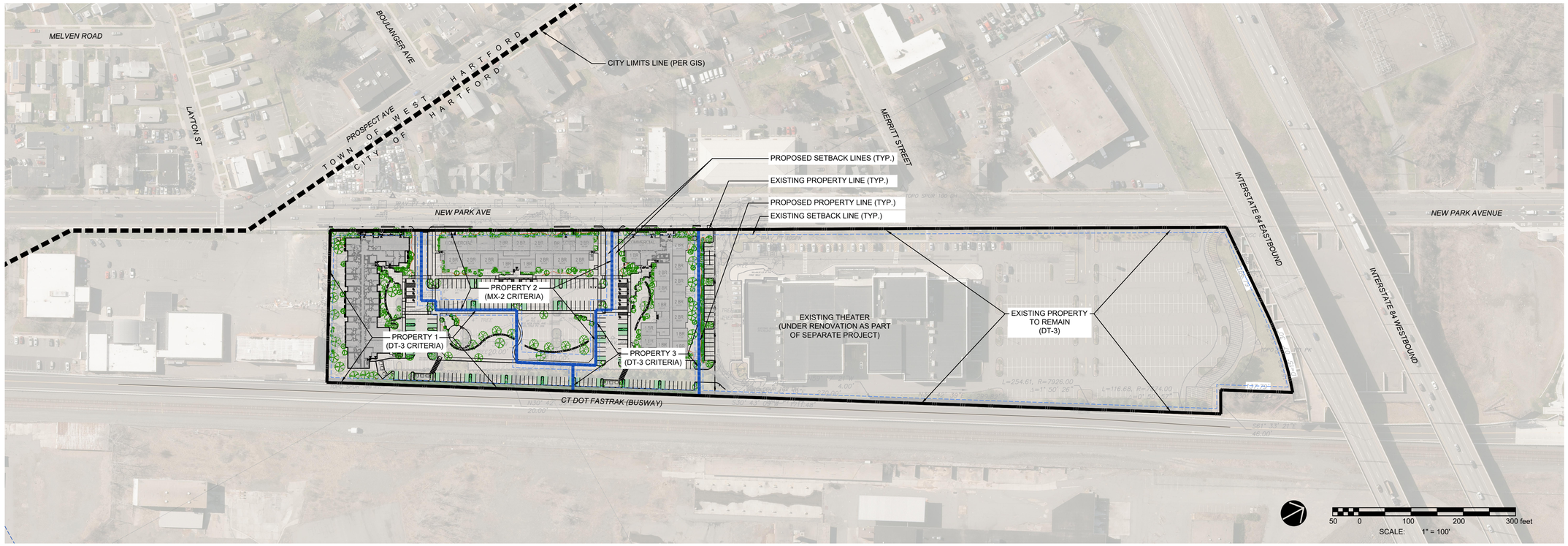
EVERSOURCE ENERGY

| | | | |
|---|---|---|---|
| TITLE: EASEMENT MAP SHOWING EASEMENTS TO BE ACQUIRED ACROSS DP 103, LLC 330 NEW PARK AVENUE, HARTFORD, CT | | | |
| BY: WGB | CHKD: CCD | APP: | APP: |
| DATE: 09/28/2018 | DATE: | DATE: | DATE: |
| H–SCALE: 1"=20' | SIZE: ARCH D | SURVEY JOB #: | S21067 |
| V–SCALE: N.T.S. | V.S.: Z–1–4 | R.E.DWG.: | 23907 |
| R.E. PROJ. NUMBER: | 000–51.327 | NUSCO: | |

10/24/2018 8:59am – williambede – \\nhs\proj\Wethersfield\421114.10 GHCDP\civil\xr_Easement Drawings\LL 5339.dwg

Attachment 4: Variance Application Plans

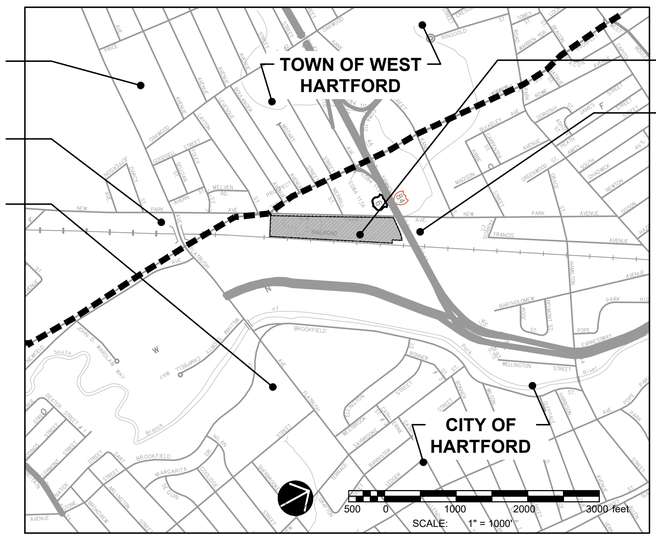
## OVERALL PLAN




## PLAN LEGEND

- EXISTING PROPERTY LINES
- PROPOSED PROPERTY LINES
- EXISTING FRONT BUILDING LINE, OR SIDE OR REAR SETBACK LINE
- PROPOSED FRONT BUILDING LINE, OR SIDE OR REAR SETBACK LINE
- BUILDING FOOTPRINT (NOT TO SCALE)
- BUILDING ENTRANCES/EXITS, REFER TO ARCH. DWGS.

## CONTEXT PLAN




## GENERAL NOTES

1. THIS PLAN IS FOR VARIANCE APPLICATION PURPOSES ONLY.
2. THE EXISTING SITE CONSISTS OF ONE PARCEL. CONCURRENT WITH SITE PLAN APPROVAL, THE PROPERTY WILL BE SUBMITTED FOR SUBDIVISION APPROVAL. BUILDING PERMIT SUBMISSIONS TO OCCUR ONE AT A TIME AND CONSTRUCTION OF EACH PROPERTY WILL FOLLOW THE PREVIOUS PROPERTY (PHASE) IN ORDER.
3. FINAL BUILDING AND SITE DIMENSIONING SUBJECT TO SITE PLAN REVIEW COMMENTS AND ASSOCIATED DESIGN REVISIONS.

100 0 100 200
1" = 100'

## SURVEY REFERENCE

SURVEY INFORMATION FROM PLAN ENTITLED: "BOUNDARY - TOPOGRAPHIC SURVEY" PREPARED BY ALFRED BENESCH AND COMPANY FOR DAKOTA PARTNERS, 1" = 30', DATED APRIL 2020.


Prepared by:

benesch

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Prepared for:

DAKOTA PARTNERS

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# VARIANCE PLANS
# EDGE 400 SUBDIVISION

330 NEW PARK AVENUE

HARTFORD, CONNECTICUT

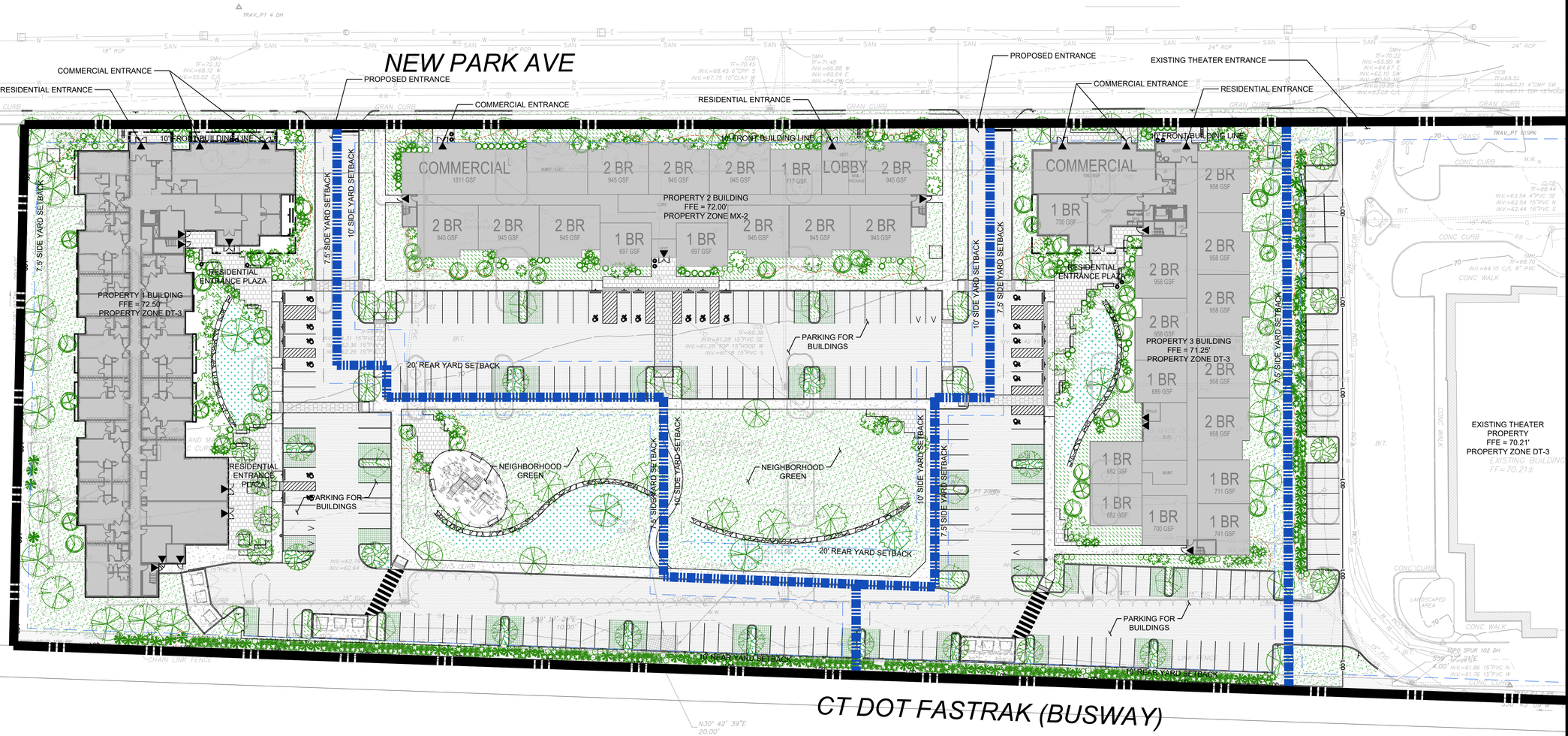
| DATE: | REVISION: |
|---|---|
| 9/16/2020 | VARIANCE APPLICATION |

STATE OF CONNECTICUT
WILLIAM G. WALKER
LICENSED
PROFESSIONAL ENGINEER

PROJECT NO.: 70610
SCALE: AS SHOWN
DATE: SEPTEMBER 16, 2020
DRAWN BY: JPE
CHECKED BY: WGW

## VARIANCE APPLICATION OVERALL PLAN

DRAWING NO.:
**V-0.0**




## PLAN LEGEND

- EXISTING PROPERTY LINES
- EXISTING AND PROPOSED SETBACK LINES
- PROPOSED PROPERTY LINES
- LOD — LIMIT OF DISTURBANCE
- BITUMINOUS CONCRETE PAVEMENT
- CONCRETE SIDEWALK OR PAD
- UNIT PAVERS
- STACKED DRY-LAID WALL
- PARKING LOT STRIPING
- BUILDING ENTRANCE
- PERVIOUS PAVERS AT PARKING STALL
- DECIDUOUS TREE PLANTINGS
- EVERGREEN TREE PLANTINGS
- SHRUB PLANTINGS
- PROPOSED PERENNIALS AND GROUNDCOVERS (UPLAND AREAS)
- PROPOSED LAWN SEED MIX, REFER TO SEED MIX NOTES
- PROPOSED BIORETENTION AREA SEED MIX AND PERENNIALS AND GROUNDCOVERS, REFER TO SEED MIX NOTES
- LIMIT OF PLANTER WITH RESTRAINT EDGING (LAWN AT SEED MIX SIDE, MULCH AT PLANTER SIDES)

30 0 30 60
1" = 30'

## GENERAL NOTES

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2. THE EXISTING SITE CONSISTS OF ONE PARCEL. CONCURRENT WITH SITE PLAN APPROVAL, THE PROPERTY WILL BE SUBMITTED FOR SUBDIVISION APPROVAL. BUILDING PERMIT SUBMISSIONS TO OCCUR ONE AT A TIME AND CONSTRUCTION OF EACH PROPERTY WILL FOLLOW THE PREVIOUS PROPERTY (PHASE) IN ORDER.
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## SURVEY REFERENCE

SURVEY INFORMATION FROM PLAN ENTITLED: "BOUNDARY - TOPOGRAPHIC SURVEY" PREPARED BY ALFRED BENESCH AND COMPANY FOR DAKOTA PARTNERS, 1" = 30', DATED APRIL 2020.


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# EDGE 400 SUBDIVISION

HARTFORD, CONNECTICUT

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## VARIANCE APPLICATION DETAILED PLAN

DRAWING NO.:
**V-0.1**