APPLICATION OF 51 MAIN STREET, LLC FOR ZONING REGULATION AMENDMENT, ZONE CHANGE, AND SITE PLAN APPROVAL FOR MULTI-FAMILY RESIDENTIAL REDEVELOPMENT OF 51 MAIN STREET AS "51 MAIN"

New Canaan Planning and Zoning Commission
May 24, 2022

Applicant and Owner:
51 Main Street, LLC
16 Cross Street
New Canaan, CT 06840
(203) 972-3366

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15 Draft Affordability Plan

16 Consultant Resumes

Submitted Separately*:

1. Two full-size copies of "51 Main", architectural and site plans, including A-2 survey, twenty two (22) sheets total, prepared by D'Andrea Surveying & Engineering, P.C.

2. Checks payable to the Town of New Canaan for total application fees of $1,280.00*

    - $400.00 Zone Text Amendment
    - $ 60.00 Land Use Application Fee
    - $400.00 Amendment to Zoning Map
    - $ 60.00 Land Use Application Fee
    - $300.00 Site Plan Application Fee; and
    - $ 60.00 Land Use Application Fee

3. Electronic Version/PDF of above application

*Pursuant to New Canaan Planning and Zoning Schedule of Fees, all checks are submitted separately.

TAB 1

HINCKLEY ALLEN

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May 24, 2022

VIA HAND DELIVERY AND E-FILE

John H. Goodwin, Chair, and Members
New Canaan Planning & Zoning Commission
Town Hall, 77 Main Street
New Canaan, CT 06840

Lynn Brooks Avni, AICP
Town Planner/Enforcement
Officer, Co-Director of Land Use
Town Hall, 77 Main Street
New Canaan, CT 06840

Re: Application of 51 Main Street, LLC for Zoning Regulation Amendment, Zone Boundary Change, and Site Plan Approval, Residential Redevelopment of 51 Main Street, New Canaan

Dear Chair Goodwin, Planning & Zoning Commission Members, and Ms. Brooks Avni:

We represent 51 Main Street, LLC. On its behalf, we are filing this three-part application to (1) amend the New Canaan Zoning Regulations to create a new multi-family residential zone called the "Housing Redevelopment Zone" ("HRZ") (zone text change); (2) rezone the 0.38-acre site at 51 Main Street in New Canaan to this new HRZ (zone boundary change); and (3) obtain site plan approval.

This package contains the following:

Tab #	Document Description
2	Overview letter, May 16, 2022
3	Property deed, Assessor's Office data, and owner authorization letter
4	Photographs of existing site (subtab A) and illustration of proposed development (subtab B)

REGULATION AMENDMENT APPLICATION

5	Application for Zoning Regulation with proposed regulation, new Housing Redevelopment Zone (HRZ)

REZONING APPLICATION

6 Petition for Change in Zoning Boundary

7 Metes and bounds of property to be rezoned

8 Rezoning Map

SITE PLAN APPLICATION

9 Site Plan Application Form

10 Traffic Report, prepared by Solli Engineering, April 8, 2022

11 Sanitary Sewer Connection Summary, prepared by D'Andrea Surveying & Engineering, P.C., May 10, 2022

12 Wetland and Watercourse Determination, prepared by William Kenny Associates, March 10, 2022

13 Wetland and Watercourse Determination, March 10, 2022, prepared by William Kenny Associates

14 Aquarion Water Company will serve Letter, November 19, 2021

15 Draft Affordability Plan

16 Consultant Resumes

Thirteen originals of this application and two full size copies of the site plan are being filed pursuant to direction from Ms. Brooks Avni. An electronic PDF copy of this application is being submitted simultaneously with the paper application. Additional hard copies of the application are available upon request.

Application fees submitted separately to the Town are calculated as follows:

Zoning Text Amendment	$ 400.00
CT Land Use Fee	$ 60.00
Zoning Map Amendment	$ 400.00
CT Land Use Fee	$ 60.00
Site Plan Application	$ 300.00
CT Land Use Fee	$ 60.00
Total	$ 1,280.00

Procedural Matters

One Application. While this application has three parts (text amendment, zone boundary change, and the site plan), the parts are integrally related and should be considered, noticed, and heard as a unified application at a combined public hearing. The applicant will grant extensions of time if necessary to enable and ensure consideration of all parts on the same time track.

Section 8-30g "set-aside development." This application is for a "set-aside development" as defined in General Statutes § 8-30g. This program requires long-term preservation of a percentage of the proposed residential units for moderate and low-income households.

Notices. All parts of this application are, therefore, submitted pursuant to and in compliance with General Statutes § 8-30g. **All published notices regarding this application should reference § 8-30g.**

Peer Review Fees. With regard to any peer review fee to be proposed for the application, and fees for that review, the applicants note that Public Act 21-29, § 2(b) and (c), effective October 1, 2021, which contains new rules for third-party peer review fees, including limits on amounts, and accounting requirements.

A detailed overview of this project is provided in the letter at Tab 2. We look forward to present this application to the Commission.

We look forward to presenting this application to the Commission.

Very truly yours,

Ryan D. Hoyler

cc: 51 Main Street, LLC development team

TAB 2

HINCKLEY ALLEN

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May 24, 2022

VIA HAND DELIVERY AND E-FILE

John H. Goodwin, Chair, and Members
New Canaan Planning & Zoning Commission
Town Hall, 77 Main Street
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Lynn Brooks Avni, AICP
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Town Hall, 77 Main Street
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Re: Application of 51 Main Street, LLC for Zoning Regulation Amendment, Zone Boundary Change, and Site Plan Approval, Residential Redevelopment of 51 Main Street, New Canaan

Dear Chair Goodwin, Planning & Zoning Commission Members, and Ms. Brooks Avni:

On behalf of our client, 51 Main Street, LLC, we are submitting the attached application to the Town of New Canaan Planning and Zoning Commission for approval of a multi-family residential redevelopment of 51 Main Street, to be called "51 Main." This application consists of a proposed zoning regulation amendment, rezoning of the subject parcel, and a site plan application. This application is compliant with General Statutes § 8-30g, as the applicant agrees to preserve 30 percent of its proposed rental apartment homes for moderate income households for 40 years. The purpose of this letter is to explain the application in detail and to answer in writing, in advance of a public hearing, likely questions.

1. History of Subject Site

The parcel at 51 Main Street is approximately 0.38 acres. The parcel is currently improved with a 2,600 square foot primary structure, a commercial building that is currently unoccupied. Additionally, the parcel contains a 484 square foot garage building and 6,500 square feet of impervious, paved surface.

The property is in the B Residential zone. To the east and south, the property is bounded by 77 Main Street, housing Town Hall to the south and the office of New Canaan Human Services, in Vine Cottage, to the east. To the west, the property is bounded by 47 Main Street, a four-unit, two-building co-op. To the north, the parcel is bounded by Main Street. The parcel is served by public water and the town's sewer system.

The parcel is not within five hundred feet of any other municipality, nor is the parcel within any aquifer protection area or the watershed of any water companies. The parcel contains no wetlands. The parcel is located within the New Canaan Historic District, for which a separate application will be filed with the New Canaan Historic District Commission. The parcel is owned by 51 Main Street, LLC, the applicant.

2. Historic District Location

The existing building at 51 Main Street was constructed in 1889. We believe that the structure was originally a manse for a nearby church, built to house the clergy. From 1952 until the purchase by 51 Main Street, LLC in 2017, the property was owned and operated by the Red Cross, leading to it being colloquially called the "Red Cross building." The building has an open front porch, constructed with the house in 1889, along with a wood frame, clapboard siding, a basement, and an asphalt roof, and is two stories with an attic over top. The garage at the rear of the property was constructed in 1960.

The existing building is significantly deteriorated and has been since prior to its acquisition by the applicant in 2017. Pictures of the current building included at Tab 4 show the current state of the building. The proposed redevelopment of this site will preserve as much of the existing building and façade as possible, including the entire street-facing portion and more than 70 percent of the existing building.

While much of the exterior carpentry is in a state of disrepair, with multiple areas that exhibit extensive wood rot (see Tab 4), we believe that most of the structural framing is sound and able to be moved and restored. Should further investigation reveal that the structure is compromised, structural shoring sufficient will be added to safely move the structure. The plan is to replace the exterior trim, carpentry, and windows that are beyond repair due with solid wood to look like the original. Any identified insufficiencies in the existing structure will be bolstered and new mechanical, plumbing, and electrical systems will be added.

Despite the extensive work required, preserving the Red Cross building is a goal of this redevelopment. To this end, the applicant has laid out a series of steps to achieve such preservation. This plan includes the construction of a new concrete and masonry block foundation, compliant with the building code, built further forward on the property and closer to the street. Moving the historic structure will allow for the construction of residential units behind the preserved building, while the preserved structure will continue to be predominantly visible.

The footprint of the existing structure is approximately 1,277 square feet. Of this, approximately 936 square feet (about 73 percent), or the front three-quarters of the building, will be preserved. The remaining approximately 341 square feet (about 27 percent), which represents the rear quarter of the structure, will be removed to make room for new multi-family units. The portion to be removed consists of a kitchen and bedroom, along with a storage area that our architect believes to have been an addition to the original construction. The specific section of

the building to be retained and moved appears on the Site Plan – Development Plan, submitted with this application.

The preservation of the existing structure, along with the use of materials with a similar look and feel to the historic materials, will maintain the original appearance of the Red Cross building. Additionally, by maintaining the complete façade and limiting new construction to those areas behind the existing structure, and shielded from view by the existing structure, the redevelopment will maintain the historic building as part of the Historic District.

It should be noted that § 7.7 of the New Canaan Zoning Regulations which allows applications for a special permit to allow for area and dimensional changes not otherwise allowed in a specific zone, does not apply to this application. First, 51 Main Street does not currently hold, nor has it ever in the past held, such a special permit. Further, this application includes a zoning regulation amendment which is specifically written for the proposed redevelopment, along with a zone boundary change to apply this new zone to the property at 51 Main Street. Therefore, no diversions from area or dimensional requirements will be required under the proposed zoning regulation amendment included with this application at Tab 5.

3. An Appropriate Location for Multi-Family Residential Redevelopment

Several characteristics of the parcel and surrounding area make it appropriate for the proposed multi-family residential redevelopment. First, the property is adjacent to downtown New Canaan and less than one-third mile to the Metro North New Canaan train station. Main Street, Park Street, and Elm Street, the three roads by which one could to the train station, all include pedestrian sidewalks. By providing a multi-family residential development within walking distance of the train, the 51 Main development will provide a walkable community with access to the businesses and retail shops that downtown New Canaan has to offer. There are two crosswalks at 61 Main Street, which will allow residents of 51 Main access to shops on the northern and eastern sides of Main Street. A separate crosswalk is already in place along Park Street at the intersection with Seminary Street, allowing residents of 51 Main access to Park Street and places south and west. There are also numerous parks within walking distance, including Mead Memorial Park, the Bristow Bird Sanctuary and Wildlife Preserve, and Mill Pond Park.

Second, other multi-family residences exist in the downtown area. Along Elm Street, in the direction of Weed Street to the west, are a series of two-story condominiums at 330 Elm Street and 312 Elm Street. Further south along Weed Street are more condominiums at the Stepping Stones Mansion at 705 Weed Street. Along Seminary Street, directly to the north of Elm, are condominiums at 70 Seminary Street, 82 Seminary Street, and 105 Seminary Street. Additionally, the Vue Apartments are at 160-180 Park Street, south of 51 Main along Park Street.

The proposed building is comparable to nearby buildings. 61 Main Street, the neighboring building to the east, is three stories with a high parapet. Other nearby buildings are

also at least three stories in height, including the fire station at 60 Main Street, the building at 62 Main Street hosting Chef Prasad restaurant, and the building at 84 Main Street, hosting, among others, an art gallery.

The New Canaan municipal building, located directly south of the development site at 77 Main Street, is three stories above a high grade, with a building height (up to the base of the tower) of 42 feet. The large tower structure on top of the historic brick facade brings the total building height to over 55 feet. In 2013, the Town Hall went through a significant redevelopment where a large addition was added to the rear of the historic brick façade of Town Hall while a portion of the historic building was demolished. During this redevelopment, over 40 percent of the historic building was demolished (10,720 square feet out of 24,241 total square feet). The addition to the rear of the building consisted of nearly 20,000 square feet, nearly doubling the size of the existing structure.

While the proposed building will have smaller front and side yards than the existing building, these are similar to the nearby buildings along Main Street in the vicinity of the proposed building. For example, as close as the New Canaan Fire Department, at 60 Main Street (essentially catty-corner to the proposed building), and moving south along Main Street, the buildings have little to no front and side yards. Similarly, the buildings at 54 Main and 2 Locust, across the street to the north from the Fire Department, have little to no front yard between the building and the sidewalk. The rear building at 47 Main Street, next door, already extends all the way to the rear of the parcel along the parking lot for Town Hall.

4. POCD Consistency

The proposed Zoning Regulation Amendment is consistent with the New Canaan 2014 Plan of Conservation and Development ("POCD"). (Relevant portions of the POCD have been included in the separately-filed Affordable Housing Needs Summary at Tab D.) Notably, the POCD recognizes, among other things, that growth and change are most likely to come from the redevelopment of existing properties (p. 6); the Planning and Zoning Commission should regularly review the zoning regulations for the downtown area "to ensure that they are meeting the community needs and expectations" (p. 39); there is a need for a mix of moderate density developments in and near the downtown area (p. 40); and there is a need to provide for a range of housing options for people of different income levels and at different stages of life. POCD, p. 40. Further, "[a]dditional housing opportunities in and near the downtown area, including multi-family housing" is a strategy to meet the goals of the POCD and higher density zones should be permitted in and around the downtown area because it "[is] the best site for higher density development since it will help promote development of a vibrant downtown with a variety of land uses and help meet local housing needs." *Id.*, at pp. 66-67.

Additionally, the POCD recognizes that "[d]ue to the growing number of older households and the changing housing choices of young and old alike, there is greater interest in smaller housing units, more densely located, in and near town centers" as such housing options provide both convenience and, particularly in the case of affordable housing, affordability.

POCD, p. 66. Affordability is key, as "[h]ousing in New Canaan is highly desirable and expensive and, as a result, is not affordable to some of the people that work in the community (teachers, police, fire, etc.)." *Id.*, at p. 68. The POCD recognizes a gap in this type of housing in New Canaan, noting that "[t]here can be little doubt that the net out-migration seen in certain age groups … is a reflection of insufficient housing accommodations for young professionals and an aging population." *Id.*, at p. 67. In fact, the POCD specifically speaks to placing high-density, multi-family development in "downtown in the … B Residence district"; exactly where the parcel is located. *Id.*

5. **Site-Specific Regulation**

The proposed regulation (Housing Redevelopment Zone) tracks the procedural format to the extent possible, of New Canaan's existing land use regulations, and adopts many existing regulation provisions. The applicant has considered carefully the option of proceeding under the Town's existing zoning regulations, including under the Apartment Zone and the Multi-Family Zone, or modification of the Canaan Parish and Millport Zones. While these regulations are precedents from which this application has borrowed, amending those zones by drafting exceptions to their provisions would be an overly complicated and confusing approach.

The proposed zoning regulation has been drafted to apply only to the subject parcel. A site-specific zoning regulation amendment is proposed for several reasons. First, redevelopment as proposed here requires a combination of specific land use regulations and affordability administration provisions. Second, a site-specific regulation allows the Commission to consider this application without having to review how and where the regulation might be applicable elsewhere in town. (The Commission, of course, now or later, may consider expanding the regulation's geographic applicability.)

Third, court decisions have made it clear that a site-specific regulation to enable development under § 8-30g is permissible, and not spot zoning.

A site-specific regulation has been used successfully in more than 50 developments in Connecticut during the past 31 years that § 8-30g has been state law, including Canaan Parish and Millport in New Canaan.

The HRZ regulation proposed is intended to provide detailed site plan standards, so that the Commission will know what is being proposed, and how the property will be used and administered if the application is approved.

The Commission and staff should bear in mind that in a § 8-30g application, a zoning commission has not only the authority but also the obligation to identify "reasonable changes" to the application that will address concerns, and to impose approval conditions on the site plan to ensure proper governance and enforceability.

The proposed regulation establishes the proposed use as allowed, after rezoning, by site plan approval, not special permit, for several reasons. First, as noted above, the goal of the regulation is to specify with precision what is and is not allowed in the redevelopment. In addition, the Commission is obligated to identify "reasonable changes" and impose reasonable conditions, which make the special permit process unnecessary. Most importantly, however, the essence of the § 8-30g statute is to provide that an application may be denied only if the site plan will cause a specific harm to public health or safety, which is to be evaluated without deference to a zoning commission's findings or conclusions. A special permit, by definition, is discretionary and deferential to commission decisions. In other contexts, such as fair housing cases, special permit discretion has been identified as an exclusionary zoning technique. Thus, special permits are simply not compatible with § 8-30g standards, and therefore no special permit is proposed in this application.

6. Residential Redevelopment Plan

The proposed redevelopment of the site consists of one, four-story (above parking), multi-family residential building containing 20 apartment homes. The redevelopment will also contain an on-grade, lower level parking garage.

The development will consist of nine one-bedroom units and eleven two-bedroom units. Three one-bedroom units and three two-bedroom units, for a total of six (6) units, will be rent-restricted. The existing driveway onto Main Street will be repurposed into a new asphalt driveway which will turn into the at-grade parking garage. Pursuant to the proposed zoning regulation amendment, large trees will be maintained to the extent possible during development. Significant tree cover exists to the west of the property along the property line with 47 Main Street (currently condominiums); the majority of this cover is expected to remain after construction. Extensive shrubs and ground cover exist along the eastern border of the parcel, bordering the parcel at 61 Main Street, which will also remain after construction.

As shown in the architectural plans, the roof is flat, so Building Height and Total Building Height, as defined in the New Canaan Zoning Regulations, are the same. From average grade to the flat roof is 52 feet and 8 inches. This application's proposed zoning regulation specifies a Total Building Height limit of 55 feet.

There is a transformer box, owned and controlled by Eversource, which is located on the front of the property and which will remain after redevelopment. The transformer is three-phase and sits on a single 6 foot by 6 foot pad. The transformer box is approximately 7 feet tall.

The Affordability Plan, at Tab 15, contains (Schedule B) a list of interior unit amenities and materials to ensure quality. These amenities include quartz countertops in the kitchens along with laminate wood finished flooring, a stainless steel sink, and GE (or equivalent) appliances. The interiors will include laminate wood finished flooring with carpeted hallways, wireless smoke and CO2 detection systems, instant electrical water heaters and GE (or equivalent) washers and dryers in each unit. The exterior specifications include metal clad wood windows

and sliders, PVC interior roof drains, 5/8-inch thick Dens Glass sheathing, and fire retardant wood studs in the exterior walls.

Individual units will range from 738 to 920 square feet for one-bedroom units and 989 to 1652 square feet for two-bedroom units, including those with a den. The plan provides 33 parking spaces, a total ratio of more than 1.5 parking spaces per unit.

The redevelopment is served by water and sewer lines, as well as existing electricity and natural gas. Applicant has received a will-serve letter from the Aquarion Water Company (Tab 14), and a report explaining that sufficient sewer capacity exists for this development (Tab 12).

The proposed regulation provides for the removal of earth materials as part of site plan approval in compliance with the substantive requirements of § 6.7 of the New Canaan Zoning Regulations, but without a separate special permit approval from the Commission.

7. Stormwater

Attached at Tab 11 is the Drainage Summary Report. The proposed development will increase impervious coverage from the current single-family home. However, a drainage system will be installed to treat stormwater, provide groundwater recharge, and control peak flows from the site. Low Impact Development devices, as defined by the Connecticut Stormwater Quality Manual, will be used on site to control stormwater. Notably, the parking lot will be pitched towards a catch basin, which is routed to a stormwater chamber system along with the roof drains. The chamber system consists of a series of concrete galleries in a gravel bed, beneath the pavement. These systems provide both retention storage for water quality and groundwater recharge, and detention storage to control peak flows for large storms.

8. Pedestrian Connectivity

A pedestrian route compliant with the Americans with Disabilities Act is available from the site to downtown New Canaan and along Main Street, St. Johns Place, and Park Street to the Metro North train station. Access to the retail, office, and commercial uses downtown is provided by sidewalks along Main Street.

9. Traffic

Attached at Tab 10 is a Traffic Impact Assessment. The Assessment reviews the proposed development's impact on traffic along Main Street at the site of the development and at the intersection of Main Street and Heritage Hill Road/Locust Avenue. The development will cause no change to the existing Level of Services at the intersection of Main and Heritage/Locust and will have a minimal impact overall. Queue lengths at Main and Heritage/Locust as a result of the development will be similar to existing conditions; there are no changes greater than 0.2 seconds with the addition of the proposed development.

51 Main is designed as a pedestrian-friendly development where residents have walkable access to the train station. It is likely that some residents will therefore use the train to commute and will further reduce vehicle trips during morning and evening rush hours. However, out of an abundance of caution, the attached Traffic Impact Assessment includes no reduction in trip generation as a result of the train station.

As discussed in the Assessment, there will be no adverse impacts to background traffic conditions due to the development, and whatever minor increase in traffic arises from the development can be accommodated without adverse impact on the operating conditions of the adjacent roadways. Finally, the Assessment demonstrates that there will be sufficient intersection sight distance at the site driveway off Main Street.

10. Sustainability and Amenities

The applicant directs the Commission's attention to the site amenities and site sustainability aspects of this application that substantiate a commitment to quality and environmental sustainability. The proposed development will include amenities such as a rooftop lounge and deck area, accessible to all residents of the property; a stretching and fitness center on the first floor, accessible to all residents of the property; the existing, and extensive, sidewalk infrastructure available downtown and adjacent to the proposed building, allowing residents access to the existing sidewalk path to downtown and the train station; and individual apartment outdoor balconies.

There are parks and public spaces within walking distance of the proposed redevelopment. Mead Memorial Park, approximately one-half mile to south along Park Street, contains a 4.7 acre pond, a full-sized baseball field, eight tennis courts, five pickleball courts, walking trails, and allows for ice skating when conditions are appropriate in the winter months. Adjacent to Mead Park is the Bristow Bird Sanctuary Wildlife Preserve, a 17 acre nature preserve home to various walking trails and numerous local bird species. Mill Pond Park, approximately one-half mile to the east along East Ave, contains a small pond along with walking trails, and is similarly available for ice skating under appropriate conditions during the winter.

The site is close to downtown, in a walkable area with existing sidewalks. The sidewalk along Main Street, mentioned above, allows residents to easily access to downtown New Canaan. The site is less than a block away from the intersection of Main Street and East Ave in downtown New Canaan. It is less than one-third mile from the Metro North train station. Sites that are walkable and bikeable reduce occupant dependency on fossil-fuel burning vehicles. The development will further support this by providing bicycle parking and storage for building occupants. Finally, the parking areas will offer charging stations for electric vehicles.

The proposed development will minimize water consumption during and after construction. The design incorporates low-flow water fixtures, native and drought-resistant flora

which will require minimal irrigation, and construction techniques that minimize the amount of water needed.

The proposed development also incorporates a number of energy-saving features. Each individual unit has its own ventilation and climate control system, reducing the amount of energy needed for the building overall. The common areas will incorporate high SEER HVAC design to further minimize energy consumption. The exterior walls contain insulation with a minimum R-10 rating while the roof cavity uses insulation with at least an R-38 rating. Low-emissivity glazing systems are utilized throughout the building and window systems. These techniques insulate the interior.

The building is equipped with low-voltage, LED lighting and energy star appliances throughout the residential units. The common areas will similarly use low-voltage, LED lighting to reduce energy consumption throughout the entire building.

11. Affordability Plan

An Affordability Plan compliant with § 8-30g requirements for a "set-aside development" is in this package at Tab 15. Thirty percent of the proposed 20 rental apartments, or 6 homes, will be formally rent-restricted. The proposed regulation includes administrative rules for the apartment homes that will be subject to long-term household income and monthly rental restrictions, and these rules are spelled out further in an accompanying Affordability Plan. There will be three rent-restricted one-bedroom units and three rent-restricted two-bedroom units.

Based on current median income data and Fair Market Rents, maximum household income and maximum monthly rents, net of utilities, will be as follows:

	80 percent of median	60 percent of median
One bedroom units		
Income	$67,560	$50,670
Rent	$ 1,564	$ 1,142
Two bedroom units		
Income	$74,088	$55,566
Rent	$ 1,877	$ 1,370

Schedule B of the attached Affordability Plan shows the construction materials and equipment used in each unit and shows that each unit in the development will be constructed to similar standards and with similar equipment, regardless of designation as an affordable or market-rate unit. Schedule A to the Affordability Plan show which specific units in the development will be initially formally rent-restricted.

12. Public Act 21-29

The applicant respectfully notes several new rules and obligations regarding affordable housing development contained in Public Act 21-29, which went into effect October 1, 2021. The Act requires zoning commissions, in addition to § 8-30g obligations, to use zoning regulation to "affirmatively further" the purpose of the federal Fair Housing Act. In general, this refers to towns taking proactive, specific steps to ensure that racial, ethnic, and economic groups that have historically been excluded from obtaining affordable housing are given opportunities to do so. How this new, first-in-the-nation requirement will shape consideration of this application can be addressed at the public hearing, but the applicant notes it at this time.

Looking Forward

The applicant team has tried in this letter and in its application materials to explain the plan in detail; cover all bases; answer anticipated questions; shorten the list of items to be discussed at the public hearing; facilitate review by peer consultants, Town staff, and the public; demonstrate that the site plan can be constructed without any substantial health or safety impacts; and show that the development will benefit the Town of New Canaan.

Very truly yours,

Ryan D. Hoyler

cc: 51 Main Street, LLC development team

TAB 3

R/R Vicki K. Johnson
170 Mason Street
Greenwich, CT 06830

LIMITED WARRANTY DEED

TO ALL PEOPLE TO WHOM THESE PRESENTS SHALL COME, GREETING:

KNOW YE THAT **The American National Red Cross, a nonprofit corporation, a Federally chartered instrumentality of the United States, and a body corporate and politic under the laws of the United States (36 U.S.C. §§ 300101-300111 (2007))**, with an address at 9450 SW Gemini Drive, #75048, Beaverton, OR 97008 (the "Grantor") for consideration of SEVEN HUNDRED FORTY THOUSAND & 00/100 DOLLARS (**$740,000.00**), does hereby bargain, convey, give, grant, and sell to **51 MAIN STREET LLC, a Connecticut Limited Liability Company,** with an address at 16 Cross Street, New Canaan, CT 06840 (the "Grantee"), and unto the Grantee's successors and assigns forever all that certain real estate with all improvements thereon as more fully described as follows.

Situated in the Town of New Canaan, County of Fairfield and State of Connecticut, containing one-half acre, more or less, and bounded:
Northerly by the highway known as Main Street, Easterly by land now or formerly of Martha S. Corry, Southerly by land now or formerly of the Town of New Canaan, Westerly by land now or formerly of Willard R. Downing.

AND BEING the same property conveyed to The American National Red Cross from Olive F. White by Warranty Deed dated June 14, 1952 and recorded June 16, 1952 in Deed Book 93, Page 141.

Tax Parcel No. 30002

Said Premises are conveyed subject to:

1. Any and all provisions of any municipal, ordinance or regulation or public or private law with special reference to the provisions of any zoning regulations and regulations governing the said Premises.

2. Any assessments or pending assessments for which a lien or liens have not as yet been filed or recorded in the Town Clerk's office.

3. Taxes on the List of October 1, 2015 which the Grantee herein assumes and agrees to pay as part of the consideration hereof.

4. Terms, provisions, covenants, conditions, restrictions, reservations, easements, charges, assessments and liens provided in a Deed or Covenants, Conditions and Restrictions recorded in Deed Book 382, Page 387, but omitting any covenants or restrictions, if any, based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law.

TO HAVE AND TO HOLD the Premises with the appurtenances thereon unto the Grantee and the Grantee's heirs, successors and assigns forever, to Grantee's and their own proper use and behoof, and the Grantor does for the Grantor, the Grantor's successors and assigns, covenant with the Grantee and the Grantee's heirs, legal representatives, successors and assigns, that the said Premises are free and clear of all encumbrances made or by the Grantor, except as set forth in said Schedule A.

AND FURTHERMORE, the Grantor by these presents does bind the Grantor and the Grantor's successors and assigns forever to **WARRANT AND DEFEND** the granted Premises to the said Grantee and the Grantee's heirs, legal representatives, successors and assigns, against all claims and demands of any person or party claiming by, from or under the Grantor but not as to those claiming otherwise.

IN WITNESS WHEREOF, the Grantor has caused this deed to be executed on this 1st, March, 2017.

Signed, sealed and delivered
in the presence of:

The American National Red Cross, a nonprofit corporation, a Federally chartered instrumentality of the United States, and a body corporate and politic under the laws of the United States (36 U.S.C. §§ 300101-300111 (2007))

Michelle Vinik

By: _____
Joseph D. Ward, Executive Director, Real Estate Services

Debra Dougherty

STATE OF Ohio }
} ss: Cuyahoga
COUNTY OF Lorain }

Personally appeared Joseph D. Ward, Executive Director of The American National Red Cross, signer and sealer of the foregoing, and acknowledged the same to be his free act and deed, before me, on March 1st, 2017.

_____
Notary Public

NOTARIAL SEAL
STATE OF OHIO

ROBERT W MENNER
NOTARY PUBLIC - OHIO
MY COMMISSION EXPIRES 10-22-17

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2018.

Town of New Canaan

Information on the Property Records for the Municipality of New Canaan was last updated on 5/12/2022.

Parcel Information

Location:	51 MAIN ST	Property Use:	Industrial	Primary Use:	Industrial/Office
Unique ID:	T 43 822	Map Block Lot:	T 43 822	Acres:	0.38
490 Acres:	0.00	Zone:	BRES	Volume / Page:	0970/0095
Developers Map / Lot:	134	Census:	00351		

Value Information

	Appraised Value	Assessed Value
Land	792,300	554,610
Buildings	544,900	381,430
Detached Outbuildings	19,400	13,580

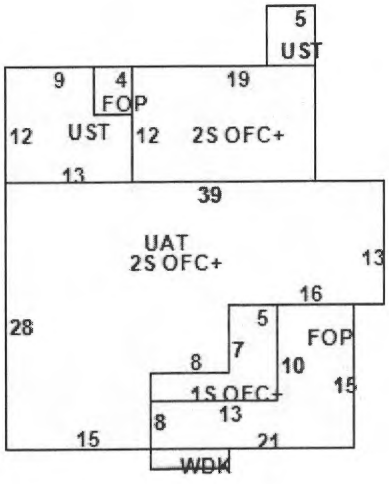
	Appraised Value	Assessed Value
Total	1,356,600	949,620

Owner's Information

Owner's Data

51 MAIN STREET LLC
16 CROSS ST
NEW CANAAN, CT 06840

Building 1



Category:	Office	Use:	Office Building	GLA:	2,606

Stories:	2.00	Construction:	Wood Frame	Year Built:	1889
Heating:	Forced Hot Air	Fuel:	Oil	Cooling Percent:	0
Siding:	Clapboards	Roof Material:	Asphalt	Beds/Units:	0

Special Features

Finished Attic LA	500
Gross Basement Area	1090

Attached Components

Type:	Year Built:	Area:
Wood Deck	1889	16
Open Porch	1889	185
Open Porch	1889	20
Unfinished Attic	1889	788
Utility Storage	1889	136
Utility Storage	1889	30

Detached Outbuildings

Type:	Year Built:	Length:	Width:	Area:
Garage Poor	1960	0.00	0.00	484
Paving	0000	0.00	0.00	6,500

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Sale Price

Owner Name	Volume	Page	Sale Date	Deed Type	Sale Price
51 MAIN STREET LLC	0970	0095	03/07/2017		$740,000
AMERICAN NATIONAL RED CROSS	0093	0141	06/16/1952		$28,000

Building Permits

Permit Number	Permit Type	Date Opened	Reason
13-0922	Roof	07/10/2013	ROOF PERMIT

W.E. Partners, LLC
16 Cross Street
New Canaan, CT 06840

April 26 2021

John H. Goodwin, Chair, and Members
New Canaan Planning & Zoning Commission
Town Hall, 77 Main Street
New Canaan, CT 06840

Lynn Brooks Avni, AICP
Town Planner/Enforcement
Officer, Co-Director of Land Use
Town Hall, 77 Main Street
New Canaan, CT 06840

Re: **Application of 51 Main Street for Zoning Regulation Amendment, Zone Boundary Change, and Site Plan Approval, Address: 51 Main Street, New Canaan, CT 06840.**

Dear Chair Goodwin, Planning & Zoning Commission Members, and Ms. Brooks Avni:

I am Arnold Karp, a Trustee of the Karp Family 2006 Trust, a principal of 51 Main Street, LLC.

I hereby authorize our attorneys with Hinckley Allen to pursue the above application to amend the zoning regulation, to change the zone boundary for the property, and for approval of a site plan, in the town of New Canaan.

Very truly yours,

By: Arnold Karp
Arnold Karp

TAB 4

TAB 4-A

Pictures of Existing Building

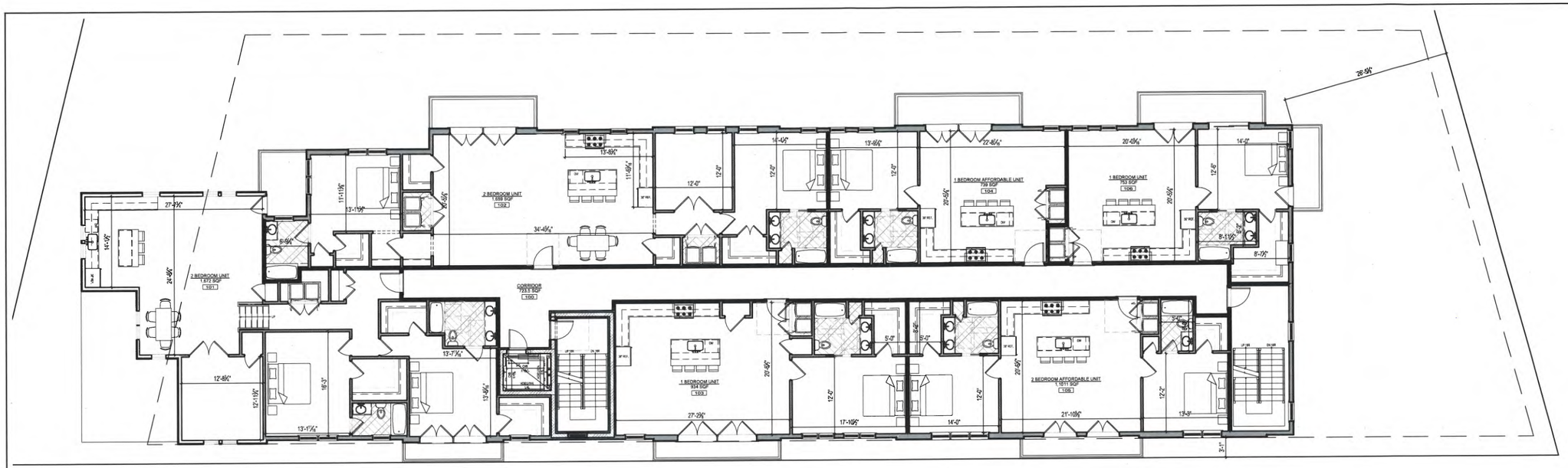
Pictures of Existing Building

Pictures of Existing Building

Pictures of Existing Building

Pictures of Existing Building

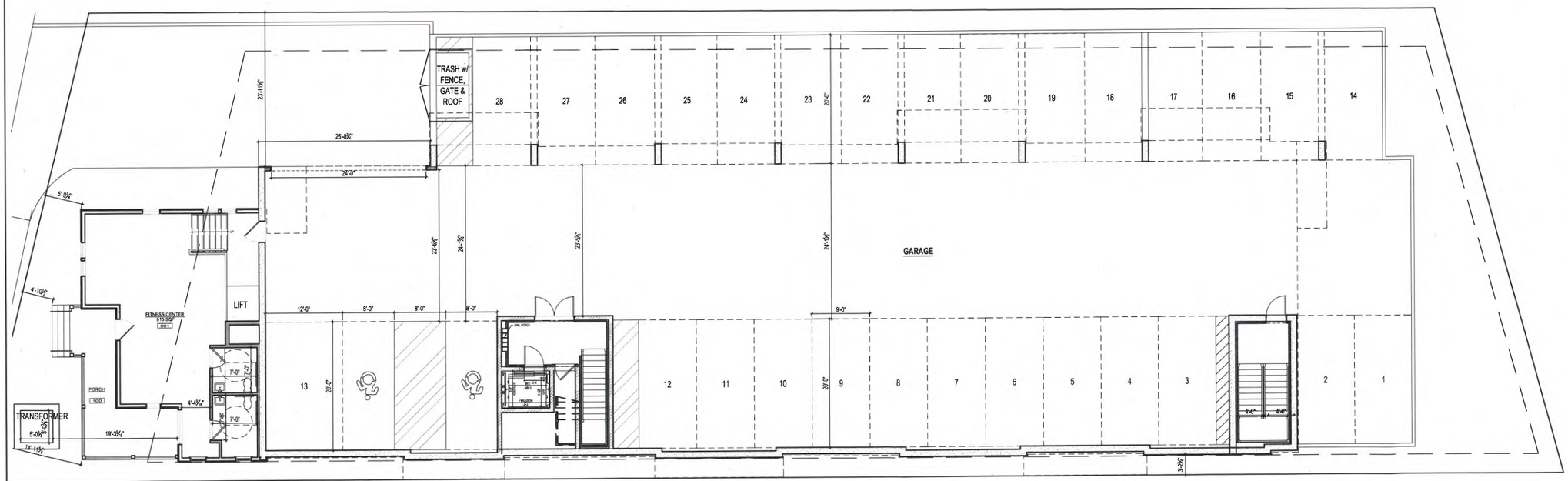
TAB 4-B



2 PLAN: PROPOSED FIRST FLOOR

Scale: 1/8" = 1'-0"

PARKING SCHEDULE		
COUNT	TYPE	LOCATION
23	Parking Space: 9' x 8' - 90 Deg.	Indoor
2	Parking Space: Accessible	Indoor
3	Parking Space: 9' x 8' - 90 Deg.	Outdoor
28	TOTAL COUNT	



1 PLAN: PROPOSED GROUND LEVEL

Scale: 1/8" = 1'-0"

DOB Stamps and Notes

PRELIMINARY
NOT FOR CONSTRUCTION

CAH
ARCHITECTURE AND DESIGN, LLC
297 Sport Hill Road, Easton, CT 06612
(203)822-7287 - CAHarchitecture.com

APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

PROPOSED FLOOR PLANS

Date: 05.13.2022
Project:
Revision:

SD-1

Page Number:

2 PLAN: PROPOSED THIRD FLOOR

Scale: 1/8" = 1'-0"

1 PLAN: PROPOSED SECOND FLOOR

Scale: 1/8" = 1'-0"

DOB Stamps and Notes

PRELIMINARY
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ARCHITECTURE AND DESIGN, LLC
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(203)622-7287 - CAHarchitecture.com

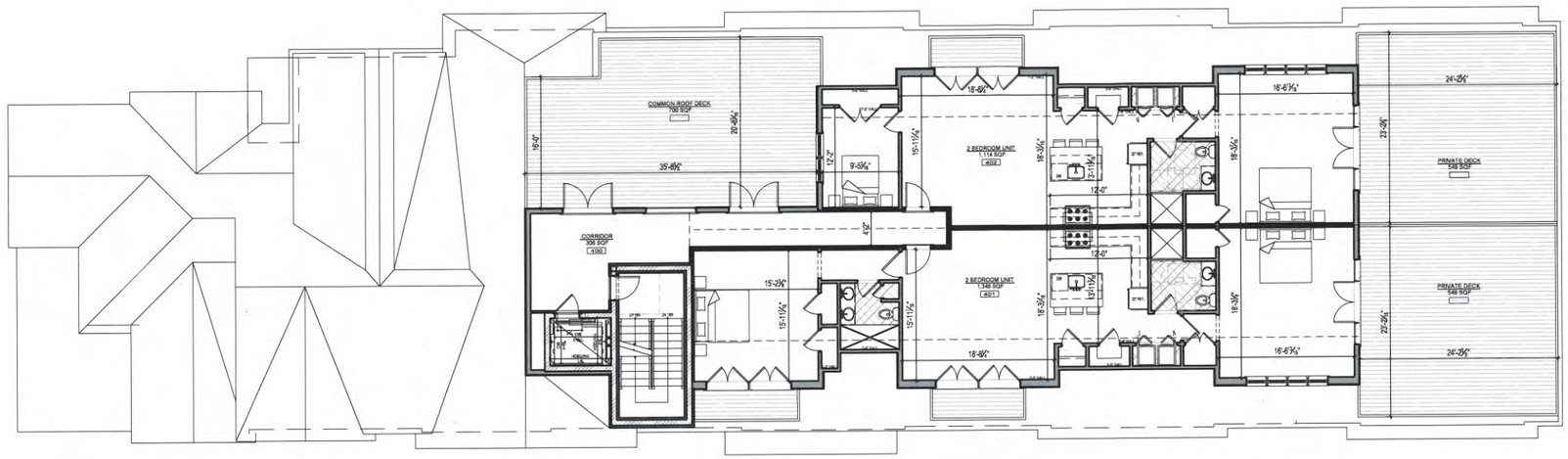
APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

PROPOSED FLOOR PLANS

Date: 05.13.2022
Project:
Revision:

SD-2

Page Number:



1 PLAN: PROPOSED ROOF PLAN

Scale: 1/8" = 1'-0"

DOB Stamps and Notes

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APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

PROPOSED FLOOR PLANS

Date: 05.13.2022
Project:
Revision:

SD-3

Page Number:

2 ELEVATION: WEST

Scale: 1/8" = 1'-0"

1 ELEVATION: EAST

Scale: 1/8" = 1'-0"

DOB Stamps and Notes

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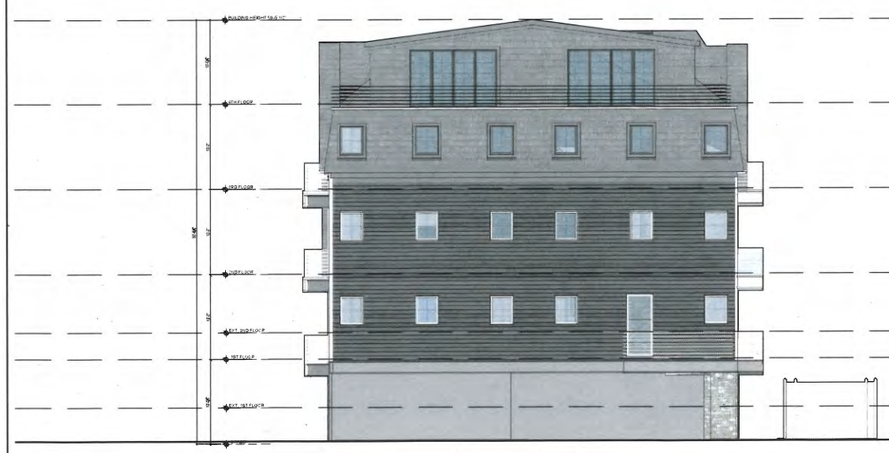
APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

PROPOSED ELEVATIONS

Date: 05.13.2022
Project:
Revision:

SD-4

Page Number:



2 ELEVATION: SOUTH

Scale: 1/8" = 1'-0"

1 ELEVATION: NORTH

Scale: 1/8" = 1'-0"

DOB Stamps and Notes

PRELIMINARY
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APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

PROPOSED ELEVATIONS

Date: 05.13.2022
Project:
Revision:

SD-5

Page Number:

RESIDENTIAL UNIT SCHEDULE BY FLOOR

NAME	UNIT COUNT	BEDROOM COUNT	AREA (sqf)
Level 1			
1 Bedroom Unit	2	2	1,687
1 bedroom Affordable Unit	1	1	739
2 bedroom Unit	2	4	3,331
2 bedroom affordable Unit	1	2	1,011
total	**6**	**9**	**6,768**
Level 2			
1 Bedroom Unit	2	2	1,846
1 bedroom Affordable Unit	1	1	821
2 bedroom Unit	2	4	2,223
2 bedroom affordable Unit	1	2	1,011
total	**6**	**9**	**5,901**
Level 3			
1 Bedroom Unit	2	2	1,846
1 bedroom Affordable Unit	1	1	823
2 bedroom Unit	2	4	2,223
2 bedroom affordable Unit	1	1	1,012
total	**6**	**8**	**5,904**
Level 4			
1 Bedroom Unit	0	0	
1 bedroom Affordable Unit	0	0	
2 bedroom Unit	2	4	2,460
2 bedroom affordable Unit	0	0	
total	**2**	**4**	**2,460**
Grand Total	**20**	**30**	**21,033**

RESIDENTIAL UNIT SCHEDULE

NAME	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	UNIT COUNT TOTAL	TOAL BEDROOM COUNT	AREA (sqf)	% OF UNITS
1 Bedroom Unit	2	2	2	0	6	6	5,379	26%
1 bedroom Affordable Unit	1	1	1	0	3	3	2,383	11%
2 bedroom Unit	2	2	2	2	8	16	10,237	49%
2 bedroom affordable Unit	1	1	1	0	3	6	3,034	14%
Grand Total	**6**	**6**	**6**	**2**	**20**	**31**	**21,033**	**100%**

UNIT TYPE	UNIT COUNT	% OF UNITS
Market Rate	14	70%
Affordable	6	30%

AFFORDABLE UNIT - APARTMENT NUMBER

TYPE	LEVEL	ROOM NUMBER
1 BEDROOM	1	104
	2	201
	3	301
	4	
2 BEDROOM	1	105
	2	205
	3	306
	4	

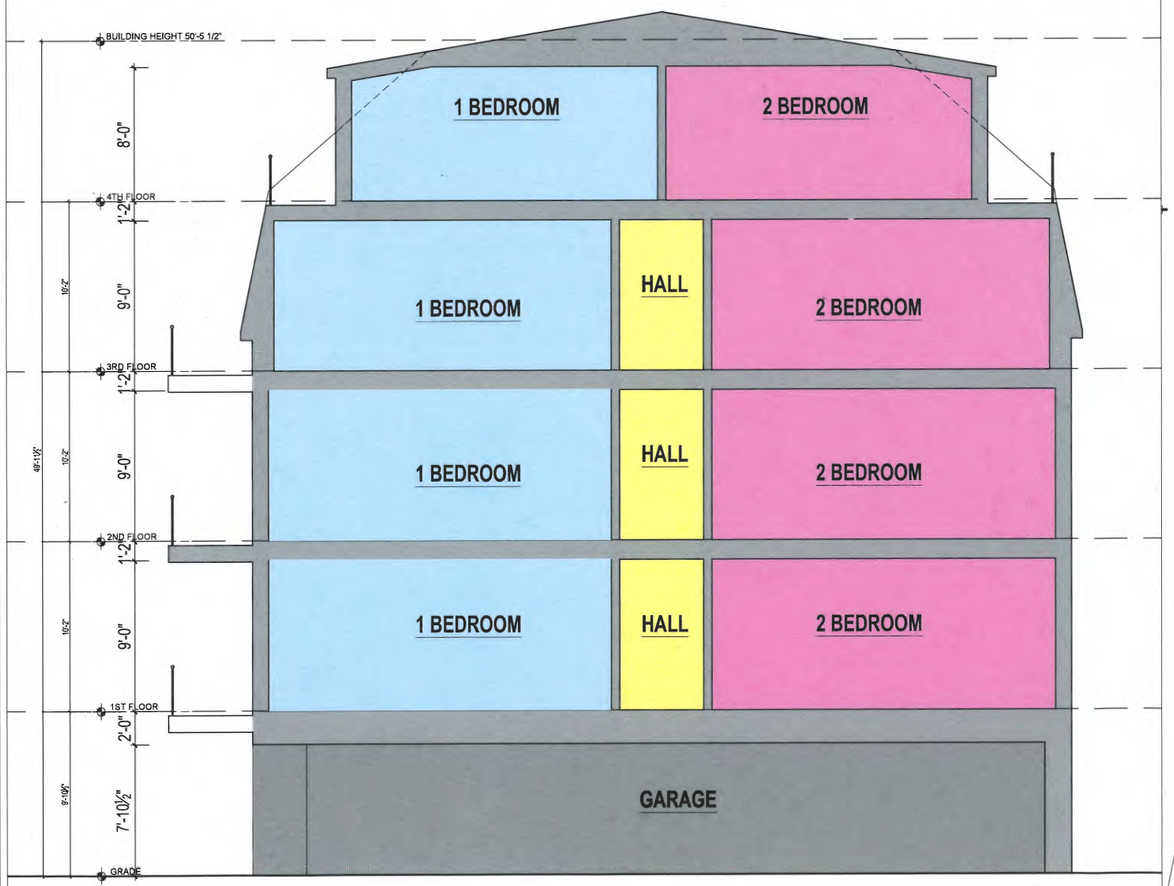
RESIDENTIAL GROSS AREA

LEVEL	AREA (sqf)	NAME
GROUND LEVEL	813	
LEVEL 1	8,138	GROSS FLOOR AREA
LEVEL 2	7,281	GROSS FLOOR AREA
LEVEL 3	7,281	GROSS FLOOR AREA
LEVEL 3	3,064	GROSS FLOOR AREA
GRAND TOTAL	**26,577**	

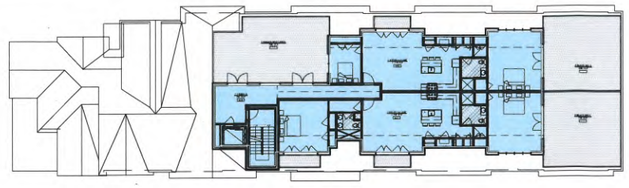
PARKING SCHEDULE

COUNT	TYPE	LOCATION
23	Parking Space: 9' x8' 90 Deg.	Indoor
2	Parking Space: Accessible	Indoor
3	Parking Space: 9' x8' 90 Deg.	Outdoor
28	TOTAL COUNT	

7 RESIDENTIAL UNITS TAKE OFF
Scale: N/A



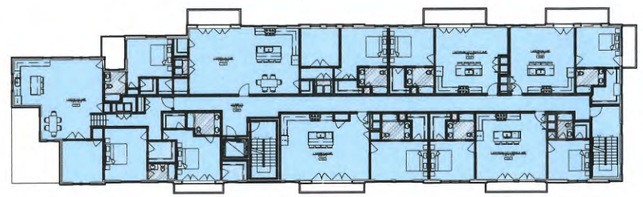
1 BUIDLIING SECTION
Scale: 1" = 1'-0"



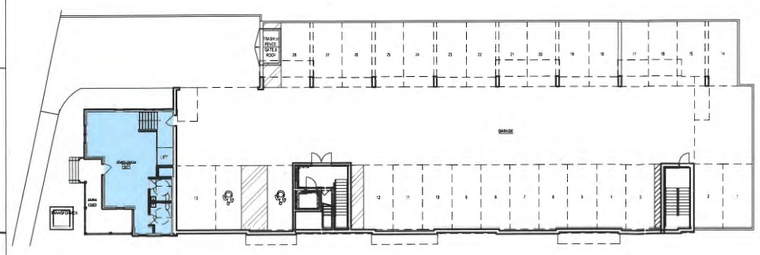
6 FOURTH FLOOR RESIDENTIAL GROSS AREA
Scale: N/A

5 THIRD FLOOR RESIDENTIAL GROSS AREA
Scale: N/A

4 SECOND FLOOR RESIDENTIAL GROSS AREA
Scale: N/A



3 FIRST FLOOR RESIDENTIAL GROSS AREA
Scale: N/A



2 GROUND LEVEL RESIDENTIAL GROSS AREA
Scale: N/A

DOB Stamps and Notes

PRELIMINARY
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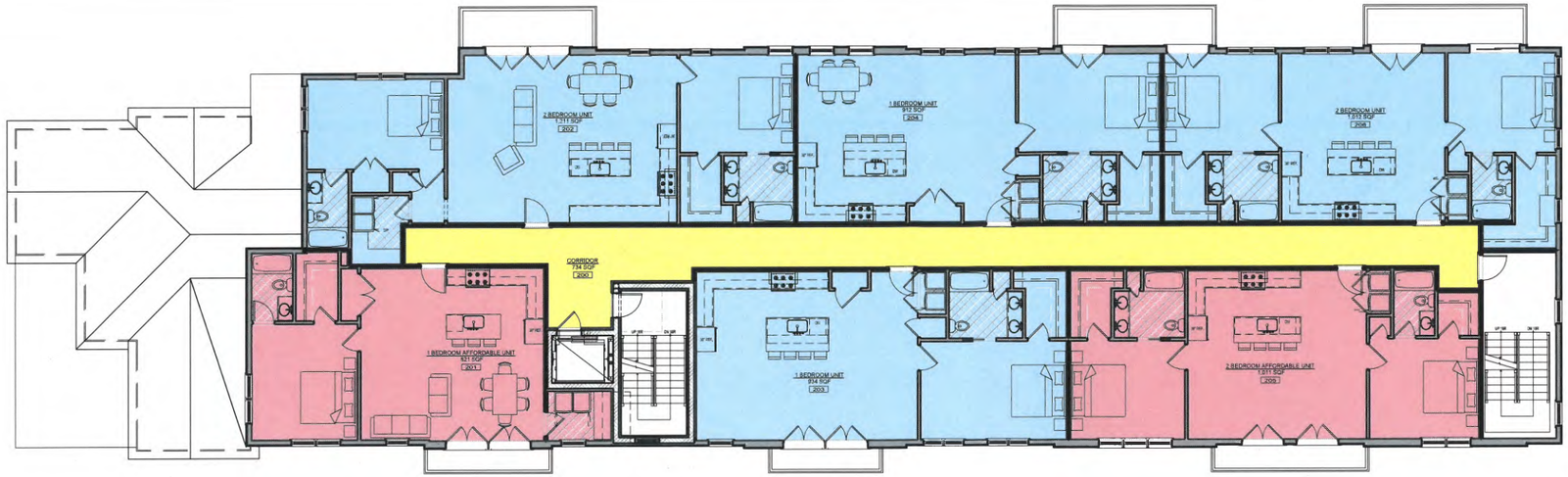
APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

BUILDING SECTION
UNIT SCHEDULE
PARKING SCHEDULE

Date: 05.13.2022
Project:
Revision:

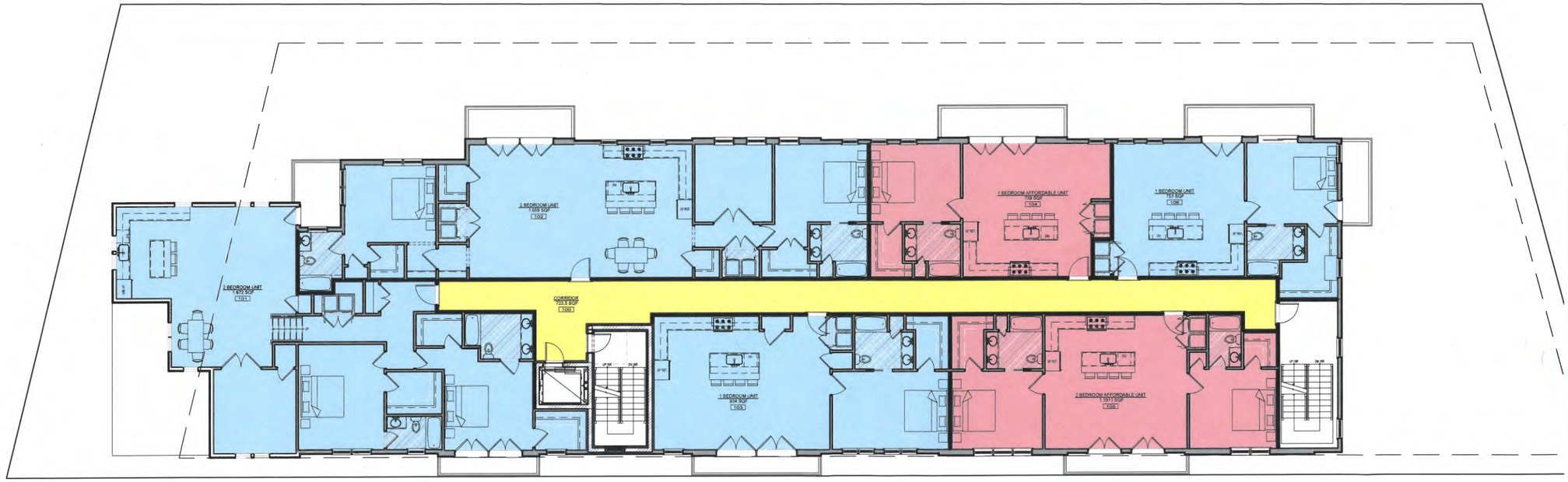
SD-6

Page Number:



2 SECOND FLOOR UNIT TYPE DIAGRAM

Scale: 1/8" = 1'-0"



1 FIRST FLOOR UNIT TYPE DIAGRAM

Scale: 1/8" = 1'-0"

DOB Stamps and Notes

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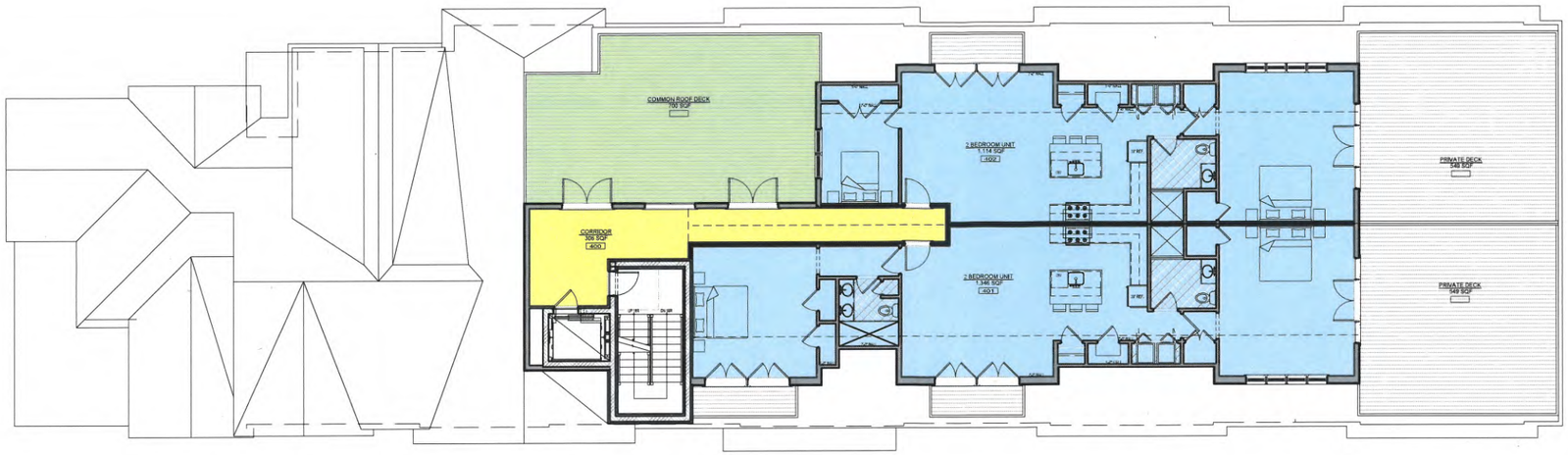
APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

AFFORDABLE UNIT LAYOUT

Date: 05.13.2022
Project:
Revision:

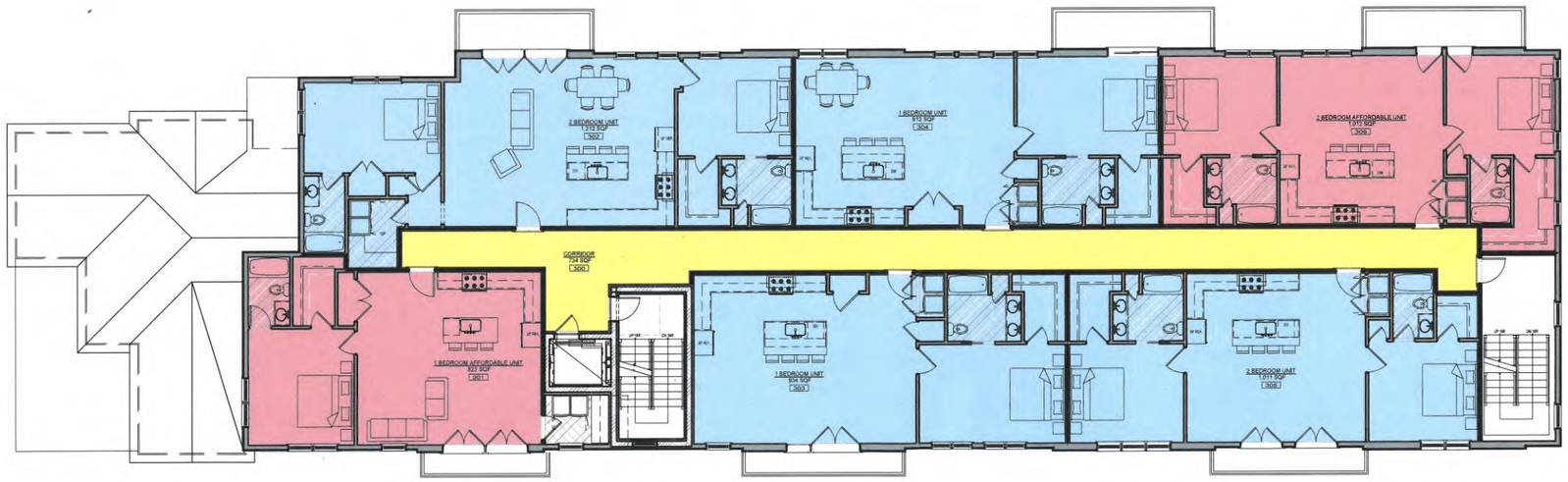
SD-7

Page Number:



2 FOURTH FLOOR UNIT TYPE DIAGRAM

Scale: 1/8" = 1'-0"



1 THIRD FLOOR UNIT TYPE DIAGRAM

Scale: 1/8" = 1'-0"

DOB Stamps and Notes

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CAH
ARCHITECTURE AND DESIGN, LLC
257 Sport Hill Road Easton, CT 06612
(203)622-7287 CAHarchitecture.com

APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

AFFORDABLE UNIT LAYOUT

Date: 05.13.2022
Project:
Revision:

SD-8

Page Number:

DOB Stamps and Notes

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257 Sport Hill Road - Easton, CT 06612
(203)622-7287 - CAHarchitecture.com

APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

PROPOSED STREET VIEW

Date: 05.13.2022
Project:
Revision:

SD-9

Page Number:

DOB Stamps and Notes

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ARCHITECTURE AND DESIGN, LLC
287 Scott Hill Road, Easton, CT 06612
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APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

PROPOSED STREET VIEW

Date: 05.13.2022
Project:
Revision:

SD-10

Page Number:

DOB Stamps and Notes

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CAH
ARCHITECTURE AND DESIGN, LLC
257 South Hill Road Easton CT 06612
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APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

PROPOSAL AERIAL VIEW

Date: 05 13 2022
Project:
Revision:

SD-11

Page Number:

DOB Stamps and Notes

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APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

PROPOSAL AERIAL VIEW

Date: 05.13.2022
Project:
Revision:

SD-12

Page Number:

TAB 5

HINCKLEY ALLEN

20 Church Street
Hartford, CT 06103-1221
p: 860-725-6200 f: 860-278-3802
hinckleyallen.com

Ryan D. Hoyler
(860) 331-2618 (Direct)
(732) 539-2700 (Cell)
rhoyler@hinckleyallen.com

May 24, 2022

VIA HAND DELIVERY AND E-FILE

John H. Goodwin, Chair, and Members
New Canaan Planning & Zoning Commission
Town Hall, 77 Main Street
New Canaan, CT 06840

Lynn Brooks Avni, AICP
Town Planner/Enforcement
Officer, Co-Director of Land Use
Town Hall, 77 Main Street
New Canaan, CT 06840

Re: Application of 51 Main Street, LLC for Zoning Regulation Amendment, Zone Boundary Change, and Site Plan Approval, Residential Redevelopment of 51 Main Street, New Canaan

Dear Chair Goodwin, Planning & Zoning Commission Members, and Ms. Brooks Avni:

We represent 51 Main Street, LLC. On its behalf, we are filing this application to amend the New Canaan Zoning Regulations to create a new multi-family residential zone called the "Housing Redevelopment Zone" ("HRZ"), as part of an application package that includes a zoning map change and site plan approval.

The proposed text is attached. As this amendment will be adding a new subsection, there is no existing wording to revise. Please refer to the information in the Transmittal Letter (Tab 2) for further explanation.

We look forward to presenting this application to the Commission.

Very truly yours,

Ryan D. Hoyler

cc: 51 Main Street, LLC development team

Proposed Zoning Regulation Amendment

SECTION 5.11. HOUSING REDEVELOPMENT ZONE (HRZ)

A. Purposes

The purposes of the Housing Redevelopment Zone (HRZ) are to add to the diversity of housing types in New Canaan; and to provide housing located within walking distance of the Metro North train station and the downtown area of shops and services.

B. Properties Eligible for Rezoning to TOMZ

To be eligible for rezoning to HRZ, a parcel of land must meet the following criteria:

1. The lot must be at least 15,000 square feet and less than 20,000 square feet, and must have street frontage on Main Street.

2. A portion of the lot must be located within 200 feet of the New Canaan Town Hall at 77 Main Street, New Canaan, Connecticut.

3. The property must be connected to public water supply and served by the town sewerage system.

C. Use Permitted by Site Plan Approval

Multi-Family Dwelling Units, as defined by § 2.2 of these Regulations, that constitute "set aside housing" as defined in General Statutes § 8-30g(a) and a "set-aside development" as defined in § 2.2 of these Regulations, in one building, with a total number of not more than 20 units.

D. Accessory Uses Permitted by Site Plan Approval

The following accessory uses are permitted as part of site plan approval:

1. Customary uses as stated in § 3.3.A.1;

2. Outside Parking as stated in § 3.3.A.2;

3. Animals as stated in § 3.3.A.3;

4. Home Office as stated in § 3.3.A.4;

5. Attached Garage as stated in § 3.3.B.1;

6. Minor Home Occupation as stated in § 3.3.B.4;

7. Minor Attached Accessory Structures as stated in § 3.4.A.1;

8. Minor Detached Accessory Structures as stated in §§ 3.4.A.2 and 3.4.B.3; however, including transformers or signal boxes, as noted in §§ 2.2 and 3.7.B.8;

9. Signs as stated in § 3.4.B.2; and

10. Trash disposal facility that meets the requirements of § 3.4.A.2, provided that if the structure is a trash facility, total area shall be less than 500 square feet.

E. Dimensional Standards

1. Lot-Related Standards

Maximum building coverage	60 percent
Maximum impervious coverage	85 percent
Minimum lot width, measured as per § 2.2 of these Regulations	75 feet

2. Building Standards

Maximum Building Height, measured as per § 2.2 of these Regulations	55 feet
Maximum Stor(ies), not including ground-level parking, as defined per § 2.2 of these Regulations	4 stories
Maximum Accessory Building Height, as defined per § 2.2 of these Regulations	20 feet
Minimum front yard setback, as Defined per § 2.2 of these Regulations	5 feet, not including transformers or signal boxes
Minimum side yard setback as defined per § 2.2 of these Regulations	3 feet, not including any patio or terrace that is not included in the Building Coverage as defined per § 2.2 of these Regulations
Minimum rear yard setback as	20 feet

defined per § 2.2 of these Regulations	
Minimum percentage one bedroom units	40 percent
Minimum percentage two bedroom units	40 percent

3. Parking

Parking Space(s), as defined in § 2.2, and in compliance with §§ 6.2.A, 6.2.B, 6.2.D, 6.2.F, 6.2.G, and 6.2.H	1.5 spaces per unit

F. Site Plan Requirements

1. Driveways shall:

   a. have a minimum width of twenty (20) feet for two-way travel and fifteen (15) feet for one-way travel;

   b. not extend within ten (10) feet of any residential building used in whole or in part for dwelling purposes, unless it is an attached garage or underground parking;

   c. be surfaced with asphalt or another suitable non-erodible surface;

   d. be laid out so as to provide safe vehicle passage and pedestrian safety, and prevent traffic hazards and nuisances; and

   e. shall be exempt from the Special Permit requirement of § 3.6.D.1.

2. Parking spaces shall:

   a. Comply with § 6.2 of these Regulations, except as otherwise provided within this section, and be screened from adjoining residential uses.

   b. Parking spaces shall be at least nine (9) feet wide and eighteen (18) feet long.

3. Exterior lighting shall:

   a. be provided at all access points to streets, parking areas, building entrances, and elsewhere where required for safety; and

b. be outfitted by cut-offs or similar devices so as to avoid glare on to abutting or nearby properties.

4. Sidewalks shall:

a. have a minimum width of five feet (5');

b. be concrete, brick, or other similar surface;

c. be provided to connect dwelling units and parking areas, streets, and driveways; and

d. be exempt from the requirements of § 6.10 of these Regulations.

5. Stormwater Management: In addition to compliance with § 6.4.J of these Regulations, applicant shall use Low Impact Design practices and techniques to the maximum extent possible.

6. Grading, Excavation, and Soil Disturbance.

a. Excavating, grading, or soil disturbance, including removal of trees and vegetative ground cover, shall occur only as specifically approved as part of site plan approval, and shall be granted only for the construction or alteration of residential and accessory buildings, and the installation of driveways, utilities, or amenities.

b. The applicant shall provide the Commission, in connection with its site plan application, with a calculation and specification of the amount, lateral extent, and depth of earth materials to be excavated; materials to be reused on-site; materials to be imported; and a net cut/fill calculation.

c. The application's erosion control plan shall specifically address controls for managing the amount, location, and timetable for cut, fill, excavation, and import/ export of earth materials.

d. The applicant shall comply with the provision of §§ 6.4.H and 6.4.I of these Regulations, but no special permit or special exception shall be required.

7. Landscaping and Screening

a. Property lines which are adjacent to residential properties shall be screened by a decorative fence or wall and/or closely-planted evergreen trees and shrubs to provide visual screening.

8. Tree Preservation

a. Existing trees at twelve (12) inches or greater caliper shall be preserved in the site plan to the extent feasible.

9. Utilities

a. Utility and service equipment areas shall be screened from public view.

10. Signage

a. Every sign shall be designed as an architectural element of the building and site to which it principally relates, and shall be coordinated with the building architecture

G. Submission and Approval Requirements

1. An applicant seeking approval for the rezoning of land to HRZ and of an accompanying Site Plan for development of multi-family residential dwellings in accordance herewith shall submit all information required in this Section and by applicable sections of Article 8 of these Regulations.

H. Maximum Income and Rent Restrictions for § 8-30g "Set-Aside" Units

The following requirements shall apply to apartment homes that will be "set-aside" units in compliance with General Statutes § 8-30g:

1. The applicant shall submit an Affordability Plan explaining how household income and rental price limits will be calculated and administered, and how the development will comply with General Statutes § 8-30g.

2. Set-aside apartment homes shall be of a construction quality that is comparable to a baseline specification schedule for market-rate apartment homes within the community.

3. The Affordability Plan shall identify the initial locations within the community of the set-aside rental apartment homes to be preserved as § 8-30g set-aside units.

4. Calculation of the maximum monthly payment for set-aside apartment homes, so as to satisfy General Statutes § 8-30g, shall utilize the median income data as published by the U.S. Department of Housing and Urban Development in effect on the day a lease is executed.

5. A set-aside apartment home rented in compliance with General Statutes § 8-30g shall be occupied only as a principal residence. Sub-leasing of a set-aside apartment home shall be prohibited.

6. Notice of availability of the set-aside apartment homes shall be provided by advertising such availability in the real estate section of a newspaper of general circulation in the Town

of New Canaan, by providing notice to the New Canaan Town Council, the New Canaan Town Clerk, and the New Canaan Planning and Zoning Commission, and through the procedures outlined in the affirmative fair housing marketing section in the Affordability Plan.

7. Each lease for a set-aside apartment home shall contain substantially the following provision:

   "This apartment home is a 'set-aside' housing unit and is therefore subject to a limitation at the date of leasing and occupancy on the maximum annual income of the household that may occupy the apartment home, and is subject to a limitation on the maximum monthly rent. These limitations shall be strictly enforced, and may be enforced by the zoning enforcement authority of New Canaan."

8. The forty (40) year affordability period shall be calculated separately for each set-aside apartment home in a HRZ, and the period shall begin on the date, as stated in the lease, of occupancy of the apartment home.

9. A violation of the Regulations contained in this section shall not result in a forfeiture or reversion of title, but the New Canaan Planning and Zoning Commission or its designated agent shall otherwise retain all enforcement powers granted by the Connecticut General Statutes, including the authority under § 8-12 to issue notices of violation, to impose fines, and to seek injunctive relief.

I. Conflicts

Where any provision of this Section conflicts with any other provisions of the New Canaan Zoning Regulations, the provisions of this Section shall govern.

TAB 6

TOWN OF NEW CANAAN
Planning & Zoning Commission

PETITION FOR CHANGE IN ZONING BOUNDARY

The undersigned property owner(s), located within the area hereafter described, petition for a change in zoning boundary of certain real estate located in the B Residence **Zone, as shown on the attached map or plan and more particularly described by bounding owners *(now or formerly)* as follows:**

NORTHERLY by: Main Street

EASTERLY by: Town of New Canaan - 77 Main Street (T/43/839) (on map as 63 Main)

SOUTHERLY by: Town of New Canaan - 77 Main Street (T/43/839)

WESTERLY by: Church Hill Walk, Inc. - 47 Main Street (T/43/834)

and being further described as:

MAP: T *BLOCK:* 43 *LOT:* 822

The requested change in zoning boundary is to: Housing Redevelopment Zone (HRZ)

We further jointly and severally agree to pay any additional amount above the minimum filing fee of $400.00. *(Minimum Fee: $400.00, plus $60 State of Connecticut fee).*

Dated at New Canaan, Connecticut this _____ day of _____, _____.

Petition Received by: _____

Date: _____

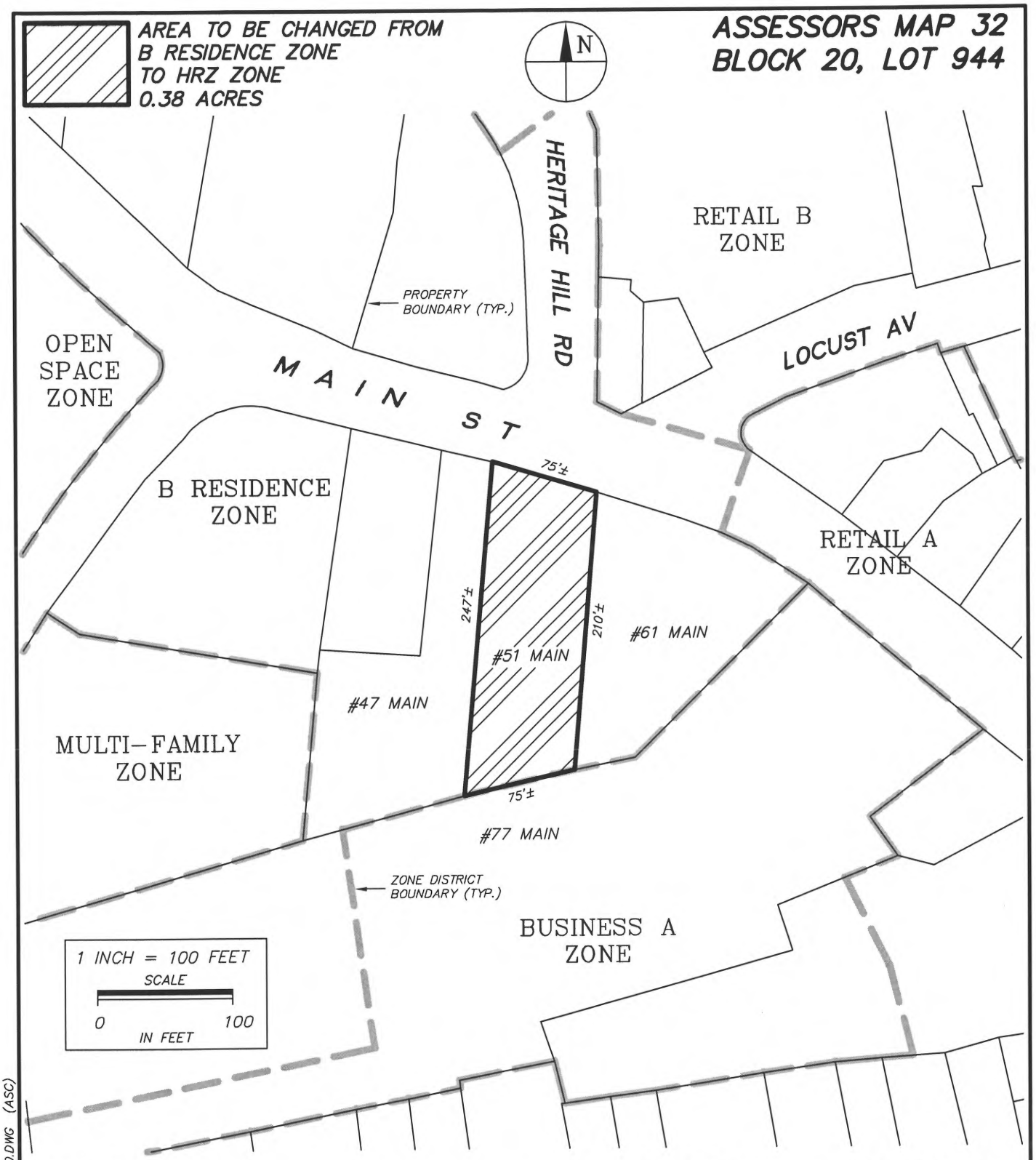
TAB 7

LEGAL DESCRIPTION

All that certain piece or parcel of land with any improvements thereon situated in the Town of New Canaan, County of Fairfield County, and State of Connecticut shown as Map T Block 43 Lot 822 on a map or plan entitled "ZONING LOCATION SURVEY DEPICTING 51 MAIN STREET IN NEW CANAAN, CONNECTICUT PREPARED FOR 51 MAIN STREET LLC" prepared by D'Andrea Surveying & Engineering, P. C.; Land Planners, Engineers, Surveyor; P.O. Box 5498, 6 Neil Lane, Riverside, Connecticut 06878; phone number (203) 637-1779; dated November 8, 2021, Scale 1" = 10' being more particularly bounded and described as follows:

Beginning at a point in the southwesterly corner of said property at its boundary with property now or formerly of Church Hill Walk, Inc.; thence turning and running N 11°25'30" E a distance of 247.04 feet to a point; thence turning and running S 64°58'00" E a distance of 75.00 feet to a point; thence turning and running S 11°34'00" W a distance of 209.72 feet to a point; thence turning and running S 86°13'00" W a distance of 75.00 feet to the point and place of beginning.

TAB 8



MAY 10, 2022

D'ANDREA SURVEYING & ENGINEERING, P.C.
• LAND PLANNERS
• ENGINEERS
• SURVEYORS
P.O. BOX 549
RIVERSIDE, CT 06878
6 NEIL LANE
TEL. 637-1779

PROPOSED REVISION OF ZONING DISTRICTS AT 51 MAIN STREET NEW CANAAN, CONNECTICUT

REDMAIN_21NL_ZONECHANGE_0.DWG (ASC)

TAB 9

TOWN OF NEW CANAAN, CT
PLANNING & ZONING COMMISSION

SITE PLAN
Application & Requirements

APPLICATIONS MUST BE IN DUPLICATE. All forms must be clear, accurate and COMPLETELY filled in (you must use black ink!). ** Incomplete applications will not be accepted or scheduled for public hearing until complete.

Attached you will find the Site Plan Application Form and the P&Z schedule of hearing/meeting and deadline dates.

REQUIRED APPLICATION MATERIALS:

1. Site Plan application: 2 originals *with original signatures*.
2. Electronic copy of all application materials sent to: lynn.brooksavni@newcanaanct.gov and cc lola.sweeney@newcanaanct.gov.
3. Written statement outlining the current and proposed uses of the property.
4. (2) A-2 surveys (showing proposal) by a licensed land surveyor with embossed seal.
5. Architectural floor plans & elevations (if necessary): (1) original copy and 1 reduced copy (no larger than 11" x 17").
6. A copy of certificates and decisions for any/all previously granted, Site Plans, Special Permits, Map Amendments or related Regulation Amendments, or Variances, if applicable.
7. Agent Authorization Letter, if applicable.
8. **All copies must be folded and collated into separate packages** for each P&Z Commission member.

FEES:

Please make three (3) separate checks payable to: **THE TOWN OF NEW CANAAN**

$300.00 Site Plan Application Fee
$60.00 Recording Fee
$60.00 State of CT Land Use Application Fee

PUBLIC HEARING NOTIFICATION

It is the sole discretion of the Commission to require a Public Hearing on this application. If a Public Hearing is required, the applicant will be required to comply with Sections 8.1.G and I of the New Canaan Zoning Regulations for Notification of Property Owner and Notification of Water Companies. In addition, the applicant will be required to submit additional fees as required by the Planning and Zoning Department.

The application may be referred to the Public Works, Environmental Health and/or Inland Wetlands for comment and review at the discretion of Planning and Zoning staff. If a Site Plan Application involves an activity regulated pursuant to CGS 22a-36 to 22a-45, inclusive, the applicant shall submit an application for a permit to the Environmental Commission not later than the day such application is filed with the Commission.

P&Z Commission must be able to visually inspect the property in question. Please see that the address is posted on the property as required by the Town Ordinance Concerning

Display of Building Numbers (building numbers must be at least 2 ½ inches in height, visible on the building, mailbox, fence, or post).

PLAN SUBMITTAL REQUIREMENTS

In addition to the Town New Canaan Planning & Zoning current Special Permit Application requirements the development plans shall include the following:

1. Site Plan(s) - prepared by professional land surveyor or engineer depicting existing and new construction. Drawings, Photographs, 3 Dimensional Renderings and Models shall include adjacent properties that allow for a review of the proposed site improvements in context with adjacent properties. Drawings and information required:

    - A Vicinity Map indicating the site and surrounding streets. Scale: 1"=200'.
    - An Aerial Context Map showing proposed, existing and surrounding uses.
    - Site plans with the following features:
        - Show property lines and dimensions, all easements, distances between buildings and property lines.
        - Show proposed and existing public streets, curbs, sidewalks, and any existing driveways not proposed for future use.
        - Show proposed and existing grading contours.
        - Show the outlines of proposed structures, including walls, doors, and windows, at a scale determined by staff.
        - Show proposed location of off-street driveways, bike racks and other pertinent bike plan requirements, parking spaces and loading areas with dimensions; curbing; car-stops; direction of traffic flow; provisions for access by the elderly and physically disabled, etc.
        - Show proposed landscape areas and pedestrian walks.
        - Show the locations of retaining walls, including the wall finish, proposed fences, electrical transformer boxes, trash enclosures, etc., and appropriate screening.
        - Note the square footages of existing and proposed buildings, and their percentages of gross lot coverage on plan.
    - An Existing Site Conditions drawing. Plan shall identify existing structures and trees/landscaping to be removed. It should also show existing structures, existing mature trees and landscaping, paving, drainage courses, and other pertinent man-made and natural features where applicable.
    - Contextual Elevation drawings and Site Sections, including the relationship to adjacent properties and structures. Minimum Scale 1" = 20'. If necessary, break-up plans for large projects, and submit a master plan a lesser scale.
    - Site Boundary and Topographical Survey including public and private easements.
    - Conceptual grading and drainage showing existing and proposed drainage patterns and retaining walls including height and material.

2. Architectural Floor Plans - All levels including basement and any intermediate/partial floor. Drawings and information required:

    - Finished Floor Elevations.
    - Section drawings of the building, 2 sections through the building. This can also be done in conjunction with site sections if drawn at the appropriate scale.
    - Exterior Lighting Plan showing lighting locations and details of fixture types. A Photometric Plan may be required for larger projects. Show all visible accessory fixtures (i.e., gas, meters, mechanical equipment, air conditioners, etc.), including roof mounted equipment, and the proposed method of screening.

- Roof plans.
- Colors and materials boards.
- Minimum scale of plans should be 1" = 10'.
- Indicate type of construction and occupancy type.

3. Exterior Elevations - Fully dimensioned of every exterior elevation. Existing versus new construction to be clearly indicated. All exterior Building Elevations with materials identified. Include Streetscape Elevations if applicable. Note: Elevations should not include superimposed landscaping and trees that hide the elevations for artistic purposes.

4. Roof Plan - indicating all building elements and equipment.

5. List of all building materials and colors including samples or depictions of the materials and where located on the building or site.

6. Landscape Plan - showing size, location and quantity of plant materials. Also indicated any landscape features including berms, walls/fences, pools/spas, gazebo, patio, grill/fire place & pits, etc. Indicate any existing vegetation and trees to be removed. Drawings and information required:

    - Outline of the site, building, streets, sidewalks, driveways, parking areas, on- site curbing, storage areas, etc., to be retained and constructed; and proposed grading contours.
    - Location, caliper size and drip-line, size, and species of on site and immediately adjacent existing trees and large shrubs.
    - Indicate all trees to be removed.
    - Precise location or pattern and spacing of all proposed landscape materials.
    - Schedule of planting in table form showing plant sizes, ground cover spacing, and botanical and common names.
    - Design and location of all outdoor lighting, fencing, screening, retaining walls, electrical transformers, trash enclosures, street furniture, etc.
    - Exterior landscape lighting and details as to the type of fixture.
    - The minimum scale should be 1" = 20'. (Plans for large landscape projects may be broken up into sections. These sections must match the architectural site plans and details such as windows and doors).

7. Lighting Plan - indicating all exterior light fixtures and light lumens and includes manufactures fixture specifications. Photometric plan confirming that no light shall trespass onto neighboring properties. All lighting shall be screened from neighboring properties and special conditions such as topography must be considered.

8. Mechanical Plan - indicating all HVAC units and equipment along with location on proposed construction and or site including emergency generators and pool/spa equipment.

9. Other drawings and documentation that the Commission feels is necessary to communicate the proposed design and improvements. Other drawings and documentation include perspective renderings, animations, photographs and scale models.

10. Any other pertinent information/materials: i.e. topographical map(s), photograph(s), letter(s) from surrounding neighbors, etc.

SITE PLAN APPLICATION

The undersigned owner(s) of record hereby apply for a SITE PLAN APPROVAL as to certain Real Estate located at:

ADDRESS: 751 Weed Street, New Canaan, CT 06840

Owner's Name: 51 Main Street, LLC Address: 16 Cross Street, New Canaan, CT 06840

Applicant's Name: 51 Main Street, LLC Phone #: (203) 972-3366

Address: 16 Cross Street, New Canaan, CT 06840

Applicant's Email Address: rhoyler@hinckleyallen.com

ZONING DISTRICT HRZ as shown in the New Canaan Land Records: **VOLUME** _____, **PAGE** _____
And more particularly described by bounding owners as follows:

Northerly by: Main Street Southerly by: 77 Main St. (T/43/839)

~~Easterly by: 77 Main St. (T/43/839)~~ Westerly by: 47 Main St. (T/43/834)

MAP # T **BLOCK #** 43 **LOT #** 822

I am requesting a SITE PLAN APPROVAL of Section(s) _____ described as follows:

See attached

***You must attach a detailed statement describing the existing and proposed use or uses.**
Were Special Permits or Variances previously granted for this property? **YES NO** (X) If yes, attach Cert. of Decision(s).

PRINT: Ryan D. Hoyler **SIGNED:** _____
Owner of Record/Authorized Agent Owner of Record/Authorized Agent

****

Official Use Only
Date of Receipt: **Hearing Date(s):** **Decision Date:**

I, John Goodwin, Chairman of the Planning & Zoning Commission of the Town of New Canaan, hereby certify that at a meeting of said Commission duly held on _____, said Commission by resolution voted:

_____ 1. Was a Public Hearing required for this application?

_____ 2. That said Site Plan Application is DENIED.

_____ 3. That said Site Plan Application is GRANTED in accordance with the approved plans unless modified herein.

_____ 4. That notice of such Action is published as required.

_____ 5. Conditions, modifications, or restrictions:

_____ _____
John Goodwin, Chairman Publication Date

TAB 10

SOLLI ENGINEERING

April 8, 2022
Revised April 18, 2022

Mr. Paul Stone
51 Main Street, LLC
16 Cross Street
New Canaan, CT 06840

RE: Traffic Impact Assessment
Proposed Multifamily Housing
51 Main Street
New Canaan, Connecticut 06840
Project Number: 21108301

Dear Mr. Stone,

Solli Engineering, LLC has prepared this assessment to provide an analysis of the potential traffic impacts associated with the proposed redevelopment located at 51 Main Street in New Canaan, Connecticut. The evaluation has been completed in accordance with the Town of New Canaan requirements as well as standard traffic engineering methodology. Our investigation concludes that the proposed redevelopment will not have an adverse impact on the area roadway network.

Development Description:

The property is located along Main Street in New Canaan, Connecticut south of the intersection of Main Street, Heritage Hill Road, & Locust Avenue. The site is currently improved with an existing building which was previously used as a commercial space. The site is bound by Main Street to the north, an existing office to the east, New Canaan Town Hall, offices, and town employee parking to the south, and multi-family residential development to the west. Refer to Figure 1, Site Location Map, for more details on the proposed development location.

The site is proposed to be redeveloped to a multifamily residential land use consisting of 20-units and associated amenities. The parcel is located within the B Residence Zone district within the Town of New Canaan. The proposed site modifications include widening of the existing site driveway via Main Street to provide two lanes: one ingress and one egress. See the Site Layout Plan for more details on the proposed site configuration.

Existing Conditions:

In the vicinity of the proposed site, Main Street is east-west roadway located north of the proposed site with a posted speed limit of 25 miles per hour throughout the study area. The portion of Main Street in the study area is classified as a minor arterial by the Connecticut Department of Transportation. Throughout the study area, Main Street is a two (2) lane bi-directional roadway with widening with its intersection at Locust Avenue / Heritage Hill Road to provide an exclusive left turn lane eastbound and an exclusive right turn westbound. There are sidewalks along both sides of Main Street in the vicinity of the proposed site. Two pedestrian crosswalks are provided at the existing signalized intersection across Main Street.

Heritage Hill Road is a north-south roadway located north of the proposed site with a posted speed limit of 30 miles per hour throughout the study area. Heritage Hill Road is classified as a local road by the Connecticut Department of Transportation. Throughout the study area, Heritage Hill Road is a two (2) lane bi-directional roadway with widening at its intersection with Main Street to provide exclusive turning lanes. There are sidewalks along both sides of Heritage Hill Road in the vicinity of the proposed redevelopment. A pedestrian crosswalk is provided across Heritage Hill Road at the southbound approach to the signalized intersection with Main Street.

Locust Avenue is an east-west roadway located north of the proposed site with a posted speed limit of 25 miles per hour throughout the study area. The portion of Locust Avenue in the study area is classified as a collector road by the Connecticut Department of Transportation. Throughout the study area, Locust Avenue is a two (2) lane bi-directional roadway. There are sidewalks along both sides of Locust Avenue in the vicinity of the proposed redevelopment. A pedestrian crosswalk is provided across Locust Avenue at the westbound approach to the signalized intersection with Main Street.

The proposed redevelopment is located within two-tenths of a mile of the existing New Canaan train station. There is interconnectivity for pedestrians to the train station via existing sidewalks from the proposed site.

The most recent three years (January 2017 to January 2020) of accident data, prior to COVID travel restrictions, was obtained from the CTDOT Crash Data Repository for the intersection of Main Street & Heritage Hill Road / Locust Avenue in the vicinity of the proposed site. There were no accidents identified along the adjacent roads within close proximity to the proposed redevelopment. Two (2) crashes were identified at the intersection of Main Street & Heritage Hill Road / Locust Avenue over the three-year period, consisting of one (1) same direction sideswipe, and one (1) rear end accident. A complete summary of the accident data is provided as a supporting document to this assessment.

Turning movement count data was obtained for the intersection of Main Street & Heritage Hill Road / Locust Avenue and the existing site driveway which was collected during September 2021. The weekday AM and weekday PM peak hours of the study area intersections were identified from this data and the resultant 2021 existing peak hour volumes are illustrated in Figure 2.

Proposed Conditions:

The redevelopment proposes widening of the existing full movement driveway in order to provide two full width lanes of travel. The proposed driveway on Main Street is approximately 50' west of the intersection of Main Street & Heritage Hill Road / Locust Avenue and is not controlled by the existing traffic signal. The site driveway and internal site circulation was reviewed for emergency vehicle access. Based on the proposed site layout, a fire truck or other emergency vehicles cannot circulate internal to the site but would provide service from the street level at the front and rear of the site via Main Street and the New Canaan Town Hall site driveway.

Intersection sight distance (ISD) at the site driveway was evaluated per guidance provided in the 2003 edition of the CTDOT Highway Design Manual. Speed data was collected during September 2021 using an automatic traffic recorder (ATR) that was installed along Main Street, north of the intersection of Main Street & Heritage Hill Road / Locust Avenue. Based on the 85th percentile speed obtained from the recent ATR of 25 miles per hour on Main Street eastbound and 26 miles per hour on Main Street westbound, a minimum ISD of 276 feet is required for passenger vehicles exiting the driveway looking left and 287 feet is required for passenger vehicles exiting the driveway looking right. Under the proposed condition, the intersection sight distance looking left from the site driveway provides the minimum required sight distance of 276 feet and the intersection sight distance looking right from the site exit driveway exceeds the minimum required sight distance of 287 feet. The intersection sight distance looking both right and left from the site driveway provides adequate sight distance for exiting vehicles.

Traffic volume data for the existing site driveway was obtained from turning movement count data collected during September 2021. The anticipated number of trips that will be generated by the proposed redevelopment was estimated using data from the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition. The proposed trip generation is based on an independent variable of dwelling units for the Land Use Code (LUC) 221 – Multifamily Housing (Mid-Rise) for locations close to rail transit. The trip generation was calculated for the weekday AM and weekday PM peak hour of adjacent street traffic based on the proposed land use, as these are the peak periods with the greatest potential for impact on the adjacent street traffic. LUC 221 – Multifamily Housing (Mid-Rise) is defined by ITE as mid-rise multifamily housing including 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). LUC 221 was utilized for this site as it best conforms with the ITE Land Use Code definition, as presented.

The proposed redevelopment is expected to generate 4 net new trips during the weekday morning peak hour and 6 net new trips during the weekday evening peak hour. Table 1 below illustrates the anticipated trips to be generated by the proposed redevelopment during the weekday morning and weekday evening peak hours. A detailed breakdown of the proposed trip generation calculations and ITE trip generation rate sheets are provided as a supporting document to this assessment.

TABLE 1
TRIP GENERATION SUMMARY

LAND USE	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Existing Development						
Existing Office	3	0	3	0	0	0
Proposed Development						
Multifamily Housing (Mid-Rise) (LUC 221) *20 Dwelling Units*	4	3	7	3	3	6
Net New Trips	**1**	**3**	**4**	**3**	**3**	**6**

The anticipated distribution of new traffic entering and exiting the site was developed based on area populations, existing traffic patterns, and layout of the adjacent roadway network. The following distributions were applied to the new site generated trips:

- 50% to/from the east via Main Street
- 50% to/from the west via Main Street

The anticipated percent distribution of the new site generated trips is illustrated in Figure 3. The new site generated trips were assigned to the site driveway intersection based on the anticipated percent distributions illustrated in Figure 3 and the resulting trip assignment is illustrated in Figure 4.

The proposed redevelopment is anticipated to be completed by 2022. Background traffic growth is estimated to account for the traffic increase as a result of regional population and economic growth in the study area. Based on guidance from CTDOT, the existing traffic volumes were projected to the 2022 build year using a 0.5 percent per year growth factor. The resulting 2022 background traffic volumes are illustrated in Figure 5.

The trip assignment volumes illustrated in Figure 4 were combined with the 2022 background volumes in Figure 5 to develop the 2022 build traffic volumes. Figure 6 illustrates the 2022 build traffic volumes.

The Connecticut Department of Transportation and Town of New Canaan were contacted to identify any

ongoing or proposed developments within the study area which may impact the analysis. No developments were identified which would impact the analysis.

Capacity Analysis:

To determine the operating conditions of the study area intersections after the proposed redevelopment has been constructed, the study area intersections were analyzed using the Synchro 11 capacity analysis software for the existing, background, and build peak hour conditions during the weekday AM and weekday PM peak hours, as these are the periods which have the greatest potential for impact on the adjacent roadway network by the proposed redevelopment.

The results of the Synchro analysis describe the traffic impact in terms of Level of Service (LOS). LOS describes the operational condition of the signalized intersection in terms of delay (in seconds per vehicle) and is expressed on a scale of A through F with LOS A being the best and LOS F being the worst. LOS A reflects intersection operations with little to no vehicle delay (less than 10 seconds per vehicle) and LOS F reflects intersection conditions that are over capacity and experience long delays (more than 50 seconds of delay per vehicle at unsignalized intersections or 80 seconds of delay at signalized intersections). At unsignalized intersections, only the delay and the Level of Service on the STOP-controlled approach is reported.

TABLE 2
CAPACITY ANALYSIS SUMMARY LOS(Delay)
(AM/PM)

INTERSECTION	2021 Existing	2022 Background	2022 Build
Main Street & Heritage Hill Road / Locust Avenue	**C (31.4)/C (26.6)**	**C (31.5)/C (26.7)**	**C (31.5)/C (26.8)**
EB – Main Street	C (21.8)/C (24.3)	C (22.0)/C (24.4)	C (22.0)/C (24.5)
SEB – Heritage Hill Road	D (42.2)/D (36.8)	D (42.2)/D (36.8)	D (42.2)/D (36.9)
SWB – Locust Avenue	D (43.0)/D (36.8)	D (43.1)/D (36.8)	D (43.1)/D (36.9)
WB – Main Street	B (19.0)/B (13.5)	B (19.1)/B (13.5)	B (19.1)/B (13.6)
Main Street & Site Driveway*			
NB – Site Driveway	--/--	--/--	B (11.5)/B (13.1)

*Unsignalized Intersection

Under the 2022 build condition, the site driveway intersection with Main Street will operate at a LOS B with 11.5 seconds of delay during the weekday AM peak hour and a LOS B with 13.1 seconds of delay during weekday PM peak hour with no queue reported during either peak hour.

Under the 2022 background condition, the signalized intersection of Main Street & Heritage Hill Road / Locust Avenue operates at an overall level of service C with 31.5 seconds of delay during the weekday AM peak hour and an overall level of service C with 26.7 seconds of delay during the weekday PM peak hour. Under the 2022 build condition, the signalized intersection of Main Street & Heritage Hill Road / Locust Avenue operates at a level of service C with 31.5 seconds of delay during the weekday AM peak hour and a level of service C with 26.8 seconds of delay during the weekday PM peak hour. This represents no change of delay during the weekday AM peak hour and a negligible increase of 0.1 seconds of delay in the weekday PM peak hour. The reported queues at the signalized intersection under the build condition are anticipated to be similar to those experienced during the background condition.

The traffic impact analysis indicates that the anticipated minor increase in traffic volume associated with the proposed redevelopment can be accommodated without adverse impact on the operating conditions of the adjacent roadway network. Copies of the Synchro analysis reports are provided as a supporting document to this assessment.

Conclusion:

A traffic impact analysis of the study area intersections was conducted and indicates that the proposed redevelopment can be accommodated without adverse impact on the operating conditions of the study area roadway network. The site is proposed to be redeveloped to a multifamily residential land use consisting of 20-units and associated amenities The proposed redevelopment will expand the existing curb cut along Main Street to provide two lanes of travel.

Based on the analysis, 4 net new trips are anticipated to be generated during the weekday AM peak hour and 6 net new trips are anticipated to be generated during the weekday PM peak hour. Under the build condition in the year 2022, the stop-controlled approach of the site driveway is expected to operate at a level of service B for exiting vehicles during the weekday AM and weekday PM peak hours. Under the build condition in the year 2022, the signalized intersection of Main Street & Heritage Hill Road / Locust Avenue is expected to maintain comparable operations to the background condition. It is the professional opinion of Solli Engineering that the traffic anticipated to be generated by the proposed redevelopment can be accommodated by the surrounding roadway network. There is no indication that the proposed redevelopment will have an adverse impact on the operating conditions of the adjacent roadway network.

If you have any questions or require any additional information, please call at your convenience.

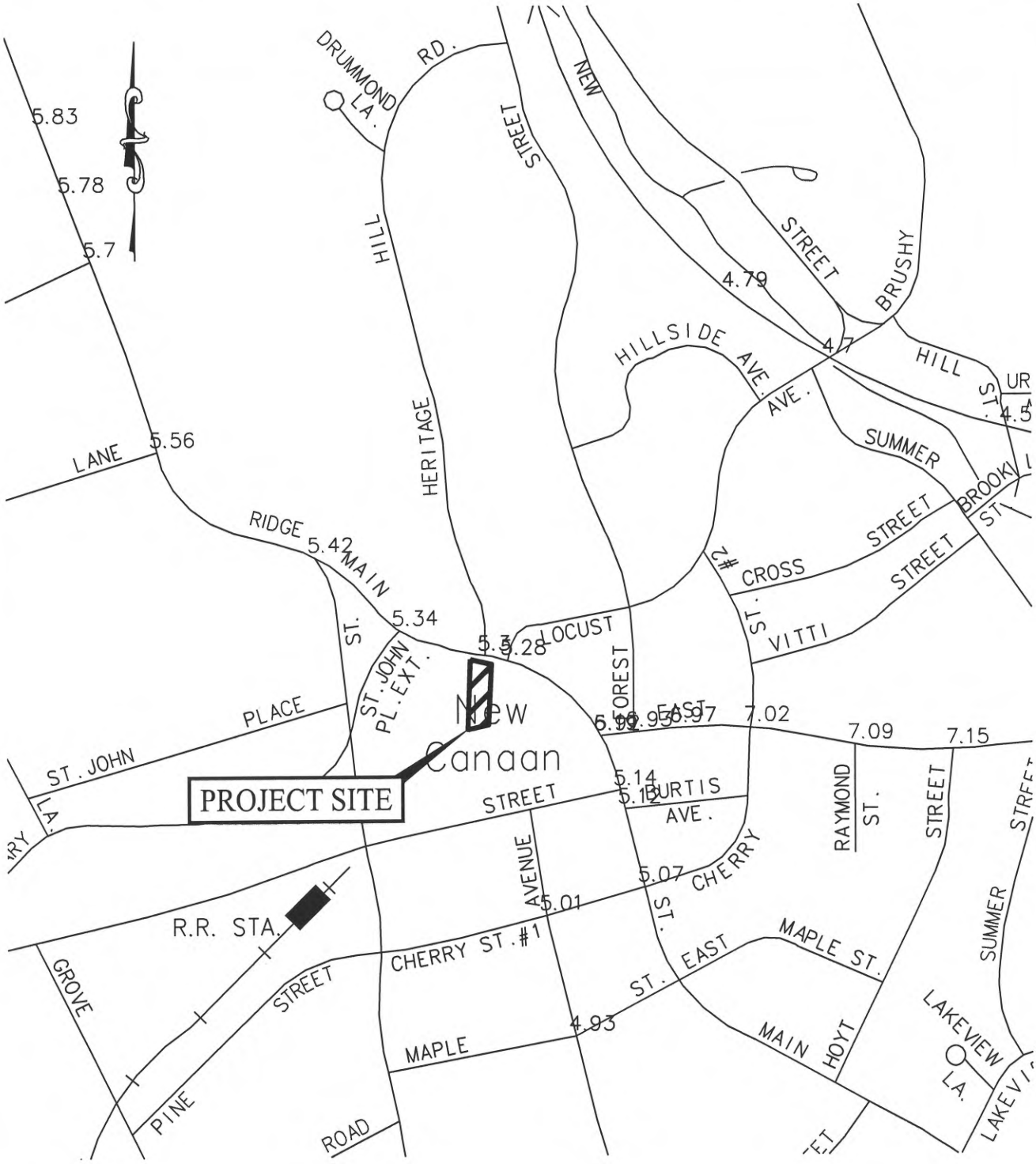
Sincerely,
Solli Engineering, LLC

Collene Byrne, RSP2I
Project Manager

Kevin Solli, P.E., PTOE
Principal

Supporting Documents:

Site Location Map	(Figure 1)
2021 Existing Traffic Volumes	(Figure 2)
Trip Distribution	(Figure 3)
Trip Assignment	(Figure 4)
2022 Background Traffic Volumes	(Figure 5)
2022 Build Traffic Volumes	(Figure 6)
Peak Hour Trip Generation Summary	
ITE Trip Generation Rate Sheets	
Accident Data Summary	
Synchro Analysis Reports	
Intersection Sight Distance Figure	
Site Layout Plan	
ATR Speed Data	
Raw Turning Movement Count Data	



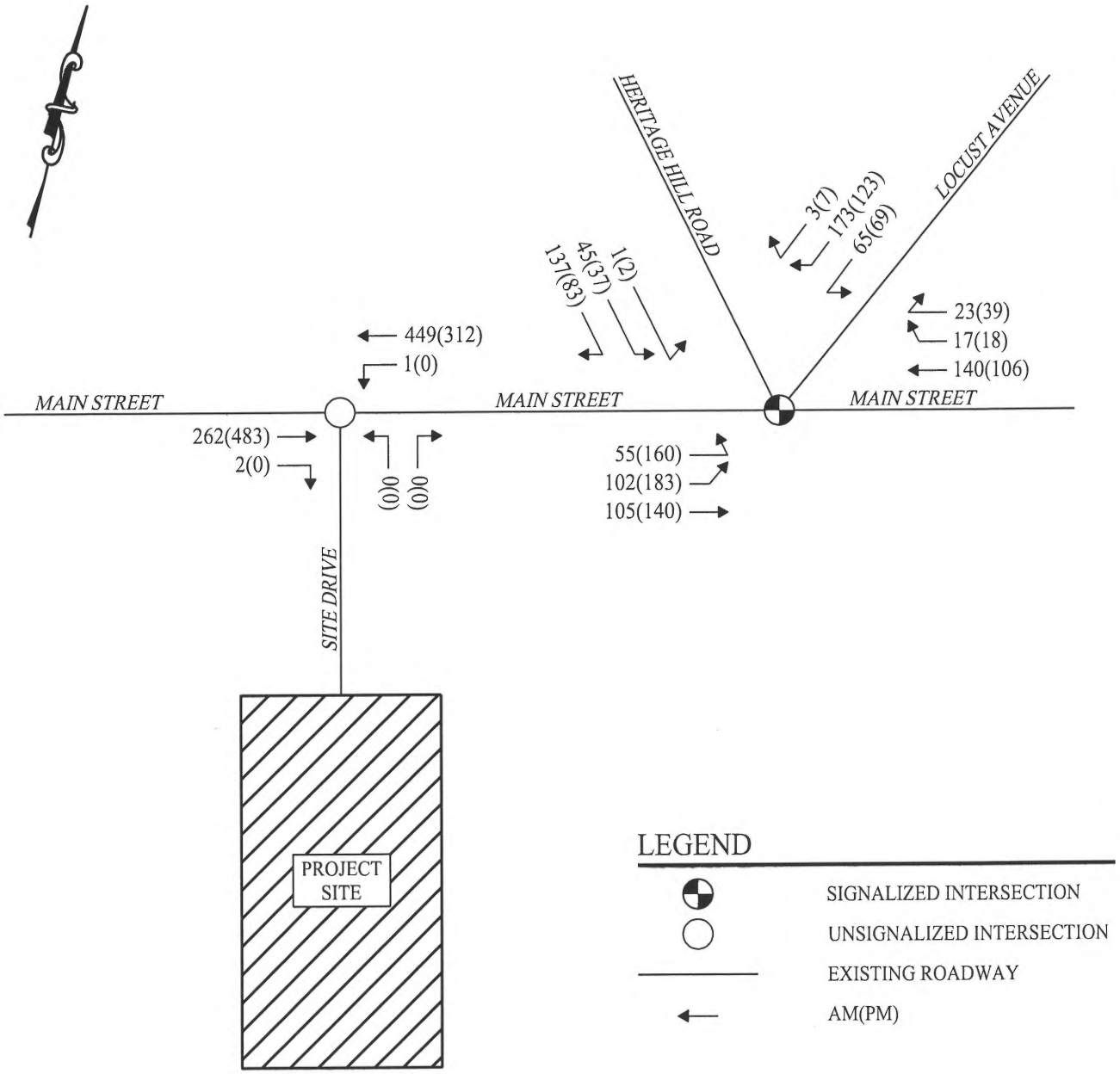
NOTE: BASE MAP INFORMATION TAKEN FROM CTDOT TRU MAP NUMBER 89

SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 F: (203) 880-9695

SITE LOCATION MAP

51 MAIN STREET
NEW CANAAN, CONNECTICUT

Project #:	21108301
Plan Date:	08/20/21
Scale:	1" = 500'
Figure:	1

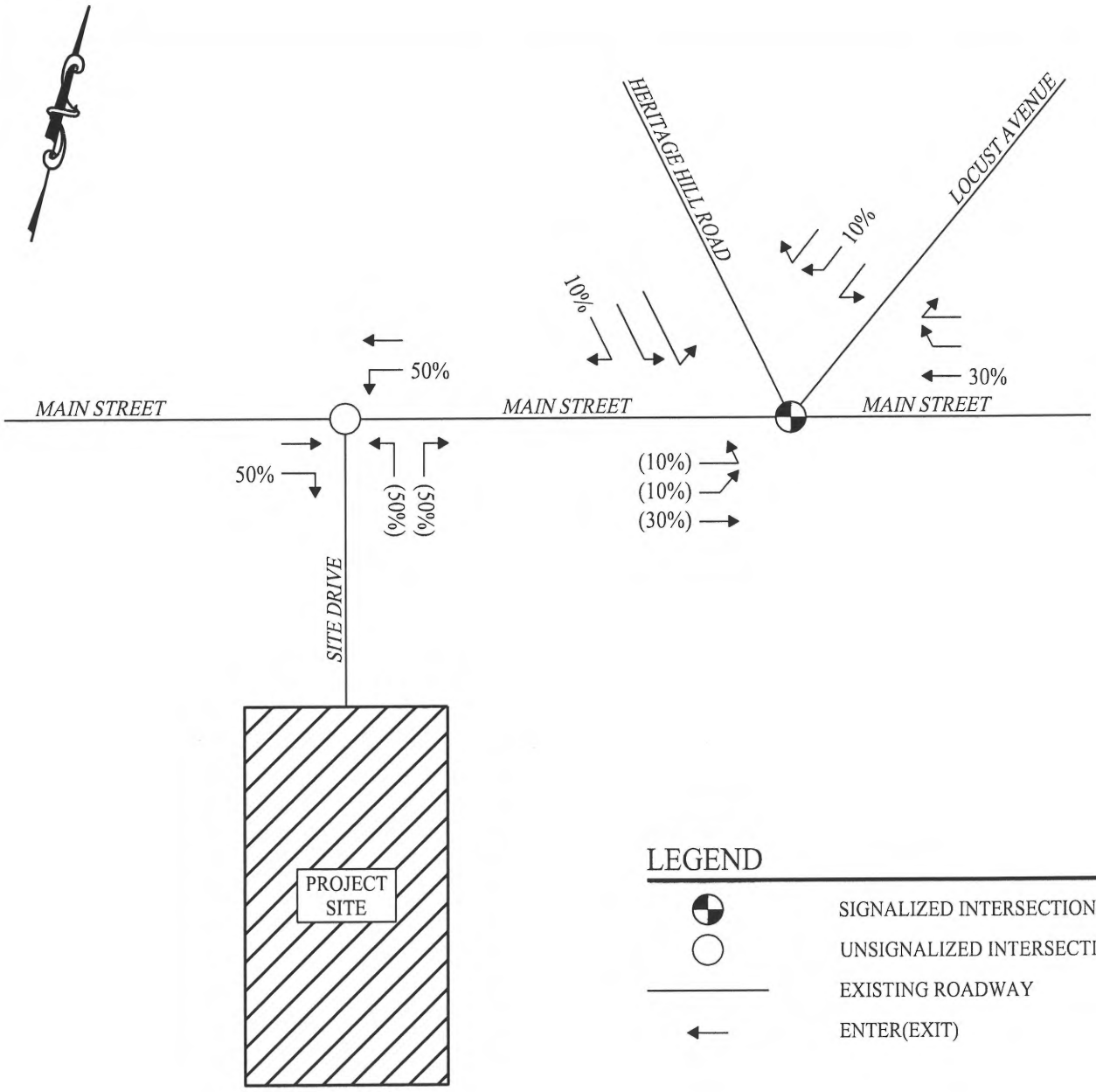


SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 F: (203) 880-9695

2021 EXISTING TRAFFIC VOLUMES

51 MAIN STREET
NEW CANAAN, CONNECTICUT

Project #:	21108301
Plan Date:	09/21/21
Scale:	NTS
Figure:	2



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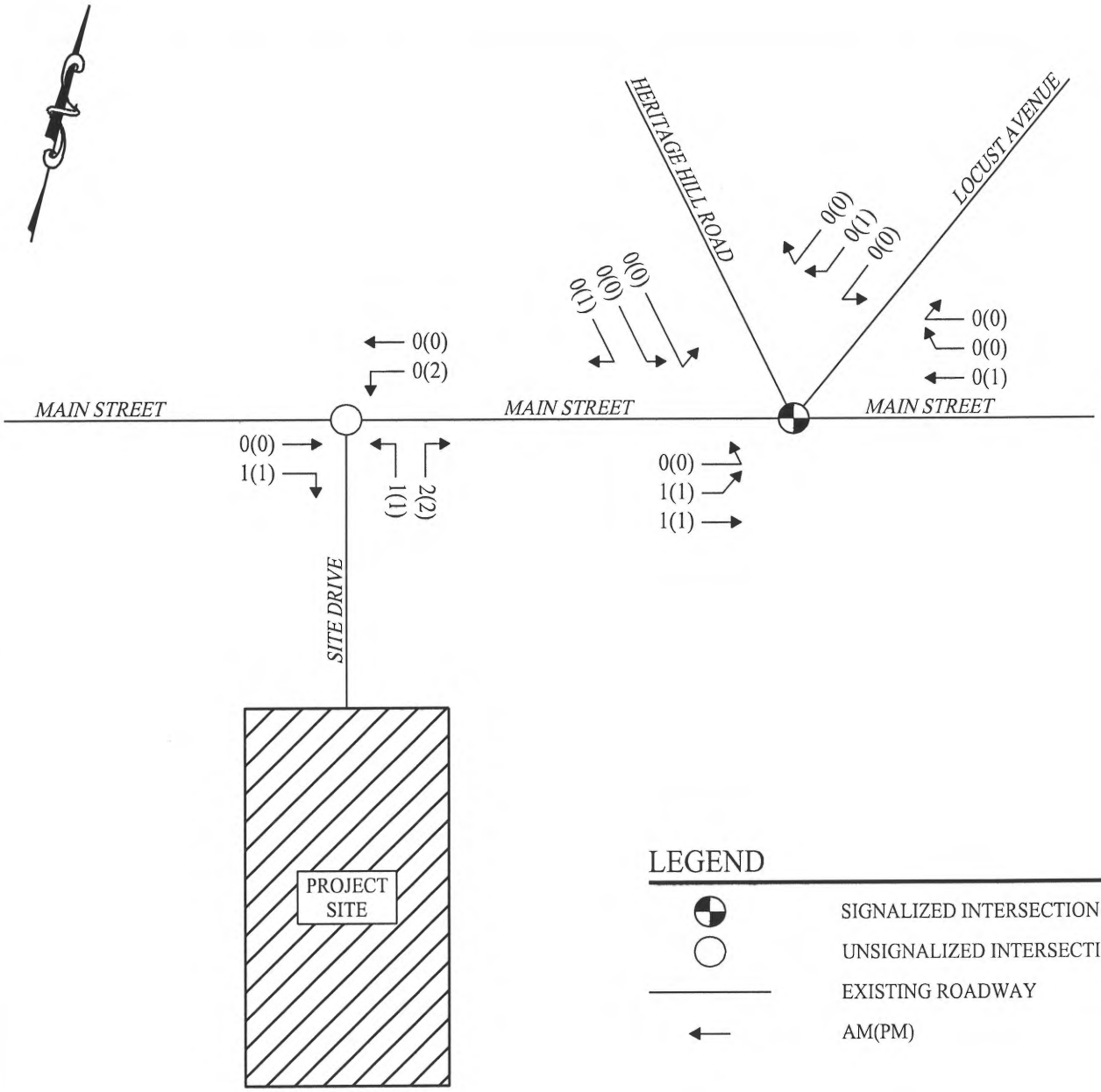
TRIP DISTRIBUTION
51 MAIN STREET
NEW CANAAN, CONNECTICUT

Project #:	21108301
Plan Date:	09/21/21
Scale:	NTS
Figure:	3



LEGEND

- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION
- EXISTING ROADWAY
- AM(PM)

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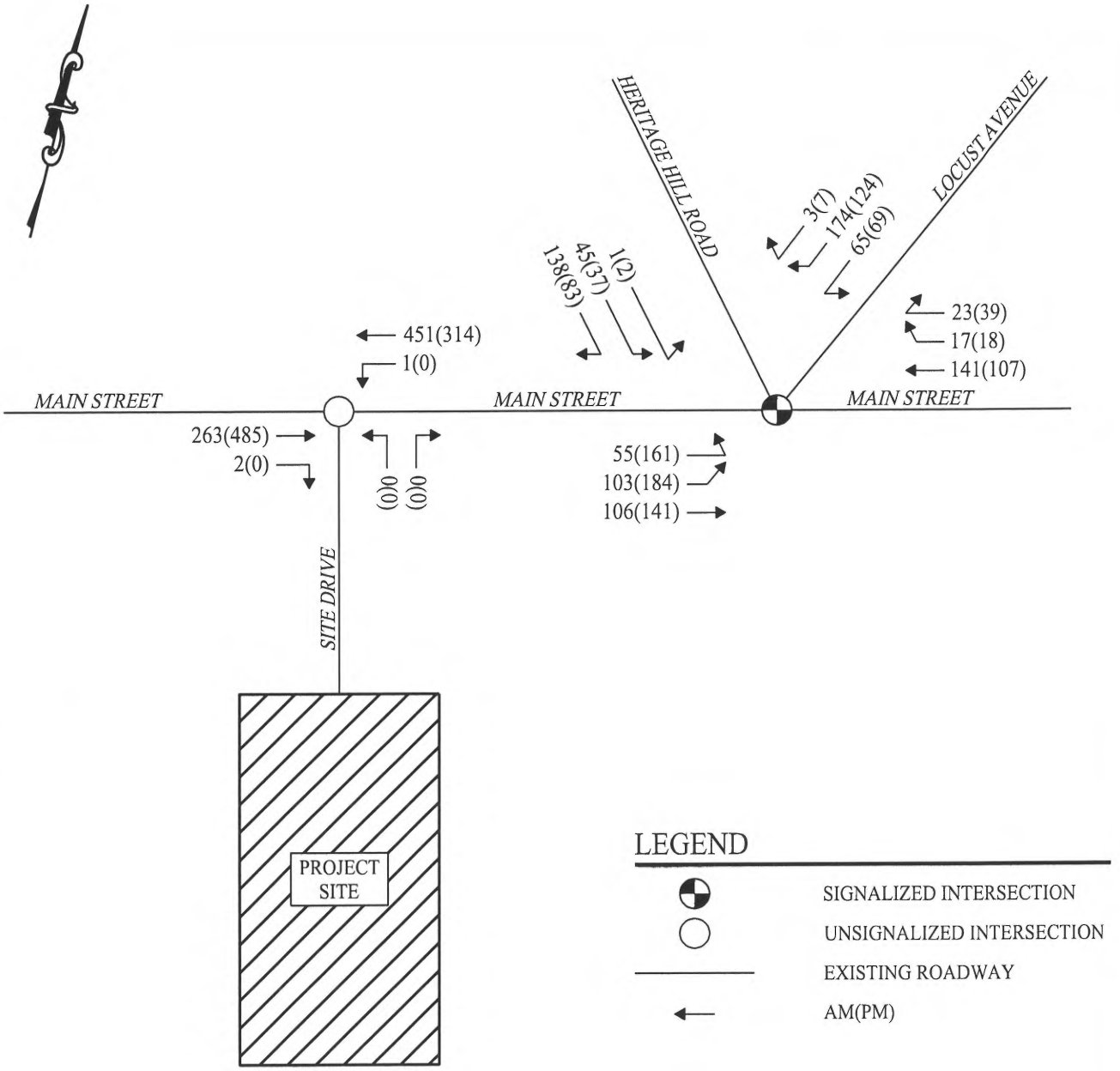
TRIP ASSIGNMENT

51 MAIN STREET
NEW CANAAN, CONNECTICUT

Project #:	21108301
Plan Date:	09/21/21
Scale:	NTS
Figure:	4



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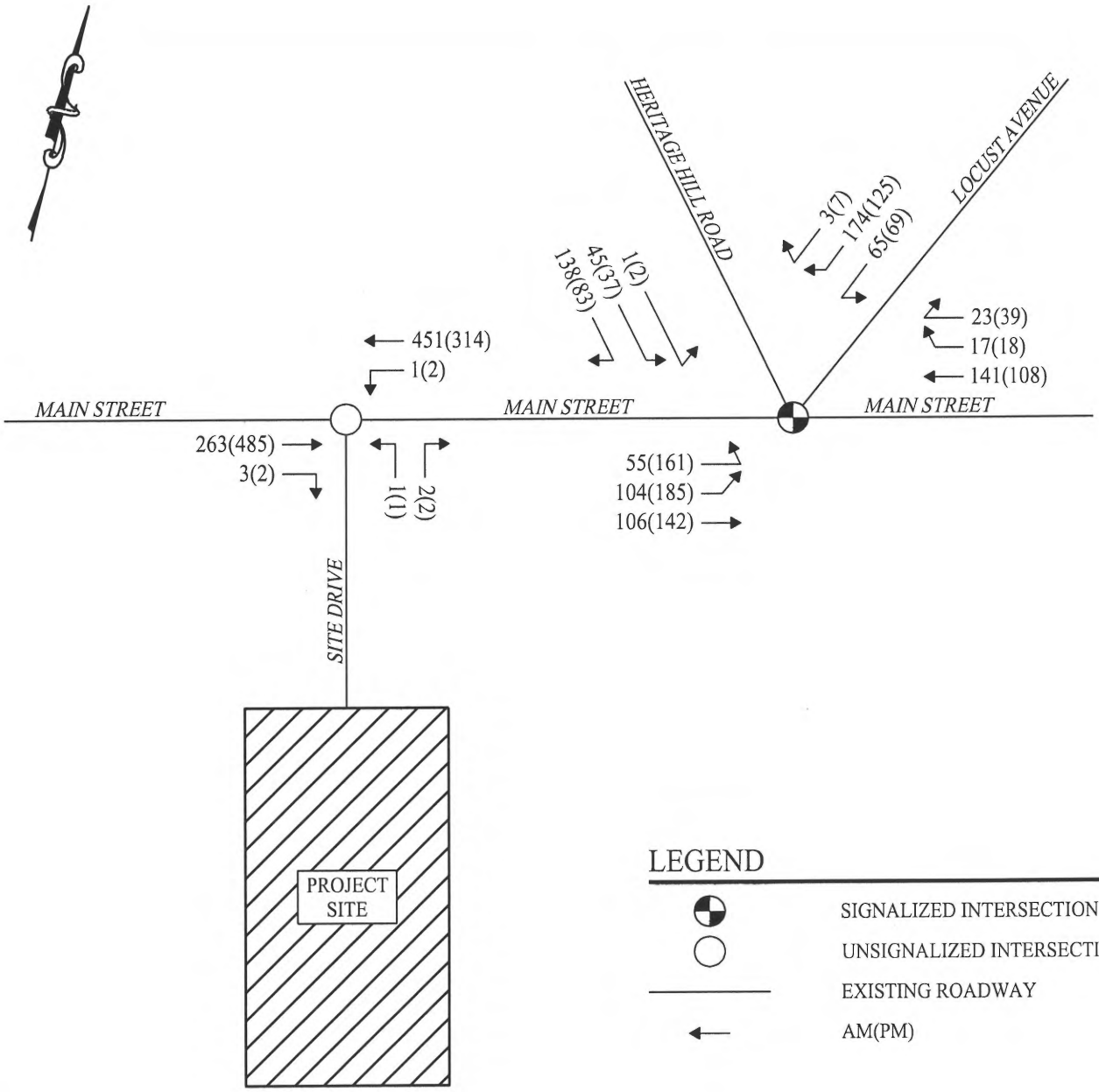
2022 BACKGROUND TRAFFIC VOLUMES

51 MAIN STREET
NEW CANAAN, CONNECTICUT

Project #:	21108301
Plan Date:	09/21/21
Scale:	NTS
Figure:	5



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2022 BUILD TRAFFIC VOLUMES

51 MAIN STREET
NEW CANAAN, CONNECTICUT

Project #:	21108301
Plan Date:	09/21/21
Scale:	NTS
Figure:	6

Trip Generation Summary 51 Main Street, New Canaan, Connecticut								
			AM Peak Hour			PM Peak Hour		
	Variable	LUC	Enter	Exit	Total	Enter	Exit	Total
Existing Development								
Existing Office*	-	-	3	0	3	0	0	0
Proposed Development								
Multifamily Housing (Mid-Rise)**	20	221	4	3	7	3	3	6
Net New Trips			**1**	**3**	**4**	**3**	**3**	**6**

Source: ITE Trip Generation, 11th Edition

*Existing Trip Generation Based on Count Data Collected September, 2021

***"Close to Rail Transit" Subcategory utilized for LUC 221*

Land Use	Time Period	Avg Rate	Entering	Exiting
LUC 221 - Multifamily Housing (Mid-Rise)	AM	0.32	56%	44%
	PM	0.29	43%	57%

Land Use: 221
Multifamily Housing (Mid-Rise)

Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

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 2.5 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 96 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

Source Numbers

168, 188, 204, 305, 306, 321, 818, 857, 862, 866, 901, 904, 910, 949, 951, 959, 963, 964, 966, 967, 969, 970, 1004, 1014, 1022, 1023, 1025, 1031, 1032, 1035, 1047, 1056, 1057, 1058, 1071, 1076

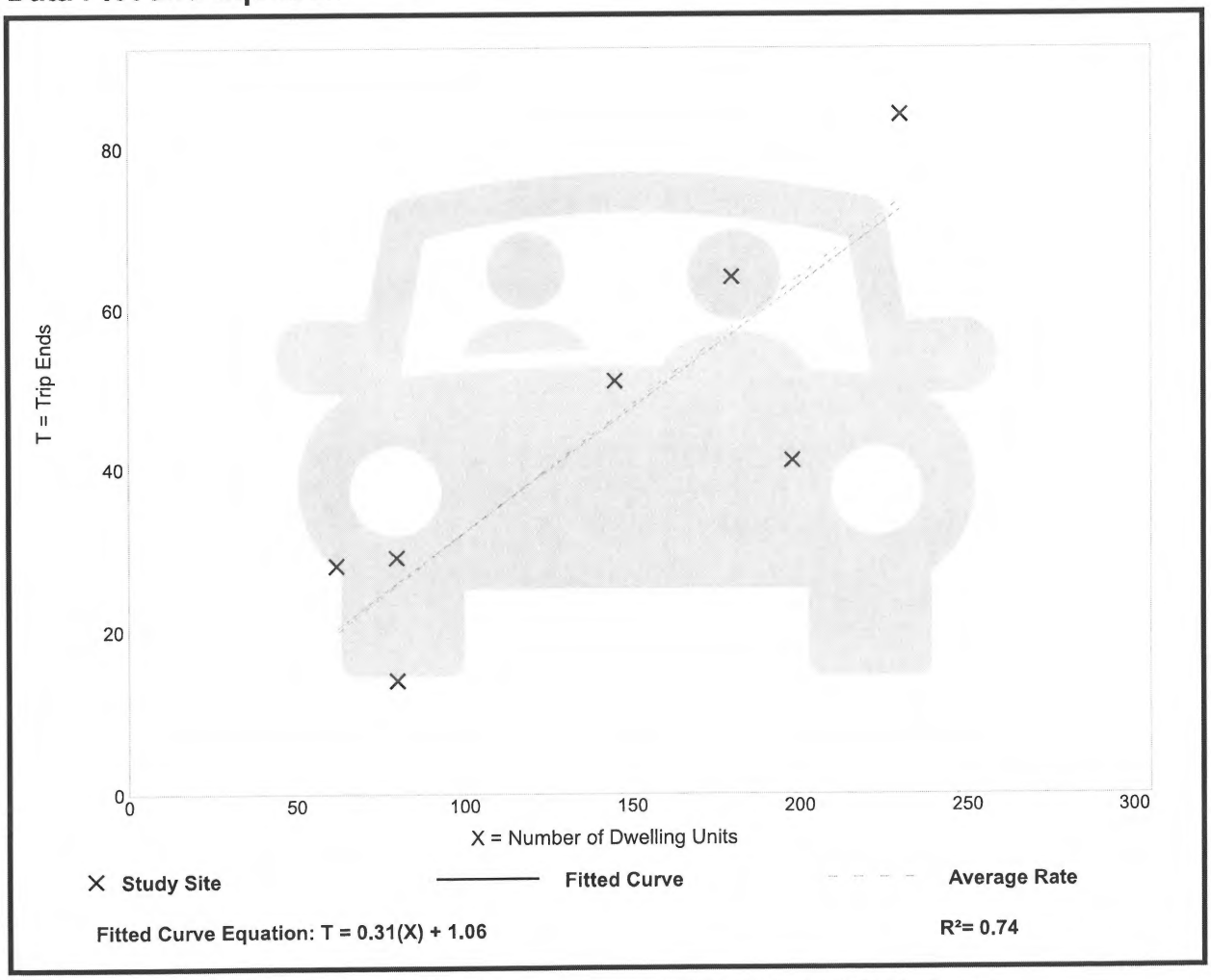
Multifamily Housing (Mid-Rise)
Close to Rail Transit (221)

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: 7
Avg. Num. of Dwelling Units: 139
Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.32	0.18 - 0.45	0.09

Data Plot and Equation



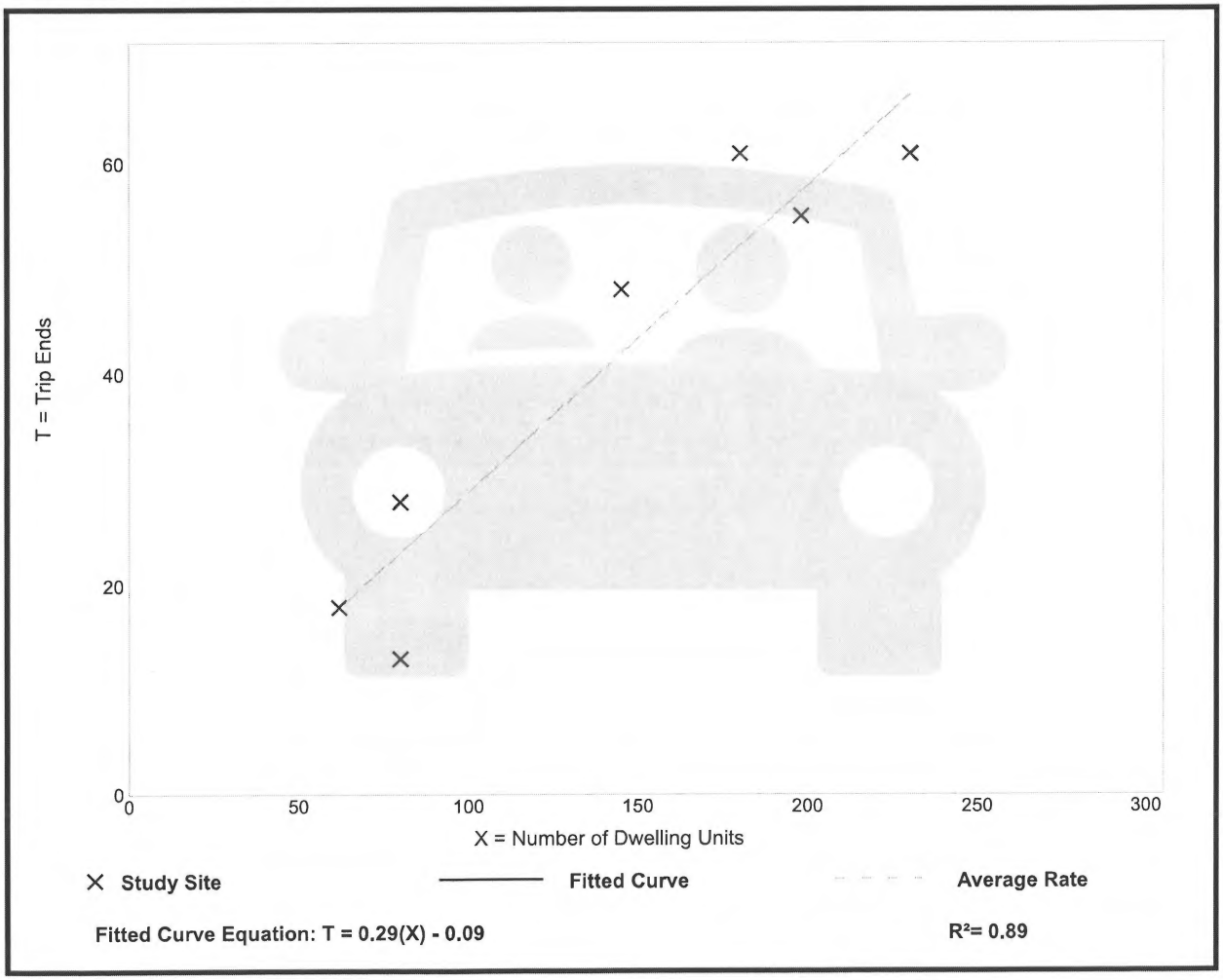
Multifamily Housing (Mid-Rise)
Close to Rail Transit (221)

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: 7
Avg. Num. of Dwelling Units: 139
Directional Distribution: 43% entering, 57% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.29	0.16 - 0.35	0.05

Data Plot and Equation



STUDY AREA ACCIDENT SUMMARY - JANUARY 2017 THROUGH JANUARY 2020 PROPOSED DEVELOPMENT - MAIN STREET, HERITAGE HILL ROAD, AND LOCUST AVENUE, NEW CANAAN, CONNECTICUT		
ACCIDENT TYPE AND SEVERITY	MAIN STREET, HERITAGE HILL ROAD, AND LOCUST AVENUE	**TOTAL**
Accident Type:		
Rear End	0	**0**
Angle	0	**0**
Sideswipe - Opposite Direction	0	**0**
Sideswipe - Same Direction	1	**1**
Front to Front	1	**1**
Other	0	**0**
Accident Severity:		
Fatality	0	**0**
Injury Any Type	0	**0**
Property Damage Only	2	**2**
Road Surface Condition:		
Dry	2	**2**
Wet	0	**0**
Slush	0	**0**
Snow	0	**0**
Ice/Frost	0	**0**
TOTAL NUMBER OF ACCIDENTS	**2**	**2**

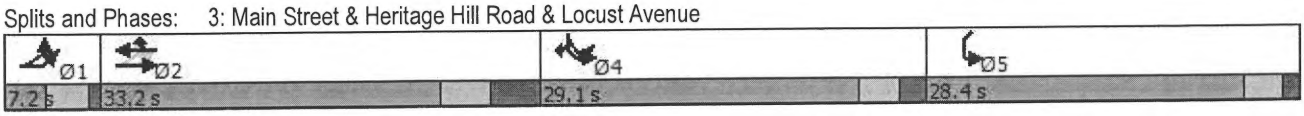
*Source: UConn Crash Data Repository

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	55	102	105	140	17	23	1	45	137	65	173	3
Future Volume (vph)	55	102	105	140	17	23	1	45	137	65	173	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	14	14	12	12	12	12	12	12
Grade (%)			0%	0%				15%		0%		
Storage Length (ft)		120			52			140	0	0	0	
Storage Lanes		1			1			1	1	1	0	
Taper Length (ft)		60						50		25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.850				0.850	0.902		
Flt Protected		0.950						0.950		0.987		
Satd. Flow (prot)	0	1652	1739	1863	1689	0	0	1637	1465	1658	0	0
Flt Permitted		0.660						0.950		0.987		
Satd. Flow (perm)	0	1147	1739	1863	1689	0	0	1637	1465	1658	0	0
Right Turn on Red						Yes			No			No
Satd. Flow (RTOR)					119							
Link Speed (mph)			25	25				30		25		
Link Distance (ft)			296	309				334		329		
Travel Time (s)			8.1	8.4				7.6		9.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	111	114	152	18	25	1	49	149	71	188	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	114	152	43	0	0	50	149	262	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)			10	10				12		12		
Link Offset(ft)			0	0				0		0		
Crosswalk Width(ft)			16	16				16		16		
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.00	0.92	0.92	1.11	1.11	1.11	1.00	1.00	1.00
Turning Speed (mph)	15	15			9	9	15	15	9	15	9	9
Number of Detectors	1	0	0	0	0		1	3	3	1		
Detector Template	Left						Left			Left		
Leading Detector (ft)	20	0	0	0	0		20	34	34	20		
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Size(ft)	20	6	20	20	20		20	6	6	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 2 Position(ft)								14	14			
Detector 2 Size(ft)								6	6			
Detector 2 Type								Cl+Ex	Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)								0.0	0.0			
Detector 3 Position(ft)								28	28			

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Detector 3 Size(ft)								6	6			
Detector 3 Type								Cl+Ex	Cl+Ex			
Detector 3 Channel												
Detector 3 Extend (s)								0.0	0.0			
Turn Type	pm+pt	pm+pt	NA	NA	Prot		Prot	Prot	Prot	Prot		
Protected Phases	1	1	2	2	2		4	4	4	5		
Permitted Phases	2	2										
Detector Phase	1	1	2	2	2		4	4	4	5		
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	15.0		8.0	8.0	8.0	7.0		
Minimum Split (s)	7.2	7.2	22.6	22.6	22.6		13.1	13.1	13.1	11.4		
Total Split (s)	7.2	7.2	33.2	33.2	33.2		29.1	29.1	29.1	28.4		
Total Split (%)	7.4%	7.4%	33.9%	33.9%	33.9%		29.7%	29.7%	29.7%	29.0%		
Maximum Green (s)	3.0	3.0	25.6	25.6	25.6		24.0	24.0	24.0	24.0		
Yellow Time (s)	3.2	3.2	3.8	3.8	3.8		3.0	3.0	3.0	3.0		
All-Red Time (s)	1.0	1.0	3.8	3.8	3.8		2.1	2.1	2.1	1.4		
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)		4.2	7.6	7.6	7.6			5.1	5.1	4.4		
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lead	Lead	Lead	Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		2.0	2.0	2.0	3.0		
Recall Mode	Max	Max	Max	Max	Max		None	None	None	None		
Act Effct Green (s)		32.4	25.9	25.9	25.9			12.9	12.9	17.4		
Actuated g/C Ratio		0.40	0.32	0.32	0.32			0.16	0.16	0.22		
v/c Ratio		0.36	0.20	0.25	0.07			0.19	0.64	0.74		
Control Delay		20.4	24.0	24.3	0.2			32.0	45.6	43.0		
Queue Delay		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Delay		20.4	24.0	24.3	0.2			32.0	45.6	43.0		
LOS		C	C	C	A			C	D	D		
Approach Delay			21.8	19.0				42.2		43.0		
Approach LOS			C	B				D		D		

Intersection Summary			
Area Type:	Other		
Cycle Length: 97.9			
Actuated Cycle Length: 80.8			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 31.4		Intersection LOS: C	
Intersection Capacity Utilization 60.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Main Street & Heritage Hill Road & Locust Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	SWL
Lane Group Flow (vph)	171	114	152	43	50	149	262
v/c Ratio	0.36	0.20	0.25	0.07	0.19	0.64	0.74
Control Delay	20.4	24.0	24.3	0.2	32.0	45.6	43.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	24.0	24.3	0.2	32.0	45.6	43.0
Queue Length 50th (ft)	50	41	56	0	22	71	122
Queue Length 95th (ft)	117	98	124	0	56	140	221
Internal Link Dist (ft)		216	229		254		249
Turn Bay Length (ft)	120			52	140		
Base Capacity (vph)	478	557	597	622	492	440	498
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.20	0.25	0.07	0.10	0.34	0.53

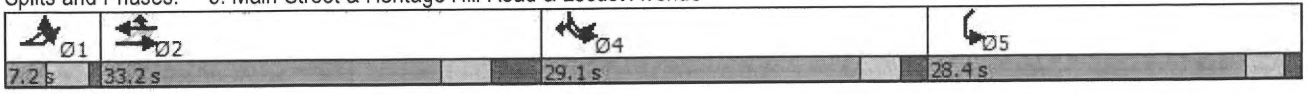
Intersection Summary

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	160	183	140	106	18	39	2	37	83	69	123	7
Future Volume (vph)	160	183	140	106	18	39	2	37	83	69	123	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	14	14	12	12	12	12	12	12
Grade (%)			0%	0%				15%		0%		
Storage Length (ft)		120			52			140	0	0	0	
Storage Lanes		1			1			1	1	1	0	
Taper Length (ft)		60						50		25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.850				0.850	0.912		
Flt Protected		0.950						0.950		0.983		
Satd. Flow (prot)	0	1652	1739	1863	1689	0	0	1637	1465	1670	0	0
Flt Permitted		0.683						0.950		0.983		
Satd. Flow (perm)	0	1187	1739	1863	1689	0	0	1637	1465	1670	0	0
Right Turn on Red						Yes			No			No
Satd. Flow (RTOR)					119							
Link Speed (mph)			25	25				30		25		
Link Distance (ft)			296	309				334		329		
Travel Time (s)			8.1	8.4				7.6		9.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	199	152	115	20	42	2	40	90	75	134	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	373	152	115	62	0	0	42	90	217	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)			10	10				12		12		
Link Offset(ft)			0	0				0		0		
Crosswalk Width(ft)			16	16				16		16		
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.00	0.92	0.92	1.11	1.11	1.11	1.00	1.00	1.00
Turning Speed (mph)	15	15			9	9	15	15	9	15	9	9
Number of Detectors	1	0	0	0	0		1	3	3	1		
Detector Template	Left						Left			Left		
Leading Detector (ft)	20	0	0	0	0		20	34	34	20		
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Size(ft)	20	6	20	20	20		20	6	6	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 2 Position(ft)								14	14			
Detector 2 Size(ft)								6	6			
Detector 2 Type								Cl+Ex	Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)								0.0	0.0			
Detector 3 Position(ft)								28	28			

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Detector 3 Size(ft)								6	6			
Detector 3 Type								Cl+Ex	Cl+Ex			
Detector 3 Channel												
Detector 3 Extend (s)								0.0	0.0			
Turn Type	pm+pt	pm+pt	NA	NA	Prot		Prot	Prot	Prot	Prot		
Protected Phases	1	1	2	2	2		4	4	4	5		
Permitted Phases	2	2										
Detector Phase	1	1	2	2	2		4	4	4	5		
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	15.0		8.0	8.0	8.0	7.0		
Minimum Split (s)	7.2	7.2	22.6	22.6	22.6		13.1	13.1	13.1	11.4		
Total Split (s)	7.2	7.2	33.2	33.2	33.2		29.1	29.1	29.1	28.4		
Total Split (%)	7.4%	7.4%	33.9%	33.9%	33.9%		29.7%	29.7%	29.7%	29.0%		
Maximum Green (s)	3.0	3.0	25.6	25.6	25.6		24.0	24.0	24.0	24.0		
Yellow Time (s)	3.2	3.2	3.8	3.8	3.8		3.0	3.0	3.0	3.0		
All-Red Time (s)	1.0	1.0	3.8	3.8	3.8		2.1	2.1	2.1	1.4		
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)		4.2	7.6	7.6	7.6			5.1	5.1	4.4		
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lead	Lead	Lead	Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		2.0	2.0	2.0	3.0		
Recall Mode	Max	Max	Max	Max	Max		None	None	None	None		
Act Effct Green (s)		32.9	26.3	26.3	26.3			10.0	10.0	14.6		
Actuated g/C Ratio		0.46	0.36	0.36	0.36			0.14	0.14	0.20		
v/c Ratio		0.67	0.24	0.17	0.09			0.19	0.45	0.64		
Control Delay		25.6	20.9	20.3	0.8			32.3	38.9	36.8		
Queue Delay		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Delay		25.6	20.9	20.3	0.8			32.3	38.9	36.8		
LOS		C	C	C	A			C	D	D		
Approach Delay			24.3	13.5				36.8		36.8		
Approach LOS			C	B				D		D		

Intersection Summary			
Area Type:	Other		
Cycle Length: 97.9			
Actuated Cycle Length: 72.3			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 26.6		Intersection LOS: C	
Intersection Capacity Utilization 58.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Main Street & Heritage Hill Road & Locust Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	SWL
Lane Group Flow (vph)	373	152	115	62	42	90	217
v/c Ratio	0.67	0.24	0.17	0.09	0.19	0.45	0.64
Control Delay	25.6	20.9	20.3	0.8	32.3	38.9	36.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	20.9	20.3	0.8	32.3	38.9	36.8
Queue Length 50th (ft)	105	49	36	0	18	39	92
Queue Length 95th (ft)	#280	113	88	5	49	89	170
Internal Link Dist (ft)		216	229		254		249
Turn Bay Length (ft)	120			52	140		
Base Capacity (vph)	559	632	677	689	557	499	569
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.24	0.17	0.09	0.08	0.18	0.38

Intersection Summary

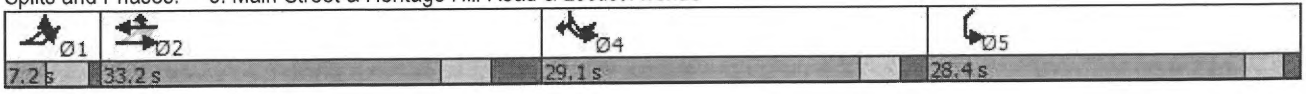
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	55	103	106	141	17	23	1	45	138	65	174	3
Future Volume (vph)	55	103	106	141	17	23	1	45	138	65	174	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	14	14	12	12	12	12	12	12
Grade (%)			0%	0%				15%		0%		
Storage Length (ft)		120			52			140	0	0	0	
Storage Lanes		1			1			1	1	1	0	
Taper Length (ft)		60						50		25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.850				0.850	0.901		
Flt Protected		0.950						0.950		0.987		
Satd. Flow (prot)	0	1652	1739	1863	1689	0	0	1637	1465	1657	0	0
Flt Permitted		0.660						0.950		0.987		
Satd. Flow (perm)	0	1147	1739	1863	1689	0	0	1637	1465	1657	0	0
Right Turn on Red						Yes			No			No
Satd. Flow (RTOR)					119							
Link Speed (mph)			25	25				30		25		
Link Distance (ft)			296	309				334		329		
Travel Time (s)			8.1	8.4				7.6		9.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	112	115	153	18	25	1	49	150	71	189	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	115	153	43	0	0	50	150	263	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)			10	10				12		12		
Link Offset(ft)			0	0				0		0		
Crosswalk Width(ft)			16	16				16		16		
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.00	0.92	0.92	1.11	1.11	1.11	1.00	1.00	1.00
Turning Speed (mph)	15	15			9	9	15	15	9	15	9	9
Number of Detectors	1	0	0	0	0		1	3	3	1		
Detector Template	Left						Left			Left		
Leading Detector (ft)	20	0	0	0	0		20	34	34	20		
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Size(ft)	20	6	20	20	20		20	6	6	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 2 Position(ft)								14	14			
Detector 2 Size(ft)								6	6			
Detector 2 Type								Cl+Ex	Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)								0.0	0.0			
Detector 3 Position(ft)								28	28			

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Detector 3 Size(ft)								6	6			
Detector 3 Type								Cl+Ex	Cl+Ex			
Detector 3 Channel												
Detector 3 Extend (s)								0.0	0.0			
Turn Type	pm+pt	pm+pt	NA	NA	Prot		Prot	Prot	Prot	Prot		
Protected Phases	1	1	2	2	2		4	4	4	5		
Permitted Phases	2	2										
Detector Phase	1	1	2	2	2		4	4	4	5		
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	15.0		8.0	8.0	8.0	7.0		
Minimum Split (s)	7.2	7.2	22.6	22.6	22.6		13.1	13.1	13.1	11.4		
Total Split (s)	7.2	7.2	33.2	33.2	33.2		29.1	29.1	29.1	28.4		
Total Split (%)	7.4%	7.4%	33.9%	33.9%	33.9%		29.7%	29.7%	29.7%	29.0%		
Maximum Green (s)	3.0	3.0	25.6	25.6	25.6		24.0	24.0	24.0	24.0		
Yellow Time (s)	3.2	3.2	3.8	3.8	3.8		3.0	3.0	3.0	3.0		
All-Red Time (s)	1.0	1.0	3.8	3.8	3.8		2.1	2.1	2.1	1.4		
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)		4.2	7.6	7.6	7.6			5.1	5.1	4.4		
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lead	Lead	Lead	Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		2.0	2.0	2.0	3.0		
Recall Mode	Max	Max	Max	Max	Max		None	None	None	None		
Act Effct Green (s)		32.4	25.9	25.9	25.9			13.0	13.0	17.5		
Actuated g/C Ratio		0.40	0.32	0.32	0.32			0.16	0.16	0.22		
v/c Ratio		0.36	0.21	0.26	0.07			0.19	0.64	0.74		
Control Delay		20.5	24.1	24.4	0.2			32.0	45.6	43.1		
Queue Delay		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Delay		20.5	24.1	24.4	0.2			32.0	45.6	43.1		
LOS		C	C	C	A			C	D	D		
Approach Delay			22.0	19.1				42.2		43.1		
Approach LOS			C	B				D		D		

Intersection Summary			
Area Type:	Other		
Cycle Length: 97.9			
Actuated Cycle Length: 80.9			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Main Street & Heritage Hill Road & Locust Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	SWL
Lane Group Flow (vph)	172	115	153	43	50	150	263
v/c Ratio	0.36	0.21	0.26	0.07	0.19	0.64	0.74
Control Delay	20.5	24.1	24.4	0.2	32.0	45.6	43.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	24.1	24.4	0.2	32.0	45.6	43.1
Queue Length 50th (ft)	51	42	57	0	22	72	123
Queue Length 95th (ft)	118	99	125	0	56	141	222
Internal Link Dist (ft)		216	229		254		249
Turn Bay Length (ft)	120			52	140		
Base Capacity (vph)	477	556	596	621	491	439	497
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.21	0.26	0.07	0.10	0.34	0.53

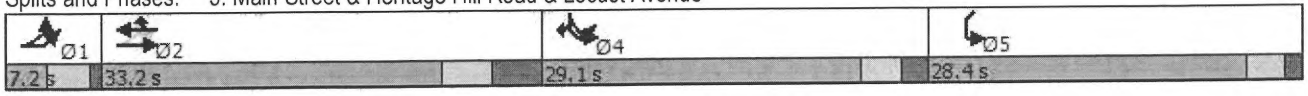
Intersection Summary

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	161	184	141	107	18	39	2	37	83	69	124	7
Future Volume (vph)	161	184	141	107	18	39	2	37	83	69	124	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	14	14	12	12	12	12	12	12
Grade (%)			0%	0%				15%		0%		
Storage Length (ft)		120			52			140	0	0	0	
Storage Lanes		1			1			1	1	1	0	
Taper Length (ft)		60						50		25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.850				0.850	0.911		
Flt Protected		0.950						0.950		0.983		
Satd. Flow (prot)	0	1652	1739	1863	1689	0	0	1637	1465	1668	0	0
Flt Permitted		0.682						0.950		0.983		
Satd. Flow (perm)	0	1186	1739	1863	1689	0	0	1637	1465	1668	0	0
Right Turn on Red						Yes			No			No
Satd. Flow (RTOR)					119							
Link Speed (mph)			25	25				30		25		
Link Distance (ft)			296	309				334		329		
Travel Time (s)			8.1	8.4				7.6		9.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	175	200	153	116	20	42	2	40	90	75	135	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	375	153	116	62	0	0	42	90	218	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)			10	10				12		12		
Link Offset(ft)			0	0				0		0		
Crosswalk Width(ft)			16	16				16		16		
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.00	0.92	0.92	1.11	1.11	1.11	1.00	1.00	1.00
Turning Speed (mph)	15	15			9	9	15	15	9	15	9	9
Number of Detectors	1	0	0	0	0		1	3	3	1		
Detector Template	Left						Left			Left		
Leading Detector (ft)	20	0	0	0	0		20	34	34	20		
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Size(ft)	20	6	20	20	20		20	6	6	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 2 Position(ft)								14	14			
Detector 2 Size(ft)								6	6			
Detector 2 Type								Cl+Ex	Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)								0.0	0.0			
Detector 3 Position(ft)								28	28			

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Detector 3 Size(ft)								6	6			
Detector 3 Type								Cl+Ex	Cl+Ex			
Detector 3 Channel												
Detector 3 Extend (s)								0.0	0.0			
Turn Type	pm+pt	pm+pt	NA	NA	Prot		Prot	Prot	Prot	Prot		
Protected Phases	1	1	2	2	2		4	4	4	5		
Permitted Phases	2	2										
Detector Phase	1	1	2	2	2		4	4	4	5		
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	15.0		8.0	8.0	8.0	7.0		
Minimum Split (s)	7.2	7.2	22.6	22.6	22.6		13.1	13.1	13.1	11.4		
Total Split (s)	7.2	7.2	33.2	33.2	33.2		29.1	29.1	29.1	28.4		
Total Split (%)	7.4%	7.4%	33.9%	33.9%	33.9%		29.7%	29.7%	29.7%	29.0%		
Maximum Green (s)	3.0	3.0	25.6	25.6	25.6		24.0	24.0	24.0	24.0		
Yellow Time (s)	3.2	3.2	3.8	3.8	3.8		3.0	3.0	3.0	3.0		
All-Red Time (s)	1.0	1.0	3.8	3.8	3.8		2.1	2.1	2.1	1.4		
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)		4.2	7.6	7.6	7.6			5.1	5.1	4.4		
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lead	Lead	Lead	Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		2.0	2.0	2.0	3.0		
Recall Mode	Max	Max	Max	Max	Max		None	None	None	None		
Act Effct Green (s)		32.8	26.3	26.3	26.3			10.0	10.0	14.7		
Actuated g/C Ratio		0.45	0.36	0.36	0.36			0.14	0.14	0.20		
v/c Ratio		0.67	0.24	0.17	0.09			0.19	0.45	0.64		
Control Delay		25.9	20.9	20.3	0.8			32.4	38.9	36.8		
Queue Delay		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Delay		25.9	20.9	20.3	0.8			32.4	38.9	36.8		
LOS		C	C	C	A			C	D	D		
Approach Delay			24.4	13.5				36.8		36.8		
Approach LOS			C	B				D		D		

Intersection Summary			
Area Type:	Other		
Cycle Length: 97.9			
Actuated Cycle Length: 72.3			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 26.7		Intersection LOS: C	
Intersection Capacity Utilization 58.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Main Street & Heritage Hill Road & Locust Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	SWL
Lane Group Flow (vph)	375	153	116	62	42	90	218
v/c Ratio	0.67	0.24	0.17	0.09	0.19	0.45	0.64
Control Delay	25.9	20.9	20.3	0.8	32.4	38.9	36.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.9	20.9	20.3	0.8	32.4	38.9	36.8
Queue Length 50th (ft)	106	49	36	0	18	39	92
Queue Length 95th (ft)	#283	114	88	5	49	89	171
Internal Link Dist (ft)		216	229		254		249
Turn Bay Length (ft)	120			52	140		
Base Capacity (vph)	558	631	676	689	557	498	568
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.24	0.17	0.09	0.08	0.18	0.38

Intersection Summary

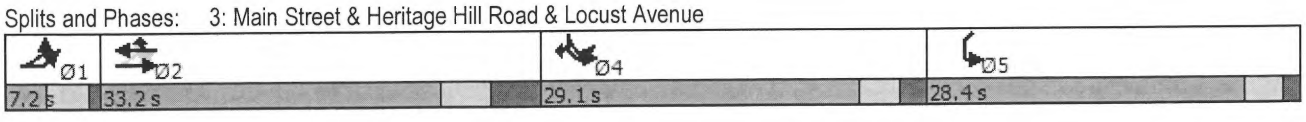
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	55	104	106	141	17	23	1	45	138	65	174	3
Future Volume (vph)	55	104	106	141	17	23	1	45	138	65	174	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	14	14	12	12	12	12	12	12
Grade (%)			0%	0%				15%		0%		
Storage Length (ft)		120			52			140	0	0	0	
Storage Lanes		1			1			1	1	1	0	
Taper Length (ft)		60						50		25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.850				0.850	0.901		
Flt Protected		0.950						0.950		0.987		
Satd. Flow (prot)	0	1652	1739	1863	1689	0	0	1637	1465	1657	0	0
Flt Permitted		0.660						0.950		0.987		
Satd. Flow (perm)	0	1147	1739	1863	1689	0	0	1637	1465	1657	0	0
Right Turn on Red						Yes			No			No
Satd. Flow (RTOR)					119							
Link Speed (mph)			25	25				30		25		
Link Distance (ft)			146	309				334		329		
Travel Time (s)			4.0	8.4				7.6		9.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	113	115	153	18	25	1	49	150	71	189	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	115	153	43	0	0	50	150	263	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)			10	10				12		12		
Link Offset(ft)			0	0				0		0		
Crosswalk Width(ft)			16	16				16		16		
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.00	0.92	0.92	1.11	1.11	1.11	1.00	1.00	1.00
Turning Speed (mph)	15	15			9	9	15	15	9	15	9	9
Number of Detectors	1	0	0	0	0		1	3	3	1		
Detector Template	Left						Left			Left		
Leading Detector (ft)	20	0	0	0	0		20	34	34	20		
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Size(ft)	20	6	20	20	20		20	6	6	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 2 Position(ft)								14	14			
Detector 2 Size(ft)								6	6			
Detector 2 Type								Cl+Ex	Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)								0.0	0.0			
Detector 3 Position(ft)								28	28			

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Detector 3 Size(ft)								6	6			
Detector 3 Type								Cl+Ex	Cl+Ex			
Detector 3 Channel												
Detector 3 Extend (s)								0.0	0.0			
Turn Type	pm+pt	pm+pt	NA	NA	Prot		Prot	Prot	Prot	Prot		
Protected Phases	1	1	2	2	2		4	4	4	5		
Permitted Phases	2	2										
Detector Phase	1	1	2	2	2		4	4	4	5		
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	15.0		8.0	8.0	8.0	7.0		
Minimum Split (s)	7.2	7.2	22.6	22.6	22.6		13.1	13.1	13.1	11.4		
Total Split (s)	7.2	7.2	33.2	33.2	33.2		29.1	29.1	29.1	28.4		
Total Split (%)	7.4%	7.4%	33.9%	33.9%	33.9%		29.7%	29.7%	29.7%	29.0%		
Maximum Green (s)	3.0	3.0	25.6	25.6	25.6		24.0	24.0	24.0	24.0		
Yellow Time (s)	3.2	3.2	3.8	3.8	3.8		3.0	3.0	3.0	3.0		
All-Red Time (s)	1.0	1.0	3.8	3.8	3.8		2.1	2.1	2.1	1.4		
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)		4.2	7.6	7.6	7.6			5.1	5.1	4.4		
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lead	Lead	Lead	Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		2.0	2.0	2.0	3.0		
Recall Mode	Max	Max	Max	Max	Max		None	None	None	None		
Act Effct Green (s)		32.4	25.9	25.9	25.9			13.0	13.0	17.5		
Actuated g/C Ratio		0.40	0.32	0.32	0.32			0.16	0.16	0.22		
v/c Ratio		0.36	0.21	0.26	0.07			0.19	0.64	0.74		
Control Delay		20.6	24.1	24.4	0.2			32.0	45.6	43.1		
Queue Delay		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Delay		20.6	24.1	24.4	0.2			32.0	45.6	43.1		
LOS		C	C	C	A			C	D	D		
Approach Delay			22.0	19.1				42.2		43.1		
Approach LOS			C	B				D		D		

Intersection Summary			
Area Type:	Other		
Cycle Length: 97.9			
Actuated Cycle Length: 80.9			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Main Street & Heritage Hill Road & Locust Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	SWL
Lane Group Flow (vph)	173	115	153	43	50	150	263
v/c Ratio	0.36	0.21	0.26	0.07	0.19	0.64	0.74
Control Delay	20.6	24.1	24.4	0.2	32.0	45.6	43.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	24.1	24.4	0.2	32.0	45.6	43.1
Queue Length 50th (ft)	51	42	57	0	22	72	123
Queue Length 95th (ft)	119	99	125	0	56	141	222
Internal Link Dist (ft)		66	229		254		249
Turn Bay Length (ft)	120			52	140		
Base Capacity (vph)	477	556	596	621	491	439	497
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.21	0.26	0.07	0.10	0.34	0.53

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	263	3	1	451	1	2
Future Volume (vph)	263	3	1	451	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.910	
Flt Protected					0.984	
Satd. Flow (prot)	1861	0	0	1863	1701	0
Flt Permitted					0.984	
Satd. Flow (perm)	1861	0	0	1863	1701	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	150			146	222	
Travel Time (s)	4.1			3.3	5.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	286	3	1	490	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	289	0	0	491	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			10	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	263	3	1	451	1	2
Future Vol, veh/h	263	3	1	451	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	286	3	1	490	1	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	289	0	780	288
Stage 1	-	-	-	-	288	-
Stage 2	-	-	-	-	492	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1284	-	367	756
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	619	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1284	-	367	756
Mov Cap-2 Maneuver	-	-	-	-	367	-
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	618	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	559	-	-	1284	-
HCM Lane V/C Ratio	0.006	-	-	0.001	-
HCM Control Delay (s)	11.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

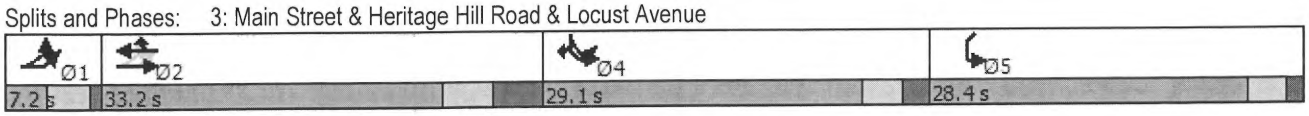
Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	161	185	142	108	18	39	2	37	83	69	125	7
Future Volume (vph)	161	185	142	108	18	39	2	37	83	69	125	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	14	14	12	12	12	12	12	12
Grade (%)			0%	0%				15%		0%		
Storage Length (ft)		120			52			140	0	0	0	
Storage Lanes		1			1			1	1	1	0	
Taper Length (ft)		60						50		25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.850				0.850	0.911		
Flt Protected		0.950						0.950		0.983		
Satd. Flow (prot)	0	1652	1739	1863	1689	0	0	1637	1465	1668	0	0
Flt Permitted		0.682						0.950		0.983		
Satd. Flow (perm)	0	1186	1739	1863	1689	0	0	1637	1465	1668	0	0
Right Turn on Red						Yes			No			No
Satd. Flow (RTOR)					119							
Link Speed (mph)			25	25				30		25		
Link Distance (ft)			146	309				334		329		
Travel Time (s)			4.0	8.4				7.6		9.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	175	201	154	117	20	42	2	40	90	75	136	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	376	154	117	62	0	0	42	90	219	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Left	Right	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)			10	10				12		12		
Link Offset(ft)			0	0				0		0		
Crosswalk Width(ft)			16	16				16		16		
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.00	0.92	0.92	1.11	1.11	1.11	1.00	1.00	1.00
Turning Speed (mph)	15	15			9	9	15	15	9	15	9	9
Number of Detectors	1	0	0	0	0		1	3	3	1		
Detector Template	Left						Left			Left		
Leading Detector (ft)	20	0	0	0	0		20	34	34	20		
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0		
Detector 1 Size(ft)	20	6	20	20	20		20	6	6	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Detector 2 Position(ft)								14	14			
Detector 2 Size(ft)								6	6			
Detector 2 Type								Cl+Ex	Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)								0.0	0.0			
Detector 3 Position(ft)								28	28			

Lane Group	EBL2	EBL	EBT	WBT	WBR	WBR2	SBL2	SBL	SBR	SWL	SWR	SWR2
Detector 3 Size(ft)								6	6			
Detector 3 Type								Cl+Ex	Cl+Ex			
Detector 3 Channel												
Detector 3 Extend (s)								0.0	0.0			
Turn Type	pm+pt	pm+pt	NA	NA	Prot		Prot	Prot	Prot	Prot		
Protected Phases	1	1	2	2	2		4	4	4	5		
Permitted Phases	2	2										
Detector Phase	1	1	2	2	2		4	4	4	5		
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	15.0		8.0	8.0	8.0	7.0		
Minimum Split (s)	7.2	7.2	22.6	22.6	22.6		13.1	13.1	13.1	11.4		
Total Split (s)	7.2	7.2	33.2	33.2	33.2		29.1	29.1	29.1	28.4		
Total Split (%)	7.4%	7.4%	33.9%	33.9%	33.9%		29.7%	29.7%	29.7%	29.0%		
Maximum Green (s)	3.0	3.0	25.6	25.6	25.6		24.0	24.0	24.0	24.0		
Yellow Time (s)	3.2	3.2	3.8	3.8	3.8		3.0	3.0	3.0	3.0		
All-Red Time (s)	1.0	1.0	3.8	3.8	3.8		2.1	2.1	2.1	1.4		
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)		4.2	7.6	7.6	7.6			5.1	5.1	4.4		
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lead	Lead	Lead	Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		2.0	2.0	2.0	3.0		
Recall Mode	Max	Max	Max	Max	Max		None	None	None	None		
Act Effct Green (s)		32.9	26.3	26.3	26.3			10.0	10.0	14.7		
Actuated g/C Ratio		0.45	0.36	0.36	0.36			0.14	0.14	0.20		
v/c Ratio		0.68	0.24	0.17	0.09			0.19	0.45	0.65		
Control Delay		26.0	20.9	20.4	0.8			32.4	39.0	36.9		
Queue Delay		0.0	0.0	0.0	0.0			0.0	0.0	0.0		
Total Delay		26.0	20.9	20.4	0.8			32.4	39.0	36.9		
LOS		C	C	C	A			C	D	D		
Approach Delay			24.5	13.6				36.9		36.9		
Approach LOS			C	B				D		D		

Intersection Summary

Area Type: Other
Cycle Length: 97.9
Actuated Cycle Length: 72.4
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 26.8 — Intersection LOS: C
Intersection Capacity Utilization 58.7% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Main Street & Heritage Hill Road & Locust Avenue



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	SWL
Lane Group Flow (vph)	376	154	117	62	42	90	219
v/c Ratio	0.68	0.24	0.17	0.09	0.19	0.45	0.65
Control Delay	26.0	20.9	20.4	0.8	32.4	39.0	36.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	20.9	20.4	0.8	32.4	39.0	36.9
Queue Length 50th (ft)	107	49	37	0	18	39	93
Queue Length 95th (ft)	#286	114	89	5	49	89	171
Internal Link Dist (ft)		66	229		254		249
Turn Bay Length (ft)	120			52	140		
Base Capacity (vph)	557	631	676	688	557	498	567
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.24	0.17	0.09	0.08	0.18	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	485	1	2	314	1	2
Future Volume (vph)	485	1	2	314	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.910	
Flt Protected					0.984	
Satd. Flow (prot)	1863	0	0	1863	1701	0
Flt Permitted					0.984	
Satd. Flow (perm)	1863	0	0	1863	1701	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	150			146	222	
Travel Time (s)	4.1			3.3	5.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	527	1	2	341	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	528	0	0	343	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			10	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	485	1	2	314	1	2
Future Vol, veh/h	485	1	2	314	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	527	1	2	341	1	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	528	0	873	528
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	345	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1049	-	323	554
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	722	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1049	-	322	554
Mov Cap-2 Maneuver	-	-	-	-	322	-
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	721	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	447	-	-	1049	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Control Delay (s)	13.1	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

NOTES:

1. INTERSECTION SIGHT DISTANCE IS BASED OFF A 85TH PERCENTILE SPEED OF 25 MILES PER HOUR SOUTHBOUND AND 26 MILES PER HOUR NORTHBOUND IN ACCORDANCE WITH THE CONNECTICUT HIGHWAY DESIGN MANUAL, 2003 EDITION, FIGURE 11-2C.
2. INTERSECTION SIGHT DISTANCE IS MEASURED 10 FEET FROM THE EDGE OF PAVEMENT IN THE PROPOSED SITE DRIVEWAY.

40 0 20 40

Rev. #:	Date	Description

SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	MB
Checked By:	KMS
Project #:	21108301
Plan Date:	09/24/21
Scale:	1" = 40'

Project:
PROPOSED MULTIFAMILY HOUSING
51 MAIN STREET
NEW CANAAN, CONNECTICUT

Sheet Title:
INTERSECTION SIGHT DISTANCE

SHEET #:
ISD

GENERAL NOTES:

1. Refer to a survey entitled entitled "Topographic Survey depicting 51 Main Street in New Canaan, Connecticut prepared for 51 Main Street LLC" prepared by this firm dated October 18, 2021.

2. Contours and elevations depicted hereon are based on the North American Vertical Datum of 1988 (NAVD88).

3. The locations of subsurface structures and utilities as depicted hereon indicate only that the structures exist, and no responsibility is assumed by the engineer or surveyor for the accuracy of the locations shown.

4. All construction shall comply with the Connecticut State Building Code.

5. This is an affordable housing project under 8-30(g) of the Connecticut General Statutes. Proposed activities will require review and approval by the applicable boards and agencies of the Town of New Canaan.

6. The contractor shall call the project engineer to inspect the installation of the proposed drainage and sanitary sewer systems prior to backfill, in addition to any required notifications to the Town.

7. Refer to architectural plans prepared by CAH Architecture and Design LLC of Easton, CT for design of building, exterior stairs, railings, decks, and accessibility.

Soil Test Pit Data

Tests witnessed by this firm on October 15, 2021.

TP #1
- 0" — 308.3 — Topsoil
- 8" — 307.6 — Brown loam
- 46" — 304.5 — Tan sand & silt with angular rock
- 86" — 301.1 — No ledge or groundwater

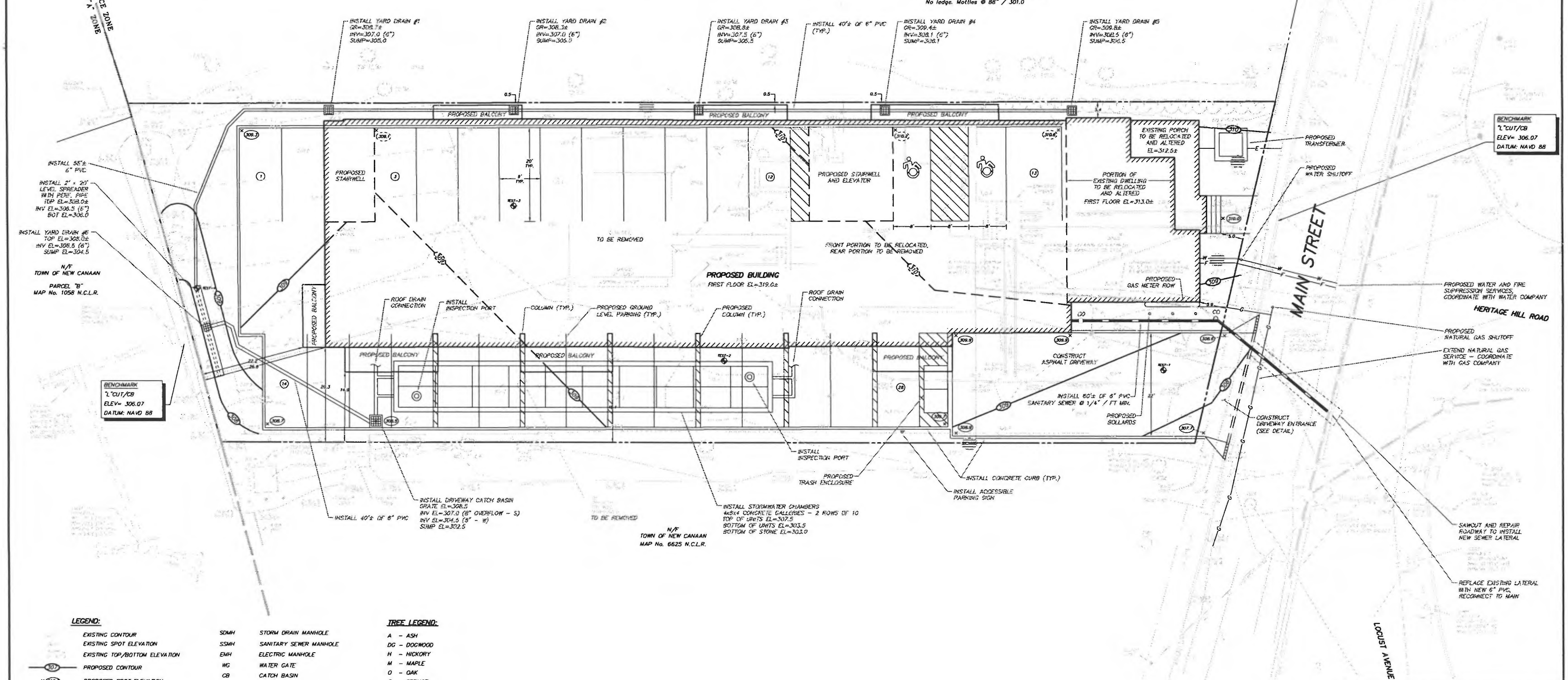
TP #2
- 0" — 308.3 — Topsoil
- 7" — 307.7 — Brown loam
- 48" — 304.3 — Orange brown silty soil
- 88" — 301.0 — No ledge or groundwater

TP #3
- 0" — 308.4 — Topsoil
- 8" — 307.7 — Brown loam
- 36" — 305.4 — Orange brown silty soil
- 90" — 300.9 — No ledge or groundwater

TP #4
- 0" — 308.3 — Topsoil
- 12" — 307.3 — Light brown silty loam
- 60" — 303.3 — Light brown sandy loam
- 72" — 302.3 — Mixed tan silty soil
- 94" — 300.5 — No ledge. Mottles @ 88" / 301.0

TAX MAP T, BLOCK 43, LOT 822
REFER TO BOOK 970 PAGE 95 N.C.L.R.
LAND LIES IN "B" RESIDENCE ZONE
LOT AREA = 16,587 S.F.

LOCATION MAP - 1"=500'±



"B" RESIDENCE ZONE
BUSINESS "A" ZONE
N/F CHURCH HILL WALK, INC. PARCEL "B" MAP No. 3936 N.C.L.R.
MERIDIAN OF RECORD
PROPOSED BUILDING
FIRST FLOOR EL=319.0±
PROPOSED STAIRWELL
PROPOSED STAIRWELL AND ELEVATOR
TO BE REMOVED
FRONT PORTION TO BE RELOCATED, REAR PORTION TO BE REMOVED
PORTION OF EXISTING DWELLING TO BE RELOCATED AND ALTERED FIRST FLOOR EL=313.0±
EXISTING PORCH TO BE RELOCATED AND ALTERED EL=312.5±
PROPOSED BALCONY
PROPOSED TRANSFORMER
PROPOSED WATER SHUTOFF
MAIN STREET
HERITAGE HILL ROAD
LOCUST AVENUE
PROPOSED WATER AND FIRE SUPPRESSION SERVICES, COORDINATE WITH WATER COMPANY
PROPOSED NATURAL GAS SHUTOFF
EXTEND NATURAL GAS SERVICE - COORDINATE WITH GAS COMPANY
PROPOSED GAS METER ROW
CONSTRUCT ASPHALT DRIVEWAY
INSTALL 60'± OF 6" PVC SANITARY SEWER @ 1/4" / FT MIN.
PROPOSED BOLLARDS
CONSTRUCT DRIVEWAY ENTRANCE (SEE DETAIL)
SAWCUT AND REPAIR ROADWAY TO INSTALL NEW SEWER LATERAL
REPLACE EXISTING LATERAL WITH NEW 6" PVC, RECONNECT TO MAIN
BENCHMARK "L"CUT/CB ELEV= 306.07 DATUM: NAVD 88
INSTALL 58'± 6" PVC
INSTALL 2' × 20' LEVEL SPREADER WITH PERF. PIPE TOP EL=308.0± INV EL=306.5 (6") BOT EL=306.0
INSTALL YARD DRAIN #6 TOP EL=308.0± INV EL=306.5 (6") SUMP EL=304.5
N/F TOWN OF NEW CANAAN PARCEL "B" MAP No. 1058 N.C.L.R.
INSTALL YARD DRAIN #1 GR=308.7± INV=307.0 (6") SUMP=305.0
INSTALL YARD DRAIN #2 GR=308.3± INV=307.0 (6") SUMP=305.0
INSTALL YARD DRAIN #3 GR=308.8± INV=307.5 (6") SUMP=305.5
INSTALL 40'± OF 6" PVC (TYP.)
INSTALL YARD DRAIN #4 GR=309.4± INV=308.1 (6") SUMP=306.1
INSTALL YARD DRAIN #5 GR=309.8± INV=308.5 (6") SUMP=306.5
ROOF DRAIN CONNECTION
INSTALL INSPECTION PORT
COLUMN (TYP.)
PROPOSED GROUND LEVEL PARKING (TYP.)
PROPOSED COLUMN (TYP.)
INSTALL 40'± OF 6" PVC
INSTALL DRIVEWAY CATCH BASIN GRATE EL=308.5 INV EL=307.0 (8" OVERFLOW - S) INV EL=304.5 (5" - W) SUMP EL=302.5
N/F TOWN OF NEW CANAAN MAP No. 6625 N.C.L.R.
INSTALL STORMWATER CHAMBERS 4x8x4 CONCRETE GALLERIES - 2 ROWS OF 10 TOP OF UNITS EL=307.5 BOTTOM OF UNITS EL=303.5 BOTTOM OF STONE EL=303.0
PROPOSED TRASH ENCLOSURE
INSTALL CONCRETE CURB (TYP.)
INSTALL ACCESSIBLE PARKING SIGN

LEGEND:

Symbol	Description
	EXISTING CONTOUR
	EXISTING SPOT ELEVATION
	EXISTING TOP/BOTTOM ELEVATION
307	PROPOSED CONTOUR
× 307.0	PROPOSED SPOT ELEVATION
T=307.0 B=306.0	PROPOSED TOP/BOTTOM ELEVATION
	DECIDUOUS/CONIFEROUS TREE
	EXISTING TREE TO BE REMOVED
	RETAINING WALL
	PROPERTY LINE
—W—	WATER SERVICE
—E—	ELEC, TELE, & CABLE SERVICES
—O—X—O—	FENCE
	ELECTRIC UTILITY POLE
	SOIL TEST BORING
	FIRE HYDRANT
	SIGN

Abbreviation	Meaning
SDMH	STORM DRAIN MANHOLE
SSMH	SANITARY SEWER MANHOLE
EMH	ELECTRIC MANHOLE
WG	WATER GATE
CB	CATCH BASIN
JB	JUNCTION BOX
YD	YARD DRAIN
CO	CLEAN OUT
PVC	POLYVINYL CHLORIDE
CPP	CORRUGATED PLASTIC PIPE
RCP	REINFORCED CONCRETE PIPE
PERF.	PERFORATED
GR	GRATE ELEVATION
INV	INVERT ELEVATION
V.I.F.	VERIFY IN FIELD
A.O.B.E.	AS ORDERED BY ENGINEER

TREE LEGEND:

- A - ASH
- DG - DOGWOOD
- H - HICKORY
- M - MAPLE
- O - OAK
- S - SPRUCE
- MU - MULTI
- TW - TWIN

CONTOUR INTERVAL = ONE FOOT
1 INCH = 10 FEET
SCALE
10 0 10
IN FEET

REV.	DATE	DESCRIPTION
0	11-08-21	P&Z REVIEW

LEONARD C. D'ANDREA, CT PE No. 14859 — 11-08-21
ENGINEER

ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

D'ANDREA SURVEYING & ENGINEERING, P.C.
· LAND PLANNERS · ENGINEERS · SURVEYORS
P.O. BOX 549 RIVERSIDE, CT 06878
6 NEIL LANE TEL. 637-1779

PROJECT	MULTI-FAMILY RESIDENCE
PREPARED FOR	51 MAIN STREET LLC
LOCATION	51 MAIN STREET NEW CANAAN, CONNECTICUT
1 OF 3	DEVELOPMENT PLAN

21NL

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
MAIN ST W OF HERITAGE HILL RD
NEW CANAAN,CT
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/12/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	19	75	**78**	21	2	**2**	0	0	0	0	0	0	0	0	197	16-25	153
18:00	3	75	66	**60**	**6**	0	0	0	0	0	0	0	0	0	**210**	16-25	141
19:00	**23**	**102**	44	9	2	0	0	0	**2**	0	0	0	0	0	182	16-25	146
20:00	2	31	29	15	2	0	0	0	0	0	0	0	0	0	79	16-25	60
21:00	1	21	17	16	1	0	0	0	0	0	0	0	0	0	56	16-25	38
22:00	0	12	15	10	1	0	0	0	0	0	0	0	0	0	38	16-25	27
23:00	0	1	1	3	1	0	0	0	0	0	0	0	0	0	6	26-35	4
Total	48	317	250	134	15	2	0	0	2	0	0	0	0	0	768		
Percent	6.3%	41.3%	32.6%	17.4%	2.0%	0.3%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	19:00 23	19:00 102	17:00 78	18:00 60	18:00 6	17:00 2			19:00 2						18:00 210		

Traffic Databank

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NEW CANAAN,CT
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/13/21	0	2	2	2	0	0	0	0	0	0	0	0	0	0	6	15-24	4
01:00	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4	15-24	4
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3	14-23	3
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
04:00	0	3	1	1	0	0	0	0	0	0	0	0	0	0	5	16-25	4
05:00	0	5	4	6	2	0	0	0	0	0	0	0	0	0	17	21-30	10
06:00	0	13	13	21	4	**1**	0	0	0	0	0	0	0	0	52	21-30	34
07:00	4	46	79	27	**12**	1	0	0	0	0	0	0	0	0	169	16-25	125
08:00	8	111	112	36	2	1	0	0	0	0	0	0	0	0	270	16-25	223
09:00	**25**	133	**124**	**55**	7	1	0	0	0	0	0	0	0	0	**345**	16-25	257
10:00	10	91	90	41	7	0	0	0	0	0	0	0	0	0	239	16-25	181
11:00	5	**140**	110	47	6	0	0	0	0	0	0	0	0	0	308	16-25	250
12 PM	28	159	110	41	9	0	0	0	0	0	0	0	0	0	347	16-25	269
13:00	15	115	138	54	8	0	0	0	0	0	0	0	0	0	330	16-25	253
14:00	10	115	133	42	9	0	0	0	0	0	0	0	0	0	309	16-25	248
15:00	11	116	150	**60**	6	**2**	0	0	0	0	0	0	0	0	345	16-25	266
16:00	**37**	149	**156**	49	17	0	0	0	0	0	0	0	0	0	**408**	16-25	305
17:00	27	**181**	130	50	14	0	0	0	0	0	0	0	0	0	402	16-25	311
18:00	5	121	114	48	**20**	0	0	0	0	0	0	0	0	0	308	16-25	235
19:00	16	101	60	30	4	0	0	0	0	0	0	0	0	0	211	16-25	161
20:00	7	61	43	4	0	0	0	0	0	0	0	0	0	0	115	16-25	104
21:00	6	45	19	4	1	0	0	0	0	0	0	0	0	0	75	16-25	64
22:00	0	12	10	2	0	0	0	0	0	0	0	0	0	0	24	16-25	22
23:00	0	4	2	0	0	0	0	0	0	0	0	0	0	0	6	15-24	6
Total	214	1727	1604	620	128	6	0	0	0	0	0	0	0	0	4299		
Percent	5.0%	40.2%	37.3%	14.4%	3.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	11:00	09:00	09:00	07:00	06:00									09:00		
Vol.	25	140	124	55	12	1									345		
PM Peak	16:00	17:00	16:00	15:00	18:00	15:00									16:00		
Vol.	37	181	156	60	20	2									408		

Traffic Databank

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EB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/14/21	0	2	2	1	0	0	0	0	0	0	0	0	0	0	5	16-25	4
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
03:00	2	0	3	1	0	0	0	0	0	0	0	0	0	0	6	21-30	4
04:00	0	2	6	1	0	0	0	0	0	0	0	0	0	0	9	16-25	8
05:00	0	5	16	13	0	**2**	0	0	0	0	0	0	0	0	36	21-30	29
06:00	1	38	74	25	1	0	0	0	0	0	0	0	0	0	139	16-25	112
07:00	4	71	204	**106**	**14**	1	0	0	0	0	0	0	0	0	400	21-30	310
08:00	7	**169**	**292**	48	2	0	0	0	0	0	0	0	0	0	**518**	16-25	461
09:00	**28**	152	204	74	8	0	0	0	0	**1**	0	0	0	0	467	16-25	356
10:00	21	117	135	66	9	0	0	0	0	0	0	0	0	0	348	16-25	252
11:00	15	128	115	58	7	0	0	0	0	0	0	0	0	0	323	16-25	243
12 PM	28	**167**	137	44	6	0	0	0	0	0	0	0	0	0	382	16-25	304
13:00	10	130	110	51	9	0	0	0	0	0	0	0	0	0	310	16-25	240
14:00	24	139	123	60	9	0	0	0	0	0	0	0	0	0	355	16-25	262
15:00	26	137	111	51	8	**1**	0	0	0	0	0	0	0	0	334	16-25	248
16:00	34	163	**153**	56	13	1	0	0	0	0	0	0	0	0	**420**	16-25	316
17:00	**50**	153	144	48	12	1	0	0	0	0	0	0	0	0	408	16-25	297
18:00	20	148	112	**62**	**14**	0	0	0	0	0	0	0	0	0	356	16-25	260
19:00	24	104	77	28	4	0	0	0	0	0	0	0	0	0	237	16-25	181
20:00	7	72	48	9	0	0	0	0	0	0	0	0	0	0	136	16-25	120
21:00	2	35	21	7	0	0	0	0	0	0	0	0	0	0	65	16-25	56
22:00	2	11	10	3	0	0	0	0	0	0	0	0	0	0	26	16-25	21
23:00	0	6	1	1	0	0	0	0	0	0	0	0	0	0	8	16-25	7
Total	305	1951	2098	813	116	6	0	0	0	1	0	0	0	0	5290		
Percent	5.8%	36.9%	39.7%	15.4%	2.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	08:00	08:00	07:00	07:00	05:00				09:00					08:00		
Vol.	28	169	292	106	14	2				1					518		
PM Peak	17:00	12:00	16:00	18:00	18:00	15:00									16:00		
Vol.	50	167	153	62	14	1									420		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
MAIN ST W OF HERITAGE HILL RD
NEW CANAAN,CT
Latitude: 0' 0.0000 Undefined

EB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/15/21	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5	15-24	5
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	14-23	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	14-23	2
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	10-19	2
05:00	1	10	4	6	0	0	0	0	0	0	0	0	0	0	21	16-25	14
06:00	0	16	22	16	5	0	0	0	0	0	0	0	0	0	59	16-25	38
07:00	1	33	67	38	8	1	0	0	0	0	0	0	0	0	148	21-30	105
08:00	18	99	100	39	6	0	0	0	0	0	0	0	0	0	262	16-25	199
09:00	10	**115**	**150**	**56**	9	0	0	0	0	0	0	0	0	0	**340**	16-25	265
10:00	8	98	100	37	**14**	**2**	0	0	0	0	0	0	0	0	259	16-25	198
11:00	**19**	109	113	42	11	0	0	0	0	0	0	0	0	0	294	16-25	222
12 PM	34	144	146	51	6	0	0	0	0	0	0	0	0	0	381	16-25	290
13:00	**14**	104	**165**	49	7	0	**1**	0	0	0	0	0	0	0	340	16-25	269
14:00	17	129	130	58	10	0	0	0	0	0	0	0	0	0	344	16-25	259
15:00	15	119	148	58	9	0	0	**3**	0	0	0	0	0	0	352	16-25	267
16:00	**39**	172	155	**65**	13	0	0	0	0	0	0	0	0	0	444	16-25	327
17:00	30	**223**	151	47	**16**	0	0	0	0	0	0	0	0	0	**467**	16-25	374
18:00	22	184	119	34	9	0	0	0	0	0	0	0	0	0	368	16-25	303
19:00	20	119	73	25	3	0	0	0	0	0	0	0	0	0	240	16-25	192
20:00	10	84	39	2	1	0	0	0	0	0	0	0	0	0	136	16-25	123
21:00	3	70	16	4	0	0	0	0	0	0	0	0	0	0	93	16-25	86
22:00	1	26	11	1	0	0	0	0	0	0	0	0	0	0	39	16-25	37
23:00	1	10	2	1	0	0	0	0	0	0	0	0	0	0	14	15-24	12
Total	263	1871	1715	629	127	3	1	3	0	0	0	0	0	0	4612		
Percent	5.7%	40.6%	37.2%	13.6%	2.8%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	09:00	09:00	09:00	10:00	10:00									09:00		
Vol.	19	115	150	56	14	2									340		
PM Peak	16:00	17:00	13:00	16:00	17:00		13:00	15:00							17:00		
Vol.	39	223	165	65	16		1	3							467		

Traffic Databank

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EB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/16/21	0	2	2	1	0	0	0	0	0	0	0	0	0	0	5	16-25	4
01:00	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4	14-23	4
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
05:00	0	4	5	3	2	1	0	0	0	0	0	0	0	0	15	16-25	9
06:00	2	11	18	16	2	**2**	0	0	0	0	0	0	0	0	51	21-30	34
07:00	4	41	52	22	7	0	0	0	0	0	0	0	0	0	126	16-25	93
08:00	2	76	81	35	13	1	0	0	0	0	0	0	0	0	208	16-25	157
09:00	2	69	**116**	**54**	7	0	0	0	0	0	0	0	0	0	248	16-25	185
10:00	6	104	97	43	14	0	0	0	0	0	0	0	0	0	264	16-25	201
11:00	**19**	**134**	105	48	**15**	1	0	0	0	0	0	0	0	0	**322**	16-25	239
12 PM	**43**	142	**142**	47	4	0	0	0	0	0	0	0	0	0	**378**	16-25	284
13:00	32	131	135	**58**	3	0	0	0	0	0	0	0	0	0	359	16-25	266
14:00	8	130	118	54	8	0	0	0	0	0	0	0	0	**1**	319	16-25	248
15:00	21	144	117	45	7	0	0	0	0	0	0	0	0	0	334	16-25	261
16:00	24	150	134	52	3	**1**	0	0	0	0	0	0	0	0	364	16-25	284
17:00	29	**153**	120	47	**21**	1	0	0	0	0	0	0	0	0	371	16-25	273
18:00	8	123	114	45	12	0	0	0	0	0	0	0	0	0	302	16-25	237
19:00	29	113	42	9	1	0	0	0	0	0	0	0	0	0	194	16-25	155
20:00	7	30	20	0	0	0	0	0	0	0	0	0	0	0	57	16-25	50
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	236	1562	1423	579	119	7	0	0	0	0	0	0	0	1	3927		
Percent	6.0%	39.8%	36.2%	14.7%	3.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	09:00	09:00	11:00	06:00									11:00		
Vol.	19	134	116	54	15	2									322		
PM Peak	12:00	17:00	12:00	13:00	17:00	16:00								14:00	12:00		
Vol.	43	153	142	58	21	1								1	378		
Total	1066	7428	7090	2775	505	24	1	3	2	1	0	0	0	1	18896		
Percent	5.6%	39.3%	37.5%	14.7%	2.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

	15th Percentile :	16 MPH
	50th Percentile :	20 MPH
	85th Percentile :	25 MPH
	95th Percentile :	29 MPH
Stats	10 MPH Pace Speed :	16-25 MPH
	Number in Pace :	14518
	Percent in Pace :	76.8%
	Number of Vehicles > 55 MPH :	2
	Percent of Vehicles > 55 MPH :	0.0%
	Mean Speed(Average) :	21 MPH

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
MAIN ST W OF HERITAGE HILL RD
NEW CANAAN,CT
Latitude: 0' 0.0000 Undefined

WB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/12/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	3	35	**94**	**37**	4	0	0	0	0	0	0	0	0	0	**173**	21-30	131
18:00	1	38	87	35	**6**	0	0	0	0	0	0	0	0	0	167	16-25	125
19:00	**4**	**61**	76	22	0	0	0	0	**2**	0	0	0	0	0	165	16-25	137
20:00	2	33	50	11	0	0	0	0	0	0	0	0	0	0	96	16-25	83
21:00	0	9	18	3	0	0	0	0	0	0	0	0	0	0	30	16-25	27
22:00	0	6	6	1	0	0	0	0	0	0	0	0	0	0	13	16-25	12
23:00	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	20-29	4
Total	10	182	333	111	10	0	0	0	2	0	0	0	0	0	648		
Percent	1.5%	28.1%	51.4%	17.1%	1.5%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	19:00 4	19:00 61	17:00 94	17:00 37	18:00 6				19:00 2						17:00 173		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
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MAIN ST W OF HERITAGE HILL RD
NEW CANAAN,CT
Latitude: 0' 0.0000 Undefined

WB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/13/21	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	14-23	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	1	1	1	2	0	0	0	0	0	0	0	0	0	0	5	19-28	3
03:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	*	1
04:00	0	0	6	1	0	0	0	0	0	0	0	0	0	0	7	19-28	7
05:00	0	6	14	1	1	0	0	0	0	0	0	0	0	0	22	16-25	20
06:00	0	15	57	8	2	0	0	0	0	0	0	0	0	0	82	16-25	72
07:00	7	65	163	51	1	0	0	0	0	0	0	0	0	0	287	16-25	228
08:00	3	**112**	**212**	54	**9**	0	0	0	0	0	0	0	0	0	**390**	16-25	324
09:00	10	73	126	61	8	**2**	0	0	0	0	0	0	0	0	280	16-25	199
10:00	3	59	111	32	5	0	0	0	0	0	0	0	0	0	210	16-25	170
11:00	**12**	103	121	**76**	9	1	0	0	0	0	0	0	0	0	322	16-25	224
12 PM	4	70	121	51	9	**2**	0	0	0	0	0	0	0	0	257	16-25	191
13:00	5	65	119	48	7	0	0	0	0	0	0	0	0	0	244	16-25	184
14:00	3	49	**138**	60	**13**	0	0	0	0	0	0	0	0	0	263	21-30	198
15:00	4	88	126	41	11	0	0	0	0	0	0	0	0	0	270	16-25	214
16:00	**7**	87	135	51	12	0	0	0	0	0	0	0	0	0	292	16-25	222
17:00	6	**108**	123	**77**	12	0	0	0	0	0	0	0	0	0	**326**	16-25	231
18:00	4	52	93	57	10	0	0	0	0	0	0	0	0	0	216	21-30	150
19:00	3	77	88	21	1	0	0	0	0	0	0	0	0	0	190	16-25	165
20:00	2	41	51	12	1	0	0	0	0	0	0	0	0	0	107	16-25	92
21:00	0	16	35	6	0	0	0	0	0	0	0	0	0	0	57	16-25	51
22:00	0	6	8	0	0	0	0	0	0	0	0	0	0	0	14	16-25	14
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
Total	75	1095	1850	710	111	5	0	0	0	0	0	0	0	0	3846		
Percent	2.0%	28.5%	48.1%	18.5%	2.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	08:00	08:00	11:00	08:00	09:00									08:00		
Vol.	12	112	212	76	9	2									390		
PM Peak	16:00	17:00	14:00	17:00	14:00	12:00									17:00		
Vol.	7	108	138	77	13	2									326		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
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NEW CANAAN,CT
Latitude: 0' 0.0000 Undefined

WB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/14/21	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
03:00	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3	14-23	2
04:00	0	4	2	0	0	0	0	0	0	0	0	0	0	0	6	15-24	6
05:00	1	14	4	0	1	0	0	0	0	0	0	0	0	0	20	16-25	18
06:00	1	19	66	25	0	0	0	0	0	0	0	0	0	0	111	21-30	91
07:00	8	**194**	60	76	3	0	0	0	0	0	0	0	0	0	341	16-25	254
08:00	**20**	158	**168**	**112**	8	0	0	0	0	0	0	0	0	0	**466**	16-25	326
09:00	19	162	63	64	5	**1**	0	0	0	**2**	0	0	0	0	316	16-25	225
10:00	9	72	91	44	**13**	0	0	0	0	0	0	0	0	0	229	16-25	163
11:00	3	78	135	65	13	0	0	0	0	0	0	0	0	0	294	16-25	213
12 PM	10	**89**	123	48	**12**	0	0	0	0	0	0	0	0	0	282	16-25	212
13:00	2	74	104	52	10	0	0	0	0	0	0	0	0	0	242	16-25	178
14:00	7	69	**138**	55	8	0	0	0	0	0	0	0	0	0	277	16-25	207
15:00	7	69	122	40	10	0	0	0	0	0	0	0	0	0	248	16-25	191
16:00	**11**	89	131	63	12	0	0	0	0	0	0	0	0	0	**306**	16-25	220
17:00	6	63	132	**66**	12	0	0	0	0	0	0	0	0	0	279	21-30	198
18:00	6	42	130	57	12	0	0	0	0	0	0	0	0	0	247	21-30	187
19:00	7	67	71	33	6	**1**	0	0	0	0	0	0	0	0	185	16-25	138
20:00	1	49	58	10	0	0	0	0	0	0	0	0	0	0	118	16-25	107
21:00	0	18	30	13	0	0	0	0	0	0	0	0	0	0	61	16-25	48
22:00	0	6	3	1	0	0	0	0	0	0	0	0	0	0	10	16-25	9
23:00	0	2	4	0	0	0	0	0	0	0	0	0	0	0	6	16-25	6
Total	118	1339	1639	825	125	2	0	0	0	2	0	0	0	0	4050		
Percent	2.9%	33.1%	40.5%	20.4%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	08:00	08:00	10:00	09:00				09:00					08:00		
Vol.	20	194	168	112	13	1				2					466		
PM Peak	16:00	12:00	14:00	17:00	12:00	19:00									16:00		
Vol.	11	89	138	66	12	1									306		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
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MAIN ST W OF HERITAGE HILL RD
NEW CANAAN,CT
Latitude: 0' 0.0000 Undefined

WB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/15/21	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	14-23	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	14-23	2
05:00	3	17	12	2	0	0	0	0	0	0	0	0	0	0	34	16-25	29
06:00	1	25	61	10	0	0	0	0	0	0	0	0	0	0	97	16-25	86
07:00	5	69	119	43	3	0	0	0	0	0	0	0	0	0	239	16-25	188
08:00	**14**	**103**	**188**	70	1	**1**	0	0	0	0	0	0	0	0	**377**	16-25	291
09:00	5	68	179	61	9	1	**2**	0	0	0	0	0	0	0	325	16-25	247
10:00	4	45	101	39	**11**	1	0	0	0	0	0	0	0	0	201	16-25	146
11:00	9	85	137	**72**	9	0	0	0	0	0	0	0	0	0	312	16-25	222
12 PM	9	**101**	108	44	6	0	0	0	0	0	0	0	0	0	268	16-25	209
13:00	9	92	122	41	8	0	**2**	0	0	0	0	0	0	0	274	16-25	214
14:00	8	75	108	49	10	0	0	0	0	0	0	0	0	0	250	16-25	183
15:00	2	84	**190**	51	14	0	0	**2**	0	0	0	0	0	0	**343**	16-25	274
16:00	7	86	165	42	6	0	0	0	0	0	0	0	0	0	306	16-25	251
17:00	**18**	82	145	**65**	12	0	0	0	0	0	0	0	0	0	322	16-25	227
18:00	4	62	106	65	**15**	0	0	0	0	0	0	0	0	0	252	21-30	171
19:00	10	70	83	31	3	0	0	0	0	0	0	0	0	0	197	16-25	153
20:00	1	53	55	8	1	0	0	0	0	0	0	0	0	0	118	16-25	108
21:00	1	23	34	5	1	0	0	0	0	0	0	0	0	0	64	16-25	57
22:00	0	10	14	2	0	0	0	0	0	0	0	0	0	0	26	16-25	24
23:00	1	7	4	0	0	0	0	0	0	0	0	0	0	0	12	16-25	11
Total	111	1160	1934	700	109	3	4	2	0	0	0	0	0	0	4023		
Percent	2.8%	28.8%	48.1%	17.4%	2.7%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	11:00	10:00	08:00	09:00								08:00		
Vol.	14	103	188	72	11	1	2								377		
PM Peak	17:00	12:00	15:00	17:00	18:00		13:00	15:00							15:00		
Vol.	18	101	190	65	15		2	2							343		

Traffic Databank

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Latitude: 0' 0.0000 Undefined

WB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/16/21	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15-24	2
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15-24	2
04:00	0	1	2	1	0	0	0	0	0	0	0	0	0	0	4	15-24	3
05:00	0	1	8	1	1	0	0	0	0	0	0	0	0	0	11	20-29	9
06:00	0	17	36	15	1	0	0	0	0	0	0	0	0	0	69	16-25	53
07:00	2	41	98	33	3	0	0	0	0	0	0	0	0	0	177	16-25	139
08:00	2	**72**	**138**	**50**	8	0	0	0	0	0	0	0	0	0	**270**	16-25	210
09:00	**7**	60	133	46	6	**1**	0	0	0	0	0	0	0	0	253	16-25	193
10:00	1	38	103	45	9	0	0	0	0	0	0	0	0	0	196	21-30	148
11:00	4	60	126	34	**12**	0	0	0	0	0	0	0	0	0	236	16-25	186
12 PM	10	77	135	**78**	8	0	0	0	0	0	0	0	0	0	**308**	19-28	213
13:00	2	63	**148**	53	13	0	0	0	0	0	0	0	0	0	279	16-25	211
14:00	7	63	130	64	6	0	0	0	0	0	0	0	0	**1**	271	19-28	194
15:00	10	61	106	41	7	0	0	0	0	0	0	0	0	0	225	16-25	167
16:00	**11**	**80**	106	51	9	0	0	**1**	0	0	0	0	0	0	258	16-25	186
17:00	6	59	114	50	10	**1**	0	0	0	0	0	0	0	0	240	16-25	173
18:00	5	58	99	60	**14**	0	0	0	0	0	0	0	0	0	236	20-29	159
19:00	4	59	59	7	1	0	0	1	0	0	0	0	0	1	132	16-25	118
20:00	0	16	15	0	0	0	0	0	0	0	0	0	0	0	31	16-25	31
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	71	826	1561	629	108	2	0	2	0	0	0	0	0	2	3201		
Percent	2.2%	25.8%	48.8%	19.7%	3.4%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%			
AM Peak	09:00	08:00	08:00	08:00	11:00	09:00									08:00		
Vol.	7	72	138	50	12	1									270		
PM Peak	16:00	16:00	13:00	12:00	18:00	17:00		16:00						14:00	12:00		
Vol.	11	80	148	78	14	1		1						1	308		
Total	385	4602	7317	2975	463	12	4	4	2	2	0	0	0	2	15768		
Percent	2.4%	29.2%	46.4%	18.9%	2.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

	15th Percentile :	17 MPH
	50th Percentile :	21 MPH
	85th Percentile :	26 MPH
	95th Percentile :	29 MPH
Stats	10 MPH Pace Speed :	16-25 MPH
	Number in Pace :	11919
	Percent in Pace :	75.6%
	Number of Vehicles > 55 MPH :	4
	Percent of Vehicles > 55 MPH :	0.0%
	Mean Speed(Average) :	22 MPH

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
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NEW CANAAN,CT
Latitude: 0' 0.0000 Undefined

Start	12-Sep-21		13-Sep-21		14-Sep-21		15-Sep-21		16-Sep-21		17-Sep-21		18-Sep-21		Week Average	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	6	2	5	1	5	1	5	2	*	*	*	*	5	2
01:00	*	*	4	0	1	1	2	1	4	1	*	*	*	*	3	1
02:00	*	*	3	5	1	1	0	2	1	0	*	*	*	*	1	2
03:00	*	*	1	2	6	3	2	0	4	2	*	*	*	*	3	2
04:00	*	*	5	7	9	6	2	2	1	4	*	*	*	*	4	5
05:00	*	*	17	22	36	20	21	34	15	11	*	*	*	*	22	22
06:00	*	*	52	82	139	111	59	97	51	69	*	*	*	*	75	90
07:00	*	*	169	287	400	341	148	239	126	177	*	*	*	*	211	261
08:00	*	*	270	**390**	**518**	**466**	262	**377**	208	**270**	*	*	*	*	314	**376**
09:00	*	*	**345**	280	467	316	**340**	325	248	253	*	*	*	*	**350**	294
10:00	*	*	239	210	348	229	259	201	264	196	*	*	*	*	278	209
11:00	*	*	308	322	323	294	294	312	**322**	236	*	*	*	*	312	291
12:00 PM	*	*	347	257	382	282	381	268	**378**	**308**	*	*	*	*	372	279
01:00	*	*	330	244	310	242	340	274	359	279	*	*	*	*	335	260
02:00	*	*	309	263	355	277	344	250	319	271	*	*	*	*	332	265
03:00	*	*	345	270	334	248	352	**343**	334	225	*	*	*	*	341	272
04:00	*	*	**408**	292	**420**	**306**	444	306	364	258	*	*	*	*	**409**	**290**
05:00	197	**173**	402	**326**	408	279	**467**	322	371	240	*	*	*	*	369	268
06:00	**210**	167	308	216	356	247	368	252	302	236	*	*	*	*	309	224
07:00	182	165	211	190	237	185	240	197	194	132	*	*	*	*	213	174
08:00	79	96	115	107	136	118	136	118	57	31	*	*	*	*	105	94
09:00	56	30	75	57	65	61	93	64	*	*	*	*	*	*	72	53
10:00	38	13	24	14	26	10	39	26	*	*	*	*	*	*	32	16
11:00	6	4	6	1	8	6	14	12	*	*	*	*	*	*	8	6
Total	768	648	4299	3846	5290	4050	4612	4023	3927	3201	0	0	0	0	4475	3756
Day	1416		8145		9340		8635		7128		0		0		8231	
AM Peak	-	-	09:00	08:00	08:00	08:00	09:00	08:00	11:00	08:00	-	-	-	-	09:00	08:00
Vol.	-	-	345	390	518	466	340	377	322	270	-	-	-	-	350	376
PM Peak	18:00	17:00	16:00	17:00	16:00	16:00	17:00	15:00	12:00	12:00	-	-	-	-	16:00	16:00
Vol.	210	173	408	326	420	306	467	343	378	308	-	-	-	-	409	290

Comb. Total	1416	8145	9340	8635	7128	0	0	8231

ADT ADT 410 AADT 410

Study Name 6-MAIN ST AT LOCUST AVE/HERITAGE ILL RD/SITE DRIVEWAY
Start Date 09-14-2021
Start Time 7:00 AM
Site Code

	HERITAGE HILL RD Southbound					LOCUST AVE Southwestbound					MAIN ST. Westbound					SITE DRIVEWAY Northbound					MAIN ST. Eastbound				
Start Time	Hard Left	Left	Thru	Right	U-Turn	Hard Left	Bear Left	Bear Right	Hard Right	U-Turn	Left	Thru	Right	Hard Right	U-Turn	Left	Thru	Bear Right	Right	U-Turn	Left	Bear Left	Thru	Right	U-Turn
7:00 AM	0	17	0	48	0	11	0	18	0	0	1	14	5	5	0	0	0	0	0	0	8	10	33	0	0
7:15 AM	0	8	0	23	0	9	0	16	0	0	0	21	1	5	0	0	0	0	0	0	7	12	14	0	0
7:30 AM	0	4	0	28	0	11	0	17	0	0	0	24	7	6	0	0	0	0	1	0	12	13	15	0	0
7:45 AM	1	6	0	41	0	8	0	41	0	0	0	19	3	3	0	0	0	0	0	0	10	16	24	0	0
8:00 AM	0	9	0	32	0	14	0	35	0	0	1	20	1	3	0	0	0	0	0	0	9	22	28	1	0
8:15 AM	0	12	0	37	0	19	0	44	1	0	0	33	7	5	0	0	0	0	0	0	9	37	31	0	0
8:30 AM	0	17	0	39	0	13	0	40	1	0	0	33	2	4	0	0	0	0	0	0	24	23	19	1	0
8:45 AM	1	7	0	29	0	19	0	54	1	0	0	53	7	11	0	0	0	0	0	0	13	20	27	0	0
4:00 PM	1	6	0	17	0	23	0	32	3	0	0	14	6	11	0	0	0	0	0	0	24	39	37	0	0
4:15 PM	0	10	0	24	0	29	0	26	0	0	0	23	5	7	0	0	0	0	0	0	29	37	37	0	0
4:30 PM	0	8	0	24	0	16	0	21	1	0	0	27	3	9	0	0	0	0	0	0	34	64	41	0	0
4:45 PM	0	9	0	25	0	20	0	34	3	0	0	23	1	11	0	0	0	0	0	0	44	31	32	0	0
5:00 PM	1	10	0	14	0	20	0	35	3	0	0	28	3	10	0	0	0	0	0	0	44	42	31	0	0
5:15 PM	1	10	0	20	0	13	0	33	0	0	0	28	11	9	0	0	0	0	0	0	38	46	36	0	0
5:30 PM	0	8	0	14	0	13	0	18	1	0	0	33	4	9	0	0	0	0	0	0	43	32	37	0	0
5:45 PM	0	1	0	22	0	32	0	10	1	0	0	28	4	12	1	0	0	0	0	0	36	27	40	0	0

WILLIAM KENNY ASSOCIATES
LANDSCAPE ARCHITECTURE ▪ ECOLOGICAL SERVICES

March 10, 2022

Mr. Paul Stone
51 Main Street LLC
16 Cross Street
New Canaan, CT 06840

Re: Wetland and Watercourse Determination
51 Main Street, New Canaan, Connecticut

Dear Mr. Stone:

As requested, we visited the referenced property to determine the presence or absence of wetlands and/or watercourses, to demarcate (flag) the boundaries of wetlands and watercourses identified, and to identify onsite soil types. This letter includes the methods and results of our investigation, which we completed today, March 10, 2022. In summary, no inland wetlands or watercourses were observed at the property.

Regulatory Definitions

The Inland Wetlands and Watercourses Act (Connecticut General Statutes §22a-38) defines inland wetlands as "land, including submerged land...which consists of any soil types designated as poorly drained, very poorly drained, alluvial, and floodplain." Watercourses are defined in the act as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." The Act defines Intermittent Watercourses as having a defined permanent channel and bank and the occurrence of two or more of the following characteristics: A) evidence of scour or deposits of recent alluvium or detritus, B) the presence of standing or flowing water for a duration longer than a particular storm incident, and C) the presence of hydrophytic vegetation.

Methodology

A second order soil survey in accordance with the principles and practices noted in the USDA publication *Soil Survey Manual* (1993) was completed at the subject site. The classification system of the National Cooperative Soil Survey was used in this investigation. Soil map units identified at the project site generally correspond to those included in the *Soil Survey of Fairfield County, Connecticut* (USDA 2005).

Wetland determinations were completed based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils. Soil types were identified by observation of soil morphology (soil texture, color, structure, etc.). To observe the morphology of the property's soils, test pits and/or borings (maximum depth of two feet) were completed at the site.

1899 Bronson Road
Fairfield CT 06824
203 366 0588
www.wkassociates.net

deposited by glacial melt water. Alluvium is material such as sand, silt, or clay, deposited on land by streams. Organic deposits consist of decomposed plant and animal parts.

A soil's texture affects the ease of digging, filling, and compacting and the permeability of a soil. Generally sand and gravel soils, such as outwash soils, have higher permeability rates than most glacial till soils. Soil permeability affects the cost to design and construct subsurface sanitary disposal facilities and, if too slow or too fast, may preclude their use. Outwash soils are generally excellent sources of natural aggregates (sand and gravel) suitable for commercial use, such as construction sub base material. Organic layers in soils can cause movement of structural footings. Compacted glacial till layers make excavating more difficult and may preclude the use of subsurface sanitary disposal systems or increase their design and construction costs if fill material is required.

Generally, soils with steeper slopes increase construction costs, increase the potential for erosion and sedimentation impacts, and reduce the feasibility of locating subsurface sanitary disposal facilities.

Drainage class refers to the frequency and duration of periods of soil saturation or partial saturation during soil formation. Seven classes of natural drainage classes exist. They range from excessively drained, where water is removed from the soil very rapidly, to very poorly drained, where water is removed so slowly that free water remains at or near the soil surface during most of the growing season. Soil drainage affects the type and growth of plants found in an area. When landscaping or gardening, drainage class information can be used to assure that proposed plants are adapted to existing drainage conditions or that necessary alterations to drainage conditions (irrigation or drainage systems) are provided to assure plant survival.

High water table is the highest level of a saturated zone in the soil in most years. The water table can affect the timing of excavations; the ease of excavating, constructing, and grading; and the supporting capacity of the soil. Shallow water tables may preclude the use of subsurface sanitary disposal systems or increase design and construction costs if fill material is required.

The depth to bedrock refers to the depth to fixed rock. Bedrock depth affects the ease and cost of construction, such as digging, filling, compacting, and planting. Shallow depth bedrock may preclude the use of subsurface sanitary disposal systems or increase design and construction costs if fill material is required.

SOIL LEGEND

UPLAND
306 UDORTHENTS-URBAN LAND COMPLEX

WILLIAM KENNY ASSOCIATES
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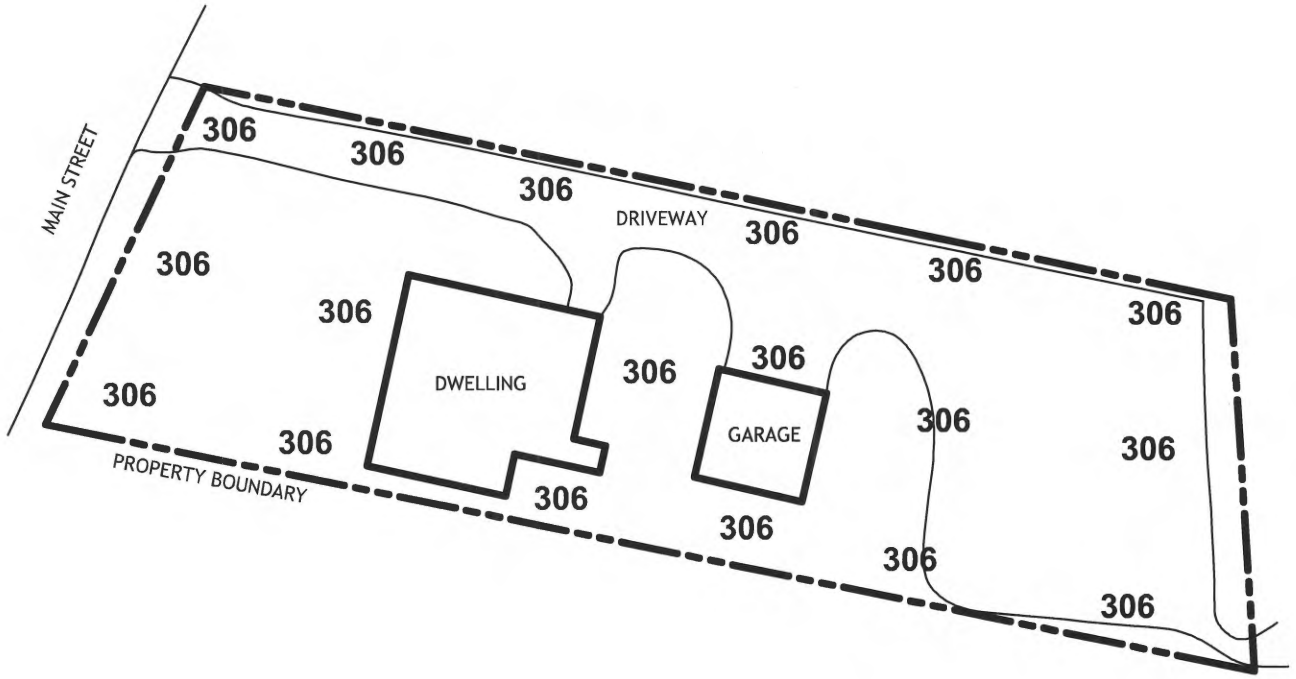


NOTES:
- *INFORMATION SHOWN ON THIS DRAWING IS APPROXIMATE.*
- *SOIL INFORMATION PROVIDED BY WILLIAM KENNY ASSOC. OTHER INFORMATION TAKEN FROM A DRAWING PREPARED BY RKW LAND SURVEYING.*
- ***306** IS THE SOIL MAPPING UNIT SYMBOL. SEE DETERMINATION REPORT FOR THE SOIL MAP UNIT NAMES AND ADDITIONAL RELATED INFORMATION.*

I CERTIFY THAT THIS SOIL MAP SUBSTANTIALLY REPRESENTS THE SOILS MAPPED IN THE FIELD

WILLIAM L. KENNY, SOIL SCIENTIST

SOIL MAP

51 MAIN STREET
NEW CANAAN, CONNECTICUT

SCALE: NOT TO SCALE
DATE: MARCH 10, 2022

Ref. No. 5222

NORTH

AQUARION
Water Company
Stewards of the Environment™

203.445.7310 phone
800.732.9678 (toll free)

November 19, 2021

Paul Stone
51 Main Street LLC
16 Cross Street
New Canaan, CT 06840

Re: Request for Water Service – 51 Main Street, New Canaan, CT

Dear Mr. Stone,

This letter confirms that Aquarion Water Company of Connecticut (Aquarion) has sufficient water supply to meet the following estimated residential water demand for the proposed development at the above referenced property.

- Average Day Demand: 3,100 gallons per day
- Maximum Day Demand: 6,200 gallons per day
- Irrigation System Demand: 100 gallons per day
- Fire Sprinkler Demand: 750 gallons per minute at 38 psi

Please note that Aquarion has instituted conservation measures in New Canaan that limits the operation of irrigation systems to two (2) times per week. Please visit our website for additional information (www.aquarionwater.com).

This commitment does not fire hydrant demand because no demand projections fire hydrants were included in the application submitted to Aquarion. If you wish to include fire hydrant demand in your project, you will need to update your application and resubmit your Will Serve Letter request.

The attached fire flow test report indicates an available fire flow of approximately 2,130 gallons per minute at 20 psi. It is your engineer's responsibility to design accordingly in order to achieve the required flow and pressure.

This service commitment is valid for 12 months from the date of issuance. If your proposed project is not under construction or ready for water service (intended usage) within 12 months of this letter, then Aquarion's ability to serve your project will have to be re-evaluated. If you have any questions, please feel free to contact me at 203.362.3067.

Very truly yours,
Aquarion Water Company
Hannah Swearsky

Hannah P. Swearsky
Planning Engineer

cc: New Services, File
Attachment: Fire flow test at hydrant 0174 dated 10/5/2021
Will Serve Letter Application dated 11/15/2021

Reference Page _____

Aquarion Water Company Fire Flow Test

Test Location: NEW CANAAN, CT

Test Date: 10/05/2021 Test Time: 09:50 PM

Flow Hydrant: 0174 Location:Heritage Hill Rd @ Main St

Flow Hydrant Parameters:

Main Size:	8"
Pipe/Nozzle Diameter:	4.0 Diff. inches
Pito Pressure:	7 psi
PSI Before:	54 psi

Residual Hydrant: Faucet Location: Main St #51 Opp. Locust Ave

Residual Hydrant Parameters:

PSI Before:	55 psi
Residual During Flow:	44 psi
PSI After:	55 psi
PSI Drop:	11 psi

Test Results:

GPM Available:	1,140
GPM @20 psi:	2,130

Test Performed By: JP&MSOCCI

NOTE: Static Pressure readings are actual, and test results are not corrected for elevation differential.

Test Method: Calibrated Orifice

Disclaimer: This data represents system conditions on the date and time that the test was performed. System conditions may vary significantly throughout the year. The design of new water service installations and the identification and gathering of all necessary data is the sole responsibility of the Developer or his representative. In all instances, the water service designer should apply engineering judgment to ensure proper design. Aquarion Water Company does not guarantee the accuracy of this data.

IF THERE IS AN EXISTING TAP & THAT IS NOT BEING SEVERED AT THE TIME OF THE NEW TAP, A $4,000 DEPOSIT IS REQUIRED UNTIL YOU DO A TAP SHUT OFF

AQUARION Water Company

DEMAND FORM AND WILL SERVE LETTER APPLICATION

General Information:

Applicant Name: PAUL STONE Company Name: PAUL STONE

Email Address: pstone@karpassociatesinc.com Phone Number: (203) 223-4568

Mailing Address: ~~51 M~~ 16 Cross Street, New Canaan CT

Property Owner Name: 51 MAIN STREET LLC

Email Address: PSTONE@KARPASSOCIATESINC.com Phone Number: 203-972-3366

Project Name: 51 Main Street

Building Address: 51 Main Street

City: New Canaan State: CT Zip Code: 06840

Type of Project to be supplied by this connection (check all that apply):

☑ Residential ☐ Commercial ☐ Industrial ☐ Public Authority

Service Information:

Fire Demand:

Size: 8" Peak Flow: 750 GPM at Residual (PSI) at street connection: 38

Length of Proposed Fire Service Line: 75' Diameter of Proposed Fire Service Line: 8"

Domestic Demand:

Size: 2½" Peak Flow: 80 GPM at Residual (PSI) at street connection: 50

Length of Proposed Domestic Service Line: 45' Diameter of Proposed Domestic Service Line: 2-½"

Irrigation Demand: 100 GPD Peak Flow: 10 GPM

Fire Hydrant (Only if hydrant is required):

Quantity: _____ Flow: _____GPM

Plumbing and Fire Sprinkler (MEP or Sprinkler/Fire Designer must complete form & sign):

Printed Name: ERIK P. ZIMMITTI License #: PEN.0027833

Title: VICE PRESIDENT Phone Number: 203-739-5205

Signature: Erik P Zimmitti Date: 11/15/2021

If Domestic Service is desired, please fill out the worksheet below

DOMESTIC DEMAND WORKSHEET

Site Elevations:

High: 311 ft. Low: 309 ft.

Datum Elevation (USGS): _____

Commercial/Industrial/Public Authority Use:

Building Size: _____SF

Average Day Demand: _____gal/day

Maximum Day Demand: _____gal/day

Maximum Day Demand = Average Day Demand x2

and/or

Residential Use:

Number of Units: 20

Number of Studios: 0 One Bedroom: 9 Two Bedrooms: 11

Total Number of Bedrooms: 31

Average Day Demand: 3,100 gal/day

Maximum Day Demand: 6,200 gal/day

Maximum Day Demand = Average Day Demand x2

Note: This application will NOT be processed unless it is completely filled out and signed, a copy of utility site plans including elevation contours must be included. If you are requesting a fire service, a fire flow test may be required.

This application will be processed upon receipt of this information to verify the proper size of your service. It is the responsibility of the fire sprinkler designer to assure that adequate flow and pressure is available to meet the proposed fire demand. Please provide the information requested above and return the completed form to the attention of Aquarion Water Company, New Services Department, 600 Lindley Street, Mail-Stop 800, Bridgeport, CT 06606-5991 or can be emailed to New Services at newservices@aquarionwater.com. Thank you!

TAB 11

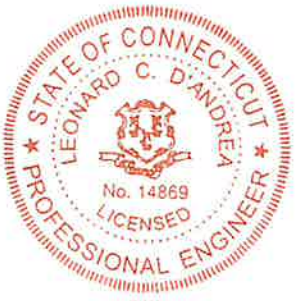
SANITARY SEWER CONNECTION
SUMMARY REPORT

FOR
MULTI-FAMILY RESIDENTIAL DEVELOPMENT

LOCATED AT
51 MAIN STREET
NEW CANAAN, CONNECTICUT

PREPARED FOR
51 MAIN STREET LLC

May 10, 2022



Leonard C. D'Andrea, P.E.
CT License No. 14869

21NL Sewer Report

SECTION I: Introduction

The purpose of this report is to summarize the impacts that the proposed sanitary sewer flow from the proposed 20-unit residential development will have on the Town of New Canaan sanitary sewer system. Based on previous discussions with the Town regarding the available capacity of the Town's sewage treatment facility, it was determined that the facility has ample capacity to accept the proposed additional sewer flow from this development. The following is a summary of the above-mentioned items.

SECTION II: Sanitary Sewer Connection

The property currently supports a structure and garage that have been used for office space. The proposed development will consist of the removal of the existing structures and the construction of a new residential building containing 20 apartment units. The existing 5-inch tile sanitary sewer lateral will be removed and approximately 60 feet of new 6-inch PVC lateral will be constructed. The new lateral will connect to the 8-inch sewer main in Main Street at the same point where the existing lateral connects.

The following computations were performed in order to determine the contributing sanitary sewer design flow from the proposed development.

Proposed Contributing Flow Computations:

Proposed Residential Units:

Proposed number of 2 bedroom units = 11
Proposed number of 1 bedroom units = 9

Discharge quantity per capita per day: 75 gpd

11 x 2 bedrooms x 2 persons x 75 gpd = 3,300 gpd
9 x 1 bedroom x 2 persons x 75 gpd = 1,350 gpd

Proposed total design discharge = 4,650 gpd

The calculation for the proposed total design discharge is based on full occupancy with two people per every bedroom. This is a conservative calculation and the actual total discharge will most likely be less than calculated.

SECTION III: Wastewater Treatment Plant – Available Capacity

During a previous meeting, circa 2016, with both the then Director of Public Works, Michael Pastore, P.E., and the Superintendent of the Water Pollution Control Facility and Transfer Station, James Rogers, for a residential complex, previously known as "Merritt Village", but now known as "Vue New Canaan", we were informed that the

Town's wastewater treatment plant has the capacity to treat approximately 1.7 MGD (million gallons per day). The treatment plant at the time of that meeting was treating approximately 1.2 MGD. Therefore, the wastewater treatment plant had approximately 500,000 gpd of available capacity.

Since the time of that meeting, the construction of the "Vue New Canaan" residential development has been completed, with an increase in total design discharge of approximately 27,750 gpd. Also, the construction of another approved residential development of significant size, known as "Canaan Parish" is currently under construction with an increase in total design discharge of approximately 13,800 gpd. The proposed "51 Main" project will have a total increase in design discharge of approximately 4,650 gpd. Another known proposed residential development of significant size, recently submitted to the Town for review, is "751 Weed Street" which will have an increase in total design discharge of approximately 23,550 gpd.

The total design discharge flow from all of the above residential developments (constructed, approved, or proposed) of significant size will be approximately 69,750 gpd, which is still well below the previously reported available capacity of 500,000 gpd. Therefore, the treatment plant has sufficient capacity to handle the additional design discharge from this proposed residential development.

TAB 12

DRAINAGE SUMMARY REPORT

For

Multi-Family Residence

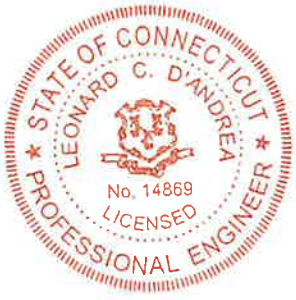
At

51 Main Street
New Canaan, Connecticut

Prepared For

51 Main Street LLC

May 18, 2022



Leonard C. D'Andrea, PE
CT License No. 14869

21NL DSR

P.O. Box 549 / 6 Neil Lane
Riverside, CT 06878

D'Andrea Surveying & Engineering P.C.
LAND PLANNERS • CIVIL ENGINEERS • SURVEYORS

203.637.1779
www.rvdi.com

Table of Contents

Project Summary

A developer is proposing to remove a dwelling and construct a new multi-story residential building at 51 Main Street in New Canaan, CT. This property is located on the south side of Main Street, across from the intersection with Heritage Hill Road. It covers about 17,000 s.f. in a "B" residential zone.

The proposed development will increase the impervious cover from about 9,040 to 13,460 square feet (+4,420 or 49%). A drainage system will be installed to treat stormwater, provide groundwater recharge, and control peak flows from the site.

For a depiction of the site and the proposed development, refer to a set of plans prepared by this firm entitled "Site Plan Review Set" dated May 18, 2022.

Watershed Analysis

Drainage patterns for the site were analyzed using HydroCAD version 10, with runoff data generated for the 1, 2, 5, 10, 25, 50 and 100-year storm frequency events.

The design requirements are to treat the Water Quality Volume (WQV), infiltrate the Groundwater Recharge Volume (GRV), ensure the stormwater storage systems function properly and draw down (empty) within 72 hours, and maintain or reduce peak flows for the 25-year storm event.

In this analysis, the site was divided into various drainage areas discharging to two Points of Concern (POCs). POC A is Main Street, while POC B is the Town Hall parking area. Both POCs are within the Five Mile River watershed. Refer to the watershed maps in Exhibits A & B.

Offsite vegetated area to the west contributes runoff to the property and is included in the model.

According to the USDA soil delineation map included in Exhibit C, the property lies within a mapped area of HSG-B soils. Soil test holes witnessed by this firm reveal moderately draining soils with at least 7 feet of depth without seasonal groundwater or bedrock.

Existing Conditions

Under existing conditions, the mostly flat site contains a historic dwelling, driveway, detached garage, and parking lot used by Town Hall employees. In the middle of the pavement is a catch basin with a defunct drywell. The drywell is not modeled but the depression in the pavement is. It overflows to the Town Hall property (POC B). Both Main Street and the Town Hall parking area have catch basins near the site.

Existing condition drainage areas are depicted on the Watershed Map in Exhibit A. Refer to Appendix B for inputs and results of the HydroCAD model.

Proposed Conditions

Under proposed conditions, the existing features will be demolished. A new multi-story apartment building will be constructed. Parking will be at the ground level, and the parking lot footprint extends beyond the building footprint. The existing driveway entrance will be widened for two-way traffic. The parking lot will be pitched towards a catch basin, which is routed to a stormwater chamber system along with the roof drains. The chamber system consists of a series of concrete galleries in a gravel bed, beneath the pavement. The system overflows to the Town Hall Property (POC B) via a proposed connection to an existing offsite catch basin. It provides both retention storage for water quality and groundwater recharge, and detention storage to control peak flows for large storms.

The area of disturbance encompasses the site. Proposed sedimentation and erosion controls during construction include tree protection, silt fencing, inserts for catch basins, regular sweeping of the street, and restoration of disturbed areas to grass or plantings. Periodic on-site inspections will be performed by the project engineer to ensure that these measures are maintained. Refer to the Sedimentation and Erosion Control Plan within the site plan set.

Proposed condition drainage areas are depicted on the Watershed Map in Exhibit B. Refer to Appendix C for inputs and results of the HydroCAD model.

Conclusion

The following tables compare the peak flow rates and volumes to each POC for all modeled storm events. Peak flows are reduced to POC B for the 25-year storm event. Peak flows increase to POC A because there is additional impervious area in the front part of the property. We believe this is acceptable because the increase is at most 0.09 cfs, which is too small to have an impact on the Town drainage system.

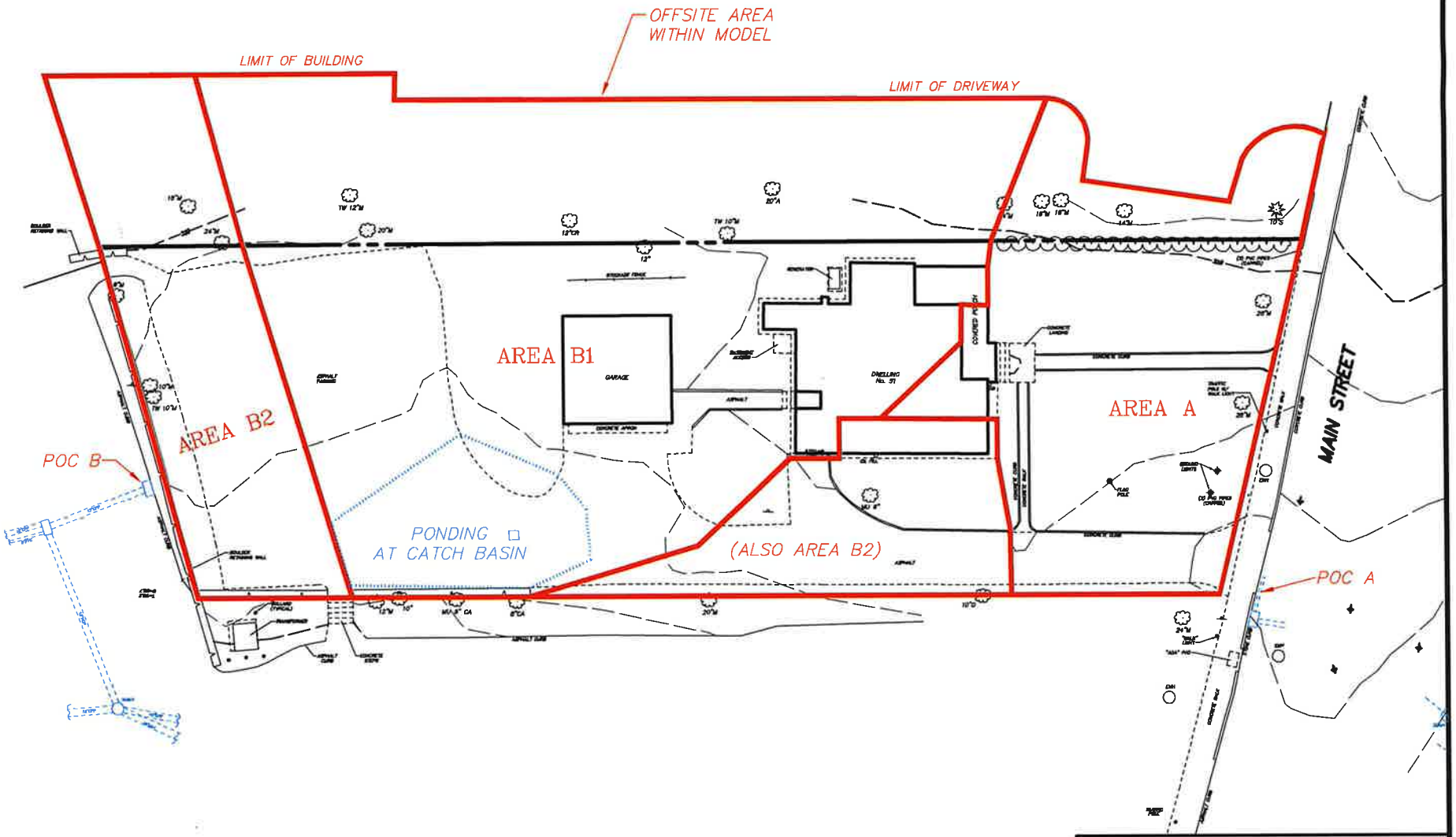
Design calculations in Appendix A show that there will be no adverse impacts to water quality or groundwater recharge, and that the system will draw down in the required time.

Since the proposed drainage system will provide treatment of runoff from new impervious surfaces, recharge groundwater, and control peak discharge to the maximum extent practical, the design will not cause any adverse impacts to the site or surrounding area.

Point of Concern	Storm Frequency	Peak Flow Rate (cfs)			
		Existing	Proposed	Δ	Δ %
A (Main St)	1 year	0.07	0.15	0.08	114%
	2-year	0.11	0.20	0.09	82%
	5-year	0.19	0.27	0.08	42%
	10-year	0.28	0.35	0.07	25%
	25-year	0.42	0.47	0.05	12%
	50-year	0.56	0.58	0.02	4%
	100-year	0.73	0.71	-0.02	-3%
B (Town Hall)	1 year	0.23	0.03	-0.20	-87%
	2-year	0.62	0.09	-0.53	-85%
	5-year	1.01	0.19	-0.82	-81%
	10-year	1.34	0.29	-1.05	-78%
	25-year	1.89	1.30	-0.59	-31%
	50-year	2.40	3.39	0.99	41%
	100-year	3.02	3.93	0.91	30%

Point of Concern	Storm Frequency	Runoff Volume (cf)			
		Existing	Proposed	Δ	Δ %
A (Main St)	1 year	254	452	198	78%
	2-year	395	610	215	54%
	5-year	632	852	220	35%
	10-year	877	1,085	208	24%
	25-year	1,307	1,470	163	12%
	50-year	1,731	1,833	102	6%
	100-year	2,261	2,271	10	0%
B (Town Hall)	1 year	1,237	219	-1,018	-82%
	2-year	1,879	382	-1,497	-80%
	5-year	2,899	789	-2,110	-73%
	10-year	3,909	1,834	-2,075	-53%
	25-year	5,620	3,619	-2,001	-36%
	50-year	7,261	5,333	-1,928	-27%
	100-year	9,269	7,437	-1,832	-20%

REDMAIN_21NL_DSR-EX_0.DWG (ASC)



NOTES:

1. The site's soils are composed of Udorthents – Urban Land Complex (HSG–B).

2. Areas with no flowpath shown assumed to have Tc = 5 minutes.

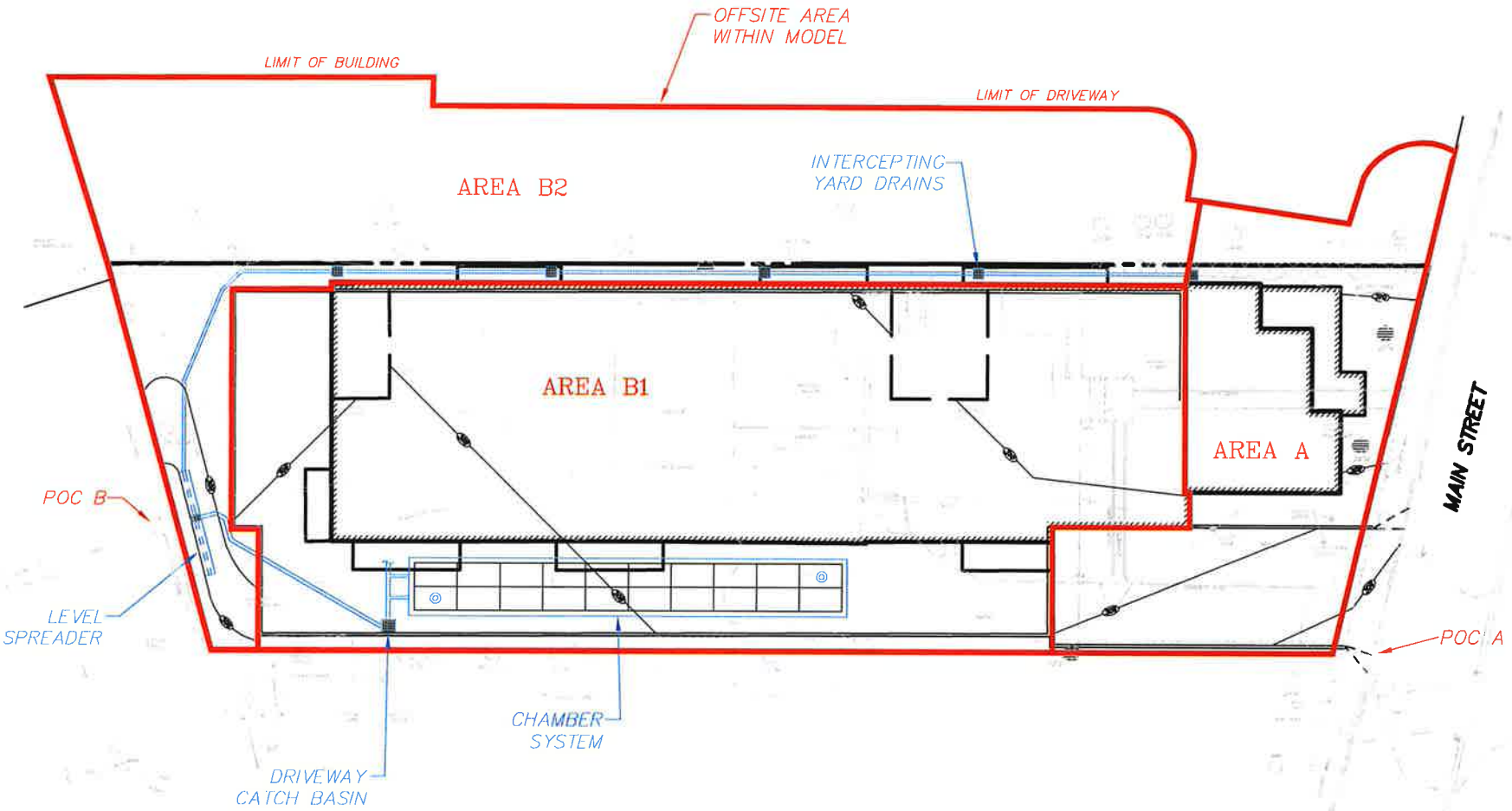
N

SCALE: 1" = 30'

D'ANDREA SURVEYING & ENGINEERING, P.C.
• LAND PLANNERS
• ENGINEERS
• SURVEYORS
P.O. BOX 549
RIVERSIDE, CT 06878
6 NEIL LANE
TEL. 203-637-1779

EXHIBIT "A"
EXISTING CONDITIONS WATERSHED MAP

REDMAIN_21NL_DSR-PR_0.DWG (ASC)



NOTES:
1. The site's soils are composed of Udorthents – Urban Land Complex (HSG–B).

2. Areas with no flowpath shown assumed to have Tc = 5 minutes.

N

SCALE: 1" = 30'

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EXHIBIT "B"
PROPOSED CONDITIONS WATERSHED MAP


73° 29' 45" W
73° 29' 31" W
41° 8' 56" N
41° 8' 50" N
626230
626260
626290
626320
626350
626380
626410
626440
626470
626500
626530
4556390
4556360
4556330
4556300
4556270
4556240
4556210
Heritage Hill Rd
Locust Ave
Saint Johns Pl
Park St
Park
124
106
84C
306
284B
Soil Map may not be valid at this scale.
Map Scale: 1:1,500 if printed on A landscape (11" x 8.5") 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 Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

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 21, Sep 7, 2021

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

Date(s) aerial images were photographed: Dec 31, 2009—Oct 5, 2016

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.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	C	0.5	27.3%
284B	Paxton-Urban land complex, 3 to 8 percent slopes	C	0.0	0.5%
306	Udorthents-Urban land complex	B	1.4	72.2%
Totals for Area of Interest			**2.0**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	Connecticut
Location	
Longitude	73.494 degrees West
Latitude	41.148 degrees North
Elevation	0 feet
Date/Time	Wed, 11 May 2022 14:37:23 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.33	0.51	0.63	0.83	1.04	1.30	**1yr**	0.90	1.22	1.50	1.86	2.31	2.87	3.20	**1yr**	2.54	3.08	3.55	4.25	4.94	**1yr**
2yr	0.40	0.61	0.76	1.01	1.27	1.59	**2yr**	1.09	1.48	1.83	2.27	2.80	3.46	3.87	**2yr**	3.06	3.72	4.25	5.05	5.71	**2yr**
5yr	0.47	0.73	0.91	1.22	1.57	1.98	**5yr**	1.35	1.83	2.29	2.85	3.51	4.32	4.88	**5yr**	3.83	4.69	5.40	6.34	7.11	**5yr**
10yr	0.53	0.83	1.04	1.42	1.84	2.35	**10yr**	1.59	2.16	2.72	3.39	4.18	5.12	5.82	**10yr**	4.53	5.60	6.47	7.52	8.38	**10yr**
25yr	0.61	0.97	1.24	1.71	2.28	2.94	**25yr**	1.97	2.67	3.42	4.26	5.26	6.41	7.35	**25yr**	5.67	7.07	8.22	9.43	10.43	**25yr**
50yr	0.69	1.11	1.42	1.99	2.68	3.48	**50yr**	2.31	3.15	4.06	5.07	6.24	7.60	8.77	**50yr**	6.73	8.43	9.86	11.20	12.31	**50yr**
100yr	0.78	1.27	1.64	2.32	3.16	4.13	**100yr**	2.73	3.71	4.83	6.04	7.42	9.02	10.47	**100yr**	7.98	10.07	11.84	13.30	14.54	**100yr**
200yr	0.89	1.45	1.88	2.70	3.73	4.91	**200yr**	3.22	4.37	5.75	7.19	8.83	10.70	12.50	**200yr**	9.47	12.02	14.21	15.80	17.17	**200yr**
500yr	1.07	1.76	2.29	3.32	4.65	6.16	**500yr**	4.02	5.44	7.23	9.05	11.11	13.43	15.81	**500yr**	11.88	15.21	18.12	19.84	21.40	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.49	0.65	0.80	0.97	**1yr**	0.69	0.95	1.30	1.63	2.02	2.54	2.65	**1yr**	2.25	2.55	3.17	3.78	4.44	**1yr**
2yr	0.39	0.60	0.73	0.99	1.22	1.48	**2yr**	1.06	1.44	1.69	2.17	2.73	3.36	3.75	**2yr**	2.98	3.60	4.12	4.89	5.56	**2yr**
5yr	0.43	0.66	0.82	1.13	1.43	1.74	**5yr**	1.24	1.70	1.98	2.57	3.22	4.03	4.52	**5yr**	3.57	4.35	4.95	5.81	6.57	**5yr**
10yr	0.47	0.72	0.89	1.24	1.61	1.96	**10yr**	1.39	1.92	2.23	2.93	3.66	4.63	5.21	**10yr**	4.10	5.01	5.70	6.56	7.41	**10yr**
25yr	0.51	0.78	0.97	1.39	1.82	2.28	**25yr**	1.57	2.23	2.61	3.46	4.34	5.55	6.26	**25yr**	4.91	6.02	6.84	7.61	8.70	**25yr**
50yr	0.55	0.83	1.04	1.49	2.00	2.55	**50yr**	1.73	2.50	2.95	3.95	4.93	6.39	7.21	**50yr**	5.66	6.93	7.84	8.55	9.83	**50yr**
100yr	0.59	0.89	1.11	1.61	2.20	2.85	**100yr**	1.90	2.79	3.33	4.51	5.57	7.36	8.31	**100yr**	6.52	7.99	9.01	9.56	11.09	**100yr**
200yr	0.63	0.95	1.20	1.74	2.43	3.18	**200yr**	2.10	3.11	3.76	5.17	6.36	8.47	9.58	**200yr**	7.49	9.21	10.36	10.70	12.53	**200yr**
500yr	0.69	1.03	1.32	1.92	2.73	3.68	**500yr**	2.36	3.59	4.42	6.21	7.57	10.23	11.60	**500yr**	9.05	11.16	12.47	12.36	14.73	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.37	0.57	0.69	0.93	1.14	1.38	**1yr**	0.99	1.35	1.59	2.06	2.57	3.15	3.49	**1yr**	2.78	3.36	3.82	4.61	5.26	**1yr**
2yr	0.42	0.65	0.80	1.09	1.34	1.58	**2yr**	1.16	1.54	1.80	2.31	2.89	3.58	4.03	**2yr**	3.17	3.87	4.43	5.31	5.96	**2yr**
5yr	0.51	0.79	0.98	1.34	1.71	2.02	**5yr**	1.47	1.98	2.34	2.98	3.71	4.62	5.27	**5yr**	4.09	5.07	5.88	6.85	7.69	**5yr**
10yr	0.61	0.93	1.15	1.61	2.09	2.45	**10yr**	1.80	2.40	2.85	3.62	4.51	5.62	6.48	**10yr**	4.97	6.23	7.31	8.38	9.34	**10yr**
25yr	0.77	1.18	1.46	2.09	2.75	3.18	**25yr**	2.37	3.11	3.72	4.69	5.83	7.29	8.54	**25yr**	6.45	8.21	9.77	10.97	12.11	**25yr**
50yr	0.92	1.41	1.75	2.51	3.39	3.88	**50yr**	2.92	3.79	4.56	5.71	7.08	8.86	10.52	**50yr**	7.84	10.11	12.17	13.49	14.76	**50yr**
100yr	1.12	1.69	2.11	3.05	4.18	4.73	**100yr**	3.61	4.63	5.58	6.95	8.78	10.78	12.96	**100yr**	9.54	12.46	15.15	16.57	17.98	**100yr**
200yr	1.35	2.02	2.57	3.71	5.18	5.78	**200yr**	4.47	5.65	6.84	8.45	10.71	13.09	15.95	**200yr**	11.59	15.34	18.87	20.38	21.93	**200yr**
500yr	1.74	2.59	3.34	4.85	6.89	7.54	**500yr**	5.95	7.37	8.95	10.96	13.94	16.94	20.99	**500yr**	14.99	20.18	25.26	26.72	28.47	**500yr**

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Northeast Regional Climate Center

Appendix "A"

Design Calculations

Client: 51 Main Street LLC
Address: 51 Main Street, New Canaan
Date: May 10, 2022

❑ Water Quality Volume

$$WQV = \frac{1\,ft}{12\,in}(R_I A_I + R_P A_P)$$

Where:

R_I	=	Runoff coefficient for impervious	=	0.95 in
R_P	=	Runoff coefficient for pervious	=	0.05 in
A_I	=	Area of impervious		
A_P	=	Area of pervious		

Drainage Areas	Treatment	Impervious Area (sf)	Pervious Area (sf)	WQV (cf)
"A" To Street	none	2,390	1,460	195
"B1" To Town Hall Parking	none	0	1,790 (onsite)	7
"B2" To Storage	Chambers	11,070	500	878

❑ Groundwater Recharge Volume

$$GRV = F \times (I_p - I_e)$$

Where:

GRV	=	Groundwater recharge volume			
F	=	Target depth factor	=	0.35 in	(HSG-B)
I_p	=	Proposed impervious area (onsite)	=	13,460 ft^2	
I_e	=	Existing impervious area (onsite)	=	9,040 ft^2	

$$GRV = \frac{0.35in}{12\frac{in}{ft}}(13{,}460 - 9{,}040)$$ **GRV = 129 ft^3**

Proposed Chambers

Water Quality Volume (Area B2 – To Storage)	=	871 ft^3	
Groundwater Recharge Volume	=	129 ft^3	
Retained Volume for GRV	=	2,654 ft^3	el = 307.0
Treatment Volume for WQV	=	same	
Bottom of System Elevation	=	303.0 ft	
Restrictive Layer Elevation (bottom of hole)	=	301.0 ft	Test Pit #2

Drawdown Calculations

$$t_{drawdown} = \frac{V}{kA}$$

Where:

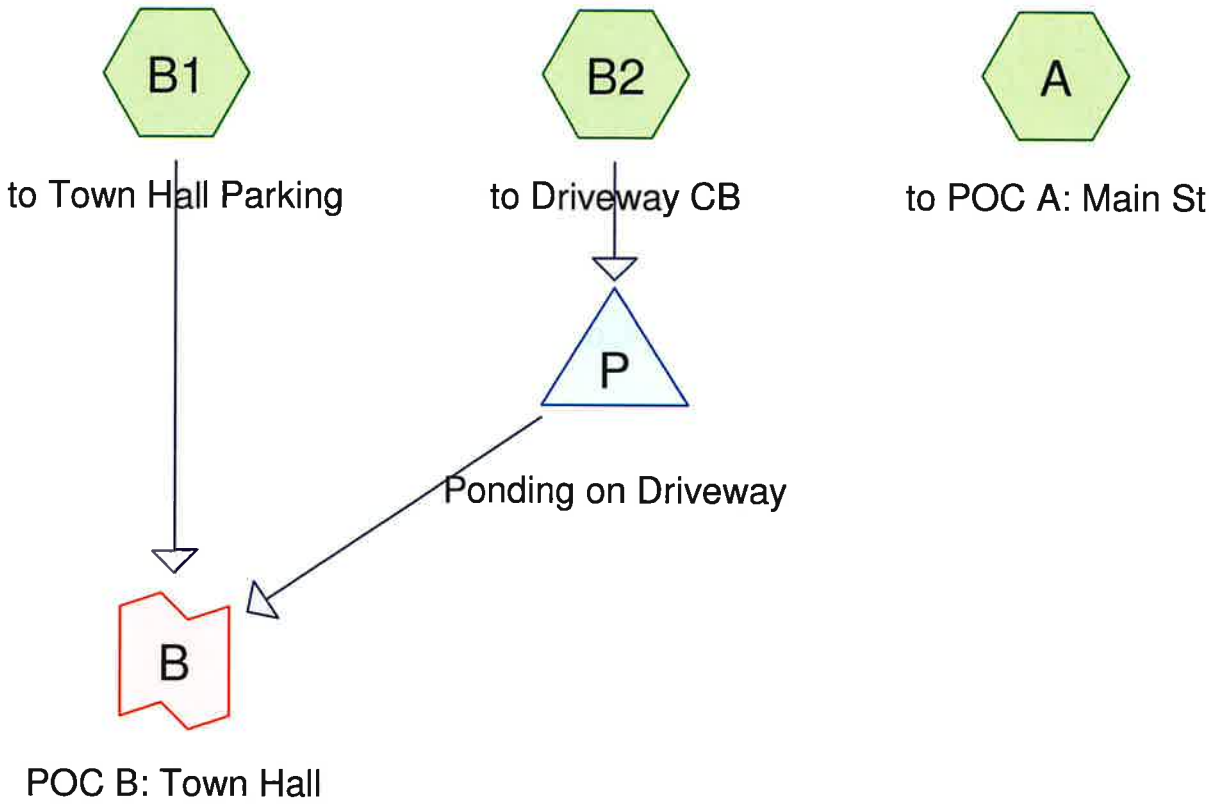
V	=	Retained Volume			
k	=	Infiltration (Rawl's) Rate	=	0.52 in/hr	(HSG-B)
A	=	Infiltration (bottom) Area			

$$t_{drawdown} = \frac{2{,}654}{(0.52)(1/12)(972)}$$

System will draw down in 63 hours.

Appendix "B"

HydroCAD Analysis – Existing Conditions



Subcat Reach Pond Link

Routing Diagram for Existing
Prepared by RVDI, Printed 5/11/2022

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
14,650	61.0	>75% Grass cover, Good, HSG B (A, B1, B2)
6,890	98.0	Drive & Walk (A, B1, B2)
500	98.0	Garage (B2)
1,650	98.0	Roof (A, B1, B2)
23,690	**75.1**	**TOTAL AREA**

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=5,250 sf 20.38% Impervious Runoff Depth=0.58"
Tc=6.0 min CN=68.5 Runoff=0.07 cfs 254 cf

Subcatchment B1: to Town Hall Parking Runoff Area=5,330 sf 54.22% Impervious Runoff Depth=1.22"
Tc=6.0 min CN=81.1 Runoff=0.17 cfs 542 cf

Subcatchment B2: to Driveway CB Runoff Area=13,110 sf 38.75% Impervious Runoff Depth=0.89"
Tc=6.0 min CN=75.3 Runoff=0.30 cfs 975 cf

Pond P: Ponding on Driveway Peak Elev=307.71' Storage=295 cf Inflow=0.30 cfs 975 cf
Outflow=0.15 cfs 695 cf

Link B: POC B: Town Hall Inflow=0.23 cfs 1,237 cf
Primary=0.23 cfs 1,237 cf

Total Runoff Area = 23,690 sf Runoff Volume = 1,771 cf Average Runoff Depth = 0.90"
61.84% Pervious = 14,650 sf 38.16% Impervious = 9,040 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=5,250 sf 20.38% Impervious Runoff Depth=0.90"
Tc=6.0 min CN=68.5 Runoff=0.11 cfs 395 cf

Subcatchment B1: to Town Hall Parking Runoff Area=5,330 sf 54.22% Impervious Runoff Depth=1.68"
Tc=6.0 min CN=81.1 Runoff=0.24 cfs 748 cf

Subcatchment B2: to Driveway CB Runoff Area=13,110 sf 38.75% Impervious Runoff Depth=1.29"
Tc=6.0 min CN=75.3 Runoff=0.44 cfs 1,412 cf

Pond P: Ponding on Driveway Peak Elev=307.72' Storage=309 cf Inflow=0.44 cfs 1,412 cf
Outflow=0.40 cfs 1,132 cf

Link B: POC B: Town Hall Inflow=0.62 cfs 1,879 cf
Primary=0.62 cfs 1,879 cf

Total Runoff Area = 23,690 sf Runoff Volume = 2,555 cf Average Runoff Depth = 1.29"
61.84% Pervious = 14,650 sf 38.16% Impervious = 9,040 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=5,250 sf 20.38% Impervious Runoff Depth=1.45"
Tc=6.0 min CN=68.5 Runoff=0.19 cfs 632 cf

Subcatchment B1: to Town Hall Parking Runoff Area=5,330 sf 54.22% Impervious Runoff Depth=2.40"
Tc=6.0 min CN=81.1 Runoff=0.34 cfs 1,067 cf

Subcatchment B2: to Driveway CB Runoff Area=13,110 sf 38.75% Impervious Runoff Depth=1.93"
Tc=6.0 min CN=75.3 Runoff=0.68 cfs 2,112 cf

Pond P: Ponding on Driveway Peak Elev=307.73' Storage=321 cf Inflow=0.68 cfs 2,112 cf
Outflow=0.67 cfs 1,832 cf

Link B: POC B: Town Hall Inflow=1.01 cfs 2,899 cf
Primary=1.01 cfs 2,899 cf

Total Runoff Area = 23,690 sf Runoff Volume = 3,811 cf Average Runoff Depth = 1.93"
61.84% Pervious = 14,650 sf 38.16% Impervious = 9,040 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=5,250 sf 20.38% Impervious Runoff Depth=2.01"
Tc=6.0 min CN=68.5 Runoff=0.28 cfs 877 cf

Subcatchment B1: to Town Hall Parking Runoff Area=5,330 sf 54.22% Impervious Runoff Depth=3.10"
Tc=6.0 min CN=81.1 Runoff=0.44 cfs 1,377 cf

Subcatchment B2: to Driveway CB Runoff Area=13,110 sf 38.75% Impervious Runoff Depth=2.57"
Tc=6.0 min CN=75.3 Runoff=0.91 cfs 2,811 cf

Pond P: Ponding on Driveway Peak Elev=307.74' Storage=331 cf Inflow=0.91 cfs 2,811 cf
Outflow=0.90 cfs 2,531 cf

Link B: POC B: Town Hall Inflow=1.34 cfs 3,909 cf
Primary=1.34 cfs 3,909 cf

Total Runoff Area = 23,690 sf Runoff Volume = 5,066 cf Average Runoff Depth = 2.57"
61.84% Pervious = 14,650 sf 38.16% Impervious = 9,040 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=5,250 sf 20.38% Impervious Runoff Depth=2.99"
Tc=6.0 min CN=68.5 Runoff=0.42 cfs 1,307 cf

Subcatchment B1: to Town Hall Parking Runoff Area=5,330 sf 54.22% Impervious Runoff Depth=4.27"
Tc=6.0 min CN=81.1 Runoff=0.61 cfs 1,897 cf

Subcatchment B2: to Driveway CB Runoff Area=13,110 sf 38.75% Impervious Runoff Depth=3.66"
Tc=6.0 min CN=75.3 Runoff=1.29 cfs 4,004 cf

Pond P: Ponding on Driveway Peak Elev=307.75' Storage=346 cf Inflow=1.29 cfs 4,004 cf
Outflow=1.28 cfs 3,724 cf

Link B: POC B: Town Hall Inflow=1.89 cfs 5,620 cf
Primary=1.89 cfs 5,620 cf

Total Runoff Area = 23,690 sf Runoff Volume = 7,207 cf Average Runoff Depth = 3.65"
61.84% Pervious = 14,650 sf 38.16% Impervious = 9,040 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=5,250 sf 20.38% Impervious Runoff Depth=3.96"
Tc=6.0 min CN=68.5 Runoff=0.56 cfs 1,731 cf

Subcatchment B1: to Town Hall Parking Runoff Area=5,330 sf 54.22% Impervious Runoff Depth=5.38"
Tc=6.0 min CN=81.1 Runoff=0.76 cfs 2,388 cf

Subcatchment B2: to Driveway CB Runoff Area=13,110 sf 38.75% Impervious Runoff Depth=4.72"
Tc=6.0 min CN=75.3 Runoff=1.66 cfs 5,152 cf

Pond P: Ponding on Driveway Peak Elev=307.76' Storage=359 cf Inflow=1.66 cfs 5,152 cf
Outflow=1.65 cfs 4,872 cf

Link B: POC B: Town Hall Inflow=2.40 cfs 7,261 cf
Primary=2.40 cfs 7,261 cf

Total Runoff Area = 23,690 sf Runoff Volume = 9,272 cf Average Runoff Depth = 4.70"
61.84% Pervious = 14,650 sf 38.16% Impervious = 9,040 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=5,250 sf 20.38% Impervious Runoff Depth=5.17"
Tc=6.0 min CN=68.5 Runoff=0.73 cfs 2,261 cf

Subcatchment B1: to Town Hall Parking Runoff Area=5,330 sf 54.22% Impervious Runoff Depth=6.72"
Tc=6.0 min CN=81.1 Runoff=0.94 cfs 2,986 cf

Subcatchment B2: to Driveway CB Runoff Area=13,110 sf 38.75% Impervious Runoff Depth=6.01"
Tc=6.0 min CN=75.3 Runoff=2.10 cfs 6,564 cf

Pond P: Ponding on Driveway Peak Elev=307.77' Storage=375 cf Inflow=2.10 cfs 6,564 cf
Outflow=2.09 cfs 6,283 cf

Link B: POC B: Town Hall Inflow=3.02 cfs 9,269 cf
Primary=3.02 cfs 9,269 cf

Total Runoff Area = 23,690 sf Runoff Volume = 11,810 cf Average Runoff Depth = 5.98"
61.84% Pervious = 14,650 sf 38.16% Impervious = 9,040 sf

Summary for Subcatchment A: to POC A: Main St

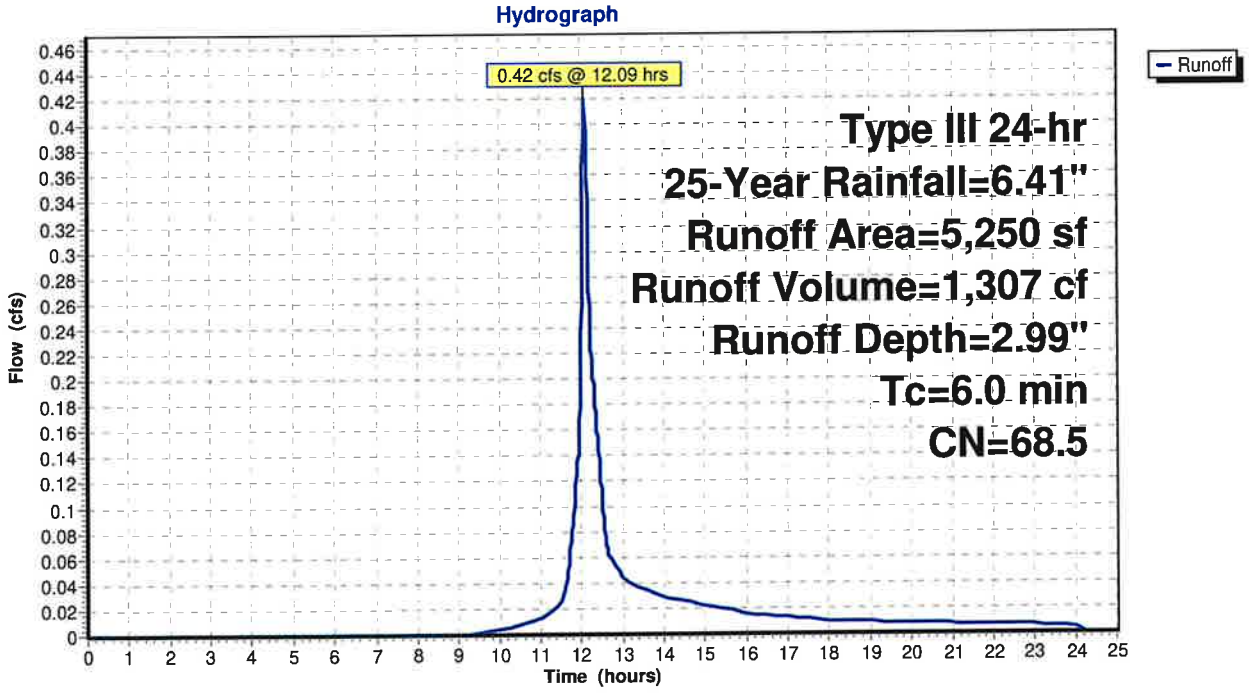
Runoff = 0.42 cfs @ 12.09 hrs, Volume= 1,307 cf, Depth= 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.41"

	Area (sf)	CN	Description
*	780	98.0	Drive & Walk
*	290	98.0	Roof
	4,180	61.0	>75% Grass cover, Good, HSG B
	5,250	68.5	Weighted Average
	4,180		79.62% Pervious Area
	1,070		20.38% Impervious Area

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

Subcatchment A: to POC A: Main St



Summary for Subcatchment B1: to Town Hall Parking

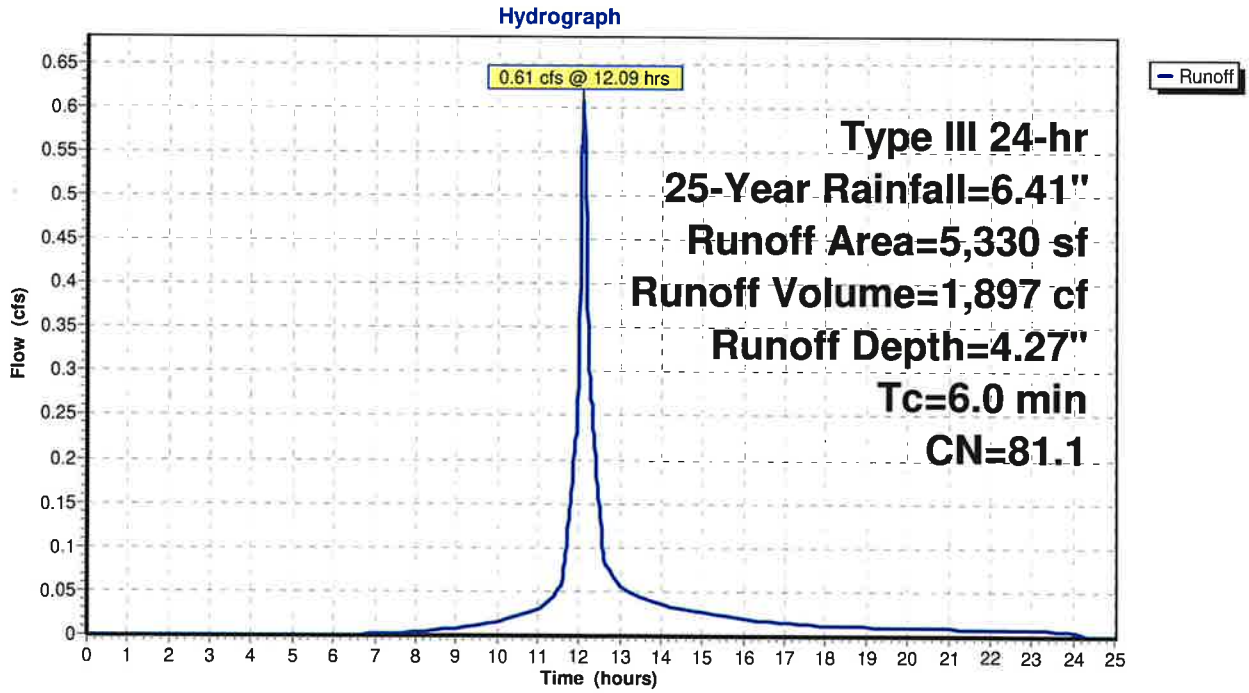
Runoff = 0.61 cfs @ 12.09 hrs, Volume= 1,897 cf, Depth= 4.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.41"

	Area (sf)	CN	Description
*	260	98.0	Roof
*	2,630	98.0	Drive & Walk
	2,440	61.0	>75% Grass cover, Good, HSG B
	5,330	81.1	Weighted Average
	2,440		45.78% Pervious Area
	2,890		54.22% Impervious Area

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

Subcatchment B1: to Town Hall Parking



Summary for Subcatchment B2: to Driveway CB

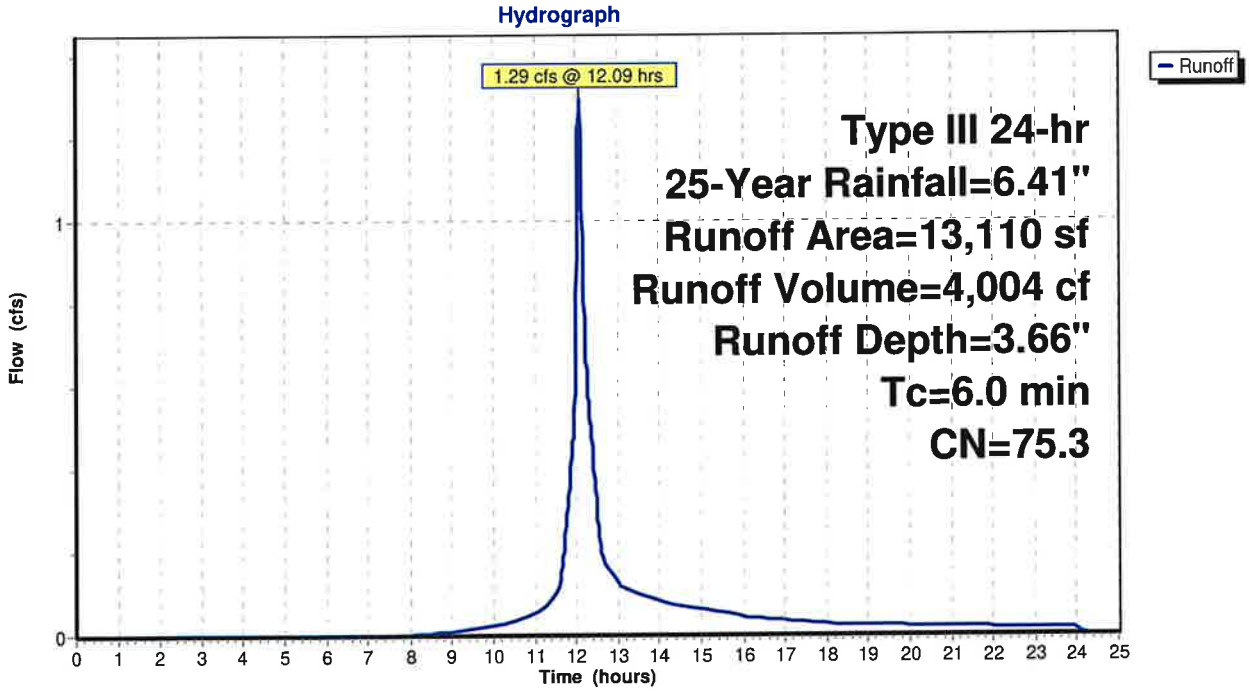
Runoff = 1.29 cfs @ 12.09 hrs, Volume= 4,004 cf, Depth= 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.41"

	Area (sf)	CN	Description
*	3,480	98.0	Drive & Walk
*	1,100	98.0	Roof
*	500	98.0	Garage
	8,030	61.0	>75% Grass cover, Good, HSG B
	13,110	75.3	Weighted Average
	8,030		61.25% Pervious Area
	5,080		38.75% Impervious Area

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

Subcatchment B2: to Driveway CB



Summary for Pond P: Ponding on Driveway

Inflow Area = 13,110 sf, 38.75% Impervious, Inflow Depth = 3.66" for 25-Year event
Inflow = 1.29 cfs @ 12.09 hrs, Volume= 4,004 cf
Outflow = 1.28 cfs @ 12.10 hrs, Volume= 3,724 cf, Atten= 1%, Lag= 0.6 min
Primary = 1.28 cfs @ 12.10 hrs, Volume= 3,724 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.01 hrs
Peak Elev= 307.75' @ 12.10 hrs Surf.Area= 1,440 sf Storage= 346 cf

Plug-Flow detention time= 53.3 min calculated for 3,722 cf (93% of inflow)
Center-of-Mass det. time= 16.8 min (839.6 - 822.8)

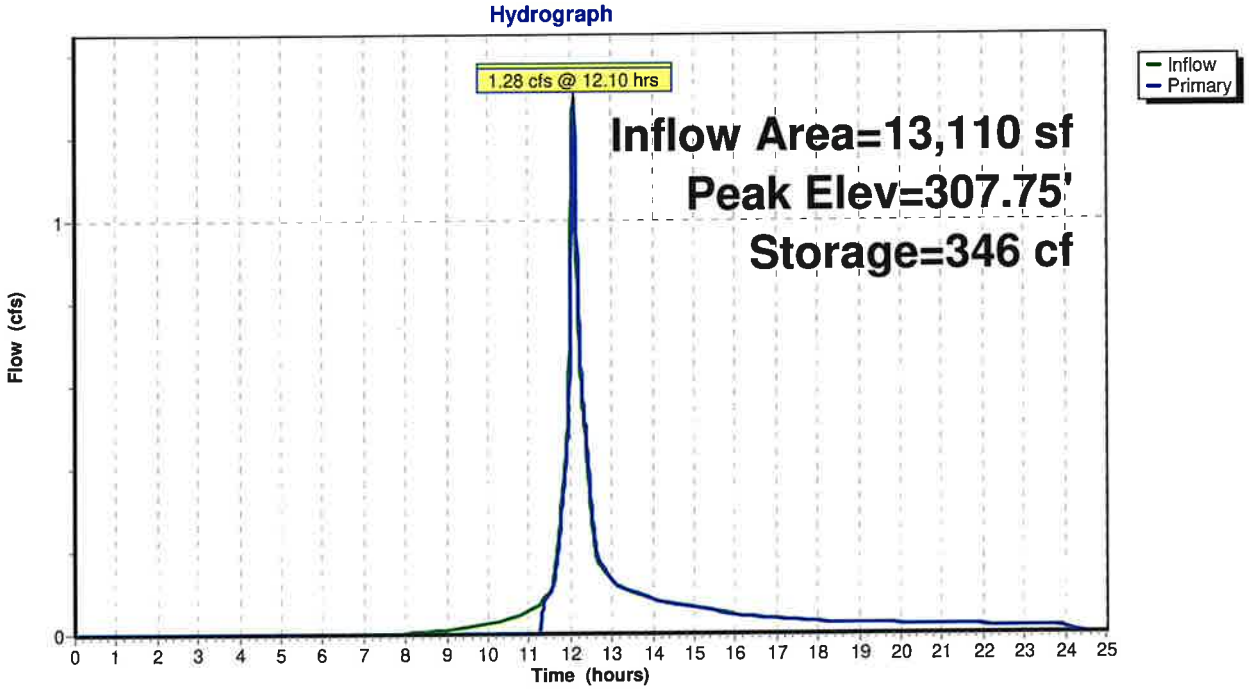
Volume	Invert	Avail.Storage	Storage Description
#1	307.00'	424 cf	**ponding (Pyramidal)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
307.00	0	0	0	0
307.70	1,200	280	280	1,201
307.80	1,700	144	424	1,701

Device	Routing	Invert	Outlet Devices
#1	Primary	307.70'	**35.0' long Sharp-Crested Rectangular Weir** 0 End Contraction(s)

Primary OutFlow Max=1.28 cfs @ 12.10 hrs HW=307.75' TW=0.00' (Dynamic Tailwater)
↑—**1=Sharp-Crested Rectangular Weir** (Weir Controls 1.28 cfs @ 0.73 fps)

Pond P: Ponding on Driveway



Stage-Area-Storage for Pond P: Ponding on Driveway

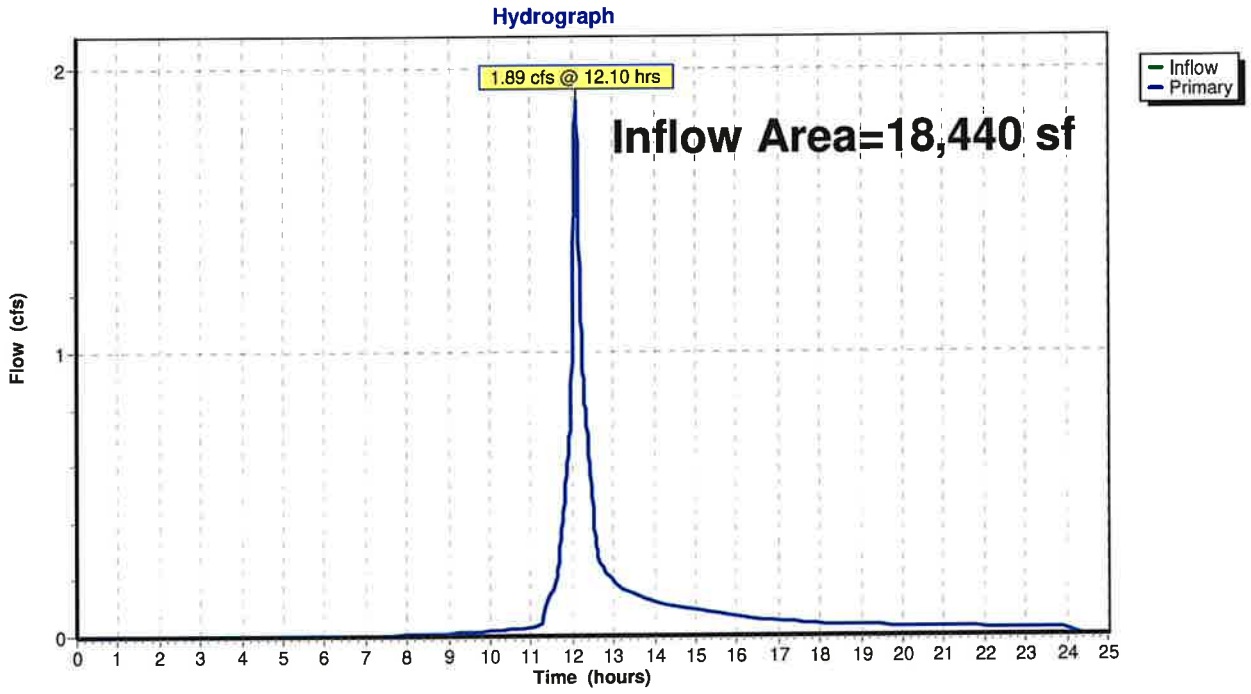
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
307.00	0	0
307.01	0	0
307.02	1	0
307.03	2	0
307.04	4	0
307.05	6	0
307.06	9	0
307.07	12	0
307.08	16	0
307.09	20	1
307.10	24	1
307.11	30	1
307.12	35	1
307.13	41	2
307.14	48	2
307.15	55	3
307.16	63	3
307.17	71	4
307.18	79	5
307.19	88	6
307.20	98	7
307.21	108	8
307.22	119	9
307.23	130	10
307.24	141	11
307.25	153	13
307.26	166	14
307.27	179	16
307.28	192	18
307.29	206	20
307.30	220	22
307.31	235	24
307.32	251	27
307.33	267	29
307.34	283	32
307.35	300	35
307.36	317	38
307.37	335	41
307.38	354	45
307.39	372	48
307.40	392	52
307.41	412	56
307.42	432	60
307.43	453	65
307.44	474	70
307.45	496	74
307.46	518	79
307.47	541	85
307.48	564	90
307.49	588	96
307.50	612	102
307.51	637	108
307.52	662	115
307.53	688	122
307.54	714	129
307.55	741	136
307.56	768	143
307.57	796	151
307.58	824	159
307.59	852	168
307.60	882	176
307.61	911	185
307.62	941	195
307.63	972	204
307.64	1,003	214
307.65	1,035	224
307.66	1,067	235
307.67	1,099	246
307.68	1,132	257
307.69	1,166	268
307.70	1,200	280
307.71	1,246	292
307.72	1,293	305
307.73	1,341	318
307.74	1,390	332
307.75	1,439	346
307.76	1,490	361
307.77	1,541	376
307.78	1,593	391
307.79	1,646	408
307.80	**1,700**	**424**

Summary for Link B: POC B: Town Hall

Inflow Area = 18,440 sf, 43.22% Impervious, Inflow Depth = 3.66" for 25-Year event
Inflow = 1.89 cfs @ 12.10 hrs, Volume= 5,620 cf
Primary = 1.89 cfs @ 12.10 hrs, Volume= 5,620 cf, Atten= 0%, Lag= 0.0 min

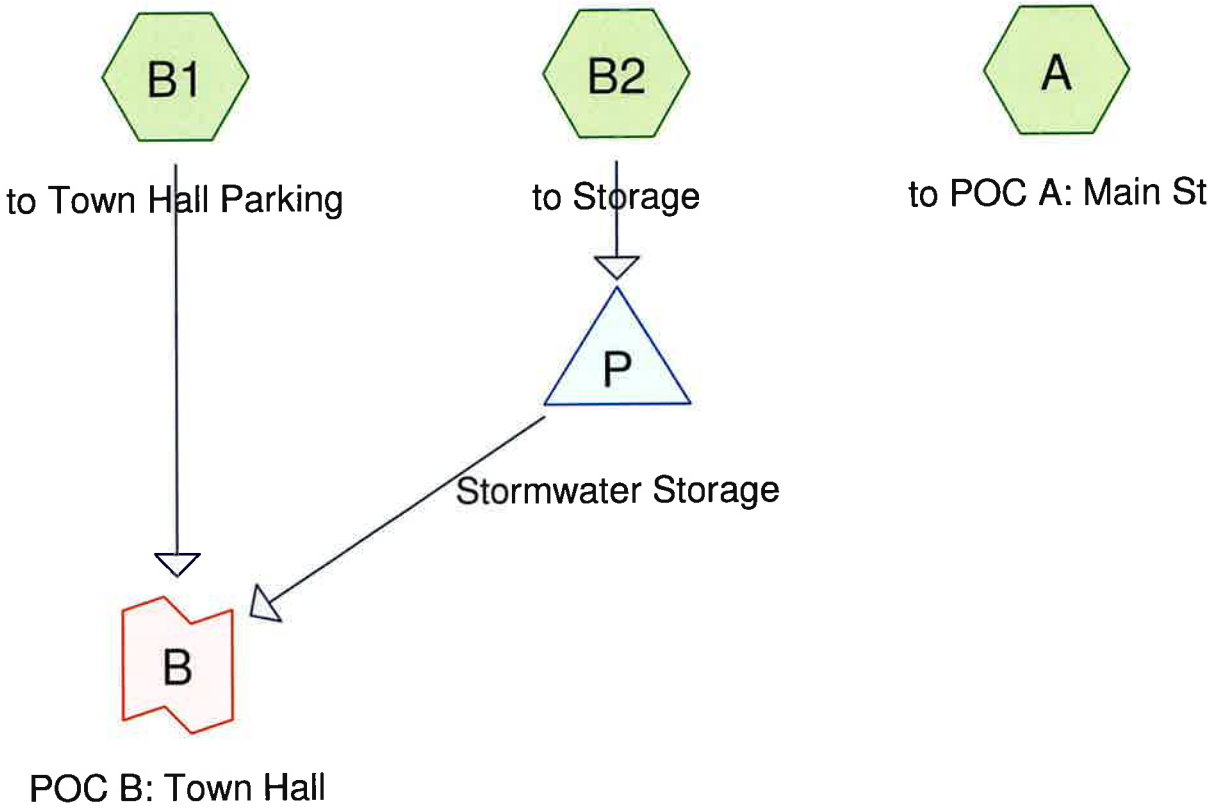
Primary outflow = Inflow, Time Span= 0.00-25.00 hrs, dt= 0.01 hrs

Link B: POC B: Town Hall



Appendix "C"

HydroCAD Analysis – Proposed Conditions



Subcat Reach Pond Link

Routing Diagram for Proposed
Prepared by RVDI, Printed 5/11/2022

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
10,230	61.0	>75% Grass cover, Good, HSG B (A, B1, B2)
4,600	98.0	Drive (A, B2)
8,860	98.0	Roof (A, B2)
23,690	**82.0**	**TOTAL AREA**

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=3,850 sf 62.08% Impervious Runoff Depth=1.41"
Tc=6.0 min CN=84.0 Runoff=0.15 cfs 452 cf

Subcatchment B1: to Town Hall Parking Runoff Area=8,270 sf 0.00% Impervious Runoff Depth=0.32"
Tc=6.0 min CN=61.0 Runoff=0.03 cfs 219 cf

Subcatchment B2: to Storage Runoff Area=11,570 sf 95.68% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=96.4 Runoff=0.71 cfs 2,378 cf

Pond P: Stormwater Storage Peak Elev=305.59' Storage=1,660 cf Inflow=0.71 cfs 2,378 cf
Discarded=0.01 cfs 815 cf Primary=0.00 cfs 0 cf Outflow=0.01 cfs 815 cf

Link B: POC B: Town Hall Inflow=0.03 cfs 219 cf
Primary=0.03 cfs 219 cf

Total Runoff Area = 23,690 sf Runoff Volume = 3,048 cf Average Runoff Depth = 1.54"
43.18% Pervious = 10,230 sf 56.82% Impervious = 13,460 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=3,850 sf 62.08% Impervious Runoff Depth=1.90"
Tc=6.0 min CN=84.0 Runoff=0.20 cfs 610 cf

Subcatchment B1: to Town Hall Parking Runoff Area=8,270 sf 0.00% Impervious Runoff Depth=0.55"
Tc=6.0 min CN=61.0 Runoff=0.09 cfs 382 cf

Subcatchment B2: to Storage Runoff Area=11,570 sf 95.68% Impervious Runoff Depth=3.05"
Tc=6.0 min CN=96.4 Runoff=0.87 cfs 2,940 cf

Pond P: Stormwater Storage Peak Elev=306.29' Storage=2,147 cf Inflow=0.87 cfs 2,940 cf
Discarded=0.01 cfs 869 cf Primary=0.00 cfs 0 cf Outflow=0.01 cfs 869 cf

Link B: POC B: Town Hall Inflow=0.09 cfs 382 cf
Primary=0.09 cfs 382 cf

Total Runoff Area = 23,690 sf Runoff Volume = 3,932 cf Average Runoff Depth = 1.99"
43.18% Pervious = 10,230 sf 56.82% Impervious = 13,460 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=3,850 sf 62.08% Impervious Runoff Depth=2.66"
Tc=6.0 min CN=84.0 Runoff=0.27 cfs 852 cf

Subcatchment B1: to Town Hall Parking Runoff Area=8,270 sf 0.00% Impervious Runoff Depth=0.98"
Tc=6.0 min CN=61.0 Runoff=0.19 cfs 676 cf

Subcatchment B2: to Storage Runoff Area=11,570 sf 95.68% Impervious Runoff Depth=3.90"
Tc=6.0 min CN=96.4 Runoff=1.10 cfs 3,762 cf

Pond P: Stormwater Storage Peak Elev=308.00' Storage=2,784 cf Inflow=1.10 cfs 3,762 cf
Discarded=0.01 cfs 916 cf Primary=0.02 cfs 113 cf Outflow=0.03 cfs 1,029 cf

Link B: POC B: Town Hall Inflow=0.19 cfs 789 cf
Primary=0.19 cfs 789 cf

Total Runoff Area = 23,690 sf Runoff Volume = 5,290 cf Average Runoff Depth = 2.68"
43.18% Pervious = 10,230 sf 56.82% Impervious = 13,460 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=3,850 sf 62.08% Impervious Runoff Depth=3.38"
Tc=6.0 min CN=84.0 Runoff=0.35 cfs 1,085 cf

Subcatchment B1: to Town Hall Parking Runoff Area=8,270 sf 0.00% Impervious Runoff Depth=1.44"
Tc=6.0 min CN=61.0 Runoff=0.29 cfs 994 cf

Subcatchment B2: to Storage Runoff Area=11,570 sf 95.68% Impervious Runoff Depth=4.70"
Tc=6.0 min CN=96.4 Runoff=1.32 cfs 4,529 cf

Pond P: Stormwater Storage Peak Elev=308.02' Storage=2,784 cf Inflow=1.32 cfs 4,529 cf
Discarded=0.01 cfs 947 cf Primary=0.19 cfs 840 cf Outflow=0.20 cfs 1,787 cf

Link B: POC B: Town Hall Inflow=0.29 cfs 1,834 cf
Primary=0.29 cfs 1,834 cf

Total Runoff Area = 23,690 sf Runoff Volume = 6,607 cf Average Runoff Depth = 3.35"
43.18% Pervious = 10,230 sf 56.82% Impervious = 13,460 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=3,850 sf 62.08% Impervious Runoff Depth=4.58"
Tc=6.0 min CN=84.0 Runoff=0.47 cfs 1,470 cf

Subcatchment B1: to Town Hall Parking Runoff Area=8,270 sf 0.00% Impervious Runoff Depth=2.28"
Tc=6.0 min CN=61.0 Runoff=0.49 cfs 1,575 cf

Subcatchment B2: to Storage Runoff Area=11,570 sf 95.68% Impervious Runoff Depth=5.98"
Tc=6.0 min CN=96.4 Runoff=1.66 cfs 5,768 cf

Pond P: Stormwater Storage Peak Elev=308.36' Storage=2,785 cf Inflow=1.66 cfs 5,768 cf
Discarded=0.01 cfs 980 cf Primary=1.00 cfs 2,045 cf Outflow=1.01 cfs 3,025 cf

Link B: POC B: Town Hall Inflow=1.30 cfs 3,619 cf
Primary=1.30 cfs 3,619 cf

Total Runoff Area = 23,690 sf Runoff Volume = 8,813 cf Average Runoff Depth = 4.46"
43.18% Pervious = 10,230 sf 56.82% Impervious = 13,460 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=3,850 sf 62.08% Impervious Runoff Depth=5.71"
Tc=6.0 min CN=84.0 Runoff=0.58 cfs 1,833 cf

Subcatchment B1: to Town Hall Parking Runoff Area=8,270 sf 0.00% Impervious Runoff Depth=3.14"
Tc=6.0 min CN=61.0 Runoff=0.69 cfs 2,166 cf

Subcatchment B2: to Storage Runoff Area=11,570 sf 95.68% Impervious Runoff Depth=7.17"
Tc=6.0 min CN=96.4 Runoff=1.97 cfs 6,913 cf

Pond P: Stormwater Storage Peak Elev=310.67' Storage=2,786 cf Inflow=1.97 cfs 6,913 cf
Discarded=0.01 cfs 1,002 cf Primary=2.70 cfs 3,167 cf Outflow=2.71 cfs 4,169 cf

Link B: POC B: Town Hall Inflow=3.39 cfs 5,333 cf
Primary=3.39 cfs 5,333 cf

Total Runoff Area = 23,690 sf Runoff Volume = 10,911 cf Average Runoff Depth = 5.53"
43.18% Pervious = 10,230 sf 56.82% Impervious = 13,460 sf

Time span=0.00-25.00 hrs, dt=0.01 hrs, 2501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A: to POC A: Main St Runoff Area=3,850 sf 62.08% Impervious Runoff Depth=7.08"
Tc=6.0 min CN=84.0 Runoff=0.71 cfs 2,271 cf

Subcatchment B1: to Town Hall Parking Runoff Area=8,270 sf 0.00% Impervious Runoff Depth=4.24"
Tc=6.0 min CN=61.0 Runoff=0.94 cfs 2,922 cf

Subcatchment B2: to Storage Runoff Area=11,570 sf 95.68% Impervious Runoff Depth=8.59"
Tc=6.0 min CN=96.4 Runoff=2.34 cfs 8,279 cf

Pond P: Stormwater Storage Peak Elev=311.26' Storage=2,786 cf Inflow=2.34 cfs 8,279 cf
Discarded=0.01 cfs 1,020 cf Primary=3.00 cfs 4,515 cf Outflow=3.01 cfs 5,535 cf

Link B: POC B: Town Hall Inflow=3.93 cfs 7,437 cf
Primary=3.93 cfs 7,437 cf

Total Runoff Area = 23,690 sf Runoff Volume = 13,472 cf Average Runoff Depth = 6.82"
43.18% Pervious = 10,230 sf 56.82% Impervious = 13,460 sf

Summary for Subcatchment A: to POC A: Main St

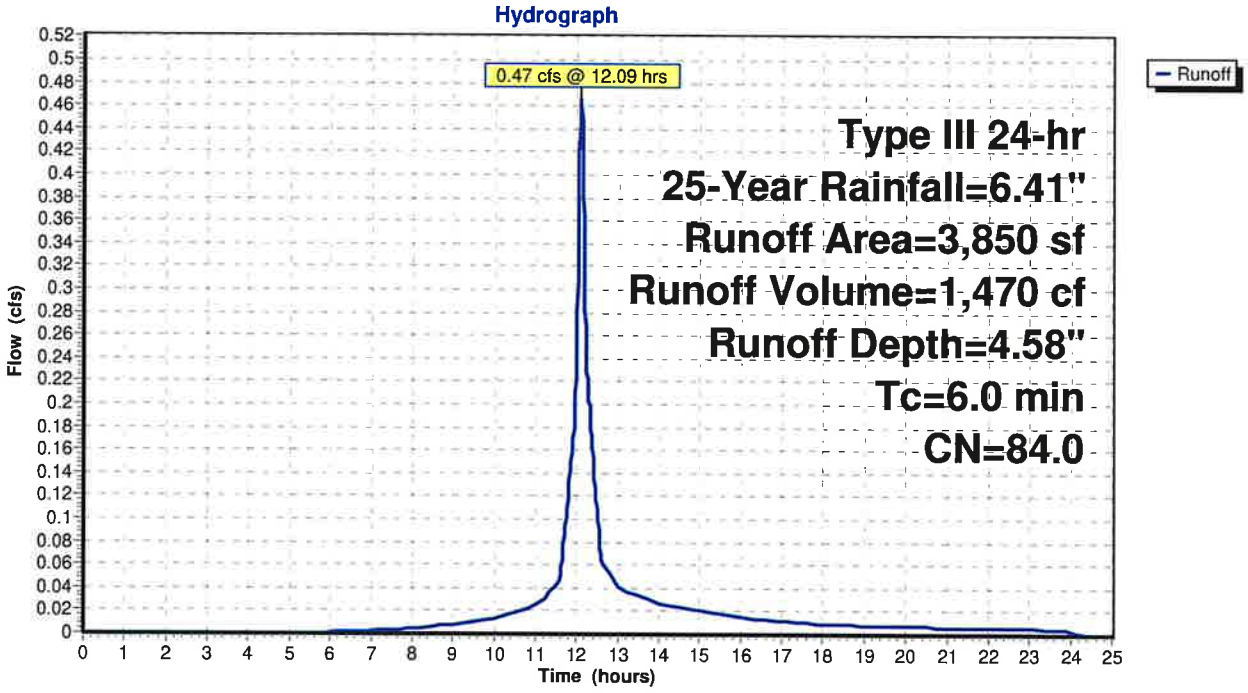
Runoff = 0.47 cfs @ 12.09 hrs, Volume= 1,470 cf, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.41"

	Area (sf)	CN	Description
*	1,220	98.0	Drive
*	1,170	98.0	Roof
	1,460	61.0	>75% Grass cover, Good, HSG B
	3,850	84.0	Weighted Average
	1,460		37.92% Pervious Area
	2,390		62.08% Impervious Area

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

Subcatchment A: to POC A: Main St



Summary for Subcatchment B1: to Town Hall Parking

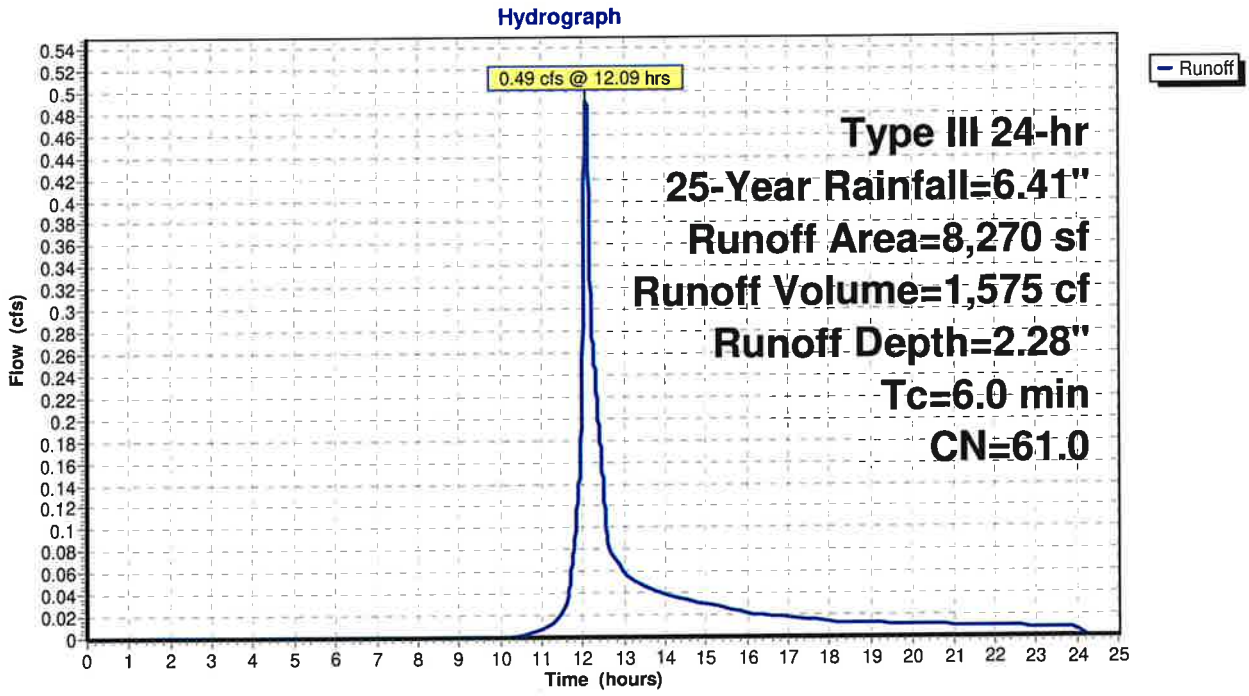
Runoff = 0.49 cfs @ 12.09 hrs, Volume= 1,575 cf, Depth= 2.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.41"

Area (sf)	CN	Description
8,270	61.0	>75% Grass cover, Good, HSG B
8,270		100.00% Pervious Area

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

Subcatchment B1: to Town Hall Parking



Summary for Subcatchment B2: to Storage

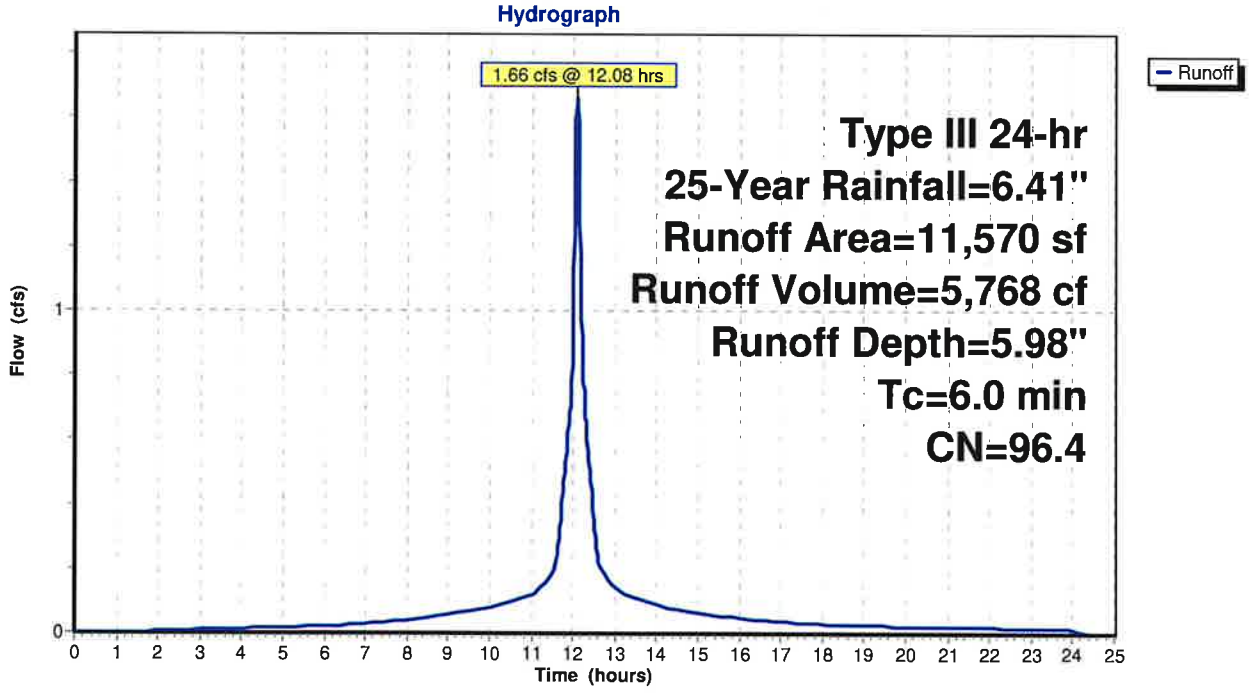
Runoff = 1.66 cfs @ 12.08 hrs, Volume= 5,768 cf, Depth= 5.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.41"

	Area (sf)	CN	Description
*	3,380	98.0	Drive
*	7,690	98.0	Roof
	500	61.0	>75% Grass cover, Good, HSG B
	11,570	96.4	Weighted Average
	500		4.32% Pervious Area
	11,070		95.68% Impervious Area

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

Subcatchment B2: to Storage



Summary for Pond P: Stormwater Storage

[87] Warning: Oscillations may require smaller dt or Finer Routing (severity=3)

Inflow Area =	11,570 sf, 95.68% Impervious,	Inflow Depth =	5.98"	for 25-Year event
Inflow =	1.66 cfs @ 12.08 hrs, Volume=	5,768 cf		
Outflow =	1.01 cfs @ 12.21 hrs, Volume=	3,025 cf,	Atten= 39%,	Lag= 7.6 min
Discarded =	0.01 cfs @ 12.21 hrs, Volume=	980 cf		
Primary =	1.00 cfs @ 12.21 hrs, Volume=	2,045 cf		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.01 hrs
Peak Elev= 308.36' @ 12.21 hrs Surf.Area= 1,012 sf Storage= 2,785 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 89.5 min (844.1 - 754.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	303.00'	679 cf	**10.80'W x 90.00'L x 4.50'H Field A** 4,374 cf Overall - 2,676 cf Embedded = 1,698 cf x 40.0% Voids
#2A	303.50'	2,058 cf	**Concrete Galley 4x8x4** x 22 Inside #1 Inside= 42.0"W x 43.0"H => 12.47 sf x 7.50'L = 93.6 cf Outside= 52.8"W x 48.0"H => 15.20 sf x 8.00'L = 121.6 cf 22 Chambers in 2 Rows
#3	304.50'	16 cf	**2.00'W x 2.00'L x 4.00'H Driveway Catch Basin** -Impervious
#4	306.00'	32 cf	**2.00'W x 20.00'L x 2.00'H Level Spreader** 80 cf Overall x 40.0% Voids
		2,786 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	308.00'	**20.0' long Sharp-Crested Rectangular Weir** 0 End Contraction(s)
#2	Device 1	307.00'	**8.0" Round Outlet pipe** L= 35.0' Ke= 0.500 Inlet / Outlet Invert= 307.00' / 306.50' S= 0.0143 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.35 sf
#3	Discarded	303.00'	**0.520 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 2.50'

Discarded OutFlow Max=0.01 cfs @ 12.21 hrs HW=308.36' (Free Discharge)
↑**3=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=1.00 cfs @ 12.21 hrs HW=308.36' TW=0.00' (Dynamic Tailwater)
↑**1=Sharp-Crested Rectangular Weir** (Passes 1.00 cfs of 14.30 cfs potential flow)
↑**2=Outlet pipe** (Outlet Controls 1.00 cfs @ 2.86 fps)

Pond P: Stormwater Storage - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x4 (Concrete Galley, UCPI 4x8x4 Galley or equivalent)
Inside= 42.0"W x 43.0"H => 12.47 sf x 7.50'L = 93.6 cf
Outside= 52.8"W x 48.0"H => 15.20 sf x 8.00'L = 121.6 cf

11 Chambers/Row x 8.00' Long = 88.00' Row Length +12.0" End Stone x 2 = 90.00' Base Length
2 Rows x 52.8" Wide + 12.0" Side Stone x 2 = 10.80' Base Width
6.0" Base + 48.0" Chamber Height = 4.50' Field Height

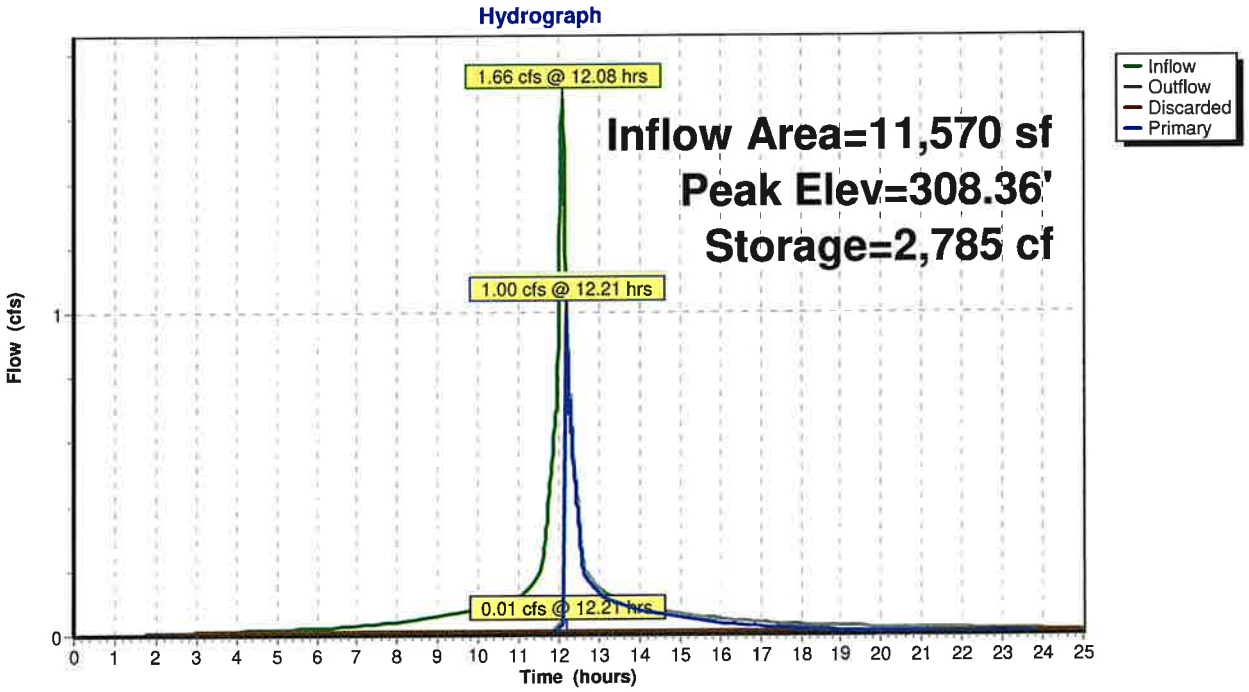
22 Chambers x 93.6 cf = 2,058.4 cf Chamber Storage
22 Chambers x 121.6 cf = 2,676.0 cf Displacement

4,374.0 cf Field - 2,676.0 cf Chambers = 1,698.0 cf Stone x 40.0% Voids = 679.2 cf Stone Storage

Chamber Storage + Stone Storage = 2,737.6 cf = 0.063 af
Overall Storage Efficiency = 62.6%
Overall System Size = 90.00' x 10.80' x 4.50'

22 Chambers
162.0 cy Field
62.9 cy Stone

Pond P: Stormwater Storage



Stage-Area-Storage for Pond P: Stormwater Storage

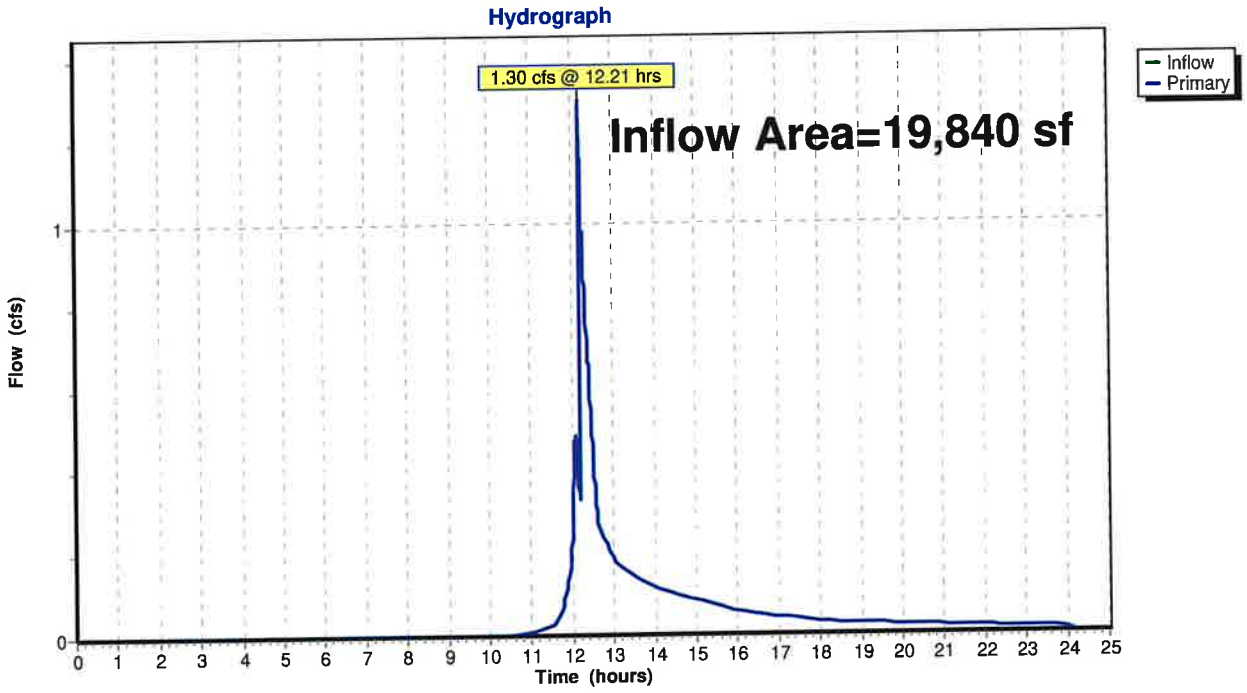
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
303.00	972	0
303.10	972	39
303.20	972	78
303.30	972	117
303.40	972	156
303.50	972	194
303.60	972	262
303.70	972	330
303.80	972	400
303.90	972	470
304.00	972	541
304.10	972	611
304.20	972	681
304.30	972	752
304.40	972	822
304.50	972	892
304.60	972	962
304.70	972	1,033
304.80	972	1,103
304.90	972	1,174
305.00	972	1,244
305.10	972	1,314
305.20	972	1,384
305.30	972	1,454
305.40	972	1,524
305.50	972	1,594
305.60	972	1,664
305.70	972	1,734
305.80	972	1,804
305.90	972	1,874
306.00	**1,012**	1,944
306.10	1,012	2,015
306.20	1,012	2,086
306.30	1,012	2,157
306.40	1,012	2,229
306.50	1,012	2,300
306.60	1,012	2,371
306.70	1,012	2,442
306.80	1,012	2,513
306.90	1,012	2,584
307.00	1,012	2,654
307.10	1,012	2,714
307.20	1,012	2,729
307.30	1,012	2,744
307.40	1,012	2,759
307.50	1,012	2,774
307.60	1,012	2,776
307.70	1,012	2,778
307.80	1,012	2,780
307.90	1,012	2,782
308.00	1,012	2,784
308.10	1,012	2,784
308.20	1,012	2,784
308.30	1,012	2,785
308.40	1,012	2,785
308.50	1,012	**2,786**

Summary for Link B: POC B: Town Hall

Inflow Area = 19,840 sf, 55.80% Impervious, Inflow Depth = 2.19" for 25-Year event
Inflow = 1.30 cfs @ 12.21 hrs, Volume= 3,619 cf
Primary = 1.30 cfs @ 12.21 hrs, Volume= 3,619 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-25.00 hrs, dt= 0.01 hrs

Link B: POC B: Town Hall



TAB 13

WILLIAM KENNY ASSOCIATES
LANDSCAPE ARCHITECTURE ▪ ECOLOGICAL SERVICES

March 10, 2022

Mr. Paul Stone
51 Main Street LLC
16 Cross Street
New Canaan, CT 06840

Re: Wetland and Watercourse Determination
51 Main Street, New Canaan, Connecticut

Dear Mr. Stone:

As requested, we visited the referenced property to determine the presence or absence of wetlands and/or watercourses, to demarcate (flag) the boundaries of wetlands and watercourses identified, and to identify onsite soil types. This letter includes the methods and results of our investigation, which we completed today, March 10, 2022. In summary, no inland wetlands or watercourses were observed at the property.

Regulatory Definitions

The Inland Wetlands and Watercourses Act (Connecticut General Statutes §22a-38) defines inland wetlands as "land, including submerged land...which consists of any soil types designated as poorly drained, very poorly drained, alluvial, and floodplain." Watercourses are defined in the act as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." The Act defines Intermittent Watercourses as having a defined permanent channel and bank and the occurrence of two or more of the following characteristics: A) evidence of scour or deposits of recent alluvium or detritus, B) the presence of standing or flowing water for a duration longer than a particular storm incident, and C) the presence of hydrophytic vegetation.

Methodology

A second order soil survey in accordance with the principles and practices noted in the USDA publication *Soil Survey Manual* (1993) was completed at the subject site. The classification system of the National Cooperative Soil Survey was used in this investigation. Soil map units identified at the project site generally correspond to those included in the *Soil Survey of Fairfield County, Connecticut* (USDA 2005).

Wetland determinations were completed based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils. Soil types were identified by observation of soil morphology (soil texture, color, structure, etc.). To observe the morphology of the property's soils, test pits and/or borings (maximum depth of two feet) were completed at the site.

1899 Bronson Road
Fairfield CT 06824
203 366 0588
www.wkassociates.net

Intermittent watercourse determinations were made based on the presence of a defined permanent channel and bank and the occurrence of two or more of the following characteristics: A) evidence of scour or deposits of recent alluvium or detritus, B) the presence of standing or flowing water for a duration longer than a particular storm incident, and C) the presence of hydrophytic vegetation.

The wetland and watercourse determination is subject to change until adopted by local, state, or federal regulatory agencies.

Results

The approximate 0.4-acre residential property is located at 51 Main Street in New Canaan, Connecticut. Main Street and Heritage Hill Road border the northern boundary of the property. Property improvements include a single-family residence, detached garage, and an asphalt driveway. The primary vegetative cover at the property is lawn with other ornamentals.

No inland wetlands and watercourses were identified at the property. The identified soils are neither poorly drained, very poorly drained, or from alluvial deposits. They are well drained and formed from human altered deposits.

One soil map unit was identified on the property. The map unit represent a specific area on the landscape and consists of one or more soils for which the unit is named. Other soils (inclusions that are generally too small to be delineated separately) may account for 10 to 15 percent of each map unit. The mapped units are identified in the following table by name and symbol and typical characteristics (parent material, drainage class, high water table, depth to bedrock, and slope). These characteristics are generally the primary characteristics to be considered in land use planning and management. A description of each characteristic and their land use implications follows the table. A complete description of the soil map unit can be found in the *Soil Survey of Fairfield County, Connecticut* (USDA 2005), and at *https://soilseries.sc.egov.usda.gov/osdname.aspx.* On the day of the review, there was no soil frost and less than one inch of snow cover. The soil was moist. The sky was clear and air temperatures were in the 50's º F.

Map Unit		Parent	Slope	Drainage	High Water Table			Depth To
Sym.	Name	Material	(%)	Class	Depth (ft)	Kind	Mos.	Bedrock (in)
	Upland Soil							
306	Udorthents -	Excavated or Filled Soil (>2 feet)	0-25	Well Drained	>6.0	--	--	>60
	Urban Land Complex	Pavement & structures account for 85% or more of the area. Additional investigations required to determine characteristics						

Parent material is the unconsolidated organic and mineral material in which soil forms. Soil inherits characteristics, such as mineralogy and texture, from its parent material. Glacial till is unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice. Glacial outwash consists of gravel, sand, and silt, which are commonly stratified and

deposited by glacial melt water. Alluvium is material such as sand, silt, or clay, deposited on land by streams. Organic deposits consist of decomposed plant and animal parts.

A soil's texture affects the ease of digging, filling, and compacting and the permeability of a soil. Generally sand and gravel soils, such as outwash soils, have higher permeability rates than most glacial till soils. Soil permeability affects the cost to design and construct subsurface sanitary disposal facilities and, if too slow or too fast, may preclude their use. Outwash soils are generally excellent sources of natural aggregates (sand and gravel) suitable for commercial use, such as construction sub base material. Organic layers in soils can cause movement of structural footings. Compacted glacial till layers make excavating more difficult and may preclude the use of subsurface sanitary disposal systems or increase their design and construction costs if fill material is required.

Generally, soils with steeper slopes increase construction costs, increase the potential for erosion and sedimentation impacts, and reduce the feasibility of locating subsurface sanitary disposal facilities.

Drainage class refers to the frequency and duration of periods of soil saturation or partial saturation during soil formation. Seven classes of natural drainage classes exist. They range from excessively drained, where water is removed from the soil very rapidly, to very poorly drained, where water is removed so slowly that free water remains at or near the soil surface during most of the growing season. Soil drainage affects the type and growth of plants found in an area. When landscaping or gardening, drainage class information can be used to assure that proposed plants are adapted to existing drainage conditions or that necessary alterations to drainage conditions (irrigation or drainage systems) are provided to assure plant survival.

High water table is the highest level of a saturated zone in the soil in most years. The water table can affect the timing of excavations; the ease of excavating, constructing, and grading; and the supporting capacity of the soil. Shallow water tables may preclude the use of subsurface sanitary disposal systems or increase design and construction costs if fill material is required.

The depth to bedrock refers to the depth to fixed rock. Bedrock depth affects the ease and cost of construction, such as digging, filling, compacting, and planting. Shallow depth bedrock may preclude the use of subsurface sanitary disposal systems or increase design and construction costs if fill material is required.

Conclusions

Today, we investigated the property located at 51 Main Street in New Canaan, Connecticut. No inland wetlands or watercourses were observed at the site. Thank you for the opportunity to assist you. If you should have any questions or comments, please do not hesitate to contact us.

Sincerely,

William L. Kenny, PWS, PLA
Soil Scientist

Alexander Wojtkowiak
Soil Scientist

Enclosure

Ref. No. 5222

SOIL LEGEND

UPLAND

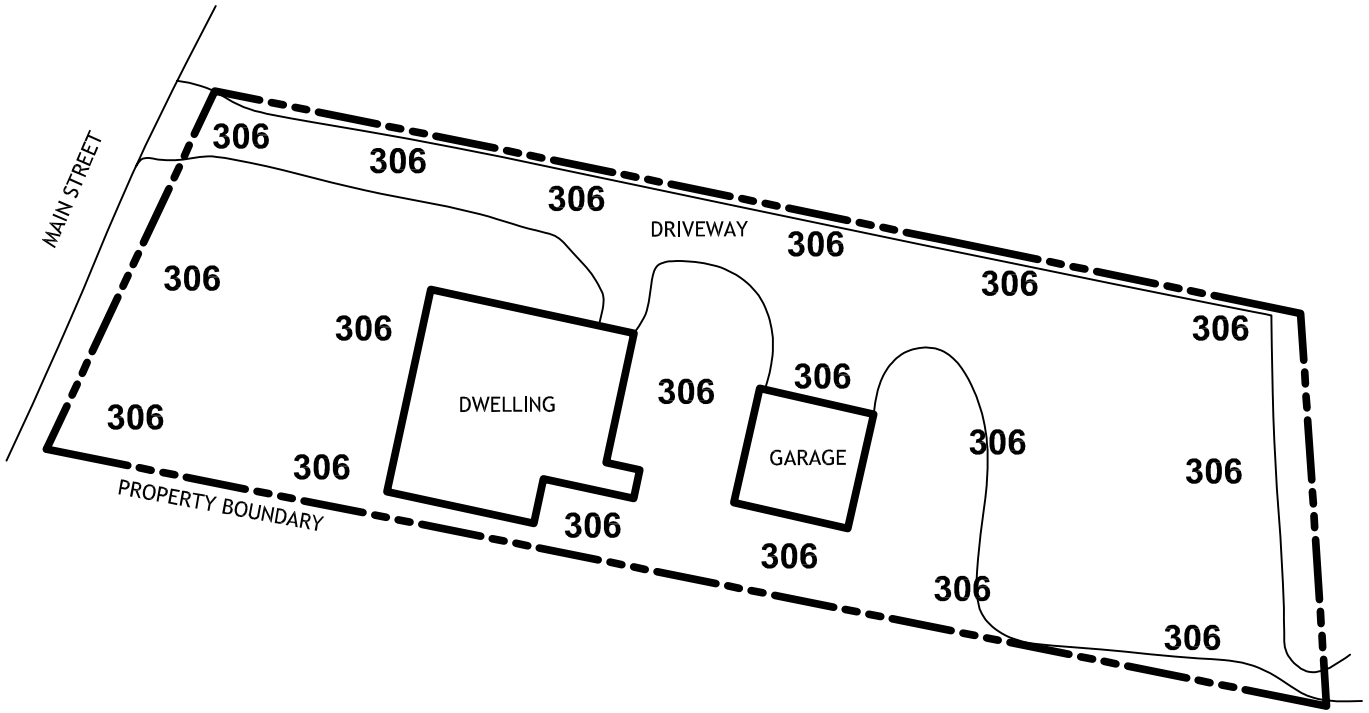
306 UDORTHENTS-URBAN LAND COMPLEX

WILLIAM KENNY ASSOCIATES

LANDSCAPE ARCHITECTURE ▪ ECOLOGICAL SERVICES

1899 Bronson Road Fairfield CT 06824

203 366 0588 www.wkassociates.net



NOTES:

- *INFORMATION SHOWN ON THIS DRAWING IS APPROXIMATE.*
- *SOIL INFORMATION PROVIDED BY WILLIAM KENNY ASSOC. OTHER INFORMATION TAKEN FROM A DRAWING PREPARED BY RKW LAND SURVEYING.*
- ***306** IS THE SOIL MAPPING UNIT SYMBOL. SEE DETERMINATION REPORT FOR THE SOIL MAP UNIT NAMES AND ADDITIONAL RELATED INFORMATION.*

I CERTIFY THAT THIS SOIL MAP SUBSTANTIALLY REPRESENTS THE SOILS MAPPED IN THE FIELD

WILLIAM L. KENNY, SOIL SCIENTIST

SOIL MAP

51 MAIN STREET
NEW CANAAN, CONNECTICUT

SCALE: NOT TO SCALE
DATE: MARCH 10, 2022

Ref. No. 5222

NORTH

TAB 14

AQUARION
Water Company
Stewards of the Environment™

203.445.7310 phone
800.732.9678 (toll free)

November 19, 2021

Paul Stone
51 Main Street LLC
16 Cross Street
New Canaan, CT 06840

Re: Request for Water Service – 51 Main Street, New Canaan, CT

Dear Mr. Stone,

This letter confirms that Aquarion Water Company of Connecticut (Aquarion) has sufficient water supply to meet the following estimated residential water demand for the proposed development at the above referenced property.

- Average Day Demand: 3,100 gallons per day
- Maximum Day Demand: 6,200 gallons per day
- Irrigation System Demand: 100 gallons per day
- Fire Sprinkler Demand: 750 gallons per minute at 38 psi

Please note that Aquarion has instituted conservation measures in New Canaan that limits the operation of irrigation systems to two (2) times per week. Please visit our website for additional information (www.aquarionwater.com).

This commitment does not fire hydrant demand because no demand projections fire hydrants were included in the application submitted to Aquarion. If you wish to include fire hydrant demand in your project, you will need to update your application and resubmit your Will Serve Letter request.

The attached fire flow test report indicates an available fire flow of approximately 2,130 gallons per minute at 20 psi. It is your engineer's responsibility to design accordingly in order to achieve the required flow and pressure.

This service commitment is valid for 12 months from the date of issuance. If your proposed project is not under construction or ready for water service (intended usage) within 12 months of this letter, then Aquarion's ability to serve your project will have to be re-evaluated. If you have any questions, please feel free to contact me at 203.362.3067.

Very truly yours,
Aquarion Water Company
Hannah Swearsky

Hannah P. Swearsky
Planning Engineer

cc: New Services, File
Attachment: Fire flow test at hydrant 0174 dated 10/5/2021
Will Serve Letter Application dated 11/15/2021

Reference Page _____

Aquarion Water Company Fire Flow Test

Test Location: NEW CANAAN, CT

Test Date: 10/05/2021 Test Time: 09:50 PM

Flow Hydrant: 0174 Location:Heritage Hill Rd @ Main St

Flow Hydrant Parameters:

Main Size:	8"
Pipe/Nozzle Diameter:	4.0 Diff. inches
Pito Pressure:	7 psi
PSI Before:	54 psi

Residual Hydrant: Faucet Location: Main St #51 Opp. Locust Ave

Residual Hydrant Parameters:

PSI Before:	55 psi
Residual During Flow:	44 psi
PSI After:	55 psi
PSI Drop:	11 psi

Test Results:

GPM Available:	1,140
GPM @20 psi:	2,130

Test Performed By: JP&MSOCCI

NOTE: Static Pressure readings are actual, and test results are not corrected for elevation differential.

Test Method: Calibrated Orifice

Disclaimer: This data represents system conditions on the date and time that the test was performed. System conditions may vary significantly throughout the year. The design of new water service installations and the identification and gathering of all necessary data is the sole responsibility of the Developer or his representative. In all instances, the water service designer should apply engineering judgment to ensure proper design. Aquarion Water Company does not guarantee the accuracy of this data.

IF THERE IS AN EXISTING TAP & THAT IS NOT BEING SEVERED AT THE TIME OF THE NEW TAP, A $4,000 DEPOSIT IS REQUIRED UNTIL YOU DO A TAP SHUT OFF

AQUARION Water Company

DEMAND FORM AND WILL SERVE LETTER APPLICATION

General Information:

Applicant Name: PAUL STONE Company Name: PAUL STONE

Email Address: pstone@karpassociatesinc.com Phone Number: (203) 223-4568

Mailing Address: ~~51 M~~ 16 Cross Street, New Canaan CT

Property Owner Name: 51 MAIN STREET LLC

Email Address: PSTONE@KARPASSOCIATESINC.com Phone Number: 203-972-3366

Project Name: 51 Main Street

Building Address: 51 Main Street

City: New Canaan State: CT Zip Code: 06840

Type of Project to be supplied by this connection (check all that apply):

☑ Residential ☐ Commercial ☐ Industrial ☐ Public Authority

Service Information:

Fire Demand:

Size: 8" Peak Flow: 750 GPM at Residual (PSI) at street connection: 38

Length of Proposed Fire Service Line: 75' Diameter of Proposed Fire Service Line: 8"

Domestic Demand:

Size: 2½" Peak Flow: 80 GPM at Residual (PSI) at street connection: 50

Length of Proposed Domestic Service Line: 45' Diameter of Proposed Domestic Service Line: 2-½"

Irrigation Demand: 100 GPD Peak Flow: 10 GPM

Fire Hydrant (Only if hydrant is required):

Quantity: _____ Flow: _____ GPM

Plumbing and Fire Sprinkler (MEP or Sprinkler/Fire Designer must complete form & sign):

Printed Name: ERIK P. ZIMMITTI License #: PEN.0027833

Title: VICE PRESIDENT Phone Number: 203-739-5205

Signature: Erik P Zimmitti Date: 11/15/2021

If Domestic Service is desired, please fill out the worksheet below

DOMESTIC DEMAND WORKSHEET

Site Elevations:

High: 311 ft. Low: 309 ft.

Datum Elevation (USGS): _____

Commercial/Industrial/Public Authority Use:

Building Size: _____SF

Average Day Demand: _____gal/day

Maximum Day Demand: _____gal/day

Maximum Day Demand = Average Day Demand x2

and/or

Residential Use:

Number of Units: 20

Number of Studios: 0 One Bedroom: 9 Two Bedrooms: 11

Total Number of Bedrooms: 31

Average Day Demand: 3,100 gal/day

Maximum Day Demand: 6,200 gal/day

Maximum Day Demand = Average Day Demand x2

Note: This application will NOT be processed unless it is completely filled out and signed, a copy of utility site plans including elevation contours must be included. If you are requesting a fire service, a fire flow test may be required.

This application will be processed upon receipt of this information to verify the proper size of your service. It is the responsibility of the fire sprinkler designer to assure that adequate flow and pressure is available to meet the proposed fire demand. Please provide the information requested above and return the completed form to the attention of Aquarion Water Company, New Services Department, 600 Lindley Street, Mail-Stop 800, Bridgeport, CT 06606-5991 or can be emailed to New Services at newservices@aquarionwater.com. Thank you!

TAB 15

51 MAIN
New Canaan, Connecticut

Housing Affordability Plan

Submission Draft
May 24, 2022

Submitted by 51 Main Street, LLC to the New Canaan Planning & Zoning Commission

PREPARED BY:
Hinckley, Allen & Snyder LLP
20 Church Street, #18
Hartford, Connecticut 06103
(860) 725-6200

Introduction

51 Main Street, LLC submits this Housing Affordability Plan for the proposed 20-unit multi-family residential rental community located on property known as 51 Main St. (Map T / Block 0043 / Lot 0822) in New Canaan, Connecticut. The community will be called "51 Main" (the "Community"). *See* Exhibit A, attached hereto.

Under this plan, thirty percent (30%) of the residential rental units at the Community will meet the criteria for "affordable housing" as defined in Connecticut General Statutes ("C.G.S.") § 8-30g ("Housing Opportunity Units"). C.G.S. § 8-30g requires that fifteen percent (15%) of the Housing Opportunity Units be affordable for 40 years to families earning eighty percent (80%) or less of the area or State median income, whichever is less, and that fifteen percent (15%) be affordable to families earning sixty percent (60%) or less of the area or State median income, whichever is less. This Housing Affordability Plan ("Plan"), which is proposed as a condition of site plan approval by the New Canaan Planning & Zoning Commission (the "Commission"), satisfies these requirements and describes how the affordable housing apartment homes will be administered.

I. Apartment Homes Designated as "Housing Opportunity" Units.

Thirty percent (30%) of the residential rental units in the Community, or 6 units, will be designated as Housing Opportunity Units pursuant to C.G.S. § 8-30g. The specific apartments initially designated as Housing Opportunity Units are shown on reduced floor plans included in Schedule A-2 of this Plan.

II. Forty (40) Year Affordability Period.

The Housing Opportunity Units in the Community will be proposed as affordable or workforce housing units for at least forty (40) years after the initial occupation of the Community. The 40 years shall be calculated for each Housing Opportunity Unit beginning on the date that the certificate of occupancy is issued for the Housing Opportunity Unit.

III. Pro-Rata Construction and Dispersion.

The Housing Opportunity Units shall be built and offered for rent on a *pro rata* basis as construction proceeds in accordance with the construction-phasing plan approved by the Commission for the Community. It is the intent of this Plan that one (1) Housing Opportunity Unit will be built and offered for rental within the time that three (3) market-rate units are completed and offered for rental.

IV. Nature of Construction of Housing Opportunity Units.

The Housing Opportunity Units shall be constructed in substantial conformance with the site plans and floor plans approved in the zoning approval for the Community, as may be modified based on the requirements of the New Canaan Building Department or other Town staff in signing off on administrative permits or approvals. *See* Schedule B of this Plan.

V. Entity Responsible for Administration and Compliance.

This Affordability Plan will be administered by 51 Main Street, LLC or its successors and assigns (the "Administrator"). 51 Main Street, LLC hereby represents that its staff has the experience necessary to administer this Plan. The principal point of contact under this Plan shall be Paul Stone. Contact information for the principal point of contact shall be provided to the Town of New Canaan and the Commission prior to the issuance of a Certificate of Occupancy.

The Administrator shall submit annually a written status report demonstrating compliance with affordability and occupancy rules and approval conditions. The role of Administrator may be transferred or assigned to another entity, provided that such entity has the experience and qualifications to administer this Plan. In the event of any assignment of the role of Administrator, 51 Main Street, LLC, or its successors, will provide prior written notice to the Commission.

VI. Notice of Initial Rental of Housing Opportunity Units.

Except as provided in Section X of this Plan and subject to Section VIII, during the initial lease-up of the Community, the Administrator shall provide notice of the availability for rental of each Housing Opportunity Unit. Such notice shall be provided, at a minimum, by advertising at least two times in a newspaper of general circulation in the Town of New Canaan. The Administrator shall also provide such notice to the Commission and to the Clerk of the Town of New Canaan. Such notice shall include a description of the available Housing Opportunity Unit(s), the eligibility criteria for potential residents, the maximum rental price (as hereinafter defined), and the availability of application forms and additional information. All such notices shall comply with the federal Fair Housing Act, 42 U.S.C. §§ 3601 *et seq*. and the Connecticut Fair Housing Act, C.G.S. §§ 46a-64b *et seq*. (together, the "Fair Housing Acts").

VII. Resident Eligibility.

Eligibility of applicants to lease a Housing Opportunity Unit in the Community shall be determined by the Administrator in accordance with this Plan and C.G.S. § 8-30g, as amended.

VIII. Affirmative Fair Housing Marketing Plan.

The rental of both Housing Opportunity Units and market-rate units in the Community shall be publicized, using State regulations for affirmative fair housing marketing programs as guidelines. The purpose of such efforts shall be to apprise residents of municipalities of relatively high concentrations of minority populations of the availability of such units. The Administrator shall have responsibility for compliance with this section. Notices of initial availability of units shall be provided, at a minimum, by advertising at least two times in a newspaper of general circulation in such identified municipalities. The Administrator shall also provide such notices to the Commission and the local or regional housing authority. Such notices shall include a description of the available Housing Opportunity Unit(s), the eligibility criteria for tenants, and the availability of application forms and additional information.

Using the above-referenced State regulations as guidelines, dissemination of information about available Housing Opportunity Units and market-rate units shall include:

A. Analyzing census, Connecticut Department of Economic and Community Development town profiles, and other data to identify racial and ethnic groups least likely to apply based on representation in New Canaan's population, including Asian Pacific, Black, Hispanic, and Native American populations.

B. Announcements/advertisements in publications and other media that will reach minority populations, including newspapers, such as and radio stations serving New Canaan and other towns in the metropolitan statistical area and regional planning area, and advertisements or flyers likely to be viewed on public transportation or public highway areas.

C. Announcements to social service agencies and other community contacts serving low-income minority families (such as churches, civil rights organizations, the housing authority, and other housing authorities in towns represented in New Canaan's metropolitan statistical area and regional planning agency, legal services organizations, etc.).

D. Assistance to minority applicants in processing applications.

E. Marketing efforts in geographic area of high minority concentrations within the housing market area and metropolitan statistical area.

F. Beginning affirmative marketing efforts prior to general marketing of units, and repeating again during initial marketing and at 50 percent completion and thereafter at reasonable period intervals with respect to re-rentals.

All notices shall comply with the federal and State Fair Housing Acts.

IX. Application Process.

A person seeking to rent one of the Housing Opportunity Units ("Applicant") must complete an application to demonstrate eligibility. The application form and process shall comply with the Fair Housing Acts.

A. Application Form.

The application form shall be provided by the Administrator and shall include an income certification form. In general, "income" for purposes of determining an Applicant's qualification shall include the Applicant family's total anticipated income from all sources for the twelve (12) month period following the date the lease commences (the "Lease Begin Date"). If the Applicant's financial disclosures indicate that the Applicant may experience a significant change in the Applicant's future income during the twelve (12) month period, the Administrator shall not consider this change unless there is a reasonable assurance that the change will in fact occur.

In determining what is and is not to be included in the definition of annual family income, the Administrator shall use the criteria set forth by HUD and listed on Schedule C, attached.[1]

B. Applicant Interview.

The Administrator shall interview an Applicant upon submission of a completed application. Specifically, the Administrator shall, during the interview, undertake the following:

1. Review with the Applicant all the information provided on the application.

2. Explain to the Applicant the requirements for eligibility, verification procedures, and the penalties for supplying false information.

3. Verify that all sources of family income and family assets have been listed in the application. Make clear that the term "family" includes all individuals who are to occupy the home, and that no relationship by blood or marriage is required.

4. Request the Applicant to sign the necessary release forms to be used in verifying income. Inform the Applicant of what verification and documentation must be provided before the application is deemed complete.

5. Inform the Applicant that a decision as to eligibility cannot be made until all items on the application have been verified.

---

[1] *See* 24 C.F.R. § 5.609. Federal regulations are subject to change, and it is the intent of this Affordability Plan to follow HUD regulations with respect to income certification as such regulations may be amended from time to time.

C. Verification of Applicant's Income.

Where it is evident from the income certification form provided by the Applicant that the Applicant is not eligible, additional verification procedures shall not be necessary. However, if the Applicant appears to be eligible, the Administrator shall require verification of the Applicant's reported income.

If applicable, the Applicant shall provide the documentation listed on Schedule C, attached hereto, to the Administrator. This list is not exclusive, and the Administrator may require any other verification or documentation as the Administrator deems necessary.

A sample rider to the lease agreement for Housing Opportunity Units is attached hereto as Schedule D.

X. Prioritization of Applicants for Initial Rental.

In the event that the number of qualified Applicants exceeds the number of Housing Opportunity Units, then the Administrator shall compile a waiting list, from which Applicants will be selected on a first-come, first-served basis. For purposes of this section, an application shall be considered received when a completed and signed application form is submitted with the applicable application fee.

XI. Maximum Rental Price.

Calculation of the maximum rental price ("Maximum Rental Price") for a Housing Opportunity Unit, so as to satisfy C.G.S. §§ 8-30g, shall utilize the lesser of the area median income for the Town of New Canaan or the statewide median income as published by HUD as in effect on the day a lease is signed by the lessee of the Housing Opportunity Unit ("Resident"). Such income shall then be adjusted for household size assuming occupancy by 1.5 persons per bedroom and using the adjustment formula adopted by State regulations. The Maximum Rental Price shall be calculated as follows:

ONE BEDROOM RENTAL UNIT FOR FAMILY EARNING LESS THAN 80 PERCENT OF STATEWIDE MEDIAN INCOME	SAMPLE COMPUTATIONS BASED ON FY 2022 DATA
1. Determine lower of relevant year (2022) area median income for Stamford-Norwalk, CT HMFA ($180,900) or statewide median income ($112,600), adjusted for family size (family of 4), as published by HUD	$112,600
2. Determine adjusted income for a household of 1.5 persons by calculating 75 percent of Item 1	$84,450
3. Calculate 80 percent of Item 2	$67,560
4. Calculate 30 percent of Item 3, representing maximum portion of a family's income that may be used for housing	$20,268
5. Divide Item 4 by 12 to determine maximum monthly housing expense	$1,689
6. Compare HUD 2022 Fair Market Rents for Stamford-Norwalk, CT HMFA ($1,855) times 120 percent	$2,226
7. Use lesser of calculated maximum monthly expense (Item 5) and HUD fair market rent (Item 6)	$1,689
8. Determine by reasonable estimate monthly expenses for heat and utility costs, excluding electronic communication/online services but including any fee required for all tenants (tenant responsible for such expenses)	$125
9. Subtract reasonable monthly expenses (Item 8) from maximum housing expense (Item 7) to determine maximum amount available for rent	$1,564

ONE BEDROOM RENTAL UNIT FOR FAMILY EARNING LESS THAN 60 PERCENT OF STATEWIDE MEDIAN INCOME	SAMPLE COMPUTATIONS BASED ON FY 2022 DATA
1. Determine lower of relevant year (2022) area median income for Stamford-Norwalk, CT HMFA ($180,900) or statewide median income ($112,600), adjusted for family size (family of 4), as published by HUD	$112,600
2. Determine adjusted income for a household of 1.5 persons by calculating 75 percent of Item 1	$84,450
3. Calculate 60 percent of Item 2	$50,670
4. Calculate 30 percent of Item 3, representing maximum portion of a family's income that may be used for housing	$15,201
5. Divide Item 4 by 12 to determine maximum monthly housing expense	$1,267
6. Compare HUD 2022 Fair Market Rents for Stamford-Norwalk, CT HMFA	$1,855
7. Use lesser of calculated maximum monthly expense (Item 5) and HUD fair market rent (Item 6)	$1,267
8. Determine by reasonable estimate monthly expenses for heat and utility costs, excluding electronic communication/online services but including any fee required for all tenants (tenant responsible for such expenses)	$125
9. Subtract reasonable monthly expenses (Item 8) from maximum housing expense (Item 7) to determine maximum amount available for rent	$1,142

TWO BEDROOM RENTAL UNIT FOR FAMILY EARNING LESS THAN 80 PERCENT OF STATEWIDE MEDIAN INCOME	SAMPLE COMPUTATIONS BASED ON FY 2022 DATA
1. Determine lower of relevant year (2022) area median income for Stamford-Norwalk, CT HMFA ($180,900) or statewide median income ($112,600), adjusted for family size (family of 4), as published by HUD	$112,600
2. Determine adjusted income for a household of 3 persons by calculating 90 percent of Item 1	$101,340
3. Calculate 80 percent of Item 2	$81,072
4. Calculate 30 percent of Item 3, representing maximum portion of a family's income that may be used for housing	$24,322
5. Divide Item 4 by 12 to determine maximum monthly housing expense	$2,027
6. Compare HUD 2022 Fair Market Rents for Stamford-Norwalk, CT HMFA ($2,230) times 120 percent	$2,676
7. Use lesser of calculated maximum monthly expense (Item 5) and HUD fair market rent (Item 6)	$2,027
8. Determine by reasonable estimate monthly expenses for heat and utility costs, excluding electronic communication/online services but including any fee required for all tenants (tenant responsible for such expenses)	$150
9. Subtract reasonable monthly expenses (Item 8) from maximum housing expense (Item 7) to determine maximum amount available for rent	$1,877

TWO BEDROOM RENTAL UNIT FOR FAMILY EARNING LESS THAN 60 PERCENT OF STATEWIDE MEDIAN INCOME	SAMPLE COMPUTATIONS BASED ON FY 2022 DATA
1. Determine lower of relevant year (2022) area median income for Stamford-Norwalk, CT HMFA ($180,900) or statewide median income ($112,600), adjusted for family size (family of 4), as published by HUD	$112,600
2. Determine adjusted income for a household of 3 persons by calculating 90 percent of Item 1	$101,340
3. Calculate 60 percent of Item 2	$60,804
4. Calculate 30 percent of Item 3, representing maximum portion of a family's income that may be used for housing	$18,241
5. Divide Item 4 by 12 to determine maximum monthly housing expense	$1,520
6. Compare HUD 2022 Fair Market Rents for Stamford-Norwalk, CT HMFA	$2,230
7. Use lesser of calculated maximum monthly expense (Item 5) and HUD fair market rent (Item 6)	$1,520
8. Determine by reasonable estimate monthly expenses for heat and utility costs, excluding electronic communication/online services but including any fee required for all tenants (tenant responsible for such expenses)	$150
9. Subtract reasonable monthly expenses (Item 8) from maximum housing expense (Item 7) to determine maximum amount available for rent	$1,370

XII. Principal Residence.

Housing Opportunity Units shall be occupied only as a Resident's principal residence. Notwithstanding any zoning, subdivision or other regulation to the contrary, subleasing of Housing Opportunity Units shall be prohibited.

XIII. Requirement to Maintain Condition.

All Residents are required to maintain their units. The Resident shall not destroy, damage or impair the unit, allow the unit to deteriorate, or commit waste on the unit. When a Housing Opportunity Units offered again for rental, the Administrator shall cause the unit to be inspected.

XIV. Change of Income or Qualifying Status of Resident.

In the event that a Resident's income changes so as to exceed the qualifying maximum, or if the Resident otherwise becomes disqualified, such Resident must provide notice to the Administrator within seven (7) days of the disqualification. When a resident becomes disqualified, the Administrator shall require the Resident to vacate the Housing Opportunity Unit within sixty (60) days. The Administrator (or owner, if the Administrator is not the owner) in his sole discretion may elect to move the Resident to a market rate apartment unit if the Resident satisfies the Administrator's (or owner's) normal criteria for such unit.

XV. Enforcement.

A violation of this Affordability Plan shall not result in a forfeiture of title, but the Commission shall otherwise retain all enforcement powers granted by the General Statutes, including § 8-12, which powers include, but are not limited to, the authority, at any reasonable time, to inspect the property and to examine the books and records of the Administrator to determine compliance of Housing Opportunity Units with this Affordability Plan and applicable state statutes and regulations. Such records are confidential and not subject to disclosure under the Freedom of Information Act.

Exhibit A
Property Description

All that certain piece or parcel of land with any improvements thereon situated in the Town of New Canaan, County of Fairfield County, and State of Connecticut shown as Map T Block 43 Lot 822 on a map or plan entitled "ZONING LOCATION SURVEY DEPICTING 51 MAIN STREET IN NEW CANAAN, CONNECTICUT PREPARED FOR 51 MAIN STREET LLC" prepared by D'Andrea Surveying & Engineering, P. C.; Land Planners, Engineers, Surveyor; P.O. Box 5498, 6 Neil Lane, Riverside, Connecticut 06878; phone number (203) 637-1779; dated November 8, 2021, Scale 1" = 10' being more particularly bounded and described as follows:

Beginning at a point in the southwesterly corner of said property at its boundary with property now or formerly of Church Hill Walk, Inc.; thence turning and running N 11º25'30" E a distance of 247.04 feet to a point; thence turning and running S 64º58'00" E a distance of 75.00 feet to a point; thence turning and running S 11º34'00" W a distance of 209.72 feet to a point; thence turning and running S 86º13'00" W a distance of 75.00 feet to the point and place of beginning.

SCHEDULE A-1
DESIGNATION OF HOUSING OPPORTUNITY UNITS

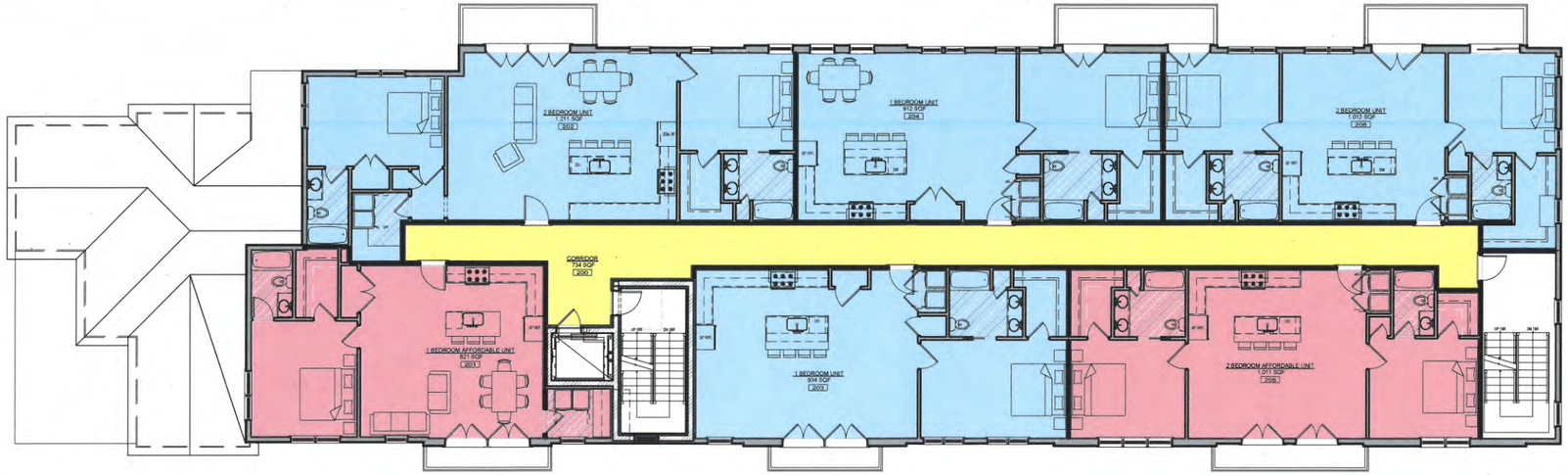
Total Number of Units (All One-Bedroom and Two-Bedroom Units):

Market-Rate Units		14
Housing Opportunity Units		6
	Total	20

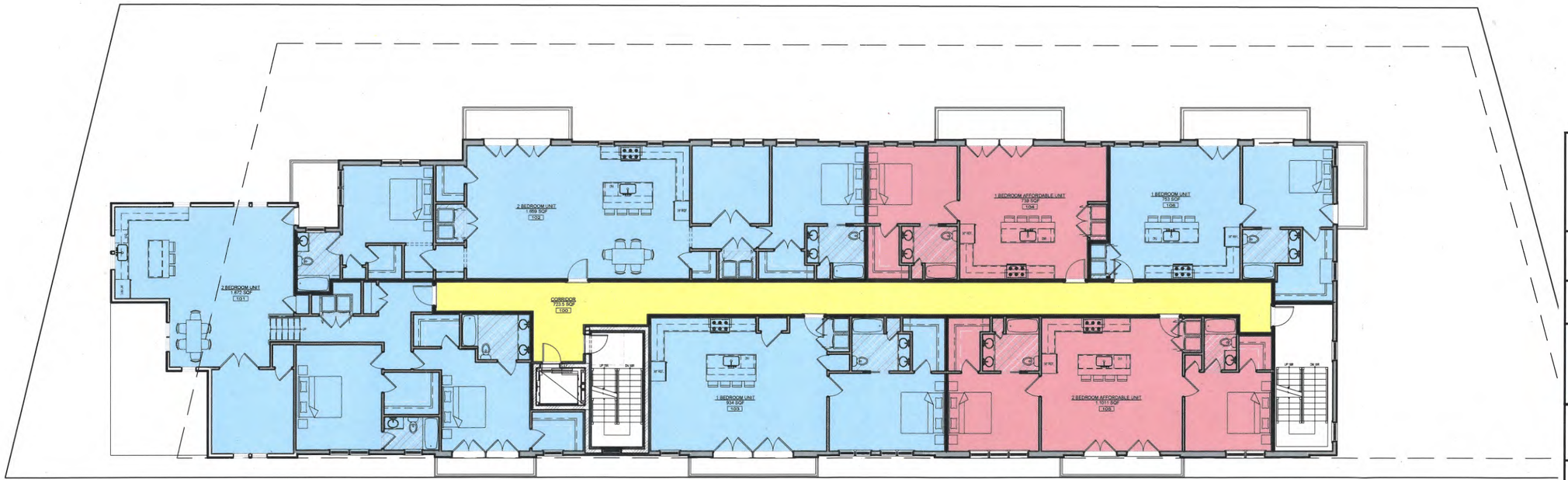
Apartment units designated as Housing Opportunity Units are identified on the attached floor plans (Schedule A-2).

The specific units designated as Housing Opportunity Units are dispersed throughout the building.

Schedule A-2
Location of Affordable Units



2 SECOND FLOOR UNIT TYPE DIAGRAM
Scale: 1/8" = 1'-0"



1 FIRST FLOOR UNIT TYPE DIAGRAM
Scale: 1/8" = 1'-0"

DOB Stamps and Notes

PRELIMINARY
NOT FOR CONSTRUCTION

CAH
ARCHITECTURE AND DESIGN, LLC
297 Sport Hl Road, Easton, CT 06612
(203)622-7287 - CAHarchitecture.com

APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

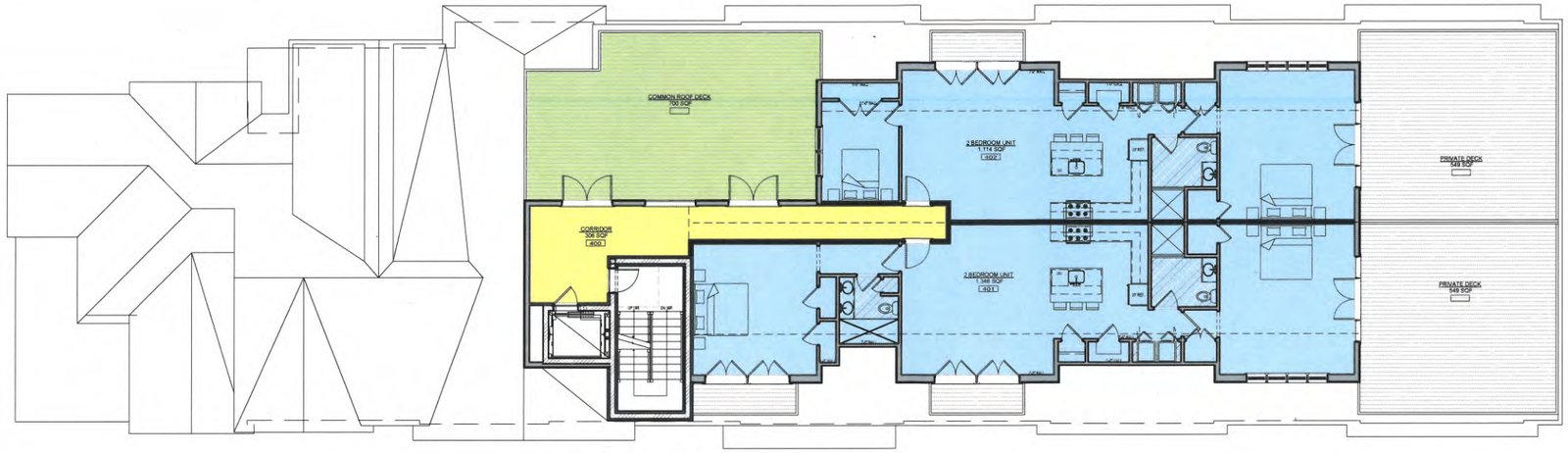
AFFORDABLE UNIT LAYOUT

Date: 05.13.2022
Project:
Revision:

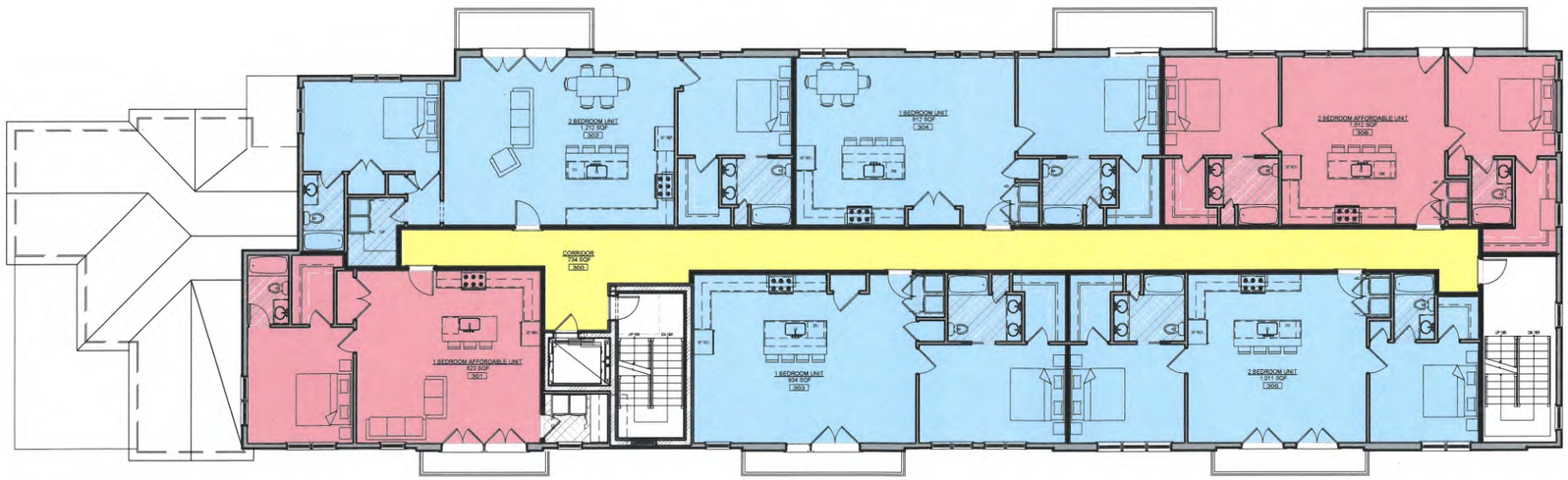
SD-7

Page Number:

Schedule A-2
Location of Affordable Units



2 FOURTH FLOOR UNIT TYPE DIAGRAM
Scale: 1/8" = 1'-0"



1 THIRD FLOOR UNIT TYPE DIAGRAM
Scale: 1/8" = 1'-0"

DOB Stamps and Notes

PRELIMINARY
NOT FOR CONSTRUCTION

CAH
ARCHITECTURE AND DESIGN, LLC
267 Sport Hill Road, Easton, CT 06612
(203)922-7287 - CAHarchitecture.com

APARTMENT BUILDING
51 MAIN STREET
NEW CANAAN, CT 06840

AFFORDABLE UNIT LAYOUT

Date: 05.13.2022
Project:
Revision:

SD-8

Page Number:

SCHEDULE B
MINIMUM SPECIFICATIONS FOR HOUSING OPPORTUNITY UNITS

MAY 2022

Foundation	Reinforced Concrete
Frost Walls	Concrete Blocks
Floors	First Floor - Reinforced Concrete

Exterior	
Floor Framing	Concrete slab over parking and pre-engineered wood trusses for remaining floors and roof
Exterior Walls	2x6 @ 16" OC, Fire retardant wood studs
Sheathing	5/8' thick Dens Glass sheathing, or equivalent
Roofing	Main roof EPDM system and parapet asphalt Shingles
Siding	Hardie Fiber Cement Siding, or equivalent
Roof Drains	PVC interior roof drains
Windows and Sliders	Metal or Vinyl Clad wood windows and sliders
Insulation	Batt insulation in accordance with applicable Building Code
Sound Transmission in Units	STC-in accordance with applicable Building Code

Interior	
Interior Walls	2x4 and 2x6 @ 16" OC wood studs w/1/2" and 5/8" Gyp. Board
Flooring	Units: Laminated wood finish floor over ¾" Gyp Create over ¾" plywood sub floor. Hallways: Carpet over ¾" Gyp Create over ¾" plywood sub floor
Heating System	Electric or Gas Ducted Heating and Cooling system
Water Heater	On-Demand Electrical water heater
Smoke and CO2 Detector	Wired or Wireless Smoke and CO2 system. In accordance with applicable Building Code
Closet Shelving	Closet-Maid Vinyl coated steel wire shelving.
Cable and Phone	Cable and Phone Lines provided in each Unit.
Laundry	GE-Unitized Spacemaker washer and Dryer, or equivalent, in each unit.
Electrical Wiring	In accordance with applicable Building Code

Kitchen	
Flooring	Laminated wood finish floor, or Luxury Vinyl Tile (LUT), over ¾" Gyp Create over ¾" plywood sub floor
Cabinets	Cabinets and drawer boxes made of Medium-density fiberboard (MDF), or equivalent Doors and Drawer front made of MDF coated with polymer wrapped, or equivalent
Counter Top	Quartz 1 ¼" min thickness,
Major Appliances:	Rang-Oven: GE- Series 30 Free-Standing Electric, or

All stainless finish	equivalent Refrigerator: GE Energy Star 19.1 Cu. Ft., or equivalent Microwave: GE 1.6 Cu Ft over the range, or equivalent Dishwasher: GE Dishwasher with front controls, or equivalent
Sink	Stainless Steel w/ single lever faucet-ADA complaint

Bathroom	
Flooring	Ceramic Tiles finish floor over ¾" Gyp Create over ¾" plywood sub floor
Tub Shower	Combined acrylic tub/shower, single lever faucet ADA complaint
Sink and Counter Top	Integral Corian Sink, or equivalent, and Countertop- single lever faucet ADA complaint
Mirror	ADA complaint

SCHEDULE C
DEFINITIONS AND ELEMENTS OF ANNUAL FAMILY INCOME

1. Annual income shall be calculated with reference to 24 C.F.R. § 5.609, and includes, but is not limited to, the following:

   a. The full amount, before any payroll deductions, of wages and salaries, overtime pay, commissions, fees, tips, bonuses and other compensation for personal services;

   b. The net income from operations of a business or profession, before any capital expenditures but including any allowance for depreciation expense. Any withdrawal of cash or assets from the operation of a business or profession will be included in income, except to the extent the withdrawal is reimbursement of cash or assets invested in the operation by the family;

   c. Interest, dividends, and other net income of any kind from real or personal property, before any capital expenditures but including any allowance for depreciation expense. Any withdrawal of cash or assets from an investment will be included in income, except to the extent the withdrawal is reimbursement of cash or assets invested by the family. Where the family has net family assets in excess of $5,000, annual income shall include the greater of the actual income derived from all net family assets or a percentage of the value of such assets based on the current passbook savings rate, as determined by HUD;

   d. The full amount of periodic payments received from social security, annuities, insurance policies, retirement funds, pensions, disability or death benefits, or other similar types of periodic payments; including a lump-sum amount or prospective monthly amounts for the delayed start of a periodic amount, except as permitted in 2.q, below;

   e. Payments in lieu of earnings, such as unemployment and disability compensation, worker's compensation, and severance pay, except as permitted in 2.c, below;

   f. Welfare assistance payments.

      (1) Welfare assistance payments made under the Temporary Assistance for Needy Families (TANF) program are included in annual income only to the extent such payments:

         i. Qualify as assistance under the TANF program definition at 45 C.F.R § 260.31; and

         ii. Are not otherwise excluded under Section 2, below

      (2) If the welfare assistance payments include an amount specifically designated for shelter and utilities that is subject to adjustment by the welfare assistance agency

in accordance with the actual cost of shelter and utilities, the amount of welfare assistance to be included as income consists of the following:

i. The amount of the allowance or grant exclusive of the amounts designated for shelter or utilities, plus

ii. The maximum amount that the welfare assistance agency could in fact allow the family for shelter and utilities. If the family's welfare assistance is ratably reduced from the standard of need by applying a percentage, the amount calculated under this paragraph shall be the amount resulting from one application of the percentage:

g. Periodic and determinable allowances, such as alimony and child support payments, and regular contributions or gifts received from organizations or persons not residing with the Applicant (e.g., periodic gifts from family members, churches, or other sponsored group, even if the gifts are designated as rental or other assistance);

h. All regular pay, special pay and allowances of a member of the Armed Forces, except combat pay as in 2.g, below;

i. For section 8 programs only and as provided in 24 C.F.R § 5.612, any financial assistance, in excess of amounts received for tuition and any other required fees and charges, that an individual receives under the Higher Education Act of 1965 (20 U.S.C. § 1001 et seq.), from private sources, or from an institution of higher education (as defined under the Higher Education Act of 1965 (20 U.S.C. § 1002)), shall be considered income to that individual, except that financial assistance described in this paragraph is not considered annual income for persons over the age of 23 with dependent children. For purposes of this paragraph, "financial assistance" does not include loan proceeds for the purpose of determining income.

2. Excluded from the definition of family annual income are the following:

a. Income from employment of children under the age of 18 (including foster children);

b. Payments received for the care of foster children or foster adults;

c. Lump-sum additions to family assets, such as inheritances, insurance payments (including payments under health and accident insurance and worker's compensation), capital gains and settlement for personal or property losses, except as proved in 1.e, above;

d. Amounts received by the family that are specifically for, or in reimbursement of, the cost of medical expenses for any family member;

e. Income of a live-in aide, as defined in 24 C.F.R. § 5.403;

f. Subject to 1.i, above, the full amount of student financial assistance paid directly to the student or to the educational institution;

g. The special pay to a family member serving in the Armed Forces who is exposed to hostile fire;

h. Amounts received under training programs funded by HUD;

i. Amounts received by a person with a disability that are disregarded for a limited time for purposes of Supplemental Security Income eligibility and benefits because they are set aside for use under a Plan to Attain Self–Sufficiency (PASS);

j. Amounts received by a participant in other publicly assisted programs which are specifically for or in reimbursement of out-of-pocket expenses incurred (special equipment, clothing, transportation, child care, etc.) and which are made solely to allow participation in a specific program;

k. Amounts received under a resident service stipend. A resident service stipend is a modest amount (not to exceed $200 per month) received by a resident for performing a service for the PHA or owner, on a part-time basis, that enhances the quality of life in the development. Such services may include, but are not limited to, fire patrol, hall monitoring, lawn maintenance, resident initiatives coordination, and serving as a member of the PHA's governing board. No resident may receive more than one such stipend during the same period of time;

l. Incremental earnings and benefits resulting to any family member from participation in qualifying State or local employment training programs (including training programs not affiliated with a local government) and training of a family member as resident management staff. Amounts excluded by this provision must be received under employment training programs with clearly defined goals and objectives, and are excluded only for the period during which the family member participates in the employment training program;

m. Temporary, nonrecurring or sporadic income (including gifts that are not regular or periodic);

n. Reparation payments paid by a foreign government pursuant to claims filed under the laws of that government by persons who were persecuted during the Nazi era;

o. Earnings in excess of $480 for each full-time student 18 years old or older (excluding the head of household and spouse);

p. Adoption assistance payments in excess of $480 per adopted child;

q. Deferred periodic amounts from supplemental security income and social security benefits that are received in a lump sum amount or in prospective monthly amounts, or any deferred Department of Veterans Affairs disability benefits that are received in a lump sum amount or in prospective monthly amounts;

r. Amounts received by the family in the form of refunds or rebates under State or local law for property taxes paid on the dwelling unit;

s. Amounts paid by a State agency to a family with a member who has a developmental disability and is living at home to offset the cost of services and equipment needed to keep the developmentally disabled family member at home; and

t. Amounts specifically excluded by any other Federal statute from consideration as income for purposes of determining eligibility or benefits under a category of assistance programs that includes assistance under any program to which the exclusions set forth in 24 C.F.R § 5.609(c) apply. *See* Exhibit 5-1 at pp. 4-5 to HUD Handbook 4350.3: Occupancy Requirements of Subsidized Multifamily Housing Programs, revised as of November 2013, for a listing of income sources that apply for the exclusion.

3. Net family assets for purposes of imputing annual income include the following:[2]

a. Cash held in savings and checking accounts, safety deposit boxes, homes, etc.;

b. The current market value of a trust for which any household member has an interest;

c. The current market value of any rental property or other capital investments, less (a) any unpaid balance on any loans secured by the property and (b) reasonable costs that would be incurred in selling the asset (e.g., penalties, broker fees, etc.);

d. The current market value of all stocks, bonds, treasury bills, certificates of deposit, mutual funds, and money market accounts;

e. The current value of any individual retirement, 401K or Keogh account;

f. The cash value of a retirement or pension fund which the family member can withdraw without terminating employment or retiring;

g. Periodic or lump-sum receipts from pension and retirement funds at retirement, termination of employment or withdrawal;

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[2] What is included and excluded from Net Family Assets is derived with reference to Exhibit 5-2 to HUD Handbook 4350.3: Occupancy Requirements of Subsidized Multifamily Housing Programs, revised as of November 2013.

h. The cash value of life insurance policies available to the individual before death;

i. Any lump-sum receipts not otherwise included in income (*i.e.*, inheritances, capital gains, one-time lottery winnings, victim's restitution and settlement on insurance claims);

j. The current market value of any personal property held for investment (*i.e.*, gems, jewelry, coin collections); and

k. Interest payments on a mortgage or deed of trust held by an Applicant.

4. Net family assets do not include the following:

a. Necessary personal property (clothing, furniture, cars, etc.);

b. Interest in Indian Trust Land;

c. Equity in a cooperative unit in which the family lives;

d. Term life insurance policies;

e. Assets which are part of an active business, not including rental properties;

f. Assets that are not effectively owned by the Applicant because, although held in the Applicant's name, the assets and any income accrue to the benefit of someone else who is not a member of the family and the other person is responsible for income taxes incurred; and

g. Assets that are not accessible to the Applicant and provide no income to the Applicant.

SCHEDULE D
DOCUMENTATION OF INCOME

The following documents shall be provided, where applicable, to the Administrator to determine income eligibility:

1. Employment Income.

Verification forms must request the employer to specify the frequency of pay, the effective date of the last pay increase, and the probability and effective date of any increase during the next twelve (12) months. Acceptable forms of verification (of which at least one must be included in the Applicant file) include:

(a) An employment verification form completed by the employer.

(b) Check stubs or earnings statement showing Applicant's gross pay per pay period and frequency of pay.

(c) W-2 forms if the Applicant has had the same job for at least two years and pay increases can be accurately projected.

(d) Notarized statements, affidavits or income tax returns signed by the Applicant describing self-employment and amount of income, or income from tips and other gratuities.

2. Social Security, Pensions, Supplementary Security Income, Disability Income.

(a) Benefit verification form completed by agency providing the benefits.

(b) Award or benefit notification letters prepared and signed by the authorizing agency. (Since checks or bank deposit slips show only net amounts remaining after deducting SSI or Medicare, they may be used only when award letter cannot be obtained.)

(c) If a local Social Security Administration ("SSA") office refuses to provide written verification, the Administrator should meet with the SSA office supervisor. If the supervisor refuses to complete the verification forms in a timely manner, the Administrator may accept a check or automatic deposit slip as interim verification of Social Security or SSI benefits as long as any Medicare or state health insurance withholdings are included in the annual income.

3. Unemployment Compensation.

(a) Verification form completed by the unemployment compensation agency.

(b) Records from unemployment office stating payment dates and amounts.

4. Government Assistance.

(a) All Government Assistance Programs. Agency's written statements as to type and amount of government assistance the Applicant is now receiving, including but not limited to assistance under the federal Section 8 program, and any changes in such assistance expected during the next twelve (12) months.

(b) Additional Information for "As-paid" Programs: Agency's written schedule or statement that describes how the "as-paid" system works, the maximum amount the Applicant may receive for shelter and utilities and, if applicable, any factors used to ratably reduce the Applicant's grant.

5. Alimony or Child Support Payments.

(a) Copy of a separation or settlement agreement or a divorce decree stating amount and type of support and payment schedules.

(b) A letter from the person paying the support.

(c) Copy of latest check. The date, amount, and number of the check must be documented.

(d) Applicant's notarized statement or affidavit of amount received or that support payments are not being received and the likelihood of support payments being received in the future.

6. Net Income from a Business.

The following documents show income for the prior years. The Administrator must consult with Applicant and use this data to estimate income for the next twelve (12) months.

(a) IRS Tax Return, Form 1040, including any:
Schedule C (Small Business)
Schedule E (Rental Property Income)
Schedule F (Farm Income)

(b) An accountant's calculation of depreciation expense, computed using straight-line depreciation rules. (Required when accelerated depreciation was used on the tax return or financial statement.)

(c) Audited or unaudited financial statement(s) of the business.

(d) A copy of a recent loan application listing income derived from the business during the previous twelve (12) months.

(e) Applicant's notarized statement or affidavit as to net income realized from the business during previous years.

7. Recurring Gifts.

(a) Notarized statement or affidavit signed by the person providing the assistance. Must give the purpose, dates and value of gifts.

(b) Applicant's notarized statement or affidavit that provides the information above.

8. Scholarships, Grants, and Veterans Administration Benefits for Education.

(a) Benefactor's written confirmation of amount of assistance, and educational institution's written confirmation of expected cost of the student's tuition, fees, books and equipment for the next twelve (12) months. To the extent the amount of assistance received is less than or equal to actual educational costs, the assistance payments will be excluded from the Applicant's gross income. Any excess will be included in income.

(b) Copies of latest benefit checks, if benefits are paid directly to student. Copies of canceled check or receipts for tuition, fees, books, and equipment, if such income and expenses are not expected to change for the next twelve (12) months.

(c) Lease and receipts or bills for rent and utility costs paid by students living away from home.

9. Family Assets Currently Held.

For non-liquid assets, collect enough information to determine the current cash value (i.e., the net amount the Applicant would receive if the asset were converted to cash).

(a) Verification forms, letters, or documents from a financial institution, broker, etc.

(b) Passbooks, checking account statements, certificates of deposit, bonds, or financial statements completed by a financial institution or broker.

(c) Quotes from a stock broker or realty agent as to net amount Applicant would receive if Applicant liquidated securities or real estate.

(d) Real estate tax statements if tax authority uses approximate market value.

(e) Copies of closing documents showing the selling price, the distribution of the sales proceeds and the net amount to the borrower.

(f) Appraisals of personal property held as an investment.

(g) Applicant's notarized statements or signed affidavits describing assets or verifying the amount of cash held at the Applicant's home or in safe deposit boxes.

10. Assets Disposed of for Less Than Fair Market Value ("FMV") During Two Years Preceding Lease Begin Date.

(a) Applicant's certification as to whether it has disposed of assets for less than FMV during the two (2) years preceding the Lease Begin Date.

(b) If the Applicant states that it did dispose of assets for less than FMV, then a written statement by the Applicant must include the following:

(i) A list of all assets disposed of for less than FMV;

(ii) The date Applicant disposed of the assets;

(iii) The amount the Applicant received; and

(iv) The market value to the asset(s) at the time of disposition.

11. Savings Account Interest Income and Dividends.

(a) Account statements, passbooks, certificates of deposit, etc., if they show enough information and are signed by the financial institution.

(b) Broker's quarterly statements showing value of stocks or bonds and the earnings credited the Applicant.

(c) If an IRS Form 1099 is accepted from the financial institution for prior year earnings, the Administrator must adjust the information to project earnings expected for the next twelve (12) months.

12. Rental Income from Property Owned by Applicant.

The following, adjusted for changes expected during the next twelve (12) months, may be used:

(a) IRS Form 1040 with Schedule E (Rental Income).

(b) Copies of latest rent checks, leases, or utility bills.

(c) Documentation of Applicant's income and expenses in renting the property (tax statements, insurance premiums, receipts for reasonable maintenance and utilities, bank statements or amortization schedule showing monthly interest expense).

(d) Lessee's written statement identifying monthly payments due the Applicant and Applicant's affidavit as to net income realized.

13. Full-Time Student Status.

(a) Written verification from the registrar's office or appropriate school official.

(b) School records indicating enrollment for sufficient number of credits to be considered a full-time student by the school.

SCHEDULE E
SAMPLE LEASE RIDER FOR HOUSING OPPORTUNITY UNITS

2022 RIDER TO THE LEASE AGREEMENT FOR HOUSING OPPORTUNITY UNITS (80%)*

1. TERM AND PROVISIONS

The annexed Lease Agreement for an affordable residential rental unit is for a term of at least (1) year.

This unit is being rented as an "affordable housing unit" as defined by Section 8-30g of the Connecticut General Statutes, and is to be rented at or below the lesser of 80 percent of the area median income for the Town of New Canaan, Connecticut, or 80 percent of the State Median Income as determined by the U.S. Department of Housing and Urban Development ("HUD"). (Rates are determined on an annual basis.) This development has been approved by the New Canaan Planning & Zoning Commission based in part on the condition that a defined percentage of residential rental units will be rented as affordable housing apartment homes. The Landlord is required by law to strictly enforce these restrictions.

2. INCOME LIMITS

Prior to the commencement of the lease term, resident must provide Landlord with a copy of his or her most recently filed Federal Income Tax Return (Form 1040 or 1040A) or any other proof requested or allowed by law for the purpose of verifying income. Resident must certify that such proof is true and accurate and that the total annual income of all the members of Resident's family who will occupy the unit subject to this lease does not exceed the amount set forth below which applies to the number of persons in Resident's family who will be residing in the subject unit:

FAMILY SIZE:

1	2	3	4
$_____	$_____	$_____	$_____

3. MAXIMUM RENTS

Notwithstanding anything in the Lease Agreement to the contrary, the total rent for the affordable housing residential rental units shall not exceed the amounts set forth below. :

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* A similar Rider will be used for the 60% affordable income apartments.

	MAXIMUM RENT	ACTUAL RENT (Less a Utility Allowance)
1 bedroom:		
Annual	$_____	
Monthly	$_____	$_____

4. UTILITY ALLOWANCE

The monthly rent for an affordable rental unit includes a monthly allowance for utilities, which are heat, hot water, electricity, trash but excluding telephone and cable television. Heat and utility costs are calculated by a reasonable estimate.

5. CERTIFICATION OF INCOME

Prospective residents will be required to fill out an application form containing detailed instructions for calculating their family income and allowing the Administrator to verify the information. Applicants will be required to sign a verification of their review and understanding of the income maximums, the penalties for false information, and the applicable procedures in the event that their income increases at some future time above the allowable maximum. Applicants will also be required to provide appropriate documentation to verify their income. Incomes of resident(s) in each affordable unit will be re-verified annually at the time of the lease renewal.

This Agreement shall terminate and the Resident may be evicted for failure to qualify, if the Resident has falsely certified family income or family composition. Such false certification constitutes material noncompliance under the Lease Agreement. Resident is obligated to provide such subsequent re-certification of income as the Landlord shall require.

The Town of New Canaan will be entitled to inspect the income statements of the residents of the affordable units upon which the Administrator bases the certification.

6. CHANGE OF INCOME

In the event that an affordable unit resident's income changes so as to exceed the qualifying maximum or if the resident otherwise becomes disqualified, such resident must provide notice to the Landlord's representative within seven (7) days of the disqualification. When a resident becomes disqualified, the Administrator shall require the Resident to vacate the Housing Opportunity Unit within sixty (60) days. The Administrator (or owner, if the Administrator is not the owner) in his sole discretion may elect to move the Resident to a market rate apartment unit if the Resident satisfies the Administrator's (or owner's) normal criteria for such unit.

7. LANDLORD'S RIGHT TO INCREASE RENT

In the event that the Resident's residence is no longer being subsidized under Section 8 of the United States Housing Act of 1937, the Landlord's right to increase the monthly rent shall be conditioned upon the Landlord's furnishing Resident with a notice at least sixty (60) days prior to such increase.

8. LANDLORD'S RIGHT TO REASSIGN PREMISES

Whereas the monthly rent for this unit is calculated on the basis of the number of bedrooms in the unit, Resident may, during the term of the Lease, be reassigned to different premises if an increase or decrease in the number of Resident's family members residing in the unit warrants such a change under applicable statutes and regulations. In the event of such reassignment, Resident's monthly rent shall be based upon the size of the unit occupied for the remaining Lease term.

9. NO SUBLETTING OR ASSIGNMENT

Subletting of affordable units shall be prohibited. In addition, the affordable unit shall be occupied only as the resident's principal residence.

10. RESTRICTIONS ON USE

No portion of the unit may at any time during the term of this Agreement be used on a transient basis, for example, as a hotel, motel, dormitory, fraternity house, sorority house, rooming house, hospital, nursing home, sanitarium, or rest home.

11. ACCESS TO COMMON FACILITIES

Residents shall be given equal access with all other Residents, at an equal charge if any, to all on-site and all off-site common facilities of the Community. The Landlord shall ensure that handicapped or disabled individuals are afforded equal access to all facilities of the Community.

12. INTERPRETATION

Unless otherwise indicated, the terms used herein shall have the same meaning ascribed to them in the main body of this Lease Agreement. This rider shall control any conflict between terms herein and the Lease Agreement.

13. PROCEDURES FOR INITIAL DESIGNATION AND LEASING OF AFFORDABLE UNITS

Attached to this Lease Agreement is the developer's initial designation of the units that shall be rented as affordable units. These units shall remain vacant until a qualified family is found.

In the event that the development is fully leased and the development contains the minimum number of affordable units containing income-qualified families, if one of the families occupying these units vacates voluntarily or otherwise, this unit will be kept vacant until another qualified family is found.

RIDER TO THE LEASE AGREEMENT
FOR HOUSING OPPORTUNITY UNITS

IN WITNESS WHEREOF, the parties hereto have executed this Rider to the Lease Agreement on the _____ day of _____ Year _____.

RESIDENT

_____

_____

_____
PRINT NAME

_____
PRINT NAME

_____
DATE

W.E. PARTNERS, LLC

_____
SIGNATURE MANAGEMENT REPRESENTATIVE

TAB 16

Christopher A. Hull
CAH Architecture and Design, LLC
267 Sport Hill Rd.
Easton, CT 06612

Licensure:

Connecticut, Licensed Architect
New York State, Licensed Architect
Ohio, Licensed Architect
NCARB Certification

Work Experience:

Owner, CAH Architecture and Design, LLC, Easton, CT 2005-present
We have completed numerous projects on historic and antique structures, the most well-known among these being the 2019 This Old House Idea House in New Canaan, CT. Additionally, we have designed a number of mixed-use renovations in the Wall Street area of Norwalk, several multi-family conversions of 19th century buildings in Washington D.C., NYC brownstone renovations, the restoration of the exterior of a late 19th century historic mixed-use building in downtown Greenwich, we were also the architects for the restoration of a historic garage in Greenwich, CT, and many 19th century single-family home projects. An interesting side note is that our offices are located in a pre-Revolutionary War home built in 1770.

Project Manager, R.S. Granoff Architects, P.C., Greenwich, CT 2000-2005
The primarily applicable project was the conversion of an abandoned retail store into a mixed-use development with 70 apartments and first floor retail. The façades were restored to their look prior to 50's false facades and the structure was preserved. Schematic design for the conversion of the 2nd floor of an existing retail/bowling center to retail/luxury residential was also completed.

Education:

University of Michigan School of Architecture, Master of Architecture, 2000
Graduated Cum Laude with a 3.7 GPA on a 4.0 scale. Study focus was on architectural theory.

Miami University School of Architecture, Bachelor of the Arts in Architecture, 1998
Graduated Cum Laude with University and Departmental Honors, with a 3.75 GPA on a 4.0 scale. Study focus was on architectural history and design.

Applicable Teaching Experience:

University of Michigan, GSI, Architecture 212, Understanding Architecture, Winter 2000
Taught with Craig Borum. Duties included weekly discussion sections with two groups of 12-18 students. These sections address course readings, lectures, and related activities. Responsibilities also included meetings with Craig Borum regarding potential assignments, scheduling, and progress of students, evaluation of student progress, continuing meetings outside of class to assist students with the problems and issues presented in the course, and experience in leading review sessions. The course introduced students to architectural theory, history, and general understanding of architectural concepts.

Miami University, Undergraduate Assistant, Arc. 221, 222, History of Architecture, 1997-8
Taught with Dr. Robert Benson. Duties included weekly meetings with Dr. Benson to discuss subject matter, presentation, evaluation tools, and techniques. Performed student evaluations regularly, ranging from essays to objective identification to large-scale exploratory research projects, held and directed supplemental break-out sessions during the evenings to discuss and explore conditions and issues developed in the recent lectures, and lectured on the geometry of the Sagrada Familia by Antonio Gaudi.

Miami University, U.A., Research and Preparation for History of Commercial Architecture, 1995
Worked with Dr. Robert Benson. Duties included research on potential buildings, themes, and related social conditions to explore during the course, potential readings and textbooks, a trip to acquire slides for the course, and weekly meetings with Dr. Benson to discuss the availability and feasibility of the course.

Christopher A. Hull
CAH Architecture and Design, LLC
267 Sport Hill Rd.
Easton, CT 06612

Teaching Experience (continued):

The course was intended to explore commercial and industrial architecture in the United States. It was also conceived to serve as a bridge between the School of Business Administration and the School of Architecture at Miami University.

Activities and Awards:

2021 HOBI award for renovation of the year
Numerous additional HOBI awards
2019 This Old House Idea House, New Canaan, CT, 2019
Rwanda Development Team, Trinity Baptist Church, New York, 2007
Building Committee, Trinity Baptist Church, New York, 2006-2007
President of Fairfield County Chapter of University of Michigan Alumni Club, 2005-2007
Habitat for Humanity Volunteering and Construction Documents, 2000-2006
Published in Cliffhangers & Hillside Houses, by E. Ashley Rooney for work completed at R.S. Granoff Architects, P.C., 2005
Habitat for Humanity Building Committee, 2002
Awarded University Honors, Miami University, 1998
Thesis on the Geometry of El Templo de la Sagrada Familia, Barcelona, Spain, 1998
Awarded Architecture Departmental Honors, Miami University, 1998
Received Undergraduate Research Grant, 1997
Admitted to Golden Key National Honor Society, 1997
Provided Models and Graphics for Departmental Grant Proposals, 1997
Published in In Form-Z Magazine, 1996
Admitted into Architecture Department Honors Program, 1995
Awarded Designer of the Year Award for 2nd Year Studio, 1995
Miami University Campus Planning Committee Member, 1995
Awarded Freshman Academic Honors, Miami University, 1994

CAH Architecture & Design, LLC

330 Post Road, Darien, CT 06820

info@CAHarchitecture.com 203-622-7287

This Old House, 4 Main Street, New Canaan, CT

38 Birch Lane Custom Residence, Greenwich, CT

25 Tomac Avenue, Old Greenwich, CT

Belle Haven Complete Renovation, Greenwich, CT

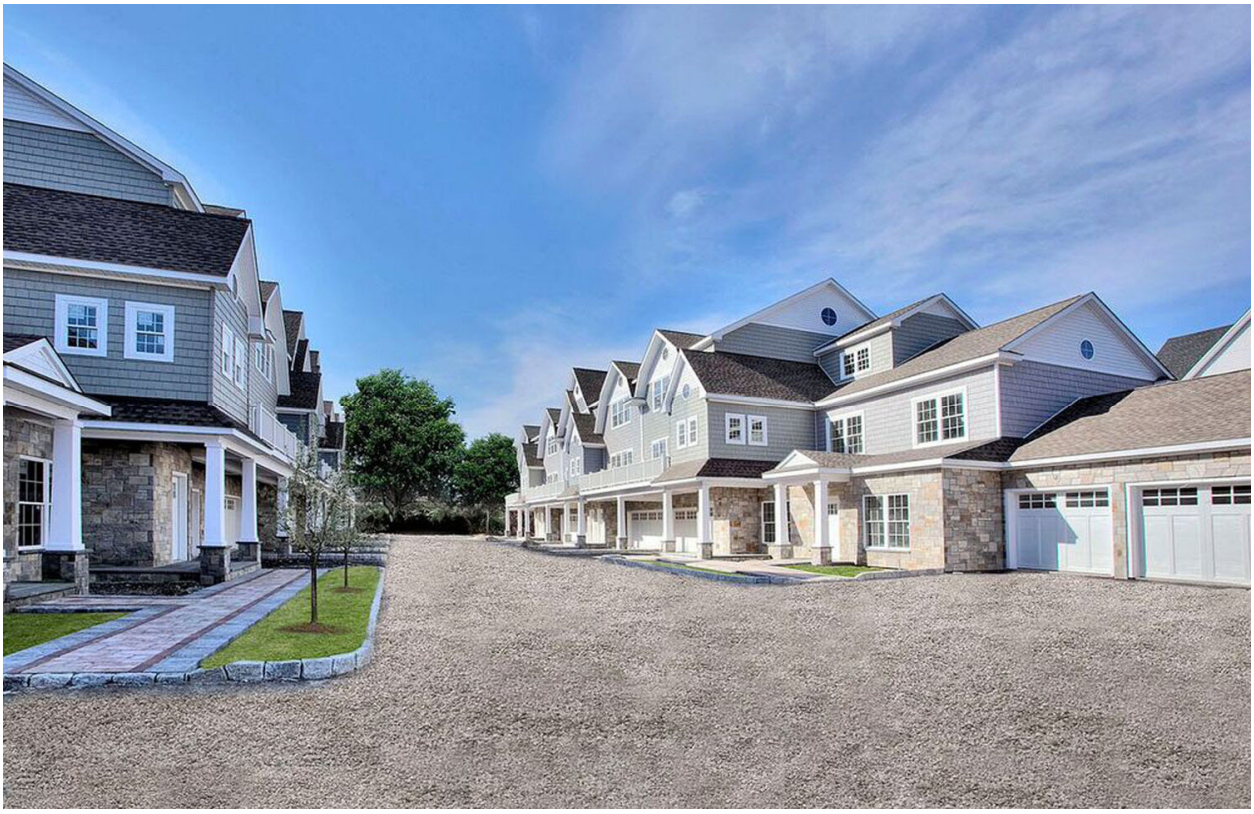
51 Harrison Avenue, New Canaan, CT

151 Park Avenue, Greenwich, CT

93 Valley Road, Cos Cob, CT

39 Wall Street Lofts and Mixed-Use, Norwalk, CT

2180 Kings Highway, Fairfield, CT



SOLLI ENGINEERING

NAME: Kevin Solli, P.E, CPESC, CDP, LEED®AP
TITLE: Owner/Manager
EDUCATION: Rensselaer Polytechnic Institute, B.S. Civil Engineering
YEARS WITH FIRM: Founded Solli Engineering LLC in May 2012

PROFESSIONAL LICENSES/REGISTRATIONS/CERTIFICATIONS:

Professional Engineer: CT, FL, ME, MD, MA, MI, NH, NY, OR, PA, RI, VI, VT
Certified Professional in Erosion & Sediment Control: Envirocert
LEED Accredited Professional: USGBC
Certified Design, Development & Construction Professional: ICSC

RELEVANT EXPERIENCE AND QUALIFICATIONS:
SUMMARY QUALIFICATIONS:
Mr. Solli has over eighteen (18) years of civil engineering experience specializing in civil engineering, site development, transportation and traffic engineering. He has been responsible for the engineering design and preparation of contract documents for a wide variety of developments. He has served as the Engineer of Record for transportation engineering projects for a variety of public and private sector clients. Traffic and Safety Engineering responsibilities have included the preparation of traffic impact studies including traffic data collection, operational analysis, safety recommendations, signing, pavement markings, crash analysis, parking studies, cost estimating, preparation of planning studies, traffic signal design, and technical documentation and reports. Highway design experience includes pavement design, roadway safety, utility design, cost estimating, photometric (illumination) design, and construction documents and specifications. Project Management responsibilities have included coordination of multi-disciplined teams of engineers in the execution of projects from the due diligence/planning stage through approvals and construction, including extensive local, state and federal permitting.

REPRESENTATIVE PROJECTS:

ShopRite, Town of Greenburgh, New York - Serving as Engineer of Record for the site design and construction of approximately 10.5 acres and includes the demolition the existing 42,000 square-feet multiplex cinema and two-story retail and the construction of a 75,711 square-foot supermarket store with a 10,765 square foot retail store attached, and a separate 3,000 square-foot retail store with associated parking, drainage and utilities; while maintaining the existing Taco Bell restaurant at the northwest portion of the property. Highway design included off-site improvements to 1,100 linear feet of Route 9A along the property frontage including geometry, lane striping, as well as sidewalk, pedestrian, and utility improvements. Roadway design included widening of Old Country Road to provide additional storage length to the exclusive turn lane. Off-site improvements within the State and Town Right of ways include substantial utility relocation to both existing aboveground and underground utilities.

Traffic engineering services included traffic signal design to accommodate the reconfigured intersection in coordination with the upgrade of the traffic signal at Old Country Road under a state roadway project, corresponding traffic impact study, traffic data collection, trip generation assessment, intersection operational analysis, safety analysis, recommended safety and operational improvements, signing and striping, and a comprehensive traffic impact report for the ten signalized intersections within the study area. Traffic signal design was also provided for the site driveway with Saw Mill River Road which includes replacement of signal poles, span wire and signal heads, implementation of video detection, and upgrades to pedestrian accommodations. This development overlaps with a major state roadway improvement project which includes pedestrian upgrades at the intersection of Saw Mill River Road & Old Country Road. Extensive coordination with several NYDOT departments has been ongoing in order to coordinate permitting and concurrent construction schedules. Highway Access Permitting services were also provided for the work within the right of way along Saw Mill River Road (Route 9a) for the improvements at the site driveway and utility connections.

Holyoke Landing, Holyoke, Massachusetts – The development site is a 10.32-acre previously undeveloped parcel which includes the construction of a multi-tenant shopping center with two outparcels. Mr. Solli is the Engineer of Record responsible for traffic signal design consisting of modification to the existing signal at the site driveway intersection to allow for an additional lane of egress from the property and upgrades to the existing pedestrian equipment. This signal also includes SynchroGreen capabilities. Traffic Engineering responsibilities included conducting a comprehensive traffic impact study including 6 intersections, traffic data collection, trip generation assessment, intersection operational analysis, safety analysis, recommended safety and operational improvements, signing and striping, maintenance and protection of traffic, and preparation of a comprehensive traffic impact report. Local and MassDOT approvals were secured for the proposed traffic signal modifications and construction administration services are being provided for the duration of construction.

Wheelers Woods Residential Community, Milford, Connecticut – Providing comprehensive traffic engineering and permitting services for the proposed 180-unit residential community along Wheelers Farms Road in Milford, Connecticut. Mr. Solli served as the Engineer of Record responsible for the preparation of a traffic impact study including traffic data collection, trip generation analysis, intersection operations analysis, and safety analysis. Traffic engineering services also included design of a new traffic signal control at the site driveway intersection with Wheelers Farms Road. Permitting services included modification to the existing Major Traffic Generator Certificate through the Office of the State Traffic Administration and local Police Commission approval for the traffic signal design.

Gledhill Estates, West Hartford, Connecticut – This community, located at 660 Mountain Road in West Hartford, included the development of 15 residential units with two proposed cul-de-sacs connecting the site to the town road. Mr. Solli served as the Engineer of Record responsible for the design and permitting of the site including the preparation of a traffic impact study consisting of traffic data collection, trip generation analysis, intersection operations analysis, and safety analysis.

Shelter Ridge, Shelton, Connecticut - The site proposed the development of 121.24 acres with a 1,294,100 square foot mixed-use center consisting of commercial retailers, restaurants, an assisted living facility, professional office, medical office, and luxury rental residences. Mr. Solli served as the engineer of record responsible for all aspects of the development including the preparation of the comprehensive traffic impact study for 17 study area intersections and proposed conceptual roadway improvements plans at 5 study area intersections. Services also included in permitting services associated with the preparation of the Step 1 application under the OSTA major traffic generation certificate process.

Towne Line Plaza, Monroe, Connecticut – The proposed site included the development of an existing parcels totaling approximately 6.968 acres. The development proposes the construction of a 4,276 square foot convenience store with a gas station component and coffee shop with drive through, a restaurant of approximately 4,950 square feet, a mixed-use retail building of approximately 17,500 square feet, and a medical office of approximately 10,000 square feet. The proposed development includes a 38-foot-wide main driveway with new traffic signal control along Monroe Turnpike in Monroe, Connecticut. Mr. Solli serves as the engineer of record responsible for all aspects of the site design, traffic engineering, and permitting services for this development. Responsibilities include the preparation of detailed site design drawings which required comprehensive layout, grading & drainage, erosion and sediment control measures, and utility design, preparation of the off-site improvement roadway design plans for widening 1000' of Monroe Turnpike along the property frontage, traffic impact study, traffic signal warrant analysis, and traffic signal design though the OSTA MTG certificate permit and encroachment permit process.

75 Church Hill Road, Newtown, Connecticut - The proposed site included the development of a 2.034-acre parcel with a mixed-use center consisting of 12,237 square feet of total building area, a coffee shop drive-thru and a detached ATM kiosk location. Mr. Solli served as the engineer of record for the site design, traffic engineering, and permitting services provided for this development. Responsibilities included the preparation of detailed site design drawings which required comprehensive layout, grading and drainage, erosion and sediment control measures, and utility design. The site development included the relocation of a portion of a brook (Tom Brook), to increase greater separation of from environmental contaminants and prevent mobility of the plume through the brook. Mr. Solli also serves as the engineer of record responsible for the preparation of the Traffic Impact Study included traffic data collection, intersection operations analysis, sight distance evaluation, and safety analysis. Traffic engineering services included significant coordination with Connecticut Department of Transportation regarding the relocation of Edmond Road, roadway design, and traffic signal design under state project 096-192. CTDOT coordination and permitting support services for the encroachment permit plans were also provided.

SOLLI ENGINEERING

NAME: Mary Blackburn, P.L.A., CANP
TITLE: Senior Landscape Architect
EDUCATION: University of Massachusetts, Amherst, B.S. Landscape Architecture
YEARS WITH FIRM: Joined Solli Engineering in February 2016
PROFESSIONAL LICENSES/REGISTRATIONS/CERTIFICATIONS:
Landscape Architect: CT #1499
Connecticut Accredited Nursery Professional: Connecticut Nursery & Landscape Association

RELEVANT EXPERIENCE AND QUALIFICATIONS:

SUMMARY QUALIFICATIONS:

Ms. Blackburn has over fourteen (14) years of experience in the field of landscape architecture and design. She has been responsible for the landscape and lighting design for a wide variety of developments. She has served as the Landscape Architect of Record for a variety of public and private sector projects. Landscape architecture responsibilities have included the preparation of planting plans, lighting plans, photometric (illumination) design, wetland mitigation design, cost estimating and regulatory permitting.

REPRESENTATIVE PROJECTS:

ShopRite, Town of Greenburgh, New York - Serving as Landscape Architect for the landscape and lighting design of approximately 10.5 acres and includes the demolition the existing 42,000 square-feet multiplex cinema and two-story retail and the construction of a 75,711 square-foot supermarket store with a 10,765 square foot retail store attached, and a separate 3,000 square-foot retail store, while maintaining the existing Taco Bell restaurant at the northwest portion of the property. Landscape design included existing tree inventory and removal plan, buffer plantings for the adjacent residential developments, streetscape planting for the two street frontages, site sections to depict the relationship and site lines for neighboring properties. Lighting design included site lighting for parking areas and driveways and wall mounted and recessed lighting for multiple buildings. Dark-sky compliant lighting was used to provide photometric levels adequate for safe operation of the site and to prevent glare on neighboring residential properties.

Holyoke Landing, Holyoke, Massachusetts – The development site is a 10.32-acre previously undeveloped parcel which includes the construction of a multi-tenant shopping center with two outparcels. The project site is adjacent to a stream and wooded wetlands. Ms. Blackburn is responsible for landscape and lighting design consisting of native plantings, invasive species removal and Dark-sky compliant lighting. Conservation Commission and Planning Board approvals were secured for the project and construction administration services are being provided for the duration of construction.

Gledhill Estates, West Hartford, Connecticut – This community, located at 660 Mountain Road in West Hartford, included the development of 15 residential units with two proposed cul-de-sacs connecting the site to the town road. Ms. Blackburn served as the Landscape designer responsible for the landscape and site lighting design. The site had existing wetlands for which a mitigation plan was created. Streetscape lighting and planting were designed for the community in addition to the wetland mitigation and buffer plantings for adjacent single-family and multi-family homes.

Towne Line Plaza, Monroe, Connecticut – The proposed site included the development of existing parcels totaling approximately 6.968 acres. The development proposes the construction of a 4,276 square foot convenience store with a gas station component and coffee shop with drive through, a restaurant of approximately 4,950 square feet, a mixed-use retail building of approximately 17,500 square feet, and a medical office of approximately 10,000 square feet. The proposed development includes a 38-foot-wide main driveway along Monroe Turnpike in Monroe, Connecticut. The site has existing wetlands, which required permitting through the Town Inland Wetlands Commission. Ms. Blackburn serves as the landscape designer responsible for all aspects of the landscape and lighting design for this development. Extensive planting buffers were required for the adjacent residential properties and in the upland review area. Streetscape landscaping and lighting were developed in conjunction with the proposed sidewalk for pedestrian connectivity.

SOLLI ENGINEERING

NAME: Collene Byrne, RSP2I
TITLE: Project Manager
EDUCATION: Rensselaer Polytechnic Institute, B.S. Civil Engineering
YEARS OF EXPERIENCE: Fourteen (14) years
YEARS WITH FIRM: Nine (9) years

PROFESSIONAL LICENSES/REGISTRATIONS/CERTIFICATIONS:

Engineer in Training: NY
Road Safety Professional Level 2 Infrastructure

RELEVANT EXPERIENCE AND QUALIFICATIONS:
SUMMARY QUALIFICATIONS:
Mrs. Byrne has over fourteen (14) years of civil engineering experience specializing in traffic engineering and transportation. She has been responsible for the engineering design and preparation of study documents for a wide variety of projects. She has served as Project Engineer and Project Manager for transportation engineering projects for a variety of public and private sector clients. Traffic and Safety Engineering responsibilities have included the preparation of traffic impact studies including traffic data collection, operational analysis, safety project recommendations, signing, pavement markings, crash analysis, parking studies, cost estimating, preparation of planning studies, traffic signal design, and technical documentation and reports. Highway design experience includes pavement design, roadway safety, utility design, cost estimating, photometric (illumination) design, and construction documents and specifications. Permitting responsibilities include document preparation and coordination with local and state agencies including CTDOT District Offices and the Office of the State Traffic Administration (OSTA).

REPRESENTATIVE PROJECTS:
ShopRite, Town of Greenburgh, New York – This project site consists of approximately 10.5 acres and includes the construction of a 75,711 square-foot supermarket store, 10,765 square foot retail store, and a separate 3,000 square-foot retail store with associated parking, drainage and utilities. Highway design includes off-site improvements to 1,100 linear feet of Route 9A along the property frontage including geometry, lane striping, traffic signal upgrades, as well as sidewalk, pedestrian and utility improvements. Roadway design includes widening of Old Country Road to provide additional storage length to the exclusive turn lane. Off-site improvements within the State and Town Right of ways include substantial utility relocation to both existing aboveground and underground utilities.

Mrs. Byrne served at the senior engineer responsible for traffic signal design to accommodate the reconfigured intersection in coordination with the upgrade of the traffic signal at Old Country Road under a state roadway project, corresponding traffic impact study, traffic data collection, trip generation assessment, intersection operational analysis, safety analysis, recommended safety and operational improvements, signing and striping, and a comprehensive traffic impact report for the ten signalized intersections within the study area. Traffic signal design was also provided for the project site driveway with Saw Mill River Road which includes replacement of signal poles, span wire and signal heads, implementation of video detection, and upgrades to pedestrian accommodations. This project overlaps with a major state roadway improvement project which includes pedestrian upgrades at the intersection of Saw Mill River Road & Old Country Road. Mrs. Byrne has served in a project management role for the extensive ongoing coordination with several NYDOT departments to coordinate permitting and concurrent construction schedules. Highway Access Permitting services were also provided for the work within the right of way along Saw Mill River Road (Route 9A) for the improvements at the site driveway and utility connections.

Holyoke Landing, Holyoke, Massachusetts –The project site is a 10.32-acre previously undeveloped parcel which includes the construction of a multi-tenant shopping center with two outparcels. Mrs. Byrne is the senior engineer and project manager responsible for traffic signal design consisting of modification to the existing signal at the site driveway intersection to allow for an additional lane of egress from the property and upgrades to the existing pedestrian equipment. This signal also includes SynchroGreen capabilities. Traffic Engineering responsibilities included conducting a comprehensive traffic impact study including 6 intersections, traffic data collection, trip generation assessment, intersection operational analysis, safety analysis, recommended safety and operational improvements, signing and striping, maintenance and protection of traffic, and preparation of a comprehensive traffic impact report.

Local and MassDOT approvals were secured for the proposed traffic signal modifications and construction administration services are being provided for the duration of construction.

Cross Road Center, Monroe, Connecticut - The project includes the development of a 2.25-acre parcel with a mixed-use development consisting of 14,040 square feet of mixed-use development. Mrs. Byrne served as the Senior Project Engineer responsible for the preparation of the Traffic Impact Study and Maintenance and Protection of Traffic plans. Traffic Engineering services included collection of existing traffic data, analysis of existing and future traffic conditions, and preparation of traffic impact study document, town permitting support, and CTDOT coordination and permitting.

35 Oxford Road, Oxford, Connecticut - The project includes the development of a 2.19-acre parcel with a 4,500 square foot mixed-use development. Mrs. Byrne served as the Senior Project Engineer responsible for the preparation of the Traffic Impact Study and highway design. Traffic Engineering services included collection of existing traffic data, analysis of existing and future traffic conditions, and preparation of traffic impact study document, town permitting support, and CTDOT coordination and permitting. Highway Design services included roadway design for a by-pass lane and associated drainage, signing, and pavement markings.

Wal-Mart Supercenter, Monroe, Connecticut - Mrs. Byrne served as the Transportation Engineer responsible for the preparation of the Traffic Impact Study for the development of a Wal-Mart Supercenter. Project Engineering Services included comprehensive stormwater management, soil erosion and sediment control, traffic engineering, infiltration basins, and an underground detention system. Traffic Engineering services included collection of existing traffic data, analysis of existing and future traffic conditions at five study area intersections, safety and operational improvements, and preparation of traffic impact study document. She also served as Assistant Project Manager for the off-site roadway improvement design and traffic signal design including permitting as a MTG with CTDOT OSTA.

75 Church Hill Road, Newtown, Connecticut - Providing comprehensive planning and engineering services for the development of a retail shopping center. Site included relocation of a brook and extensive DEP and US Army Corps of Engineers permitting as well as zone change and regulation amendments. Mrs. Byrne served as the Assistant Project Manager responsible for the preparation of the Traffic Impact Study included traffic data collection, intersection operations analysis, sight distance evaluation, safety analysis. Traffic engineering services includes significant coordination with Connecticut Department of Transportation regarding the relocation of Edmond Road, roadway design, and traffic signal design under state project 096-192. CTDOT coordination and permitting support services for the encroachment permit plans was also provided.

Hampton Inn & Suites, Rocky Hill, Connecticut - Provided comprehensive traffic engineering services for the development of a 93-room hotel in Rocky Hill, Connecticut. Mrs. Byrne served as the Assistant Project Manager responsible for the preparation of the Traffic Impact Study included traffic data collection, intersection operations analysis, sight distance evaluation, safety analysis. Traffic engineering services includes encroachment permitting with Connecticut Department of Transportation to modify an existing traffic control signal.

205 Monroe Turnpike (Towne Line Plaza), Monroe, Connecticut – The project includes the development of an existing site totaling approximately 6.968 acres. The development proposes the construction of a 4,276 square foot convenience store with a gas station component and coffee shop with drive through, a restaurant of approximately 4,950 square feet, a mixed-use retail building of approximately 17,500 square feet, and a medical office of approximately 10,000 square feet. The proposed development includes a 38-foot-wide main driveway with new traffic signal control along Monroe Turnpike in Monroe, Connecticut. Providing comprehensive traffic engineering services for the development, Mrs. Byrne serves as the Project Manager responsible for the preparation of the Traffic Impact Study and signal warrant analysis including permitting services with the Connecticut Department of Transportation during the Major Traffic Generator certificate process. Highway engineering services include the preparation of detailed roadway improvements plans for widening 1000' of Monroe Turnpike along the property frontage.

Wheelers Woods Residential Community, Milford, Connecticut – Providing comprehensive traffic engineering and permitting services for the proposed 180-unit residential community along Wheelers Farms Road in Milford, Connecticut. Mrs. Byrne served as the project manager responsible for the preparation of the traffic impact study including traffic data collection, trip generation analysis, intersection operations analysis, safety analysis. Traffic engineering services also included design of a new traffic signal control at the site driveway intersection with Wheelers Farms Road. Permitting services included modification to the existing Major Traffic Certificate through the Office of the State Traffic Administration and local Police Commission approval for the traffic signal design.

THE FIRM

ROCCO V. D'ANDREA, INC.

D'ANDREA SURVEYING & ENGINEERING, P.C.

6 NEIL LANE

PO Box 549

RIVERSIDE, CONNECTICUT 06878

SERVING

FAIRFIELD COUNTY CONNECTICUT

AND

WESTCHESTER COUNTY NEW YORK

WWW.RVDI.COM

Rocco V. D'Andrea, Inc., a Connecticut corporation, was established in 1947 by Rocco V. D'Andrea. Under the umbrella of this firm D'Andrea Surveying and Engineering, P.C. (collectively referred to as D'Andrea) was formed and together the two entities are licensed to practice surveying and site engineering in the states of Connecticut and New York.

Since 1947 the firms have expanded to a full-service land surveying, site engineering and land-planning firm, presently employing 30 employees. Its present staff includes land surveyors and professional engineers licensed in the states of Connecticut and New York. Five field crews support a staff of licensed engineers and land surveyors with projects ranging from boundary surveys for residential properties to ALTA/NSPS surveys for commercial and residential properties, as well as a vast array of other land surveying services including high order control surveys for large scale mapping projects, construction layout, boundary staking and utility and street surveys.

The full-time field survey crews for D'Andrea are experienced with the use of electronic data collection and stake-out techniques. Using fully automated total stations with electronic data collectors and associated software D'Andrea can perform topographic, boundary and control surveys very efficiently and with minimal human manipulation of field data.

The firm has extensive experience with AutoCAD and can develop custom software in a variety of computer languages to meet special requirements. All survey computations are performed using BASIS software, a comprehensive system designed in-house. In addition to BASIS, we also run Star-Net least-squares adjustment software, Ashtech Solutions GPS post-processing software, SurvCadd digital terrain modeling, and numerous interactive utilities on our firm's intranet. Our final product can be delivered in traditional "hard copy" format or in a variety of digital formats.

D'Andrea is in-house GPS-capable and equipped with four dual-frequency geodetic receivers for field operations involving both static and real-time relative positioning. Since 2003, our firm has operated a fifth receiver as a dedicated, continuously operating reference station (CORS) participating in the National Geodetic Survey's Coop-CORS program. Additionally, our base station streams real-time kinematic (RTK) corrections over the Internet through the International GNSS Service's Ntrip broadcaster. Our static data and real-time corrections are provided to users as a public service, free of charge. Additional details are available at http://www.rvdi.com/cors/index.html.

Using our base station, along with nearby base stations operated by the National Geodetic Survey and the Connecticut and New York Departments of Transportation, we are able to provide high-accuracy positions in Connecticut and New York, suitable for horizontal and vertical control surveys, including ground control for photogrammetric mapping.

D'Andrea's land surveying section supports their inhouse civil engineering section as well as many municipalities, and private architectural and design firms as needed. Engineering projects range from simple parking layouts to large, high-tech office parks. Our services include river backwater studies, hydraulic and hydrologic hydrological studies; subsurface sewage disposal designs for individual homes and community systems; forced and gravity sewers; road and highway designs; site grading and complete site planning. Land surveying services are provided at the onset of a project, then during the design phase and typically through the construction phase ending with a comprehensive final "as-built" land survey map of the successful project.

All work is conducted under the direct supervision of licensed surveyors and licensed professional engineers committed to maintaining the highest standards of quality and performance.

D'Andrea is an active member of many professional organizations, but is most proud of its standing as "Surveyor General-North America" in the "ASCM-New England Section Educational Fund". D'Andrea, Inc. was the first to become a full "101 Club" member contributing $5,000.00 towards an educational fund used for surveying scholarship and the betterment of the surveying profession.

D'Andrea served the Town of Greenwich as the civil engineer for site development during the last modernization of the science wing at Greenwich High School and in that capacity designed the drainage system infrastructure for the addition of the existing parking lots and was responsible for the design of four artificial-turf athletic fields and the re-configuration of the natural grass softball field. In that capacity, we were the lead firm in the development of all site plans as well as during the presentations to the various land-use boards and commissions that approved the plans.

The Stanwich School retained the firm as part of the new Greenwich campus project to provide land surveying and civil engineering services in addition to zoning consultation and land-use presentations in the challenging and successful endeavor of designing and acquiring local and Connecticut state approvals for the new school.

D'Andrea is proud of the role they have played in the creation of the Mill River Park and Greenway having surveyed the entire park and greenway area for the City of Stamford while also providing design services in several aspects of the park planning including the successful playground located at the corner of Tresser Boulevard and Main Street. Surveying services extended along both sides of the Mill (Rippowam) River from the Pulaski Street bridge to the Washington Boulevard firehouse.

Working under contracts with the Stamford Water Pollution Control Authority, we have completed comprehensive topographic mapping of the Carriage Drive area that was used for the design of public sewers to serve that neighborhood; and of the Perna Lane neighborhood north of the Merritt Parkway along both sides of High Ridge Road

that was used by the City of Stamford and its design consultant Tighe and Bond to design an extensive public service sewage collection system to serve that neighborhood.

Over the past years, D'Andrea has been a part of many design teams assisting in the upgrade and expansion of many country clubs in the Greenwich area, including Greenwich, Stanwich, Round Hill, Burning Tree, Riverside Yacht, Innis Arden, Tamarack, Milbrook, and the Rocky Point Club. We also assisted the Town of Greenwich on the expansion of Adams Gardens and Armstrong Court for the Housing Authority of the Town of Greenwich and various school projects.

For additional information regarding Rocco V. D'Andrea, Inc. and D'Andrea Surveying & Engineering, P.C., please visit our website at *www.rvdi.com*.

LEONARD C. D'ANDREA, PE

HOME ADDRESS 170 Nichols Avenue
Stamford CT 06905
(203) 322-1848

BUSINESS ADDRESS Rocco V. D'Andrea, Inc.
PO Box 549
Riverside CT 06878-0549
(203) 637-1779
www. rvdi. com

EMAIL ADDRESS **lcd@rvdi.com**

EDUCATION

Degree - Bachelor of Science in Civil Engineering
University of Colorado, Boulder, Colorado - 1977

PROFESSIONAL LICENSES AND ASSOCIATIONS

Connecticut Licensed Professional Engineer
American Society of Civil Engineers

EXPERIENCE

1982 - Present

ROCCO V. D'ANDREA, INC.	Vice President
D'Andrea Surveying & Engineering, PC	Principal
Greenwich, Connecticut	Professional Engineer/Project Manager

1977 - 1982

PUBLIC SERVICE CO. OF COLORADO	Civil Engineer
Denver, Colorado	Power Plant Project Design Team

SUMMARY

Mr. D'Andrea is presently a licensed professional engineer. He is a principal owner and vice president of Rocco V. D'Andrea, Inc., an engineering and surveying firm located in Greenwich, Connecticut. He has been responsible for the development of numerous subdivisions and related civil engineering tasks such as watershed analysis, sanitary sewers, storm water systems, site designs for properties located in designated coastal high hazard

zones and river floodplains as designated by the Federal Emergency Management Agency (FEMA), and residential dock designs.

Other responsibilities include conceptual project planning, backwater analysis, septic system designs, general site and environmental engineering, including harbor and lake dredging, wetland applications and floodplain design and consultation.

Mr. D'Andrea has successfully presented many subdivisions and site plans to the various land use reviewing boards and commission in many communities throughout Fairfield for residential and commercial projects covering a broad spectrum of uses and improvements from shorefront development to large-scale commercial building projects.

While employed by Public Service Company of Colorado, Mr. D'Andrea was assigned to the Southeast Project Engineering Design Team. This design team was responsible for the design of two 500 MW fossil fueled steam electric generating plants. His responsibilities included site design, evaluation of system layouts, system evaluation and specification review, contract administration and on-site inspection.

Previous to his southeast project assignment, Mr. D'Andrea was a civil engineer on Public Service Company of Colorado's Pawnee Station. Pawnee is a single 500 MW fossil fueled plant. He maintained the same responsibilities as he did at the Southeast Project.

He has coordinated the progressive purchase of high-end computers, plotters and survey total stations and Global Positioning System (GPS) equipment that continues today, which has allowed D'Andrea, Inc. to stay at the forefront of land surveying and computer aided design technology.

In 1999, Mr. D'Andrea was appointed by Mayor Dannel Malloy of the City of Stamford to serve as a Republican member on the seven member Smith House Health Care Center Board of Directors where he later served as chairman until stepping down in 2005.

ADAM CERINI
CIVIL ENGINEER
74 W. North Street, Stamford, CT 06902

EDUCATION

Bachelor of Engineering – Civil 2015
The Cooper Union, New York, NY

PROFESSIONAL CERTIFICATION

Engineer in Training (EIT)

WORK EXPERIENCE

2016 – present
Rocco V. D'Andrea, Inc.
Greenwich, CT
Civil Engineer

2014
NYC Department of Buildings – Forensic Engineering
New York, NY
Civil Engineering Intern

TECHNICAL SKILLS

Computer drafting (AutoCAD)
Hydraulic and hydrologic modeling (HydroCAD, HEC-RAS)

NOTABLE PROJECTS

Apartments on Willard Avenue, Norwalk, CT **2019-present**
Prepared drainage design, site grading, and construction plans for 300+ unit apartments and self-storage building. Inspecting active construction.

FEMA Application for "The Mill", Greenwich, CT **2021-present**
Analyzed river flooding in conjunction with a commercial-to-residential conversion for the purpose of removing buildings from the flood hazard zone.

Residences on Hamilton Avenue, Greenwich, CT **2017-2019**
Performed drainage design and drafted site plans for a 10-unit 8-30g affordable housing project. Completed construction and as-built inspections.

Residence on Oenoke Ridge, New Canaan, CT **2021-present**
Created site plans, researched town records, performed septic design, and presented at a zoning hearing for a large residential property currently under construction.

Bruce J. Spiewak, AIA, Consulting Architect, LLC.

Providing a unique technical code consulting service to Owners, Architects, Engineers, Code Officials, Contractors, Attorneys, Institutions, and others since 1982.

ABOUT THE FIRM

Since the founding of the firm in 1982, Bruce J. Spiewak, AIA, Consulting Architect, LLC (BJS) has been providing a unique technical consulting service to Owners, Architects, Engineers, Code Officials, Builders, Attorneys, Institutions, and others. Our recent work has been exclusively in the area of Code Compliance and Document review. We have a special interest in the concept of Building, Fire Safety and Accessibility Codes as an integral part of the Design Process.

An important aspect of the Code Compliance Consulting profession is the ability to concentrate the practice on the ever-changing sets of regulations and laws which apply to buildings. One must be aware of the new National codes and standards as they become available to be adopted by the various states. We maintained membership in the National Council of states on Building Codes and Standards (NCSBCS) and have had access to updates on all state code adoptions. This office participates heavily in the code change process on a state level in Connecticut by submitting documented requests for code change and by attending the public hearings. We also keep in close contact with the State Codes and Standards Committee, attending most of their meetings, in order to monitor the proposed changes prior to publication. We keep abreast of proposed state laws, and present testimony at public hearings for legislation which could affect the State Building and Fire Safety Codes. We are in touch with the CT State Department of Administrative Services on the adoption schedule proposed new editions of the CT Building and Fire Safety Codes.

Through the creative use of the Code Modification Process, Bruce J. Spiewak, AIA, Consulting Architect, LLC has enabled the use of alternate safeguards where strict compliance with the provisions of the Codes would have involved practical difficulty or unnecessary hardship, or would otherwise have been unwarranted.

Bruce J. Spiewak, AIA, Principal, maintains a current knowledge of the Building, Fire Safety and Accessibility Codes, and is involved through professional organizations on a local, state, regional and national level. He has served as Commissioner of the American Institute of Architects, Connecticut (AIA CT) Building Performance and Regulations Commission, was 1997 President of the AIA CT, and was a founding member of the ICC (BOCA) Professional Chapter of Connecticut, Inc. He is certified by the State of Connecticut as a Building Official, has lectured at the University of New Haven in Code Administration, has been a visiting lecturer at Yale University School of Architecture, and at the University of Hartford Construction Institute, and is a trainer for the CT State Department of Administrative Services, Office of Education and Data Management. He has coordinated and participated in various seminars for the education of Architects, Building Officials, Fire Marshals and Property Owners/Managers in the area of Code Compliance. In 2010 Bruce served as the representative of AIA Connecticut on the Thomas Commission Panel, following the Kleen Energy Plant explosion in Middletown, CT

Mr. Spiewak holds degrees in Architecture from the University of Pennsylvania, Syracuse and Columbia Universities. He has been practicing Architecture for over 35 years. His past participation as President and as Commissioner of Building Performance and Regulations for AIA CT, and his attendance at State Codes and Standards Committee meetings enhances the firm's ability to know what is happening in the Code arena on a statewide basis. As a member of ICC and NFPA, he is constantly kept abreast of what is evolving in our consensus codes nationally. This gives an insight into probable future changes.

In response to the need for education about Building, Fire and Accessibility Codes and Regulations, Mr. Spiewak has been involved in presentations for the American Institute of Architects, Connecticut (AIA CT), the International Facility Management Association (IFMA), the Connecticut Business and Industry Association (CBIA), the American Society of Appraisers (ASA), The Connecticut Hospital Association (CHA), the Construction Specifications Institute (CSI), the Connecticut Assisted Living Association (CALA), and the Institute for Senior Living Education (ISLE).

In 1993, Bruce J. Spiewak, AIA formed ConnCode ® Publications, publisher of the combined Connecticut Building Code. This document combined the BOCA ® National Building Code with the adopted Connecticut Supplement and amendments into one comprehensive volume. Mr. Spiewak was also the technical editor. ConnCode ceased publishing the Connecticut Building Code when the (then) CT State Department of Public Safety finally negotiated with the national consensus code publishers to publish the 2005 CT Codes.

Douglas L. Golden, Senior Code Specialist, has been involved with life safety, fire and loss prevention his entire career, from 20 years of experience in his family's insurance agency doing commercial lines loss control, underwriting and fire rate analysis, to his 20 years with the Yale University, Office of the Fire Marshal at the Yale Medical School.

At the Yale Medical School, as a fire inspector, he was responsible for the inspection of university properties for compliance with life safety and building codes. This included testing of all types of fire protection and life safety equipment and the review of all design, construction and shop drawings for new construction and renovation based on the National Fire Codes, Building Codes and other national codes and standards. Included in this review process was devising alternative solutions to design problems that affected the projects from either a life safety or building code basis. He developed fire protection specifications and design criteria for YMS so that all design work and fire

protection contractors would conform to the same standard and level of compliance. He reviewed all fire protection shop drawings including hydraulic calculations and fire alarm shop drawings for compliance with specifications and codes. He also inspected the installation of all fire protection and fire alarm systems as they were being installed and did the acceptance testing of the systems before and with the AHJ for occupancy permits.

At Bruce J. Spiewak AIA, he is responsible for the review of construction project drawings for compliance with the building codes, fire codes, accessibility and other standards based on the state in which the project is located. Works with the client to find solutions to code requirements based on the design that the client desires and completes requests for modification or exemption as needed as an alternative solution to the codes that have been adapted.

Doug received a Bachelor of Science in Fire Science Administration from the University of New Haven in 1988 and a Bachelor of Science, Magna Cum Laude in Business Administration from Boston University in 1969, and joined the office of Bruce J. Spiewak, AIA in 2004.

Christian "Chris" Baran, Office Administrator, has been with the firm since September 2002 which was his senior year of high school. Chris attended Platt Tech Regional Vocational Technical High School with a concentration in Architectural Drafting. During his senior year, Bruce J. Spiewak, AIA hired Chris under a student work study program, allowing him to work 3 days a week at the office, while he was in his "shop cycles". Since graduating from Platt Tech in 2003, Chris resumed working for Bruce Spiewak and in the fall of 2003 attended his freshman year of college at the New York Institute of Technology (NYIT) majoring in Architecture. Chris continued working at the office on his semester breaks. Sophomore year of college Chris transferred to The University of Hartford where he studied full time and worked part time for the firm. Since 2005 Chris has been working for the firm as a full time intern and since the beginning of 2007 he has completed his education at NYIT in 2012. In December 2018 Chris took over as Office Administrator and Mentor for our current Platt Tech Intern.

BRUCE J. SPIEWAK, AIA

ARCHITECTURAL LICENSE

- Connecticut
- New York

CERTIFICATION/REGISTRATION

- National Council of Architectural Registration Boards
- Building Official, State of Connecticut
- Interior Designer, State of Connecticut

EDUCATION

1966-70	UNIVERSITY OF PENNSYLVANIA Philadelphia, Pennsylvania B.A. Architecture
1970-72	SYRACUSE UNIVERSITY Syracuse, New York Bachelor of Architecture
1972-73	COLUMBIA UNIVERSITY New York, New York M.S. Architecture
1974 to present	CONTINUING EDUCATION Various courses and seminars in Business, Real Estate, Law, Construction and Codes.

TEACHING

2000 to present	CT DEPARTMENT OF CONSTRUCTION SERVICES (formerly PUBLIC SAFETY) – Office of Education and Data Management Lecturer / trainer for code officials and design professionals
1997-99	YALE UNIVERSITY, SCHOOL OF ARCHITECTURE Visiting Lecturer, Fire Safe Design
1998 to present	UNIVERSITY OF HARTFORD, Construction Institute West Hartford, Connecticut Presenter of Various seminars, Codes in Connecticut
1984	UNIVERSITY OF NEW HAVEN, SCHOOL OF ENGINEERINGAdjunct Professor, Code Administration

PROFESSIONAL AFFILIATIONS

- American Institute of Architects (AIA)
- AIA Connecticut; Commissioner, Building Performance & Regulations 1990-96; Chairman, Government Affairs 2009 – present; Board 1988-present; Vice President 1996; President 1997 (AIA/CT)
- Connecticut Building Officials Association (CBOA)
- New Haven County Building Officials Association (NHCBOA)
- New England Building Code Association (NEBCA)
- International Code Council (ICC)
- ICC Professional Chapter of Connecticut, Inc, Founding Member, Distinguished Merit Award 1994
- National Fire Protection Association (NFPA)
- Connecticut Fire Marshal Association (CFMA)
- New England Association of Fire Marshals (NEAFM)
- CT Building Industry Council, 1995 – 2001, Chairman, Steering Committee 1998 – 2001 (BIC)
- American Institute of Steel Construction – Fire Steering Committee member 2001-2002 (AISC)
- CT Coalition for the Adoption of a Unified Code, 2002 – 2014 (CAUC)

- Thomas Commission Panel – Investigation of CT Kleen Energy Plan Explosion 2010 – member

PROFESSIONAL EXPERIENCE

1982-present	**BRUCE J. SPIEWAK, AIA, Consulting Architect, LLC** West Haven, CT **Principal:** Providing Building and Fire Safety Code Consulting to Architects, Engineers, Code Officials, Attorneys, Developers, Contractors, Owners, Municipalities, Institutions and others.
1993 – 2005	**CONNCODE ® Publications** West Haven, CT **Principal, Technical Editor:** Compiling the Connecticut Supplements with the BOCA® National Building Code to form one comprehensive document, The ConnCode ® Connecticut Building Code.
1980-82	**THE KAGAN COMPANY, Architects and Developers** New Haven, CT **Vice President:** Responsible for administration of design, construction and development services.
1976-82	**CONNECTICUT EQUITIES & DEVELOPMENT, INC.** **A Division of THE KAGAN COMPANY** **1978-82 Vice President:** Responsible for supervision of design and construction services. **1976-78 Architect and Construction Manager:** Responsible for coordination and supervision of residential and commercial projects.
1975-76	**KAGAN & ASSOCIATES** New Haven, CT **Project Architect:** Responsible for design, production and coordination of construction contract documents.
1973-75	**JOHN FODOR AND ASSOCIATES** Norwalk, CT **Assistant Project Architect and Project Manager:** Supervision and coordination of architectural and engineering personnel. Management of projects from schematic design to construction.
1968-73	VARIOUS New York, Pennsylvania and New Jersey Architectural firms: Part time and summer assignments.

COMMUNITY INVOLVEMENT

- Cub Scout Pack #5. Orange, Cubmaster, 1986-88
- Boy Scout Troop 41, Woodbridge, Assistant Scoutmaster, 1989-90
- Jewish Home for the Aged, New Haven, Past Physical Facilities Committee Member
- Tower One / Tower East, New Haven, Towers Facilities Support Committee Co-Chairman, Member, Board of Directors Member 2009-present, Vice Chair Facilities 2010-13, Vice Chair Finance 2013-2018.
- The Connecticut Hospice, Branford, Advisor to the Board, Volunteer
- Temple Emanuel of Greater New Haven, Orange, Past New Facilities Committee Chairman, Past Board Member, 2009/10 Board Member, 2010/2012 Vice President, 2012/2014 President, current Board Member
- Orange Soccer Association, Past Board Member and Treasurer
- Orange Community Nursery School, Past Board Member and Facilities Committee Chairman
- Orange Historical Society, Member
- Orange Players, Member , 2009-present Board Member, Membership Chairman

PROFESSIONAL REFERENCES:

- Christopher Laux, AIA, Former State Building Inspector, P.O. Box 636, Woodbury, CT 06798 (203) 263-5787.
- Louis Free, AIA, Former Chair, State Codes and Standards Committee, (203) 339-6517.
- Michael D. Macri, Former Chair, CT State Codes and Standards Committee, (203) 357-7696.
- Marjorie F. Shansky, Attorney, Former Chair, CT State Codes and Standards Committee, (203) 469-3004.
- Donald Vigneau, AIA, Former State Building Inspector, 45 Brigham Road, Coventry, CT 06238-1700.
- Leo Belval, Former State Building Inspector, Former Manchester Building Inspector, (860) 645-0079.
- Daniel Tierney, Deputy State Building Inspector, 450 Columbus Blvd., Hartford, CT, (860) 713-5915
- Rob Ross, Former State Fire Marshal, Currently Chief, South Fire District, 445 Randolph Road, Middletown, CT 06457 (860) 347-6661
- Sgt. Joe Versteeg, Office of State Fire Marshal, (Retired) 86 University Drive, Torrington, CT 06790. (860) 489-0924
- Mike Pfeiffer, P.E., Vice President, ICC, Country Club Hills, Illinois. (888) 422-7233 x 4338.
- Steve Sawyer, Life Safety Specialist, NFPA, Quincy, MA. (617) 770-3000.
- Andrew Rizzo, Former Chief Building Official, New Haven. (203) 668-4943.
- Dan O'Neill, Deputy Building Official, New Haven. (203) 946-8048.
- Bill Marr, Building Official, Greenwich. (203) 622-7754 x 8
- Terry Gilbertson, Building Official, Woodbridge. (203) 389-3418.
- John J. Butkus, AIA Former Chair, CT State Codes and Standards Committee. (203) 377-0390

DOUGLAS L. GOLDEN, SENIOR CODE SPECIALIST

Education

1992-1993	University of New Haven West Haven, Conn. Continuing Education in Fire Protection Engineering Studies.
1988	University of New Haven West Haven, Conn. BS. Fire Science Administration.
1984	Industrial Risk Insurers Hartford, Conn. Fundamentals of Industrial Fire Protection Equipment
1969	Aetna Casualty & Surety Company Hartford, Conn. Home Office Training School for Property & Casualty Underwriting and Rating.
1969	Boston University. School of Management. Boston, Mass. BS. Magna Cum Laude. Business Administration
1969 to Present	Continuing Education. Various courses and seminars in Life Safety, Building Codes, Fire Prevention, Fire Protection Systems, Fire Dynamics, Fire Alarms Systems, and Fire Pumps.

Experience

2004-Present.	Bruce J. Spiewak, AIA, Consulting Architect, LLC, West Haven, Conn. Review construction projects for compliance with building codes, fire codes, life safety, accessibility standards and other national codes and standards.
1985-2004.	Yale University. School of Medicine, New Haven, Conn. Fire Inspector. Office of the Fire Marshal.
1969-1985.	Joseph Golden Insurance Agency, Inc., New Haven, Conn. Commercial Account Engineering and Risk Management Specialist.

Professional Affiliations

Associate Member, AIA Connecticut

CHRISTIAN "CHRIS" BARAN, OFFICE ADMINISTRATOR

Education:

Platt Tech Regional Vocational High School
Milford, Connecticut 1999-2003

New York Institute of Technology
Central Islip, Long Island, New York 2003-2004

University of Hartford
West Hartford, Connecticut 2004-2005

New York Institute of Technology
Old Westbury, Long Island, New York 2007 – 2012

Experience:

2002 – 2018:	Bruce J. Spiewak AIA Consulting Architect LLC West Haven, Connecticut **Intern:** Database Management, Document review and evaluation of existing and new buildings, dealing with ICC/ANSI A117.1 -2003 accessibility and other code issues.
2019:	Bruce J. Spiewak AIA Consulting Architect LLC West Haven, Connecticut **Office Administrator:** Works with Quickbooks®, Access® and provides information for our Accountant. Leads our billing and collections processes. Coordinates all office administration procedures. Mentors our Platt Technical High School Intern.

Useful links

E-mail: [redacted]

HINCKLEY ALLEN

Ryan D. Hoyler

860-331-2618 | rhoyler@hinckleyallen.com

Ryan Hoyler is an Associate in the Firm's Real Estate group, specializing in Land Use & Zoning and Environmental matters. Ryan received his Juris Doctorate, with honors, from the University of Connecticut School of Law in 2019. Prior to and during law school, Ryan worked as a paralegal and regulatory manager for a global chemical manufacturer, managing environmental permitting and participating in environmental litigation around the globe.

During law school, Ryan was the senior articles editor for the *Connecticut Journal of International Law*. He was also a member of student government and participated in mock trial and moot court. Ryan earned numerous awards in law school, including a CALI award for excellence in Environmental Law and the Cornelius W. Wickersham, Jr. Award for excellence in Constitutional Law, and was a semi-finalist in the Jeffrey G. Miller National Environmental Law Moot Court Competition.

PRACTICE AREAS

Real Estate
Land Use & Development
Environmental

BAR MEMBERSHIPS

Connecticut
California

WORK EXPERIENCE

Hinckley Allen
» Associate (2021-Present)
Remy Moose Manley, LLP
» Associate (2021)
Morgan, Lewis & Bockius, LLP
» Litigation Clerk (2019-2020)
Connecticut Fund for the Environment
» Legal Intern (2018)
Bracewell, LLP
» Summer Associate (2018)
LANXESS Solution (f/k/a Chemtura Corporation)
» Senior Paralegal, Regulatory and Compliance (2008-2018)

EDUCATION

University of Connecticut School of Law (J.D., 2019)
Connecticut College (B.A., 2005)

HINCKLEY ALLEN

Timothy S. Hollister

860-331-2823 | thollister@hinckleyallen.com

Tim practices land use, environmental and municipal law, and handles a wide range of real estate and administrative law challenges that arise in the context of land use and environmental matters. He has represented developers, corporations, property owners, municipalities, boards of education, and neighborhood and environmental groups in administrative proceedings before local, state, regional and federal agencies and litigation in the state and federal trial courts. He has argued more than 45 cases in the state and federal appellate courts. When representing applicants seeking land use and environmental permits, Tim's approach is to work closely with the team of experts and consultants to present the application in a professional, procedurally correct, substantively compliant, and cost-conscious manner, and to create an administrative record that will lead the agency to grant approval.

PRACTICE AREAS

Real Estate

Land Use & Development

Environmental

BAR MEMBERSHIPS

Connecticut

U.S. Court of Appeals for the First Circuit

U.S. Court of Appeals for the Second Circuit

U.S. District Court for the District of Connecticut

U.S. Supreme Court

WORK EXPERIENCE

Hinckley Allen

» Co-Chair, Land Use & Development Group

» Partner (2021-Present)

Shipman & Goodwin LLP

» Partner (1992-2021)

EDUCATION

Boston University School of Law (J.D., 1982)

Occidental College (M.A., 1980)

Wesleyan University (B.A., 1978, cum laude)

SPECIAL HONORS

Chambers USA, America's Leading Lawyers: Real Estate (2004-2014); Real Estate: Band One Zoning/Land Use (2015-2021)

Listed in The Best Lawyers in America®: Land Use & Zoning Law, Litigation-Land Use and Zoning (2009-2022)

Named "Lawyer of the Year": Best Lawyers Hartford Region Litigation-Land Use and Zoning; (2011-2014, 2017, 2020); Best Lawyers Hartford Region Land Use & Zoning Law (2016, 2018, 2021)

Local Government Law Fellow, International Municipal Lawyers Association (2002-2007, 2012-2017, renewed in 2017, for 2017-2022)