

February 13, 2023

City of Stamford
Zoning Board
c/o Ralph Blessing, Land Use Bureau Chief
888 Washington Boulevard
Stamford, CT 06901

Re: Landmark Square Building 3
Special Permit, and Final Site and Architectural plan and requested uses applications

Dear Mr. Blessing and Board Members,

As discussed, on behalf of Landmark Square 1-6 LLC, enclosed please find applications and supportive materials to facilitate a Special Permit, and Site and Architectural Plan and Requested uses to facilitate the redevelopment of Landmark 3 into 400 apartments and associated commercial space. Application details and design concepts are described further in the attached Project Narrative and reflected in the enclosed materials.

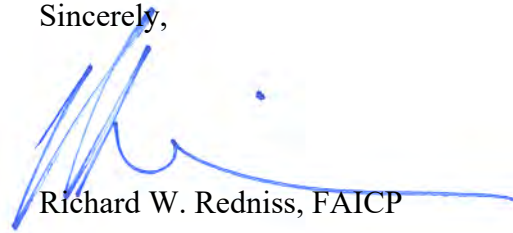
In support of the applications, enclosed please find:

1. A check in the amount of \$14,930.06 for:
 - Special Permit Fee: \$13,930.06 and
 - Zoning Board Public Hearing Fee: \$1,000.
2. Application forms:
 - Special Permit; and
 - Site and Architectural Plan.
3. Planning Board Letter;
4. Project Narrative;
5. Drawing List;
6. General Property Description;
7. Existing Aerial Exhibit;
8. Context Aerial;
9. Zoning Data Chart;
10. Surveys;
11. Engineering Plans;
12. Architectural Plans and Rendering;

13. Landscape Plan;
14. Traffic Report;
15. Drainage Report; and
16. Letters of Authorization.

Please feel free to contact us with any questions or comments. We look forward to continuing to work with you and the Planning & Zoning Boards on this exciting redevelopment.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Richard W. Redniss', with a long horizontal flourish extending to the right.

Richard W. Redniss, FAICP

Enclosures

CC: V. Mathur, Associate Planner
Development Team
Interested Parties



APPLICATION FOR SPECIAL PERMIT

Complete, notarize, and forward **thirteen (13) hard copies and (1) electronic copy in PDF format** to Clerk of the Zoning Board with a **\$1,000.00 Public Hearing Fee** and the required application filling fee (see **Fee Schedule below**), payable to the City of Stamford.

NOTE: Cost of required advertisements are payable by the Applicant and performance of required mailing to surrounding property owners is the sole responsibility of the applicant. **LAND RECORDS RECORDING FEE:** \$60.00 for First page - \$5.00 for each additional page)

Fee Schedule

Special Permit 20,000 sq. ft. or less	\$460.00
Special Permit more than 20,000 sq. ft.	\$460.00 + \$30 per 1,000 sq. ft. or portion thereof in excess of 20,000 sq. ft.

APPLICANT NAME (S): Landmark Square 1-6 LLC

APPLICANT ADDRESS: c/o Redniss & Mead - 22 First Street, Stamford, CT 06905

APPLICANT PHONE #: c/o 203-327-0500

IS APPLICANT AN OWNER OF PROPERTY IN THE CITY OF STAMFORD? Yes

LOCATION OF PROPERTY IN STAMFORD OWNED BY APPLICANT (S): _____

0 Atlantic Street (002-9034), 3 Atlantic Street (002-9978), 2 Broad Street (002-8012), 4 Broad Street (002-9471), 5 Broad Street (002-8013), and 101 Broad Street (003-5489)

ADDRESS OF SUBJECT PROPERTY: 0 Atlantic Street (002-9034), 3 Atlantic Street (002-9978), 2 Broad Street (002-8012), 4 Broad Street (002-9471), 5 Broad Street (002-8013), and 101 Broad Street (003-5489)

PRESENT ZONING DISTRICT: CC-N

TITLE OF SITE PLANS & ARCHITECTURAL PLANS: Please see attached Drawing list

REQUESTED SPECIAL PERMIT: (Attach written statement describing request)

Please see attached Project Narrative

LOCATION: (Give boundaries of land affected, distance from nearest intersecting streets, lot depths and Town Clerk's Block Number)

Please see attached General Property Description

NAME AND ADDRESS OF OWNERS OF ALL PROPERTY INVOLVED IN REQUEST:

NAME & ADDRESS

LOCATION

LANDMARK SQUARE 1-6 LLC
 1100 KING STREET SUITE 2
 RYE BROOK, NY 10573-1057

0 Atlantic Street (002-9034), 3 Atlantic Street (002-9978), 2 Broad Street (002-8012), 4 Broad Street (002-9471), 5 Broad Street (002-8013), and 101 Broad Street (003-5489) Stamford, CT

DOES ANY PORTION OF THE PREMISES AFFECTED BY THIS APPLICATION LIE WITHIN 500 FEET OF THE BORDER LINE WITH GREENWICH, DARIEN OR NEW CANAAN? No (If yes, notification must be sent to Town Clerk of neighboring community by registered mail within 7 days of receipt of application – PA 87-307).

DOES THE PROJECT RESULT IN THE CREATION OF 10 OR MORE UNITS OR 10,000 SF OR MORE IN FLOOR AREA OR DISTURBANCE OF 20,000 SF OR MORE IN LAND AREA, THROUGH NEW DEVELOPMENT, RECONSTRUCTION, ENLARGEMENT OR SUBSTANTIAL ALTERATIONS? Yes (If yes, then complete the Stamford Sustainability Scorecard per Section 15.F).



DATED AT STAMFORD, CONNECTICUT, THIS 8 DAY OF February 2023

SIGNED: [Signature]

NOTE: Application cannot be scheduled for Public Hearing until 35 days have elapsed from the date of referral to the Stamford Planning Board. If applicant wishes to withdraw application, please notify the Zoning Board at least three (3) days prior to Public Hearing so that the Board may have sufficient time to publicize the withdrawal.

STATE OF CONNECTICUT
ss STAMFORD February 8 2023

COUNTY OF FAIRFIELD

Personally appeared Richard W. Radtso, signer of the foregoing application, who made oath to the truth of the contents thereof, before me.

DAVID PINTO
Notary Public, State of Connecticut
My Commission Expires Mar 31, 2026

[Signature]
Notary Public - Commissioner of the Superior Court

FOR OFFICE USE ONLY

APPL. #: _____ Received in the office of the Zoning Board: Date: _____

By: _____



APPLICATION FOR APPROVAL OF SITE & ARCHITECTURAL PLANS AND / OR REQUESTED USES

Complete, notarize, and forward **thirteen (13) hard copies and one (1) electronic copy in PDF format** to Clerk of the Zoning Board with a **\$1,000.00 Public Hearing Fee** and the required application filing fee (see Fee Schedule below), payable to the City of Stamford.

NOTE: Cost of required Public Hearing advertisements are payable by the Applicant and performance of required mailing to surrounding property owners is the sole responsibility of the applicant. **LAND RECORDS RECORDING FEE:** \$60.00 for First page - \$5.00 for each additional page)

Fee Schedule –WITHOUT GDP

Site Plans 20,000 sq. ft. or less of building area application fee –without GDP	\$460.00
Site Plans more than 20,000 sq. ft. of building area-application Fee –without GDP	\$460.00 + \$30 per 1,000 sq. ft. or portion thereof in excess of 20,000 sq. ft.

Fee Schedule –WITH GDP

Site Plans 20,000 sq. ft. or less of building area application fee –with GDP.	\$260.00
Site Plans more than 20,000 sq. ft. of building area-application Fee –with GDP.	\$260.00 + \$10 per 1,000 sq. ft. or portion thereof in excess of 20,000 sq. ft.

APPLICANT NAME (S): Landmark Square 1-6 LLC

APPLICANT ADDRESS: c/o Redniss & Mead - 22 First Street, Stamford, CT 06905

APPLICANT PHONE #: c/o 203-327-0500

IS APPLICANT AN OWNER OF PROPERTY IN THE CITY OF STAMFORD? Yes

LOCATION OF PROPERTY IN STAMFORD OWNED BY APPLICANT (S): _____

0 Atlantic Street (002-9034), 3 Atlantic Street (002-9978), 2 Broad Street (002-8012), 4 Broad Street (002-9471), 5 Broad Street (002-8013), and 101 Broad Street (003-5489)

ADDRESS OF SUBJECT PROPERTY: 0 Atlantic Street (002-9034), 3 Atlantic Street (002-9978), 2 Broad Street (002-8012), 4 Broad Street (002-9471), 5 Broad Street (002-8013), and 101 Broad Street (003-5489)

PRESENT ZONING DISTRICT: CC-N

TITLE OF SITE PLANS & ARCHITECTURAL PLANS: Please see attached Drawing list

REQUESTED USE: Please see attached Project Narrative

LOCATION: (Give boundaries of land affected, distance from nearest intersecting streets, lot depths and Town Clerk’s Block Number)

Please see attached General Property Description

NAME AND ADDRESS OF OWNERS OF ALL PROPERTY INVOLVED IN REQUEST:

<u>NAME & ADDRESS</u>	<u>LOCATION</u>
LANDMARK SQUARE 1-6 LLC 1100 KING STREET SUITE 2 RYE BROOK, NY 10573-1057	0 Atlantic Street (002-9034), 3 Atlantic Street (002-9978), 2 Broad Street (002-8012), 4 Broad Street (002-9471), 5 Broad Street (002-8013), and 101 Broad Street (003-5489) Stamford, CT

DOES ANY PORTION OF THE PREMISES AFFECTED BY THIS APPLICATION LIE WITHIN 500 FEET OF THE BORDER LINE WITH GREENWICH, DARIEN OR NEW CANAAN? No (If yes, notification must be sent to Town Clerk of neighboring community by registered mail within 7 days of receipt of application – PA 87-307).

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DATED AT STAMFORD, CONNECTICUT, THIS 8 DAY OF February 2023

SIGNED: [Signature]

NOTE: The application cannot be scheduled for public hearing until 35 days have elapsed from the date of referral to the Stamford Planning Board. If applicant wishes to withdraw the application, this must be done in writing, and be received by the Zoning Board at least three (3) working days prior to public hearing in order to provide sufficient time to publicize the withdrawal. Applications withdrawn less than three (3) days prior to a schedule hearing date will not be rescheduled within 90 days.

STATE OF CONNECTICUT
COUNTY OF FAIRFIELD ss STAMFORD February 8 2023

Personally appeared Richard W. Rahnus, signer of the foregoing application, who made oath to the truth of the contents thereof, before me.

DAVID PINTO
Notary Public, State of Connecticut
My Commission Expires Mar 31, 2026

[Signature]
Notary Public - Commissioner of the Superior Court

FOR OFFICE USE ONLY

APPL. #: _____ Received in the office of the Zoning Board: Date: _____

By: _____

Revised 9/02/20

February 13, 2023

City of Stamford Planning Board
c/o Ralph Blessing, Land Use Bureau Chief
888 Washington Boulevard
Stamford, CT 06901


Re: *Landmark Square Building 3*
Special Permit, and Final Site and Architectural plan and requested uses applications

Dear Mr. Blessing and Board Members,

As you may be aware, we have submitted applications on behalf of Landmark Square 1-6 LLC for a Special Permit, and Final Site and Architectural plan and requested uses applications for the above referenced property.

Please let this letter serve as our formal request for members of the consultant team to speak, should the Planning Board have any questions for the applicant at the forthcoming referral meeting. Please let us know if you have any questions or would like additional information.

Sincerely,



Richard W. Redniss, FAICP

Enclosures

CC: V. Mathur, Associate Planner
Development Team
Interested Parties

Project Narrative
3 Landmark Square
Special Permit and Site & Architectural Plan and Requested uses
February 14, 2023

1. Introduction/Background

Landmark Square 1-6, LLC (Property Owner), a related entity of Reckson/SL Green and the Cappelli Organization (collectively the Applicant), is working to redevelop a portion of the Landmark Square property. Cappelli was the original developer of Atlantic Station, which provided Stamford with 650 new apartments in two connected buildings just north of the Stamford Transportation Center. The development preserved and repurposed the historic Post Office and facilitated several streetscape and traffic improvements around the site.

Reckson purchased Landmark Square in 1996, and since that time have made significant capital improvements to maintain the complex in a Class A standard. Notwithstanding these efforts, Landmark Square is operating at about 75% occupancy, which is reflective of Stamford's decades long struggle with office vacancy. 3 Landmark Square (aka Building 3) specifically is currently at about 38% occupancy. Reckson/SL Green has also been one of Stamford's best corporate citizens, contributing year after year to many Stamford nonprofits (American Cancer Society, Boys & Girls Club, Ferguson Library, Palace Theater, Mill River Collaborative, Stamford Museum & Nature Center, Stamford Citizen of the Year, etc.) and a number of City causes/improvements (DSSD, Broad Street median, Washington Blvd median) – most recently a \$1.5M contribution toward the redesign of Veterans Park.

Continuing their legacy of improving Downtown Stamford, the Applicant is proposing to replace Building 3 (a 134,000 sf of office/commercial building with a 62% vacancy rate) with a new multifamily community featuring 400 apartments and ground floor retail/restaurant space. No other changes to the Landmark Square complex are proposed.

The 5-acre Landmark property¹ makes up part of a 30-acre superblock in the heart of Downtown Stamford, bounded by Atlantic St., Broad St., Greyrock Pl., and Tresser Blvd. Together with the Stamford Town Center, 300 Atlantic, and various buildings north and south of Veterans Park, the block contains approximately 2 million square feet of commercial space and almost no housing. Redeveloping Building 3 for residential purposes will not only bring much needed housing into a block of Downtown that is severely lacking, but will also relocate commercial tenants from 3 Landmark elsewhere within the complex and help raise the overall occupancy to 85%.

The proposed redevelopment will start to rebalance the mix of uses on the block and help activate the frontages along both Atlantic Street and Veterans Park.

To facilitate the redevelopment, the applicant is submitting the following applications:

- A. Special Permit – a list of specific requests is provided section 5 (Action Items) below.
- B. Site and Architectural Plan and Requested uses.

¹ Lot area excludes related leasehold and air-rights parcels (also associated with the Landmark Square complex) which carry additional development rights.

2. Surrounding Area

The property lies at the very center of Master Plan Category 11 (Downtown) and the CC (Center City) Zoning District. It is bordered by Stamford Town Center to the east and Veterans Park to the immediate south. The surrounding neighborhood contains a blend of primarily retail, restaurant, and commercial uses with multi-family residential mixed in.

The site is within walking distance (1/2 mile) of the Stamford Transportation Center. It has been awarded a Walk Score of 96 “Walker’s Paradise”, a Transit Score of 73 “Excellent Transit”, and a Bike Score of 76 “Very Bikeable”.² All of Downtown Stamford’s shops, restaurants, and service providers are a short walk away for future residents to enjoy.

The area is also well served by public transportation. The Harbor Point Trolley stops in front of the site on Broad Street twice per hour during its continuous loop (7am – 11pm) through Downtown and the South End. Connecticut Transit has multiple stops in the Downtown area. Two of the most traveled stops are located directly in front of the development area at the intersection of Main and Atlantic Streets (Old Town Hall and Veterans Park). Nearly every line of Stamford’s CT Transit buses makes regular stops at one of these two locations, including local, intercity (Greenwich, Darien, Norwalk) and interstate (Port Chester, White Plains) routes.

3. Project Area/Development Site

Landmark Square was originally constructed in phases throughout the 1970s. The site maintains approximately 646,000 sf of commercial floor area in 5 buildings including office, retail and restaurant uses plus an additional 170,000± sf of commercial space on adjacent leasehold parcels (6 Landmark). All uses are served by approximately 1,025 parking spaces in a structured garage that connects to all buildings. 1 Landmark, the tallest and most recognizable of the buildings, was for many years the tallest building in Stamford.

In addition to many office tenants, the site also houses a number of retail shops and restaurants along Atlantic and Broad Streets as well as a multi-screen movie theater. Several of the buildings provide direct connections to the Stamford Town Center.

The site maintains two curb cuts along Broad Street. One leads up to a valet/drop-off parking court behind 1 Landmark (centrally located among the 5 buildings). The other wider curb cut is a set of 3 lanes (1 entrance, 2 exit) that lead to the portion of parking garage under Building 5. Another set of 2 two-way curb cuts exist on Atlantic Street. One leads to the multi-level garage under the main portion of building 3. The second wider curb cut leads directly to a loading dock for Building 3 as well as the larger loading area that is shared by the complex.

Building 3, which is the site of the proposed redevelopment, contains 134,000 square feet of primarily office space within 2 connected building footprints. The base of the buildings also house some small-scale café and service retail spaces. The building is currently over 60% vacant, and several of the existing tenants are planning to relocate to other buildings within Landmark Square. The retail spaces along Atlantic St. are set in and shaded by the overhanging upper stories of the building, which is not

² Scoring for “3 Landmark Square” provided by walkscore.com.

conducive to a vibrant and active streetscape. The pedestrian sidewalk includes wide driveway crossings and is constrained by planters, retaining walls and stairs. In some areas the clear path is only 4' wide. The south side of the building directly abuts Veterans Park, but with a blank wall and tiered planters does little to activate or enhance the pedestrian experience within the park.

4. Proposed Development

The proposed development consists of 400 apartments and associated indoor and outdoor tenant amenities, 5,000± sf of ground floor retail/restaurant space, and 420 parking spaces in a multilevel garage within the building footprint. Vehicular access to the site will be in a similar location as the existing Atlantic Street driveway.

A. Unit Mix

The proposed unit mix includes 20 studio, 180 one-bedroom, 180 two-bedroom, and 20 3-bedroom apartments averaging approximately 930 sf in size. However, the exact unit size and mix may change slightly depending on market conditions and other factors which may arise.

B. Below Market Rate (BMR) Housing

The BMR requirement is proposed to be satisfied, in whole or in part, through a fee-in-lieu payment. With a permitted base density of over 500 units, the proposed residential does not require any density premiums or bonuses, and none are requested. Based on the requirement of 10% (i.e. 40 units) and the proposed residential floor area, the fee for a full buyout would be approximately \$10.7 million. A Special Permit to satisfy some or all of the BMR obligation through a fee payment is being requested.

The fee would go into Stamford's Affordable Housing Trust Fund, which is currently underfunded with less than \$200,000 available, or directly to a nonprofit partner/development to be reviewed and approved by the Zoning Board prior to release of funding. Stamford's local nonprofits and affordable housing providers have a track record of leveraging FIL funding to serve more people and families in need of quality affordable housing, often at deeper levels of affordability, than the onsite units would typically provide.

C. Building Composition & Features

The design for 3 Landmark is a balancing act between solar orientation, internal and external views, and providing a connection to Veterans Park. The shifting of the upper mass maximizes views and creates a large sunny outdoor amenity plaza on the 6th floor that visually connects to the park. The skin of the building is a composition between two contrasting elements that help break down the building. The two different expressions, opposite in color and texture, are composed to tell a story of one cradling and protecting the other.

At the ground level, both the residential lobby and retail/restaurant space help to enliven and activate the pedestrian experience along Atlantic Street. The stair tower and utility areas are faced with storefront glass to provide the same look and feel as occupied spaces. The proposed retail area wraps around the southerly corner of the building to line the park. The Applicant intends to coordinate with the City and other interested stakeholders, such as the Veterans Park Partnership and the DSSD to maximize the connectivity between the proposed retail space and the park itself. The Applicant envisions the proposed retail space opening up into, and interacting with, the park itself. Outdoor

seating that can be enjoyed by patrons of the restaurant/retail and the general public will also help to activate the park and provide a marquee amenity for Downtown Stamford

The double height ground floor spaces also hide portions of the garage that sits behind them, while the upper garage stories are screened with either a light or dark metal mesh coordinated with the transitions in both the light and dark metal paneling. The amenity deck features a glass railing to showcase the robust landscaping of the outdoor areas and complement the adjacent park.

The upper residential stories are situated such that the full mass of the tower does not dominate any one view – with only portions of the building reaching the park or Atlantic Street frontage. While fully clad with a glass curtainwall the tower is further distinguished by two contrasting design treatments. The southern end is more of a “cubed” tower with darker and more pronounced grid lines, and is stepped back for the final 5 stories. The articulating lighter elements angle across the building base and include columns of bay windows to provide additional visual interest within the massing.

D. Amenities and Open Space

While the building benefits immensely from its location, directly abutting the newly reconstructed Veterans Park, the 6th floor amenity deck dedicates the full building footprint, totaling approximately 36,500 square feet, to indoor and outdoor amenity space. While the indoor spaces have not been fully designed and programmed, they intend to include fitness, yoga, gaming, several communal and private lounges and club rooms, and a glass atrium space enclosing the swimming pool. The pool atrium is flanked by two outdoor lounge areas. The bulk of the outdoor space, approximately 10,000 sf, occupies the corner of Atlantic Street and Veterans Park. This area includes both active and passive recreation areas with a turfed gaming area, grills and dining spaces, lounge seating, and walking paths that wind through 25± trees and other plantings. In assessing the open space, it is important to note that the building directly abuts a recently renovated 1.5-acre public park

E. Access and Parking

Vehicular and pedestrian access will function very similar to existing conditions. The other site frontages and garage entrances along Broad Street are not changing. The existing northerly curb cut at Building 3, which serves the loading docks for the entire complex, will also remain with some streetscape changes to reduce pedestrian crossing distances where possible. The garage entry for Building 3 will be relocated further north so that the activated portions of the ground floor can continue uninterrupted from Atlantic Street and wrap around the park frontage.

The City is contemplating a new road design for Atlantic Street that will remove the center median, provide bike lanes, and create wider sidewalks. The applicant has provided streetscape designs that work with both existing and potential future roadway geometry. The plans have been reviewed preliminarily with Land Use and TTP staff, and we will continue to coordinate with them throughout the approval process.

Parking for the residences is provided in the multi-level garage within the building footprint totaling 420 spaces. This meets and exceeds the required parking per §12.G of the Zoning Regulations. The proposed garage will maintain internal connections to the existing Landmark Square garage at the basement and ground floor levels.

Pursuant to §12.G of the Zoning Regulations the office use requires one (1) space per 1,000 square feet of Gross Floor Area and no parking for retail. The commercial uses will maintain 875 existing spaces

for their use. With the removal of Building 3 the parking ratio for office uses is improved from 1.40 to 1.44 spaces per 1,000 gsf.

While required parking for both the residential and commercial uses are satisfied independently, the connected garages enable potential future sharing of the overall pool of parking between the uses, which enjoy offset peak demand periods.

F. Construction Timing

Pending approval of the submitted applications, the site is anticipated to begin construction by the end of 2023 to be completed by 2026.

G. Conformity with Stamford Zoning Regulations and Master Plan

The Master Plan for the site is Category 11 which has a stated intent to “to provide for and protect an intensive, pedestrian-oriented mixed-use district. Intended is a full array of retail, office, cultural, recreation and residential uses serviced by mass transportation and integrated pedestrian access systems, always at-grade, enhanced by up-to-date lighting, seating, planting, signage, etc., to assure a desirable mixing and interaction of people and activities. A variety of scale and design in new construction is to be encouraged”. The proposal accomplishes those goals by replacing part of a fully commercial site with a substantial residential building, creating a pedestrian-oriented mixed-use development and improving the quality of housing with new onsite amenities. The density and proposed design comply with the standards and requirements of the applicable Zoning Regulations. See further details on the submitted Zoning Data Chart and accompanying site and architectural plans.

5. Action Items

To facilitate the development, the Applicant has filed applications for approval by the Zoning Board for the following specific requests:

A. Special Permit

1. Pursuant to §7.5 (Review of Large-Scale Development), Applicant requests approval of a residential structure containing ten (10) or more dwelling units.
2. Pursuant to §7.4.D.3 (Fee-in-Lieu Payment), Applicant requests approval to satisfy some or all of the BMR requirement (40 units as further described in the Zoning Data Chart) through a cash contribution to a City of Stamford fund and/or to an organization approved by the Zoning Board that is dedicated to affordable housing initiatives.
3. Pursuant to Appendix B, Footnote 7, Applicant requests a Building Area up to 100% of the site and minimum front, side and rear yard setbacks of zero. The site already maintains front, side and rear setbacks of zero, as the existing buildings sit on the property lines and connect internally to adjacent properties. Similarly, the existing Building Area already exceeds the base standard of 90% for corner lots (existing is 94%) but will be increased slightly (to 95%) by the new building design.
4. Pursuant to Appendix B, Footnote 13, Applicant requests to utilize the “Maximum Premium Height” standard of up to 350’. The site already maintains a

building (One Landmark) exceeding the base standard of 290' above Mean Low Water. The proposed building is 320' and will be a positive addition to Stamford's downtown skyline. With an angled and articulating building design, the mass of the building is pulled in from the street and park frontages. The building is appropriately spaced from One Landmark with over 200' between the two tower elements.

It is worth noting that the overall site already exceeds the Standard (non-residential) FAR Maximum of 2.0. However, the "premium" FAR is being reduced by 134,000 square feet by way of this application with the removal of Building, 3 and remains below the maximum of 2.5.

B. Site and Architectural Plan and Requested Uses

The Applicant requests approval for the proposed 400-unit residential building with ground floor restaurant/retail space, including approval of the proposed location, height, coverage, relationships with buildings and property lines, bike and vehicle parking, open space, and associated uses.

Included in the request, and pursuant to §12.K.5, Applicant is seeking administrative approval of the Zoning Board for sidewalks narrower than the prescribed 15' in width. While much of the sidewalk along the new frontage does comply, the existing roadway geometry and need to tie into existing sidewalks at the site boundary prohibit 15' wide sidewalks everywhere. The overall sidewalk design, including the clear pedestrian path and driveway crossings, is being improved from existing conditions.

6. Conclusion

The proposed development embodies many of the goals of Downtown Master Plan Category, is compliant with both the standards of C-C Zoning District and guidelines of the Architectural Review Design District. The development creates an attractive new residential community within a main block of Downtown that has been lacking housing for decades. The development will continue be an asset to the Downtown neighborhood and overall Stamford community for many years to come.

7. Statement of Findings

I. The above referenced specific Special Permit requests are integral to the development project as a whole. Thus, for purposes of demonstrating compliance with the standards and conditions below, the entire development proposal is considered. The Applicant submits that all applicable criteria contained in Stamford Zoning Regulations Article V, §19.C.2 are met for the following specific reasons:

- a. *Special Permits shall be granted by the reviewing board only upon a finding that the proposed use or structure or the proposed extension or alteration of an existing use or structure is in accord with the public convenience and welfare after taking into account, where appropriate:*
 - 1) *the location and nature of the proposed site including its size and configuration, the proposed size, scale and arrangement of structures, drives and parking areas and the proximity of*

existing dwellings and other structures.

The proposed development is appropriately located within a mixed residential and commercial neighborhood and the Downtown Master Plan Category, which is intended to house Stamford's most intense development. The proposed building is compatible in scale and style with the surrounding area, and adequately spaced from other tall structures. The proposed setbacks and arrangement of buildings are appropriate for the CC and serve to activate pedestrian street and park frontages while maintaining proper sidewalk widths. All parking is accommodated within the multi-level parking garage and screened from public view.

- 2) *the nature and intensity of the proposed use in relation to its site and the surrounding area. Operations in connection with special permit uses shall not be injurious to the neighborhood, shall be in harmony with the general purpose and intent of these Regulations and shall not be more objectionable to nearby properties by reason of noise, fumes, vibration, artificial lighting or other potential disturbances to the health, safety or peaceful enjoyment of property than the public necessity demands.*

The proposed density, height, and building coverage are all within the maximums permitted within the zone and prescribed by the Master Plan. The proposed building helps to reduce Stamford's office vacancy and create a new residential community with indoor and outdoor amenity space and enclosed parking. There are no anticipated objectionable impacts or potential disturbances to nearby properties.

- 3) *the resulting traffic patterns, the adequacy of existing streets to accommodate the traffic associated with the proposed use, the adequacy of proposed off-street parking and loading, and the extent to which proposed driveways may cause a safety hazard, or traffic nuisance.*

Traffic can be safely and adequately accommodated on the surrounding streets; and parking is safely and adequately provided onsite. Overall vehicle trips are being reduced during both morning and evening peak periods. For further traffic and parking analyses see the enclosed traffic study provided by SLR and Parking & Transportation Demand Management plan provided by Redniss & Mead.

- 4) *the nature of the surrounding area and the extent to which the proposed use or feature might impair its present and future development.*

The surrounding area includes a variety of commercial and retail uses. The proposed residential use is compatible with these uses and will serve as a further catalyst for others to invest in their properties. Introducing a multifamily residential community in the heart of Downtown Stamford will also place people on the streets thereby increasing the patronage of nearby retail and service establishments.

- 5) *the Master Plan of the City of Stamford and all statements of the purpose and intent of these regulations.*

Category 11 (Downtown) of the Master Plan is intended "to provide for and protect an intensive, pedestrian-oriented mixed-use district. Intended is a full array of retail, office, cultural, recreation and residential uses serviced by mass transportation and integrated pedestrian access systems, always at-grade, enhanced by up-to-date lighting, seating, planting, signage, etc.,

to assure a desirable mixing and interaction of people and activities. A variety of scale and design in new construction is to be encouraged.” The proposed development fits within this category and fulfills the policy goals of the neighborhood.

The proposal is also in keeping with several key projects under Item B (Growth Management) of Chapter 1.3 Master Plan Vision including:

- Concentrate regional office and retail development as well as high-density residential uses in the Downtown
- Promote transit-oriented development
- Encourage reuse of vacant Downtown office space for housing
- Allow higher-density residential development in close proximity to transit

Other Master Plan policy goals realized through this redevelopment include:

- a) **3B.1 Concentrate** regional office, retail and entertainment uses and high-density residential development Downtown.
- b) **3B.3** Encourage redevelopment of vacant Downtown office space for housing.
- c) **3B.7** Implement traffic calming and improvements to bicycle and pedestrian infrastructure in the Downtown, along commercial arteries and in neighborhood centers
- d) **3C.3:** Maintain the affordable housing stock to ensure that people who work in Stamford can afford to live in Stamford.
- e) **5B.1** Improve pedestrian connectivity within Downtown and between Downtown and adjacent neighborhoods.
- f) **5B.2** Implement streetscape and traffic calming improvements Downtown.
- g) **5B.3** Encourage quality urban design that relates well to streets and people.
- h) **5B.4** Emphasize ground floor retail and pedestrian activity.
- i) **5D.3-c** Maximize the potential of public plazas and open spaces Downtown...
- j) **5E.1:** Promote neighborhood revitalization.
- k) **6B:** Preserve Existing and Create New Affordable Housing.
- l) **6C.2:** Promote development of a variety of housing types.
- m) **6C.4:** Continue encouraging conversion of vacant office buildings to residential use.

The Applicant is proposing to repurpose an area currently occupied by underutilized office space. The proposed development will increase the housing opportunities, reduce office vacancy, and invigorate a recently renovated public park. The active ground floor frontage along both Atlantic Street and Veterans Park, 400 new residential units, affordable housing contributions, and streetscape improvements will further strengthen our Downtown. For all of these reasons, the Applicant submits that the proposal, and the associated Special Permit requests which are inextricably intertwined, are in accord with the public convenience and welfare.

II. Pursuant to Section 19.D.4 Standards for Review the applicant submits that all applicable criteria are met for the following reasons:

In reviewing site plans the Zoning Board shall take into consideration the purpose of these Regulations, including the purpose of the applicable zoning district and the goals and policies of the Stamford Master Plan, the public health, safety and general welfare and convenience of the general public and the maintenance of property values. In its review the Board may modify a site plan or condition an approval to the extent necessary to conform the site plan to the following standards and objectives:

(1) Safe, adequate and convenient vehicular traffic circulation, operation, parking and loading, and pedestrian circulation, both within and without the site.

(a) The number, locations and dimensions of all vehicular and pedestrian access drives and walkways, parking spaces, drop-off and loading areas, and provisions for handicapped access shall conform to the standards of Section 12 of these Regulations, to the adopted design criteria and engineering practices of the Dept. of Traffic and Parking, and all other applicable standards. Such areas shall be constructed of suitable hard surface materials and maintained in good condition.

The number, locations and dimensions of all vehicular and pedestrian access drives and walkways, parking spaces, drop-off areas, loading areas, and handicapped access areas conform to the applicable provisions of Section 12 of the Zoning Regulations.

(b) The number of vehicle access drives shall be minimized and shall be located and designed to provide safe and convenient turning movements and safe sightline as determined in accordance with the Geometric Highway Design Standards of the Conn. Dept. of Transportation.

The number of vehicle access drives is being maintained, with overall pedestrian crossing distances reduced where possible. Sightlines are provided in accordance with the Geometric Highway Design Standards of the Connecticut Department of Transportation (the "DOT").

(c) Area streets and traffic controls shall be determined to have adequate capacity to service the site without causing undue congestion or hazardous conditions.

The proposed redevelopment is expected to result in a reduction of both AM and PM peak hour vehicle trips compared to the existing office building (per enclosed Traffic Study prepared by SLR). All studied intersections are expected to operate at acceptable levels of service.

(2) The protection of environmental quality, landscaping of open space and harmony with existing development. The Board shall take into consideration the following features and standards:

(a) The location, height, design and materials of walls, fences, hedges and plantings shall be appropriate to the vicinity and shall suitably screen parking, loading, garbage collection facilities, outside storage areas, accessway drives, utility installations and other such features; such landscaping shall be appropriate to the general character of the vicinity and consider the proximity and nature of abutting uses and the level of use of adjoining public streets and walkways.

The site enjoys a location directly adjacent to the recently renovated Veterans Park, a 1.5-acre public open space. In addition, the applicant has dedicated the entirety of the 6th floor building footprint, totaling approximately 36,000 sf, to indoor and outdoor tenant amenities, including a robust landscaping plan. All loading and trash collection will take place within new or existing garage areas within the overall Landmark Square complex.

- (b) *All open space areas, exclusive of undisturbed natural areas, shall be suitably landscaped to the satisfaction of the Board. Site landscaping shall be performed at a minimum dollar value equivalent to one shade tree of 2.5 inch caliper for every two hundred (200) square feet of landscaped area. In multi-family developments, open space shall be designed to provide functional outdoor living and play areas meeting the needs of intended residents.*

The Applicant proposes maintaining onsite landscaping in accordance with the standards of the Zoning Regulations as further detailed within the comprehensive Landscape Plans prepared by Eric Rains Landscape Architects.

- (c) *Soil erosion, sediment and the release of excessive dust shall be controlled through implementation of suitable short term and long term controls in accordance with the standards and procedures of Section 15-B.*

A comprehensive Sedimentation and Erosion Control Plan has been prepared by Redniss and Mead, which ensures that the standards and procedures of Section 15-B of the Regulations are satisfied. A copy of this plan is enclosed herewith.

- (d) *Site development shall seek to preserve existing specimen trees, historic structures and other significant natural features of the site. Accordingly, the premature demolition and site clearance of prospective development sites is specifically discouraged and may be taken into consideration in subsequent site plan reviews.*

The redevelopment area is in an urban setting and fully occupied by existing building and other paved areas. The total tree count on the property will be increased by the redevelopment.

- (e) *Artificial lighting, and site generated noise, odors, particles and other disturbances shall be controlled to avoid interference with the use and enjoyment of neighboring properties. The location, height, design and arrangement of outside lighting shall be consistent with safety such as to avoid glare on any other lot and to avoid hazards to traffic on any street.*

All artificial lighting and site generated noise and other disturbance shall be controlled and will not interfere with the use and enjoyment of the neighboring properties. Furthermore, the location, height, design and arrangement of outside lighting shall be consistent with safety to avoid glare on any other lot and to avoid hazards to traffic on adjacent roadways.

- (f) *Available public utilities shall be adequate in capacity to safely service the requirements of the site. Surface water drainage facilities shall be adequate to safely drain the site while minimizing the risk of downstream flooding and erosion. Where*

infrastructure capacity is judged not to be adequate the Board may accept a binding agreement to perform suitable improvements.

A comprehensive drainage plan and drainage report have been prepared by Redniss and Mead, and are submitted with the enclosed materials. The plans illustrate the adequacy and availability of public utilities for the site.

- (g) *Adequate provision shall be made for emergency vehicle access, fire lanes, and safe fire flows, upon the recommendation of the Fire Marshall and the public water utility.*

Emergency first responders will be able to access the Property safely and conveniently.

- (h) *The arrangement, location, apparent bulk, architectural features, materials, texture and color of proposed buildings and structures shall establish an architectural character and overall site design compatible with the scale and general character of the vicinity.*

The proposed building is appropriate for its Downtown setting and relates at both the pedestrian level (with a relatively low 5-story base and activated street fronts) and within the greater downtown skyline (with a tower element mostly setback from the street frontage). The tower element of the building is compatible with, and appropriately spaced from the existing One Landmark Square building that shares the overall site area.

The proposed building is also located within the ARD and is supportive of the Goals and Policies of the ARD, which aim to “improve property values...and enhance the character and amenity of the downtown as the...cultural center of the City.”³ The proposed building will “achieve a consistent and harmonious relationship to the streetscape” and its architectural facades will “serve to enliven the *Street* and provide a continuous ‘border of interest’...by avoiding deep setbacks and dark alcoves.”⁴ The proposed building will “be constructed with high quality, durable exterior materials” to further enhance adjacent streetscapes.

- (i) *Building setbacks and the configuration of open space shall be appropriate to the existing structures on adjoining properties and established patterns of use of side and rear yard areas, and to the existing physical conditions of the site.*

The proposed open space area was designed specifically to highlight, enhance and further activate the adjacent park and street frontage.

- (j) *No use shall be permitted that will cause or result in:*
-dissemination of dust, smoke, observable gas or fumes, odor, noise or vibration beyond the immediate site of the building in which such use is conducted, or
-unusual hazard of fire or explosion or other physical hazard to any adjacent buildings, or
-harmful discharge of liquid materials, or

³ Zoning Regulations Sec. 7.6.A.

⁴ See Zoning Regulations Sec. 7.6.C.1 & 7.6.C.2.

-unusual traffic hazard or congestion due to the type of vehicles required in the use or due to the manner in which traffic enters or leaves the site of the use.

No nuisance or hazardous conditions are anticipated, consistent with the engineering materials provided herein.

- (k) All buildings and grounds and other structures shall be maintained in good repair and in safe, clean and sanitary condition. All landscaping required pursuant to an approved site plan shall be installed to the satisfaction of the Director of Parks and Recreation and shall thereafter be maintained in accordance with an agreement to be made part of the application of record, which agreement shall be enforced by the Zoning Enforcement Officer, upon advice of the Director.*

The Applicants are amenable to a condition of approval requiring the execution of a Landscape Maintenance Agreement and a Drainage Maintenance Agreement prior to the issuance of a Certificate of Occupancy.

PARKING & TRANSPORTATION DEMAND MANAGEMENT PLAN PROPOSED RESIDENTIAL / MIXED-USE DEVELOPMENT

**3 Landmark Square
Stamford, CT
February 13, 2022**

This plan has been prepared in support of a proposed redevelopment of an existing office building within the Landmark Square complex. The overall site encompasses 5 acres within the Downtown Master Plan Category and the CC (Center City) Zoning district. The site maintains approximately 646,000 sf of commercial floor area in 5 buildings including office, retail and restaurant uses plus an additional 170,000± sf of commercial space on adjacent leasehold parcels (6 Landmark).

PROJECT OVERVIEW

The Applicant proposes to replace 3 Landmark Square (aka Building 3), a 134,000 sf office/commercial building, with a new multifamily community featuring 400 apartments and 5,000± sf of ground floor retail/restaurant space. Apartments will be comprised of 20 studio, 180 one-bedroom, 180 two-bedroom, and 20 three-bedroom units. The new building will include a multilevel garage with 420 striped spaces. The proposed development will include modern tenant amenities, including a lounge and communal rooftop terrace, onsite and publicly accessible bicycle storage areas, and electric vehicle charging stations.

The overall parking on the site is being increased by 270 spaces (from 1,025 to 1,295), while replacing 134,000 sf of commercial space with a use that has an offset peak demand period. The proposed redevelopment will significantly enhance parking operations within Landmark Square.

EXISTING DATA

Section 12.G states that no parking is required for the parcel, except as follows:

- a) Residential use: one (1) Parking Space for every dwelling unit of two (2) bedrooms or less and one and on-quarter (1.25) spaces for each dwelling unit of three (3) bedrooms or more.
- b) Office use: one (1) Parking Space for every 1,000 square feet of Gross Floor Area used for office purposes in any Building not classified as retail.

No parking is required for retail spaces. The site is also exempt under §12.D.14 which exempts properties north of I-95, in Parking Category 1, and within 1,000' of a municipal parking garage from any retail parking requirements (which by precedent includes restaurants). The site is located approximately 200' from the Forest Street garage and 600' from the Bell Street garage. The property also directly abuts the Stamford Town Center, whose garage maintains thousands of publicly accessible parking spaces.

Proposed onsite parking will meet and exceed the minimum requirements and is expected to easily accommodate the anticipated demand.

PARKING OPERATIONS

Residential

Parking operations will be actively supervised by the onsite property management employees. A total of 420 self-parking spaces are proposed for the residential building. To comply with code, 10 handicapped-accessible spaces are proposed. A total of 18 electric vehicle charging spaces are required. These spaces are conveniently provided on almost every garage level – 3 each on levels B1, G1, G2, G3, G4, and G5. To comply with new State statutes, infrastructure for an additional 24 charging stations (in total constituting 10% of the new parking spaces) is being incorporated into the building design.

The residential garage will operate generally as a self-park facility. Property managers will monitor and document parking usage at regular intervals during and after the initial “lease-up” period to ensure the regular tenant demand is being met.

Commercial

The remaining commercial uses within the greater Landmark Square complex will maintain 875 existing spaces for their use, accessed from Broad Street. With the removal of Building 3 the parking ratio for office uses is improved from 1.40 to 1.44 spaces per 1,000 gsf. Office tenants pay a monthly fee of \$75 per space with key card access for employees. The commercial garage is also open to the general public after normal business hours (generally from 5pm to 5am) for a flat fee of \$3 for up to 12 hours or a \$20 daily rate.¹ Public users collect a ticket upon entry and may utilize pay stations within the garage prior to exiting.

Office tenants and visitors may also utilize a valet service at the courtyard located behind 1 Landmark Square and accessed from the Broad Street driveway. There is no additional fee for the valet service.

ADDITIONAL PARKING CAPACITY

The offset peak demand times of residential (typically late evening and overnight) and office uses (typically weekdays late morning to early afternoon) create an ideal situation for sharing of spaces. To provide additional parking capacity to both use types, a shared parking operation could be employed if needed. The residential garage is designed to have direct vehicular connections to the existing garage at the B2, B1 and Ground levels. While no shared parking arrangement is proposed for the initial residential occupancy, this potential convenience is yet another benefit of the redevelopment.

¹ While the complex is experiencing high office vacancy, the garage has been open for public use during daytime hours as well. This may continue as long as overall parking demand is being met. Pricing is subject to change.

DEMAND MANAGEMENT STRATEGIES

Unbundled Parking

The rent structure of the residential units is proposed to be “unbundled” with regard to parking. Apartments will not automatically include a “free” parking space (which has been demonstrated to encourage vehicle ownership and usage). The separate charge for spaces provides an incentive for residents to consider an alternative to individual car ownership and usually results in lower demand. It also allows those residents without cars to enjoy a lower cost of living (rather than pay for parking they do not need).

Bicycle Parking

To encourage ridership, and in satisfaction of the Zoning Regulations, the building is required to provide 48 Class A and 51 Class B bicycle spaces. Class A spaces are provided in secured bike rooms located within the Ground and B1 levels of the garage. Class B bicycles are proposed to be accommodated directly behind the bus stop near the site frontage along Atlantic Street and up against the southern building face along Veterans Park. There is potential to locate bicycles elsewhere within the Landmark Square site. Final locations and designs will be coordinated with the Transportation, Traffic & Parking department and other area stakeholders.

Public Transportation

The site is within walking distance (1/2 mile) of the Stamford Transportation Center. It has been awarded a Walk Score of 96 “Walker’s Paradise”, a Transit Score of 73 “Excellent Transit”, and a Bike Score of 76 “Very Bikeable”.² All of Downtown Stamford’s shops, restaurants, and service providers are a short walk away for future residents to enjoy.

The area is also well served by public transportation. The Harbor Point Trolley stops in front of the site on Broad Street twice per hour during its continuous loop (7am – 11pm) through Downtown and the South End. Connecticut Transit has multiple stops in the Downtown area. Two of the most traveled stops are located directly in front of the development area at the intersection of Main and Atlantic Streets (Old Town Hall and Veterans Park). Nearly every line of Stamford’s CT Transit buses makes regular stops at one of these two locations, including local, intercity (Greenwich, Darien, Norwalk) and interstate (Port Chester, White Plains) routes.

Additionally, Uber, Lyft, Metro Pool and NuRide provide corporate and personal ride sharing programs that are currently utilized by residents in the downtown area, as well as the suburbs.

LOADING

The proposed building will utilize the existing loading dock(s) accessed from the northerly driveway along Atlantic Street.

² Scoring for “3 Landmark Square” provided by walkscore.com.

REPORTING

Reporting will be submitted annually pursuant to Section 19.F.5 and 19.G.5 of the Zoning Regulations. If parking residential parking demand is not being met, the shared parking methods mentioned above, or alternate solutions, can be explored. Similarly, if the demand management goals of the regulations are not being met, the Applicant will submit proposals for increasing the tenant use of transportation means other than single occupancy vehicles.

Drawing List
Landmark Square Building 3
Special Permit, and Final Site and Architectural plan and requested uses applications
February 13, 2023

<u>Sheet #</u>	<u>Title/Description</u>	<u>Prepared by</u>	<u>Date</u>
<u>Civil</u>			
PS	Property Survey	Redniss & Mead	8/13/2015
PSTS	Limited Property and Topographic Survey	Redniss & Mead	10/26/2022
SE-1	Site Development Plan	Redniss & Mead	2/8/2023
SE-1A	Site Development Plan (ALT.)	Redniss & Mead	2/8/2023
SE-2	Site Grading Plan	Redniss & Mead	2/8/2023
SE-2A	Site Grading Plan (ALT.)	Redniss & Mead	2/8/2023
SE-3	Site Utility Plan	Redniss & Mead	2/8/2023
SE-3A	Site Utility Plan (ALT.)	Redniss & Mead	2/8/2023
SE-4	Sediment and Erosion Control Plan	Redniss & Mead	2/8/2023
SE-4A	Sediment and Erosion Control Plan (ALT.)	Redniss & Mead	2/8/2023
SE-5	SU-40 Turning Movements	Redniss & Mead	2/8/2023
SE-6	WB-62 Turning Movements	Redniss & Mead	2/8/2023
SE-7	Notes	Redniss & Mead	2/8/2023
SE-8	Details	Redniss & Mead	2/8/2023
SE-9	Details	Redniss & Mead	2/8/2023
SE-10	Details	Redniss & Mead	2/8/2023
SE-11	Details	Redniss & Mead	2/8/2023
<u>Architectural</u>			
A.01	Cover Sheet	Lessard Design	2/10/2023
A.02	Vicinity Map & Existing Conditions	Lessard Design	2/10/2023
A.03	Illustrative Site Plan	Lessard Design	2/10/2023
A.04	Basement Floor Plan B2	Lessard Design	2/10/2023

A.05	Typical Basement Floor Plan B1	Lessard Design	2/10/2023
A.06	Ground Floor Plan (GR/G1)	Lessard Design	2/10/2023
A.07	Garage Floor Plan (G2)	Lessard Design	2/10/2023
A.08	Typical Garage Floor Plan (G3-G5)	Lessard Design	2/10/2023
A.09	Residential Floor Plan (R1/6 th Floor)	Lessard Design	2/10/2023
A.10	Typical Residential Floor Plan (R2-R21/7-26 Floor)	Lessard Design	2/10/2023
A.11	Typical Residential Floor Plan (R22-R26/27-31 Floor)	Lessard Design	2/10/2023
A.12	Roof Plan	Lessard Design	2/10/2023
A.13	Material Sample Board	Lessard Design	2/10/2023
A.14	Elevation South and West	Lessard Design	2/10/2023
A.15	Elevation North and East	Lessard Design	2/10/2023
A.16	Elevation West Enlarged	Lessard Design	2/10/2023
A.17	Elevation South Enlarged	Lessard Design	2/10/2023
A.18	Perspective View 1	Lessard Design	2/10/2023
A.19	Perspective View 2	Lessard Design	2/10/2023
A.20	Aerial Perspective	Lessard Design	2/10/2023
A.21	Building Section 1	Lessard Design	2/10/2023

Landscape

SPL-1.0	Street Level Landscape Site Plan Option	Eric Rains Landscape Architects LLC	2/10/2023
SPL-1.0A	Street Level Landscape Site Plan Option Alternative	Eric Rains Landscape Architects LLC	2/10/2023
SPL-2.0	Amenity Roof Materials Plan	Eric Rains Landscape Architects LLC	2/10/2023
SPL-3.0	Streetscape Details	Eric Rains Landscape Architects LLC	2/10/2023
SPL-3.1	Amenity Roof Terrace Details-1	Eric Rains Landscape Architects LLC	2/10/2023

February 13, 2023

General Property Description
Landmark Square

Block #: 61, 62, & 63
Area: 6.2971 ± Acres

All those parcels of land commonly known 0 Atlantic Street (002-9034), 3 Atlantic Street (002-9978), 2 Broad Street (002-8012), 4 Broad Street (002-9471), 5 Broad Street (002-8013), and 101 Broad Street (003-5489), located in the City of Stamford, and collectively described as follows:

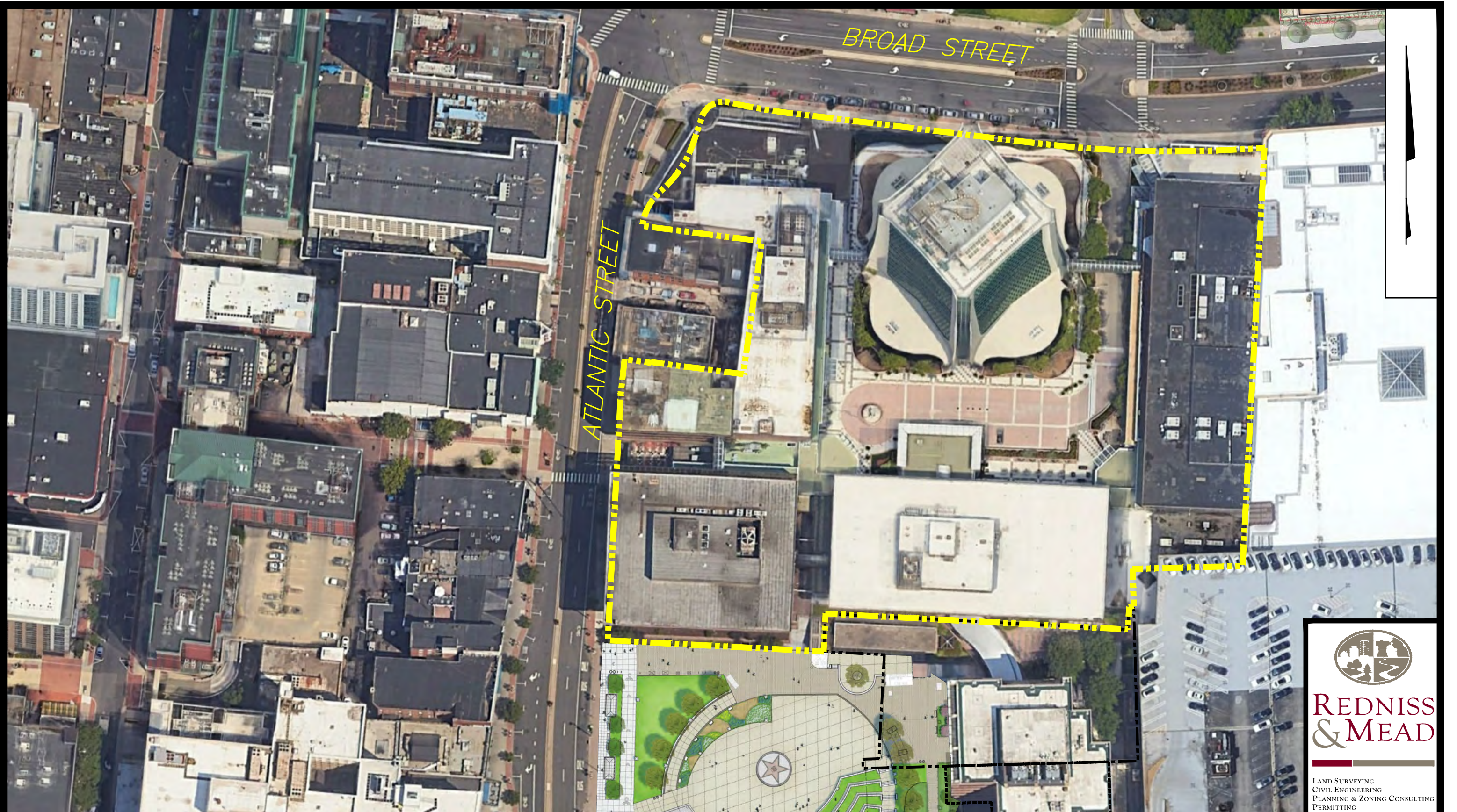
Beginning at the easterly side of Atlantic Street and the north westerly corner of Veterans Park, running in the following directions:

Westerly: 727 ± by the easterly side of Atlantic Street, land n/f of Urban League of S.W. CT. INC., terminus of Luther Street, land n/f of Jole Realty Corp., and said easterly side of Atlantic Street, each in part;

Northerly: 480' ± by the southerly side of Broad Street;

Easterly: 528' ± by land n/f of Macys East Inc. abd Rich – Taubman Associates, each in part;

Southerly: 550' ± by land n/f of Landmark Square 1-6 and City of Stamford, each in part, to the point of beginning.



AERIAL
3 LANDMARK
STAMFORD, CT



**REDNISS
& MEAD**

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

COMM. NO.:	DATE:
1961	2/2/2023
	SCALE:
	1"=80'



CONTEXT AERIAL
3 LANDMARK
STAMFORD, CT



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CIVIL ENGINEERING
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COMM. NO.:	DATE:
1961	2/2/2023
	SCALE:
	1"=150'

Landmark - Zoning Data
 MP Category 11, Downtown
 Zoning District CC

Standard	Existing	Req/Allowed	Proposed	Notes
Lot Area	227,596	Min. 4000 SF	no change	Excludes additional leasehold parcels which carry additional development rights and support existing commercial floor area.
Frontage	903'	Min. 40'	no change	Broad Street, Atlantic Street, Luther Street
Building Coverage	94%±	Max. 100%	95%±	Per Appendix B, Footnote 7
Commercial FAR	646,000 (2.84)	Base: 2.0 Premium: 2.5	517,000 (2.27)	Proposed reduction of 134,000 sf of commercial space to be replaced with residential and 5,000sf retail. All numbers are gross sf with no exemptions for ground floor retail space.
Building Height	295'± approx. height of One Landmark	Base: 290' Max: 350-400'	320'±	Per Appendix B, Table IV and Footnote 13
Density (DU)	n/a	505+	400	Per Appendix B, Table IV and Footnote 4. Additional units permissible with onsite BMRs and/or trade-in of commercial floor area rights
BMR Requirement	n/a	10%	40/FIL	Pursuant to Section 7.4 and Appendix B, Footnote 4
Front Setback	Broad St.: 3' Atlantic St.: 0' Luther St.: 0'	0'	Broad St.: 3' Atlantic St.: 0' Luther St.: 0'	
Side Setback	0'	0'	0'	Existing buildings (to remain) on property lines
Rear Setback	0'	0' or 4'	0'	Existing buildings (to remain) on property lines
Open Space	n/a	per ZB	18,000±	Proposed amenity deck and terraces only. Excludes additional outdoor space within the Landmark complex.

<u>Base Density Calculation</u>	<u>Notes</u>
Lot Area: 227,596	per R&M survey
Base Density: $227,596 \div 450 = 505$	Appendix B, Table IV
<i>BMR Requirement:</i> $505 \times 10\% = 51$	Appendix B, Footnote 4
BMR Bonus (if onsite): $51 \times 2 = 102$	Additional density permitted through bonuses and/or commercial trade-in
Total Units: $505 + 102 = 607$	



Landmark - Zoning Data (cont.)

MP Category 11, Downtown

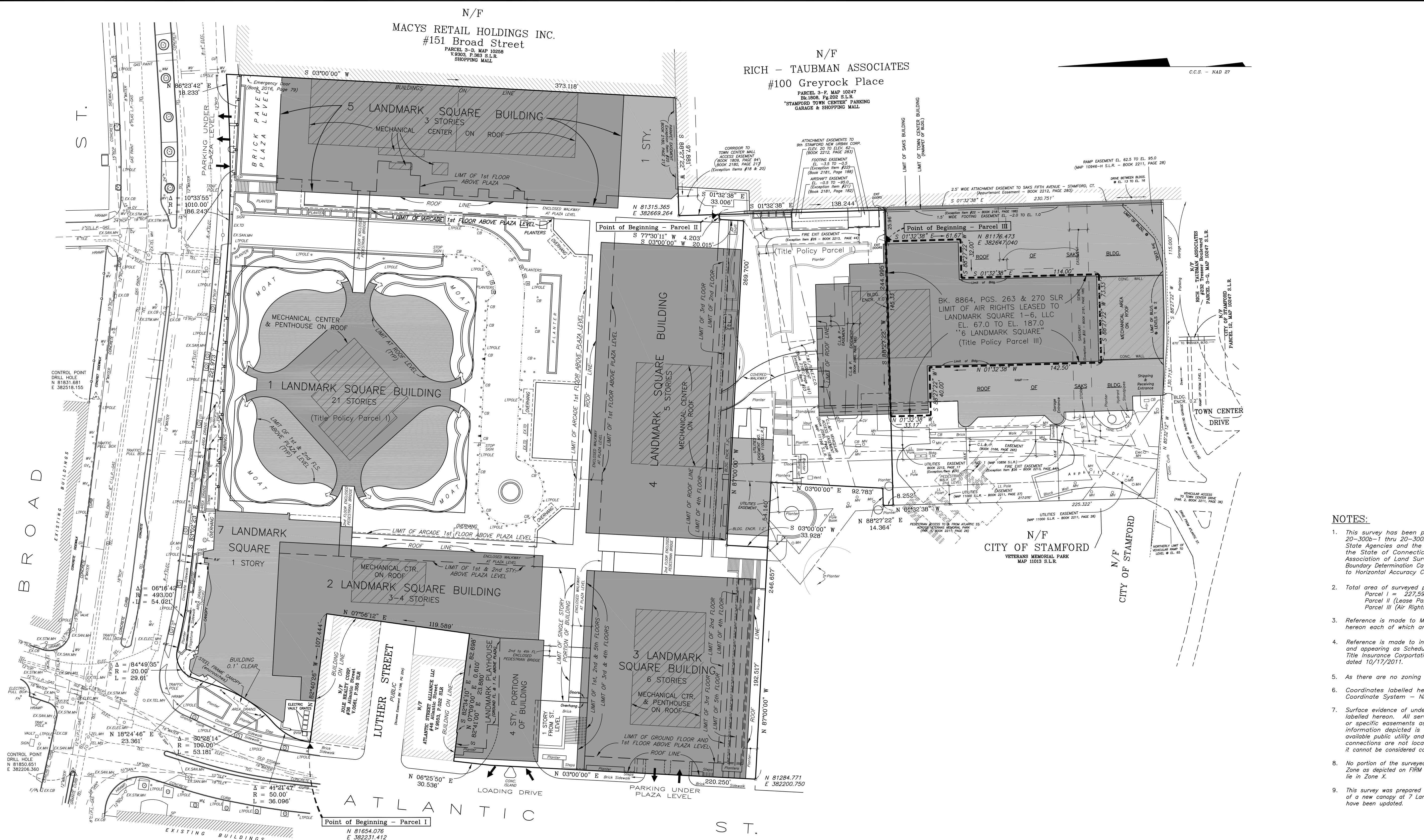
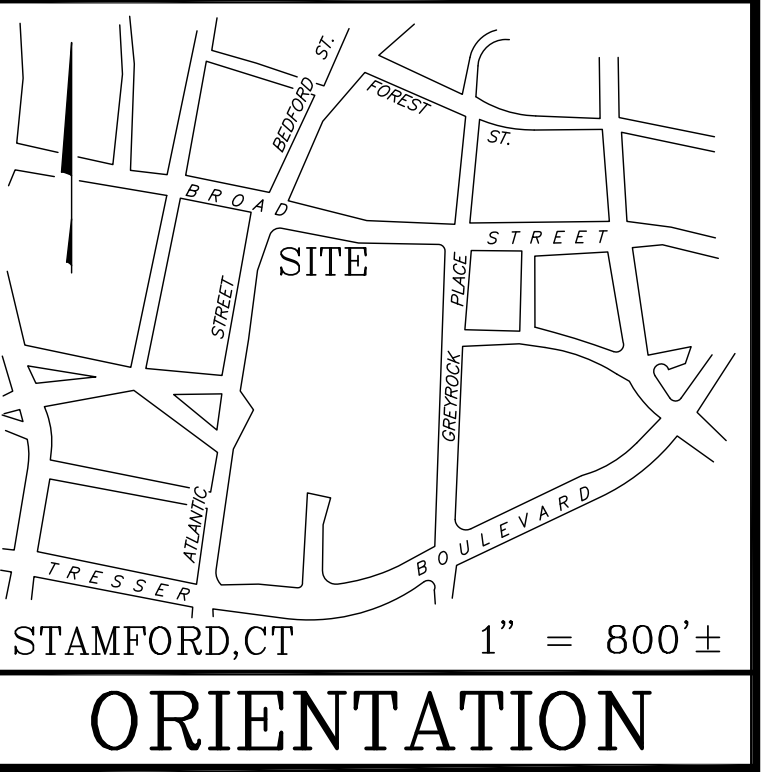
Zoning District CC

Parking Calculation

Residential (by unit)		Requirement	(total req)	Provided	Notes
Studio	20	1.00	20.0	420	Complies. §12.G Counts include 18 required EV spaces (which count as 0.5 spaces each or 411 equivalent spaces).
1-BR	180	1.00	180.0		
2-BR	<u>180</u>	1.00	<u>180.0</u>		
3-BR	<u>20</u>	1.25	<u>25.0</u>		
TOTAL	400	-	405.0		

Below Market Rate Unit Requirement

Total Units		Required BMR		Notes
Studio	20	10%	2	Complies. Special Permit Request per §7.4.D.3 to satisfy the BMR requirement through a Fee-in-Lieu payment
1-BR	180		18	
2-BR	180		18	
3-BR	20		2	
TOTAL	400		40	

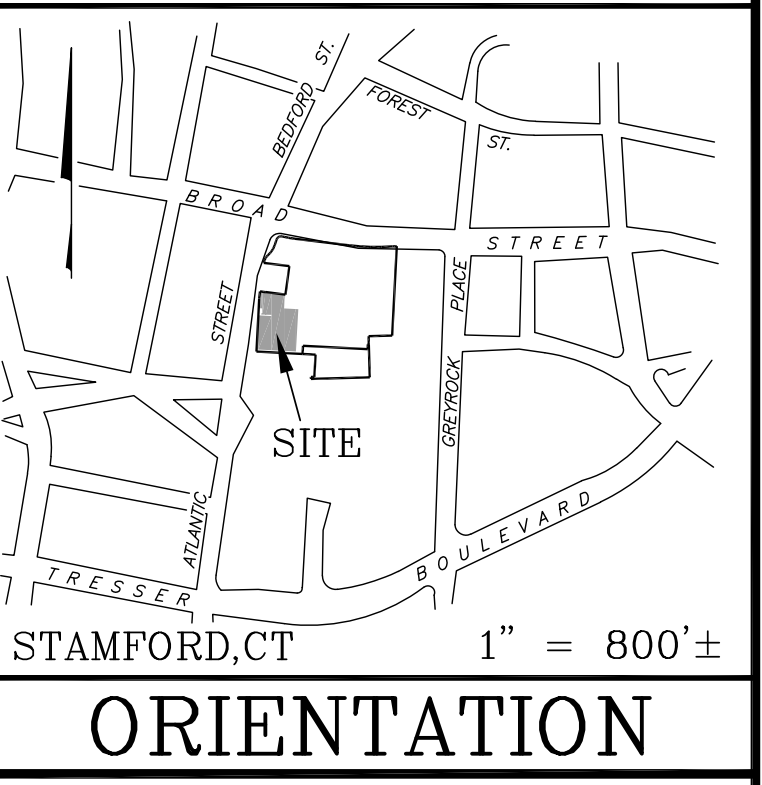


- NOTES: 1. This survey has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies... 2. Total area of surveyed parcels = 274,301 S.F. or 6.2971 Ac. 3. Reference is made to Maps 11001, 11002 and those labeled hereon each of which are filed in the Stamford Land Records.

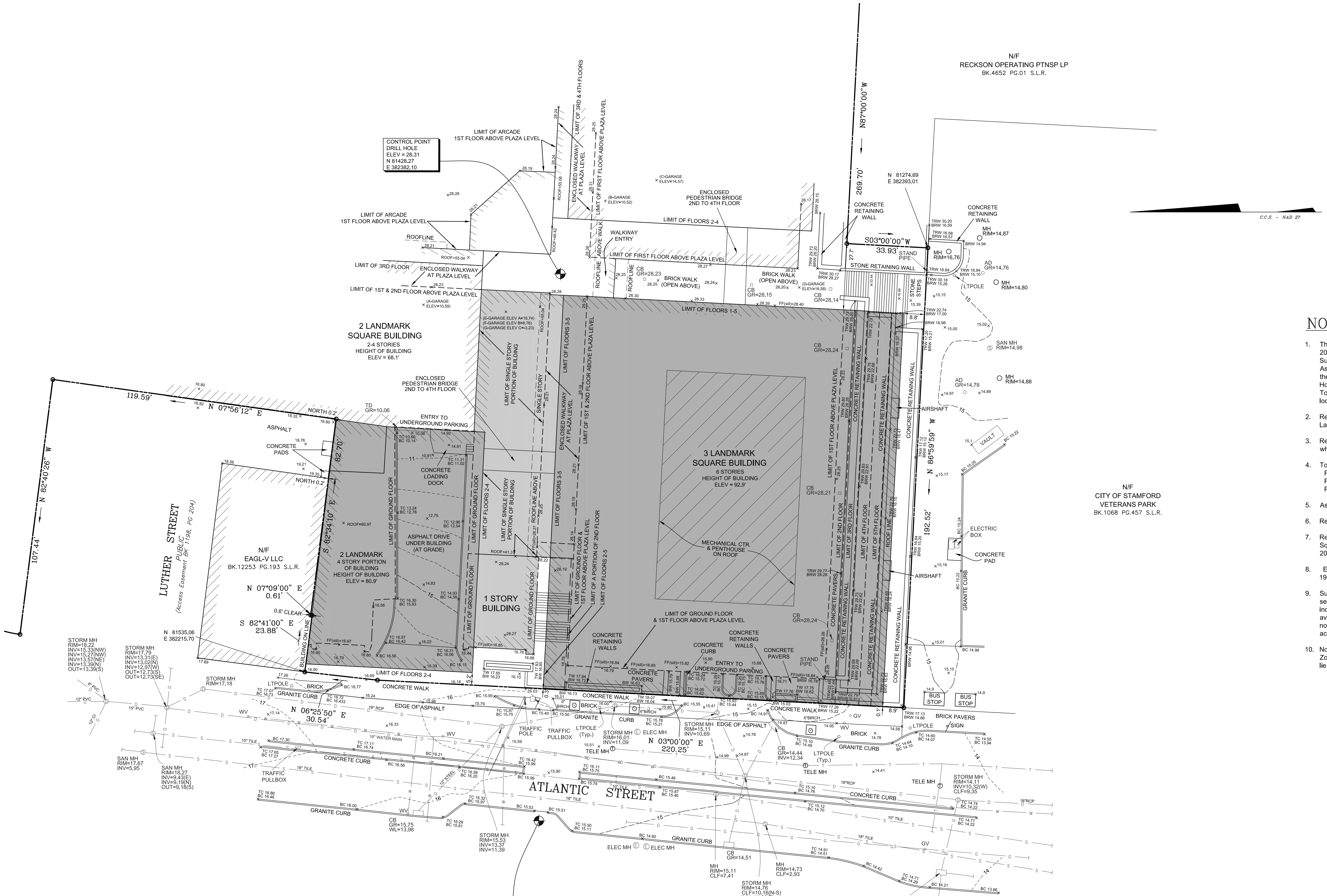
LEGEND & ABBREVIATIONS

Table with 4 columns: Symbol, Description, Symbol, Description. Includes symbols for property lines, buildings, utilities, and bearings.

PROPERTY SURVEY DEPICTING "LANDMARK SQUARE" STAMFORD, CT PREPARED FOR LANDMARK SQUARE 1-6 LLC. Includes title block, scale, date, and Redniss & Mead logo.



ORIENTATION



N/F RECKSON OPERATING PTNSP LP BK.4652 PG.01 S.L.R.

N/F CITY OF STAMFORD VETERANS PARK BK.1068 PG.457 S.L.R.

NOTES:

- This survey has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies and the Standards for Surveys and Maps in the State of Connecticut as adopted by the Connecticut Association of Land Surveyors, Inc. as a Property and Limited Topographic Survey the Boundary Determination Category of which is a Resurvey conforming to Horizontal Accuracy Class A-2 and the locations and elevations of which conform to Topographic Accuracy Class T-2. It is intended to depict property boundaries, locations and elevations of improvements and topographic features.
- Reference is made to the deed of record found in BK. 8864 Pg. 263 of the Stamford Land Records.(S.L.R.)
- Reference is hereby made to Maps 11001, 11002 and those labeled hereon each of which are filed in the S.L.R.
- Total area of surveyed parcels = 274,301 S.F. or 6.2971 Ac.
Parcel I = 227,596± S.F.
Parcel II (Lease Parcel B) = 30,523± S.F.
Parcel III (Air Rights) = 16,182± S.F.
- As there are no zoning setbacks required, none are depicted.
- Reference is made to instruments of records as labeled hereon.
- Reference is made to map titled "ALTA/ACSM Land Title Survey depicting Landmark Square, Stamford, CT, prepared for Landmark Square 1-6 LLC" dated November 1, 2011 prepared by this office.
- Elevations depicted hereon are based on the North American Vertical Datum of 1988 (NAVD-88).
- Surface evidence of underground utilities have been depicted or labeled hereon. All services enter or leave via public ducts or specific easements as referenced or indicated. Subsurface information depicted is a compilation of field measurements, available public utility and municipal records. Underground service connections are not locatable as they are not visible. As such, it cannot be considered complete or accurate as a survey element.
- No portion of the surveyed properties lie in a Special Flood Hazard Zone as depicted on FIRM 0901C0516G, dated July 8, 2013. They lie in Zone X.

LIMITED PROPERTY & TOPOGRAPHIC SURVEY
DEPICTING
LANDMARK SQUARE BUILDING 3
STAMFORD, CT
PREPARED FOR
THE CAPELLI ORGANIZATION

Scale: 1" = 20'

Drawn By: TRM Checked By: Date: 10/26/2022

To my knowledge and belief this map is substantially correct as noted hereon.

Jorge P. Pereira
JORGE P. PEREIRA CT. L.S. #70179
10/26/2022
DATE

This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alterations render any declaration herein null & void.

Sheet No: **LPTS**

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissandmead.com

Comm. No: 1961W-1

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REFER TO PLANS PREPARED BY LESSARD AND ERIC RAINS LANDSCAPE ARCHITECTURE LLC FOR BIKE RACK LOCATIONS

No.	Date	Revision
1	02/08/2023	ZONING BOARD SUBMISSION

SITE DEVELOPMENT PLAN
DEPICTING
3 LANDMARK SQUARE
STAMFORD, CT
PREPARED FOR
LANDMARK SQUARE I-6, LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING
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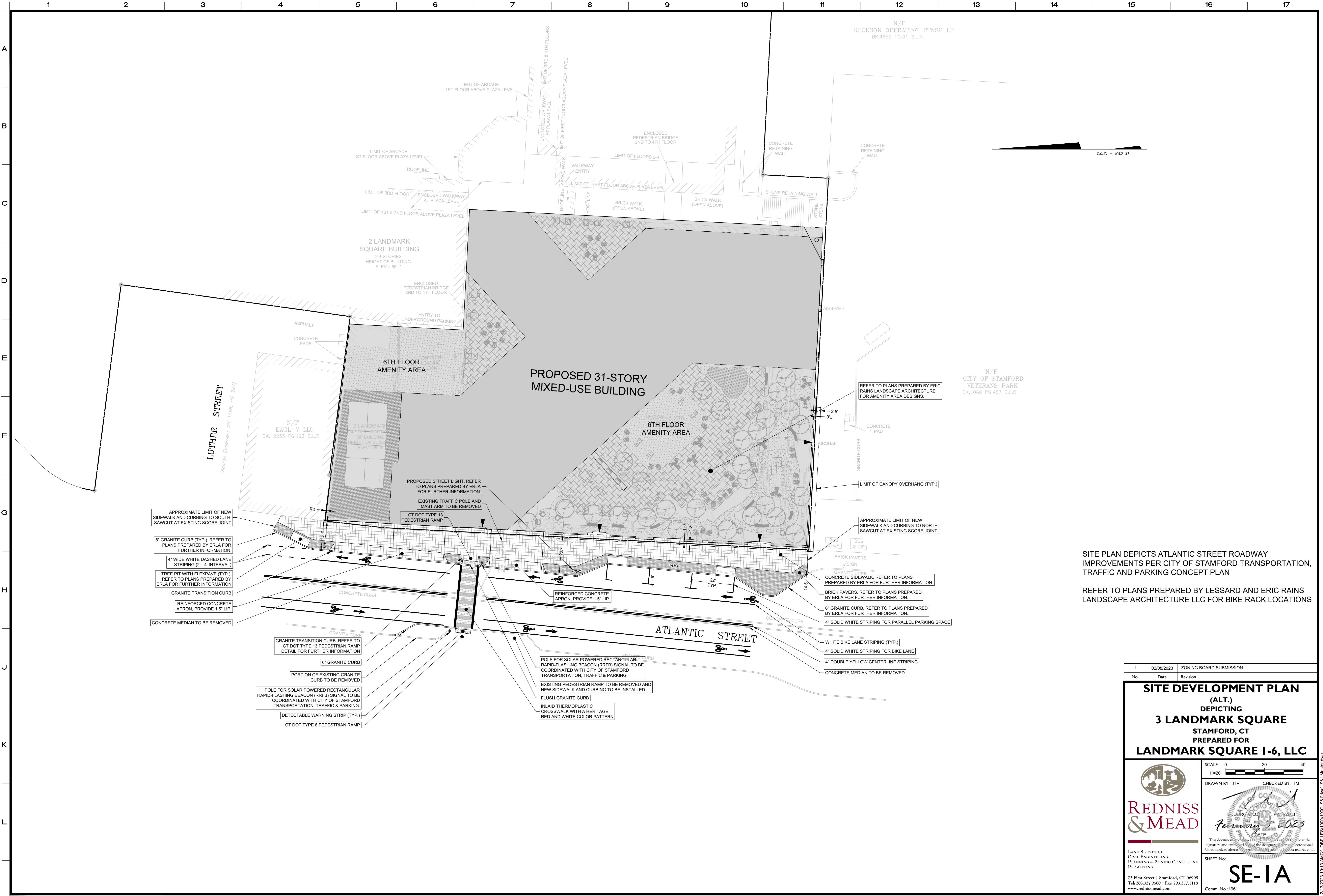
SCALE: 0 20 40
1"=20'

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SHEET No:
SE-1

Comm. No: 1961



SITE PLAN DEPICTS ATLANTIC STREET ROADWAY IMPROVEMENTS PER CITY OF STAMFORD TRANSPORTATION, TRAFFIC AND PARKING CONCEPT PLAN

REFER TO PLANS PREPARED BY LESSARD AND ERIC RAINS LANDSCAPE ARCHITECTURE LLC FOR BIKE RACK LOCATIONS

No.	02/08/2023	ZONING BOARD SUBMISSION
Date		Revision

SITE DEVELOPMENT PLAN (ALT.)
 DEPICTING
3 LANDMARK SQUARE
 STAMFORD, CT
 PREPARED FOR
LANDMARK SQUARE I-6, LLC

SCALE: 0 20 40
 1"=20'

DRAWN BY: JTF CHECKED BY: TM

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SHEET No:
SE-1A

Comm. No: 1961

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N/F
RECKSON OPERATING PTNSP LP
BK-4652 PG-01 S.L.R.

C.C.S. - NAD 27

GRADING PLAN NOTES:

- 1. REFER TO PLANS PREPARED BY PROJECT ARCHITECT AND/OR OTHERS FOR DESIGN AND GRADING INFORMATION RELATING TO THE BUILDING, INTERIOR PARKING GARAGES, AND TERRACES. THIS PLAN DEPICTS GRADING EXTERIOR OF THE BUILDING FOOTPRINT.
- 2. THE CONTRACTOR SHALL FOLLOW DETAILS WITHIN THESE PLANS FOR ALL ASPHALT PAVING REQUIREMENTS. THE CONTRACTOR SHALL PAVE BETWEEN THE CURB AND LIMIT OF PAVEMENT SUCH THAT NO BIRD BATHS ARE CREATED.
- 3. ALL SITE WALKWAYS SHALL NOT EXCEED 5% LONGITUDINAL SLOPE AND 2% CROSS SLOPE UNLESS OTHERWISE NOTED.
- 4. THE CONTRACTOR SHALL FOLLOW THE PROPOSED GRADING PLAN SHOWN ON THIS PLAN. IF CONFLICTS EXIST, THE SITE ENGINEER SHALL REVIEW AND APPROVE ANY DEVIATIONS FROM THIS GRADING PLAN.
- 5. ADJUST EXISTING AND PROPOSED UTILITIES, MANHOLE COVERS, AND GRATES AS REQUIRED TO BE FLUSH WITH FINISHED GRADE.

PROPOSED 31-STORY MIXED-USE BUILDING

LUTHER STREET
(Access Easement, Bk 1198, Pg 204)

N/F
EAGL-V LLC
BK.12253 PG.193 S.L.R.

N/F
CITY OF STAMFORD
VETERANS PARK
BK.1065 PG.457 S.L.R.

BLEND WITH EXISTING GRADES
ALONG PROPOSED BUILDING FACE


APPROXIMATE LIMIT OF NEW
SIDEWALK AND CURBING TO NORTH
SAWCUT AT EXISTING SCORE JOINT.
BLEND WITH EXISTING GRADES.

APPROXIMATE LIMIT OF NEW
SIDEWALK AND CURBING TO SOUTH
SAWCUT AT EXISTING SCORE JOINT.
BLEND WITH EXISTING GRADES.

ATLANTIC STREET

No.	Date	Revision
1	02/08/2023	ZONING BOARD SUBMISSION

SITE GRADING PLAN
DEPICTING
3 LANDMARK SQUARE
STAMFORD, CT
PREPARED FOR
LANDMARK SQUARE I-6, LLC



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February 8, 2023
DATE

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SHEET No: **SE-2**
Comm. No: 1961

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N/F RECKSON OPERATING PTNSP LP
BK-4652 PG-01 S.L.R.



- GRADING PLAN NOTES:**
- REFER TO PLANS PREPARED BY PROJECT ARCHITECT AND/OR OTHERS FOR DESIGN AND GRADING INFORMATION RELATING TO THE BUILDING, INTERIOR PARKING GARAGES, AND TERRACES. THIS PLAN DEPICTS GRADING EXTERIOR OF THE BUILDING FOOTPRINT.
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 - ADJUST EXISTING AND PROPOSED UTILITIES, MANHOLE COVERS, AND GRATES AS REQUIRED TO BE FLUSH WITH FINISHED GRADE.

N/F CITY OF STAMFORD
VETERANS PARK
BK-1065 PG-457 S.L.R.

SITE PLAN DEPICTS ATLANTIC STREET ROADWAY IMPROVEMENTS PER CITY OF STAMFORD TRANSPORTATION, TRAFFIC AND PARKING CONCEPT PLAN

1	02/08/2023	ZONING BOARD SUBMISSION
No.	Date	Revision

**SITE GRADING PLAN
(ALT.)
DEPICTING
3 LANDMARK SQUARE
STAMFORD, CT
PREPARED FOR
LANDMARK SQUARE I-6, LLC**

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SCALE: 0 20 40
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DRAWN BY: JTF CHECKED BY: TM

DATE: *February 8, 2023*

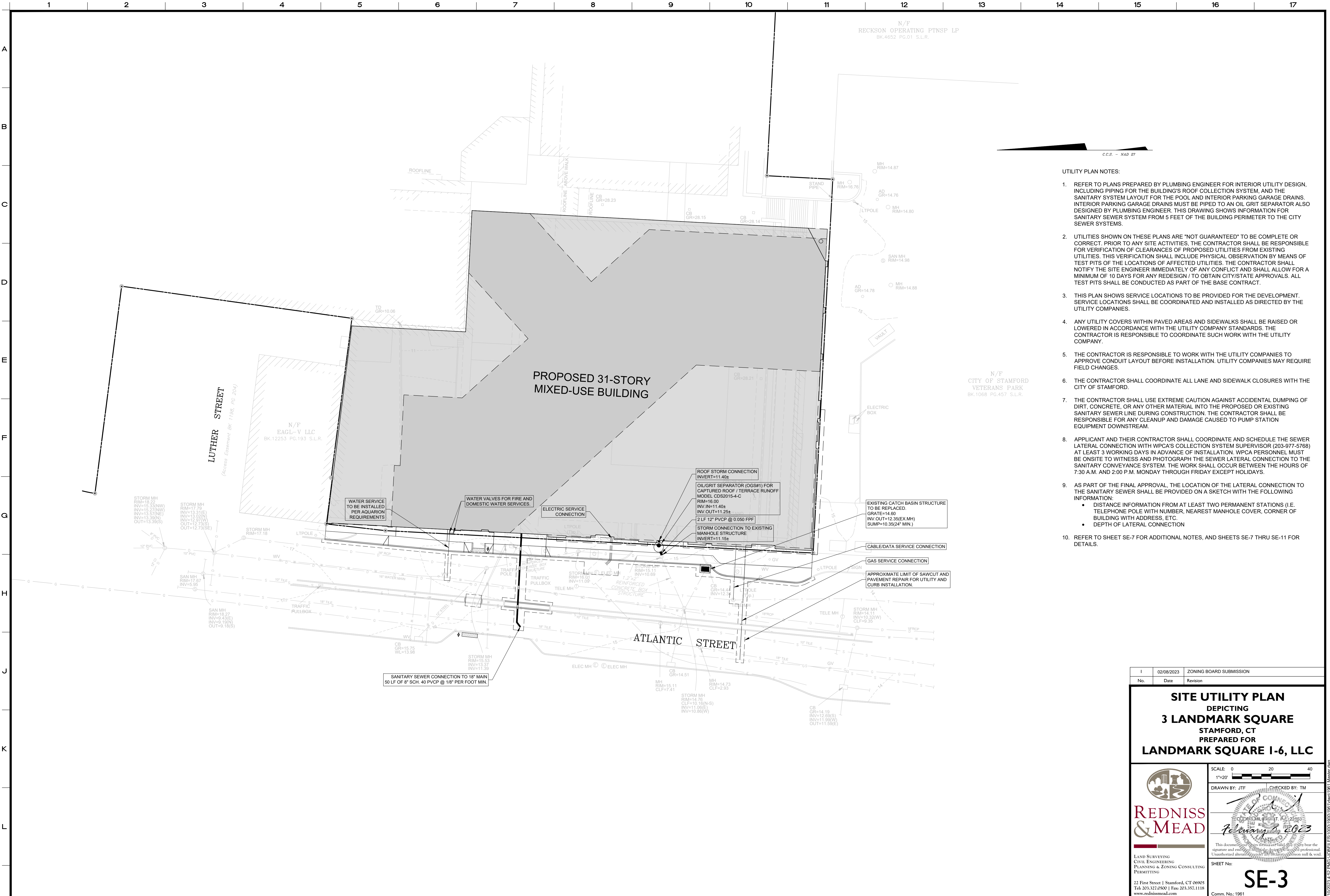
Professional Seal: *John T. Farnsworth, P.E., No. 10001*

DATE: *February 8, 2023*

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SHEET No: **SE-2A**


Comm. No: 1961



- UTILITY PLAN NOTES:**
- REFER TO PLANS PREPARED BY PLUMBING ENGINEER FOR INTERIOR UTILITY DESIGN, INCLUDING PIPING FOR THE BUILDING'S ROOF COLLECTION SYSTEM, AND THE SANITARY SYSTEM LAYOUT FOR THE POOL AND INTERIOR PARKING GARAGE DRAINS. INTERIOR PARKING GARAGE DRAINS MUST BE PIPED TO AN OIL GRIT SEPARATOR ALSO DESIGNED BY PLUMBING ENGINEER. THIS DRAWING SHOWS INFORMATION FOR SANITARY SEWER SYSTEM FROM 5 FEET OF THE BUILDING PERIMETER TO THE CITY SEWER SYSTEMS.
 - UTILITIES SHOWN ON THESE PLANS ARE "NOT GUARANTEED" TO BE COMPLETE OR CORRECT. PRIOR TO ANY SITE ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF CLEARANCES OF PROPOSED UTILITIES FROM EXISTING UTILITIES. THIS VERIFICATION SHALL INCLUDE PHYSICAL OBSERVATION BY MEANS OF TEST PITS OF THE LOCATIONS OF AFFECTED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE SITE ENGINEER IMMEDIATELY OF ANY CONFLICT AND SHALL ALLOW FOR A MINIMUM OF 10 DAYS FOR ANY REDESIGN / TO OBTAIN CITY/STATE APPROVALS. ALL TEST PITS SHALL BE CONDUCTED AS PART OF THE BASE CONTRACT.
 - THIS PLAN SHOWS SERVICE LOCATIONS TO BE PROVIDED FOR THE DEVELOPMENT. SERVICE LOCATIONS SHALL BE COORDINATED AND INSTALLED AS DIRECTED BY THE UTILITY COMPANIES.
 - ANY UTILITY COVERS WITHIN PAVED AREAS AND SIDEWALKS SHALL BE RAISED OR LOWERED IN ACCORDANCE WITH THE UTILITY COMPANY STANDARDS. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE SUCH WORK WITH THE UTILITY COMPANY.
 - THE CONTRACTOR IS RESPONSIBLE TO WORK WITH THE UTILITY COMPANIES TO APPROVE CONDUIT LAYOUT BEFORE INSTALLATION. UTILITY COMPANIES MAY REQUIRE FIELD CHANGES.
 - THE CONTRACTOR SHALL COORDINATE ALL LANE AND SIDEWALK CLOSURES WITH THE CITY OF STAMFORD.
 - THE CONTRACTOR SHALL USE EXTREME CAUTION AGAINST ACCIDENTAL DUMPING OF DIRT, CONCRETE, OR ANY OTHER MATERIAL INTO THE PROPOSED OR EXISTING SANITARY SEWER LINE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CLEANUP AND DAMAGE CAUSED TO PUMP STATION EQUIPMENT DOWNSTREAM.
 - APPLICANT AND THEIR CONTRACTOR SHALL COORDINATE AND SCHEDULE THE SEWER LATERAL CONNECTION WITH WPCA'S COLLECTION SYSTEM SUPERVISOR (203-977-5768) AT LEAST 3 WORKING DAYS IN ADVANCE OF INSTALLATION. WPCA PERSONNEL MUST BE ONSITE TO WITNESS AND PHOTOGRAPH THE SEWER LATERAL CONNECTION TO THE SANITARY CONVEYANCE SYSTEM. THE WORK SHALL OCCUR BETWEEN THE HOURS OF 7:30 A.M. AND 2:00 P.M. MONDAY THROUGH FRIDAY EXCEPT HOLIDAYS.
 - AS PART OF THE FINAL APPROVAL, THE LOCATION OF THE LATERAL CONNECTION TO THE SANITARY SEWER SHALL BE PROVIDED ON A SKETCH WITH THE FOLLOWING INFORMATION:
 - DISTANCE INFORMATION FROM AT LEAST TWO PERMANENT STATIONS (I.E. TELEPHONE POLE WITH NUMBER, NEAREST MANHOLE COVER, CORNER OF BUILDING WITH ADDRESS, ETC.)
 - DEPTH OF LATERAL CONNECTION
 - REFER TO SHEET SE-7 FOR ADDITIONAL NOTES, AND SHEETS SE-7 THRU SE-11 FOR DETAILS.

1	02/08/2023	ZONING BOARD SUBMISSION
No.	Date	Revision

SITE UTILITY PLAN
 DEPICTING
3 LANDMARK SQUARE
 STAMFORD, CT
 PREPARED FOR
LANDMARK SQUARE I-6, LLC

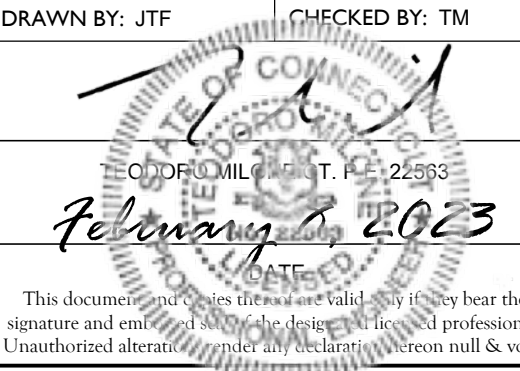


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DRAWN BY: JTF CHECKED BY: TM



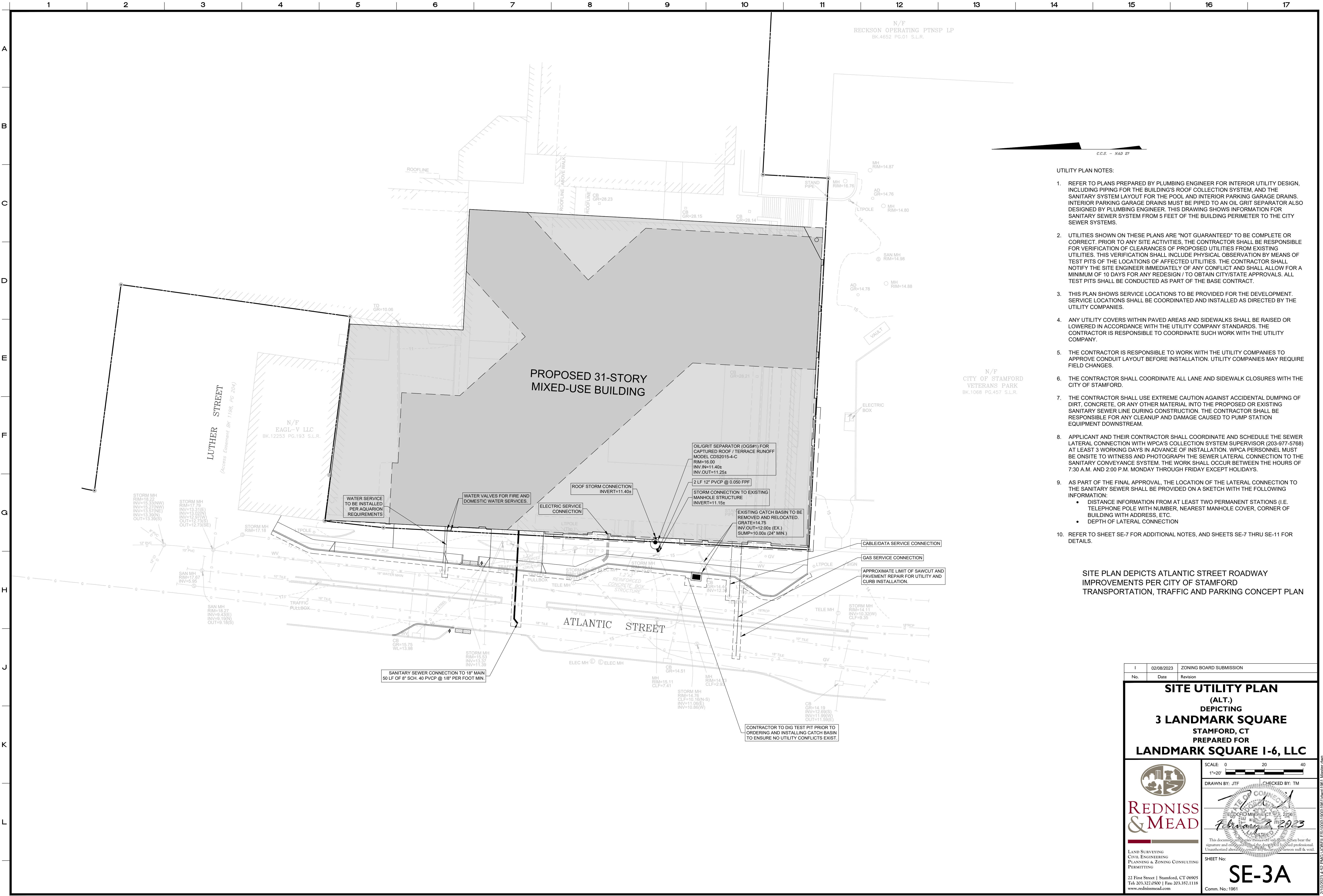
February 8, 2023

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SHEET No: **SE-3**

Comm. No: 1961

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- UTILITY PLAN NOTES:**
- REFER TO PLANS PREPARED BY PLUMBING ENGINEER FOR INTERIOR UTILITY DESIGN, INCLUDING PIPING FOR THE BUILDING'S ROOF COLLECTION SYSTEM, AND THE SANITARY SYSTEM LAYOUT FOR THE POOL AND INTERIOR PARKING GARAGE DRAINS. INTERIOR PARKING GARAGE DRAINS MUST BE PIPED TO AN OIL GRIT SEPARATOR ALSO DESIGNED BY PLUMBING ENGINEER. THIS DRAWING SHOWS INFORMATION FOR SANITARY SEWER SYSTEM FROM 5 FEET OF THE BUILDING PERIMETER TO THE CITY SEWER SYSTEMS.
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 - DEPTH OF LATERAL CONNECTION
 - REFER TO SHEET SE-7 FOR ADDITIONAL NOTES, AND SHEETS SE-7 THRU SE-11 FOR DETAILS.

SITE PLAN DEPICTS ATLANTIC STREET ROADWAY IMPROVEMENTS PER CITY OF STAMFORD TRANSPORTATION, TRAFFIC AND PARKING CONCEPT PLAN

No.	Date	Revision
1	02/08/2023	ZONING BOARD SUBMISSION

**SITE UTILITY PLAN
(ALT.)
DEPICTING
3 LANDMARK SQUARE
STAMFORD, CT
PREPARED FOR
LANDMARK SQUARE I-6, LLC**

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SCALE: 0 20 40
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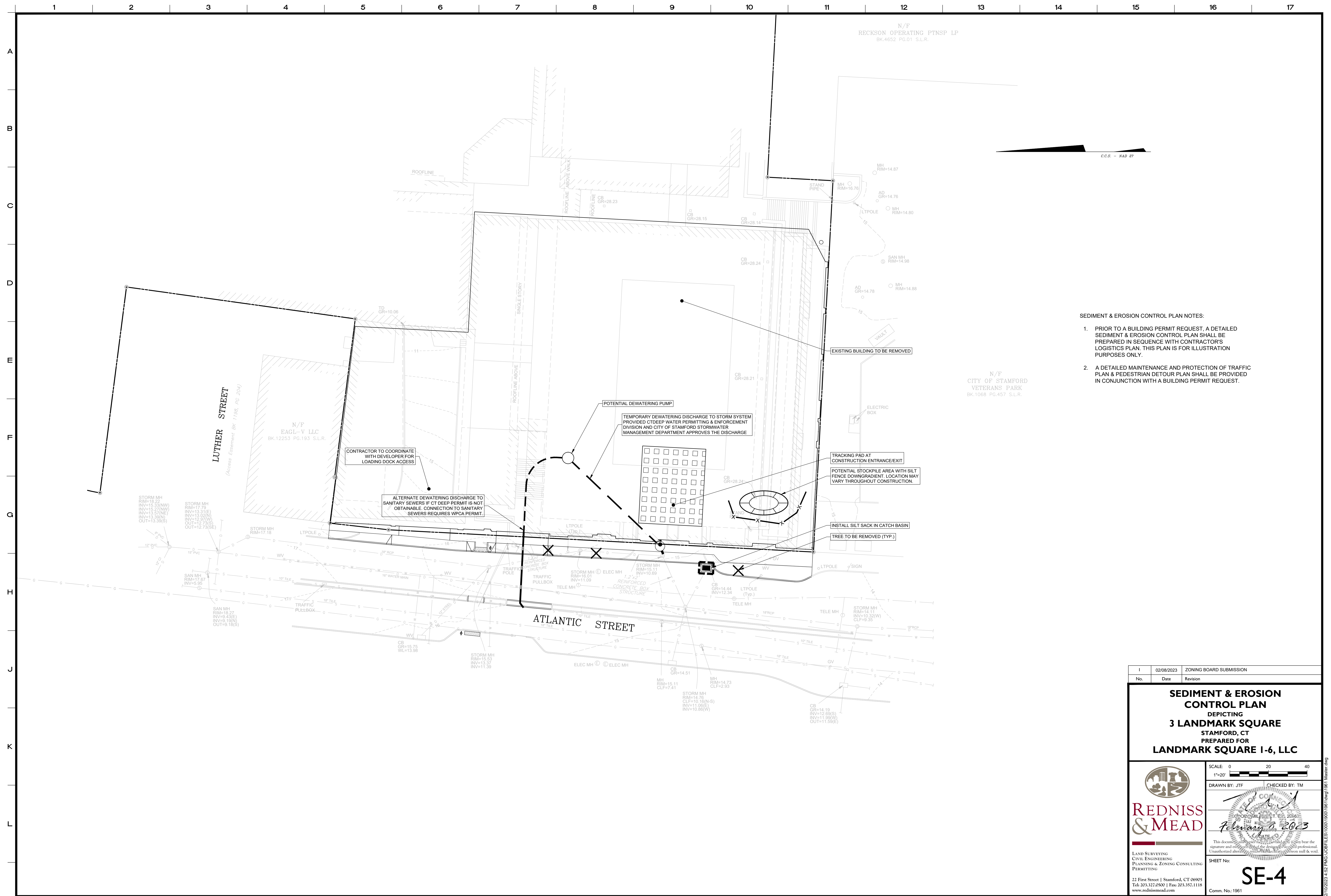
DRAWN BY: JTF CHECKED BY: TM

February 8, 2023

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SHEET No: **SE-3A**

Comm. No: 1961



- SEDIMENT & EROSION CONTROL PLAN NOTES:
1. PRIOR TO A BUILDING PERMIT REQUEST, A DETAILED SEDIMENT & EROSION CONTROL PLAN SHALL BE PREPARED IN SEQUENCE WITH CONTRACTOR'S LOGISTICS PLAN. THIS PLAN IS FOR ILLUSTRATION PURPOSES ONLY.
 2. A DETAILED MAINTENANCE AND PROTECTION OF TRAFFIC PLAN & PEDESTRIAN DETOUR PLAN SHALL BE PROVIDED IN CONJUNCTION WITH A BUILDING PERMIT REQUEST.

No.	Date	Revision
1	02/08/2023	ZONING BOARD SUBMISSION

SEDIMENT & EROSION CONTROL PLAN
 DEPICING
3 LANDMARK SQUARE
 STAMFORD, CT
 PREPARED FOR
LANDMARK SQUARE I-6, LLC

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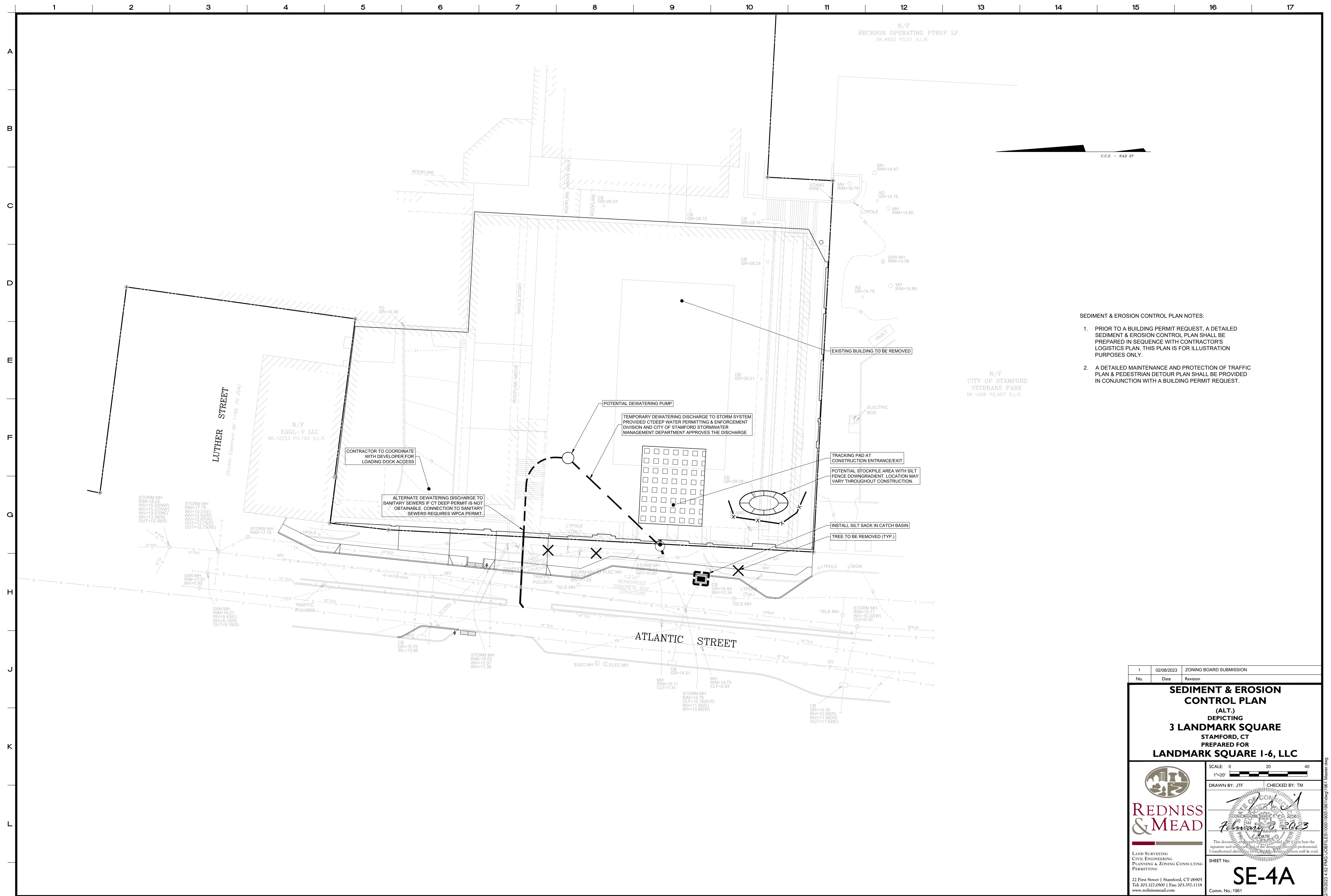
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SHEET No: **SE-4**

Comm. No: 1961

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- SEDIMENT & EROSION CONTROL PLAN NOTES:
1. PRIOR TO A BUILDING PERMIT REQUEST, A DETAILED SEDIMENT & EROSION CONTROL PLAN SHALL BE PREPARED IN SEQUENCE WITH CONTRACTOR'S LOGISTICS PLAN. THIS PLAN IS FOR ILLUSTRATION PURPOSES ONLY.
 2. A DETAILED MAINTENANCE AND PROTECTION OF TRAFFIC PLAN & PEDESTRIAN DETOUR PLAN SHALL BE PROVIDED IN CONJUNCTION WITH A BUILDING PERMIT REQUEST.

No.	Date	Revision
1	02/08/2023	ZONING BOARD SUBMISSION

SEDIMENT & EROSION CONTROL PLAN
(ALT.)
DEPICTING
3 LANDMARK SQUARE
STAMFORD, CT
PREPARED FOR
LANDMARK SQUARE I-6, LLC

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1"=20'

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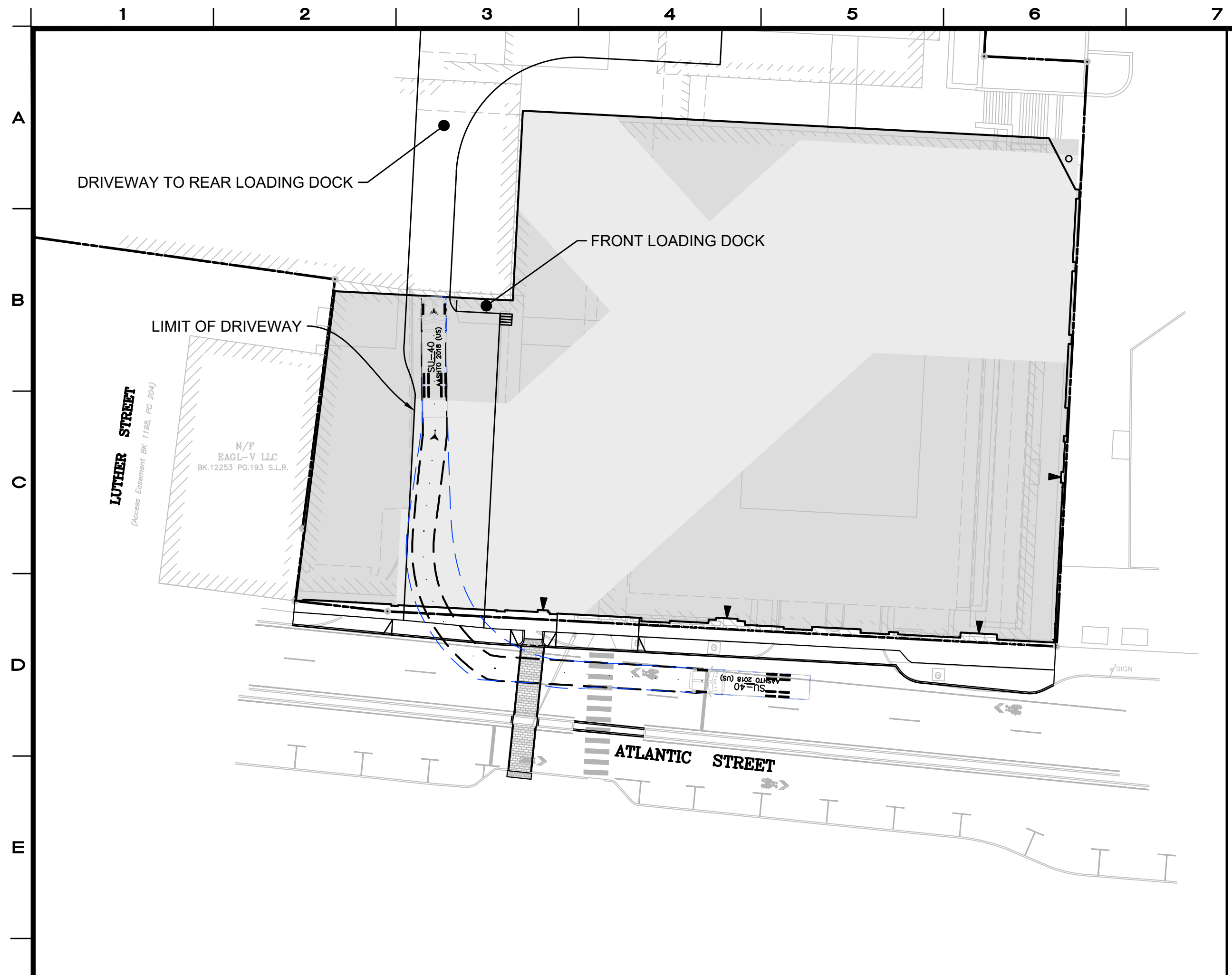
DATE: FEB 08 2023

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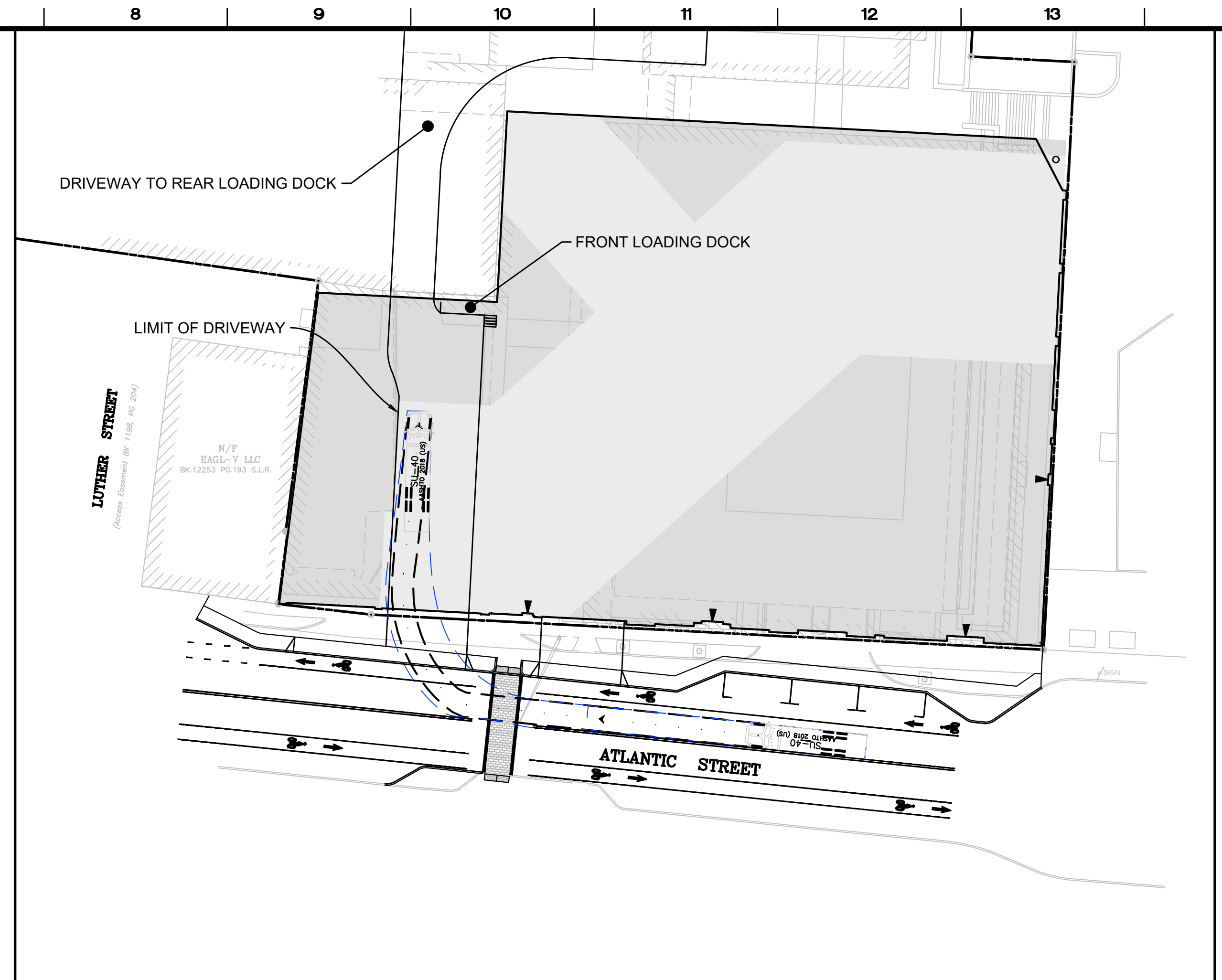
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Comm. No: 1961

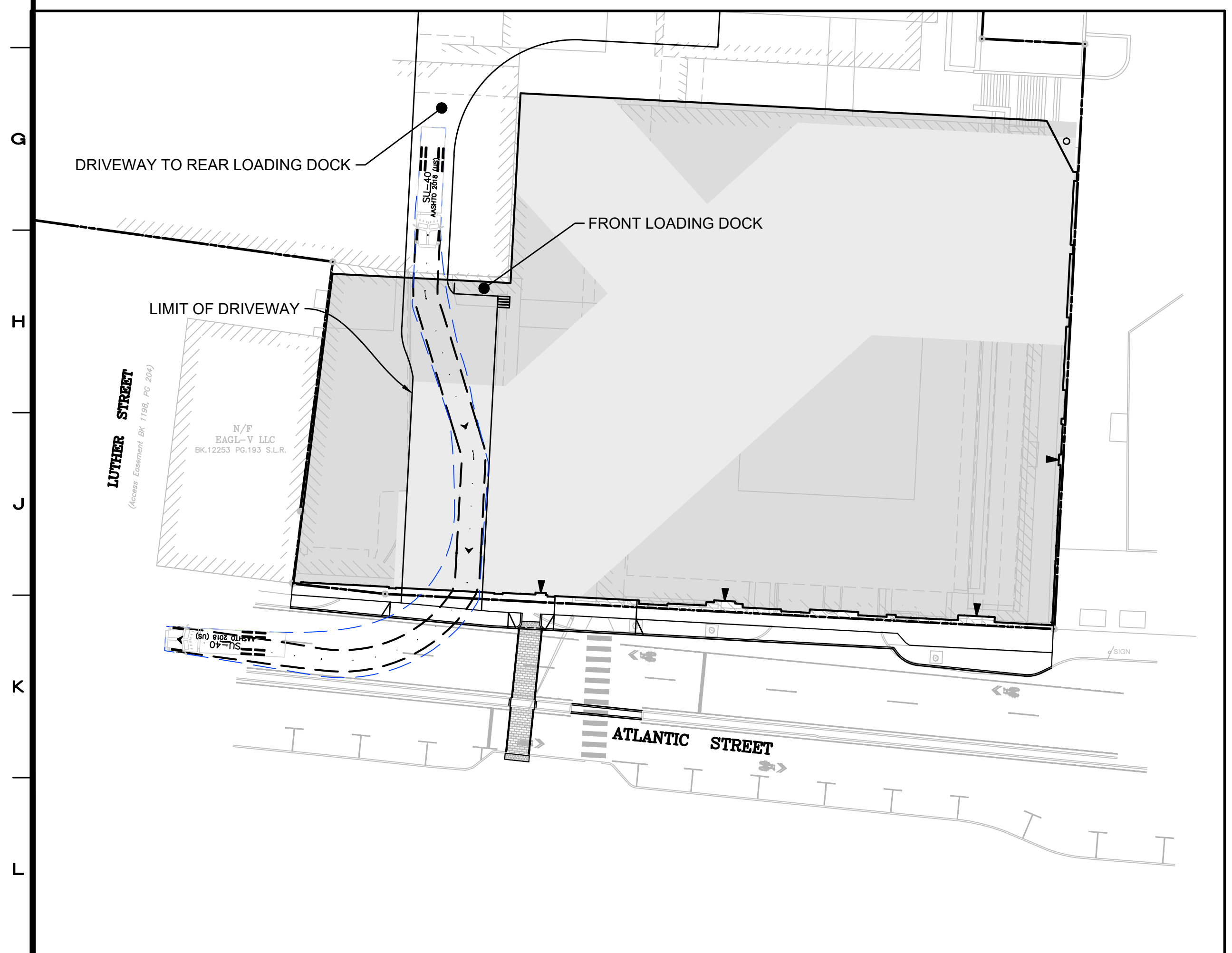
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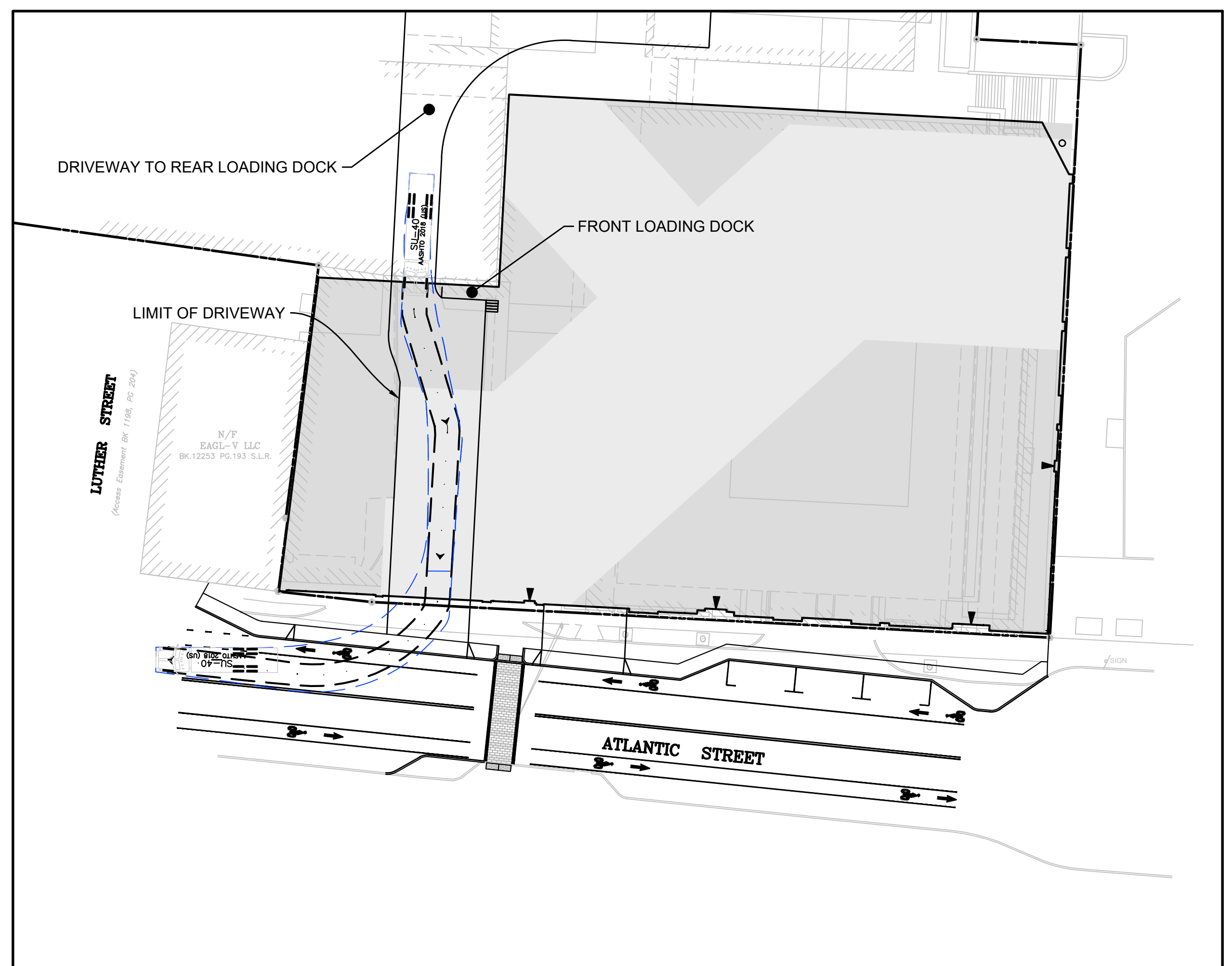
SU-40 TURN MOVEMENT ENTERING DRIVEWAY



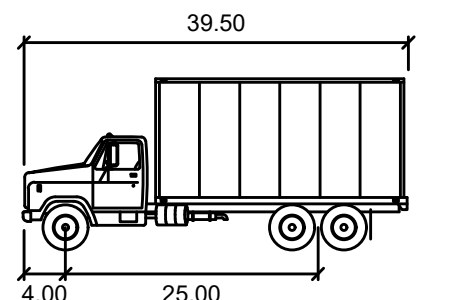
ALT. SU-40 TURN MOVEMENT ENTERING DRIVEWAY



SU-40 TURN MOVEMENT EXITING DRIVEWAY



ALT. SU-40 TURN MOVEMENT EXITING DRIVEWAY



SU-40

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8



No.	Date	Revision
1	02/08/2023	ZONING BOARD SUBMISSION

SU-40 TURNING MOVEMENTS
 DEPICTING
3 LANDMARK SQUARE
 STAMFORD, CT
 PREPARED FOR
LANDMARK SQUARE I-6, LLC



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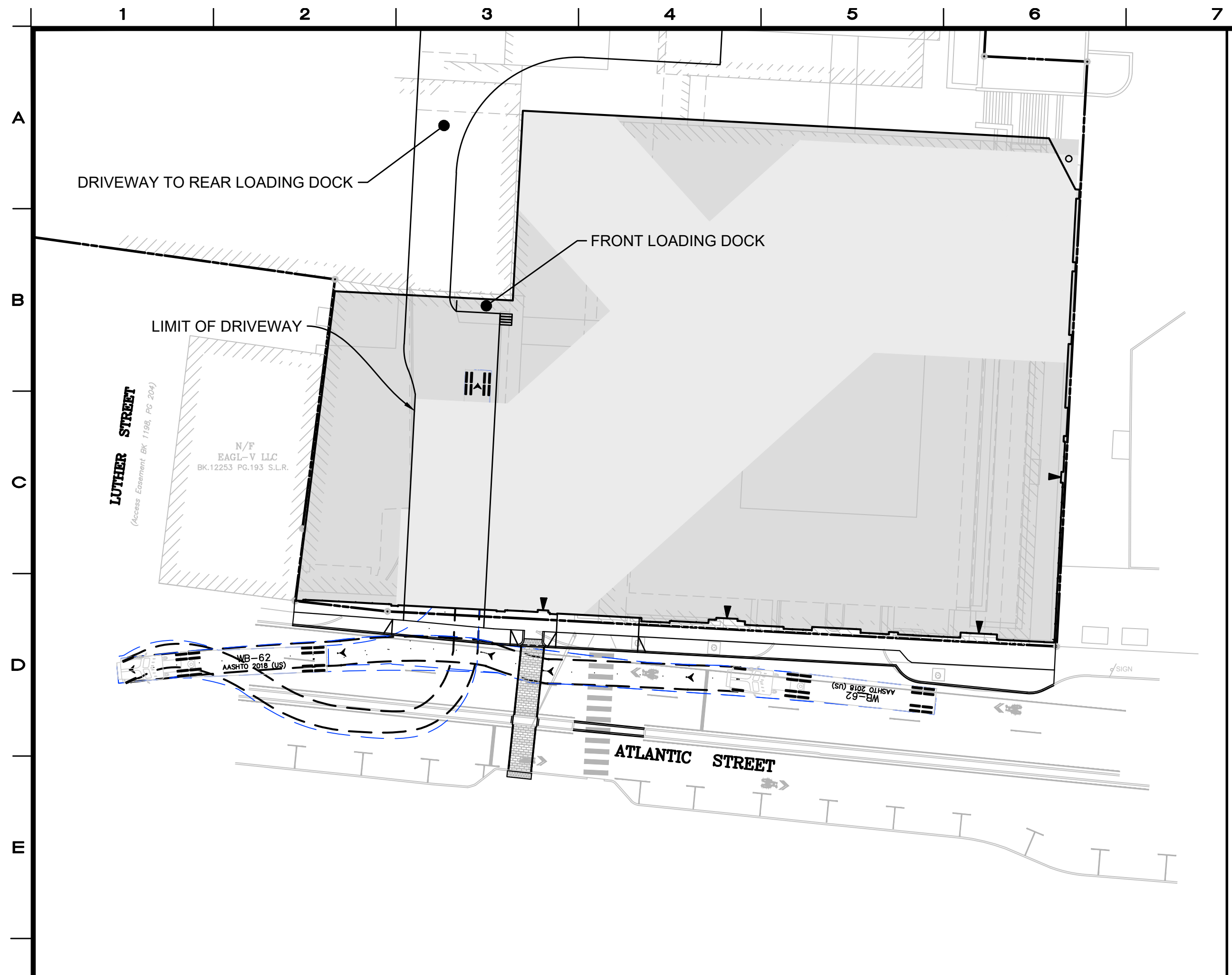
DRAWN BY: JTF CHECKED BY: TM

Professional Engineer Seal for J. T. F. (JTF) No. 22593, State of Connecticut, dated February 8, 2023.

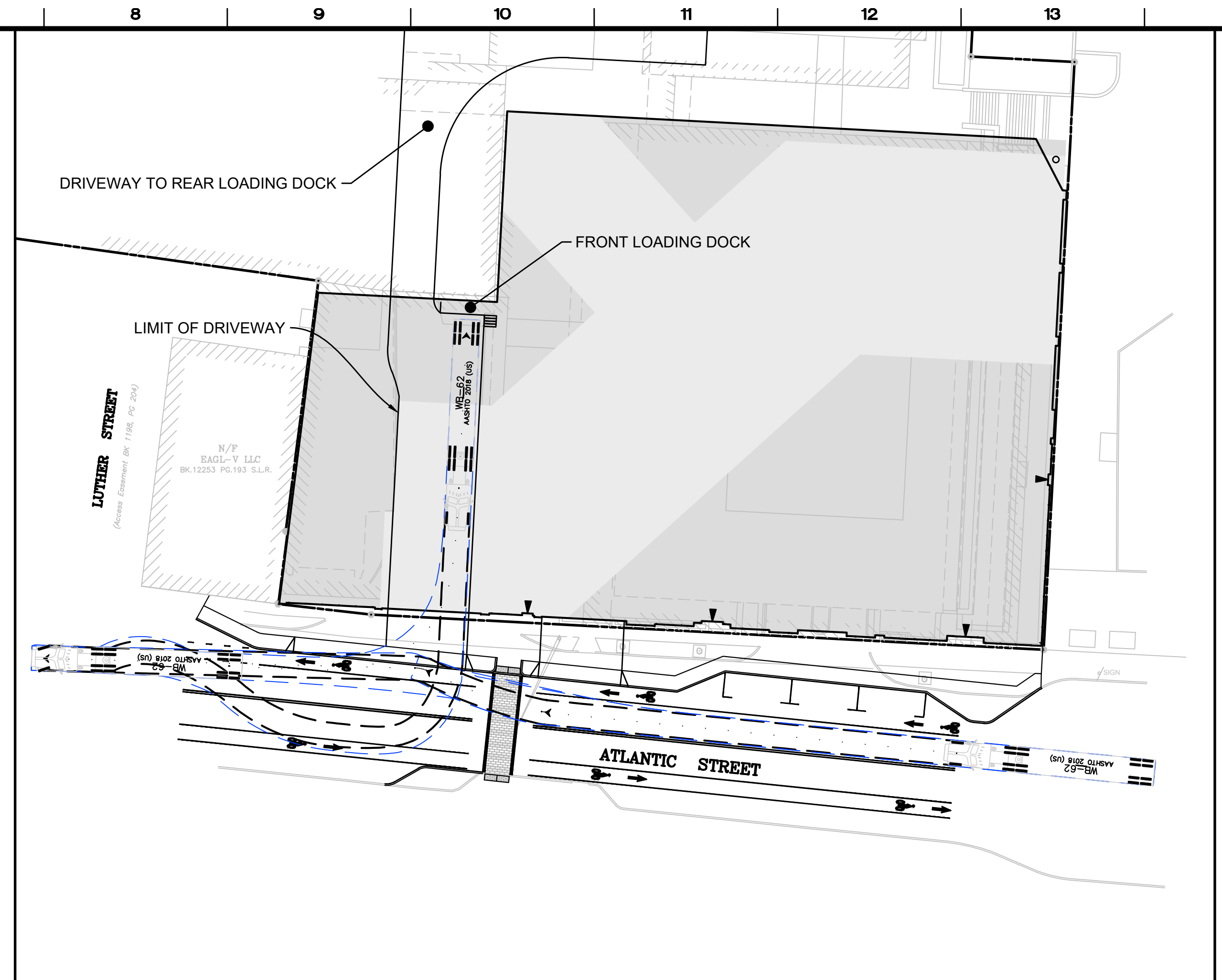
SHEET No: **SE-5**

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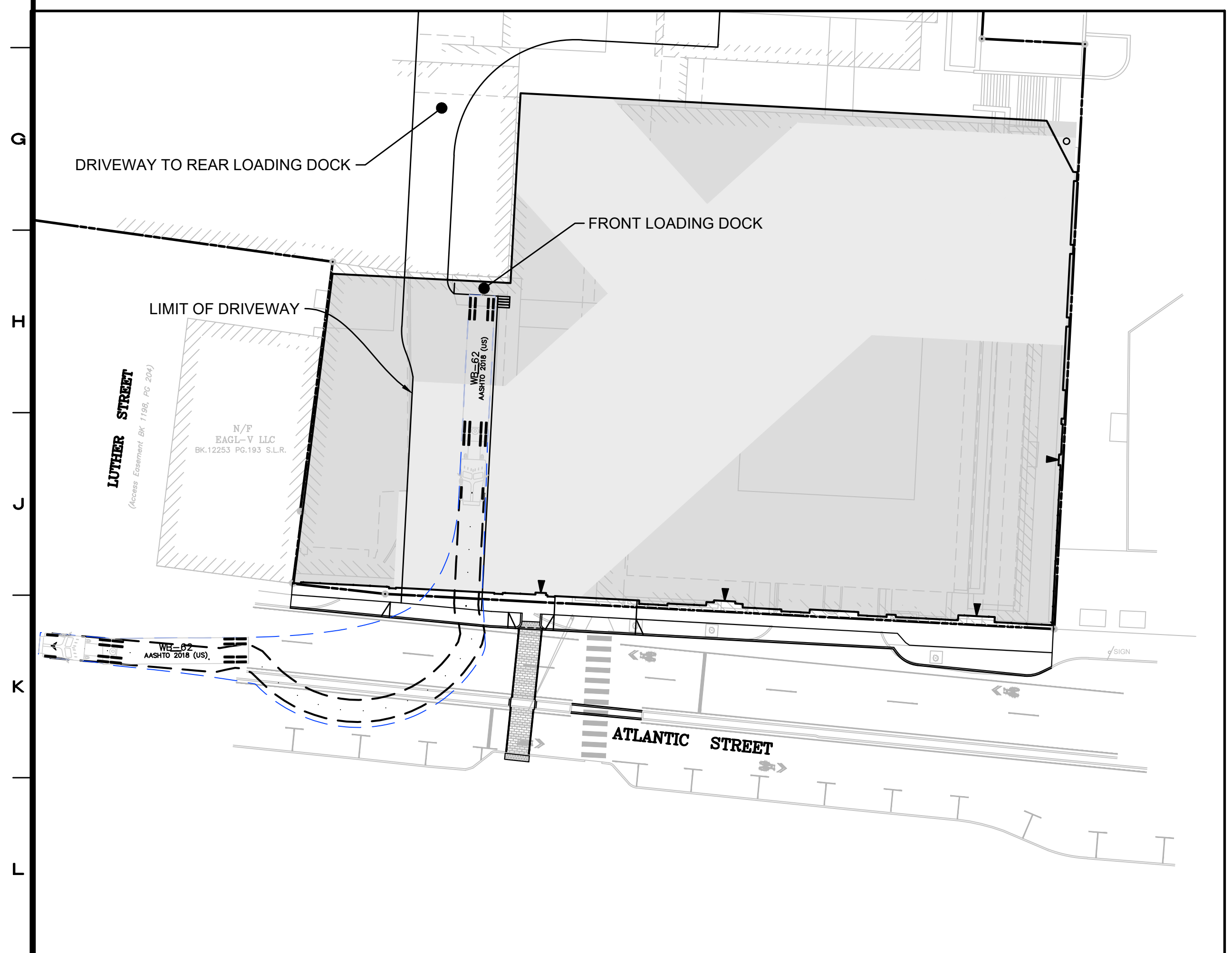
Comm. No.: 1961



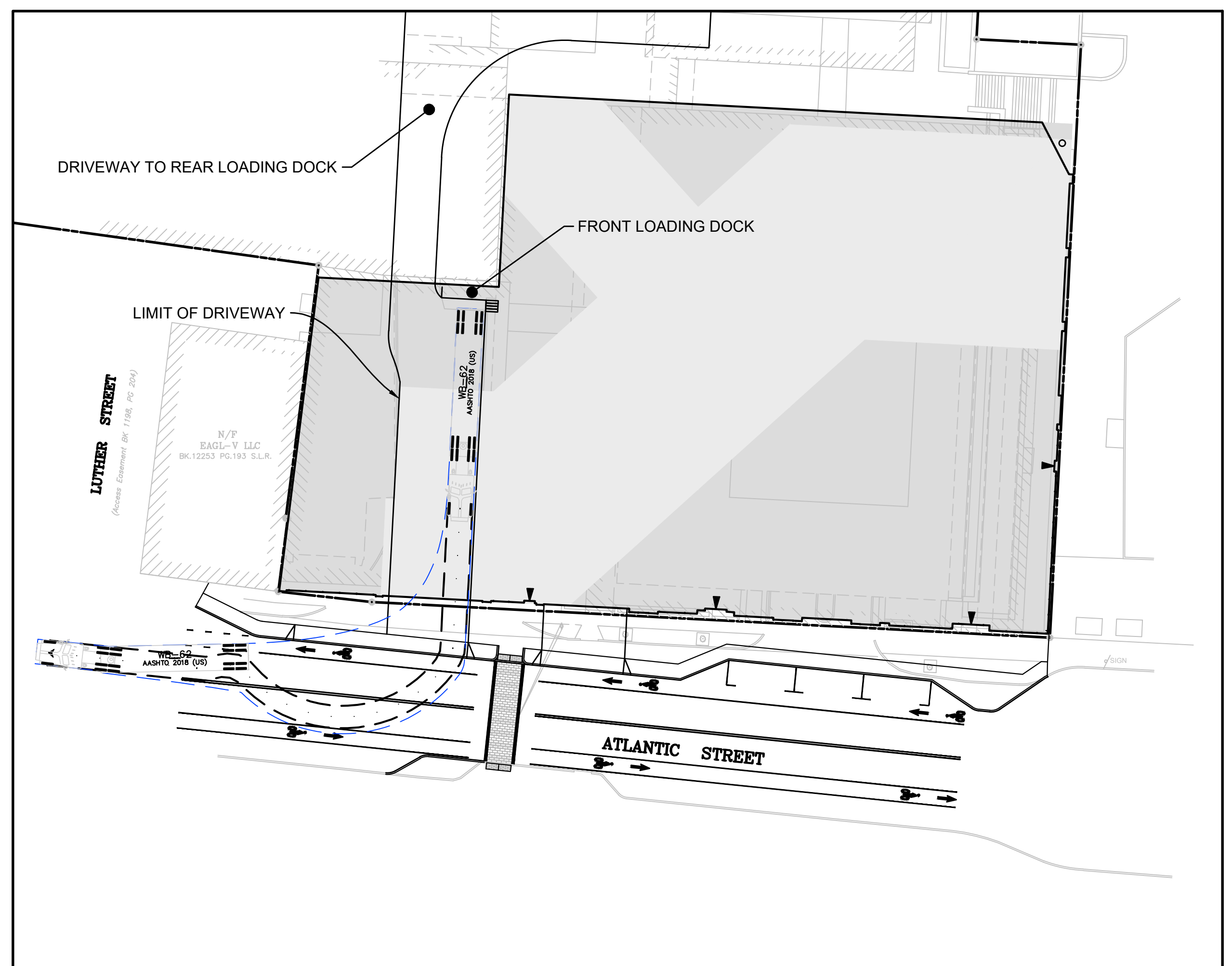
WB-62 REVERSE TURN MOVEMENT ENTERING DRIVEWAY



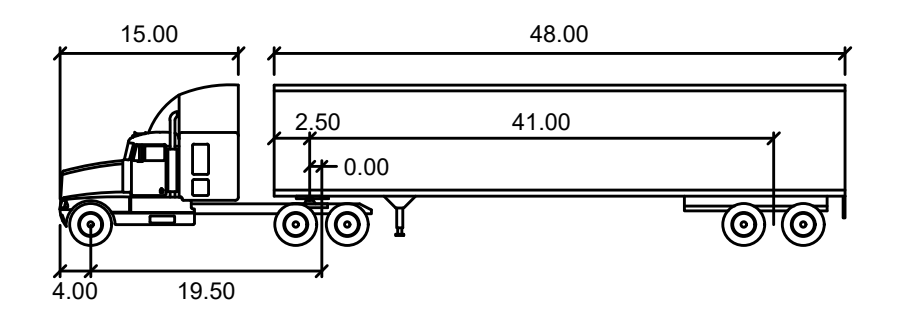
ALT. WB-62 REVERSE TURN MOVEMENT ENTERING DRIVEWAY



WB-62 TURN MOVEMENT EXITING DRIVEWAY



ALT. WB-62 TURN MOVEMENT EXITING DRIVEWAY



WB-62

feet	
Tractor Width	: 4.00
Trailer Width	: 8.00
Tractor Track	: 8.50
Trailer Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 28.4
Articulating Angle	: 70.0



No.	Date	Revision
1	02/08/2023	ZONING BOARD SUBMISSION

WB-62 TURNING MOVEMENTS
 DEPICTING
3 LANDMARK SQUARE
 STAMFORD, CT
 PREPARED FOR
LANDMARK SQUARE I-6, LLC

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SCALE: 0 30 60
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DRAWN BY: JTF CHECKED BY: TM

February 8, 2023

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SHEET No: **SE-6**

Comm. No.: 1961

2/10/2023 4:57 PM G:\JOBFILES\10001900019001901\1961\Map#1.Mxd

- 1. These drawings are intended only to depict the design of site grading, drainage, sanitary, utilities and sediment & erosion controls. These drawings are for approval purposes only. No construction may begin prior to obtaining all necessary permits and approvals.
2. All survey data, boundary lines, topography, building locations and area calculations are from a survey prepared by Redniss & Mead, Inc. entitled Limited Property & Topographic Survey dated October 26, 2022. Elevations depicted or labeled are based on NAVD-88.

- 4. Refer to drawings by Eric Rains Landscape Architecture, LLC for information regarding landscape and streetscape design.
5. Refer to plans prepared by Lessard Design for information and design of the proposed building. These drawings depict site plans corresponding to the latest architectural plans received from Lessard Design received on February 8, 2023.
6. Property lies in a CC-N zone.

- 10. Contractor shall supply complete shop drawings including manufacturer's product data sheets to the Site Engineer, for all construction material used in accordance with these drawings. Contractor shall allow a 3 day review period, prior to fabrication and installation.
11. Information on existing utilities has been compiled from various sources including utility company records, municipal record maps and field survey and is not guaranteed to be correct or complete. The contractor is solely responsible for determining actual locations and elevations of all utilities including underground services.

- 15. When preparing the existing site for the proposed development, all materials removed shall be disposed of in conformance with all governing agencies.
16. Remove stumps and brush from site, or chip and use during landscaping. Do not bury stumps on site. Building elevations are subject to change and shall be finalized prior to building permit.
17. Special attention of the contractor is called to the required type and compaction of pipe bedding and backfill specified on these drawings. These requirements will be strictly enforced.

- 20. A preconstruction meeting shall be held with the Owner, Architect and Engineer to review the scope of construction. The Contractor shall be responsible to coordinate the preconstruction meeting.
21. Gravel away from building walls at 2% minimum (typical).
22. Sidewalks shall be graded with a max 2% cross slope and a max 5% longitudinal slope.

- 25. General fill beyond paved areas shall be free of brush rubbish, stumps and stones larger than 8". Fill shall be placed in compacted layers not to exceed 8" in thickness. The dry density after compaction shall not be less than 95% of the Standard Proctor Test and done in accordance with the requirements of ASTM D698.
26. General fill may be till, loam, sand or gravel mixture classified as SP, SW, SM, GP, GM, ML per the Unified Soil Classification System. It shall have not more than 40% fines passing the #100 sieve, not more than 8% passing the #200 sieve, and no stones larger than 8".

- 28. Disturbed areas shall be topsoiled, seeded with grass and mulched in a manner conforming to the recommendations of the "Guidelines for Soil Erosion and Sediment Control", published by The Connecticut Council on Soil and Water Conservation, May 2002.
29. After the areas to be topsoiled have been brought to grade, the subgrade shall be loosened by scarifying to a depth of at least 2" to ensure bonding of the topsoil and subsoil.

- 32. Topsoil shall be friable and loamy with high organic content. It shall be free of debris, rocks larger than 2" and roots. Topsoil shall have at least 1.5 percent by weight of fine textured stable organic material and no greater than 6 percent. Topsoil shall not have less than 20% fine textured material (passing the No. 200 sieve) and not more than 15% clay. pH range shall be 6.0-7.5 and soluble salts shall not exceed 500ppm.
33. Fill or topsoil shall not be placed nor compacted while in a frozen or muddy condition or while subgrade is frozen.

- 34. Excavation for pipes or concrete pavement repair may require either a braced excavation or open cut designed according to the requirements of OSHA, 29 CFR Part 1926. The lateral support systems and slopes should also be designed such that building footings, slabs on grade, adjacent pavement and existing utilities are protected and supported and not allowed to settle. The contractor shall be responsible for having a Professional Engineer, registered in the State of Connecticut design the excavation support method. The designs shall be submitted to the owner or his geotechnical engineer for review. The contractor shall submit plans showing the type, limits, design and sequence of construction for the lateral support system.

- 35. Retaining walls, if shown, are for schematic purposes only, and shall be designed by the structural engineer. All structural work shall conform to the requirements of the basic building code of the State of Connecticut, latest edition and the City of Stamford requirements.

- 36. All pipe shall be installed straight and at the vertical and horizontal alignment shown. Pipes shall have a uniform slope as specified.
37. Minimum cover on all pipes shall be two feet (2) unless otherwise noted.
38. All storm pipe specified as Poly Vinyl Chloride Pipe (PVC) shall be SDR 35 with rubber gasketed joints and meet the requirements of ASTM D3034 and D3212.

- 39. All sanitary sewer pipe shall be Poly Vinyl Chloride Pipe (PVC) and shall be Schedule 40 with solvent welded joints.
40. Dig test pits at utility and sewer crossings to check actual clearances with these facilities prior to construction. Dig test pits at the connection points to existing sanitary sewer pipes to confirm that the elevation of the proposed gravity sewer is appropriate. If conflicts are found the contractor shall notify the engineer at which time the sewer in question shall be redesigned. If such redesign is not possible, the existing pipes or utilities shall be relocated to avoid conflict.

- 41. All catch basins shall have a two foot (2) sump with bell traps or 90° PVC elbows.
42. Manhole diameters listed are minimum sizes and are assumed to be 4" inside diameter. If precast manholes are used, larger manholes must be used if recommended by the manufacturer.
43. All existing and proposed catch basins, manhole rims and utility facilities shall be raised or lowered to be flush with finished grade.
44. When connecting new pipes to existing structures such as manholes and catch basins, the structure shall be completely cleaned out. The hole made in the structure shall be made as small as possible. The structure shall be repaired to match its original type of construction. The joint between the structure and the pipe shall be made watertight by filling the joint with mortar.

- 45. Flow in existing sewer system must not be interrupted. Any temporary routing of this sewer flow must be done in conformance with all applicable rules and regulations.
46. Under no circumstances shall trench water be allowed to drain off through sanitary sewer lines.

PAVEMENT AND PAVEMENT MARKINGS:

- 88. Areas of new asphalt shall follow the details on Sheet SE-9.
89. Areas of asphalt pavement that are disturbed by the construction of this project shall be replaced in accordance with the asphalt pavement repair detail. The finished grade of asphalt paving shall blend to existing grade and the edge of the concrete pavement smoothly with no slopes exceeding 4%.
90. Existing features such as but not limited to walks, curbs, and pavement damaged by construction activities shall be repaired at an additional cost to the owner.
91. Saw cut perimeter of area to be excavated. Saw cut shall be straight and vertical.

UTILITIES:

- 51. Utilities shown on these plans are "not guaranteed" to be complete or correct. Prior to any site activities, the contractor shall be responsible for verification of clearances of proposed utilities from existing utilities. This verification shall include physical observation by means of test pits at the locations of affected utilities. The contractor shall notify the site engineer immediately of any conflict.
52. Easements may be required in favor of the various utility companies.
53. Electric, telephone, cable, gas, and water services shall be installed in conformance to the requirements of the governing utility companies.
54. It is the contractor's responsibility to install utilities as shown on this sheet. The contractor shall work with the utility companies and site engineer to insure the installation is in conformance to the requirements of the governing utility company. All conduits shall be concrete encased as may be required by the governing utility company. Proposed electric, telephone, cable, gas and water services are shown for schematic purposes only and are subject to change pending utility company review. These utilities shall be designed by others and installed in conformance to the requirements of the governing utility companies.

- 55. All proposed utility facilities shall be raised or lowered to be flush with finished grade.
56. Where necessary, existing utilities shall be reinstalled to meet all minimum coverage requirements.
57. Utility connections at building face shall be coordinated with the building contractors.
58. The contractor must supply and install drag lines with all conduits.
59. Assume one 2" PVC conduit for all site lighting. Service location to be determined.
60. In general, each utility shall have a minimum clearance of three feet to any other underground utility.

SEDIMENT AND EROSION CONTROL NARRATIVE:

- 1. The purpose of the Sediment and Erosion Control Plan, details, and notes is to outline a program that minimizes soil erosion during construction. The primary policies of this program are:
a) Trapping particles at source by promptly stabilizing disturbed areas;
b) Avoid concentration of water;
c) Avoid contamination of existing storm drains;
d) Maintenance (weekly maintenance and after storm events) of controls to ensure they are functioning properly.
2. All sediment and erosion controls shall be done in conformance with the "Connecticut Guidelines for Soil Erosion and Sediment Control" dated May 2002 prepared by The Connecticut Council on Soil and Water Conservation.

SEDIMENT AND EROSION CONTROL NOTES:

- 1. Sheet SE-4 & SE-4A are intended to describe the soil sediment and erosion control treatment of this site only. For other details with respect to construction, see appropriate drawings.
2. All sediment and erosion controls shall be done in conformance with the "Connecticut Guidelines for Soil Erosion and Sediment Control" dated May 2002 prepared by The Connecticut Council on Soil and Water Conservation.
3. The contractor is assigned the responsibility for implementing this sediment and erosion control plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan notifying the Zoning Department of any transfer of this responsibility, and EPB that construction is to begin three (3) days prior to commencing work.
4. Temporary sediment control measures and tree protection must be installed in accordance with drawings and manufacturer recommendations prior to work in any upland areas.

PERENNIAL SEED MIX:

Table with 2 columns: Seed Type, Rate. Rows include Kentucky Bluegrass (20 lbs/ac), Creeping Red Fescue (20 lbs/ac), and Perennial Ryegrass (5 lbs/ac).

- 9. Any disturbed area shall be restored to the preconstruction condition. Existing shrubs shall be carefully dug up, stored in a temporary nursery during the project and replanted as directed by the Owner. The time during which these bushes are out of the ground must be minimized. The contractor shall keep the shrubs watered and out of the direct sun during this time.
10. If disturbed areas can not be seeded immediately due to the time of year, much area until seeding can occur; remove mulch and seed and re-mulch when season permits.

- 11. Mulch shall be replaced with erosion control blankets where specified on the plan. Blankets shall be jute netting installed as per the details. Additional areas may have to be covered with blankets as directed by the Site Engineer. Other blankets and methods may be used if approved by the site engineer.
12. If dewatering is required, all dewatering pumping must have sediment and erosion control provisions to maintain clear water discharge (not muddy). Such provisions shall be approved by governing agencies. All pump discharge from dewatering shall be clear at the point where it flows off the property. Each dewatering pump intake shall be placed in a clean, perforated 55 gallon drum, surrounded by at least 18 inches of 24" crushed stone. The entire surface of the drum (sides, top and bottom) shall be protected from silt water entering the drum. If trench dewatering is required during construction, pump discharge shall pass through a sediment filter. If muddy and/or silty discharge is observed, the site engineer may require a silt sack to be installed at the end of the pump discharge line. The Project Licensed Environmental Professional or contractor shall be responsible for obtaining any permits related to dewatering services.

- 13. If excessive groundwater is encountered during construction, the site and/or Geotechnical Engineer may require that the pump discharge shall pass through a settlement basin of adequate size to further clarify the discharge prior to entering the storm drainage system. Such basin could be made from an excavated pit or by using a sealed trash dumpster. The basin would have a piped overflow leading into the storm drainage system. Alternative methods may be used, such as well points, other types of pump intake filters and settlement basins, if approved by the inspecting engineer and governing agencies. All pump discharge from dewatering shall be clear at the point where it flows off the property.

Table with 3 columns: Best Management Practices, Action/Activity, Frequency. Rows include Oil / Grit Separator, Outdoor Litter and Waste Management, Sweeping Impervious Areas, Roof Run-off Management, Winter Sanding/De-icing Agents, Snow Removal, and Maintaining Street Trees and Plantings.

STORM SYSTEM MAINTENANCE N.T.S.

Standard City of Stamford Notes:
1. A Street Opening Permit is required for all work within the City of Stamford Right-of-Way.
2. All work within the City of Stamford Right-of-Way shall be constructed to City of Stamford requirements, the State of Connecticut Basic Building Code and the Connecticut Guidelines for Soil Erosion and Sedimentation Control.

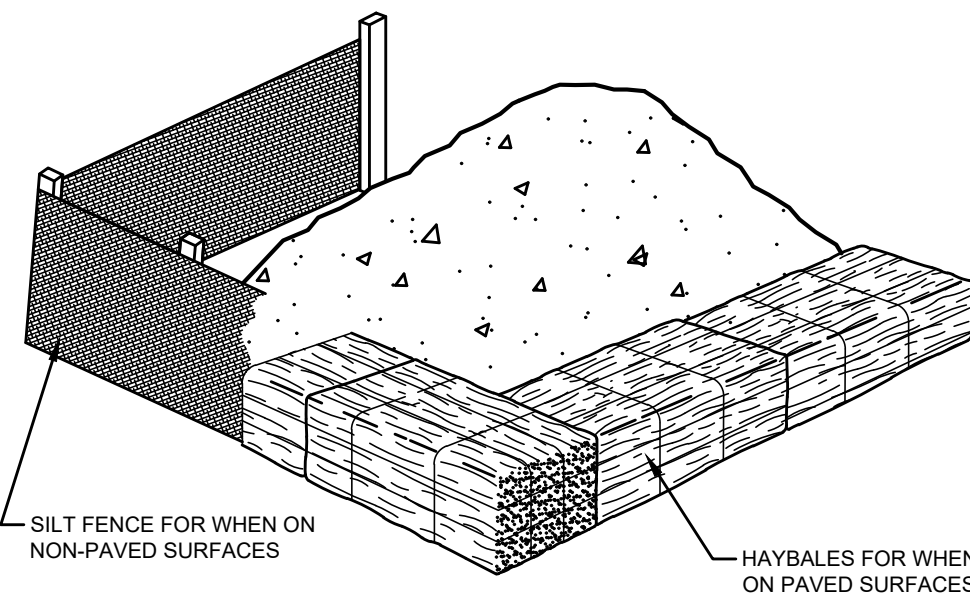
Table with 3 columns: I, 02/08/2023, ZONING BOARD SUBMISSION

Table with 3 columns: No., Date, Revision

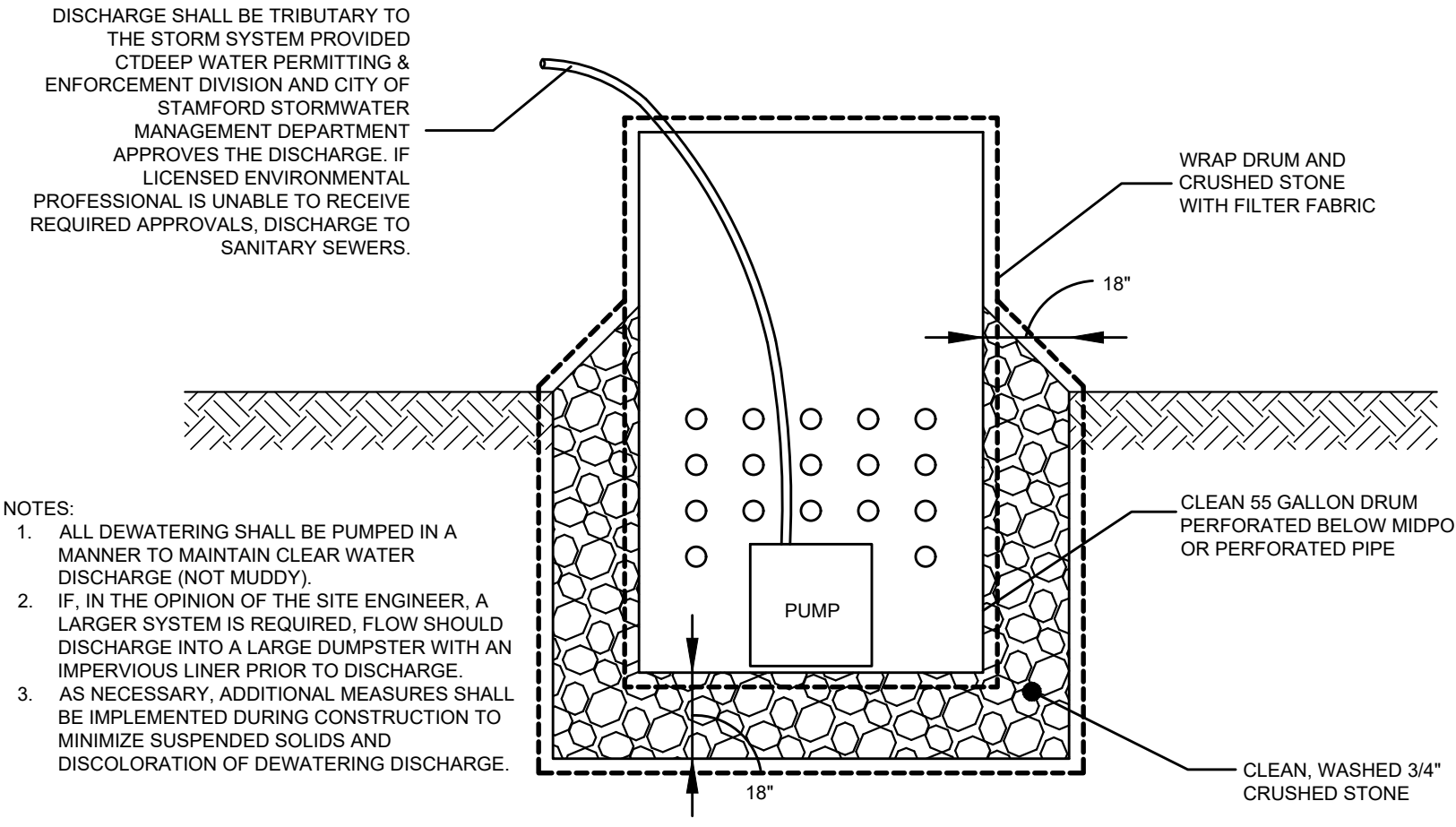
NOTES DEPICTING 3 LANDMARK SQUARE STAMFORD, CT PREPARED FOR LANDMARK SQUARE I-6, LLC

Redniss & Mead logo and seal of the State of Connecticut. Includes text: LAND SURVEYING CIVIL ENGINEERING PLANNING & ZONING CONSULTING PERMITTING. SHEET No: SE-7.

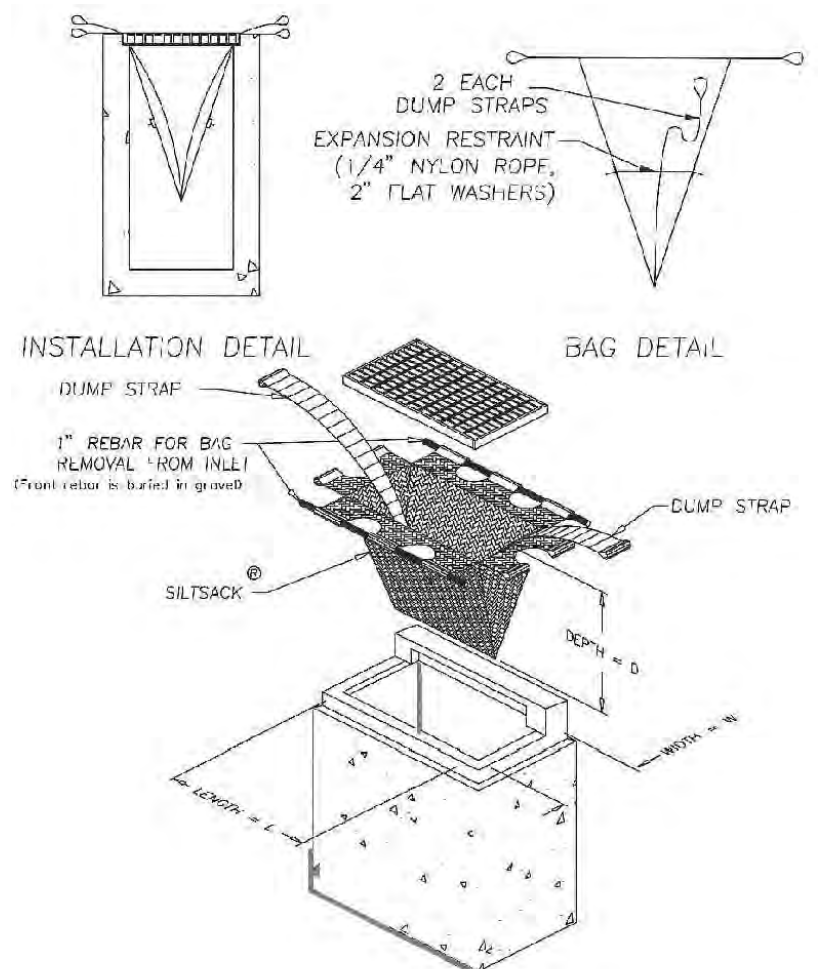
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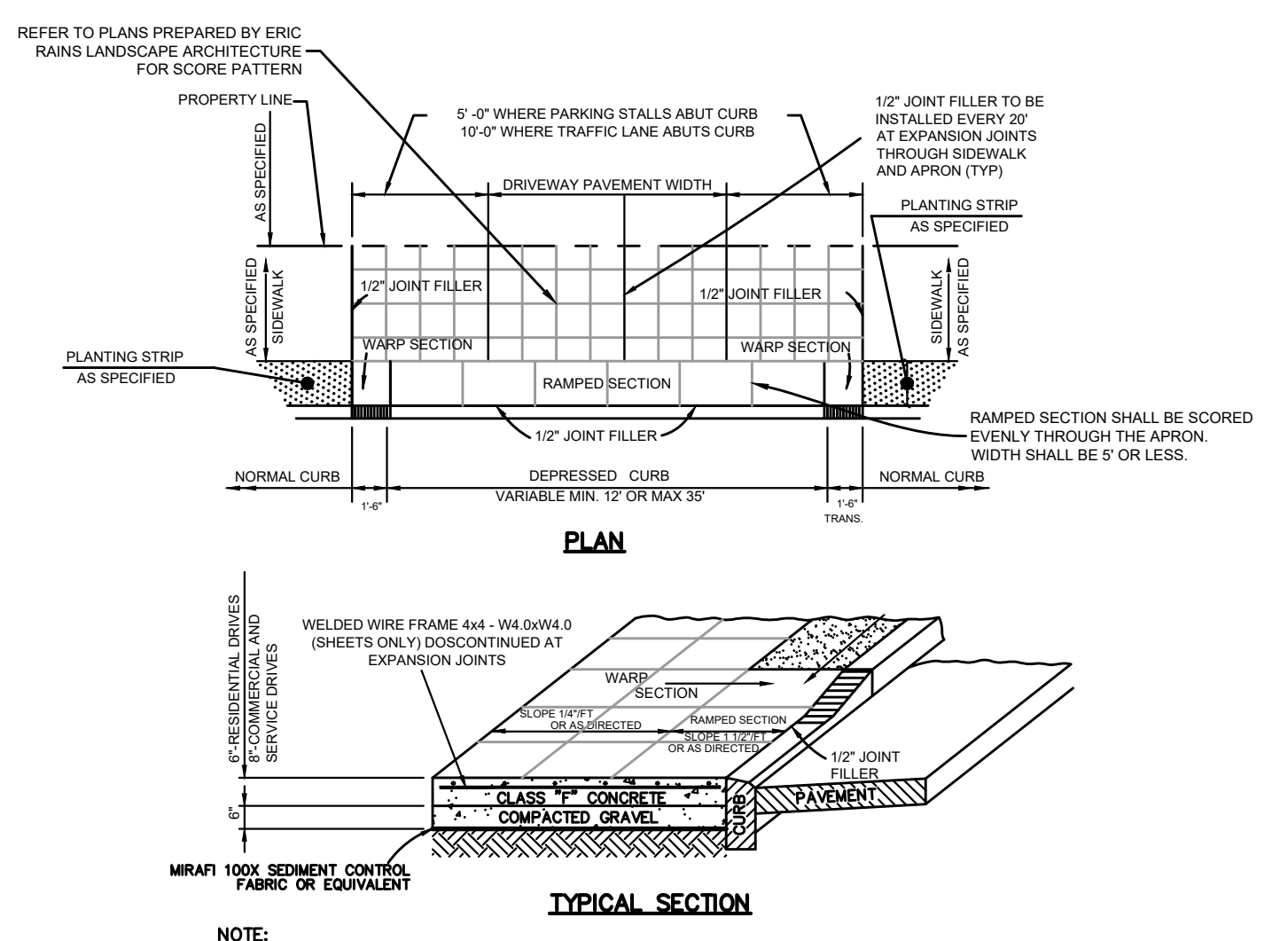
SEDIMENT FILTER FOR STOCK PILE
N.T.S.



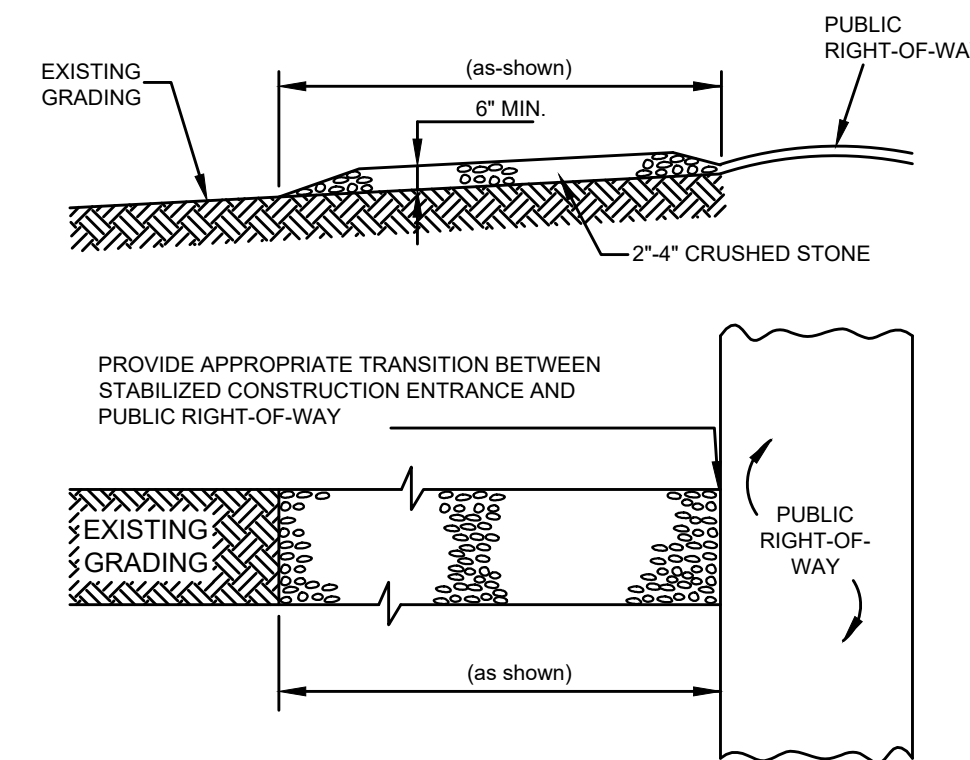
DEWATERING PUMP INTAKE DETAIL
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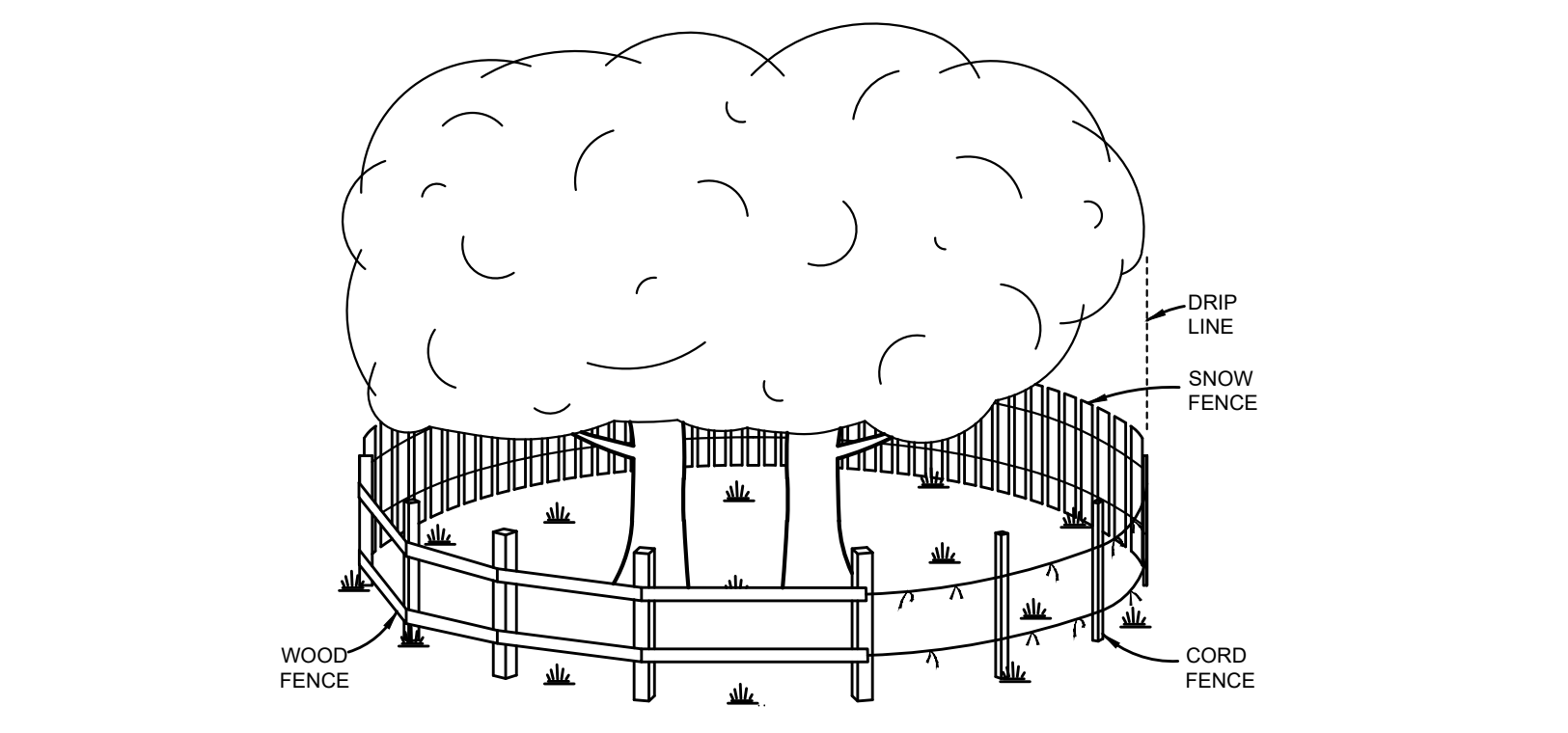
INLET SEDIMENT CONTROL DEVICE (SILT SACK)
N.T.S.



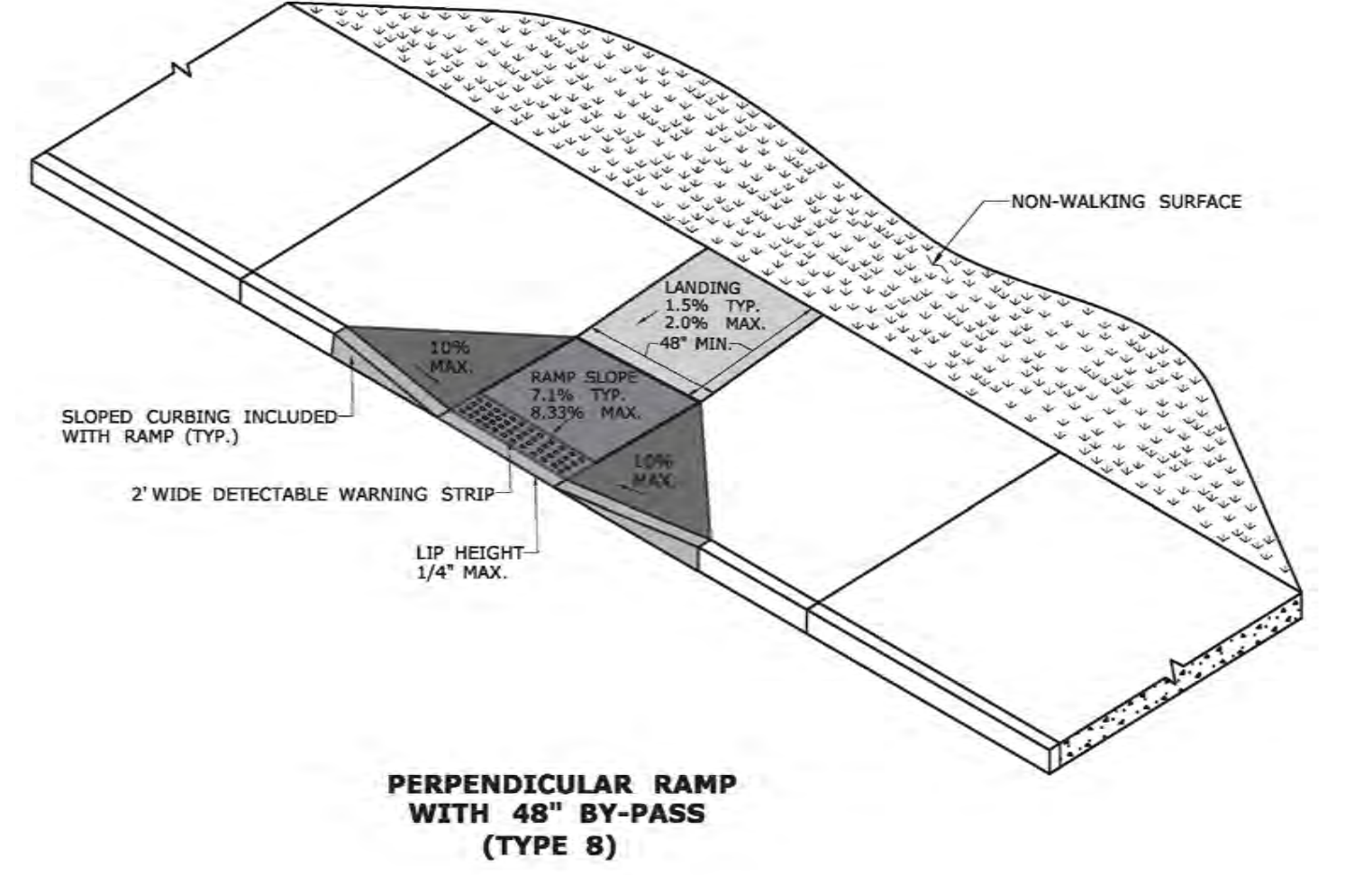
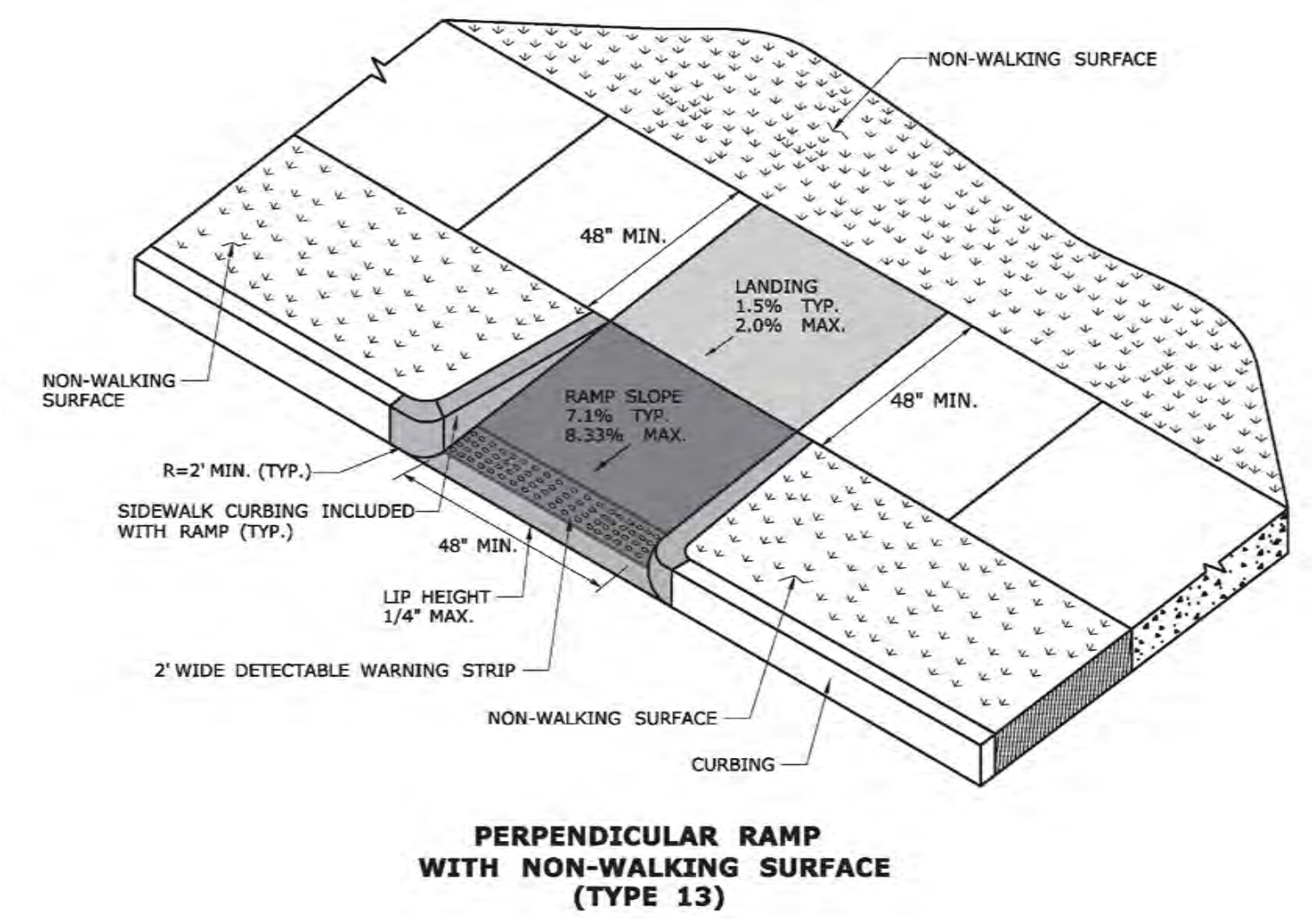
REINFORCED CONCRETE DRIVEWAY ENTRANCE
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE (TRACKING PAD)
N.T.S.

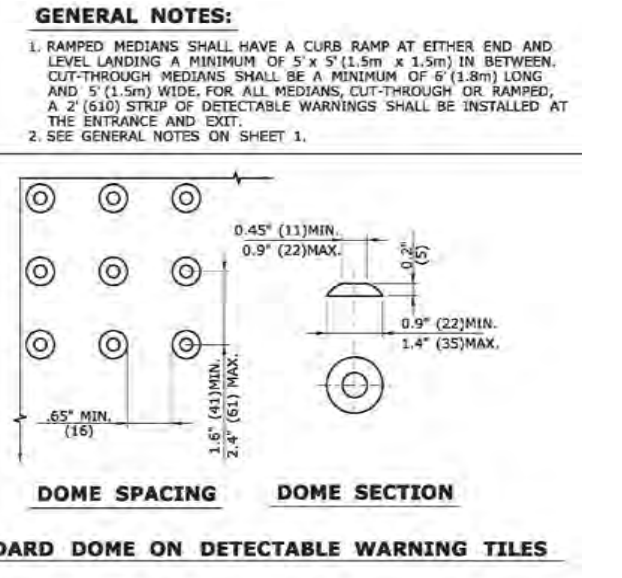


TREE PROTECTION (SHOWING ACCEPTABLE TYPES OF FENCING)
N.T.S.



SIDEWALK RAMP DETAIL & NOTES
N.T.S.

- GENERAL NOTES:**
- MAXIMUM SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE SIDEWALK RAMP SHOULD NOT EXCEED 5%. THE MAXIMUM GRADE DIFFERENCE BETWEEN THE GUTTER AND CURB RAMP SHALL NOT EXCEED 13%. SEE DETAIL 1 ON SHEET 4.
 - RAMP GRADE SHALL BE UNIFORM, FREE OF SAGS AND ABRUPT GRADE CHANGES. RUNNING SLOPES OF RAMPS SHALL NOT EXCEED 8.33% AND SHALL NOT EXCEED 15' (4.5m) WITHOUT PROVIDING A LANDING.
 - ALL RAMPS SHALL BE CONSTRUCTED OF CLASS "F" CONCRETE IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS.
 - SIDEWALK RAMPS SHALL HAVE A COARSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP. THE SURFACE OF ALL SIDEWALK RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. SURFACE DISCONTINUITIES SHALL NOT EXCEED 1/2" (13) MAX VERTICAL DISCONTINUITIES BETWEEN 1/4" (6.4) AND 1/2" (13) MAX. SHALL BE BEVELLED 1:2 MINIMUM APPLIED ACROSS THE ENTIRE LEVEL CHANGE.
 - DIAGONAL SIDEWALK RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES. DIAGONAL AND PERPENDICULAR RAMPS SHALL HAVE THE RAMP CUT PERPENDICULAR TO THE TANGENT OF THE CURB RADIUS FOR THE DESIGNATED ACCESSIBLE ROUTE. BOTH LONGITUDINAL SIDES OF THE RAMP SHOULD BE THE SAME LENGTH. SKEWED RAMPS SHOULD BE AVOIDED. FLARES ARE NOT CONSIDERED PART OF PEDESTRIAN ACCESS ROUTE. DIAGONAL RAMPS SHOULD NOT BE INSTALLED WHERE CURB RADIUS IS LESS THAN 20'(6.096).
 - REMOVAL OF EXISTING SIDEWALK FOR NEW RAMP INSTALLATIONS SHALL BE TO THE NEAREST EXPANSION OR CONTRACTION JOINT. 8.33% MAXIMUM SLOPE MAY NOT BE ACHIEVABLE DUE TO EXISTING SIDEWALK GRADE. IN RECOGNITION OF THIS, A LIMIT OF 15' (4.572) FOR REMOVAL SHALL BE USED UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. SAW CUT REQUIRED FOR DUMMY JOINTS SHALL BE INCLUDED IN THE COST OF "CONCRETE SIDEWALK RAMP" OR "CONCRETE SIDEWALK RAMP".
 - EXPANSION JOINTS IN CONCRETE SHALL MATCH THOSE IN ADJACENT SIDEWALKS BUT IN NO CASE SHALL THE SPACING BETWEEN EXPANSION JOINTS EXCEED 12' (368) UNLESS OTHERWISE NOTED.
 - CONCRETE SIDEWALK RAMPS SHALL BE PAID FOR UNDER THE ITEM "CONCRETE SIDEWALK RAMP", AS DEFINED BY THE CONSTRUCTION LIMITS ON THE PLANS AND SHALL BE FIELD VERIFIED.
 - SIDEWALK RAMPS SHALL BE CONSTRUCTED WITH THE TOE AT THE GUTTER CAST INTEGRALLY WITH RAMP UNLESS DIRECTED OTHERWISE BY THE ENGINEER (SEE TYPICAL SECTION ON SHEET 3). CURB REMOVAL AND CAST IN PLACE CURBING REQUIRED FOR THE RAMP, SHALL BE INCLUDED WITH PAY ITEM "CONCRETE SIDEWALK RAMP". CURBING OUTSIDE LIMITS OF RAMP OR LANDING SHOWN ON SHEET 3 SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS.
 - PREFERRED LOCATION TO INSTALL DETECTABLE WARNING STRIP SHALL BE 6" (152) FROM THE EDGE OF ROAD ALONG THE FULL WIDTH OF THE RAMP. FOR ALTERNATE LOCATIONS, REFER TO DETECTABLE WARNING PLACEMENT DETAILS ON SHEET 4.
 - TO REBILT WHEELCHAIR WHEELS TO ROLL BETWEEN DOMES, ALIGN DOMES ON A SQUARE GRID IN THE DIRECTION OF RUNNING SLOPE (PERPENDICULAR TO CURB OR SLOPE BREAK). THE TRANSITION FROM RAMP TO GUTTER SHALL BE FLUSH WITHOUT A LIP.
 - WHERE COMMERCIAL DRIVEWAYS ARE PROVIDED WITH TRAFFIC SIGNALS AND THE SIDEWALK IS CONTINUOUS THROUGH DRIVEWAY, DETECTABLE WARNINGS ARE REQUIRED AT THE JUNCTION BETWEEN THE PEDESTRIAN ROUTE AND DRIVEWAY.
 - CONSTRUCT A SIDEWALK CURB WHEN THERE IS INSUFFICIENT BUFFER AVAILABLE TO GRADE OR WHEN CALLED FOR IN PLANS. PAID FOR WITH SIDEWALK RAMP WHEN REQUIRED FOR RAMP.
 - THE TOP AND BOTTOM OF RAMPS SHOULD BE PROVIDED WITH A 4' x 4' (1219 x 1219) MINIMUM LEVEL LANDING AREA WITH A CROSS SLOPE LESS THAN OR EQUAL TO 2% IN ANY DIRECTION.
 - UTILITY POLES, LUMINAIRE, PEDESTRIAN OR SIGNAL POLES, GRATES, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON RAMPS, LANDINGS, BLENDED TRANSITIONS, AND @ GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.
 - APPROACH SIDEWALK WIDTHS, GRASS STRIP OR UTILITY STRIP WIDTHS MAY VARY.
 - APPROACH SIDEWALK AND LANDING CROSS SLOPE SHALL NOT EXCEED 2%.
 - THE RUNNING OR CROSS SLOPES ON LANDINGS AT MID BLOCK CROSSING MAY BE WARPED TO MEET STREET OR HIGHWAY GRADE.
 - FOR PERPENDICULAR CURB RAMPS A MIN. 4'(1.2m) x 4'(1.2m) LEVEL LANDING SHALL BE PROVIDED AT THE TOP OF CURB RAMP. WHERE THE LEVEL LANDING IS RESTRICTED AT THE BACK OF SIDEWALK THE LEVEL LANDING SHALL BE 4'(1.2m) x 5'(1.5m) WITH THE 5'(1.5m) DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.
 - FOR PARALLEL CURB RAMPS, A MIN. 4'(1.2m) x 4'(1.2m) LEVEL LANDING SHALL BE PROVIDED AT THE BOTTOM OF CURB RAMP. IF THE LEVEL LANDING IS RESTRICTED ON 2 OR MORE SIDES, THE LEVEL LANDING SHALL BE 4'(1.2m) x 5'(1.5m) WITH THE 5'(1.5m) DIMENSION PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.
 - WHEN WIDTH OF SIDEWALK IS ≥48" AND A PERPENDICULAR SIDEWALK RAMP IS INSTALLED, THE FLARED SIDES SHALL BE 10% MAX. IF WIDTH OF SIDEWALK IS <48" THE FLARED SIDES MUST NOT EXCEED 8.33% (12:1).
 - SHADDED AREAS ARE TYPICAL PAY LIMITS FOR CONCRETE SIDEWALK RAMP BUT MAY VARY AS DIRECTED BY THE ENGINEER.
 - OPTIONAL RAMP, WHEN REQUIRED, SHALL BE PAID FOR AS PART OF CONCRETE SIDEWALK RAMP.



STANDARD DOME ON DETECTABLE WARNING TILES

No.	Date	Revision
1	02/08/2023	ZONING BOARD SUBMISSION

DETAILS
DEPICTING
3 LANDMARK SQUARE
STAMFORD, CT
PREPARED FOR
LANDMARK SQUARE I-6, LLC

SCALE: N.T.S.

DRAWN BY: JTF CHECKED BY: TM

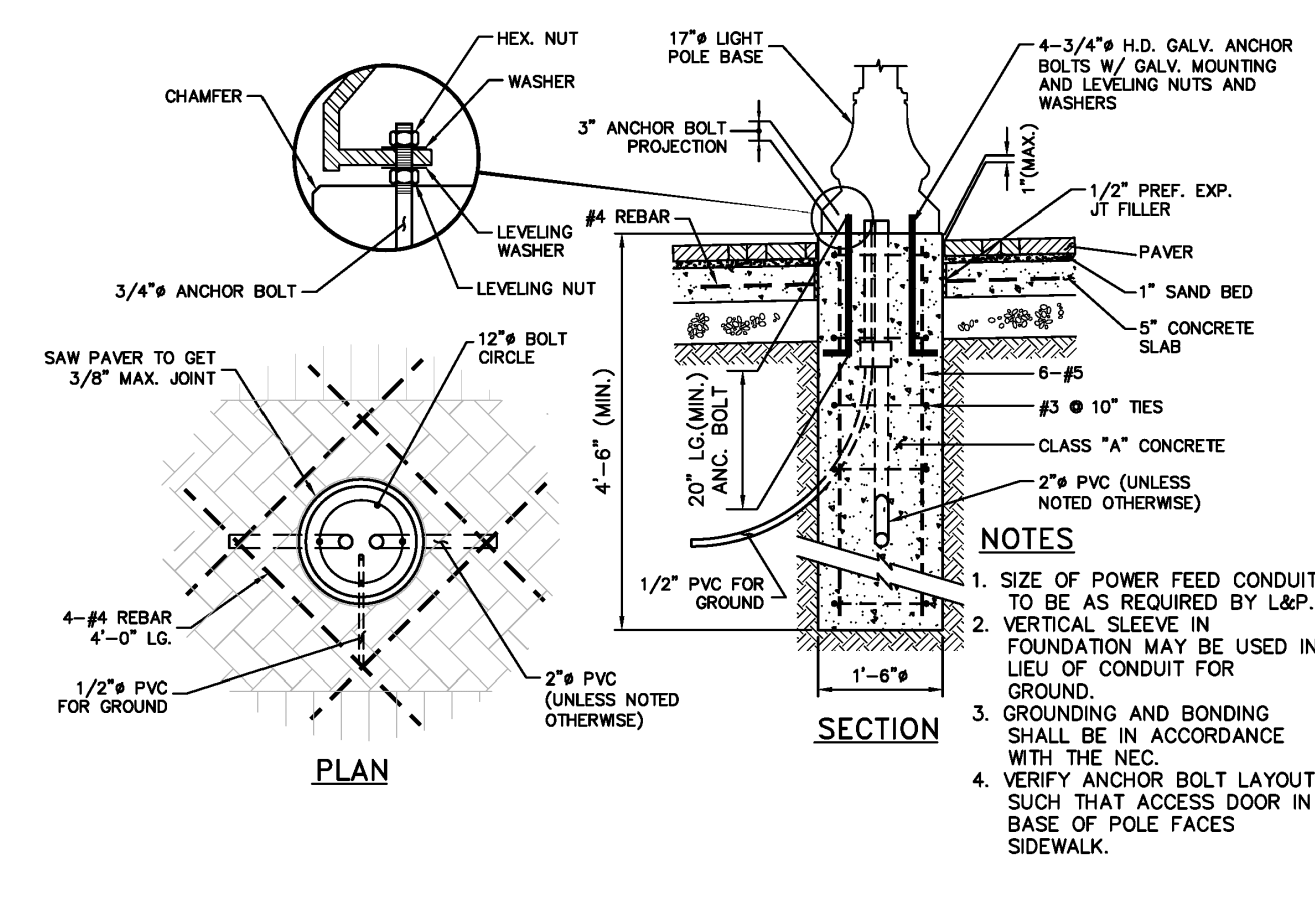
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COMM. No.: 1961

SE-8



PLANTING NOTES:

- EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL.
- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDDY OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
- STAKE TREE BASED ON CRITERIA BELOW OR AS REQUESTED BY THE LANDSCAPE ARCHITECT.
- WRAP TREE TRUNKS ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- BACK FILL WITH SOIL EXCAVATED TO MAKE HOLE. IN SANDY LOAM SOILS ADD CLEAN COMPOSTED ORGANIC MATERIAL (20% MAX. BY VOLUME) TO THE EXISTING SOIL.
- DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK. MAINTAIN THE MULCH FREE OF WEEDS.

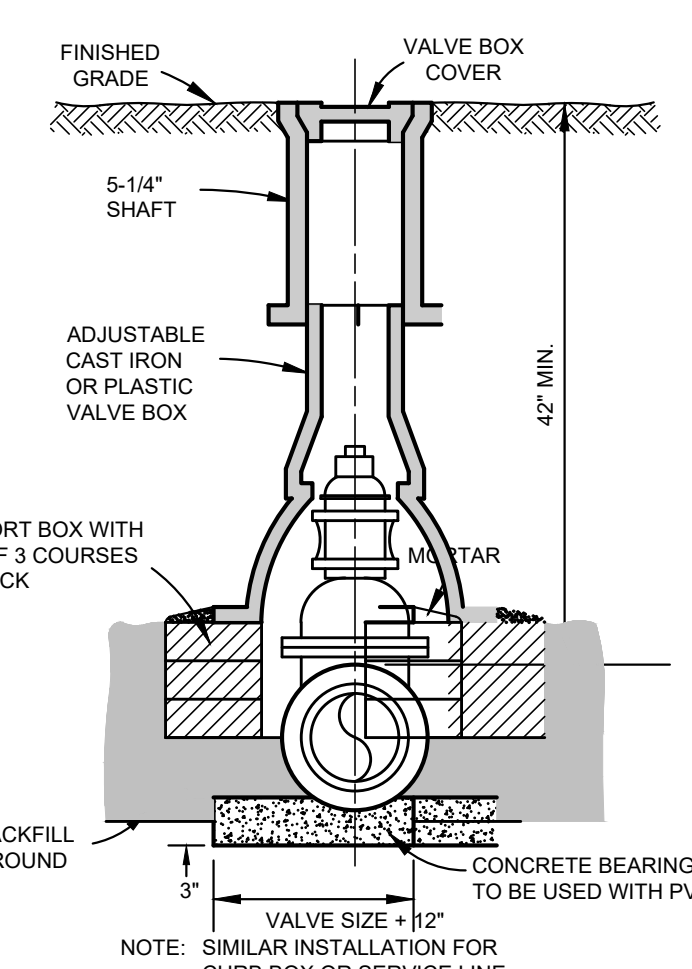
STAKING NOTES:

- STAKING SHALL ONLY BE DONE IF IT IS EXPECTED THAT THE TREE WILL NOT BE ABLE TO SUPPORT ITSELF AND REMAIN STRAIGHT. STAKE TREES FOR THE FOLLOWING REASONS:
 - THE TREE IS INSTALLED WITHIN VERY SANDY SOIL OR VERY WET SOIL.
 - THE TREE IS LOCATED IN A PLACE OF EXTREMELY WINDY CONDITIONS.
- CONTACT THE PROJECT LANDSCAPE ARCHITECT FOR STAKING DETAIL, IF NEEDED.

NOTES:

- SIZE OF POWER FEED CONDUIT TO BE AS REQUIRED BY L&P.
- VERTICAL SLEEVE IN FOUNDATION MAY BE USED IN LIEU OF CONDUIT FOR GROUNDING.
- GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH THE NEC.
- VERIFY ANCHOR BOLT LAYOUT SUCH THAT ACCESS DOOR IN BASE OF POLE FACES SIDEWALK.

LIGHT POLE FOUNDATION DETAIL
N.T.S.



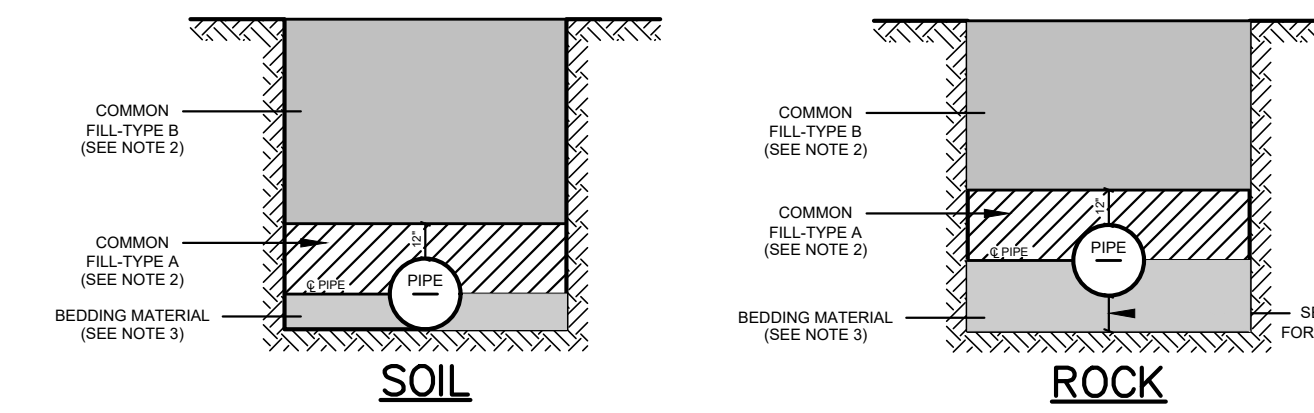
VALVE BOX INSTALLATION
N.T.S.

WATER SERVICE:

UTILITY CONNECTIONS:
THIS CONTRACTOR SHALL PROVIDE ALL UTILITY CONNECTIONS REQUIRED AND INDICATED ON THE DRAWINGS; AND ALL INTERIOR OR EXTERIOR CONNECTIONS TO "MAINS" AND EXISTING SERVICE LINES SHALL BE INSTALLED COMPLETE AND IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE CODES HAVING JURISDICTION AND THE SERVING UTILITY INVOLVED. ALL SERVICE LINES AND CONNECTION POINTS SHALL BE VERIFIED IN THE FIELD BY THIS CONTRACTOR, AND HE SHALL WORK IN CONJUNCTION WITH THE UTILITY INVOLVED IN THE INSTALLATION OF ALL SERVICES. THIS CONTRACTOR SHALL PROVIDE ALL SERVICE PIPING AND ACCESSORIES REQUIRED TO COMPLETE CONNECTION AND NOT FURNISHED BY THE SERVING UTILITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE SERVING UTILITY COMPANY REGARDING THE ITEMS FURNISHED, THE WORK PERFORMED, INSPECTIONS REQUIRED, AND ANY ASSOCIATED FEES, CHARGES, OR PERMITS.

EXCAVATION, BACKFILLING, CUTTING, PATCHING, AND ROUGH-IN WORK: DO ALL EXCAVATION OF ALL MATERIALS ENCOUNTERED INCLUDING ROCK REQUIRED FOR WORK UNDER THIS SECTION. BACKFILL ALL TRENCHES, TAMPING WELL IN 6" LAYERS. SYSTEM SHALL BE TESTED, MADE TIGHT AND ACCEPTED BEFORE BACKFILL. REMOVE FROM PREMISES ALL EXCESS MATERIAL NOT USED IN BACKFILLING. REPAIR ALL STREETS, SIDEWALKS, DRIVES, PAVING, ETC. DAMAGED. REPAIR MATERIALS SHALL GENERALLY MATCH EXISTING CONSTRUCTION. ALL BACKFILLING AND REPAIRING SHALL MEET ALL REQUIREMENTS OF THE CITY AND OTHERS HAVING JURISDICTION. REPAIR WORK SHALL BE THOROUGHLY FIRST CLASS. CONFORM TO ALL REQUIREMENTS OF DIVISION TWO OF THIS SPECIFICATION.

THIS CONTRACTOR SHALL DO ALL CUTTING OF WALLS, FLOORS, CEILINGS, ETC. AS REQUIRED TO INSTALL WORK UNDER THIS SECTION. CONTRACTOR SHALL OBTAIN PERMISSION OF THE ARCHITECT BEFORE DOING ANY CUTTING. ALL HOLES SHALL BE CUT AS SMALL AS POSSIBLE. GENERAL CONTRACTOR SHALL PATCH WALLS, FLOORS, ETC. AS REQUIRED BY WORK UNDER THIS SECTION. ALL PATCHING SHALL BE THOROUGHLY FIRST CLASS AND SHALL MATCH THE ORIGINAL MATERIAL AND CONSTRUCTION. COORDINATE WITHOUT DELAY ALL ROUGH-IN WITH GENERAL CONSTRUCTION. ALL PIPING, CONDUIT, ROUGH-IN SHALL BE CONCEALED EXCEPT IN UNFINISHED AREAS AND WHERE OTHERWISE SHOWN.



NOTES:

- THE TRENCH SHALL BE EXCAVATED TO THE DEPTH REQUIRED, SO AS TO PROVIDE A UNIFORM AND CONTINUOUS BEARING AND SUPPORT FOR THE PIPE BARREL ON SOLID AND UNDISTURBED GROUND AT EVERY POINT BETWEEN JOINTS EXCEPT THAT IT WILL BE PERMISSIBLE TO DISTURB THE FINISHED TRENCH BOTTOM OVER A MAXIMUM LENGTH OF 18" NEAR THE MIDDLE OF EACH LENGTH OF PIPE BY THE WITHDRAWAL OF PIPE SLINGS OR OTHER LIFTING TACKLE. WHEN REQUIRED, BELL HOLES SHALL BE PROVIDED. THE FINISHED TRENCH BOTTOM SHALL BE ACCURATELY PREPARED BY MEANS OF HAND TOOLS.
- MATERIAL FOR BACKFILLING SHALL BE EARTH MATERIALS ENTIRELY FREE FROM VEGETATION, TRASH, LUMBER, FROZEN, SOFT OR ORGANIC MATERIALS. NO STONES OR ROCK LARGER THAN THE SIZES LISTED BELOW WILL BE PERMITTED IN THE BACKFILL:
 - COMMON FILL-TYPE A: NO STONES OR ROCKS LARGER THAN 1"
 - COMMON FILL-TYPE B: NO STONES OR ROCKS LARGER THAN 4"

COMMON FILL MATERIAL MAY BE OBTAINED FROM THE TRENCH EXCAVATION PROVIDED IT HAS BEEN APPROVED BY THE ENGINEER AND HAS BEEN TESTED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

- ALL MATERIALS TO BE USED FOR BACKFILL, INCLUDING COMMON FILL AND BEDDING MATERIALS, SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACING THE MATERIALS IN THE PIPE TRENCH. ALL BACKFILL AND BEDDING MATERIALS WHETHER OBTAINED FROM THE TRENCH EXCAVATION OR FROM AN OFF-SITE SOURCE MUST BE TESTED AS DIRECTED BY THE ENGINEER.
- SAMPLES OF THE MATERIALS SHALL BE SUBMITTED TO AN APPROVED TESTING AGENCY FOR ANALYSIS. THE TEST RESULTS AND REPORT STATING THAT THE MATERIALS MEET THE REQUIREMENTS THESE SPECIFICATIONS AND THE SPECIFICATIONS OF FEDERAL, STATE AND LOCAL AUTHORITIES (WHERE APPLICABLE) SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACING THE MATERIALS IN THE PIPE TRENCH.

IF APPROVED MATERIAL OBTAINED FROM THE TRENCH EXCAVATION IS INSUFFICIENT TO COMPLETE THE BACKFILL, THE CONTRACTOR SHALL OBTAIN THE NECESSARY APPROVED COMMON FILL MATERIALS FROM AN OFF-SITE SOURCE.

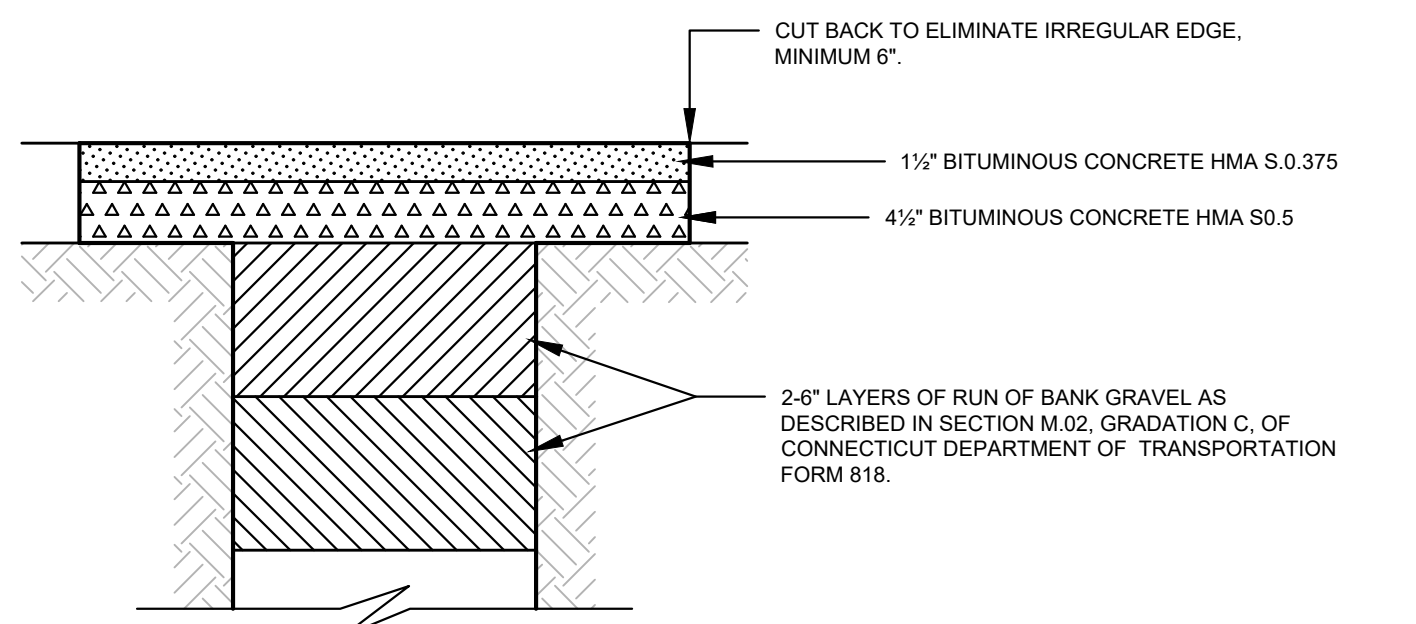
- MATERIALS USED FOR BEDDING AND THE HAUNCH AROUND THE PIPE SHALL BE A COARSE TO FINE SANDY MATERIAL WITH MAXIMUM STONE SIZE OF 1 INCH. THE MATERIAL SHALL CONFORM TO ASTM D698-00 STANDARD METHOD FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES USING THE UNIFIED SOIL CLASSIFICATION SYSTEM. EXCEPT WHERE A HIGHER STANDARD IS REQUIRED ELSEWHERE IN THE CONTRACT DOCUMENTS OR BY RULES OR REGULATIONS OF FEDERAL, STATE OR LOCAL GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE OF THE WORK.

THE MATERIAL SHALL MEET A CLASS II DESIGNATION. SOIL TYPES GW, GP, SW AND SP, NON-COHESIVE, WELL GRADED AND CONTAINING SOME FINES ARE INCLUDED IN THIS CLASS. WHERE VOIDS, FINE GRAINED SOILS OR MOVEMENT MAY ALLOW MIGRATION OF THIS MATERIAL, A FILTER FABRIC AS DIRECTED BY THE ENGINEER WILL BE USED IN THE TRENCH BOTTOM AND SIDES BEFORE THE SELECT FILL BEDDING IS PLACED.

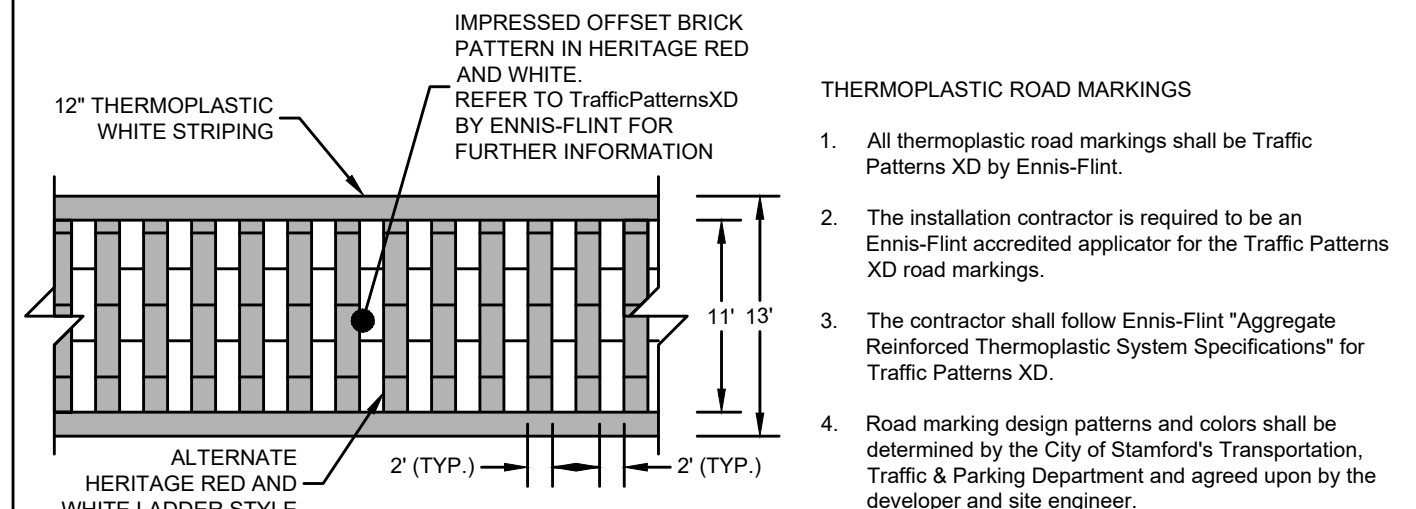
BEDDING MATERIAL MAY BE OBTAINED FROM THE TRENCH EXCAVATION PROVIDED IT HAS BEEN TESTED IN ACCORDANCE WITH THE REQUIREMENTS STATED ABOVE AND APPROVED BY THE ENGINEER. IF THE APPROVED MATERIAL OBTAINED FROM THE TRENCH EXCAVATION IS INSUFFICIENT TO COMPLETE THE BEDDING, THE CONTRACTOR SHALL OBTAIN THE NECESSARY TESTED AND APPROVED BEDDING MATERIALS FROM AN OFF-SITE SOURCE.

- REFER TO SECTION 2210 OF THE AQUARIUM WATER COMPANY SPECIFICATIONS.

WATER SERVICE TRENCH BACKFILL MATERIALS
N.T.S.



ASPHALT TRENCH REPAIR
N.T.S.



CROSSWALK STRIPING DETAIL
N.T.S.

BACKFILL-24":
Backfill material shall be inspected and approved by a CNG Representative, and must be compacted with one foot lifts by a pneumatic tamper.

PROTECTIVE LAYER-12":
Protective layer consisting of coarse to fine sand with maximum stone size of 1".

BEDDING-6":
Layer of coarse to fine sand (masons grade) with maximum stone size of 1".

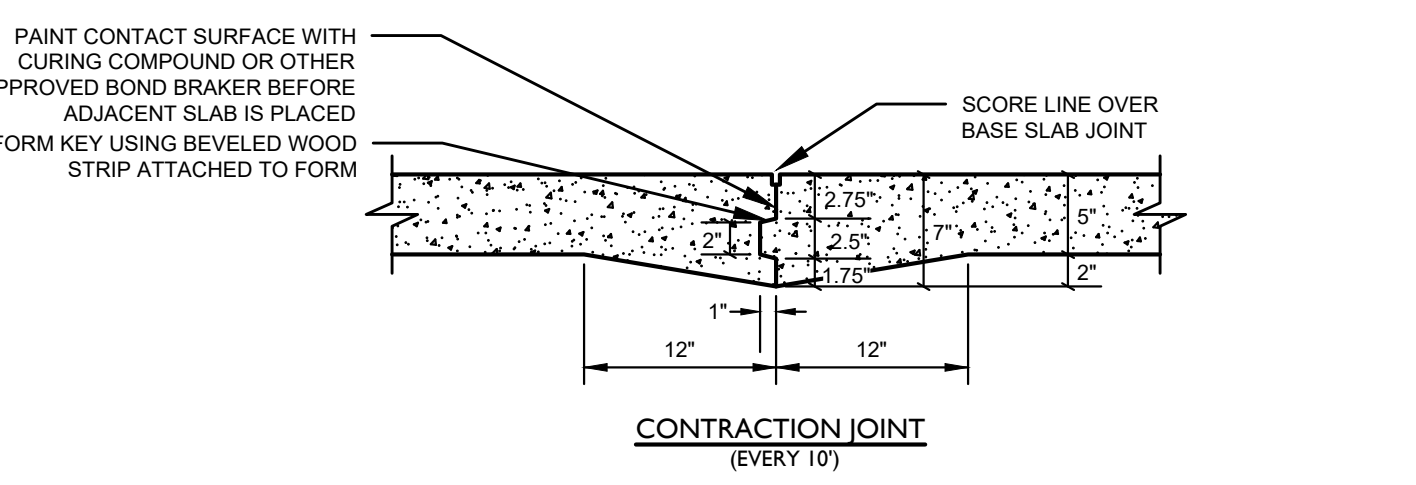
TRACING WIRE:
#12 AWS coated copper wire.

- NOTES:**
- A minimum of 10" vertical clearance and 50" horizontal clearance will be maintained between the gas line and all other structures.
 - Minimum cover for mains shall be 30" from finished grade as measured from gutter line.
 - In the traveled portion of the road - from the top of the pipe to the top of the trench using the shallow side for measurement.
 - Off the traveled portion when section is at a higher elevation than the traveled way elevation to be taken from gutter line.
 - Off the traveled portion when section is at a lower elevation than the traveled way from the top of the pipe to the top of the trench using the shallow side for measurement.
 - Minimum cover of service lines in private property shall be 20" only when approved by the EVERSOURCE inspector or designer.
 - The bottom of the trench must be free of rocks, debris, or water that could damage the pipe or its coating.
 - Tracing Wire is a #12 AWS coated copper tracing wire to be installed in the center of the trench prior to 6" of sand padding. (Connection will be made by a EVERSOURCE Representative).
 - Exposed piping will be backfilled with a minimum of 12" of sand prior to leaving the job site each day and witnessed by a EVERSOURCE Representative or EVERSOURCE Contractor.
 - Only personnel qualified by EVERSOURCE will be allowed to install gas lines.
 - The builder will supply a suitable location to store the pipe and materials and will be responsible for its security.

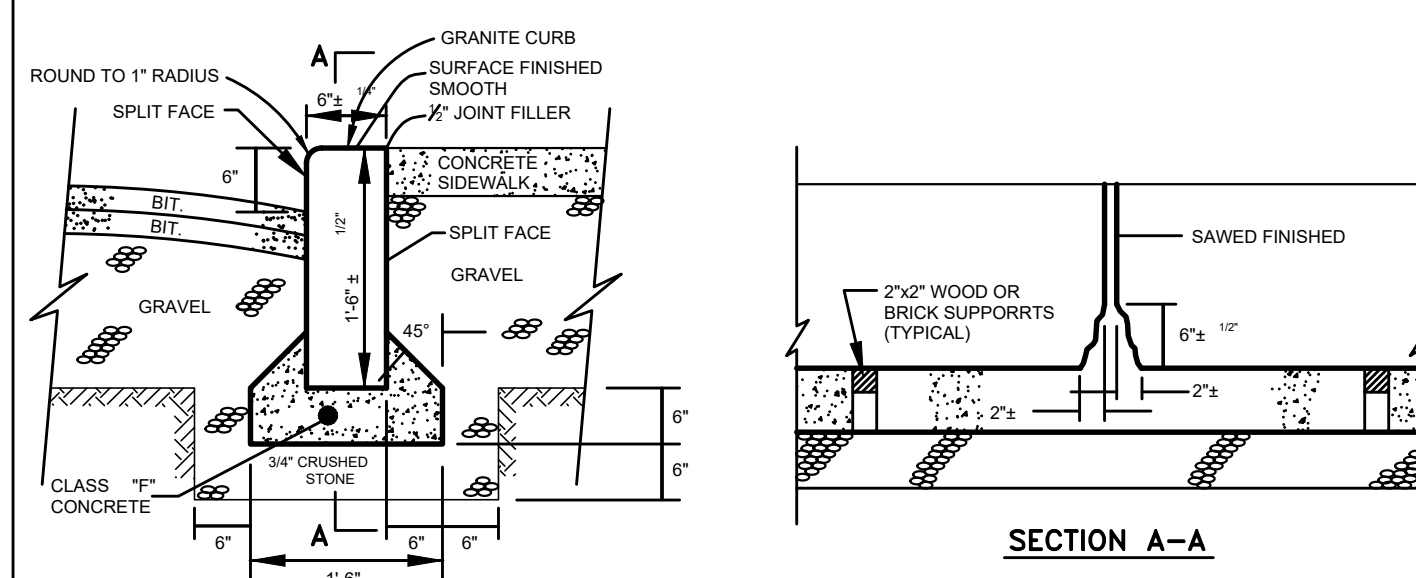
PIPE/TRENCH TABLE

Pipe Diameter	Trench Width
1"-4"	12"
6"	18"
8" and above	24"

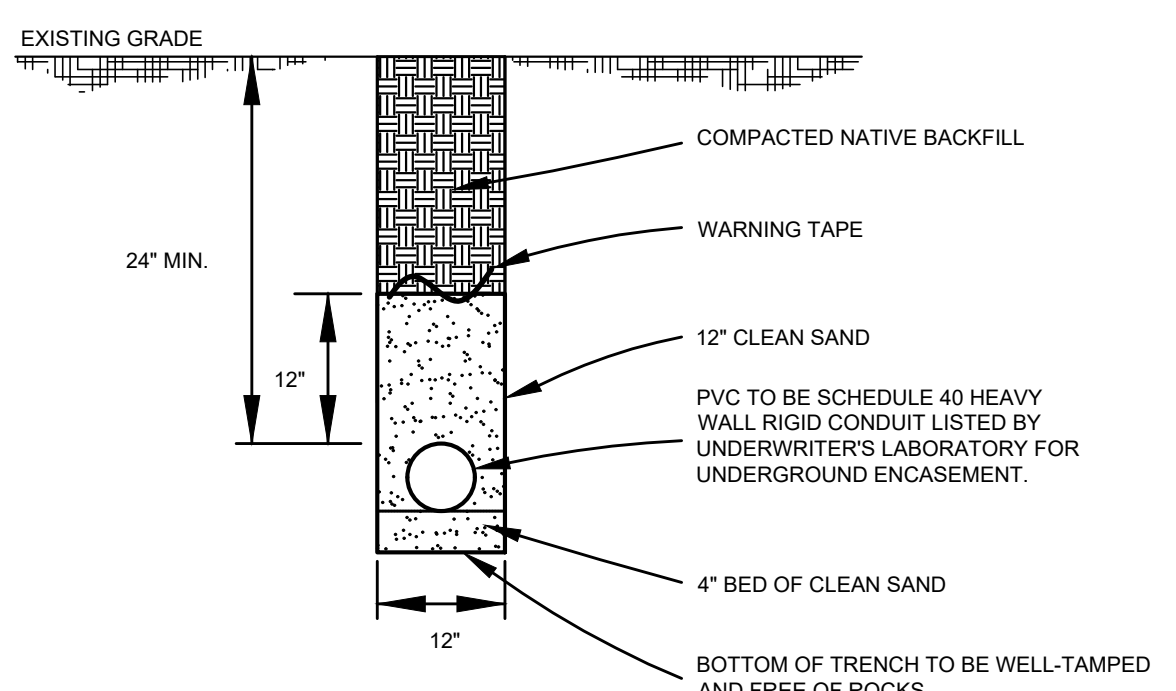
GAS MAIN TRENCH DETAIL
N.T.S.



CONCRETE SIDEWALK JOINT DETAILS
N.T.S.



GRANITE CURB
N.T.S.



CONDUIT TRENCH DETAIL (SAND BEDDING)
N.T.S.

No.	Date	Revision
1	02/08/2023	ZONING BOARD SUBMISSION

DETAILS DEPICTING
3 LANDMARK SQUARE
STAMFORD, CT
PREPARED FOR
LANDMARK SQUARE I-6, LLC

SCALE: N.T.S.

DRAWN BY: JTF CHECKED BY: TM

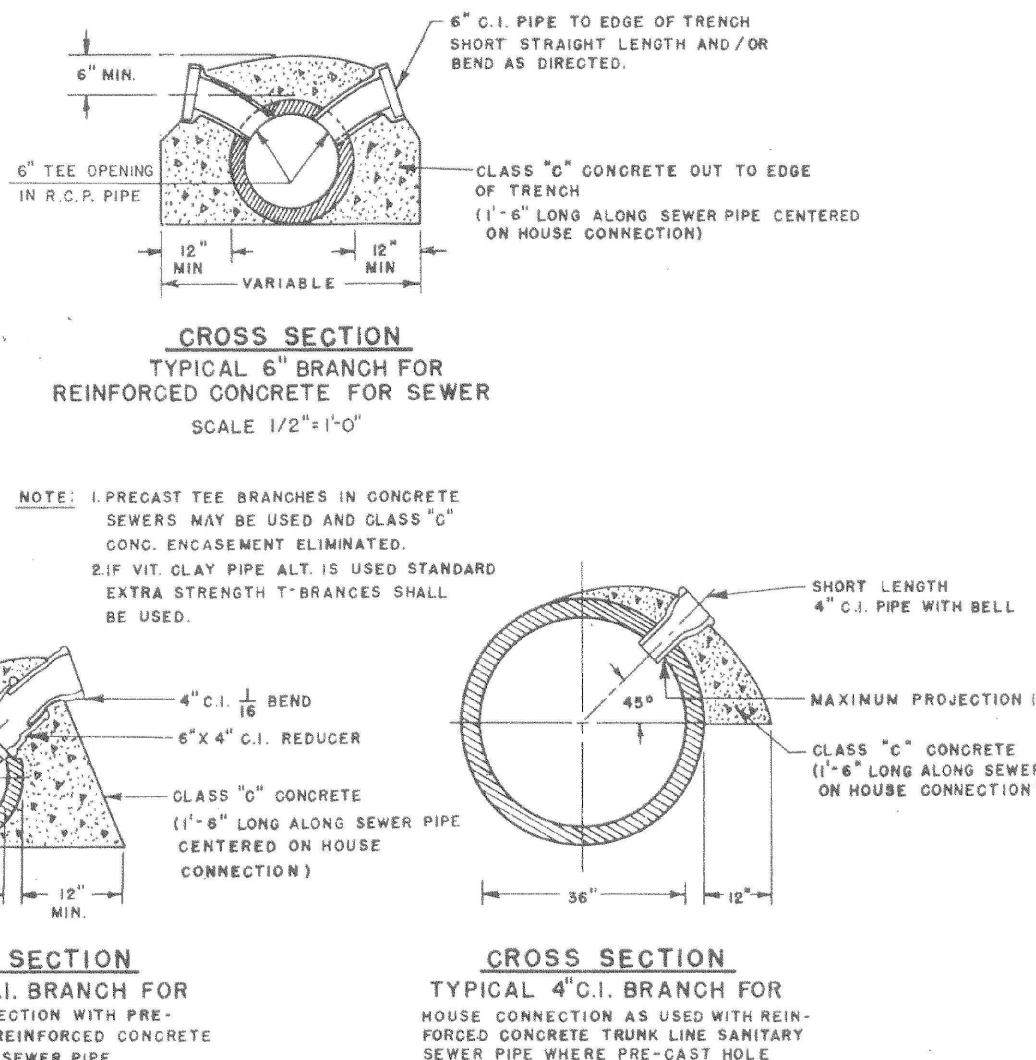
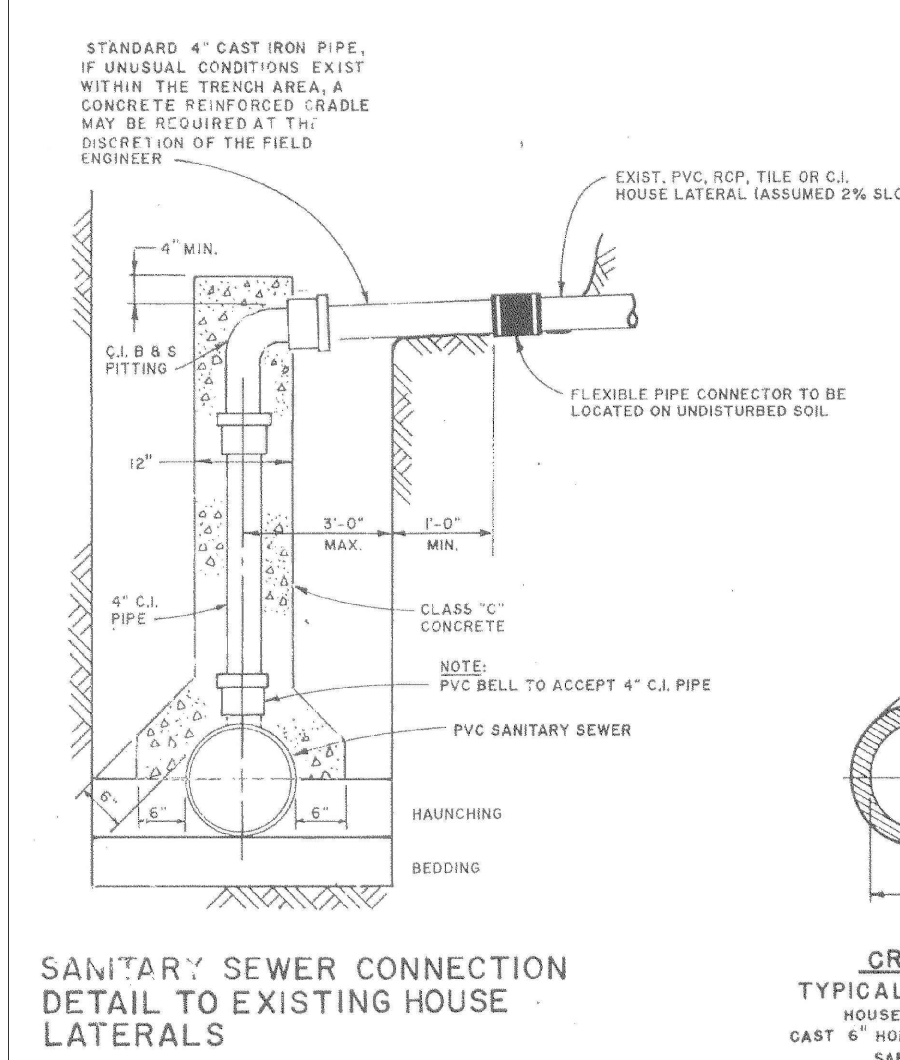
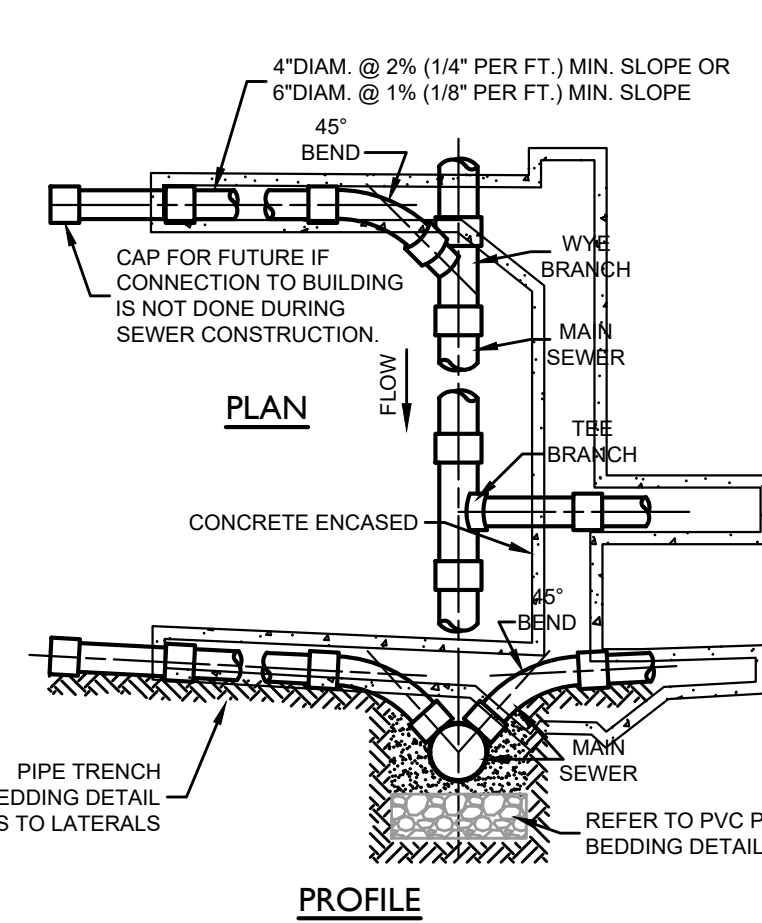
REDNISS & MEAD

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
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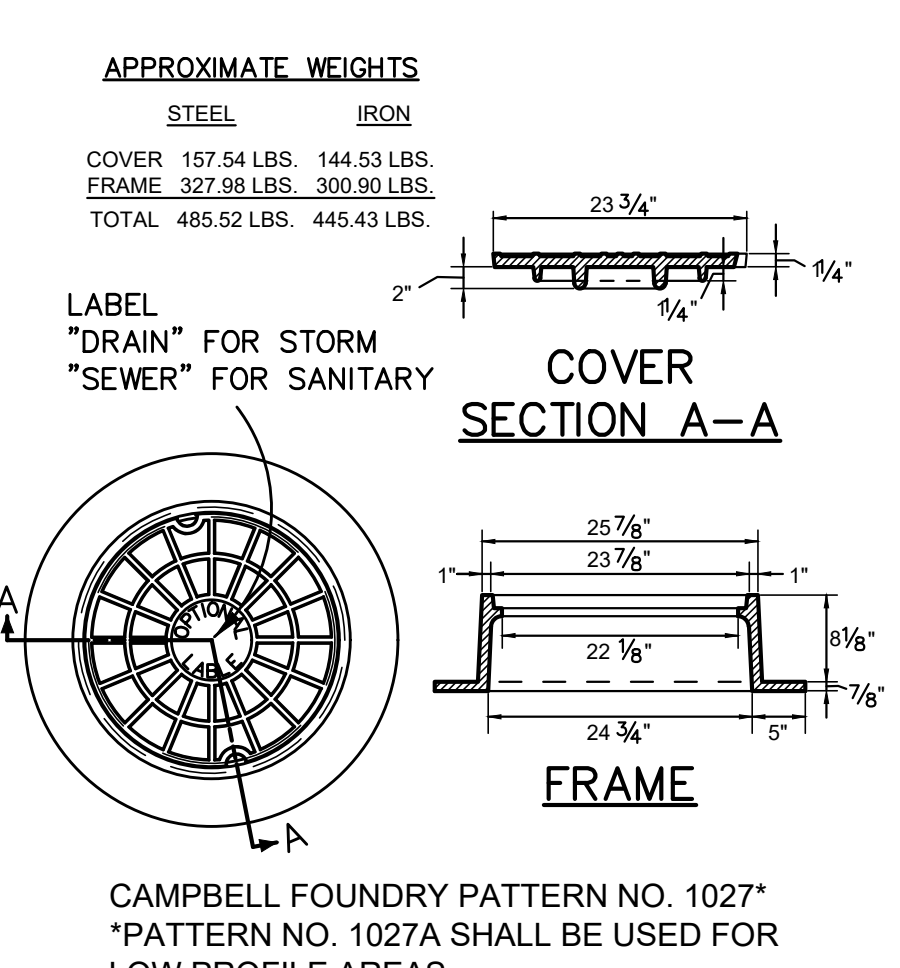
SHEET No: **SE-9**
Comm. No.: 1961

REFER TO PLANS PREPARED BY ERIC RAINS LANDSCAPE ARCHITECTURE, LLC FOR STREETSCAPE DETAILS INCLUDING BUT NOT LIMITED TO: BRICK PAVERS, SIDEWALKS (INCLUDING SCORE PATTERNS), LIGHT POLES, PLANTINGS, ETC.

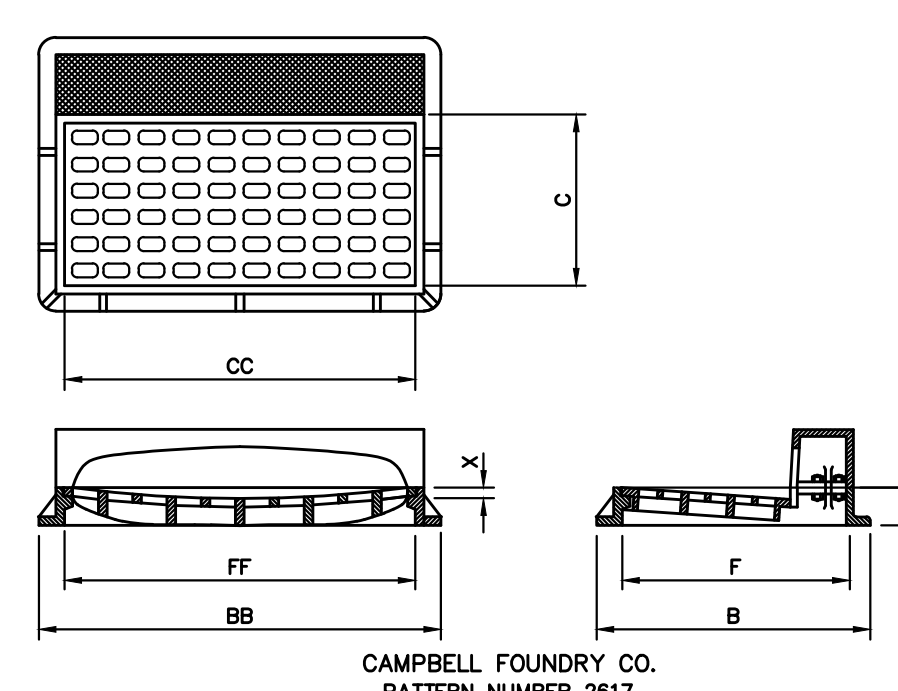


- NOTES:**
- SADDLE TO BE ROMAC "CB" SEWER SADDLE PER STAMFORD WPCA REQUIREMENTS. SADDLE TO BE SIZED AND INSTALLED PER MANUFACTURER REQUIREMENTS.
 - APPLICANT AND THEIR CONTRACTOR SHALL COORDINATE AND SCHEDULE THE SEWER LATERAL CONNECTION WITH WPCA'S COLLECTION SYSTEM SUPERVISOR (203-977-5768) AT LEAST 3 WORKING DAYS IN ADVANCE. WPCA PERSONNEL MUST BE ON-SITE TO WITNESS AND PHOTOGRAPH THE SEWER LATERAL CONNECTION TO THE SANITARY CONVEYANCE SYSTEM. THE WORK SHALL OCCUR BETWEEN THE HOURS OF 7:30AM AND 2:00PM MONDAY THROUGH FRIDAY EXCEPT HOLIDAYS.
 - AS PART OF THE FINAL APPROVAL, THE LOCATION OF THE LATERAL CONNECTION TO THE SANITARY SEWER SHALL BE PROVIDED ON A SKETCH WITH THE FOLLOWING INFORMATION:
 - DISTANCE INFORMATION FROM AT LEAST TWO PERMANENT STATIONS I.E. TELEPHONE POLE WITH NUMBER, NEAREST MANHOLE COVER, CORNER OF BUILDING WITH ADDRESS, ETC.)
 - DEPTH OF LATERAL CONNECTION.
 - CAPPING THE EXISTING LATERALS SHALL BE WITNESSED BY THE STAMFORD BUILDING DEPARTMENT.

ROMAC "CB" SEWER SADDLE DETAIL
(8" PIPE SADDLE ON EXISTING 18" SEWER MAIN)



CAMPBELL FOUNDRY PATTERN NO. 1027*
*PATTERN NO. 1027A SHALL BE USED FOR LOW PROFILE AREAS.



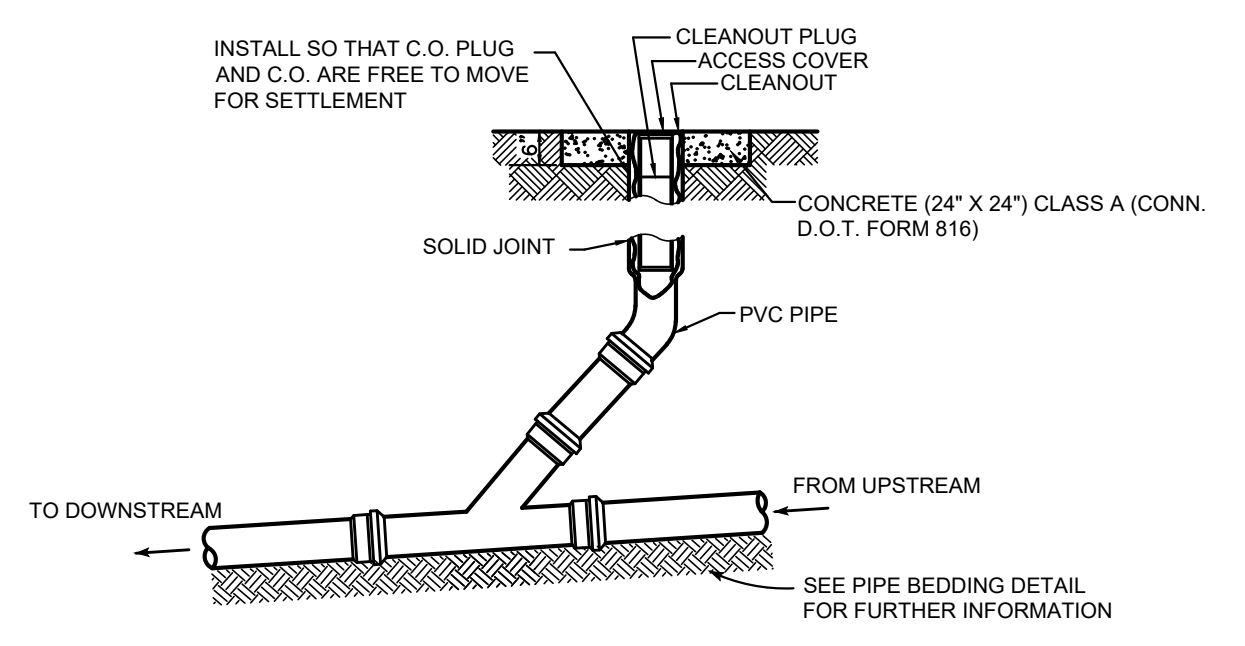
CAMPBELL FOUNDRY CO. PATTERN NUMBER 2617

PATTERN NUMBER	DIMENSIONS IN INCHES											
FLAT GRATE	B	BB	C	CC	E	EE	F	FF	X			
2617	36	54	21	3/4	47	3/4	5	1/2	4	30	48	1 1/4

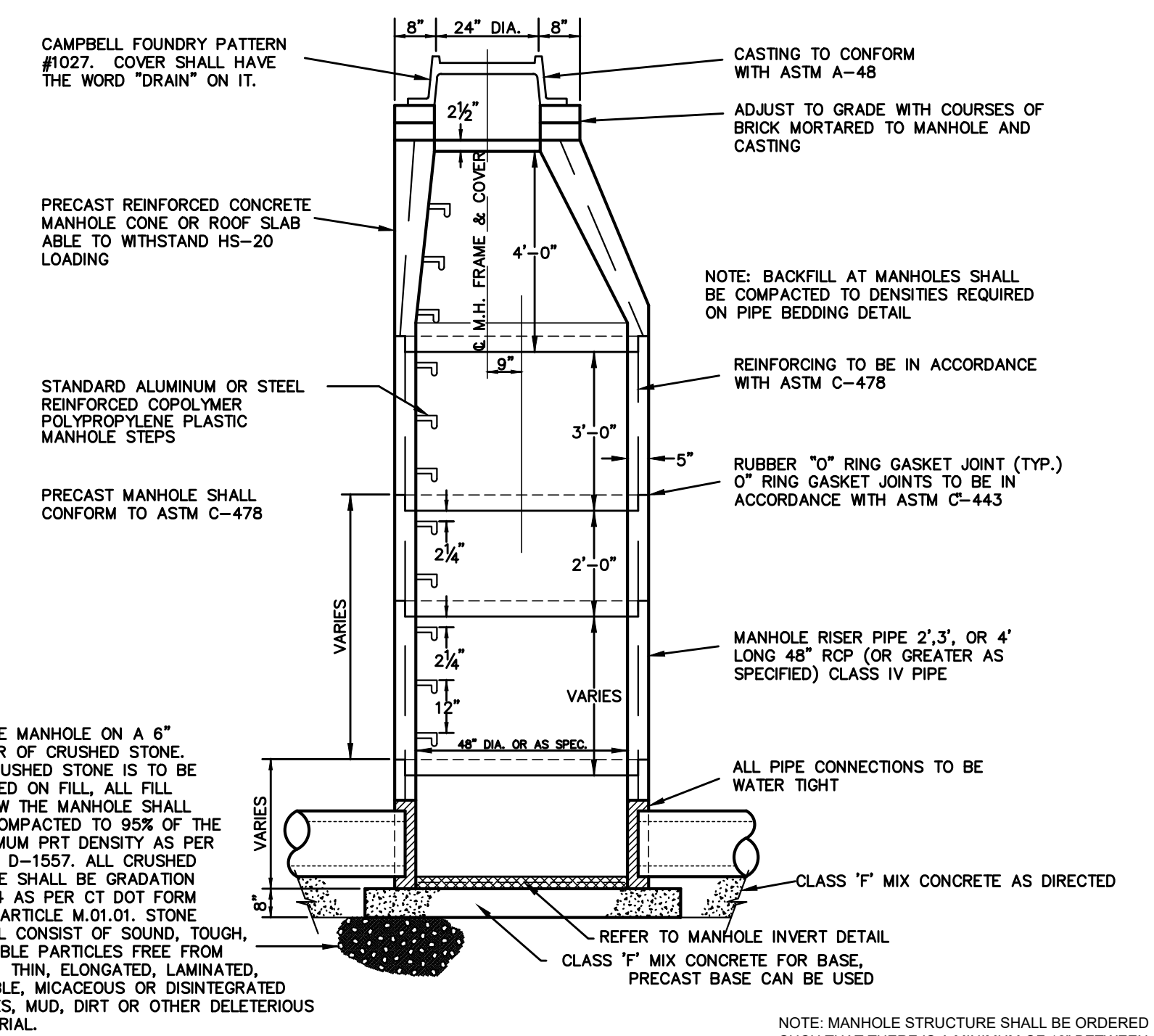
LATERAL CONNECTION TO SANITARY SEWER
N.T.S.

STORM AND SANITARY MANHOLE FRAME AND COVER
N.T.S.

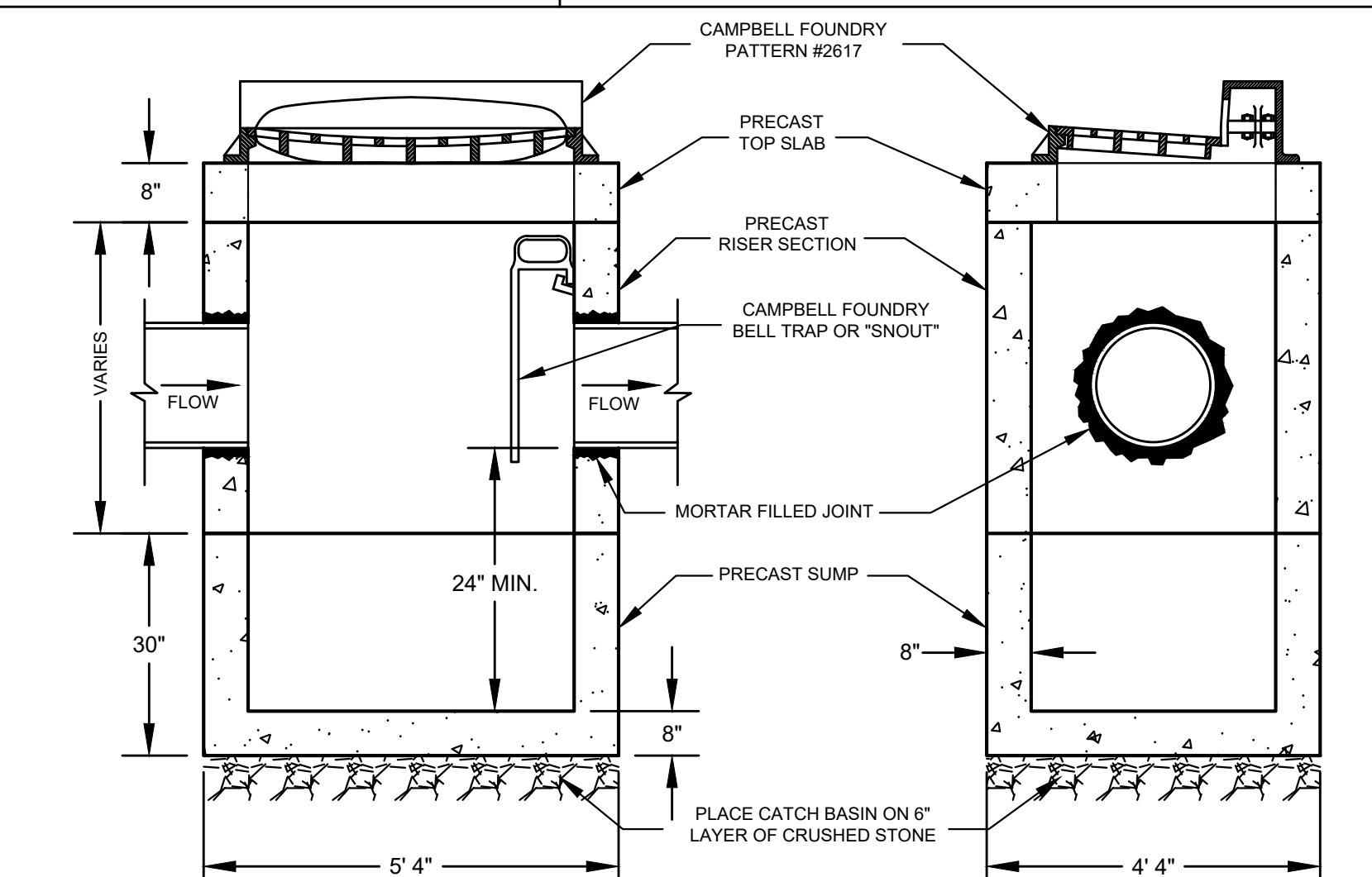
CAST IRON CATCH BASIN (CURB INLET)
N.T.S.



BURIED SANITARY CLEANOUT DETAIL
N.T.S.



STORM MANHOLE
N.T.S.



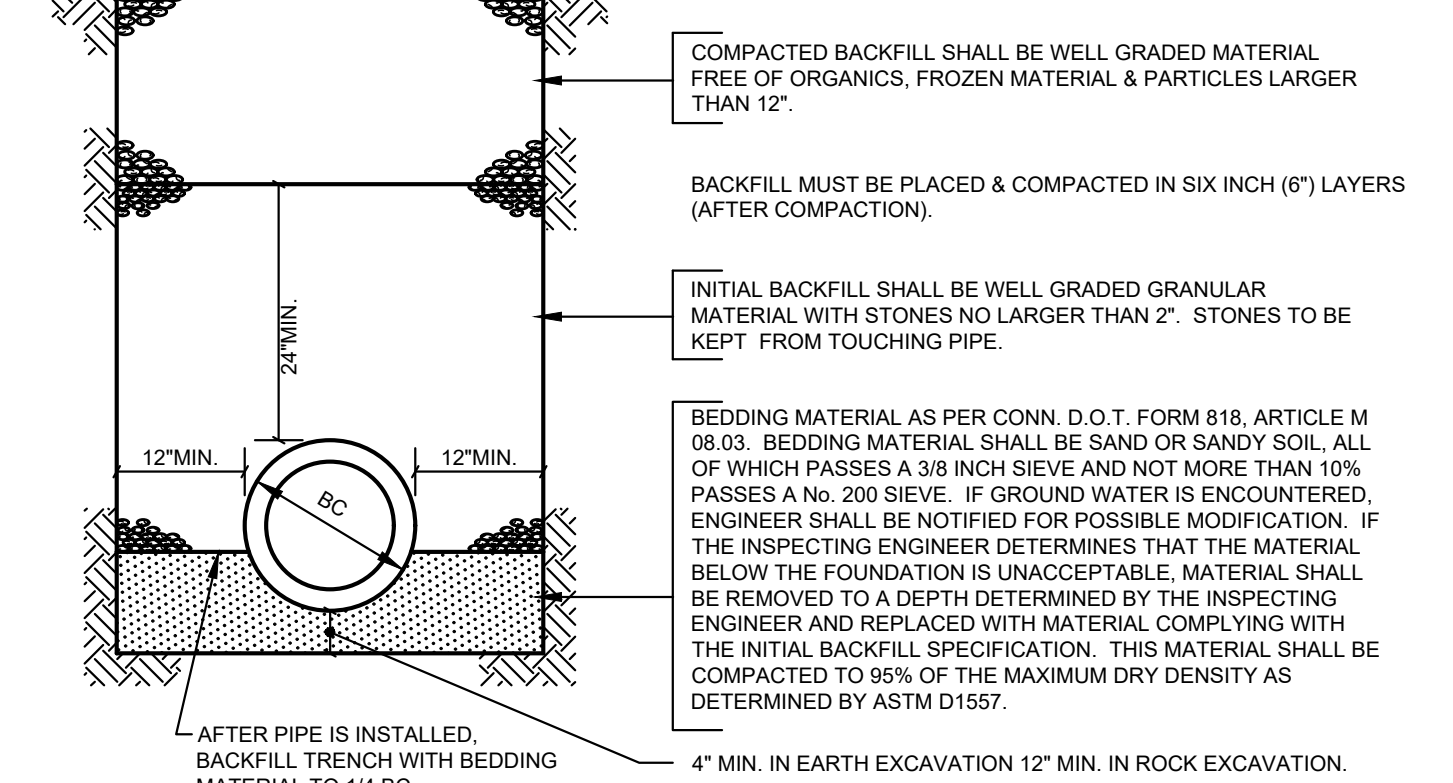
CATCH BASIN DETAIL
N.T.S.

WATER STOP, 10' UPSTREAM OF STRUCTURES AND WHERE SHOWN, FOUNDATION MATERIAL, BEDDING, HAUNCHING, INITIAL BACKFILL, AND THE BOTTOM FOOT OF GENERAL BACKFILL TO BE REPLACED WITH SM, SC, OR ML SOIL AS PER UNIFIED SOIL CLASSIFICATION SYSTEM WITH MAXIMUM PARTICLE SIZE OF 1/16", FOR 3 LINEAR FEET OF TRENCH. WATER STOP TO BE KEPT INTO TRENCH BOTTOM AND WALLS A MINIMUM OF ONE FOOT. NO STONES LARGER THAN 6" SHALL BE WITHIN 12" OF THE PIPE.

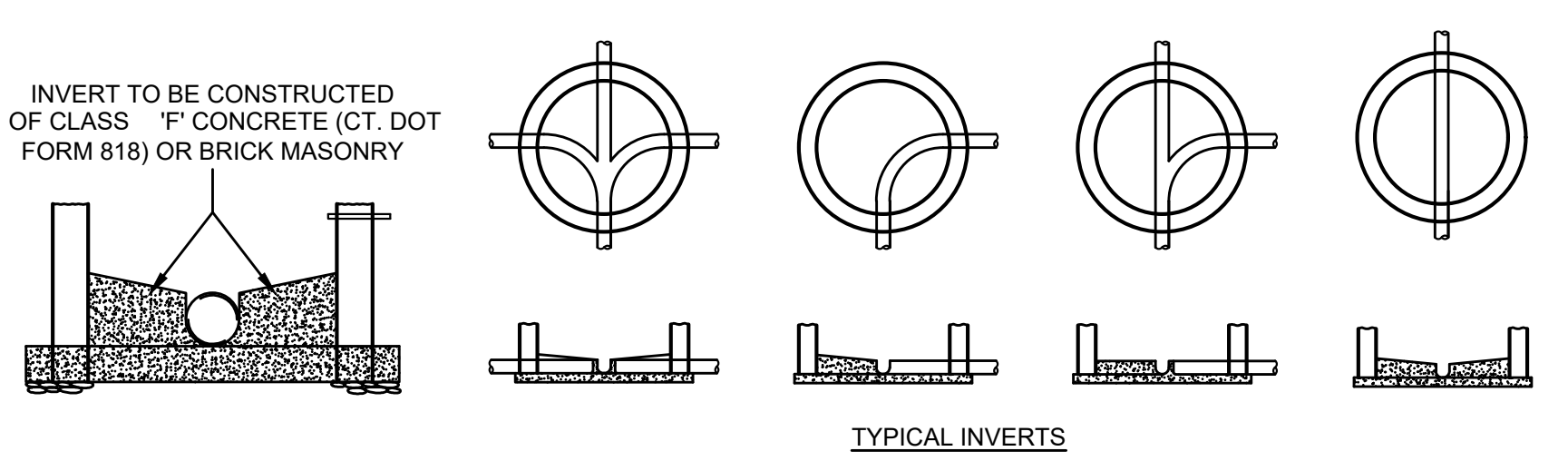
ALL FOUNDATION, INITIAL BACKFILL & BACKFILL MATERIAL TO BE APPROVED BY THE INSPECTING ENGINEER.

ANY DEVIATION FROM THESE METHODS & MATERIALS MUST BE APPROVED IN WRITING BY THE INSPECTING ENGINEER.

ALL MATERIAL TO BE COMPACTED TO 95% OF THE MAX. DRY DENSITY AS DETERMINED BY ASTM D1557, EXCEPT COMPACTED BACKFILL NOT UNDER PAVEMENT WHICH SHALL BE COMPACTED TO A DENSITY AT LEAST EQUAL TO THAT OF THE ADJACENT UNDISTURBED MATERIAL.



PVC/RCP PIPE TRENCH BEDDING DETAIL
(48" DIA. & UNDER)
N.T.S.



STORM AND SANITARY MANHOLE INVERT DETAIL
N.T.S.

1	02/08/2023	ZONING BOARD SUBMISSION
No.	Date	Revision

DETAILS DEPICTING 3 LANDMARK SQUARE STAMFORD, CT PREPARED FOR LANDMARK SQUARE I-6, LLC

SCALE: N.T.S.

DRAWN BY: JTF CHECKED BY: TM

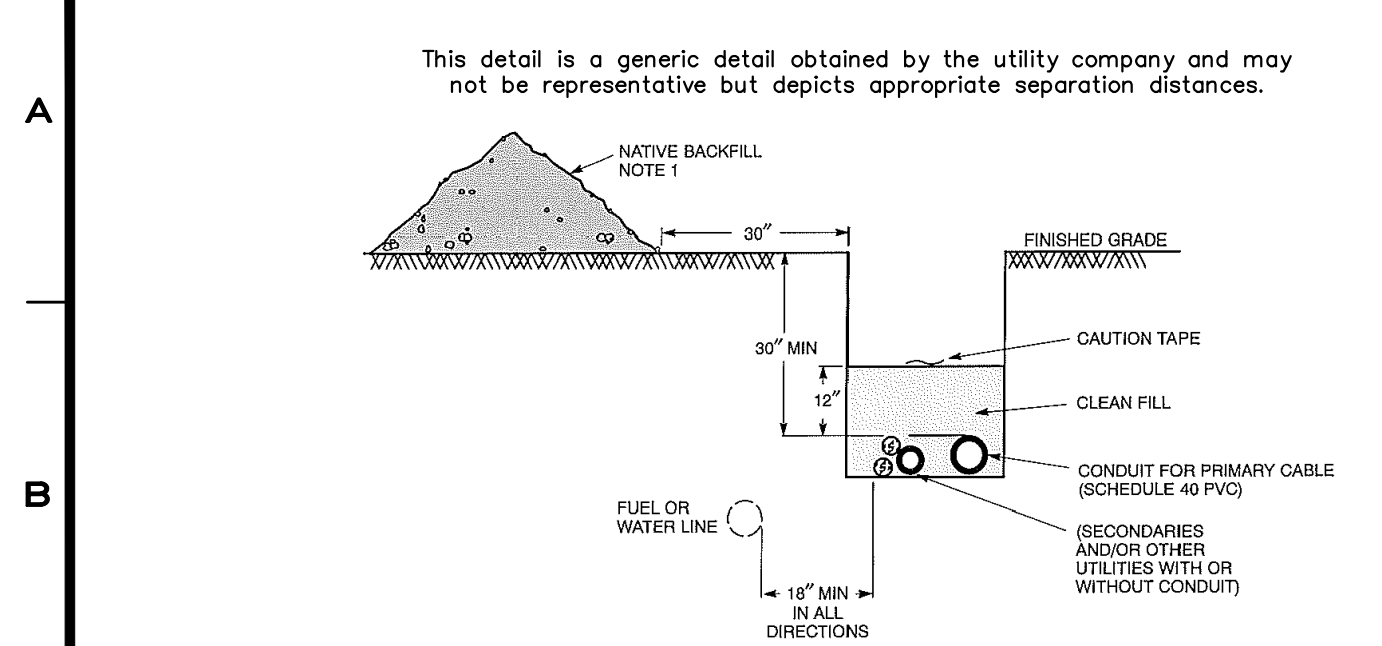
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SHEET No: **SE-10**

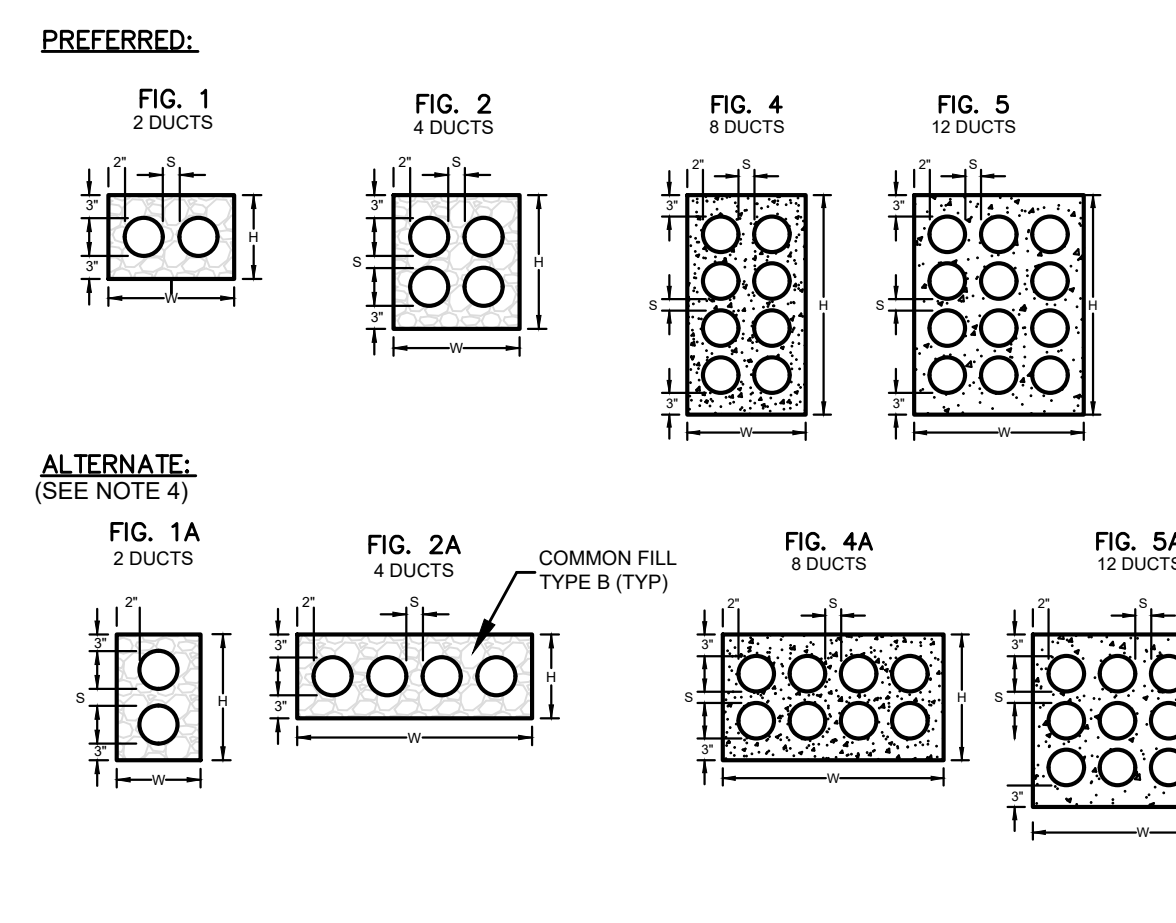
Comm. No.: 1961



BACKFILL:
 MATERIAL FOR BACKFILLING SHALL BE EARTH MATERIALS ENTIRELY FREE FROM VEGETATION, TRASH, LUMBER, FROZEN, SOFT OR ORGANIC MATERIALS. NO STONES OR ROCK LARGER THAN THE SIZES LISTED BELOW WILL BE PERMITTED IN THE BACKFILL:
 • COMMON FILL-TYPE A: NO STONES OR ROCKS LARGER THAN 1"
 • COMMON FILL-TYPE B: NO STONES OR ROCKS LARGER THAN 4"

COMMON FILL MATERIAL MAY BE OBTAINED FROM THE TRENCH EXCAVATION PROVIDED IT HAS BEEN APPROVED BY THE ENGINEER AND HAS BEEN TESTED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
 A. ALL MATERIALS TO BE USED FOR BACKFILL, INCLUDING COMMON FILL AND BEDDING MATERIALS, SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACING THE MATERIALS IN THE PIPE TRENCH. ALL BACKFILL AND BEDDING MATERIALS WHETHER OBTAINED FROM THE TRENCH EXCAVATION OR FROM AN OFF-SITE SOURCE MUST BE TESTED AS DIRECTED BY THE ENGINEER.
 B. SAMPLES OF THE MATERIALS SHALL BE SUBMITTED TO AN APPROVED TESTING AGENCY FOR ANALYSIS. THE TEST RESULTS AND REPORT STATING THAT THE MATERIALS MEET THE REQUIREMENTS THESE SPECIFICATIONS AND THE SPECIFICATIONS OF FEDERAL, STATE AND LOCAL AUTHORITIES (WHERE APPLICABLE) SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACING THE MATERIALS IN THE PIPE TRENCH.

NOTES
 1. Minimum cover from top of a conduit bank to the pavement or earth surface to be 36".
 2. Duct bank shall extend beyond the property line and capped. Exact location of termination are per field direction. Allow for 20' deviation from locations shown on this plan.
 3. Ducts shall be Schedule 40 pvc. Use premanufactured spacers between conduits as necessary. Bends shall be sweeps, 4" x 50" duct telephone bende meeting GTE R3AS, United CDS-71 and NEMA TC-10 Specifications.
 4. Slope all conduit to drain toward manholes and away from structures.
 5. All work shall be performed according to utility company requirements.
 6. Ensure that the bottom of the trench is well-tamped and free of rocks.
 7. Install the conduit, gluing and all couplings.
 8. Install secondaries and other utility cables or conduits in the trench.
 9. Backfill with 12 inches clean fill not to contain stones larger than 4 inches in maximum diameter.
 10. Install cable warning.
 11. Fill in the remainder of the trench with native backfill.
 12. install pull line, including 10 feet of slack, and secure to conduit plug at each end of conduit run.
 13. All underground conduit to schedule 40 PVC conduit.
 14. Actual utility layout may vary depending on final utility company coordination. Coordination of final layout shall be the contractor's responsibility.
 15. All underground utilities crossing a roadway shall be concrete encased.
 16. Concrete encasement shall be color red within the limits of the state right-of-way.



ALL DIMENSIONS IN INCHES

FIG	2" DUCT			3" DUCT			4" DUCT			6" DUCT		
	W	H	S	W	H	S	W	H	S	W	H	S
1	10 1/2"	8 1/2"	1 1/2"	12 1/2"	9 1/2"	1 1/2"	14 1/2"	10 1/2"	1 1/2"	16 1/2"	11 1/2"	1 1/2"
1A	8 1/2"	12 1/2"	1 1/2"	7 1/2"	10 1/2"	1 1/2"	6 1/2"	9 1/2"	1 1/2"	5 1/2"	8 1/2"	1 1/2"
2	10 1/2"	12 1/2"	1 1/2"	12 1/2"	12 1/2"	1 1/2"	14 1/2"	10 1/2"	1 1/2"	16 1/2"	11 1/2"	1 1/2"
2A	10 1/2"	8 1/2"	1 1/2"	12 1/2"	9 1/2"	1 1/2"	14 1/2"	10 1/2"	1 1/2"	16 1/2"	11 1/2"	1 1/2"
4	14 1/2"	28 1/2"	1 1/2"	14 1/2"	28 1/2"	1 1/2"	14 1/2"	28 1/2"	1 1/2"	14 1/2"	28 1/2"	1 1/2"
4A	28 1/2"	18 1/2"	1 1/2"	28 1/2"	18 1/2"	1 1/2"	28 1/2"	18 1/2"	1 1/2"	28 1/2"	18 1/2"	1 1/2"
5	14 1/2"	28 1/2"	1 1/2"	14 1/2"	28 1/2"	1 1/2"	14 1/2"	28 1/2"	1 1/2"	14 1/2"	28 1/2"	1 1/2"
5A	28 1/2"	24 1/2"	1 1/2"	28 1/2"	24 1/2"	1 1/2"	28 1/2"	24 1/2"	1 1/2"	28 1/2"	24 1/2"	1 1/2"
6A												
7A												

DUCT BANK AT BUILDING FOUNDATION WALL
 12 DUCTS
 #6 REBAR (TYP.)
 3" (TYP.)

CONDUIT BANK CONSTRUCTION
 N.T.S.

GENERAL
 1. The customer (contractor) shall be responsible for service trench, conduit, concrete encasement and conduit inspections.
 2. NU shall be responsible for sealing the inside of the conduit.
 3. NU shall not be responsible for any leak between the conduit and the wall.

SERVICE TRENCH - Trench location, as specified by NU, shall be in as direct a line as possible without reverse curves from the distribution facility to the customer service entrance.
 Trench shall be excavated and backfilled by the customer.
 Corrosive fill such as cinders shall not be used.
 The backfill within 6 inches of conduit shall not contain any large or sharp rocks or other objects that might damage conduit.
 The trench shall have a 24-inch minimum cover over supply conduit to finish grade, except where ledge is encountered, then the cover may be reduced to 18 inches if steel is used.
 The trench shall have a 4-inch-per-100-foot downward pitch toward distribution facility, if physically possible.
 Maintain a 12-inch minimum separation from other facilities except for communication conduit which may have 3 inches of concrete separation.

CONDUIT - Conduit shall be as specified by NU but supplied and installed by customer.

	Steel Galv	IMC	PVC Schedule 40	PVC Type EB*
Direct-Buried (DB)	X	X	X	X
Disturbed Earth (i.e., Filled Area)	X	X	-	X
Delta Primary (i.e., 4.8 KV)	X	X	-	X

*Must be encased in concrete

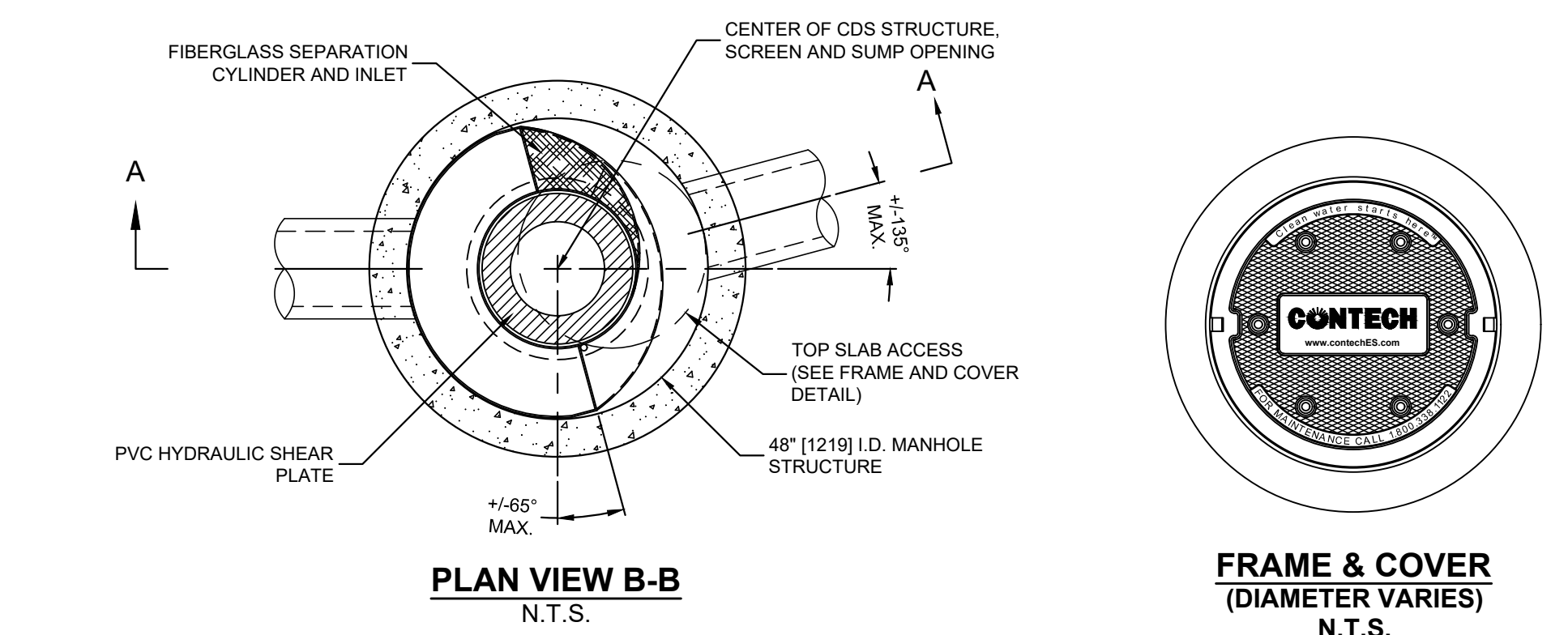
CONCRETE ENCASEMENT - Concrete shall be 2,000 psi, 28 day strength with 1/2-inch maximum aggregate. A stiff field mix of 1 part cement, 3 parts sand, 5 parts stone (1:3:5) will be acceptable.
 Encasement shall be 3 inches top and bottom, 2 inches sides and 1-1/2 inches between conduits (except 2 inches between 6-inch conduit). All dimensions are minimum.
 When steel conduit and PVC conduit are joined the encasement should be extended 1 foot onto the steel conduit.

CONDUIT INSPECTION
 1. Conduit(s) shall be cleaned with a wire brush of the same diameter as the conduit.
 2. A test shall be made by pulling a 17-inch-long flexible mandrel through the conduit, equal to diameter of the conduit. NU reserves the right to witness the cleaning and testing.
 3. A 1/4-inch-diameter nylon pull line shall be placed in the conduit, including 10 feet of slack, and secured to a plastic conduit plug at each end of the conduit run.

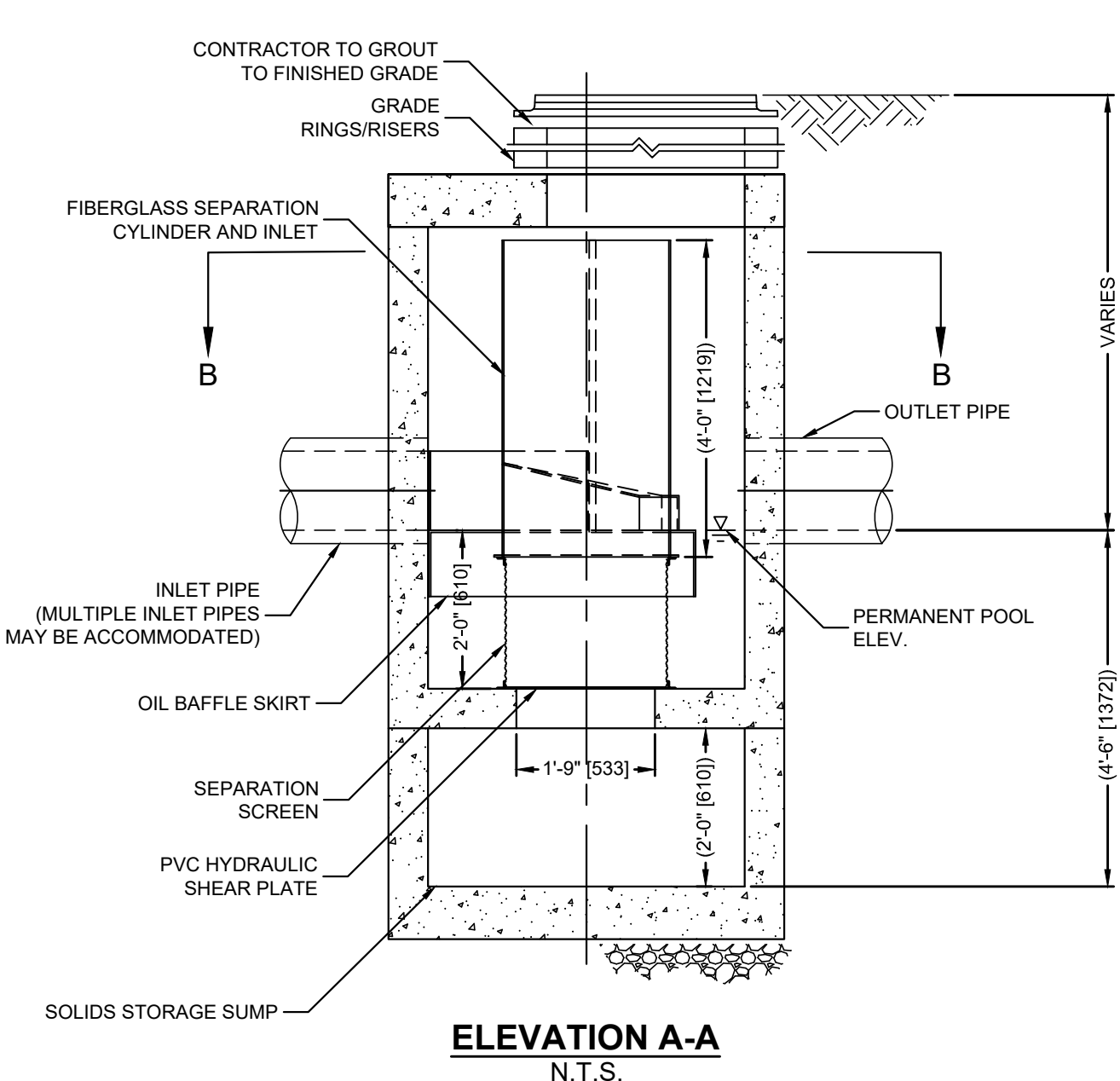
CONDUIT SEALING - Conduit occupied with cable is to be sealed by NU at the customer service entrance with jute and duct sealing putty. The water-path in bare standard neutral cable will be sealed by splicing a piece of covered cable onto the bare neutral using a waterstop connector (See DTR 73.251-252).
 Empty conduit shall be sealed at the customer service entrance with a plastic plug to prevent the possible entry by water or gas. If physical conditions require conduit to slope toward the customers facilities additional seals will be required at the distribution facilities, i.e., manhole or other types of UG structures.

For a discussion of the types of conduit and their applications, see DTR 44.351.
 Sweeps in the conduit run, achieved by forcing a gradual bend in a length of Type EB PVC conduit, shall have a minimum radius of 15 feet. Manufactured bends in the conduit run shall have a minimum radius of 48 inches. This requirement does not include the bends used at riser poles or equipment pads where the bend radius shall be a minimum of 24 inches, with 36 inches preferred.
 There must be a seal between conduit and building wall.

EVERSOURCE CONDUIT INSTALLATION DETAIL
 N.T.S.



FRAME & COVER
 (DIAMETER VARIES)
 N.T.S.



GENERAL NOTES
 1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
 3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
 4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0'-2" AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
 5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELVE AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
 6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
 A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
 C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
 D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
 E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STORMWATER OIL/GRIT SEPARATOR
 MODEL: CDS2015-4-C
 (BY CONTECH)
 N.T.S.

1	02/08/2023	ZONING BOARD SUBMISSION
No.	Date	Revision

DETAILS
 DEPICTING
3 LANDMARK SQUARE
 STAMFORD, CT
 PREPARED FOR
LANDMARK SQUARE I-6, LLC

SCALE: N.T.S.
 DRAWN BY: JTF CHECKED BY: TM
 FEBRUARY 5, 2023

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SHEET No: **SE-11**
 Comm. No.: 1981

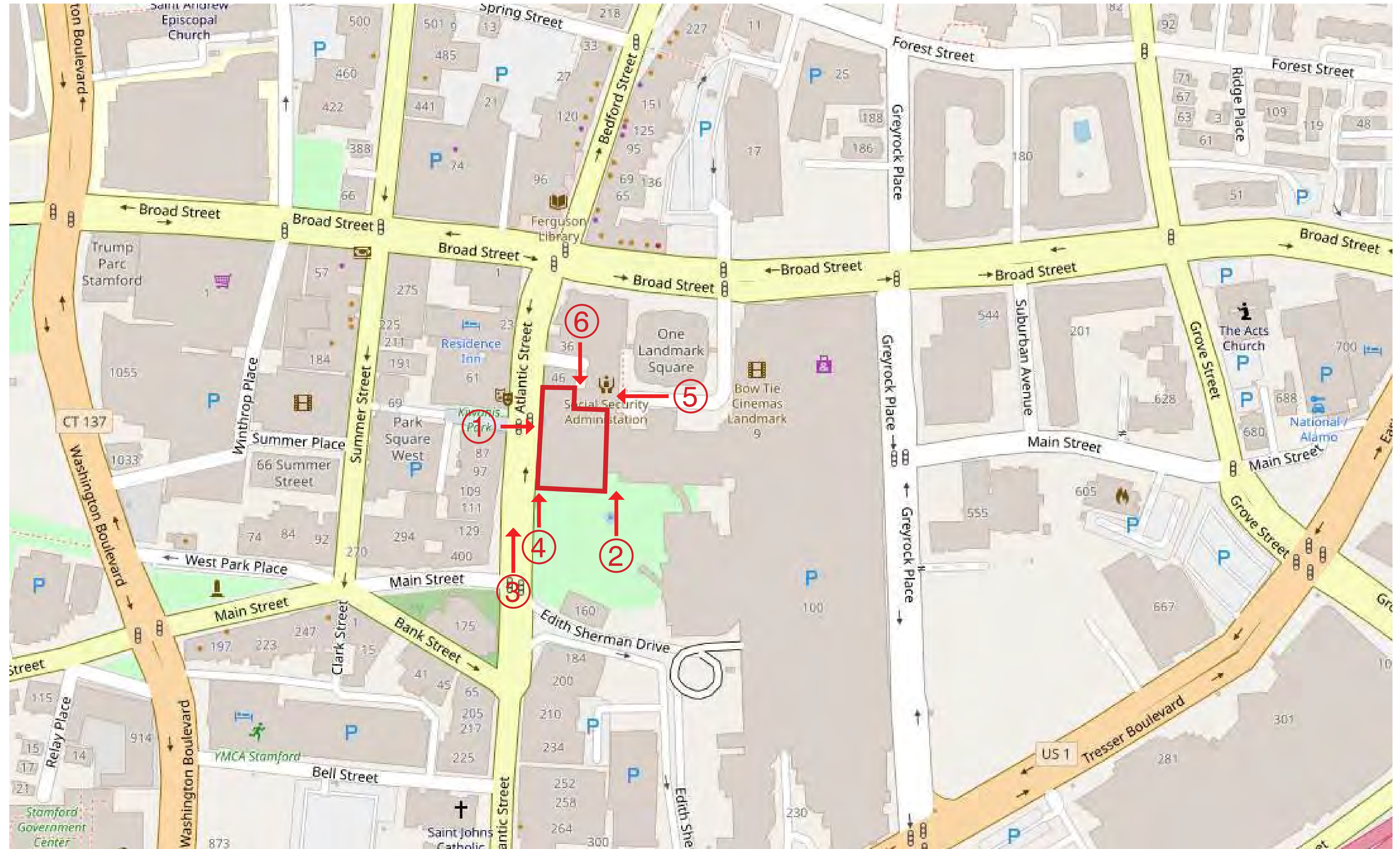
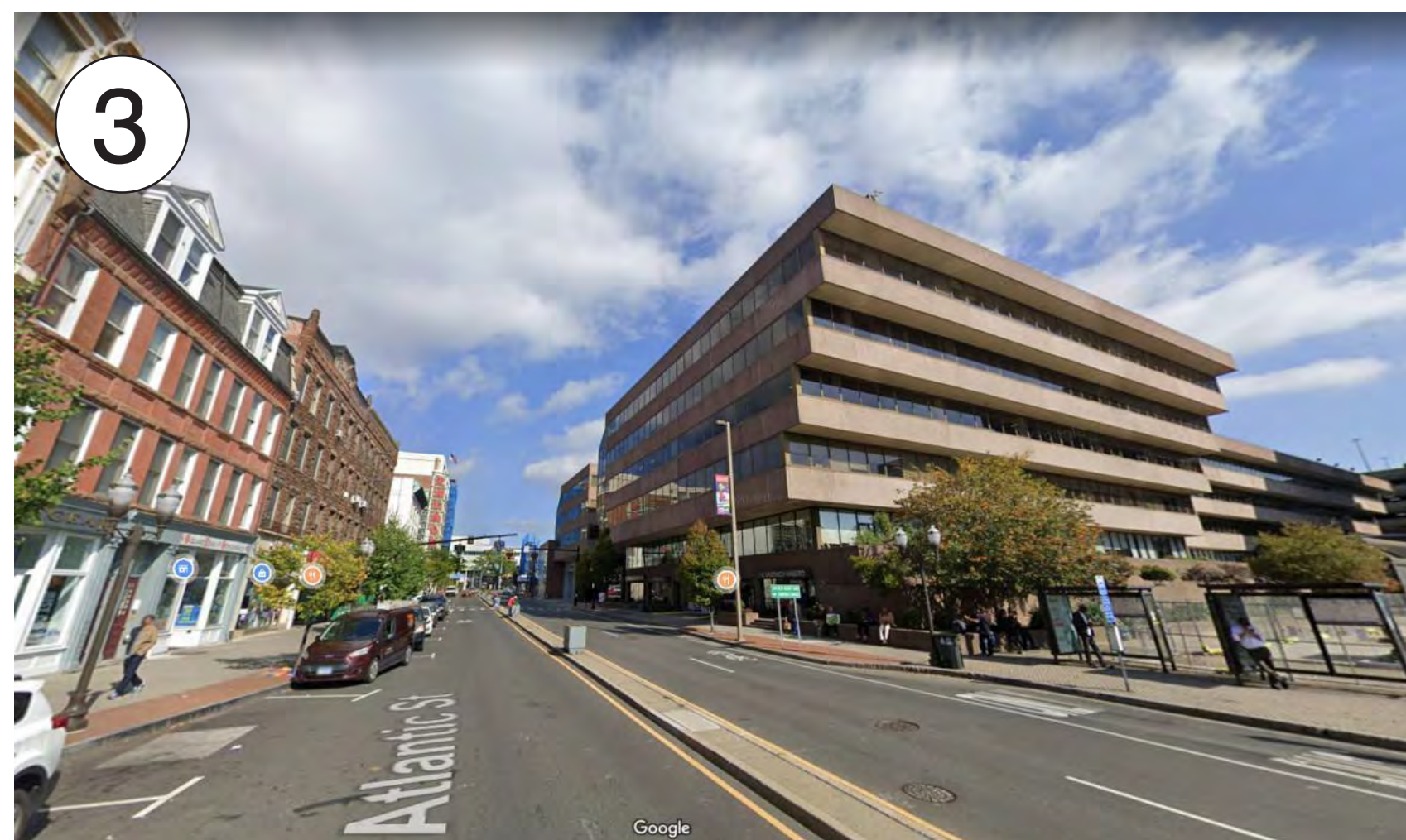


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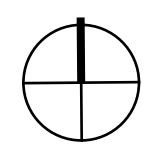
- A.01 - COVER SHEET
- A.02 - VICINITY MAP & EXISTING CONDITIONS
- A.03 - ILLUSTRATIVE SITE PLAN
- A.04 - BASEMENT FLOOR PLAN (B2)
- A.05 - BASEMENT FLOOR PLAN (B1)
- A.06 - GROUND FLOOR PLAN (GR/G1)
- A.07 - GARAGE FLOOR PLAN (G2)
- A.08 - TYPICAL GARAGE FLOOR PLAN (G3-G5)
- A.09 - RESIDENTIAL FLOOR PLANS (R1)/6TH FLOOR
- A.10 - TYPICAL RESIDENTIAL FLOOR PLAN (R2-R21)/7-26 FLOOR
- A.11 - TYPICAL RESIDENTIAL FLOOR PLAN (R22-R26)/27-31 FLOOR
- A.12 - ROOF PLAN
- A.13 - MATERIAL SAMPLE BOARD
- A.14 - ELEVATIONS - SOUTH AND WEST
- A.15 - ELEVATIONS - NORTH AND EAST
- A.16 - ELEVATION WEST ENLARGED
- A.17 - ELEVATION SOUTH ENLARGED
- A.18 - PERSPECTIVE VIEW 1
- A.19 - PERSPECTIVE VIEW 2
- A.20 - AERIAL PERSPECTIVE
- A.21 - BUILDING SECTION

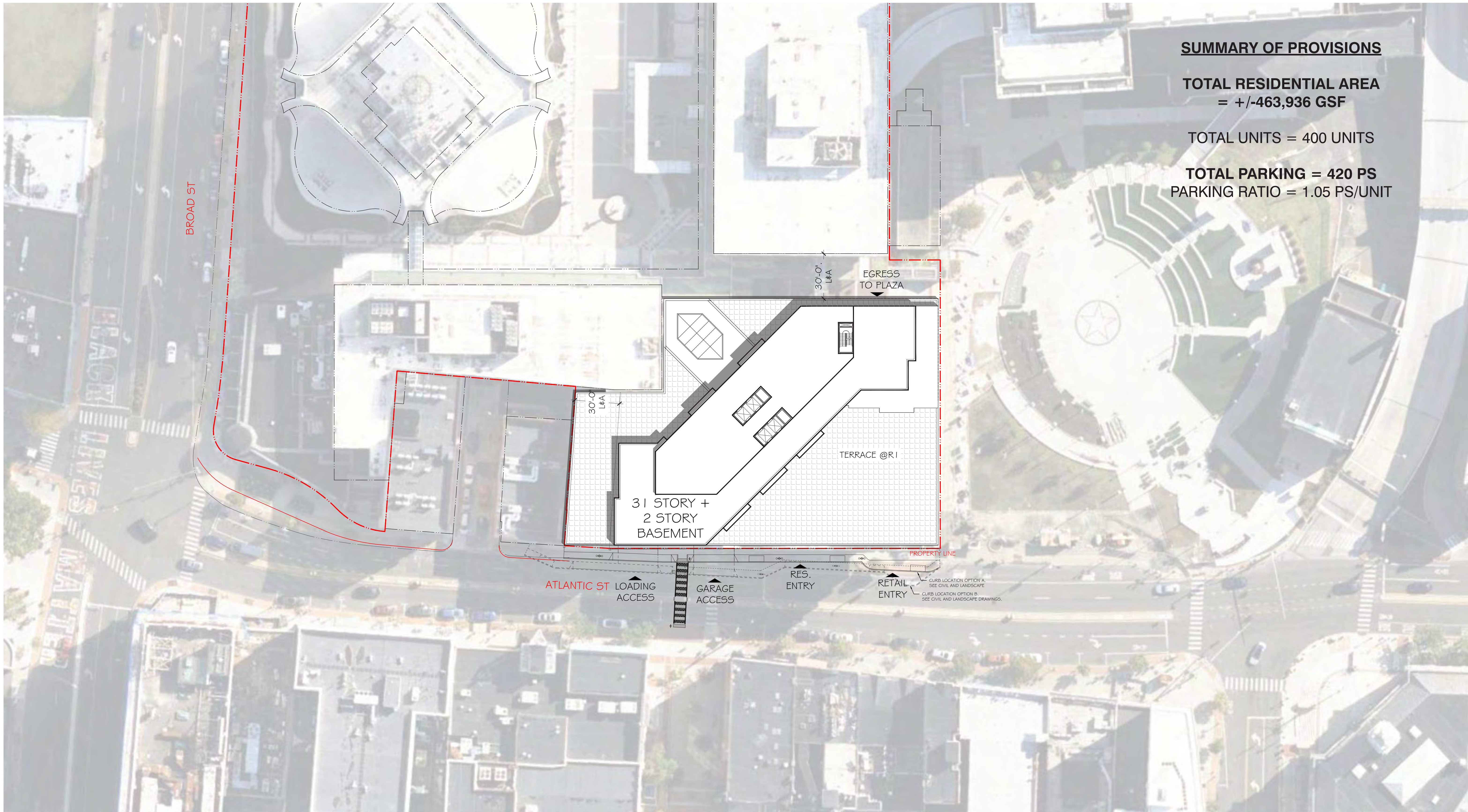
3 LANDMARK SQUARE SITE PLAN SUBMISSION

02/10/2023



*NOTE: REFER TO CIVIL FOR SITE PLAN AND CIVIL INFORMATION.
 LANDSCAPE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
 REFER TO LANDSCAPE FOR TREES AND LANDSCAPE INFORMATION.





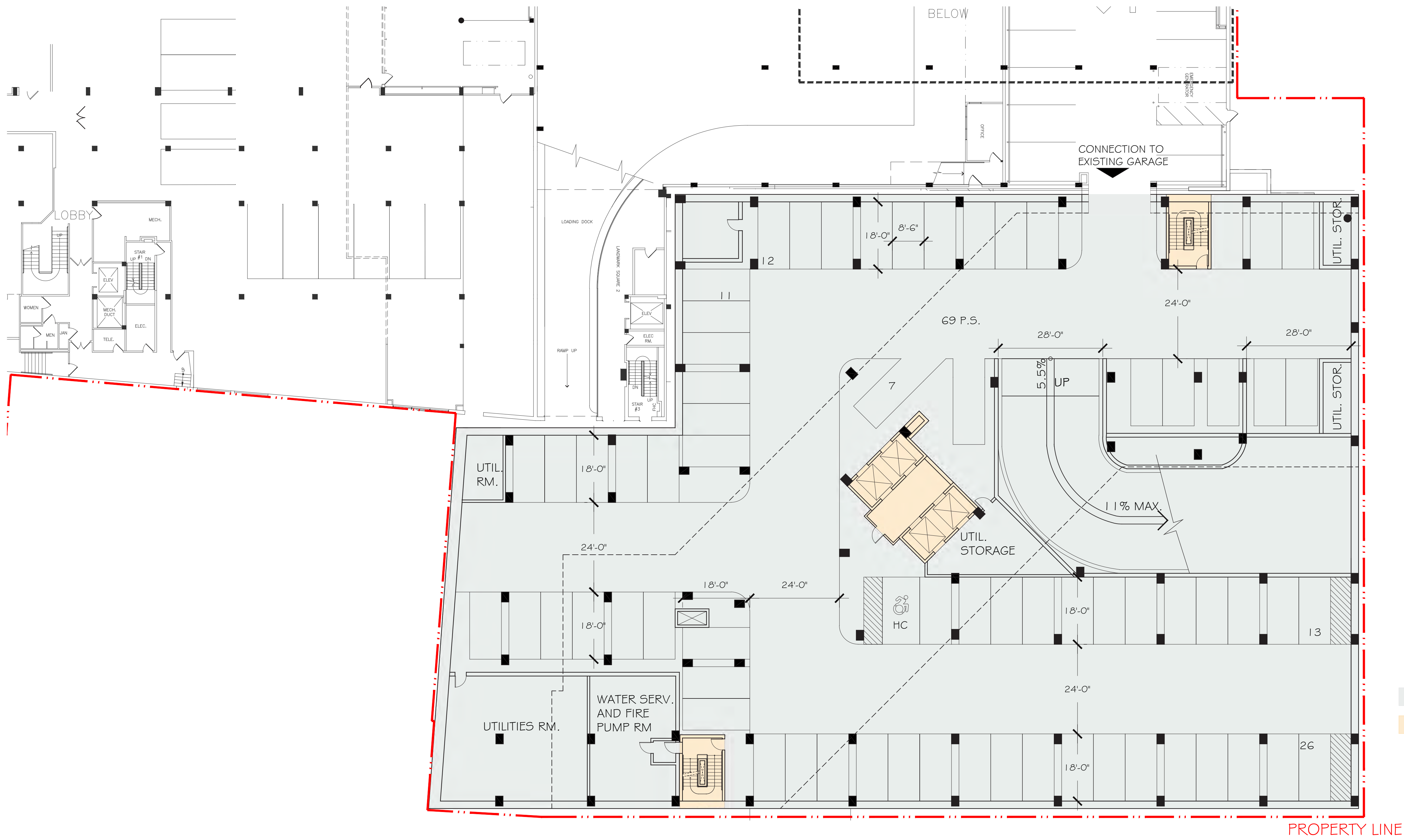
SUMMARY OF PROVISIONS

TOTAL RESIDENTIAL AREA
= +/-463,936 GSF

TOTAL UNITS = 400 UNITS

TOTAL PARKING = 420 PS
PARKING RATIO = 1.05 PS/UNIT

*NOTE: REFER TO CIVIL FOR SITE PLAN AND CIVIL INFORMATION.
LANDSCAPE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
REFER TO LANDSCAPE FOR TREES AND LANDSCAPE INFORMATION.



*NOTE: REFER TO LANDSCAPE ARCHITECT FOR LANDSCAPE AND TERRACE DESIGN
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 CONCEPT REPRESENTS CURRENT CC ZONING REGULATIONS JAN 17, 2023

BASEMENT FLOOR PLAN (B2)

SITE PLAN SUBMISSION

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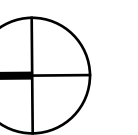
3 LANDMARK SQUARE

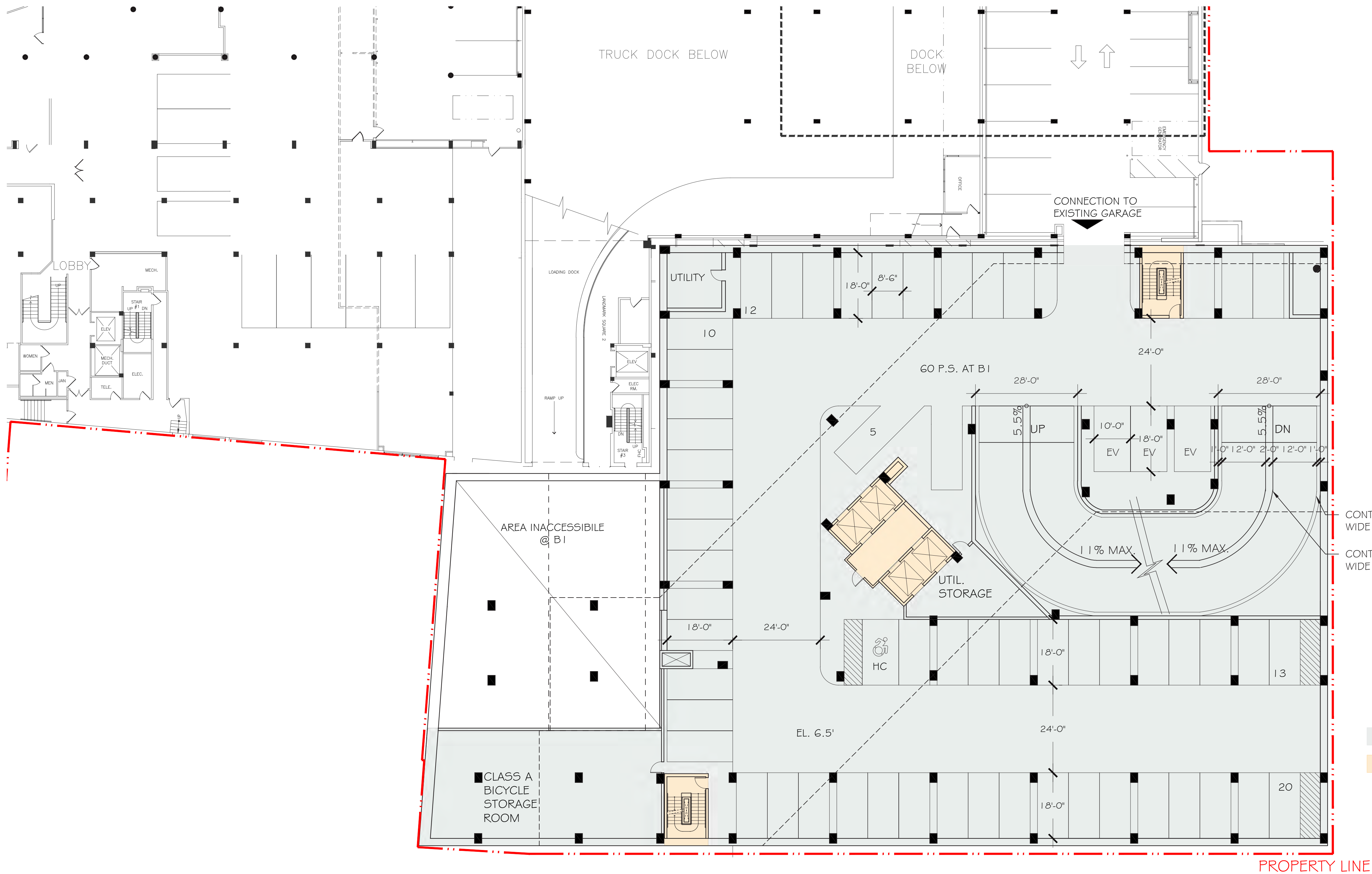
STAMFORD, CT
CAPPELLI

02/10/2023
 CEI.012

A.04

0' 8' 16' 32'
 SCALE: 1/16" = 1'-0" (@ 22"x34")



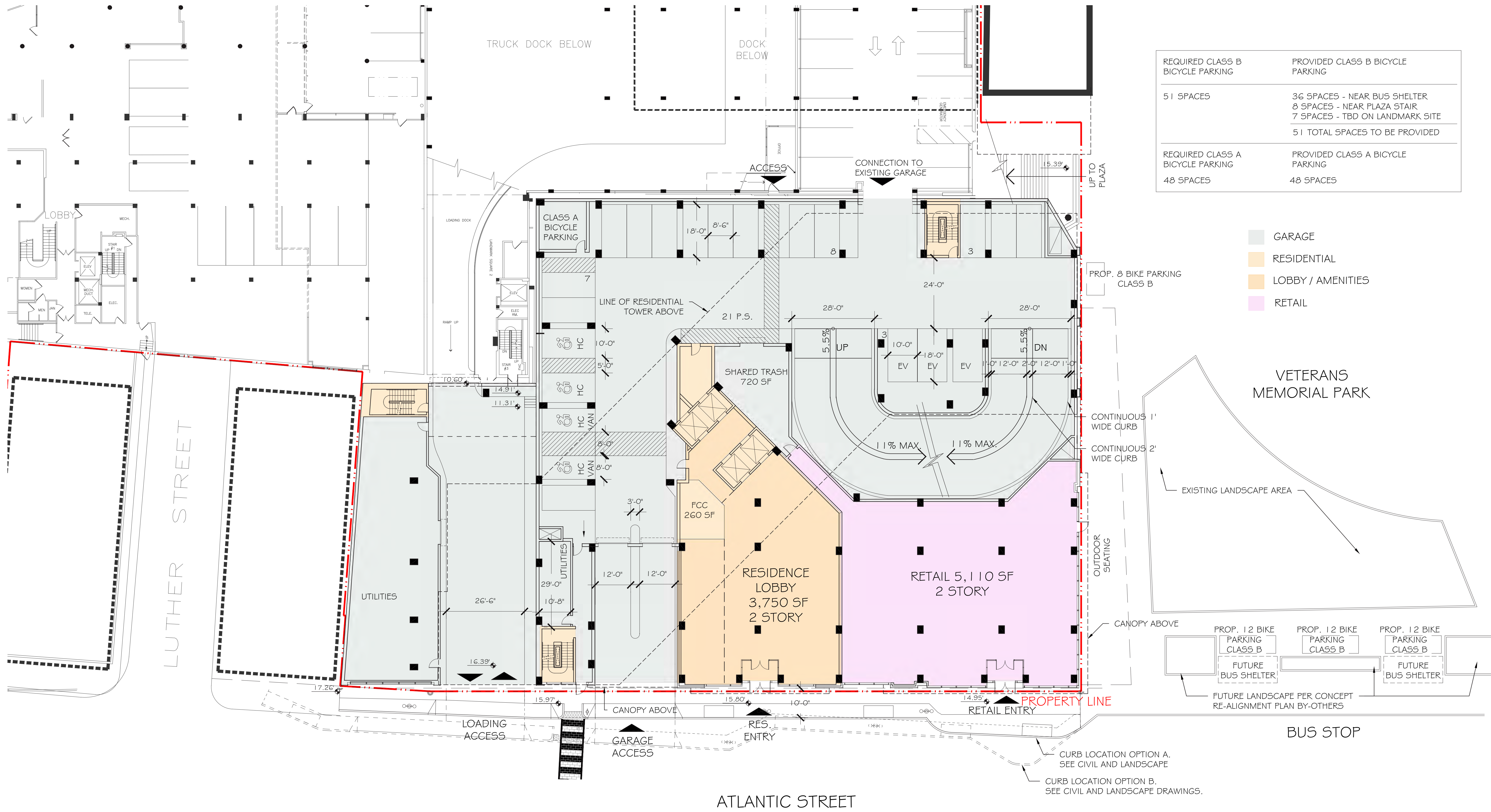


CONTINUOUS 1' WIDE CURB
CONTINUOUS 2' WIDE CURB

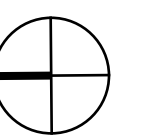
GARAGE
RESIDENTIAL

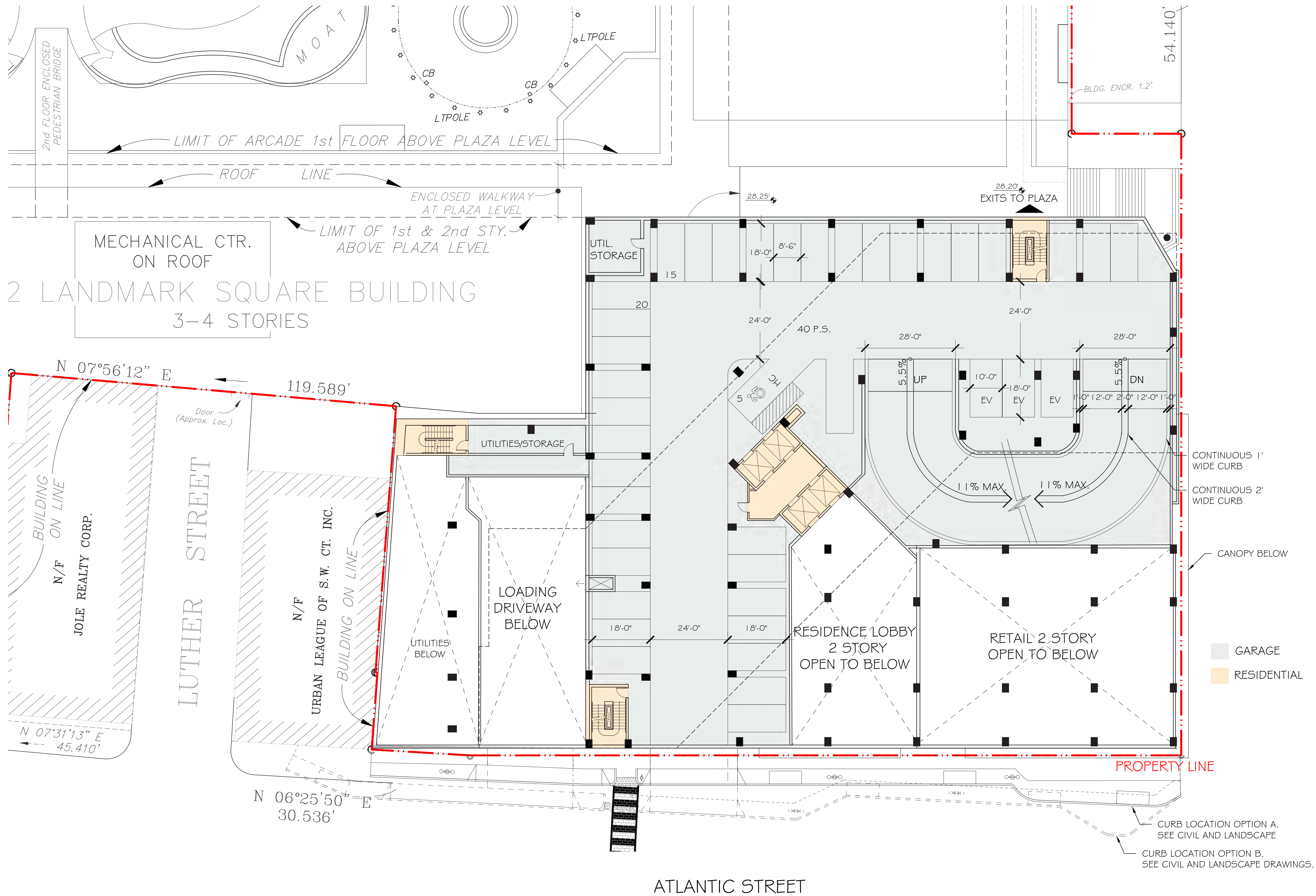
PROPERTY LINE

*NOTE: REFER TO LANDSCAPE ARCHITECT FOR LANDSCAPE AND TERRACE DESIGN
REFER TO CIVIL FOR SITE PLANS AND CIVIL INFORMATION.
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CONCEPT REPRESENTS CURRENT CC ZONING REGULATIONS JAN 17, 2023

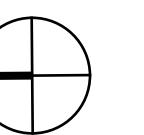


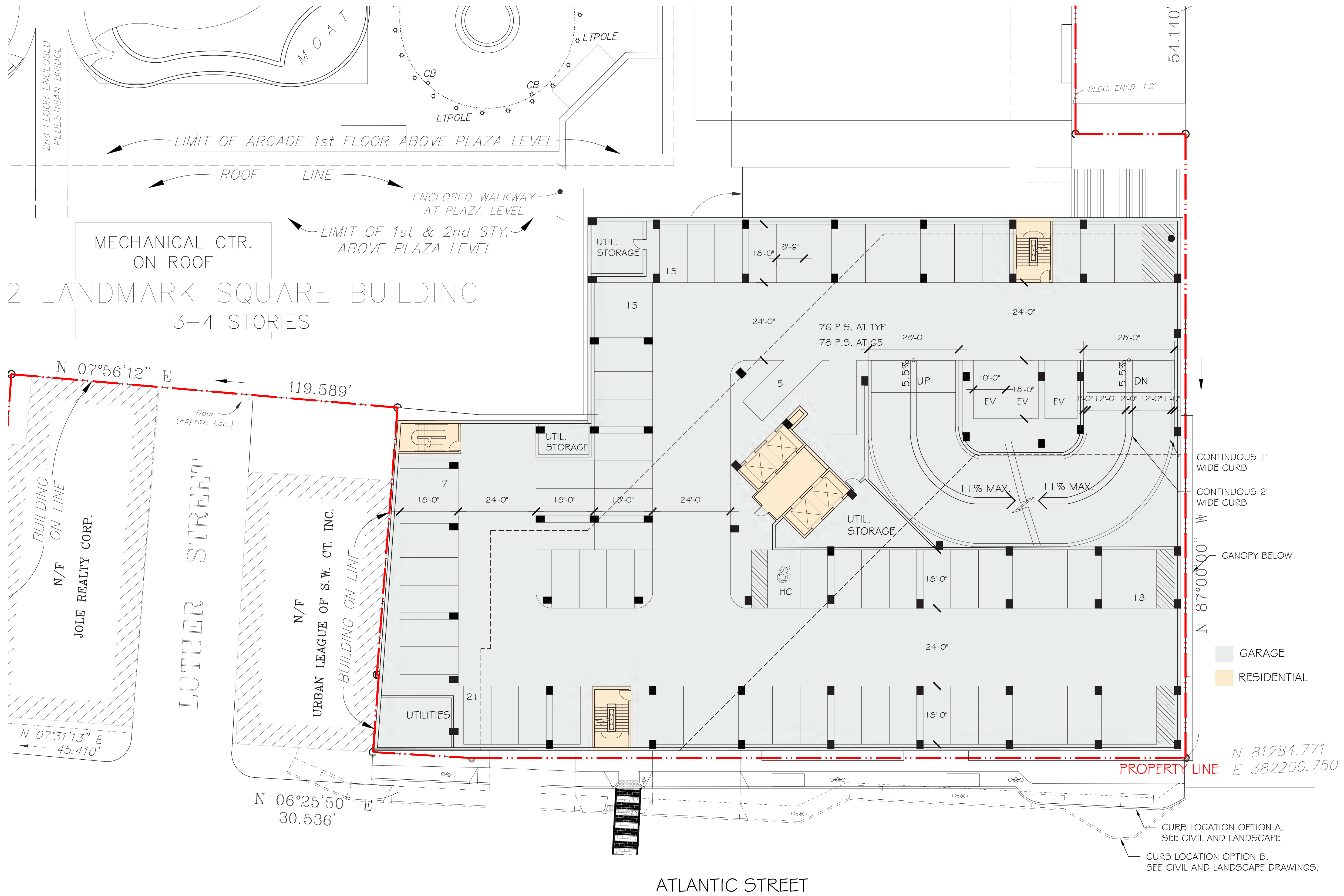
*NOTE: REFER TO LANDSCAPE ARCHITECT FOR LANDSCAPE AND TERRACE DESIGN
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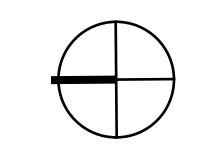
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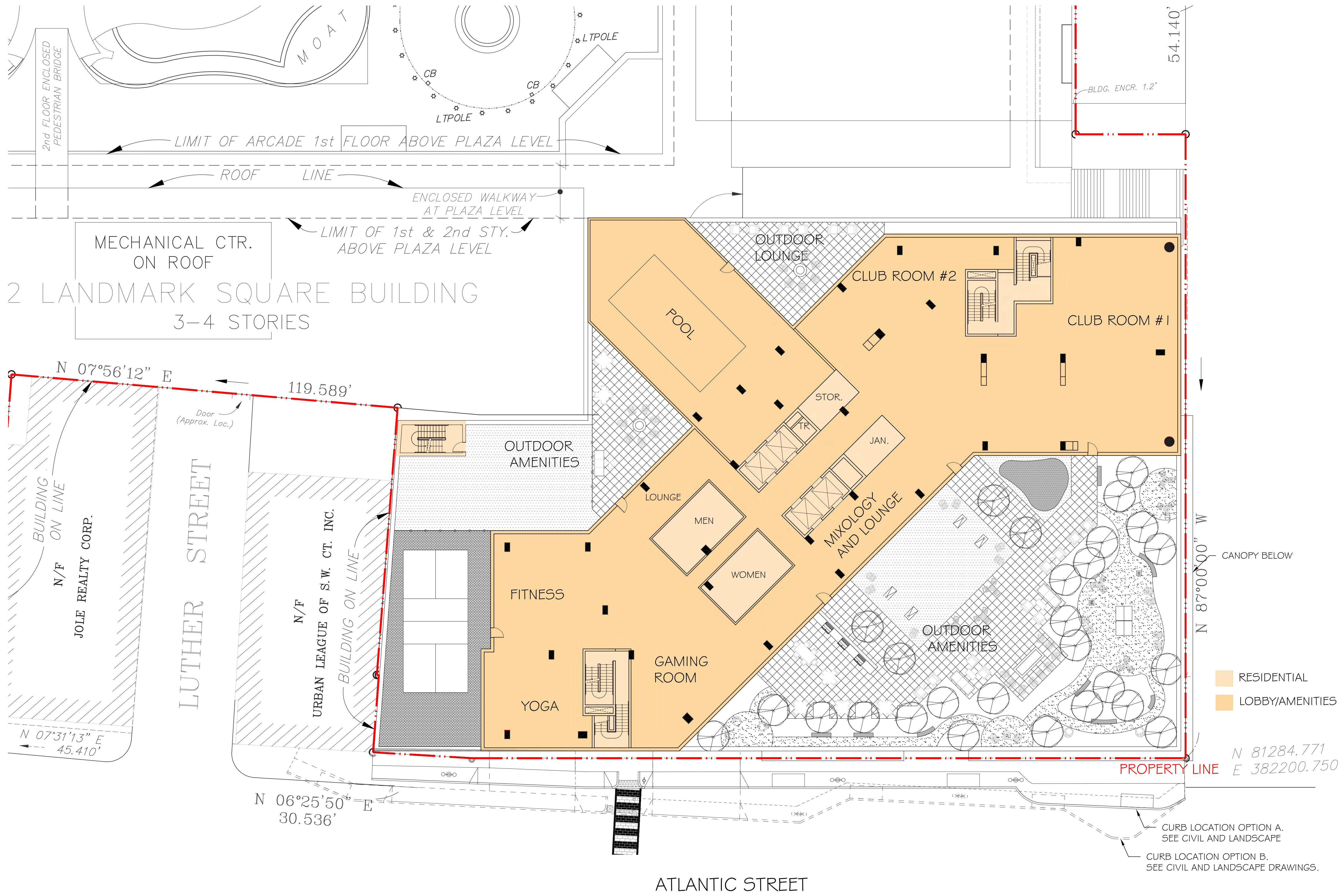




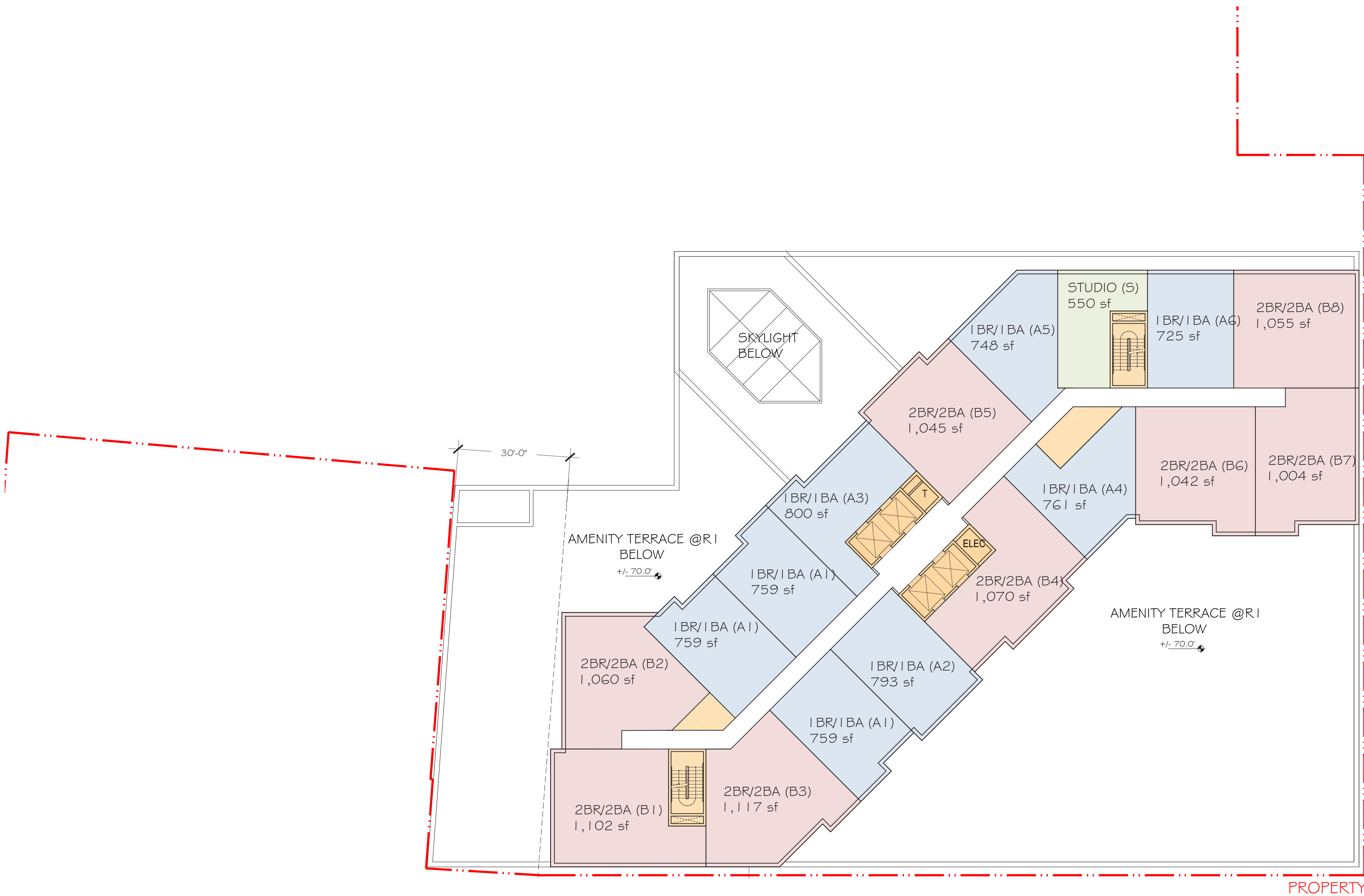
2 LANDMARK SQUARE BUILDING
3-4 STORIES

*NOTE: REFER TO LANDSCAPE ARCHITECT FOR LANDSCAPE AND TERRACE DESIGN
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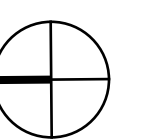




*NOTE: REFER TO LANDSCAPE ARCHITECT FOR LANDSCAPE AND TERRACE DESIGN
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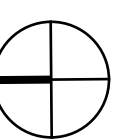
*NOTE: REFER TO LANDSCAPE ARCHITECT FOR LANDSCAPE AND TERRACE DESIGN
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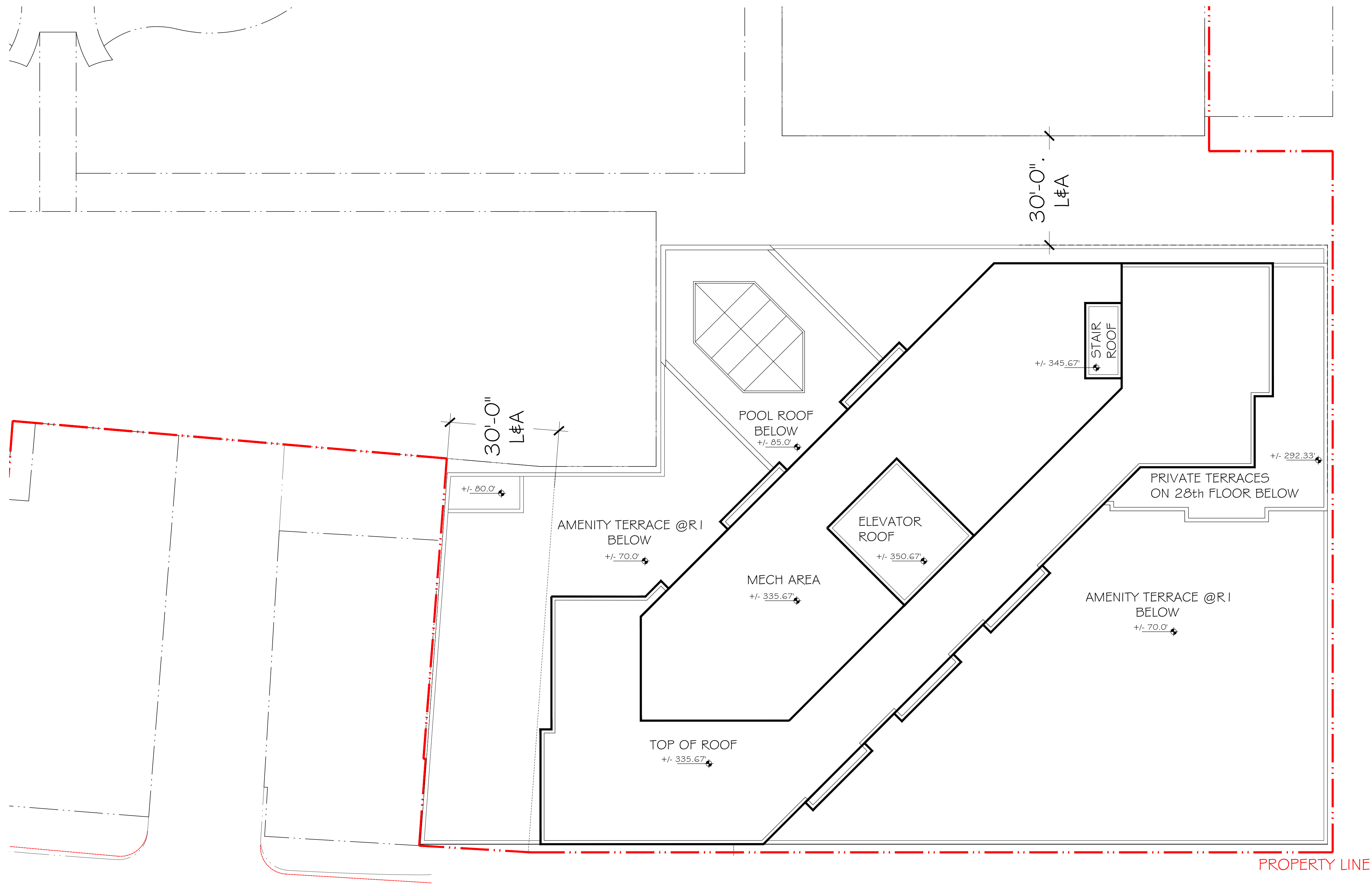




ATLANTIC STREET

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 CONCEPT REPRESENTS CURRENT CC ZONING REGULATIONS JAN 17, 2023





ATLANTIC ST

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ROOF PLAN

SITE PLAN SUBMISSION

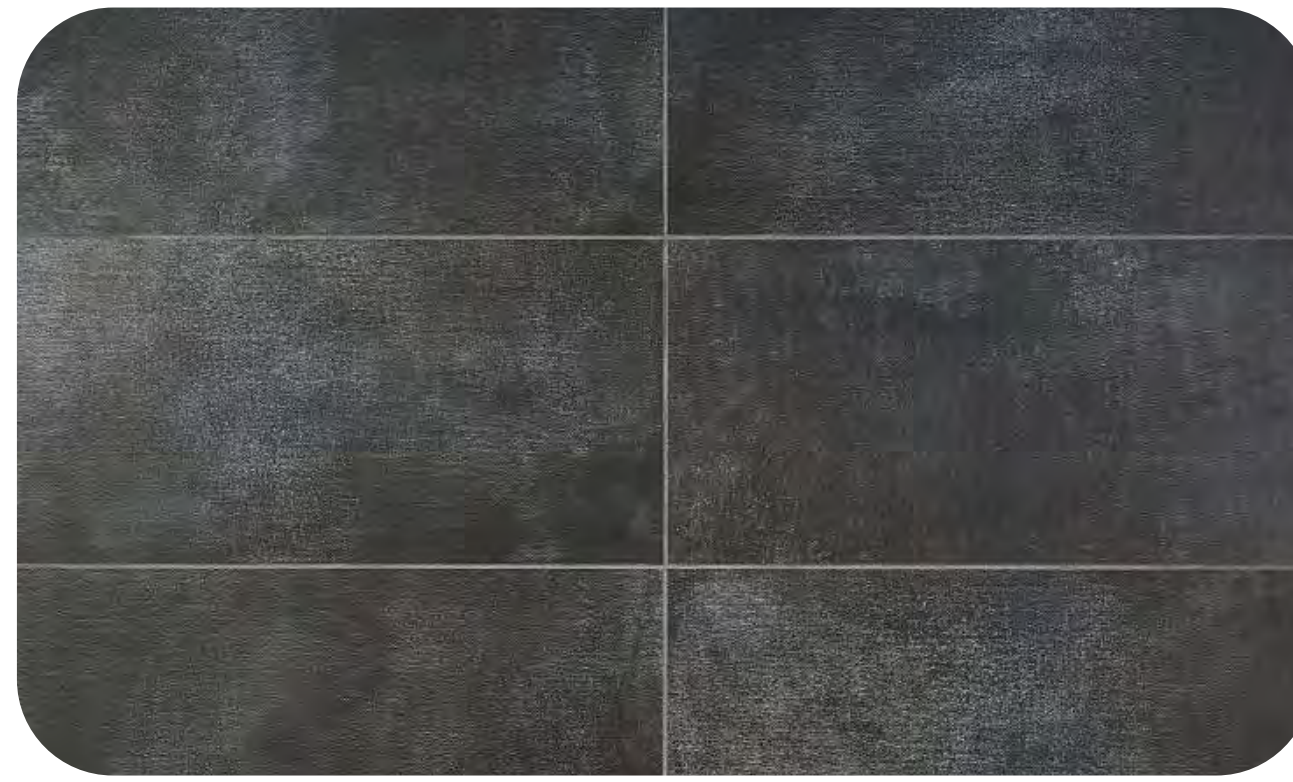
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①
Metal panel



②
Perforated metal panel
screen / metal screen



③
Porcelain Tiles



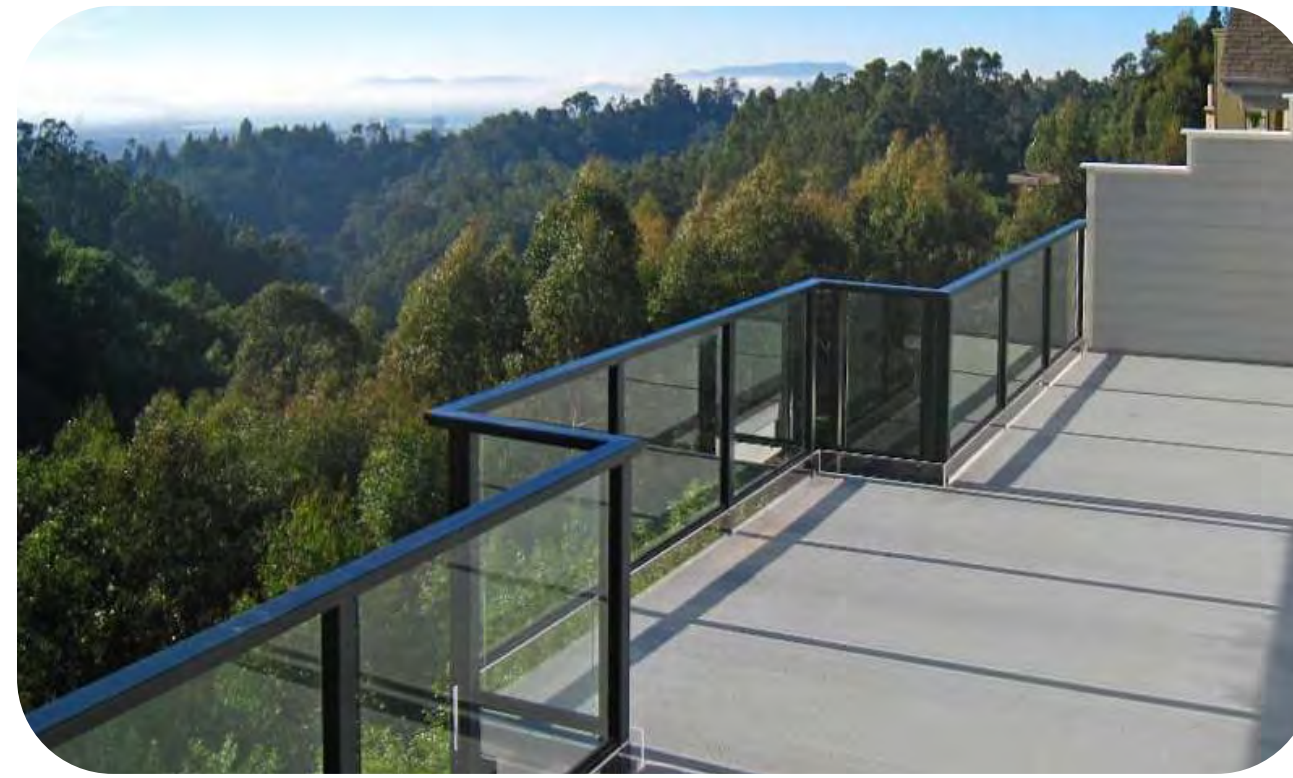
④
Metal canopy



⑤
Storefront Glass



⑥
Window walls



⑦
Glass Railing



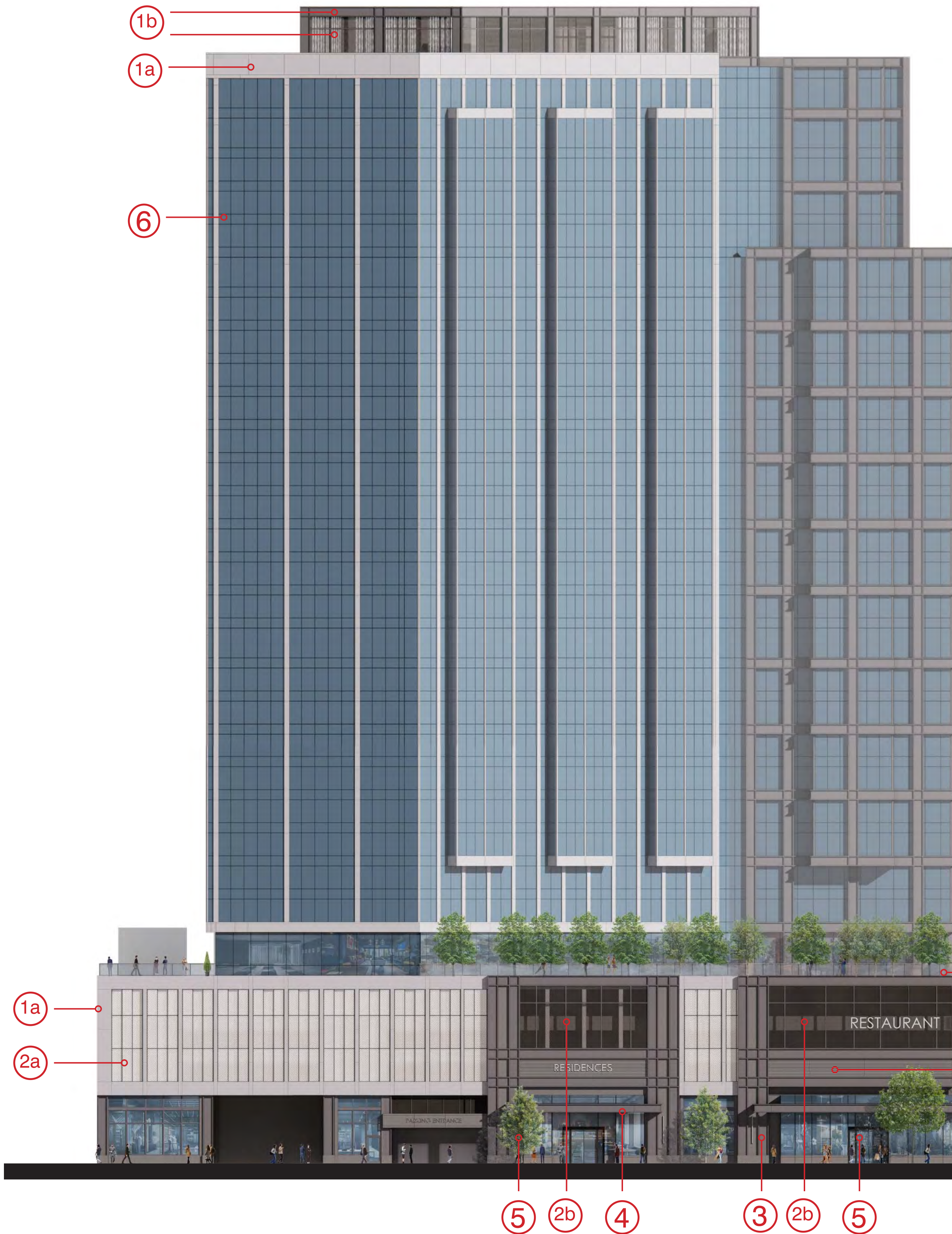
⑧
Metal Louvers



⑨
Living Green Wall



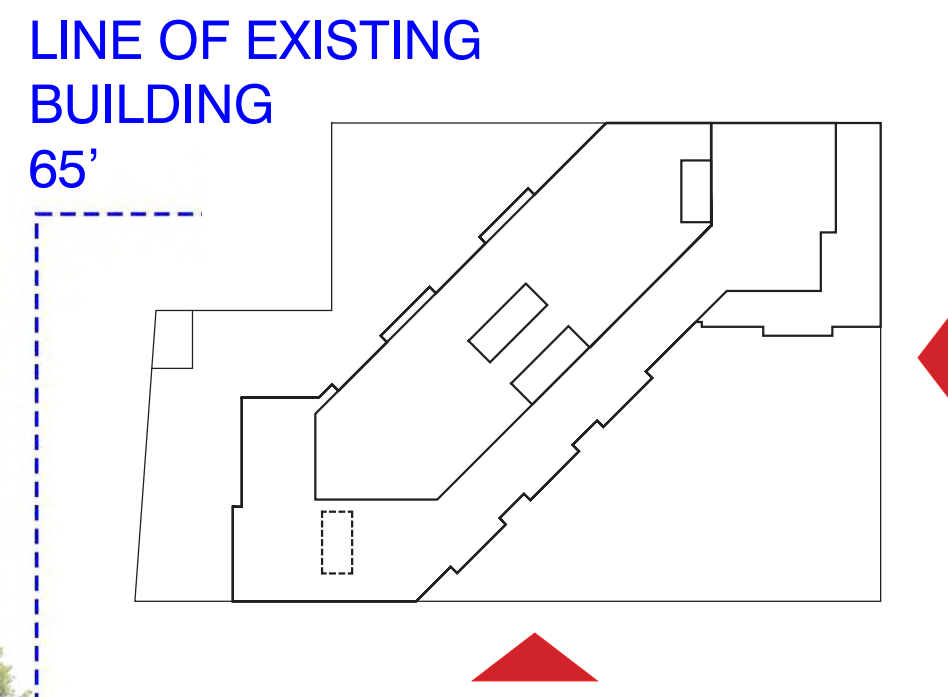
⑩
EIFS



ROOF
 12'-8" 32
 11'-8" 31
 9'-8" 30
 9'-8" 29
 9'-8" 28
 11'-8" 27
 9'-8" 26
 9'-8" 25
 9'-8" 24
 9'-8" 23
 9'-8" 22
 9'-8" 21
 9'-8" 20
 9'-8" 19
 9'-8" 18
 9'-8" 17
 11'-8" 16
 9'-8" 15
 9'-8" 14
 9'-8" 12
 9'-8" 11
 9'-8" 10
 9'-8" 9
 9'-8" 8
 9'-8" 7
 15'-0" 6
 15'-0" G5
 9'-6" G4
 9'-6" G3
 9'-6" G2
 10'-6" GR/G1

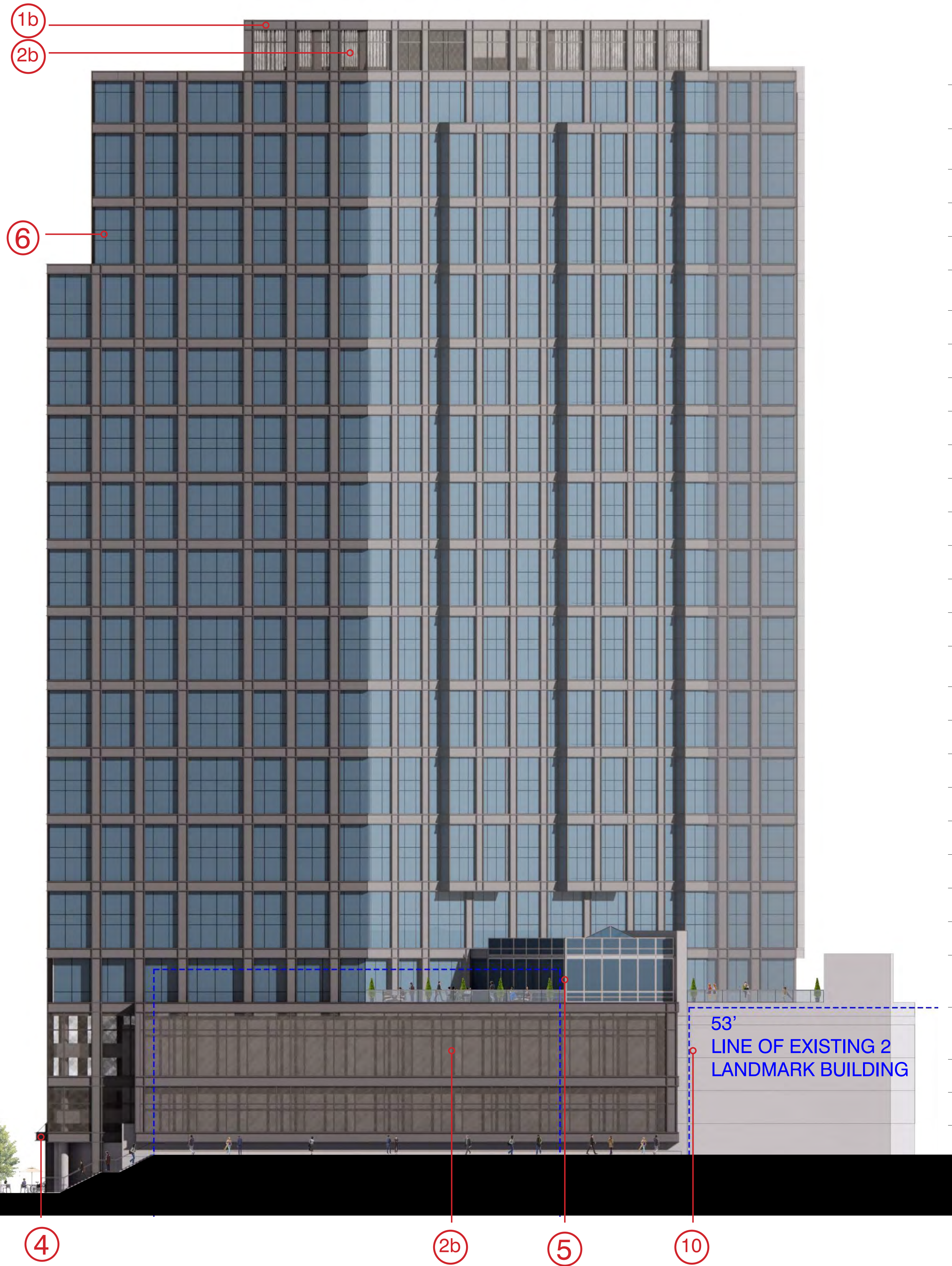


MATERIAL LEGEND	
1a.	Metal panel - Light
1b.	Metal panel - Dark
2a.	Perforated Metal Panel - Light
2b.	Perforated Metal Panel - Dark
3.	Porcelain Tiles
4.	Metal canopy
5.	Storefront glass
6.	Window walls
7.	Glass Railing
8.	Metal Louvers
9.	Green Wall
10.	EIFS

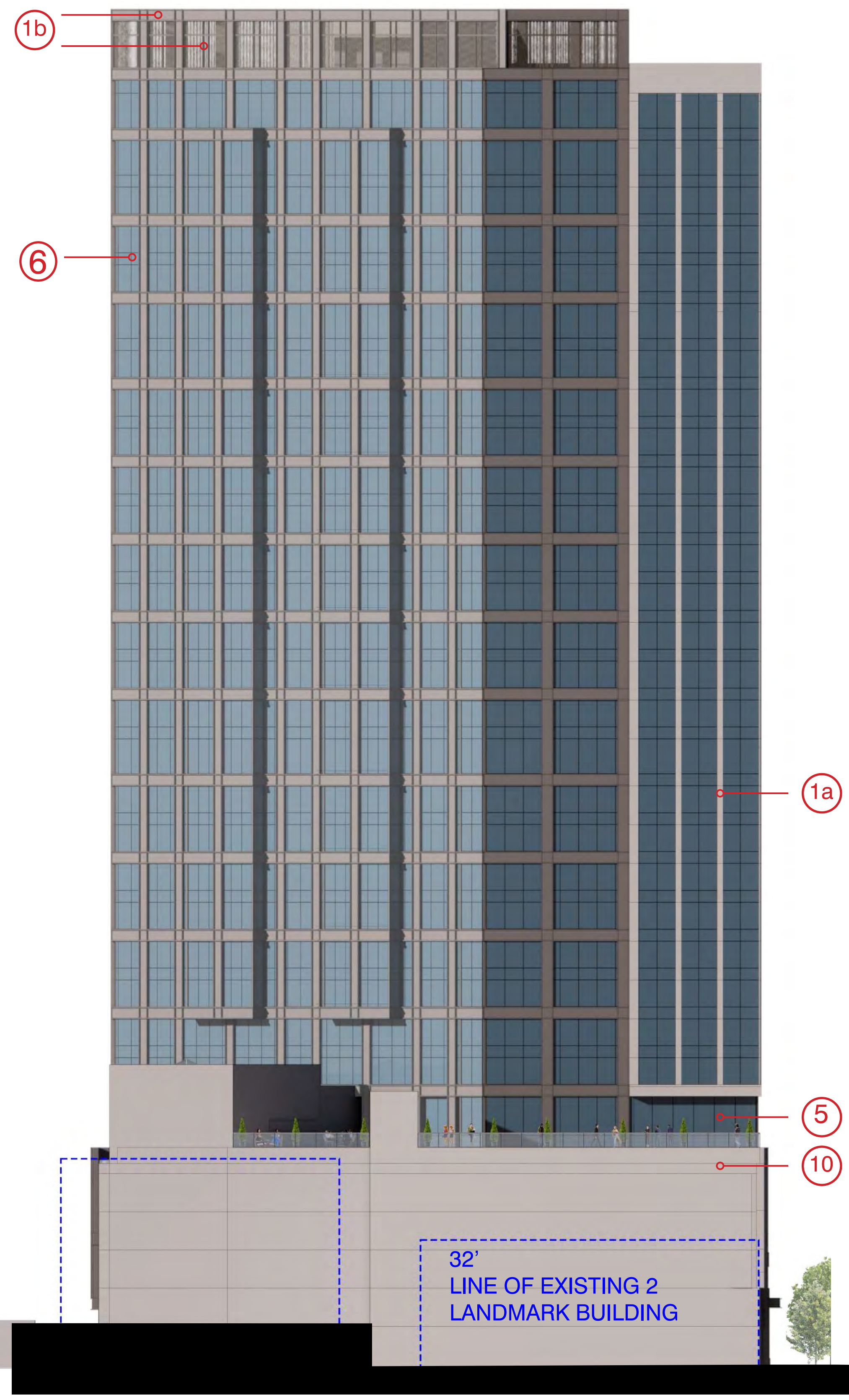


*NOTE: PRODUCTS AND MANUFACTURERS LISTED ARE SUBJECT TO CHANGE AND/OR TO BE SUBSTITUTED WITH EQUIVALENT AND COMPATIBLE OPTIONS

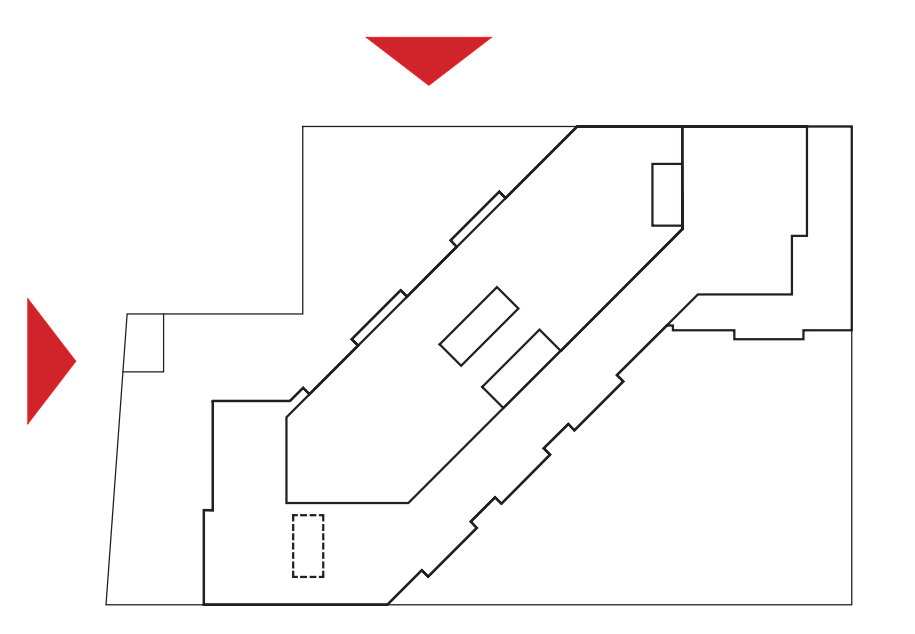
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ROOF	
12'-8"	32
11'-8"	31
9'-8"	30
9'-8"	29
9'-8"	28
11'-8"	27
9'-8"	26
9'-8"	25
9'-8"	24
9'-8"	23
9'-8"	22
9'-8"	21
9'-8"	20
9'-8"	19
9'-8"	18
9'-8"	17
11'-8"	16
9'-8"	15
9'-8"	14
9'-8"	12
9'-8"	11
9'-8"	10
9'-8"	9
9'-8"	8
9'-8"	7
15'-0"	6
15'-0"	G5
9'-6"	G4
9'-6"	G3
9'-6"	G2
10'-6"	GR/G1



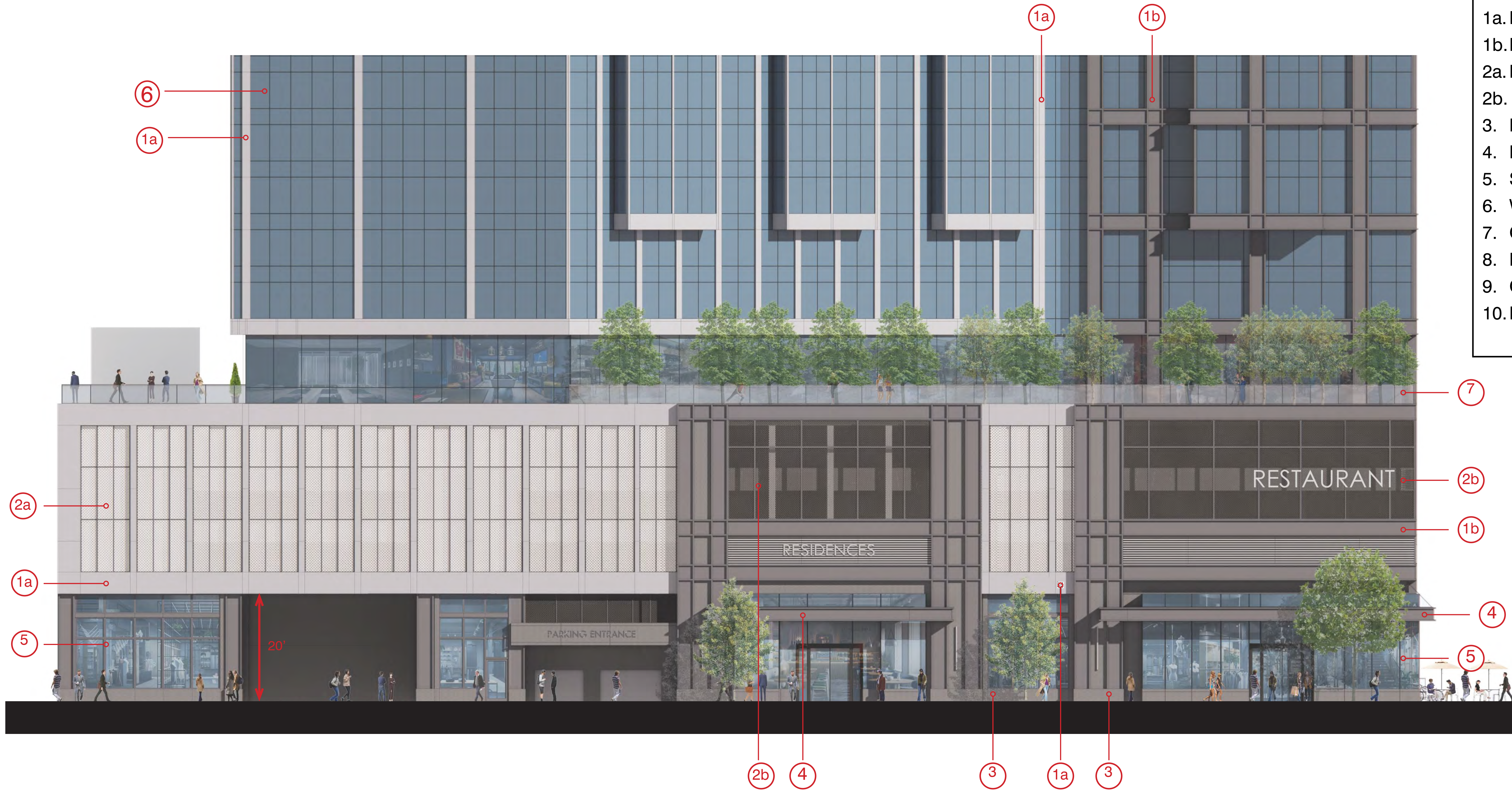
MATERIAL LEGEND	
1a.	Metal panel - Light
1b.	Metal panel - Dark
2a.	Perforated Metal Panel - Light
2b.	Perforated Metal Panel - Dark
3.	Porcelain Tiles
4.	Metal canopy
5.	Storefront glass
6.	Window walls
7.	Glass Railing
8.	Metal Louvers
9.	Green Wall
10.	EIFS



*NOTE: PRODUCTS AND MANUFACTURERS LISTED ARE SUBJECT TO CHANGE AND/OR TO BE SUBSTITUTED WITH EQUIVALENT AND COMPATIBLE OPTIONS

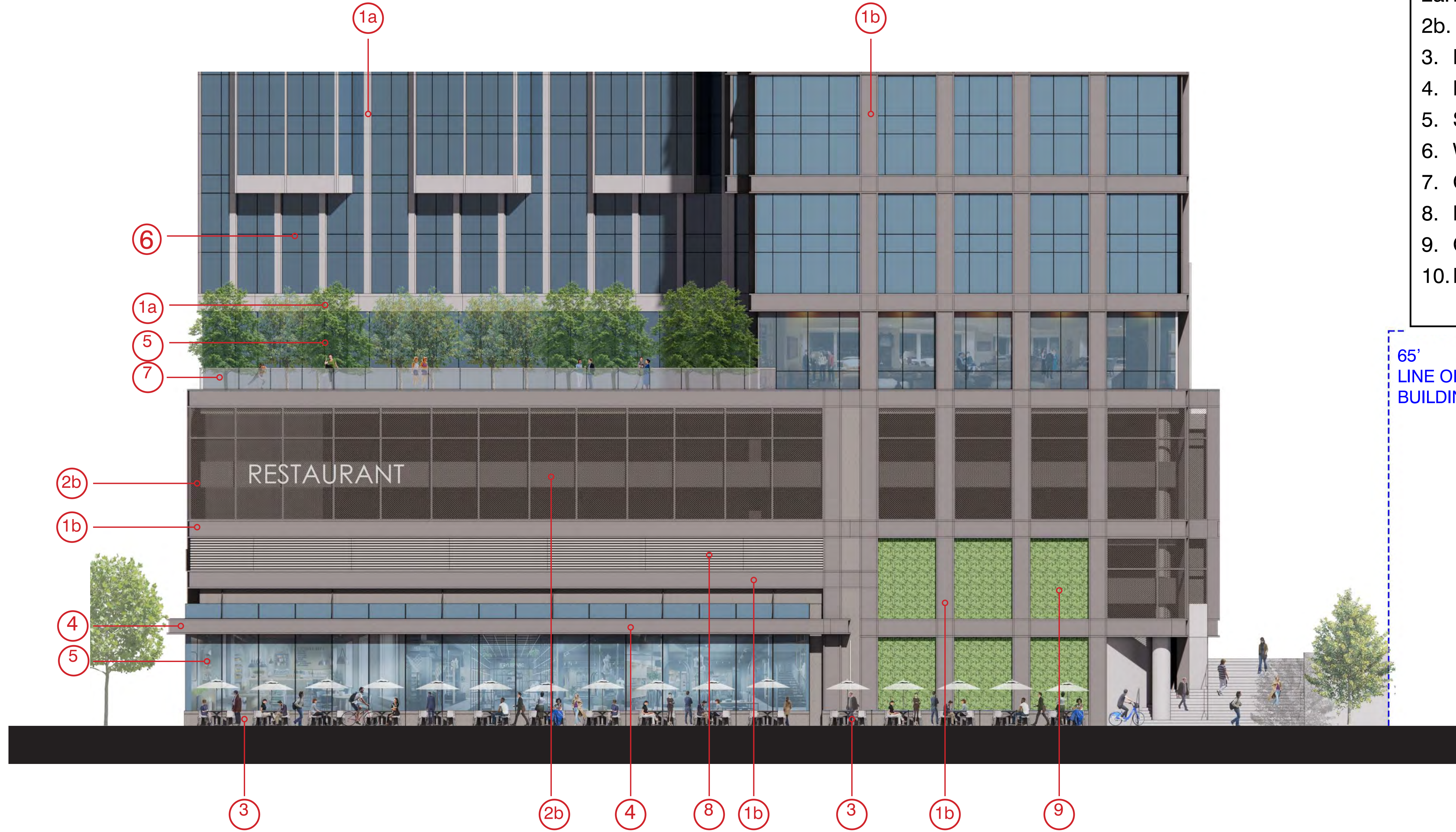
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MATERIAL LEGEND	
1a.	Metal panel - Light
1b.	Metal panel - Dark
2a.	Perforated Metal Panel - Light
2b.	Perforated Metal Panel - Dark
3.	Porcelain Tiles
4.	Metal canopy
5.	Storefront glass
6.	Window walls
7.	Glass Railing
8.	Metal Louvers
9.	Green Wall
10.	EIFS

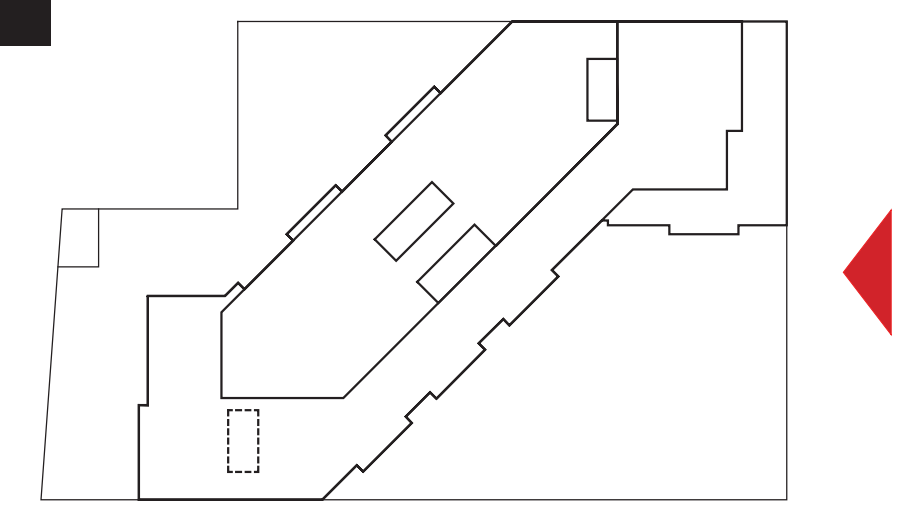


MATERIAL LEGEND

- 1a. Metal panel - Light
- 1b. Metal panel - Dark
- 2a. Perforated Metal Panel - Light
- 2b. Perforated Metal Panel - Dark
- 3. Porcelain Tiles
- 4. Metal canopy
- 5. Storefront glass
- 6. Window walls
- 7. Glass Railing
- 8. Metal Louvers
- 9. Green Wall
- 10. EIFS



65'
LINE OF EXISTING
BUILDING







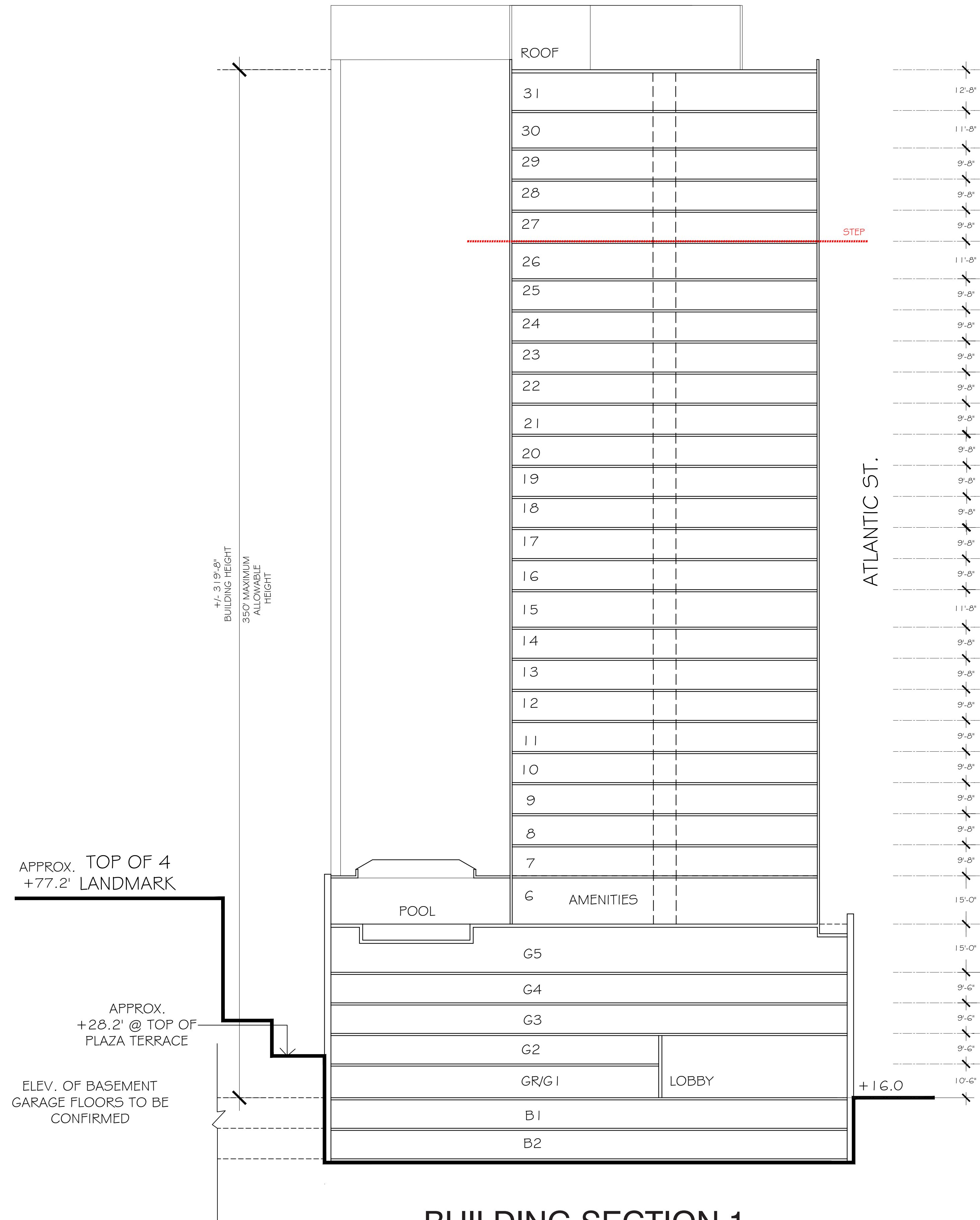


1 Landmark

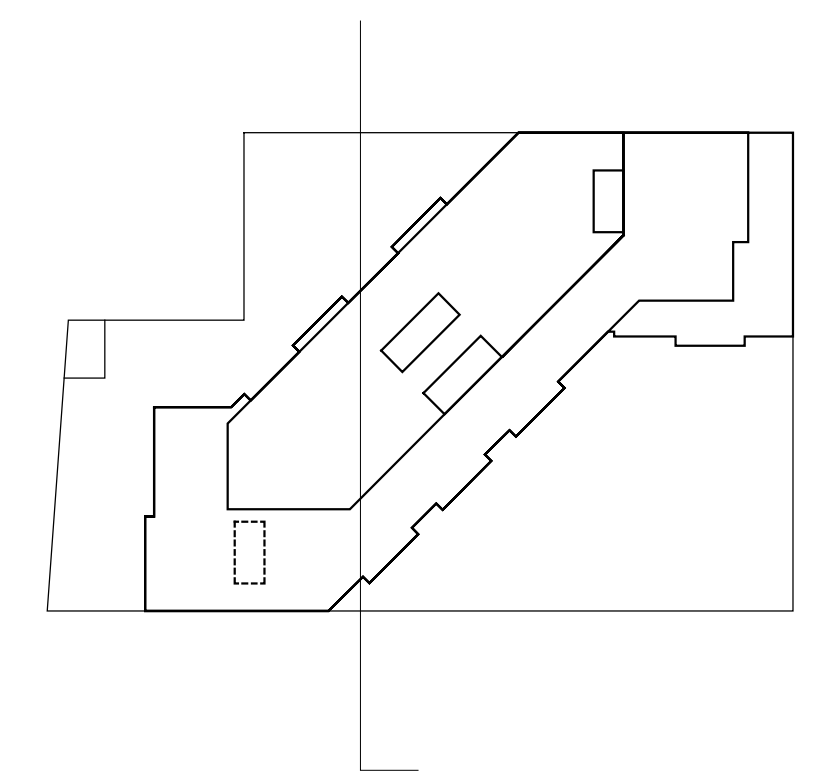
2 Landmark

Proposed 3 Landmark

Future hotel by others



ATLANTIC ST.



KEY PLAN

BUILDING SECTION 1

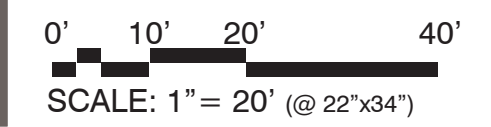
SITE PLAN SUBMISSION

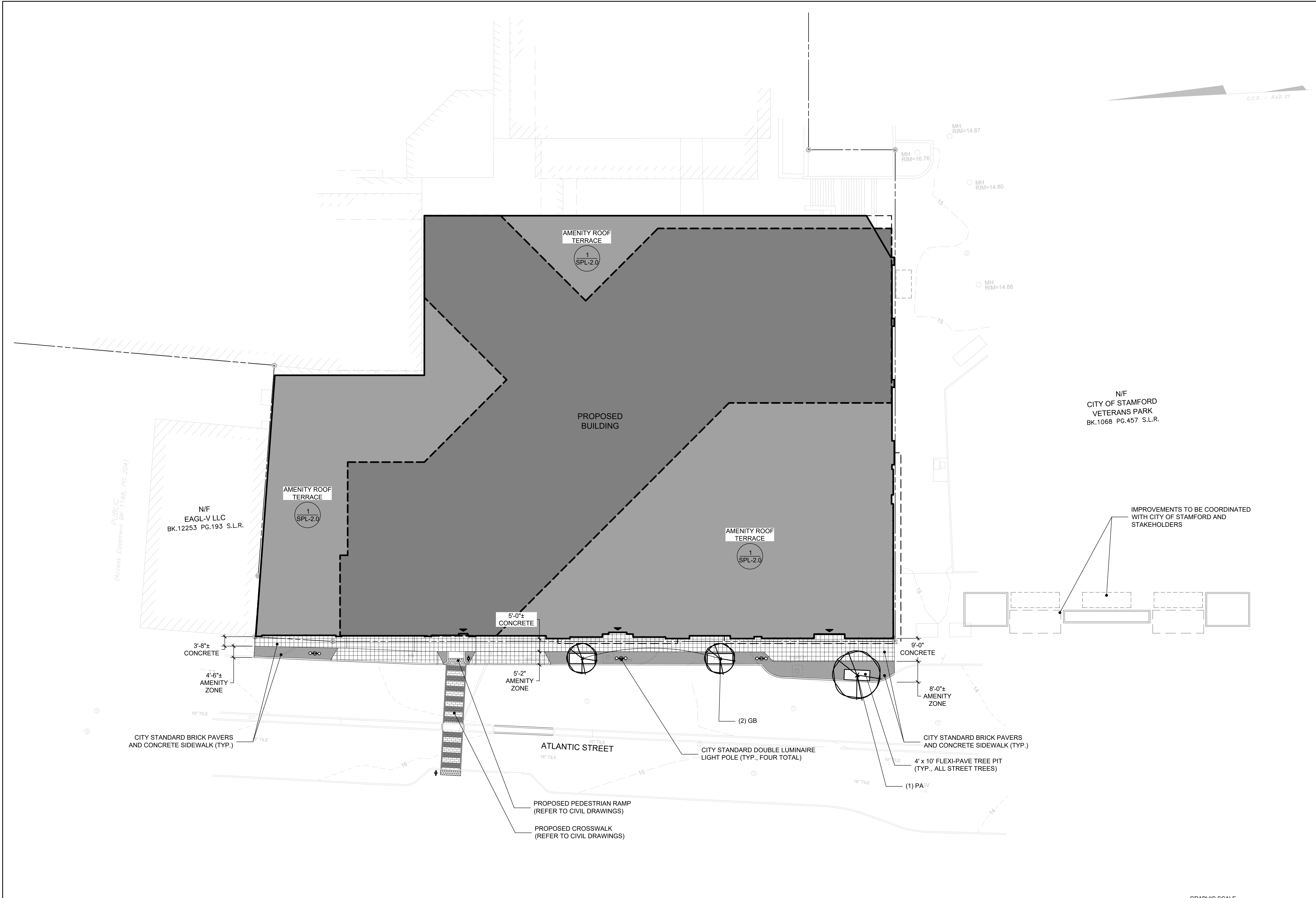
3 LANDMARK SQUARE

STAMFORD, CT
CAPPELLI

02/10/2023
CEI.012

A.21





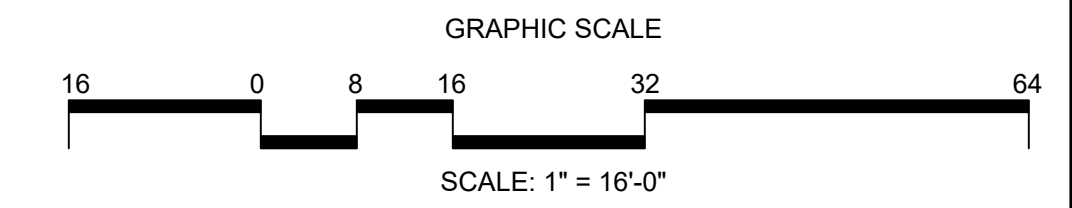
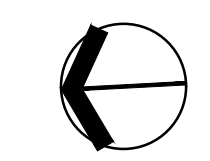
PUBLIC
(Access Easement BK 1198, PG 204)

N/F
EAGL-V LLC
BK.12253 PG.193 S.L.R.

N/F
CITY OF STAMFORD
VETERANS PARK
BK.1068 PG.457 S.L.R.

IMPROVEMENTS TO BE COORDINATED
WITH CITY OF STAMFORD AND
STAKEHOLDERS

NOTES:
1. REFER TO ARCHITECTURAL SITE PLAN FOR BIKE RACK LOCATIONS
AND ADDITIONAL INFORMATION.



NO.	ISSUE	DATE
7		
6		
5		
4		
3		
2		
1	SITE PLAN APPROVAL SUBMISSION	2023.02.10



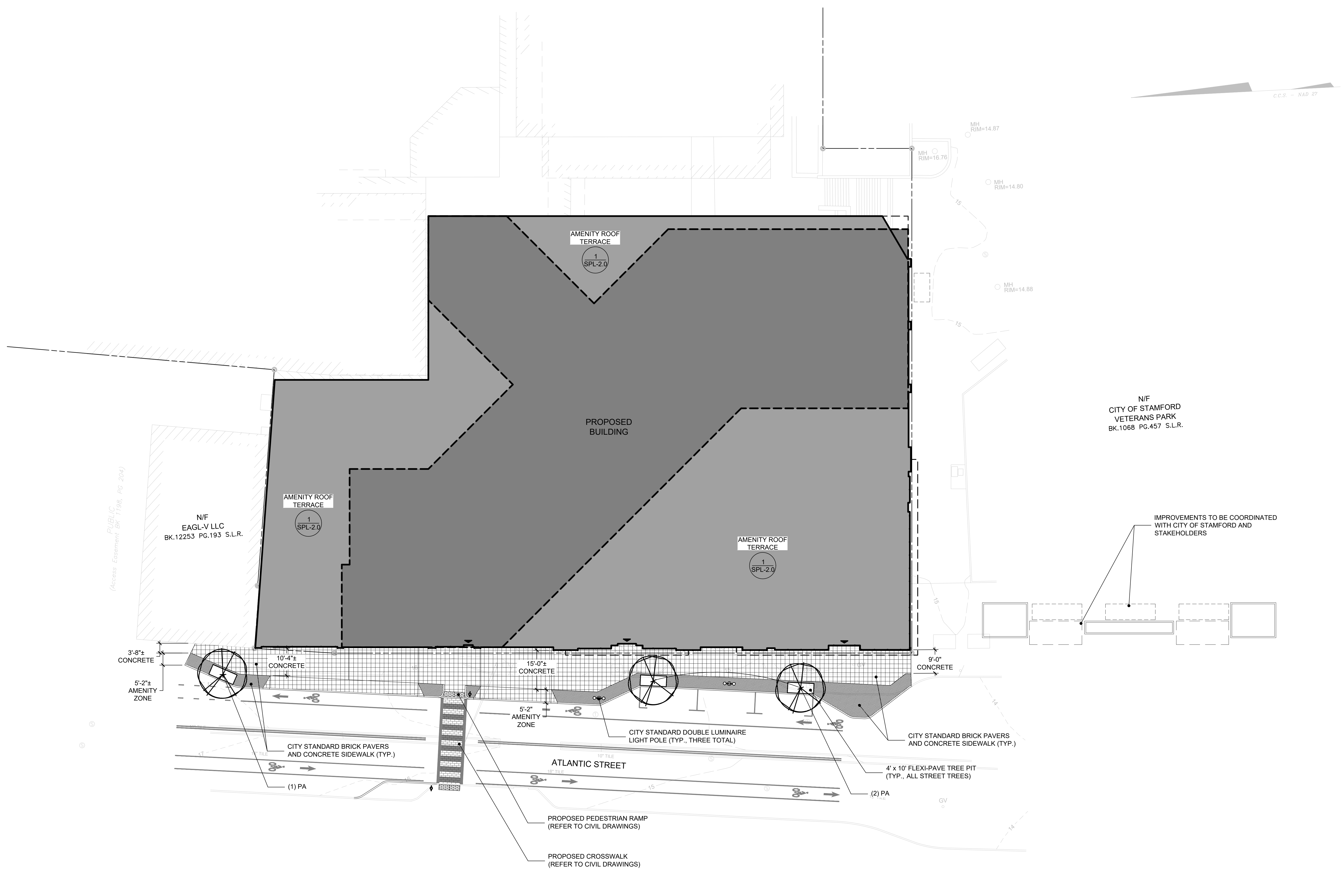
NOT FOR CONSTRUCTION

3 LANDMARK SQUARE
 ATLANTIC STREET
 STAMFORD, CT

PROJECT
DRAW TITLE
**STREET LEVEL
LANDSCAPE
SITE PLAN**

JOB NO.
DATE
2023.02.10
SCALE
1"=16'-0"

SPL-1.0

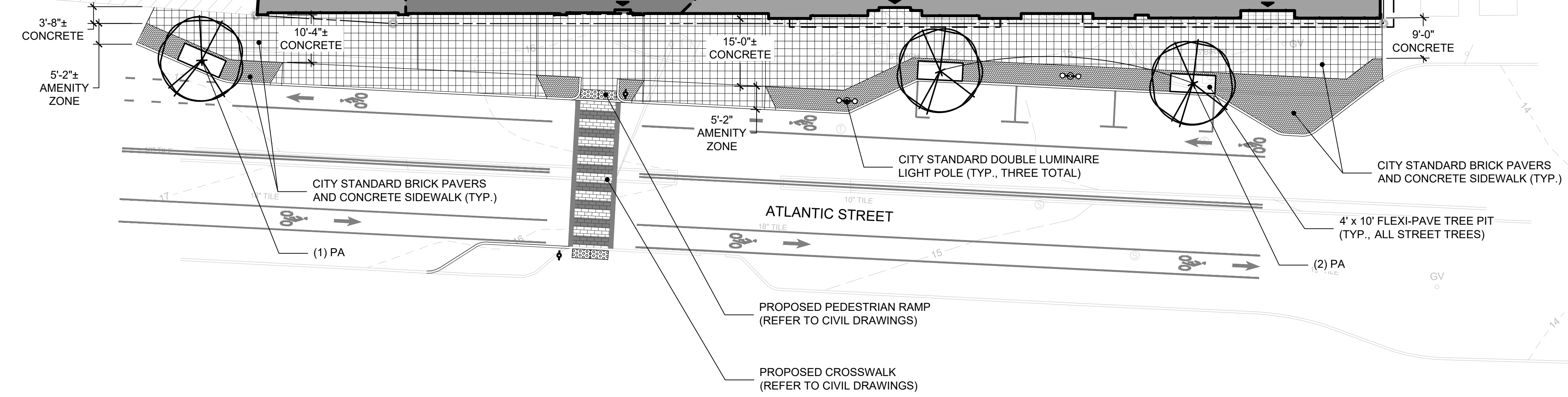


PUBLIC
(Access Easement BK 1198, PG 204)

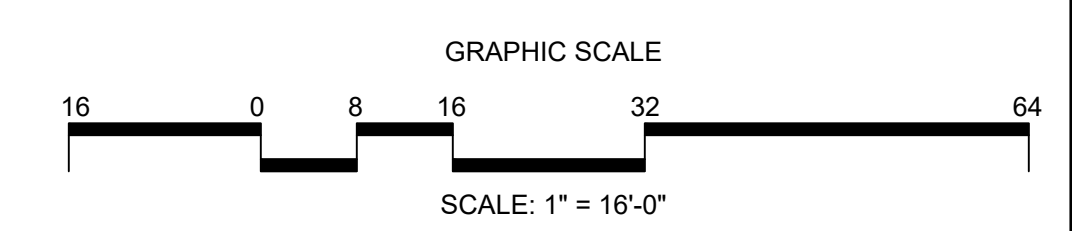
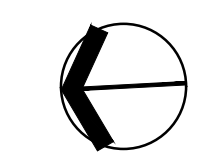
N/F
EAGL-V LLC
BK.12253 PG.193 S.L.R.

N/F
CITY OF STAMFORD
VETERANS PARK
BK.1068 PG.457 S.L.R.

IMPROVEMENTS TO BE COORDINATED
WITH CITY OF STAMFORD AND
STAKEHOLDERS



NOTES:
1. SITE PLAN DEPICTS ATLANTIC STREET ROADWAY IMPROVEMENTS PER CITY OF STAMFORD TRANSPORTATION, TRAFFIC AND PARKING CONCEPT PLAN.
2. REFER TO ARCHITECTURAL SITE PLAN FOR BIKE RACK LOCATIONS AND ADDITIONAL INFORMATION.



NO.	ISSUE	DATE
7		
6		
5		
4		
3		
2		
1	SITE PLAN APPROVAL SUBMISSION	2023.02.10



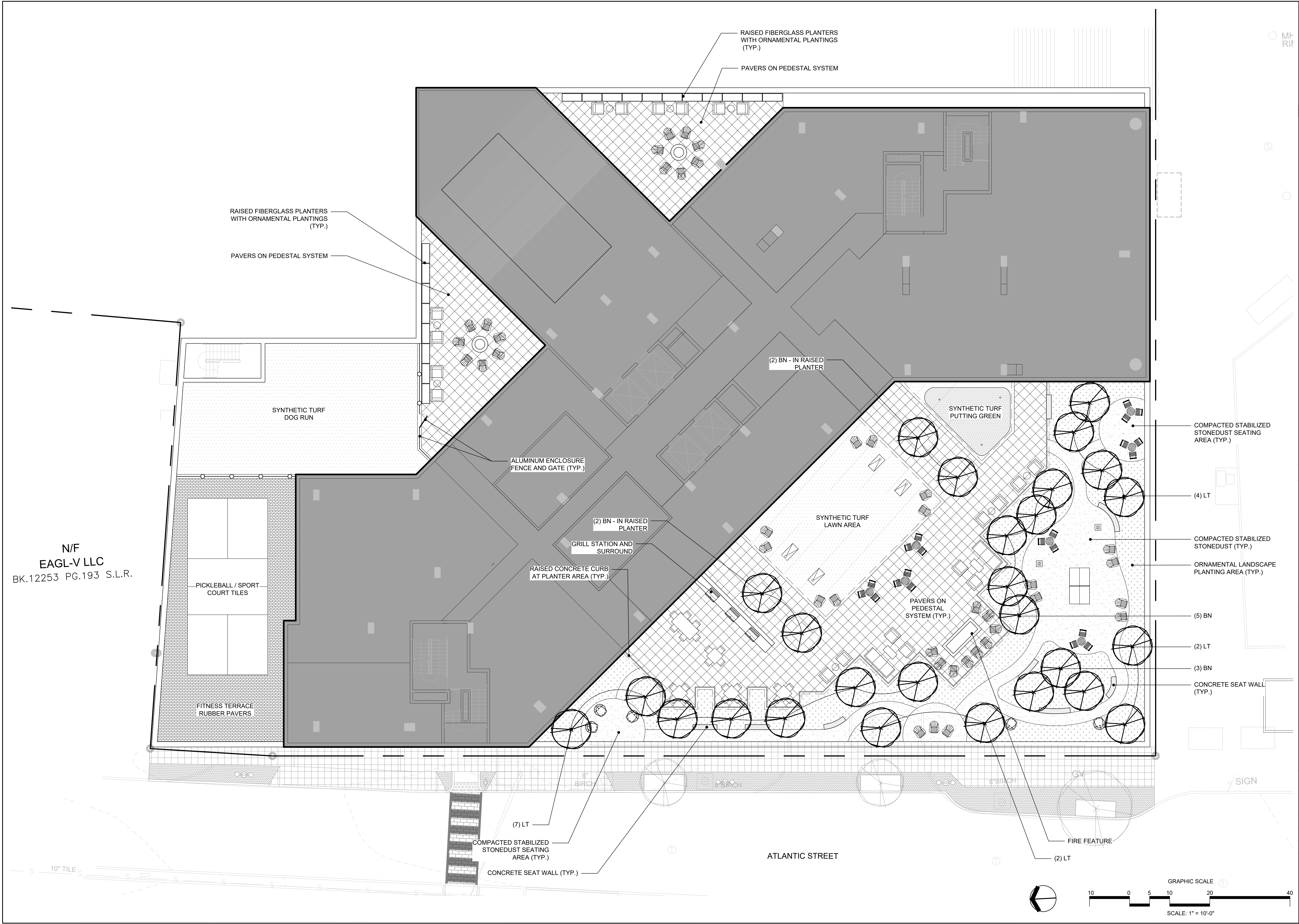
NOT FOR CONSTRUCTION

3 LANDMARK SQUARE
 ATLANTIC STREET
 STAMFORD, CT

PROJECT
DRAW TITLE
**STREET LEVEL
LANDSCAPE
SITE PLAN -
ALTERNATE**

JOB NO.
DATE
2023.02.10
SCALE
1"=16'-0"

SPL-1.0A



N/F
EAGL-V LLC
BK.12253 PG.193 S.L.R.

NO.	ISSUE	DATE
7		
6		
5		
4		
3		
2		
1	SITE PLAN APPROVAL SUBMISSION	2023.02.10



3 LANDMARK SQUARE
ATLANTIC STREET
STAMFORD, CT

PROJECT
DWG TITLE
AMENITY ROOF MATERIALS PLAN
JOB NO.
DATE
2023.02.10
SCALE
1"=10'-0"

SPL-2.0

STREET LEVEL MATERIALS SCHEDULE

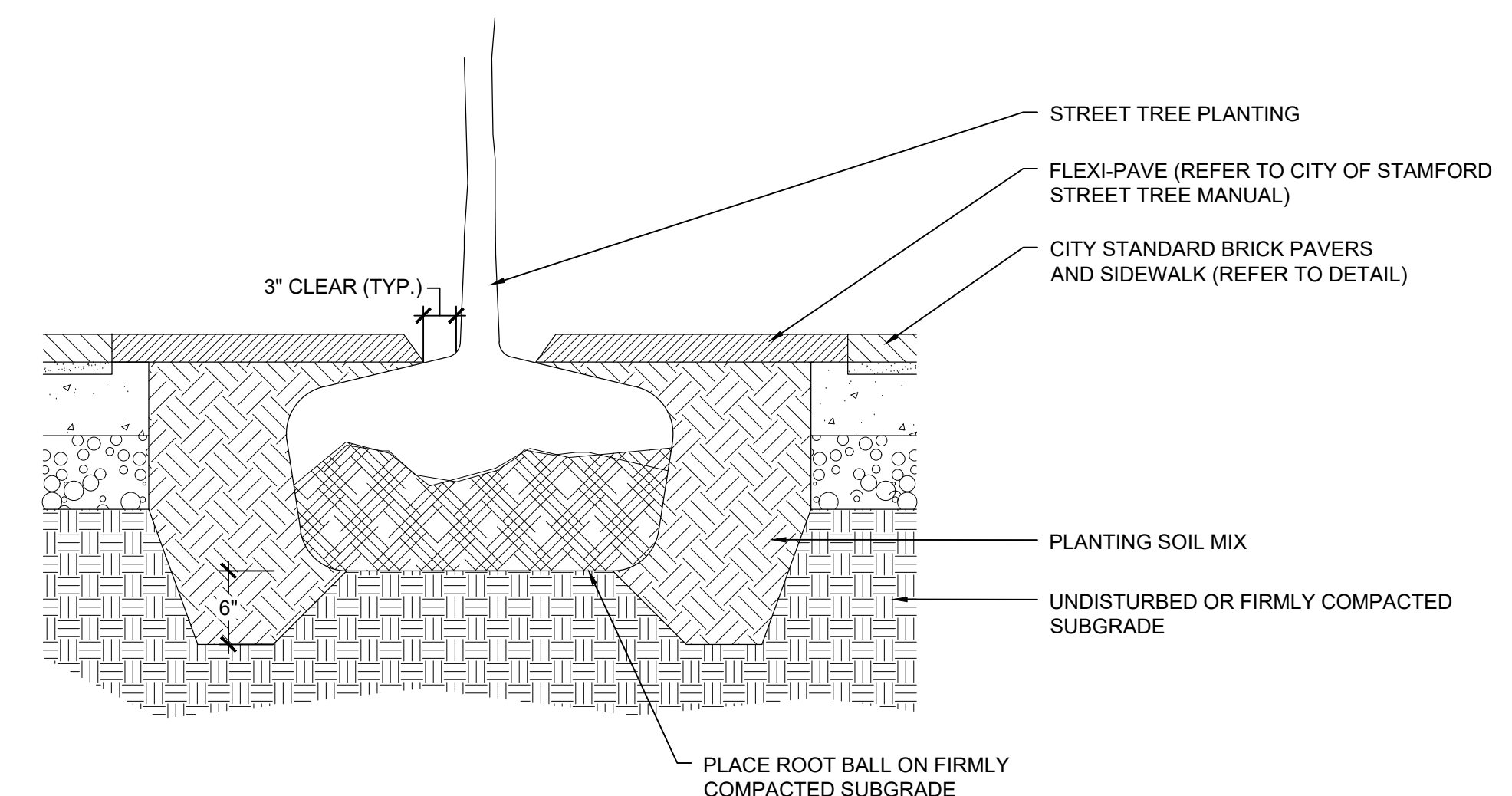
SYM	DESCRIPTION
A	CONCRETE SIDEWALK: CLASS 'F' 4000 PSI
B	CITY STANDARD BRICK PAVER - TYPE: HARMAR STEEL CITY (104), SIZE: 4" x 8" (NOM.), COLOR: RED. MANUFACTURED BY REDLAND BRICK, PHONE: 301-223-7700.
C	GRANITE CURB - TYPE: MOUNT AIRY. COLOR: LIGHT GRAY. FINISH: SPLIT FACE WITH SAWN TOP. SUPPLIED BY NORTH CAROLINA GRANITE CORP., MT., AIRY, NC. CONTACT: 800-227-6242.
D	PERMEABLE TREE PIT - TYPE: FLEXI-PAVE. COLOR: CHESTNUT. SUPPLIED BY TRI-STATE FLEXI-PAVE. CONTACT HENRI HILLMANN, PHONE: 203-628-47613.
E	LIGHT POLE AND DOUBLE LUMINAIRE - MODEL: CITY STANDARD, MANUFACTURED BY HADCO. SEE DETAIL.

STREET LEVEL PLANTING SCHEDULE

SYM	QTY.	BOTANICAL NAME	COMMON NAME	ROOT	MIN. SIZE	COMMENTS	MATURE SIZE
TREES							
GB	2	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	B&B	3"-3.5" CAL. / 14'-16" HT.	Full, 7" Branching min.	40-50' H x 20-25' W
PA	1	Platanus x acerifolia 'Mortons Circle'	Exclamation Plane Tree	B&B	3.5"-4" CAL. / 16'-18" HT.	Full, 7" Branching min.	50-60' H x 35-45' W

STREET LEVEL PLANTING SCHEDULE - ALTERNATE

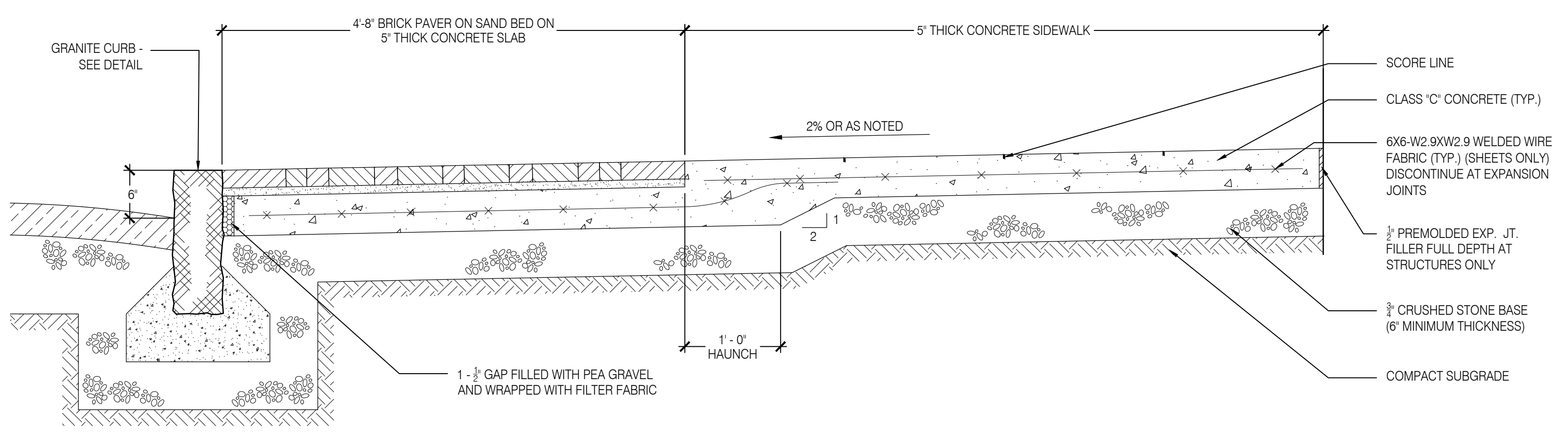
SYM	QTY.	BOTANICAL NAME	COMMON NAME	ROOT	MIN. SIZE	COMMENTS	MATURE SIZE
TREES							
PA	3	Platanus x acerifolia 'Mortons Circle'	Exclamation Plane Tree	B&B	3.5"-4" CAL. / 16'-18" HT.	Full, 7" Branching min.	50-60' H x 35-45' W



NOTES:
 1. DEPTH OF TREE SHALL BE BASED ON ROOT BALL SIZE. DO NOT COVER ROOT FLARE WITH PLANTING SOIL MIX.
 2. CONCRETE SIDEWALK SHALL BE CONSTRUCTED PER CITY OF STAMFORD STANDARDS; REFER TO DETAILS.

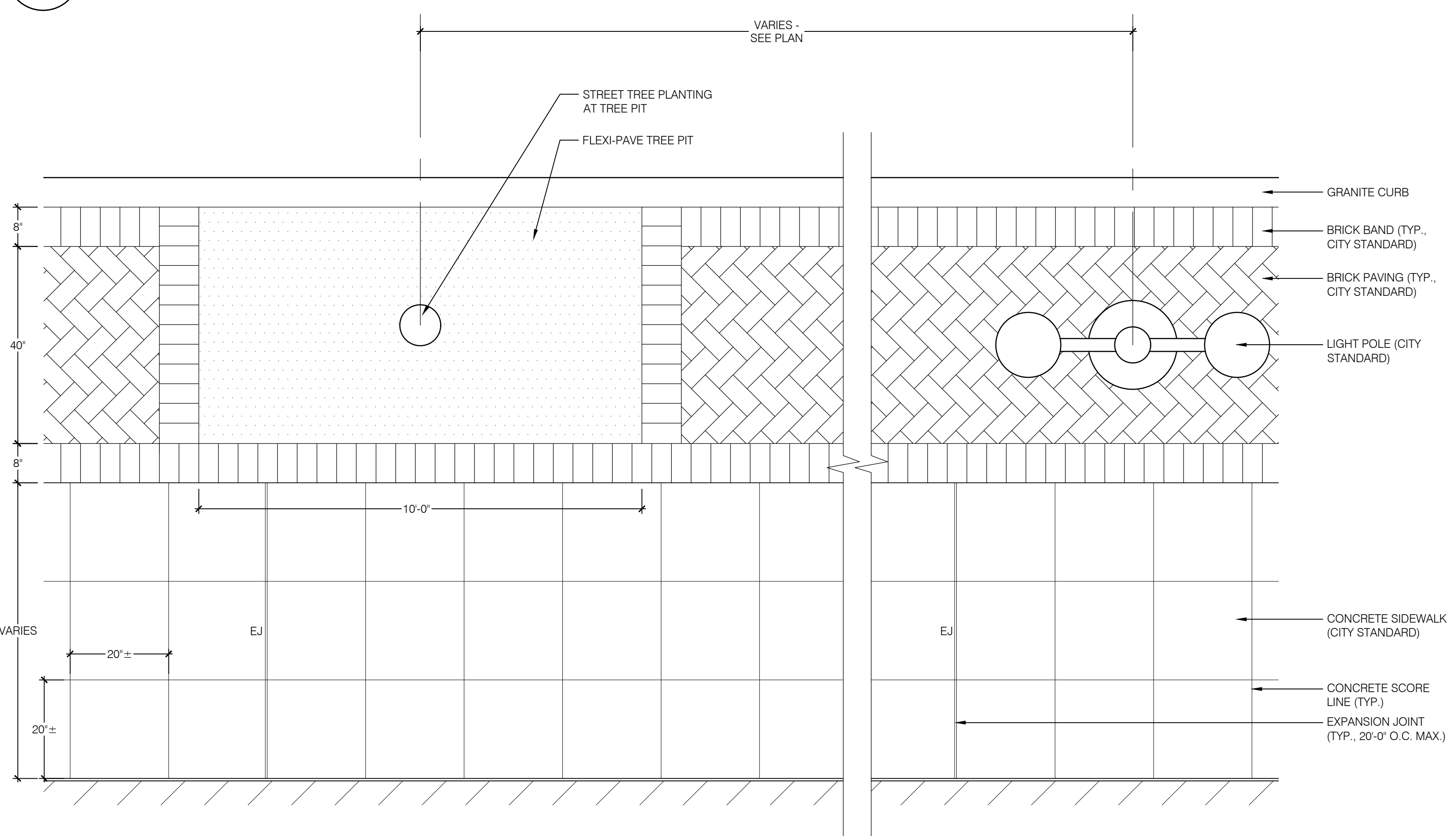
3 FLEXI-PAVE TREE PIT

SCALE: NTS



1 TYPICAL SIDEWALK SECTION (CITY STANDARD)

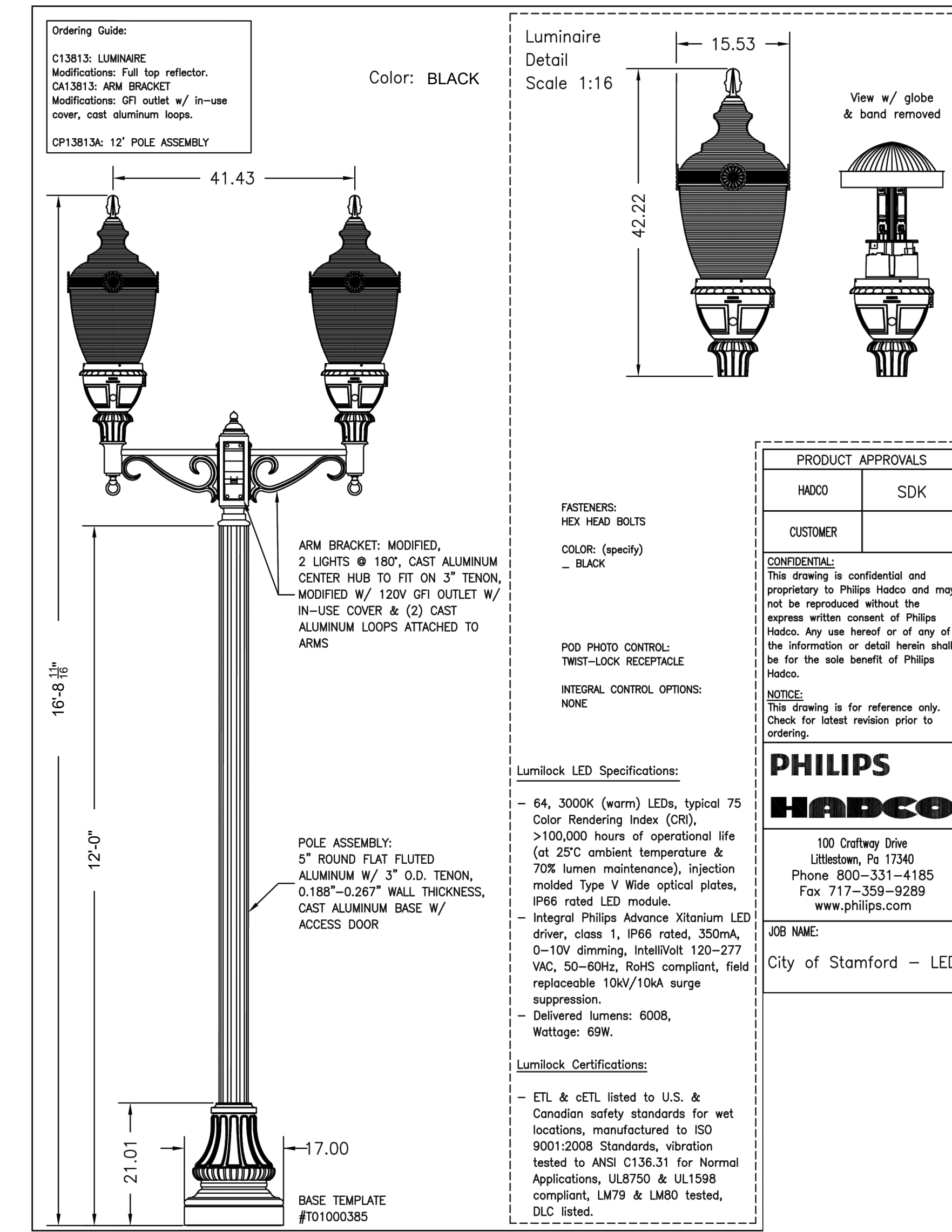
SCALE: NTS



NOTES:
 1. FLEXI-PAVE SHALL BE COLOR: CHESTNUT.
 2. REFER TO CITY OF STAMFORD STREET TREE MANUAL FOR ADDITIONAL INFORMATION.

2 TYPICAL SIDEWALK PLAN (CITY STANDARD)

SCALE: NTS



4 DOUBLE LUMINAIRE LIGHT POLE (CITY STANDARD)

SCALE: NTS

NO.	ISSUE	DATE
7		
6		
5		
4		
3		
2		
1	SITE PLAN APPROVAL SUBMISSION	2023.02.10



3 LANDMARK SQUARE
 ATLANTIC STREET
 STAMFORD, CT

STREETSCAPE DETAILS

DATE: 2023.02.10
 SCALE: AS NOTED

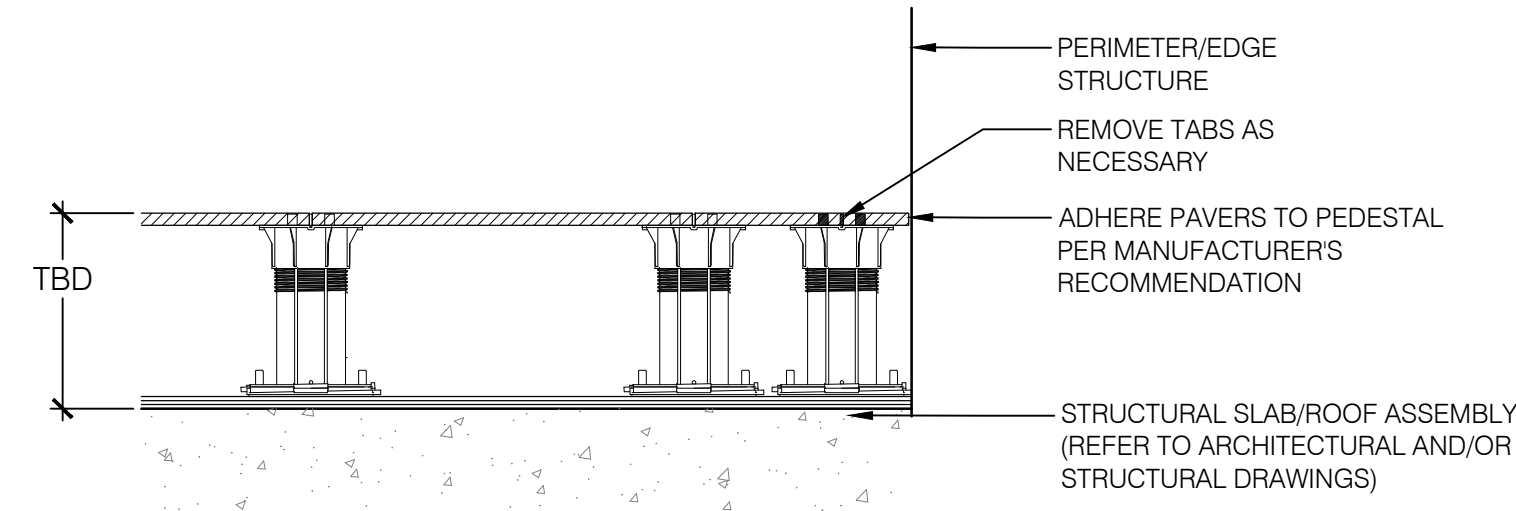
SPL-3.0

AMENITY COURTYARD MATERIALS LIST

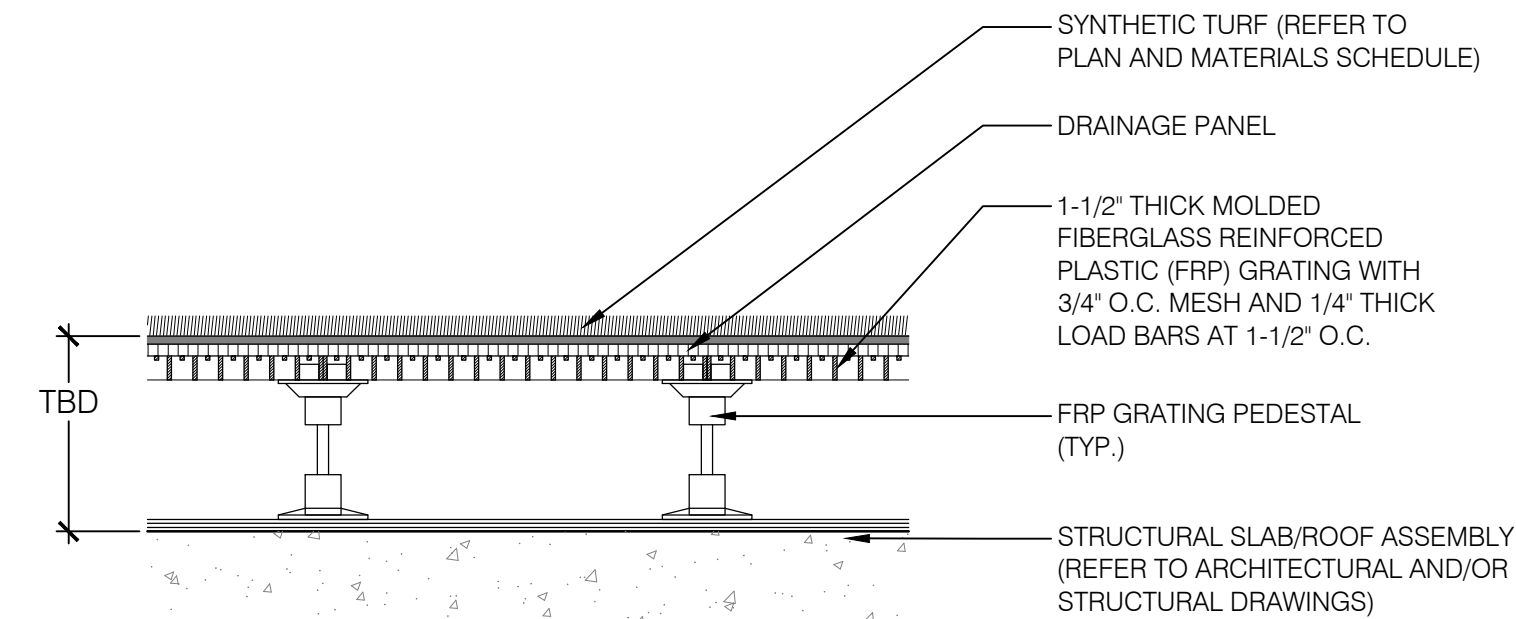
SYM	DESCRIPTION
A	PAVERS - TYPE: TBD, COLOR: TBD, SIZE: TBD, DISTRIBUTED BY O&G IND. INC. CONTACT: BEN CANINO, TEL: 860-840-4637
B	PEDESTAL SYSTEM: VERSADJUST, MANUFACTURED BY BISON. DISTRIBUTED BY O&G IND. INC. CONTACT: BEN CANINO, TEL: 860-480-4637
C	COMPACTED STABILIZED STONEDUST - COLOR: 50% BEIGE / 50% NICKEL, MANUFACTURED BY READ CUSTOM SOILS.
D	RUBBER FITNESS TILES - TYPE: RESURFACING PAVERS, COLOR: TBD, MANUFACTURED BY ASPIRE PAVERS.
E	ARTIFICIAL TURF (LAWN AND DOG RUN) - MODEL: SYN AUGUSTINE X47, COLOR: STANDARD, 1-3/4" BLADE HT, MANUFACTURED BY SYNLAWN, www.synlawn.com
F	ARTIFICIAL TURF (PUTTING GREEN) - MODEL: TBD, COLOR: STANDARD, MANUFACTURED BY SYNLAWN, www.synlawn.com
G	FIBERGLASS PLANTERS - MODEL: WILLSHIRE COLLECTION, COLOR: TBD, SIZE: TBD, MANUFACTURED BY TOURNESOL SITEWORKS, www.tournesol.com
H	GRILL STATION - GRILL TYPE: MODEL TBD, SIZE: 36", MANUFACTURED BY TBD.
I	FIRE FEATURE - TBD

AMENITY COURTYARD PLANTING SCHEDULE

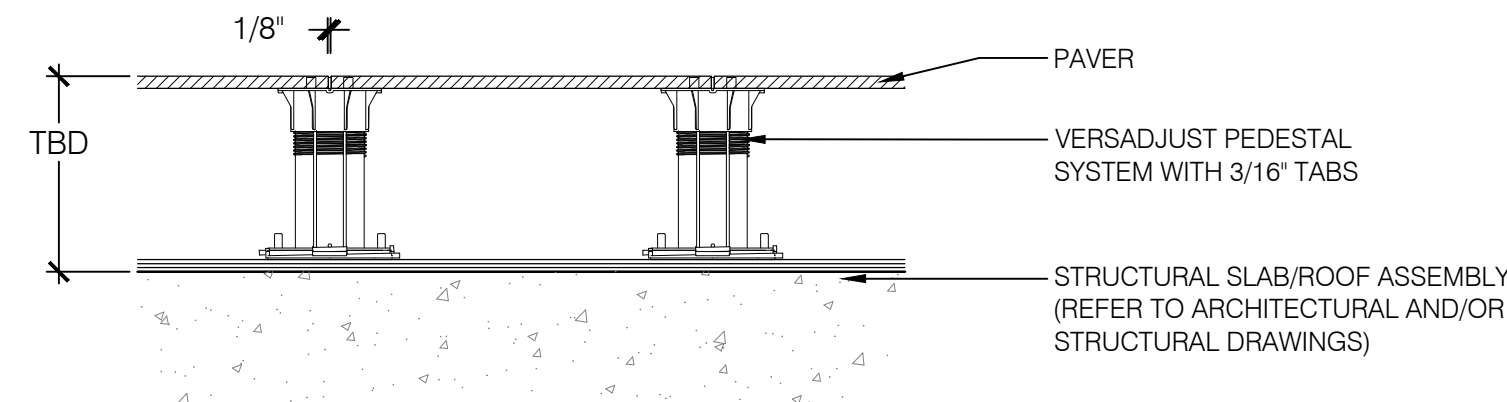
SYM	QTY.	BOTANICAL NAME	COMMON NAME	ROOT	MIN. SIZE	COMMENTS
TREES						
BN	12	Betula nigra 'Heritage'	Heritage River Birch	B&B	2.5"-3" CAL.	Full, Single trunk
LT	15	Liriodendron 'Little Volunteer'	Little Volunteer Tulip Tree	B&B	2.5"-3" CAL.	Full
SHRUB AND ORNAMENTAL PLANTINGS						
--	--	SPECIES / VARIETIES TBD	--	--	--	--



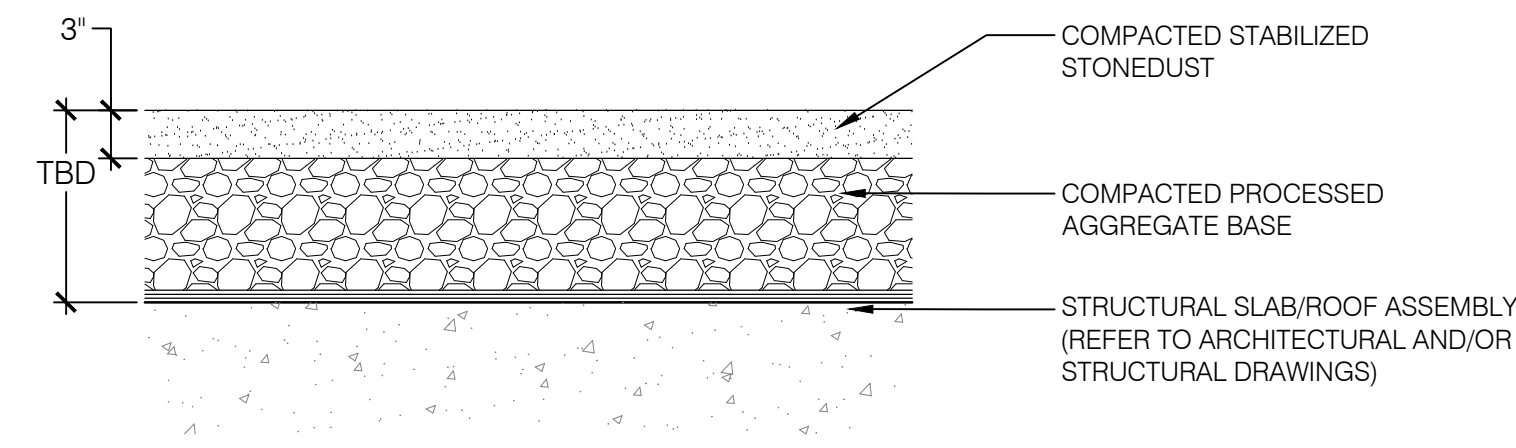
3 PAVERS ON PEDESTAL SYSTEM - AT PERIMETER / EDGE STRUCTURE
SCALE: NTS



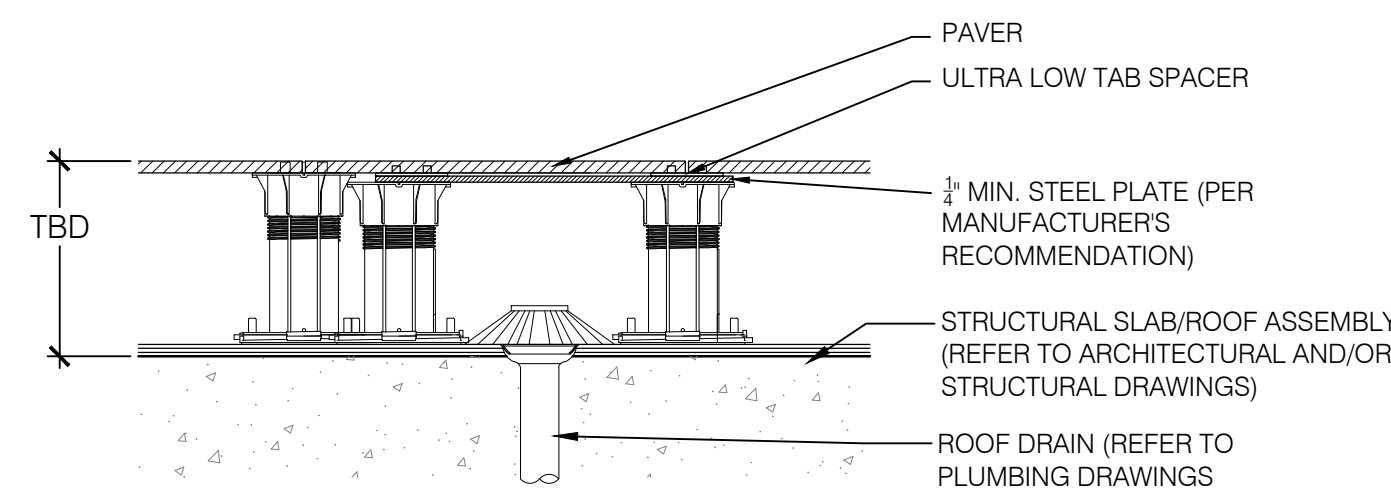
4 SYNTHETIC TURF ON PEDESTAL SYSTEM - TYPICAL
SCALE: NTS



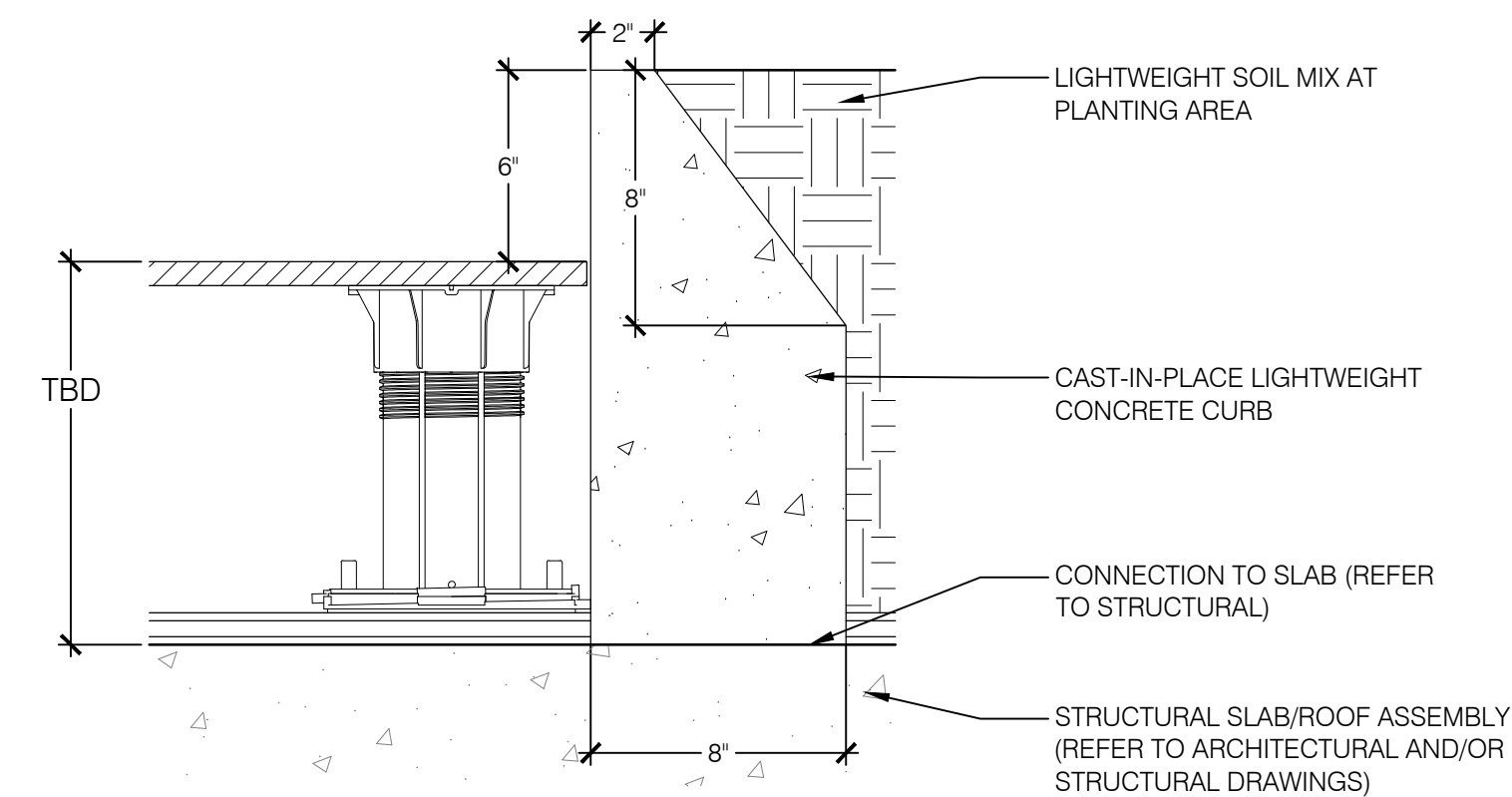
1 PAVERS ON PEDESTAL SYSTEM - TYPICAL
SCALE: NTS



5 COMPACTED STABILIZED STONEDUST - TYPICAL
SCALE: NTS



2 PAVERS ON PEDESTAL SYSTEM - AT ROOF DRAIN
SCALE: NTS



6 CURB AT PLANTER EDGE
SCALE: NTS

NO.	ISSUE	DATE
7		
6		
5		
4		
3		
2		
1	SITE PLAN APPROVAL SUBMISSION	2023.02.10



3 LANDMARK SQUARE
ATLANTIC STREET
STAMFORD, CT

PROJECT
AMENITY ROOF TERRACE DETAILS - 1
JOB NO.
DATE 2023.02.10
SCALE AS NOTED

SPL-3.1

SITE ENGINEERING REPORT

Landmark Square Building 3

Prepared For

Landmark Square 1-6, LLC

Prepared by

Redniss & Mead, Inc.
22 First Street
Stamford, CT
(203) 327-0500

Issued on
February 8, 2023



A handwritten signature in black ink, appearing to read "T Milone".

Ted Milone, P.E., LEED AP BD+C
CT #22563

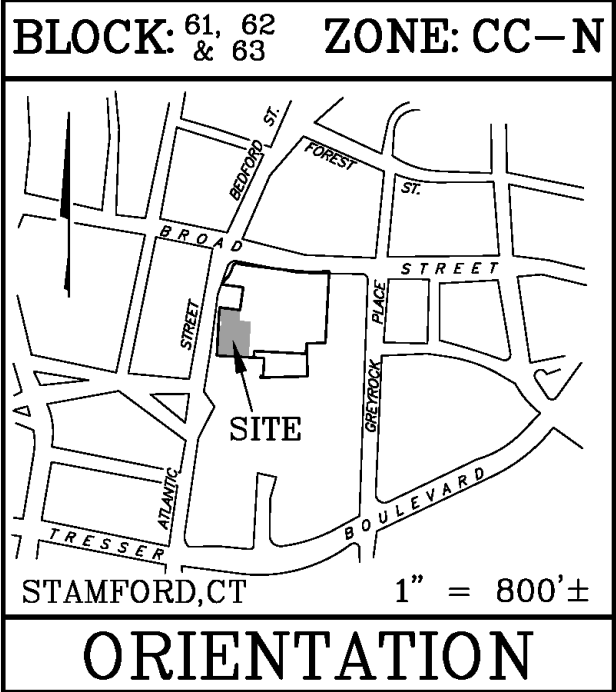


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Standard 3: Construction Erosion and Sediment Control.....	8
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Appendices

<u>Appendix A:</u>	FEMA Flood Insurance Map USGS Quadrangle Map - Site Vicinity Map NOAA Atlas 14 Volume 10 - Precipitation Frequency City of Stamford Rainfall Intensity - Duration Curves NRCS Websoil Survey
<u>Appendix B:</u>	Existing On-Site Drainage Basin Map Proposed On-Site Drainage Basin Maps
<u>Appendix C:</u>	LID Map
<u>Appendix D:</u>	Water Quality Volume Calculations Conveyance Calculation
<u>Appendix E:</u>	HydroCAD Report
<u>Appendix F:</u>	DCIA Tracking Spreadsheet
<u>Appendix G:</u>	Operation and Maintenance Agreement
<u>Appendix H:</u>	Checklist for Stormwater Management Report
<u>Appendix I:</u>	Sanitary Sewer Flow Calculations



Narrative

Project Description:

Landmark Square 1-6, LLC is proposing to construct a 31-story mixed-use apartment building with ground floor retail space on a portion of the Landmark Square property in Stamford, CT. The developer is seeking approval to raze the existing 3 Landmark Square Building to construct 400 residential units with a ground floor retail and residential lobby space, a multi-level structured parking garage, and amenity terraces. Site improvements include two new reinforced concrete drive aprons, a relocated crosswalk, and streetscape improvements. The property is 5.2 ± acres (excluding related leasehold parcels) located within the CC Zoning District and is located on the east side of Atlantic Street and south of Broad Street, with frontage on both streets. Proposed improvements are limited to a 0.86± acre portion of the property fronting Atlantic Street. Reference is made to site drawings prepared by this office and landscape drawings prepared by Eric Rains Landscape Architecture LLC, both dated February 8, 2023. Drawings include an alternate streetscape design depicting Atlantic Street roadway improvements per the City of Stamford Transportation, Traffic and Parking Concept Plan.

Existing Conditions:

The 0.86± acre portion of property is currently developed with an office building with an underground parking garage, café and service retail spaces, a loading dock, walkways, and landscaping. The existing landscape is limited to small planters in front of the café and retail spaces. Site elevations range from elevation 14± on the southwest side of the property along Atlantic Street to elevation 30± in the courtyard area within the property, to the east of the proposed improvements. The site has slopes ranging from 1-5%. The property does not lie within the drinking water supply watershed or a regulatory 100-year floodplain as established by the Federal Emergency Management Agency (FEMA) on "Flood Insurance Rate Maps" (FIRM) for Fairfield County, Community No. 09001C0516G, Panel 516 of 626, effective date July 8, 2013 ([Appendix A](#)).

Drainage Patterns & Conveyance Systems

Runoff generated from the studied portion of property is entirely tributary to the storm system within Atlantic Street. Under existing conditions, runoff from the existing building is piped into a storm manhole within Atlantic Street, which is then conveyed through a 1.2'x2' reinforced concrete box culvert, which then flows south through an 18" reinforced concrete pipe within Atlantic Street and ultimately discharges to the canal of the East Branch of the Stamford Harbor.

Impervious surfaces cover 100% of the studied site area. Refer to [Appendix B](#) for existing and proposed on-site drainage basin maps.

Soils

The USDA Natural Resources Conservation Service's Websoil Survey indicates the soils on the subject parcel to be primarily Urban Land within Hydrologic Soils Group D.

Proposed Conditions:

The 37,400± SF area of development includes approximately 3,000± SF of planter areas on the amenity terraces of the proposed building. For the purposes of peak flow rate calculations, these areas were considered impervious, but a separate water quality volume (WQV) calculation was included for the planters as they have an 18” soil depth.

Methodology & General Design Criteria

All drainage systems have been designed for Type III, 24-hour storm events. The project site is south of the Merritt Parkway and therefore has been designed to adequately accommodate peak runoff rates for all storms up to and including the 50-year design storm. The 24-hour design storm rainfall amounts, and distributions were obtained from the latest NOAA Atlas 14 Point Precipitation Frequency Estimates and storm distributions ([Appendix A](#)).

Project Classification

The proposed development is classified as a redevelopment project with more than ½ an acre of disturbance, therefore must comply with Standards 1 through 5 of the Stamford Drainage Manual. To comply with Standard 1, this project must provide at least ½ Water Quality Volume (WQV) via non-structural practices or best management practices (BMPs). As the limit of disturbance of the proposed improvements is limited to a portion of the property, the required WQV was calculated based on the limit of disturbance. A waiver is being requested to allow WQV to be provided for disturbed area and not the entire site.

Proposed LID Techniques

Low impact development and site planning techniques were used to the maximum extent practicable given the existing constraints of this site. The site is in an urban area with limited space for LID practices due to setback requirements from existing buildings, existing infrastructure, and the limit of subsurface parking.

LID techniques include development within areas already developed, limiting the amount of disturbance around the proposed improvements, and minimizing impervious surfaces where possible.

Proposed Stormwater Treatment Practices

The design approach chosen to satisfy Standard 1 of the Stamford Drainage Manual is to provide the required water quality volume (½ WQV) based on the improved area through the use of an oil grit separator and green areas within the 6th floor amenity space. All impervious area from the building and terraces will be tributary to the oil grit separator (OGS#1) located in front of the building on Atlantic Street. Tributary area for OGS#1 is approximately 34,350± SF of entirely impervious area, and the structure, a Contech CDS 2015-4, is capable of treating 1.4 cfs and will receive 0.73 cfs during a water quality (1” rainfall) event.

The green areas within the 6th floor amenity space consist of an 18” soil depth will provide water quality volume for the area tributary to them. Required water quality volume for the planters is 121 CF, and assuming a 30% void ratio for the 18” soil depth, the water quality volume provided will be 1,372 CF.

A summary of the Water Quality required and provided by the stormwater practices is provided below:

Standard 1 (Retention and Treatment) Calculations					
Drainage Area ID	Total Area (SF)	Impervious Area (SF)	1/2" WQV (CF)	Retention Volume Required	Retention Volume Provided
Atlantic Street OGS	34,344	34,344	1,359	1,359	2,262
Roof Planter	3,048	3,048	121	121	1,372
TOTAL	37,392	37,392	1,480	1480	3,634

Hydrologic Analysis of Peak Rates of Runoff

Hydrologic models have been prepared utilizing the SCS Runoff Curve Number Method from NRCS TR-55 to analyze the pre- and post-development rainfall runoff rates and volumes. Watershed areas, curve numbers (CN), and times of concentration (TC) were calculated for each contributing watershed. A time of concentration (TC) of 5 minutes was assumed for all basins as they are largely impervious with short runoff lengths. The pre-development drainage basin boundaries and the post-development drainage basin boundaries are shown in [Appendix B](#). The results of the HydroCad model used to analyze the pre- and post-development watershed conditions are presented in [Appendix E](#).

A comparison of the pre- and post-development peak discharge rates is provided in the tables below:

Atlantic Street Peak Flow Rates			
Storm Event	Existing (cfs)	Proposed (cfs)	Δ (cfs)
1-Year	2.56	2.56	0.00
2-Year	3.11	3.11	0.00
5-Year	4.01	4.01	0.00
10-Year	4.75	4.75	0.00
25-Year	5.76	5.76	0.00
50-Year	6.53	6.53	0.00

Comparison of the peak discharge rates for pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the proposed development will wither remain the same or be decreased. Therefore, the proposed development will not adversely impact the downstream or adjacent properties or City or State-owned drainage structures.

Compliance with Stormwater Management Standards

The project site will be designed to meet the Stamford Stormwater Management Standards to the maximum extent practicable as summarized below:

Standard 1: Runoff and Pollutant Reduction

- A. The runoff and pollutant reduction requirements for this project are to retain ½ of the WQV on-site using Non-Structural Practices or Structural BMP’s to the maximum extent achievable. The proposed Stormwater Treatment Practices include an oil grit separator and green areas within the 6th floor amenity space with an 18” soil depth which both treat more than their required WQV. See “Proposed LID & Stormwater Treatment Practices” for further information.
- B. Stormwater systems retain ½ WQV for the area of disturbance, and the OGS has been designed to accommodate the peak rates of runoff for all storm events up to and including the 100-year storm.
- C. Land disturbance has been maintained to areas currently developed. With proper sediment and erosion controls and permanent stabilization of surfaces the development will not result in future site erosion.
- D. Noted
- E. Standard does not apply as there are no surface parking lots containing six or more spaces. The interior garage drains will be piped to an oil/grit separator and discharge into the sanitary sewer system. Such design shall be prepared by the plumbing engineer prior to a Building Permit request.

-
- F. The proposed improvements are within areas previously developed which will in turn limit the amount of clearing and grading that will be necessary to employ the development while, minimizing the potential impact of erosive soils on the downstream drainage system.

Standard 2: Peak Flow Control

- A. Stream channel protection is not required for this project as the subject development does not discharge directly or indirectly into a water body or watercourse.
- B. The proposed stormwater system is designed to adequately pass flows leading to, from and through it up to and including the 25-year design storm event as required in Section 3 of the drainage manual.
- C. The post-development peak flow rates from the 1-year, 2-year, 5-year, 10-year, 25-year and 50-year, 24-hour storms are controlled to the corresponding pre-development peak discharge rates. Reference is made to the HydroCAD report found in Appendix E.
- D. All proposed structural BMP's are equipped with a high-bypass "emergency outlet" sized to safely pass the post-development peak runoff from the 100-year, 24-hour storm event.
- E. Standard does not apply as no detention system is proposed.

Standard 3: Construction Erosion and Sediment Control

- A. Site plan sheets SE-4 & SE-4A depict erosion control measures to be implemented to control construction related impacts. Sediment and erosion controls such as stone tracking pads at construction zone exit points, and silt sack inserts for catch basin /area drain have been identified. A detailed plan will be prepared in sequence with contractor's logistic plan prior to a Building Permit request.

Standard 4: Operation and Maintenance

- A. A Standard City of Stamford Drainage Maintenance Agreement will be executed with the Environmental Protection Board. A draft maintenance agreement has been prepared and is included in Appendix G.
- B. The construction plans will include notes describing the long-term maintenance requirements for the site-specific drainage system(s) including routine and non-routine inspection and maintenance tasks to be undertaken after construction is completed as well as the schedule for implementing these tasks. This information will be added to the plan set prior to filing for a building permit.

Standard 5: Stormwater Management Report

- A. This document and its associated appendices serve as the required Stormwater Management Report.
- B. See Conclusion below.

Conclusion

Based on the above information, the proposed improvements are designed in accordance with the City of Stamford Stormwater Drainage Manual and will not adversely impact adjacent or downstream properties or City or State-owned drainage facilities.

Sanitary Sewer Summary

The sanitary flow from the proposed building will be directly piped into the 18" tile sanitary sewer main located within Atlantic Street. Drains, if any, located within the covered portion of the parking structure will be collected via a series of drains and piped into an oil/grit separator prior to discharging into the sanitary sewer system. Little or no flow will be generated from these drains.

The property is currently developed with an office building with some retail space. Per tax records, there is approximately 126,836 SF of office area and 3,164 SF of retail area. Under the CT Health Code guidelines, the existing uses would generate 13,000 GPD (0.20 cfs) (assuming 0.10 GPD / SF of retail area, and 200 SF / person and 20 GPD per employee for office use). Using a peak factor of 4, the peak sewage flow is 52,000 GPD (0.08 cfs)

Under proposed conditions, the developer is seeking permission to construct 400 units consisting of 20 studio apartments, 180 one-bedroom apartments, 180 two-bedroom apartments, and 20 three-bedroom apartments, as well as a 5,066 SF retail space. Under the CT Health Code guidelines, the proposal would result in a total average daily sewage flow of 93,507 GPD (this assumes 150 GPD per bedroom, and 0.10 GPD/SF of retail area). Using a peak factor of 4, the peak sewage flow is 374,026 GPD (0.579 cfs). Please refer to Appendix I for attached calculations.

Redniss & Mead, in the Fall of 2002, retained New England Pipe Cleaning Company (NEPCCO) to perform a sewer flow-monitoring program of the 10" and 18" pipes within Atlantic Street. The metering program was conducted from October 4, 2002, to November 7, 2002, within a concrete manhole located in Atlantic Street. We assume at this concrete manhole the flow of the 10" can divert into the 18" when the 10" pipe is at capacity. To be conservative, the maximum flow rate which occurred on October 21, 2002, within the 10" pipe of 1,100gpm (2.45 cfs) and the maximum flow rate found within the 18" pipe was 1,549gpm (3.45 cfs) were used in the analysis.

Based on the flow monitoring, the total pipe capacity within Atlantic Street is 11.86 cfs, and the maximum monitored metered flow was 5.90 cfs. This does not include the completion of the Courtyard by Marriot which increased flow rates by 1.70 cfs and the Residence Inn project which increased peak flow rates by 0.16 cfs. The proposed increase in peak sanitary flow rates from the site is 322,026 GPD (0.499 cfs). Although in our opinion using the maximum metered flowrate is conservative, we found that the system can still accommodate the development.

Pipe	Pipe Capacity* (cfs)	Metered Flow* (cfs)	Courtyard by Marriott Additional Flow* (cfs)	(former) Atlantic Hotel Development Flow* (cfs)	3 Landmark Square Additional Flow (cfs)	Total Flow (cfs)
18" Tile	10.76	3.45				
10" Tile	1.10	2.45				
	11.86	5.90	1.70	0.16	0.50	8.26

Based on the above information, the sanitary sewer system has sufficient capacity to accommodate the proposed development, and with proper implementation of the design drawings, the proposed development will not adversely impact the existing sanitary sewer system.

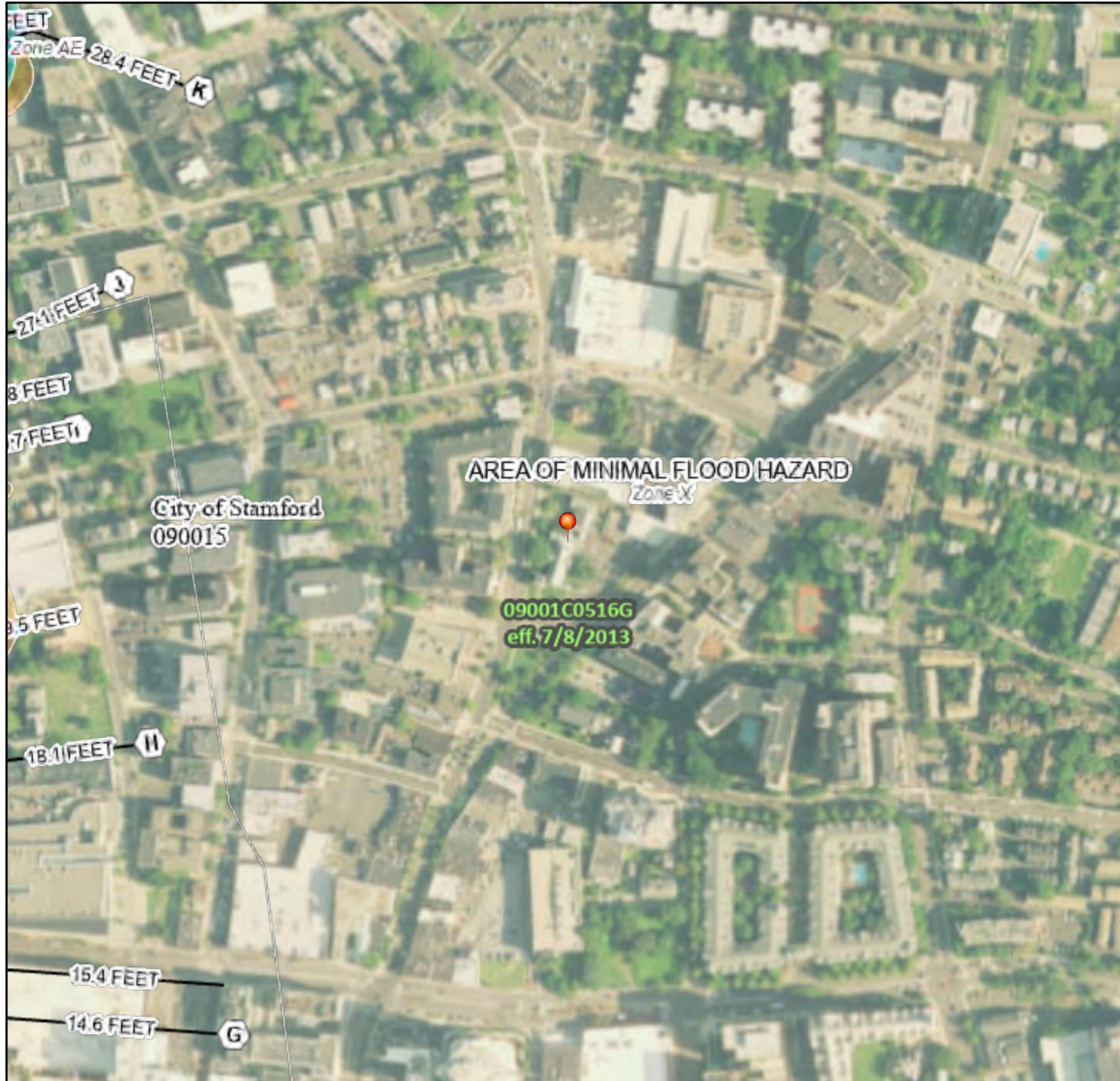
Appendix A

FEMA Flood Insurance Map
USGS Quadrangle Map - Site Vicinity Map
NOAA Atlas 14 Volume 10 - Precipitation Frequency
City of Stamford Rainfall Intensity - Duration Curves
NRCS Websoil Survey

National Flood Hazard Layer FIRMette



73°32'33"W 41°3'44"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
OTHER FEATURES		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

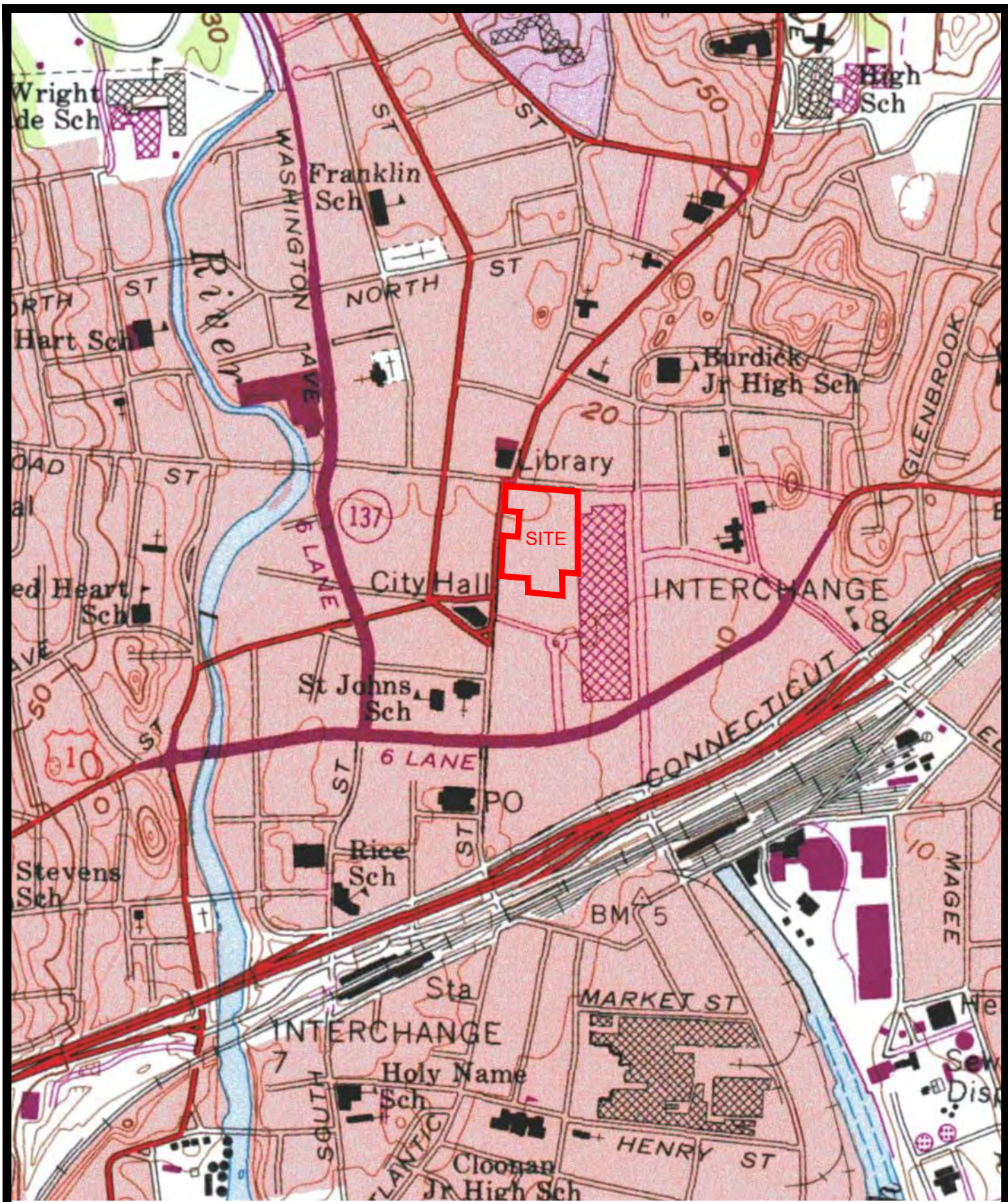
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **6/14/2022 at 1:25 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



USGS QUADRANGLE MAP
3 LANDMARK SQUARE
STAMFORD, CT

**REDNISS
& MEAD**

COMM. NO.: 1961

DATE: 02/03/2023

SCALE: 1"=1,000'



NOAA Atlas 14, Volume 10, Version 3
Location name: Stamford, Connecticut, USA*
Latitude: 41.0544°, Longitude: -73.5376°
Elevation: 27.43 ft**



* source: ESRI Maps
 ** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

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

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.365 (0.281-0.465)	0.425 (0.327-0.542)	0.523 (0.401-0.669)	0.605 (0.461-0.777)	0.717 (0.530-0.952)	0.802 (0.581-1.08)	0.889 (0.626-1.24)	0.984 (0.661-1.40)	1.12 (0.724-1.64)	1.23 (0.775-1.82)
10-min	0.517 (0.398-0.659)	0.602 (0.463-0.768)	0.741 (0.568-0.948)	0.856 (0.653-1.10)	1.01 (0.751-1.35)	1.14 (0.823-1.54)	1.26 (0.887-1.75)	1.40 (0.937-1.98)	1.58 (1.03-2.32)	1.74 (1.10-2.58)
15-min	0.609 (0.469-0.775)	0.709 (0.545-0.904)	0.872 (0.668-1.12)	1.01 (0.768-1.29)	1.19 (0.883-1.59)	1.34 (0.968-1.81)	1.48 (1.04-2.06)	1.64 (1.10-2.33)	1.86 (1.21-2.73)	2.04 (1.29-3.04)
30-min	0.851 (0.655-1.08)	0.992 (0.763-1.26)	1.22 (0.937-1.56)	1.41 (1.08-1.82)	1.68 (1.24-2.23)	1.88 (1.36-2.53)	2.08 (1.46-2.89)	2.30 (1.55-3.27)	2.60 (1.68-3.80)	2.84 (1.80-4.22)
60-min	1.09 (0.842-1.39)	1.27 (0.981-1.63)	1.57 (1.21-2.01)	1.82 (1.39-2.34)	2.16 (1.59-2.86)	2.42 (1.75-3.26)	2.68 (1.88-3.72)	2.96 (1.99-4.20)	3.34 (2.16-4.88)	3.63 (2.30-5.40)
2-hr	1.42 (1.10-1.79)	1.67 (1.29-2.11)	2.07 (1.60-2.63)	2.41 (1.85-3.08)	2.88 (2.14-3.80)	3.23 (2.35-4.34)	3.60 (2.54-4.97)	3.99 (2.69-5.64)	4.55 (2.95-6.61)	4.99 (3.17-7.38)
3-hr	1.63 (1.27-2.06)	1.93 (1.50-2.44)	2.42 (1.87-3.06)	2.82 (2.17-3.58)	3.37 (2.52-4.44)	3.79 (2.77-5.08)	4.23 (3.00-5.84)	4.71 (3.18-6.62)	5.39 (3.51-7.80)	5.94 (3.78-8.74)
6-hr	2.06 (1.61-2.58)	2.45 (1.91-3.07)	3.08 (2.40-3.88)	3.61 (2.80-4.56)	4.34 (3.26-5.68)	4.89 (3.60-6.51)	5.46 (3.91-7.51)	6.11 (4.14-8.54)	7.04 (4.60-10.1)	7.80 (4.98-11.4)
12-hr	2.54 (2.00-3.16)	3.03 (2.39-3.78)	3.85 (3.02-4.80)	4.52 (3.52-5.67)	5.44 (4.12-7.09)	6.14 (4.55-8.14)	6.87 (4.95-9.42)	7.72 (5.25-10.7)	8.94 (5.86-12.8)	9.96 (6.37-14.5)
24-hr	2.97 (2.36-3.67)	3.59 (2.85-4.45)	4.61 (3.64-5.72)	5.45 (4.28-6.80)	6.62 (5.03-8.58)	7.48 (5.58-9.89)	8.41 (6.11-11.5)	9.49 (6.49-13.1)	11.1 (7.30-15.8)	12.5 (8.01-18.0)
2-day	3.32 (2.65-4.08)	4.08 (3.26-5.02)	5.33 (4.23-6.57)	6.36 (5.03-7.88)	7.79 (5.97-10.1)	8.84 (6.65-11.6)	9.98 (7.31-13.6)	11.4 (7.78-15.6)	13.4 (8.86-19.0)	15.2 (9.81-21.8)
3-day	3.59 (2.88-4.39)	4.42 (3.54-5.42)	5.79 (4.62-7.11)	6.92 (5.49-8.53)	8.48 (6.52-10.9)	9.63 (7.26-12.6)	10.9 (8.00-14.8)	12.4 (8.51-16.9)	14.7 (9.70-20.7)	16.7 (10.8-23.8)
4-day	3.84 (3.09-4.69)	4.72 (3.79-5.77)	6.16 (4.93-7.54)	7.35 (5.85-9.04)	8.99 (6.93-11.5)	10.2 (7.72-13.4)	11.5 (8.48-15.6)	13.1 (9.02-17.9)	15.5 (10.3-21.8)	17.6 (11.4-25.0)
7-day	4.58 (3.70-5.56)	5.54 (4.47-6.73)	7.10 (5.71-8.65)	8.39 (6.71-10.3)	10.2 (7.87-13.0)	11.5 (8.72-14.9)	12.9 (9.52-17.4)	14.6 (10.1-19.8)	17.1 (11.4-23.9)	19.3 (12.5-27.3)
10-day	5.31 (4.30-6.42)	6.31 (5.11-7.64)	7.96 (6.42-9.65)	9.32 (7.47-11.4)	11.2 (8.68-14.2)	12.6 (9.56-16.2)	14.1 (10.4-18.8)	15.8 (11.0-21.3)	18.3 (12.2-25.4)	20.4 (13.2-28.8)
20-day	7.48 (6.11-8.99)	8.61 (7.02-10.4)	10.5 (8.49-12.6)	12.0 (9.68-14.5)	14.1 (11.0-17.6)	15.7 (11.9-20.0)	17.4 (12.7-22.7)	19.1 (13.3-25.6)	21.6 (14.4-29.7)	23.5 (15.3-32.9)
30-day	9.28 (7.61-11.1)	10.5 (8.59-12.6)	12.5 (10.2-15.0)	14.2 (11.5-17.1)	16.4 (12.8-20.4)	18.2 (13.8-22.9)	19.9 (14.6-25.8)	21.7 (15.2-28.9)	24.1 (16.2-33.1)	25.9 (16.9-36.2)
45-day	11.5 (9.46-13.7)	12.8 (10.5-15.3)	15.0 (12.3-17.9)	16.8 (13.7-20.2)	19.3 (15.1-23.8)	21.2 (16.2-26.6)	23.1 (16.9-29.6)	24.9 (17.5-33.0)	27.3 (18.3-37.2)	29.0 (18.9-40.3)
60-day	13.3 (11.0-15.8)	14.7 (12.2-17.5)	17.0 (14.0-20.3)	19.0 (15.5-22.7)	21.6 (16.9-26.6)	23.7 (18.1-29.5)	25.6 (18.8-32.7)	27.5 (19.4-36.4)	29.9 (20.1-40.6)	31.5 (20.6-43.7)

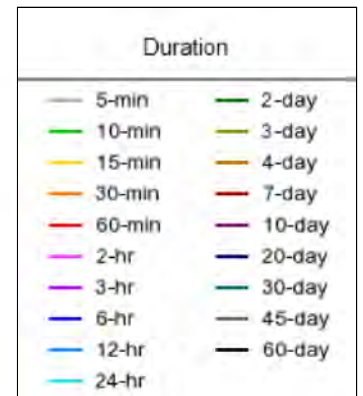
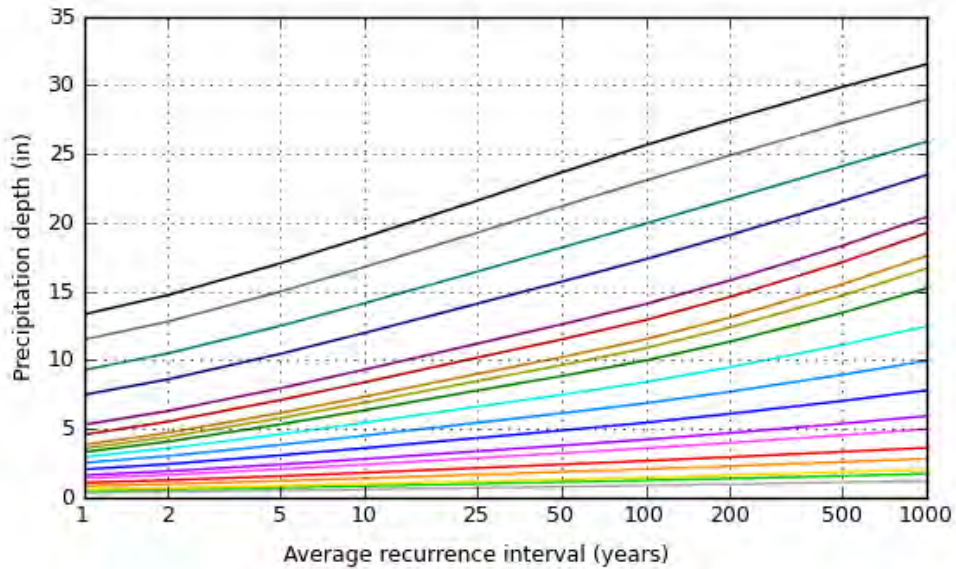
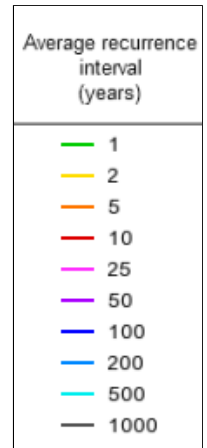
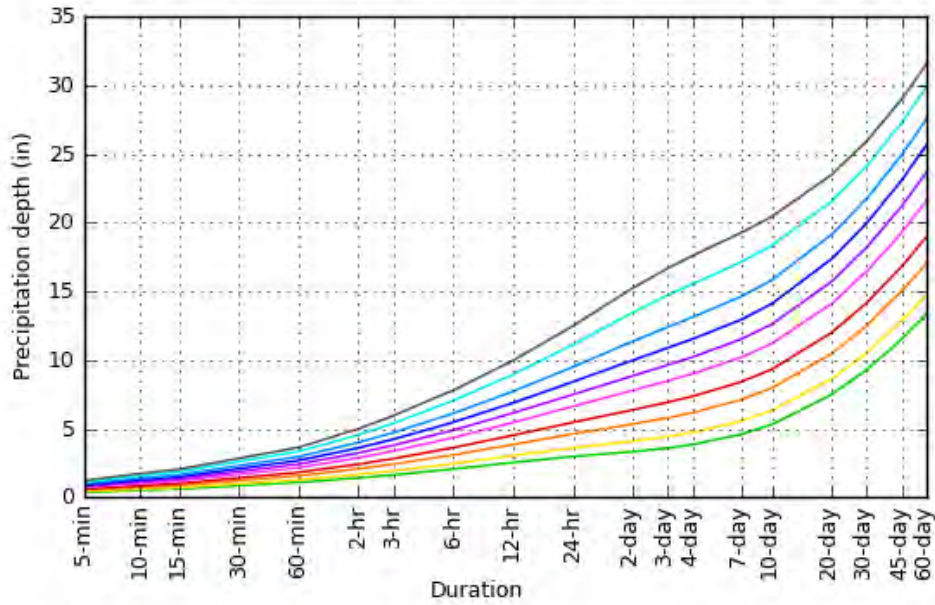
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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PF graphical

PDS-based depth-duration-frequency (DDF) curves

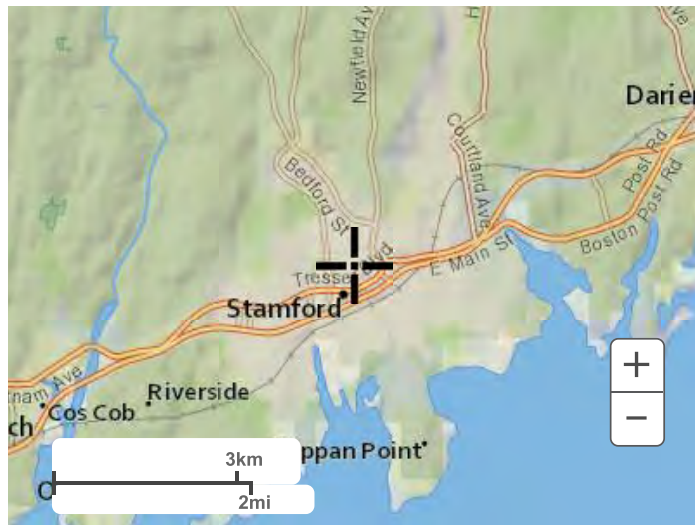
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Maps & aerials

Small scale terrain



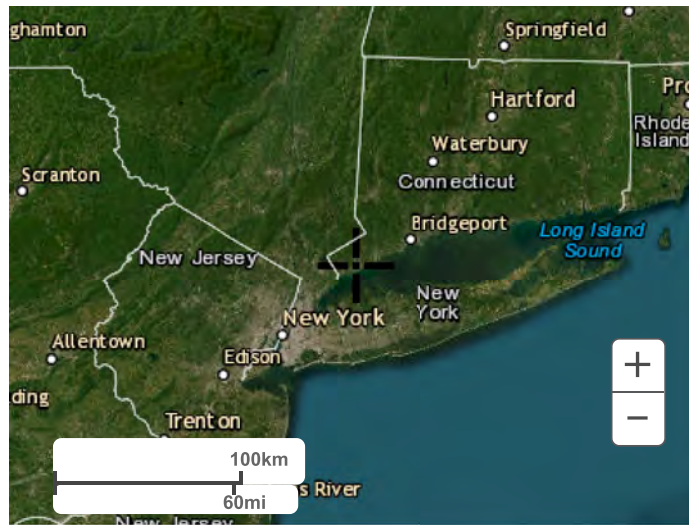
Large scale terrain



Large scale map



Large scale aerial



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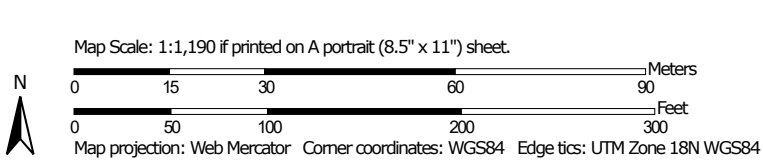
[US Department of Commerce](#)
[National Oceanic and Atmospheric Administration](#)
[National Weather Service](#)
[National Water Center](#)
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

[Disclaimer](#)

Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
307	Urban land	5.9	100.0%
Totals for Area of Interest		5.9	100.0%

Map Unit Descriptions

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

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

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

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

Custom Soil Resource Report

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

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

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

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

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

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

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

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

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
307	Urban land	D	5.9	100.0%
Totals for Area of Interest			5.9	100.0%

Rating Options—Hydrologic Soil Group

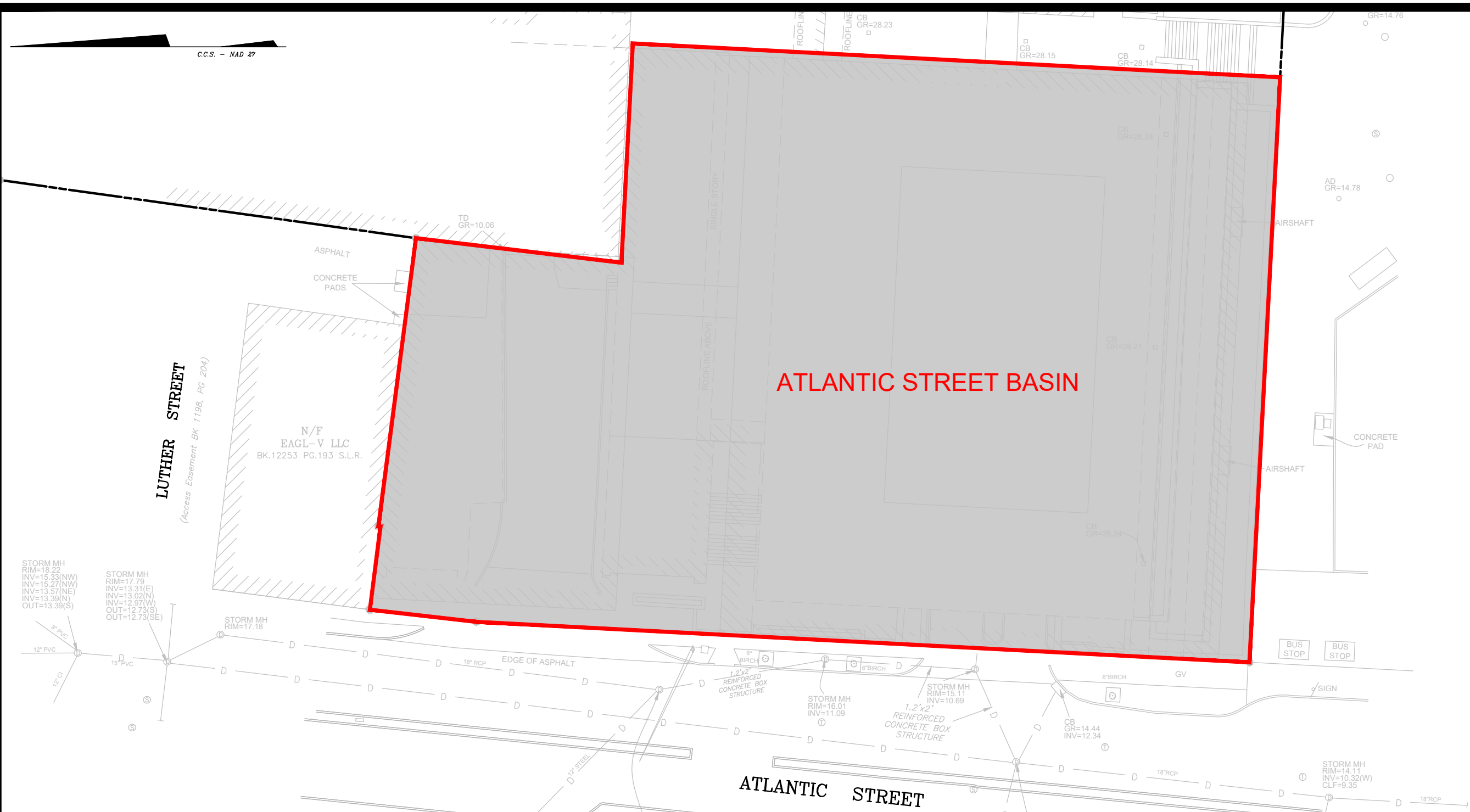
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix B

Existing On-Site Drainage Basin Map
Proposed On-Site Drainage Basin Maps



ATLANTIC STREET BASIN

N/F
CITY OF STAMFORD
VETERANS PARK
BK.1068 PG.457 S.L.R.

EXISTING DRAINAGE BASINS				
Drainage Area ID	Total Area (SF)	Impervious Area (SF)	CN	TC
Atlantic	37,392	37,392	98	5
TOTAL	37,392	37,392	-	-

**EXISTING DRAINAGE BASIN EXHIBIT
3 LANDMARK SQUARE
STAMFORD, CT**

REDNISS & MEAD

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING

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Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

COMM. NO.: 1961	DATE: 02/08/2023
SCALE: 1"=30'	

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N/F
CITY OF STAMFORD
VETERANS PARK
BK.1068 PG.457 S.L.R.

PROPOSED DRAINAGE BASINS				
Drainage Area ID	Total Area (SF)	Impervious Area (SF)	CN	TC
Atlantic Street OGS	34,344	34,344	98	5
Roof Planter	3,048	3,048	98	5
TOTAL	37,392	37,392	-	-

PROPOSED DRAINAGE BASIN EXHIBIT
3 LANDMARK SQUARE
STAMFORD, CT

REDNISS & MEAD

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COMM. NO.: 1961	DATE: 02/08/2023
SCALE: 1"=30'	

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Appendix C

LID Review Map

ATLANTIC STREET OGS BASIN

Basin Area = 34,344 SF
 1/2 Required WQV = 1,359 CF
 WQV Provided = 2,262 CF

ROOF PLANTER BASIN (ALL GREEN AREAS)

Basin Area = 3,048 SF
 1/2 Required WQV = 121 CF
 WQV Provided = 1,372 CF

N/F
 CITY OF STAMFORD
 VETERANS PARK
 BK.1068 PG.457 S.L.R.

LUTHER STREET
 (Access Easement BK 1198, PG 204)

N/F
 EAGL-V LLC
 BK.12253 PG.193 S.L.R.

STORM MH
 RIM=18.22
 INV=15.33(NW)
 INV=15.27(NW)
 INV=13.57(NE)
 INV=13.39(N)
 OUT=13.39(S)

STORM MH
 RIM=17.79
 INV=13.31(E)
 INV=13.02(N)
 INV=12.97(W)
 OUT=12.73(S)
 OUT=12.73(SE)

STORM MH
 RIM=17.18

TRAFFIC
 REINFORCED
 CONCRETE BOX
 STRUCTURE

STORM MH
 RIM=16.01
 INV=11.09

1.2'x2'
 REINFORCED
 CONCRETE BOX
 STRUCTURE

STORM MH
 RIM=15.11
 INV=10.89

CB
 GR=14.44
 INV=12.34

STORM MH

LID SUMMARY TABLE

Drainage Area ID	Total Area (SF)	Impervious Area	% Impervious	1/2" WQV (CF)	Retention Volume Required	Retention Volume Provided
Atlantic Street OGS	34,344	34,344	100%	1359	1,359	2,262
Roof Planter	3,048	3,048	100%	121	121	1,372
TOTAL	37,392	37,392	-	1480	1480	3,634

*STORMWATER TREATMENT SYSTEM SIZED FOR LIMIT OF PROPOSED IMPROVEMENTS

LOW IMPACT DEVELOPMENT MAP 3 LANDMARK SQUARE STAMFORD, CT



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COMM. NO.: 1961	DATE: 02/08/2023
	SCALE: 1"=30'

Appendix D

Water Quality Volume Calculations
Conveyance Calculation

Water Quality Volume Calculations

Project: <i>3 Landmark Square</i>	Project #: <i>1961</i>	Date: <i>2/8/2023</i>
Location: <i>Stamford, CT</i>	By: <i>JTF</i>	Checked: <i>TM</i>

OGS#1

Area=	0.788	acres
Impervious Area=	0.788	acres
I=	1.000	^a
R=	0.950	^b
WQV=	0.062	ac. ft. ^c

WQV=	2718.9 ft.³
1/2 WQV=	1359.5 ft.³

WQV PROVIDED=	2262.0 ft.³
----------------------	-------------------------------

^a I=Percent Impervious Coverage

^b $R=0.05+0.009(I)$; Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

^c $WQV=(1'' \times R \times A)/12$; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

^d Per standard Drainage Manual, since the site DCIA exceeds 40% the required storage is half of the calculated WQV.

^e Taken from Subcatchment OGS#1 runoff volume for the WQV (1 inch) storm event in the attached HydroCAD report

Water Quality Volume Calculations

Project: 3 Landmark Square	Project #: 1961	Date: 2/8/2023
Location: Stamford, CT	By: JTF	Checked: TM

Roof Planters

Area=	0.070	acres
Impervious Area=	0.070	acres
I=	1.000	^a
R=	0.950	^b
WQV=	0.006	ac. ft. ^c

WQV=	241.3 ft.³
1/2 WQV=	120.7 ft.³

WQV PROVIDED=	1371.6 ft.³
----------------------	-------------------------------

^a I=Percent Impervious Coverage

^b $R=0.05+0.009(I)$; Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

^c $WQV=(1'' \times R \times A)/12$; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

^d Per standard Drainage Manual, since the site DCIA exceeds 40% the required storage is half of the calculated WQV.

^e WQV provided is calculated as the 3,048 SF (planter area) x 18" soil depth x 30% voids

HYDRAULIC DATA FOR RATIONAL METHOD								
Project: <i>3 Landmark Square</i>					Project #: <i>1961</i>		Date: <i>2/8/2023</i>	
Location: <i>Stamford, CT</i>					By: <i>JTF</i>		Checked: <i>TM</i>	
100-Year Storm Conveyance Calculations								
Pipe Section	Q in system (cfs)*	Pipe Size (in)	Pipe Length (ft)	Roughness coefficient	Material	Slope (ft/ft)	Q _{full} (cfs)	Q _{system} / Q _{full} (%)
OGS#1 to Ex.MH in Atlantic	7.34	12	2	0.011	PVC	0.050	9.44	77.8%

*100-Year flow rates obtained from HydroCAD Model "Pr Atlantic" link

Appendix E

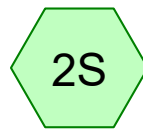
HydroCAD Report

Existing Conditions

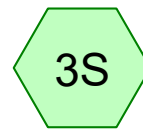


Ex Atlantic

Proposed Conditions



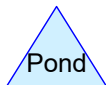
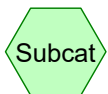
Roof Planter



OGS#1



Pr Atlantic



1961 Hydrocad 2023-01-18

Type III 24-hr WQV Rainfall=1.00"

Prepared by HP Inc.

Printed 2/3/2023

HydroCAD® 10.10-6a s/n 08721 © 2020 HydroCAD Software Solutions LLC

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Ex Atlantic

Runoff Area=37,392 sf 100.00% Impervious Runoff Depth>0.79"
Tc=5.0 min CN=98.00 Runoff=0.79 cfs 2,463 cf

Subcatchment 2S: Roof Planter

Runoff Area=3,048 sf 100.00% Impervious Runoff Depth>0.79"
Tc=5.0 min CN=98.00 Runoff=0.06 cfs 201 cf

Subcatchment 3S: OGS#1

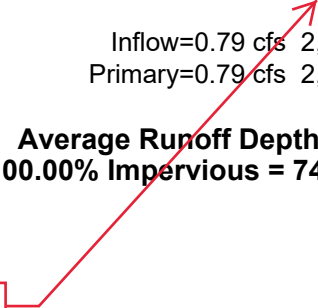
Runoff Area=34,344 sf 100.00% Impervious Runoff Depth>0.79"
Tc=5.0 min CN=98.00 Runoff=0.73 cfs 2,262 cf

Link 4L: Pr Atlantic

Inflow=0.79 cfs 2,463 cf
Primary=0.79 cfs 2,463 cf

Total Runoff Area = 74,784 sf Runoff Volume = 4,925 cf Average Runoff Depth = 0.79"
0.00% Pervious = 0 sf 100.00% Impervious = 74,784 sf

OGS#1 WQV
Provided = 2,262 CF



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Ex Atlantic Runoff Area=37,392 sf 100.00% Impervious Runoff Depth>2.74"
Tc=5.0 min CN=98.00 Runoff=2.56 cfs 8,527 cf

Subcatchment 2S: Roof Planter Runoff Area=3,048 sf 100.00% Impervious Runoff Depth>2.74"
Tc=5.0 min CN=98.00 Runoff=0.21 cfs 695 cf

Subcatchment 3S: OGS#1 Runoff Area=34,344 sf 100.00% Impervious Runoff Depth>2.74"
Tc=5.0 min CN=98.00 Runoff=2.35 cfs 7,832 cf

Link 4L: Pr Atlantic Inflow=2.56 cfs 8,527 cf
Primary=2.56 cfs 8,527 cf

Total Runoff Area = 74,784 sf Runoff Volume = 17,054 cf Average Runoff Depth = 2.74"
0.00% Pervious = 0 sf 100.00% Impervious = 74,784 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Ex Atlantic Runoff Area=37,392 sf 100.00% Impervious Runoff Depth>3.35"
Tc=5.0 min CN=98.00 Runoff=3.11 cfs 10,451 cf

Subcatchment 2S: Roof Planter Runoff Area=3,048 sf 100.00% Impervious Runoff Depth>3.35"
Tc=5.0 min CN=98.00 Runoff=0.25 cfs 852 cf

Subcatchment 3S: OGS#1 Runoff Area=34,344 sf 100.00% Impervious Runoff Depth>3.35"
Tc=5.0 min CN=98.00 Runoff=2.85 cfs 9,599 cf

Link 4L: Pr Atlantic Inflow=3.11 cfs 10,451 cf
Primary=3.11 cfs 10,451 cf

Total Runoff Area = 74,784 sf Runoff Volume = 20,902 cf Average Runoff Depth = 3.35"
0.00% Pervious = 0 sf 100.00% Impervious = 74,784 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Ex Atlantic Runoff Area=37,392 sf 100.00% Impervious Runoff Depth>4.37"
Tc=5.0 min CN=98.00 Runoff=4.01 cfs 13,620 cf

Subcatchment 2S: Roof Planter Runoff Area=3,048 sf 100.00% Impervious Runoff Depth>4.37"
Tc=5.0 min CN=98.00 Runoff=0.33 cfs 1,110 cf

Subcatchment 3S: OGS#1 Runoff Area=34,344 sf 100.00% Impervious Runoff Depth>4.37"
Tc=5.0 min CN=98.00 Runoff=3.68 cfs 12,510 cf

Link 4L: Pr Atlantic Inflow=4.01 cfs 13,620 cf
Primary=4.01 cfs 13,620 cf

Total Runoff Area = 74,784 sf Runoff Volume = 27,240 cf Average Runoff Depth = 4.37"
0.00% Pervious = 0 sf 100.00% Impervious = 74,784 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Ex Atlantic Runoff Area=37,392 sf 100.00% Impervious Runoff Depth>5.21"
Tc=5.0 min CN=98.00 Runoff=4.75 cfs 16,232 cf

Subcatchment 2S: Roof Planter Runoff Area=3,048 sf 100.00% Impervious Runoff Depth>5.21"
Tc=5.0 min CN=98.00 Runoff=0.39 cfs 1,323 cf

Subcatchment 3S: OGS#1 Runoff Area=34,344 sf 100.00% Impervious Runoff Depth>5.21"
Tc=5.0 min CN=98.00 Runoff=4.36 cfs 14,909 cf

Link 4L: Pr Atlantic Inflow=4.75 cfs 16,232 cf
Primary=4.75 cfs 16,232 cf

Total Runoff Area = 74,784 sf Runoff Volume = 32,463 cf Average Runoff Depth = 5.21"
0.00% Pervious = 0 sf 100.00% Impervious = 74,784 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Ex Atlantic

Runoff Area=37,392 sf 100.00% Impervious Runoff Depth>6.37"
Tc=5.0 min CN=98.00 Runoff=5.76 cfs 19,840 cf

Subcatchment 2S: Roof Planter

Runoff Area=3,048 sf 100.00% Impervious Runoff Depth>6.37"
Tc=5.0 min CN=98.00 Runoff=0.47 cfs 1,617 cf

Subcatchment 3S: OGS#1

Runoff Area=34,344 sf 100.00% Impervious Runoff Depth>6.37"
Tc=5.0 min CN=98.00 Runoff=5.29 cfs 18,223 cf

Link 4L: Pr Atlantic

Inflow=5.76 cfs 19,840 cf
Primary=5.76 cfs 19,840 cf

Total Runoff Area = 74,784 sf Runoff Volume = 39,680 cf Average Runoff Depth = 6.37"
0.00% Pervious = 0 sf 100.00% Impervious = 74,784 sf

Summary for Subcatchment 1S: Ex Atlantic

Runoff = 5.76 cfs @ 12.07 hrs, Volume= 19,840 cf, Depth> 6.37"

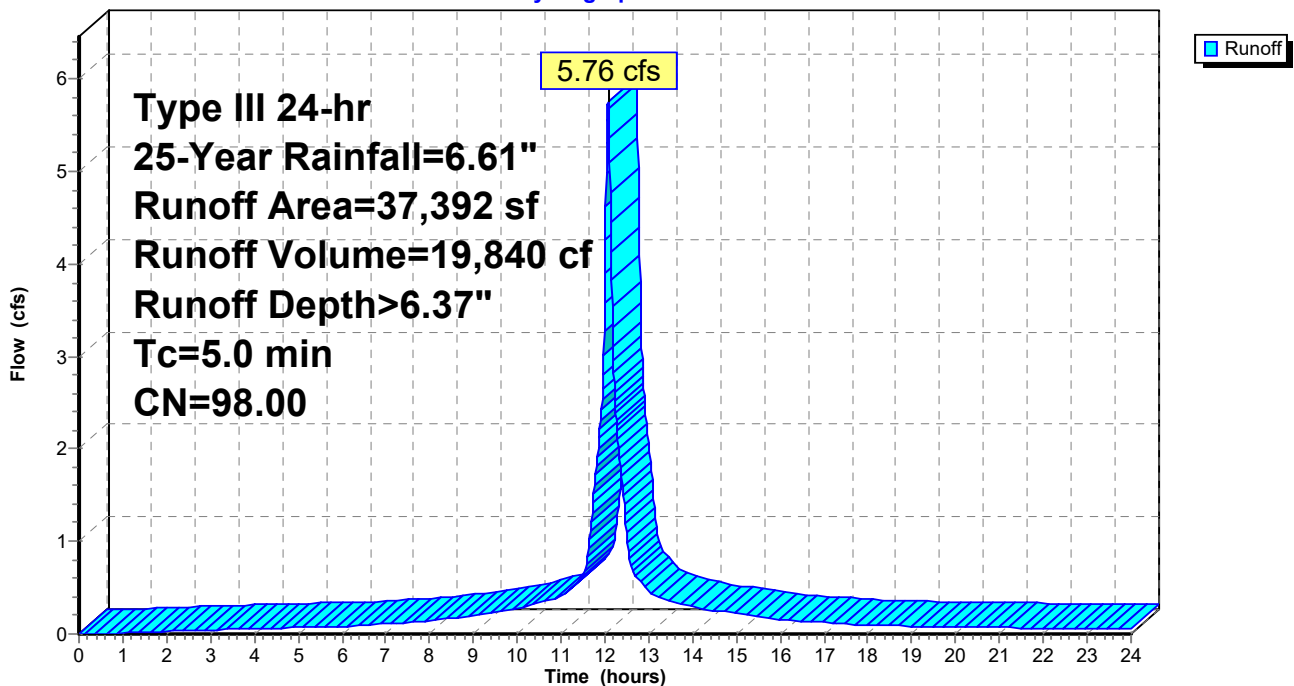
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.61"

Area (sf)	CN	Description
* 37,392	98.00	Impervious
37,392		100.00% Impervious Area

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

Subcatchment 1S: Ex Atlantic

Hydrograph



Summary for Subcatchment 2S: Roof Planter

Runoff = 0.47 cfs @ 12.07 hrs, Volume= 1,617 cf, Depth> 6.37"
 Routed to Link 4L : Pr Atlantic

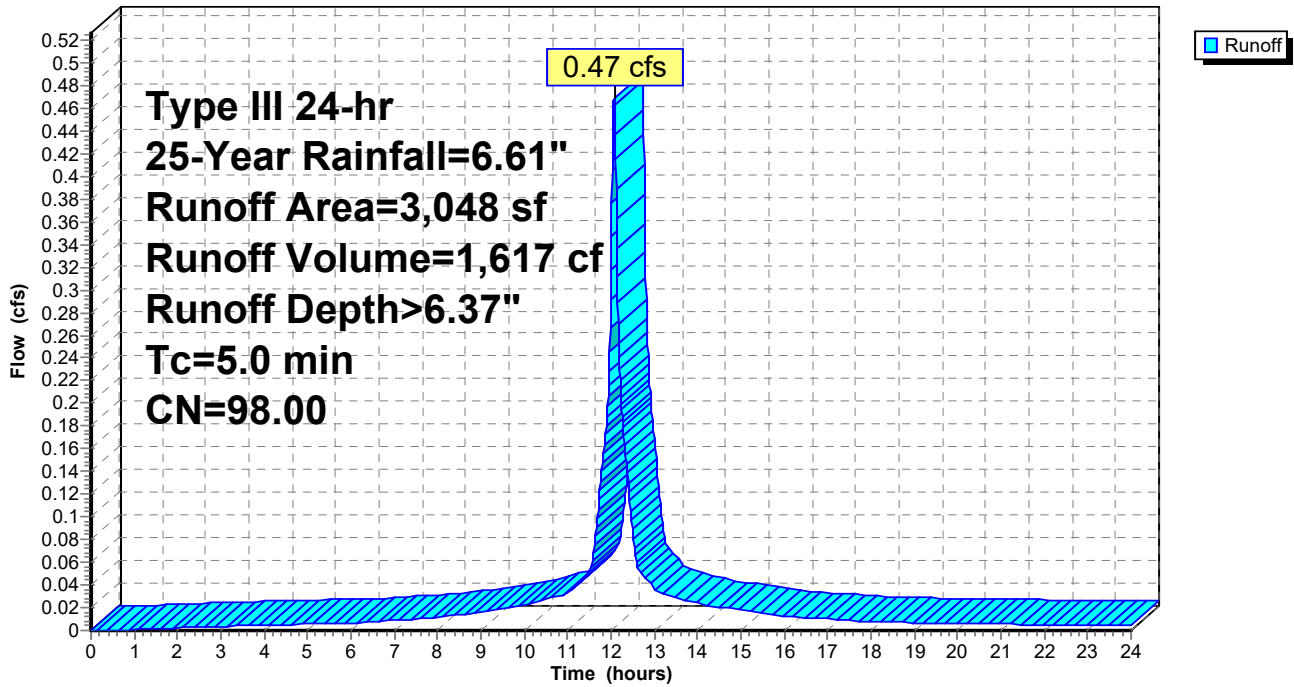
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.61"

Area (sf)	CN	Description
* 3,048	98.00	Roof Planters
3,048		100.00% Impervious Area

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

Subcatchment 2S: Roof Planter

Hydrograph



Summary for Subcatchment 3S: OGS#1

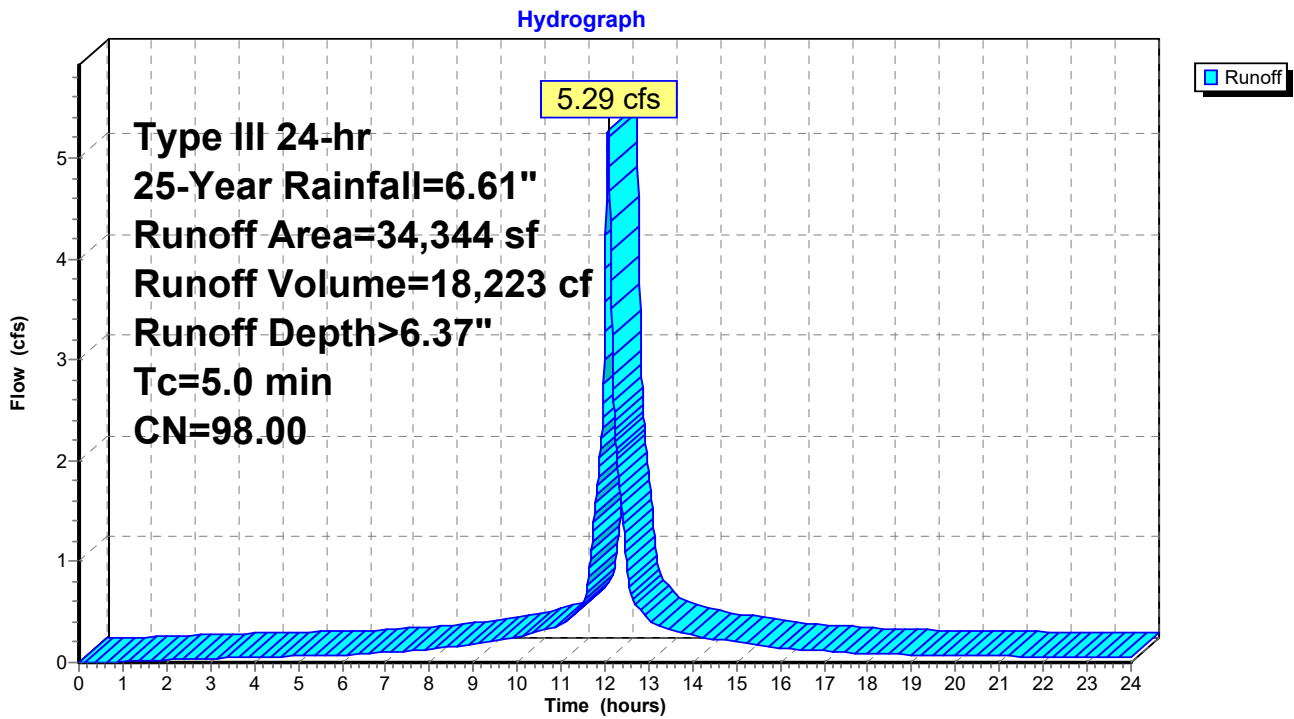
Runoff = 5.29 cfs @ 12.07 hrs, Volume= 18,223 cf, Depth> 6.37"
 Routed to Link 4L : Pr Atlantic

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.61"

Area (sf)	CN	Description
* 34,344	98.00	Impervious
34,344		100.00% Impervious Area

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

Subcatchment 3S: OGS#1



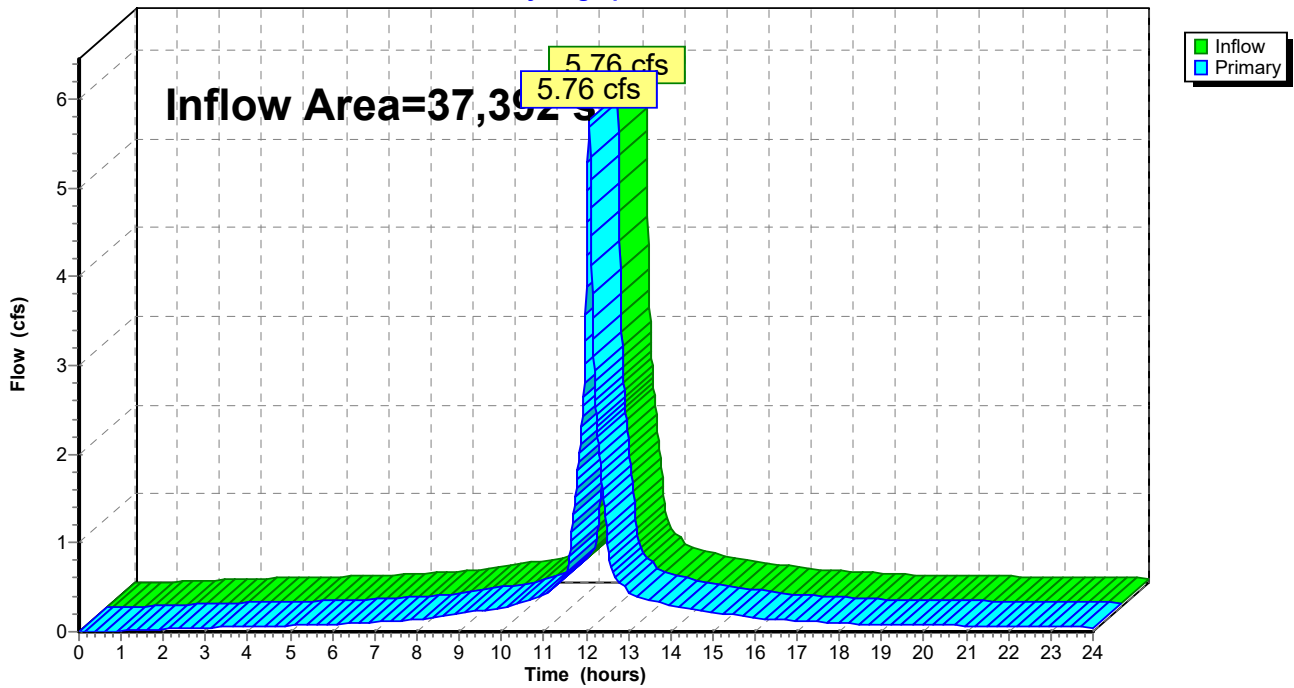
Summary for Link 4L: Pr Atlantic

Inflow Area = 37,392 sf, 100.00% Impervious, Inflow Depth > 6.37" for 25-Year event
Inflow = 5.76 cfs @ 12.07 hrs, Volume= 19,840 cf
Primary = 5.76 cfs @ 12.07 hrs, Volume= 19,840 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link 4L: Pr Atlantic

Hydrograph



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Ex Atlantic Runoff Area=37,392 sf 100.00% Impervious Runoff Depth>7.24"
Tc=5.0 min CN=98.00 Runoff=6.53 cfs 22,547 cf

Subcatchment 2S: Roof Planter Runoff Area=3,048 sf 100.00% Impervious Runoff Depth>7.24"
Tc=5.0 min CN=98.00 Runoff=0.53 cfs 1,838 cf

Subcatchment 3S: OGS#1 Runoff Area=34,344 sf 100.00% Impervious Runoff Depth>7.24"
Tc=5.0 min CN=98.00 Runoff=6.00 cfs 20,709 cf

Link 4L: Pr Atlantic Inflow=6.53 cfs 22,547 cf
Primary=6.53 cfs 22,547 cf

Total Runoff Area = 74,784 sf Runoff Volume = 45,094 cf Average Runoff Depth = 7.24"
0.00% Pervious = 0 sf 100.00% Impervious = 74,784 sf

Appendix F

DCIA Tracking Spreadsheet



Note to user: complete all cells of this color *only*

Part 1: General Information	
Project Name	Landmark Square Building 3
Project Address	Landmark Square
Project Applicant	Landmark Square 1-6, LLC
Date of Submittal	8-Feb-23
Tax Account Number	002-8012, 002-8013, 002-9034, 002-9471, 002-9978, 003-5277, 003-5489

Part 2: Project Details	
1. What type of development is this? (choose from dropdown)	Redevelopment
2. What is the total area of the project site?	227,596 ft ²
3. What is the total area of land disturbance for this project?	37,400 ft ²
4. Does project site drain to High Quality Waters, a Direct Waterfront, or within 500 ft. of Tidal Wetlands? (Yes/No)	No
5. What is the <u>current DCIA</u> for the site?	223,224 ft ²
6. Will the proposed development increase DCIA (without consideration of proposed stormwater management)? (Yes/No)	No
7. What is the <u>proposed-development total impervious area</u> for the site?	223,224 ft ²

Part 3: Water Quality Target Total	
Does Standard 1 apply based on information above?	Yes
Water Quality Volume (WQV)	17690.1 ft ³
Standard 1 requirement	Retain 1/2 WQV on-site
Required retention volume	8845.1 ft ³
Provided retention volume for proposed development	3,634.0 ft ³

Part 4: Proposed DCIA Tracking	
Pre-development <u>total impervious area</u>	223,224 ft ²
<u>Current DCIA</u>	223,224 ft ²
Proposed-development <u>total impervious area</u>	223,224 ft ²
Proposed-development <u>DCIA</u> (after stormwater management)	185,824 ft ²
Net change in DCIA from <u>pre-development</u> to <u>proposed-development</u>	-37,400 ft ²

Part 5: Post-Development (As-Built Certified) DCIA Tracking	
Post-development (per as-built) <u>total impervious area</u>	ft ²
Post-development (per as-built) <u>DCIA</u> (after stormwater management)	ft ²
Net change in DCIA from <u>pre-development</u> to <u>post-development</u>	ft ²

Certification Statement		
I hereby certify that the information contained in this worksheet is true and correct.		
Engineer's Signature	Date <u>2023-02-08</u>	Engineer's Seal

Appendix G

Operation and Maintenance Agreement

Block _____

AGREEMENT COVENANT

AGREEMENT made this _____ by and between _____ and the **CITY OF STAMFORD**, a municipal corporation lying within the County of Fairfield and State of Connecticut, acting herein by its duly authorized Mayor, Caroline Simmons (hereinafter referred to as the "City"), and the **ENVIRONMENTAL PROTECTION BOARD OF THE CITY OF STAMFORD**, acting herein by its duly authorized Chairman, Gary H. Stone (hereinafter referred to as the "EPB").

WITNESSETH:

WHEREAS, OWNER has commenced the planning and construction of _____ on a parcel of land owned by them and as more particularly described on Schedule "A", attached hereto and made a part hereof (the "Property").

WHEREAS, certain drainage facilities ("Drainage Facilities"), including but not limited to _____ as more particularly described on Schedule "B" attached (the "Construction Plans") shall be installed in connection with the aforesaid construction and in accordance with the Construction Plans and _____ issued therefore, (the "Permit") and;

WHEREAS, OWNER, the CITY and EPB share a joint concern that the Drainage Facilities be maintained in a functioning condition so as to avoid pollution of surface and groundwaters, flooding and/or improper drainage.

NOW, THEREFORE, in consideration of ten dollars and other good and valuable consideration receipt of which is hereby acknowledged by the OWNER, it is hereby agreed as follows:

- 1) OWNER shall clean the drainage facilities or cause such facilities to be cleaned by periodic removal of accumulated sediment and debris in a good and workman-like manner, at least two (2) times during every twelve (12) month period, which times shall be in the period between April and June and between October and December and more often as the City may determine to be necessary.
- 2) OWNER shall sweep, or cause to be swept, garage facilities, driveways and roadway surfaces located on the Property at least once per calendar quarter.
- 3) OWNER shall utilize only sand or calcium chloride in connection with the de-icing of areas within the Property meaning and intending that road salt (Sodium Chloride) shall not be used for said purpose.
- 4) OWNER shall repair or replace any defects or defective drainage facilities so as to maintain the drainage facilities, at all times, in a fully functional capacity.
- 5) OWNER shall file as-built drainage plans with the EPB immediately upon the completion of work. Said plans shall be prepared by a professional engineer/surveyor registered in the State of Connecticut.

- 6) OWNER grants the CITY and/or EPB, its agents, and employees, the right to enter the Property at all reasonable times upon twenty-four (24) hours notice to the OWNER for the purpose of inspecting the Property to determine if OWNER is complying with the requirements hereunder. A representative of the Owner shall have the right to accompany the City and/or EPB on their inspection of the Property.

- 7) If, after an inspection is made pursuant to Paragraph Six (6) hereof, the CITY and/or EPB determines that the owner has failed to comply with the aforesaid undertakings, then the CITY and/or EPB shall give written notice of said determination to the then OWNER of the Property which notice shall also specify the said failure. Said notice shall be sent by registered or certified mail to the last known address of said Owner. If the Owner disputes the claim, he shall give written notice thereof to City and/or EPB within ten (10) days of receipt of said notice, and the EPB shall hold a hearing as promptly as possible to decide the merits of the disputed claim. If the claim is not disputed within said ten (10) days, the OWNER shall have thirty (30) days from the receipt of said notice to correct said failure, unless it is impossible to cure said defect within said time, in which case, the necessary repairs shall be immediately commenced and diligently pursued to completion within a reasonable time.

- 8) If the said failure is not remedied within the time frame herein stated, the CITY and/or EPB may proceed to cure the same and charge the actual cost thereof to the OWNER of the Property.

- 9) OWNER agrees to reimburse the CITY and/or EPB for reasonable legal fees and court costs if it becomes necessary for the CITY and/or EPB to sue for reimbursement of sums expended by the CITY and/or EPB in performance of OWNER'S obligation.
- 10) OWNER agrees and covenants to indemnify and save harmless the CITY and the EPB against any and all claims, suits, actions or judgments arising out of the delay in the performance of any of their obligations pursuant to this Agreement.
- 11) OWNER agrees that this covenant and restriction shall apply to and run with the land. It shall be binding on all future owners, administrators, executors, successors and assigns.
- 12) The OWNER hereby represents to the CITY and EPB that he/she is the owner, in fee simple, of all of the property described in "Schedule A" attached hereto and made a part hereof.
- 13) OWNER agrees that this Agreement and restrictive covenant upon execution of the same, shall be recorded on the land records at the OWNER'S expense at the time that a permit is issued for the Property herein and while the OWNER is in title.
- 14) OWNER agrees not to assert the invalidity of this document.
- 15) OWNER agrees that nothing herein shall be construed to be a limitation upon the right of the EPB to assert and enforce any rights it may have under federal, state or City statute, ordinance or regulation.

16) This agreement shall be governed by the laws of the State of Connecticut.

IN WITNESS WHEREOF, the said parties hereto have hereunto set their hands and seals, the day and year first above written.

WITNESSED:

THE CITY OF STAMFORD

BY: _____
Caroline Simmons
Its duly authorized Mayor

THE ENVIRONMENTAL PROTECTION BOARD

BY: _____
Gary H. Stone
Its duly authorized Chairman

OWNER

BY: _____

(Owner's Name)

(Acknowledgement on the Following Page)

STATE OF CONNECTICUT}
} ss: STAMFORD Date: _____
COUNTY OF FAIRFIELD }

Personally appeared Caroline Simmons, Mayor of the City of Stamford, signer and sealer of the foregoing Instrument, and acknowledged the same to be his free act and deed and the free act and deed of said City, before me.

Commissioner of the Superior Court or Notary Public

STATE OF CONNECTICUT}
} ss: STAMFORD Date: _____
COUNTY OF FAIRFIELD }

Personally appeared Gary H. Stone, Chairman of the Environmental Protection Board of the City of Stamford, signer and sealer of the foregoing Instrument, and acknowledged the same to be his free act and deed and the free act and deed of said Commission, before me.

Commissioner of the Superior Court or Notary Public

STATE OF CONNECTICUT}
} ss: STAMFORD Date: _____
COUNTY OF FAIRFIELD }

Personally appeared _____ signer and sealer of the foregoing instrument, and acknowledged the same to be _____ free act and deed, before me.

Commissioner of the Superior Court or Notary Public

SCHEDULE "A"

SCHEDULE "B"

Appendix H

Checklist for Stormwater Management Report



City of Stamford
 Engineering Bureau
 888 Washington Boulevard, 7th Floor Stamford, CT 06901
 Phone 203-977-4189

II. Existing Conditions Plan Elements

	Show and label all property boundaries with linear bearing / distances and curve information
	Required zoning setbacks
	Show and label monument information
	Show and label at least one permanent benchmark on the parcel with northing, easting and elevation
	Label adjacent property ownership information
	Existing contours based on NAVD 88 (no exceptions) at 2 foot contour interval or 1 foot contour interval when slope is flatter than 2 percent at a minimum of 20 ft. beyond the property boundaries of the subject parcel
	Show spot elevations at low points, high points, and where topography is flatter than 2 percent
	All buildings and structures (label current use and finished floor elevations)
	All pavement, parking, driveways, property access points
	All roadways, streets, and rights-of-way. Label streets as public or private with street name
	All patios, decks, walkways, sidewalks, curb ramps (both adjacent to and opposite and existing roadways or intersections)
	Show and label (size, material, inverts) all existing utilities (overhead and underground) within the right-of-way and the project site (label ownership) including but not limited to water, gas and electrical services, wells, storm sewers, sanitary sewers and subsurface sewerage disposal systems.
	Show and label existing conveyance systems (swales, ditches, storm drains) including dimensions, elevations, sizes, slopes, and direction of flow
	Show and label boundaries of all easements, both public and private, with type, owner, and width
	Show and label all other existing features and improvements (e.g. light poles, mature trees of 8" (dbh) diameter or greater, vegetation, walls with top and bottom elevations, fences, pavement markings)

III. Resource Areas

N/A	Show and label limits of inland wetlands, tidal wetlands and any associated setbacks.
N/A	Show and label existing natural site features including tree canopy, outcroppings, permanent and intermittent watercourses, waterbodies, streams
N/A	Show and label limits of floodplain and floodway along with FIRM references (Community Number, Panel, Suffix, and Date) including any effective Letters of Map Revision/Amendment, zone designation and elevation.
N/A	Show and label any Conservation Easement Areas
N/A	Show and label Connecticut Coastal Jurisdiction Line (CJL)
N/A	Show and label existing steep slopes (25% and greater)



Checklist for Stormwater Management Report

I. Project Report

A. Applicant / Site Information

	Applicant name, legal address, contact information (email & phone)
	Engineers name, legal address, contact information (email & phone)
	Site address and legal description
	Current / proposed zoning and land use
	Site vicinity map (8.5" x 11")

B. Project Description and Purpose

	Project description including proposed project elements and anticipated construction schedule
--	---

C. Existing Conditions Description

	Site area, ground cover, vegetation, features (roads, buildings, utilities, etc.)
	Site topography, slopes, drainage patterns, conveyances systems (swales, storm drains, etc.), stormwater discharge locations
	Receiving waterbody information including stormwater impairments and TMDL information (See the most recent State of Connecticut Integrated Water Quality Report)
	Site soils information including soil types, hydrologic soil group, bedrock / outcroppings, groundwater elevation, significant geologic features
	Provide NRCS Soils Mapping
N/A	Resource protection areas (wetlands, streams, lakes, etc.), buffers, floodplains, floodways

D. Summary of Applicable General Design Criteria

	Methodology, design storm frequency
	Hydrologic design criteria
	Hydraulic design criteria
N/A	Flood hazard areas

	Applying under "Lite" Stormwater Management: Skip to Section I (Refer to Flow Chart on page vii of the City of Stamford Stormwater Drainage Manual)
--	---

E. Project Type in Accordance with Standard 1 Definitions

	Area of disturbance, receiving waterbody classification (High Quality, Tidal Wetlands, Direct Waterfront)
	Project type (development, redevelopment, linear development)
	Pollutant reduction standard per flowchart Section 2.4



F. Summary of LID Site Constraints

	Description of sensitive areas for protection
	Mature tree inventory, which shall include 8-inch (dbh) diameter trees or greater
	Steep slopes
N/A	Ledge and bedrock depth
N/A	Seasonal high groundwater elevation
N/A	Pollutant hotspots
N/A	Summary of infiltration rates

G. Summary of Proposed Stormwater Treatment Practices

	Proposed LID controls (i.e. minimize impervious, minimize DCIA, minimize disturbance, increase time of concentrations, other LID controls and strategies)
	Location, size, types
	Design criteria and references
	Stormwater treatment practice, drainage area characteristics / details

H. Summary of Compliance with Standards 1

	Required pollutant reduction criteria
	Provided pollutant reduction (WQV) by stormwater treatment practice
	Summary of compliance with Standard 1

I. Summary of Compliance with Standards 2, 3, and 4

	Description of proposed stormwater management system
	Pre-development site hydrology with delineation of each watershed area and sub-basin
	Post-development site hydrology with delineation of each watershed area and sub-basin
	Comparison table of pre- and post-development hydrology, peak flow, volume, and percent difference
	Summary table of watershed areas and sub-basin areas, time of concentration and runoff coefficients
N/A	Summary table demonstrating the 2-year, 24-hour post development peak flow rate is less than or equal to the lowest of either: - The pre-development 1-year, 24-hour storm peak flow rate - 50 percent of the pre-development 2-year, 24-hour storm peak flow rate
	Conveyance protection, emergency outlet sizing
N/A	Hydraulic grade line summary and tail water elevation used in analysis
	Construction erosion and sediment control description, Standard 3
	Operation and Maintenance, maintenance tasks and schedule on construction plans per Standard 4



J. Summary of Compliance with Applicable Drainage Facility Design Requirements

	Description of applicable design requirements and compliance
	Description of proposed drainage facilities and compliance

K. Stormwater Management Report

	Signed and stamped by professional engineer licensed in the State of Connecticut
	Drainage impact statement in accordance with Standard 5B.

II. **Supporting Calculations** (as appendix to Project Report)

	<u>Applying under "Lite" Stormwater Management: Skip to Section N</u>
--	--

L. Water Quality Volume / Water Quality Flow Calculations

	Calculations demonstrating the total Water Quality Volume generated by the post-development site and the required retention/treatment volume per Standard 1 in cubic feet.
	Calculations demonstrating the total Water Quality Volume retained/treated by each stormwater treatment practice and the total Water Quality Volume generated by the post-development contributing drainage area to each stormwater treatment practice

M. Stormwater Treatment Practice Sizing Calculations

	Calculations demonstrating how each stormwater treatment practice has been designed and sized in accordance with the Structural Stormwater BMP Design references in Appendix B. Calculations will vary by stormwater treatment practice, but a minimum, applicants shall provide calculations in accordance with design criteria from the Connecticut Stormwater Quality Manual.
--	--

N. Hydrologic and Hydraulic Design Calculations

N/A	Stream channel protection, Standard 2A
	Conveyance protection, Standard 2B
	Peak flow control (1-year, 2-year, 5-year, 10-year, 25-year, and 50-year storms), Standard 2C
N/A	Inlet analysis
N/A	Gutter flow (Site by site basis as requested by Engineering Bureau)
	Storm sewers and culverts (velocities, capacity, hydraulics)
N/A	Hydraulic grade line required when pipe is flowing at full capacity <ul style="list-style-type: none"> o Provide existing and proposed summary table o Provide existing and proposed mapping, label structures
	Detention facilities (outlet structure, stage/storage, freeboard)
	Emergency outlet sizing, safely pass the 100 year storm, Standard 2D
N/A	Outlet protection calculations, based on conveyance protection (i.e. riprap, energy dissipater)



O. Hydrologic and Hydraulic Model, Existing and Proposed

	Drainage routing diagram
	Summary
	Storage pond input

P. Downstream analysis (Site by site basis as required by the Engineering Bureau)

N/A

	Downstream analysis, Standard 2E
--	----------------------------------

III. Supporting Mapping (as appendix to Project Report)

Q. Pre-Development Drainage Basin Area Mapping

N/A

	11" x 17" or 8.5" x 11" sheet size
	Topography, drainage patterns, drainage area boundaries and sub basins, flow paths, times of concentration
	Locations of existing stormwater discharges
	Perennial and intermittent streams, wetlands, and floodplain / floodways
	NRCS soil types, locations, boring locations, infiltration testing locations
	Vegetation and groundcover
	Existing roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, decks and other structures
	Location, size, type of existing structural stormwater controls, facilities and conveyance systems

R. Post-Development Drainage Basin Area Mapping

N/A

	11" x 17" or 8.5" x 11" sheet size
	Topography, drainage patterns, drainage area boundaries and sub basins, flow paths, times of concentration
	Locations of proposed stormwater discharges
	Perennial and intermittent streams, wetlands, and floodplain / floodways
	NRCS soil types, locations, boring locations, infiltration testing locations
	Vegetation, ground cover and proposed limits of clearing/disturbance
	Proposed, roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, decks and other structures
	Location, size, type of proposed structural stormwater controls, facilities and conveyance systems

IV. DCIA Tracking Worksheet (as appendix to Project Report)

	DCIA Tracking Worksheet (Use form found in Appendix E)
--	--



V. Proposed LID Review Map

	Applying under "Lite" Stormwater Management - Proposed LID Review Map <u>NOT</u> required.
--	---

A. General

	Site address
	Applicant name, legal address, contact information
	Engineers name, address, contact information
	North arrow, bar scale, horizontal and vertical datum
	Drawing scale shall be set at 1"=20' or 1"=40' when possible
	Signed and stamped by a Licensed Professional Engineer in the State of Connecticut
	11" x 17" or 24" x 36" sheet size unless otherwise approved
	Existing and proposed contours based on NAVD 88 at 2 foot contour interval or 1 foot contour interval when slope is flatter than 2 percent
	Locations of existing stormwater discharges
	Roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, and decks and other structures
	Location, size, ownership of stormwater conveyance systems (swales, pipes, etc.)

B. LID Constraints:

N/A	Boring / test pit locations
N/A	Infiltration testing locations and results
	Vegetation and proposed limits of clearing / disturbance
	NRCS soils mapping
N/A	Steep slopes
N/A	Surface waters / Perennial and intermittent streams
N/A	Resource protection areas and buffers, wetlands, floodplain / floodways
N/A	Existing vegetation and mature trees, which shall include 8-inch (dbh) diameter trees or greater
	Poor soils (HSG C & D)
N/A	Shallow bedrock / ledge
N/A	Seasonal high groundwater elevation
	Other site constraints (e.g. brownfield caps)

C. Proposed Stormwater Treatment Measures:

	Location, size, type, limits, and WQV provided by each proposed stormwater treatment practices
	Drainage area to each proposed stormwater treatment practice (total area, impervious area, WQV)

D. Site Summary Table:

	Total site area, disturbed area, pre- and post-development impervious areas
	Required pollutant reduction volume (retention or detention)
	Provided pollutant reduction volume (retention or detention)

Appendix I

Sanitary Sewer Flow Calculations

Proposed On-Site Sanitary Sewer Flow Estimates

Project: 3 Landmark Square	Project #: 1961	Date: 2/8/2023
Location: Stamford, CT	By: JTF	Checked: TM

Existing Flow Generated by Site			
Building Use	Area	Design Flow (GPD / SF)	Total Flow (GPD)
Office	126,836 SF	(20 GPD/Person) / (200 SF/Person)	12683.6
Retail	3,164 SF	0.10	316.4
Existing Sanitary Flow Rate (GPD)			13,000

Total Existing Flow Generated Site	
Existing Sanitary Flow Rate (GPD)	13,000
Existing Sanitary Flow Rate (CFS)	0.020
Peaking Factor	4
Total Existing Peak Flow (GPD)	52,000
Total Existing Peak Flow (CFS)	0.080

¹ Per State of CT Public Health Code. Office assumes 200 SF gross area/person, and 20 GPD per employee. $20 \text{ GPD} / 200 \text{ SF} = 0.10 \text{ GPD/SF}$

Building uses and areas per Vision Government Solutions for Stamford, CT

Proposed On-Site Sanitary Sewer Flow Estimates

Project: 3 Landmark Square	Project #: 1961	Date: 2/3/2023
Location: Stamford, CT	By: JTF	Checked: TM

Potential Proposed Flow Generated by Site					
Building Use	Unit	Design Flow (GPD / SE) <small>(Person) / (200 Person) / (200</small>	# of Bedrooms	Design Flow (GPD / Unit) ¹	Total Flow (GPD)
Residential	Studio			150	#VALUE!
	1 Bedroom	180	180	150	0.1
	2 Bedroom	180	360	150	54000
	3 Bedroom	20	60	150	9000
Proposed Sanitary Flow Rate (GPD)					#VALUE!

Building Use	Area	Design Flow (GPD / SF)	Total Flow (GPD)
Retail	5,066 SF	0.10	506.6
Proposed Sanitary Flow Rate (GPD)			507

Total Potential Proposed Flow Generated Site	
Proposed Sanitary Flow Rate (GPD)	#VALUE!
Proposed Sanitary Flow Rate (CFS)	#VALUE!
Peaking Factor	4
Total Proposed Peak Flow (GPD)	#VALUE!
Total Proposed Peak Flow (CFS)	#VALUE!

¹ Per State of CT Public Health Code

3 LANDMARK SQUARE

TRAFFIC STUDY

Prepared for: Fuller Development Company

Client Ref: 141.15765.00003

February 2023



February 9, 2023

Mr. Bruce Berg, Chief Executive Officer
Fuller Development Company
The Cappelli Organization
7 Renaissance Square, 4th Floor
White Plains, NY 10601

**Re: Traffic Study
3 Landmark Square
Stamford, Connecticut
SLR # 141.15765.00003**

Dear Mr. Berg,

At your request, SLR Consulting US LLC (SLR) has undertaken this study to evaluate the traffic-related implications associated with the proposed redevelopment to be located at 3 Landmark Square in Stamford, Connecticut. **Figure 1** displays the site location map. The proposed project plans to replace the existing office building on site with a 400-unit multifamily residential building and approximately 5,200 square feet of retail space. Parking is proposed under the building. Access to the parking garage will be provided by an additional driveway proposed off Atlantic Street, adjacent to the existing loading access south of Luther Street.

The work comprising the study consisted of several tasks, including data collection, review of roadway and traffic conditions, estimation of site-generated traffic volumes, and assessment of future traffic operations. For this study, the following intersections were evaluated:

1. Atlantic Street/Bedford Street at Broad Street
2. Atlantic Street at Main Street/Stamford Town Center Drive
3. Atlantic Street at Tresser Boulevard (US Route 1)

Figure 2 displays the study area.

EXISTING CONDITIONS

The existing information involving the vehicle volumes, transit, and crash history was collected to determine the existing conditions of the area around the proposed redevelopment.

Site Environs

Atlantic Street is a minor arterial that runs north/south through downtown Stamford from the Long Island Sound to Broad Street where it turns into Bedford Street and continues northbound to Summer Street at High Ridge Road and Long Ridge Road. South of Broad Street, the arterial has two through lanes northbound and one through lane southbound with a raised median and also some turn lanes at key intersections. On-street parallel parking is provided on some blocks on the west side of the roadway. Sidewalks are present on both sides of the roadway, and sharrows (shared-lane bicycle markings) are painted on the outer travel lane(s).

Broad Street is a minor arterial that runs east/west through downtown Stamford from Washington Boulevard (Route 137) to East Main Street/Tresser Boulevard (US Route 1). West of Washington Boulevard, it becomes West Broad Street. This arterial has two lanes in each direction with a raised median and turn lanes at key intersections. On-street parallel parking is provided on some blocks. Sidewalks are present on both sides of the roadway, and sharrows are painted on the outer travel lanes.

Tresser Boulevard (US Route 1) is a principal arterial that runs east/west through the city of Stamford, parallel to Interstate 95 (I-95). Within the vicinity of Atlantic Street, this arterial has three lanes in each direction plus turn lanes. On-street parking is not permitted, but sidewalks are present on both sides of the roadway. Main Street has one lane in each direction plus a turn lane at Atlantic Street and is considered a local street for the block between Atlantic Street and Summer Street.

Existing Transit Routes

CTtransit is Connecticut Department of Transportation's (CTDOT) bus service. CTtransit Stamford operates more than a dozen local bus routes. Buses connect with other services in Norwalk, the Metro-North Railroad New Haven Line in several locations, including the New Canaan Branch, Amtrak service at Stamford Transportation Center rail station just over half a mile south of the site, the Metro-North Harlem Line (by way of the Stamford/White Plains I-Bus Express), and with Bee-Line buses in Westchester County, New York. CTtransit Stamford bus routes 311, 312, 313, 321, 324, 326, 328, 331, 333, 334, 336, 341, 342, 344, 345, and 971 have stops along Atlantic Street between Broad Street and Tresser Boulevard (US Route 1). The Harbor Point City Trolley (free shuttle) also passes near the site along Broad Street.

Connecticut Department of Transportation and City of Stamford Active Projects

The following CTDOT and City of Stamford construction projects are proposed within the study area:

- As part of CTDOT Project 0135-0337, the traffic signal hardware at the study intersection of Atlantic Street and Bedford Street will be upgraded. Minor phase modifications and timing changes are planned to help signal progression and to alleviate congestion, and two bump outs are proposed for traffic calming. No changes in geometry are proposed. The proposed bump outs are

currently marked with line striping, so the new bump outs will not affect the existing flow of traffic through the intersection. The project is currently under construction.

- The City of Stamford will be improving the study intersection of Atlantic Street at Main Street, as well as along Atlantic Street for multiple blocks north and south of Main Street. The project will complement the Veteran’s Park rehabilitation project with pedestrian improvements at the intersection of Atlantic Street and Main Street (Study Intersection 2). Improvements will include a raised intersection, curb extensions, streetscape elements, new bus shelters, bike racks, and new traffic signal equipment. As part of the project, Atlantic Street will also be improved between Broad Street and Tresser Boulevard. The project is currently in the design phase. At the time of this study, a roadway plan had not been fully completed yet. However, the goal of the Atlantic Street improvements is to remove the raised median and convert Atlantic Street to a “Complete Street” consisting of one travel lane and a bike lane in each direction. Dedicated turn lanes and Leading Pedestrian Intervals (LPI) will be provided at key intersections. The Pedestrian Hybrid Beacon (PHB)/HAWK signal on Atlantic Street in front of this development’s site may also be revised or replaced in connection with this city project.
- As part of the 245 Atlantic Street (True North) development improvements, a pair of Rectangular Rapid Flashing Beacons (RRFBs) and a high-visibility crosswalk will be installed on Atlantic Street, traffic signal improvements will be made, and curb-to-curb restoration along the site frontages will be completed.

Crash Data Summary

Information on traffic crash statistics for the study intersections were obtained from the Connecticut Crash Data Repository for the roughly 3-year period of January 1, 2019, to May 7, 2022. The crash data collected for this period, shown in **Table 1**, is summarized by location.

A total of 123 crashes were reported at the intersections along Atlantic Street between Broad Street and Tresser Boulevard (US Route 1) for the roughly 3-year period. More than 78 percent of the total crashes resulted in property damage only. No fatalities were reported. The most common collision type was sideswipe (same direction) collisions, comprising approximately 30 percent of reported crashes, followed by angle collisions at approximately 28 percent, and rear end collisions at 27 percent of reported crashes. The most crashes occurred at the intersection of Broad Street at Bedford Street and Atlantic Street.

A total of 15 non-intersection-related crashes were reported along Atlantic Street between Broad Street and Tresser Boulevard (US Route 1) for the roughly 3-year period. Approximately 87 percent of the total crashes resulted in property damage only. No fatalities or serious injuries were reported. The most common collision types were sideswipe (same direction) and rear end collisions, comprising approximately 33 percent of reported crashes each.

Five pedestrian-related collisions were reported, including two at the intersection of Broad Street at Bedford Street and Atlantic Street, one at the intersection of Atlantic Street and Bell Street, and two at the intersection of Atlantic Street and Tresser Boulevard (US Route 1). According to the Connecticut Crash Data Repository, in most of the collisions, the drivers failed to yield to the pedestrian when turning. All pedestrians had suspected minor injuries or possible injuries. The proposed traffic signal and traffic calming improvements as part of CTDOT Project 0135-0337 will help to improve safety at the study intersection.

One bicycle-related collision was reported at the intersection of Atlantic Street and Bank Street. The vehicle was traveling eastbound and turning right from a stop sign when it hit the bicycle traveling southbound. There were no other contributing circumstances. The bicyclist was suspected of having minor injuries.

Table 1 Crash Data Summary

	Location	Crash Severity				Total	Type of Collision										Total
		Property Damage Only	Possible Injury	Suspected Minor Injury	Suspected Serious Injury		Sideswipe (Same Direction)	Rear End	Angle	Hit Parked Car	Hit Pedestrian	Hit Pole/Support	Sideswipe (Opposite Direction)	Head On	Hit Bicycle	Unknown	
Intersections																	
1	Atlantic Street/Bedford Street at Broad Street	52	5	5	-	62	25	16	15	1	2	-	-	1	-	2	62
2	Atlantic Street at Main St	8	-	2	-	10	2	2	2	1	-	3	-	-	-	-	10
	Atlantic Street at Bank Street	3	-	1	-	4	1	1	1	-	-	-	-	-	1	-	4
	Atlantic Street at Bell Street	5	1	-	-	6	1	2	1	1	1	-	-	-	-	-	6
3	Atlantic Street at Tresser Boulevard	29	5	6	1	41	8	12	15	-	2	-	4	-	-	-	41
	Intersection Totals	97	11	14	1	123	37	33	34	3	5	3	4	1	1	2	123
Atlantic Street																	
	Between Broad Street – Main Street	10	-	1	-	11	3	4	-	3	-	1	-	-	-	-	11
	Between Bank Street – Bell Street	1	-	1	-	2	-	1	-	1	-	-	-	-	-	-	2
	Between Bell Street – Tresser Boulevard	2	-	-	-	2	2	-	-	-	-	-	-	-	-	-	2
	Roadway Totals	13	0	2	0	15	5	5	0	4	0	1	0	0	0	0	15
	TOTAL	110	11	16	1	138	42	38	34	7	5	4	4	1	1	2	138

Source: Connecticut Crash Data Repository from January 1, 2019, to May 17, 2022.

Existing Traffic Volumes

Traffic monitoring data from August 2020 (collected during the COVID-19 epoch) and September 2011 for Atlantic Street north of Main Street was obtained from CTDOT. The annualized average daily traffic (AADT) at this location in 2020 was recorded as 5,400 vehicles (3,300 northbound and 2,100 southbound) and 11,400 vehicles in 2011.

To supplement the state traffic monitoring data, multimodal traffic counts were conducted, including vehicle turning movement, bicycle, and pedestrian crossing counts at the study intersections. The counts were conducted on Wednesday, April 27, 2022, from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. to capture peak commuter activity. For analysis, the highest single peak-hour volume for each time period was extracted from the count data. The study area peak hours were found to be from 7:30 a.m. to 8:30 a.m. (a.m. peak hour) and from 5:00 p.m. to 6:00 p.m. (p.m. peak hour). The existing peak-hour traffic volumes are shown in **Figure 3**. The existing peak-hour pedestrian volumes are shown in **Figure 4**. Note that separately counted traffic volumes for the intersection of Atlantic Street at Tresser Boulevard, also from spring of this year, were received from CTDOT. Comparison of the April 27 counts versus the CTDOT-provided counts for this intersection found the traffic volumes to be very similar and the April 27 counts to be slightly higher overall. Thus, the April 27 counts for this intersection have been used in this study. The counts are included in the Appendix.

PROPOSED REDEVELOPMENT

As stated previously, the proposed project plans to replace the existing office building on site with a 400-unit multifamily residential building and approximately 5,200 square feet of retail space. Parking is proposed under the building. Access to the parking garage will be provided off Atlantic Street between Luther Street and Main Street.

Proposed Redevelopment Trip Generation

The existing and proposed site-generated peak-hour trips were estimated using statistical data published by the Institute of Transportation Engineers (ITE).¹ **Table 2** summarizes the site-generated traffic estimates for the existing site (if fully occupied) and the proposed redevelopment during the study peak hours.

The proposed redevelopment is approximately 0.6 miles from the Stamford Transportation Center. The statistical data published by ITE is based on areas without the public transportation attributes and access to the train station of Stamford. Given the proposed redevelopment's location within downtown Stamford and its proximity to the Stamford Transportation Center and based on correspondence with CTDOT, a 15 percent Transit Oriented Development (TOD) reduction was applied to the site-generated traffic estimates.

¹ *Trip Generation, 11th Edition*, Institute of Transportation Engineers, 2021

Because TODs reduce the need for residents and visitors to drive, TOD housing typically produces considerably less vehicle traffic than what is generated by conventional housing developments.

As shown in Table 2, the proposed redevelopment is estimated to generate less trips during both peak hours compared to the existing office building (at full capacity). The proposed redevelopment is estimated to generate 134 total vehicle trips (54 vehicles entering and 80 vehicles exiting) during the morning peak hour and 149 total vehicle trips (86 vehicles entering and 63 vehicles exiting) during the afternoon peak hour. This is compared to the existing office building, which is estimated to have generated around 173 total vehicle trips (152 vehicles entering and 21 vehicles exiting) during the morning peak hour and 164 total vehicle trips (28 vehicles entering and 136 vehicles exiting) during the afternoon peak hour when it was last at full capacity.

Table 2 Proposed Redevelopment Traffic Estimates

Land Use	Units	A.M. Peak Hour				P.M. Peak Hour			
		Trip Rate	In	Out	Total	Trip Rate	In	Out	Total
Proposed Redevelopment									
222 – Multifamily Housing (High-Rise)	400 DU	0.27/DU	37	71	108	0.32/DU	72	56	128
932 – High-Turnover (Sit-Down) Restaurant	5.2 KSF	9.57/KSF	27	23	50	9.05/KSF	29	18	47
<i>Proposed Subtotal</i>	-	-	64	94	158	-	101	74	175
<i>TOD Reduction (-15%)</i>	-	-	-10	-14	-24	-	-15	-11	-26
Proposed Total	-	-	54	80	134	-	86	63	149
Existing Site (At Full Capacity)									
710 – General Office Building	134.1 KSF	1.52/KSF	179	25	204	1.44/KSF	33	160	193
<i>TOD Reduction (-15%)</i>	-	-	-27	-4	-31	-	-5	-24	-29
Existing Total	-	-	152	21	173	-	28	136	164
TOTAL NET TRIPS (PROPOSED – EXISTING)	-	-	-98	59	-39	-	58	-73	-15

Notes:

1. *Trip Generation*, 11th Edition, Institute of Transportation Engineers
2. DU = Dwelling Units
3. KSF = Thousand Square Feet

Proposed Redevelopment Trip Distribution and Trip Assignment

The geographic distribution of the proposed redevelopment site-generated traffic was estimated based on review of the roadway traffic patterns in the vicinity of the site, as well as review of census commuting data. **Figure 5** illustrates the distribution for the proposed redevelopment site-generated traffic through the study area.

Based on the proposed redevelopment trip generation and trip distribution, the proposed site-generated trips were assigned to the study area intersections. **Figure 6** displays the resulting proposed redevelopment trip assignment.

Existing (Fully Occupied) Site-Generated Trip Distribution and Trip Assignment

At the time the existing traffic counts were conducted, the existing office building had a leased occupancy of approximately 45 percent, and it was estimated that only 30 to 40 people were using the building on weekdays. However, this evaluation compares the site-generated trips that would be traveling to and from the site if the office building were to be fully occupied again in the future; versus the site trips anticipated to be generated by the proposed redevelopment to residential in the future.

The geographic distribution of the office site-generated traffic was estimated based on review of the roadway traffic patterns in the vicinity of the site as well as review of census commuting data. **Figure 7** illustrates the distribution for the office site-generated traffic through the study area.

Based on the office trip generation and trip distribution, the office site-generated trips were assigned to the study area intersections. **Figure 8** displays the resulting (fully occupied) office trip assignment.

FUTURE (2025) CONDITIONS

The proposed redevelopment is anticipated to be completed by 2025. Future (2025) Conditions were evaluated with the existing office building fully occupied (which could occur again as-of-right) and with the proposed residential redevelopment completed to determine possible traffic impacts.

Background Traffic Volumes

The background traffic scenario is reflective of future (2025) conditions if the proposed redevelopment was not built and instead the existing office building was fully occupied again. Background (2025) Conditions also includes traffic associated with other nearby expected upcoming developments as well as general traffic growth.

Based on correspondence with the City of Stamford, CTDOT, and based on our knowledge of proposed and pending developments in the area, the following development projects were included in Background (2025) Conditions. They are as follows:

1. Stamford Station Parking Garage (State Street Garage)
2. 406 Washington Boulevard – Gateway Tower Expansion
3. 885 Washington Boulevard – The Smyth
4. 245 Atlantic Street – True North
5. 677 Washington Boulevard
6. 154 Broad Street
7. 80 Prospect Street – Walton Place

Figure 9 displays the locations of these nearby planned developments. The anticipated future site-generated peak-hour trips from each planned development were obtained from their respective traffic studies and/or Office of the State Traffic Administration (OSTA) applications. Information on the nearby planned developments is included in the Appendix. The resulting total trip assignment from the nearby planned developments is shown in **Figure 10**.

Based on correspondence with CTDOT, the existing traffic volumes were projected to Future (2025) Conditions using a growth rate of 0.7 percent per year. Background (2025) Conditions peak-hour traffic volumes were estimated by applying the growth rate to the existing peak-hour traffic volumes (shown in Figure 3), subtracting the estimated existing trips traveling to/from the site (associated with the 45 percent leased occupancy and only around 30 to 40 people using the building today), adding the fully occupied office trip assignment (shown in Figure 8), and then adding the anticipated peak-hour total trip assignment from the nearby planned developments (shown in Figure 10). The resultant Background (2025) Conditions peak-hour traffic volumes are shown in **Figure 11**.

Combined Traffic Volumes

The combined traffic scenario is reflective of Future (2025) Conditions once the proposed redevelopment is completed. Combined (2025) Conditions peak-hour traffic volumes were estimated by adding the proposed redevelopment trip assignment (shown in Figure 6) to the Background (2025) Conditions peak-hour traffic volumes (shown in Figure 11) and subtracting the fully occupied office trip assignment (shown in Figure 8). The resultant Combined (2025) Conditions peak-hour traffic volumes are shown in **Figure 12**.

Intersection Capacity Analysis

Intersection capacity analysis was performed at the study intersections under Background and Combined (2025) Conditions to evaluate each intersection's ability to process traffic volumes. These evaluations were used to determine possible traffic impacts from the proposed redevelopment based on the comparison of background and combined traffic operations.

Intersection operation results are expressed as a level of service (LOS). LOS is used to provide a qualitative evaluation of the efficiency of operations of an intersection in terms of delay and inconvenience based on certain quantitative calculations. A description of the various LOS designations, A through F, is given in the Appendix. LOS A describes operations with very low average control delay per vehicle while LOS F describes operations with long average delays. The study intersections were evaluated using *Synchro 11 (Trafficware)* traffic analysis software package. **Table 3** summarizes the capacity analysis findings under Background and Combined (2025) Conditions. The *Synchro* analysis worksheets are included in the Appendix.

It is important to note that LOS A to LOS D are generally considered acceptable conditions. However, in some areas, LOS E during peak hours is often deemed acceptable and can indicate an efficient tradeoff

between traffic flow and the amount of land devoted to the movement of motor vehicles.

Table 3 Capacity Analysis Summary - Future (2025) Conditions

Intersection/Lane Group	Level of Service			
	A.M. Peak Hour		P.M. Peak Hour	
	Background	Combined	Background	Combined
Signalized				
1. Atlantic Street/Bedford Street at Broad Street				
Eastbound Left	A	A	B	B
Eastbound Through/Right	B	B	C	C
Westbound Left	B	B	C	C
Westbound Through/Right	B	B	C	C
Northbound Left	D	D	C	C
Northbound Through/Right	D	D	D	D
Overall	B	B	C	C
2. Atlantic Street at Main Street/Stamford Town Center Drive				
Eastbound Left	D	D	D	E
Eastbound Through/Right	B	B	B	B
Westbound Left/Through	D	D	D	D
Westbound Right	A	A	A	A
Northbound Left/Through/Right	B	B	B	B
Southbound Left/Through	A	A	A	A
Southbound Right	B	B	C	C
Overall	B	B	B	C
3. Atlantic Street at Tresser Boulevard (US Route 1)				
Eastbound Left	D	D	C	C
Eastbound Through/Right	D	D	D	D
Westbound Left	D	D	E	E
Westbound Through/Right	D	D	D	D
Northbound Left	B	B	C	C
Northbound Through/Right	C	B	C	C
Southbound Left	C	B	C	C
Southbound Through	C	C	C	C
Southbound Right	A	A	A	A
Overall	D	D	D	D
Unsignalized				
4. Atlantic Street at Proposed Garage Access				
Westbound Right		B		B

Notes: LOS calculations were performed using *Synchro 11*.

As shown in Table 3, all individual movements at the study intersections and the study intersections overall are expected to operate at acceptable LOS (LOS A to LOS E) under Background and Combined (2025) Conditions during both peak periods.

The signalized intersection of Broad Street at Bedford Street/Atlantic Street is expected to operate at LOS

B overall during the morning peak hour under Background and Combined (2025) Conditions and LOS C overall during the afternoon peak hour under Background and Combined (2025) Conditions. Additionally, the intersection is not expected to experience any changes in individual movement LOS with the proposed redevelopment.

The signalized intersection of Atlantic Street at Main Street/Stamford Town Center Drive is expected to operate at LOS B overall during the morning peak hour under Background and Combined (2025) Conditions. During the afternoon peak hour, the intersection is expected to operate at LOS B under Background (2025) Conditions and is expected to experience one minor change to LOS C under Combined (2025) Conditions. Minor changes to the signal timings could improve the overall intersection operations to LOS B during the afternoon peak hour. Additionally, the eastbound movement is expected to decrease by one minor LOS from a LOS D to a LOS E during the afternoon peak hour with the proposed redevelopment. Delays at this movement are largely caused by the high amount of pedestrian crossing traffic at the north leg crosswalk. Signal cycle length changes or the addition of a leading pedestrian interval could improve the operations at the eastbound left movement. However, this would require the City of Stamford to make broader changes to the signal system cycle lengths across multiple intersections. Nonetheless, the city may wish to fine-tune the traffic signal timings at the intersection of Atlantic Street at Main Street/Stamford Town Center Drive after the redevelopment is built and opened.

The signalized intersection of Atlantic Street at Tresser Boulevard (US Route 1) is expected to operate at LOS D overall during both peak hours under Background and Combined (2025) Conditions. Additionally, the intersection is not expected to experience any changes in individual movement LOS with the proposed redevelopment except for the northbound through/right and southbound left movements during the morning peak hour. These movements are expected to increase by one LOS with the proposed redevelopment. The proposed parking garage access is expected to operate at acceptable conditions (LOS B or better) during both peak hours under Combined (2025) Conditions.

Queue Analysis

The study intersection queues were also evaluated using *Synchro 11 (Trafficware)* traffic analysis software package. For analysis, the average and 95th percentile queues are recorded. The *Synchro* analysis worksheets are included in the Appendix.

All approach lanes are expected to provide adequate storage length under Background and Combined (2025) Conditions during both peak periods except for the northbound left-turn lane at the intersection Broad Street at Bedford Street/Atlantic Street. The northbound left-turn lane at the intersection is only 25 feet long, and the ability to lengthen this turn lane is constrained by the dense downtown environment, the existing median on Atlantic Street, and the two northbound through-lanes. The average and 95th percentile queues are expected to exceed the available storage length under Background and Combined (2025) Conditions during both peak periods. While queuing in this short lane occurs today and is expected to occur in the future regardless of if the redevelopment occurs, the proposed redevelopment is not

expected to increase the average or 95th percentile queue lengths by more than 16 feet during either peak period.

FUTURE (2025) CONDITIONS WITH CITY OF STAMFORD'S ATLANTIC STREET IMPROVEMENTS

As stated previously, the City of Stamford will be improving Atlantic Street between Broad Street and Tresser Boulevard. The project is currently in the design phase and a roadway plan has not been completed yet. However, based on correspondence with the City of Stamford, the goal of the improvements is to remove the raised median and convert Atlantic Street to a "Complete Street" consisting of one travel lane and a bike lane in each direction with dedicated turn lanes, where necessary, and LPI at key intersections. **Figure 13** displays the assumed geometry with the Atlantic Street improvements.

Future (2025) Conditions with the Atlantic Street Improvements were evaluated with the existing office building fully occupied (which could occur again as-of-right) and with the proposed residential redevelopment completed to determine possible traffic impacts once the Atlantic Street improvements are completed.

Proposed Redevelopment Trip Distribution and Trip Assignment with the Atlantic Street Improvements

Because the raised median will be removed with the Atlantic Street Improvements, the proposed garage access will become full access and the geographic distribution of the proposed redevelopment site-generated traffic will change. **Figure 14** illustrates the distribution for the proposed redevelopment site-generated traffic with the Atlantic Street improvements through the study area. Based on the proposed redevelopment trip generation and new trip distribution, the proposed site-generated trips were assigned to the study area intersections. **Figure 15** displays the resulting proposed redevelopment trip assignment with the Atlantic Street improvements. The removal of the median on Atlantic Street will likely help the traffic flow within the surrounding area, as vehicles generally approaching from the north/northwest/northeast and traveling southbound on Atlantic Street will now be able to access the site directly to turn left in instead of using adjacent streets to travel around-the-block southbound, then turn northbound, to turn right-in to access the site. Traffic exiting the site will also be able egress directly left out of the site to have more direct, less-circuitous, routing.

Background With Atlantic Street Improvements Traffic Volumes

The background with Atlantic Street improvements traffic scenario is reflective of Future (2025) Conditions if the Atlantic Street improvements are completed but the proposed redevelopment was not built and instead the existing office building was fully occupied again.

Combined With Atlantic Street Improvements Traffic Volumes

The combined traffic scenario is reflective of Future (2025) Conditions if the Atlantic Street improvements and the proposed redevelopment are completed. Combined (2025) With Atlantic Street Improvements Conditions peak-hour traffic volumes were estimated by adding the new proposed redevelopment trip assignment (shown in Figure 15) to the Background (2025) Conditions peak-hour traffic volumes (shown in Figure 11) and subtracting the fully occupied office trip assignment (shown in Figure 8). The resultant Combined (2025) With Atlantic Street Improvements Conditions peak-hour traffic volumes are shown in **Figure 16**.

Intersection Capacity Analysis with Atlantic Street Improvements

Intersection capacity analysis was performed at the study intersections under Background and Combined (2025) With Atlantic Street Improvements Conditions to evaluate each intersection's ability to process traffic volumes and determine possible traffic impacts.

Table 4 summarizes the capacity analysis findings under Background and Combined (2025) With Atlantic Street Improvements Conditions. The *Synchro* analysis worksheets are included in the Appendix.

As shown in Table 4, with the assumed Atlantic Street improvements, all individual movements at the study intersections and the study intersections overall are expected to operate at acceptable LOS (LOS A to LOS E) under Background and Combined (2025) Conditions during both peak periods.

With the assumed Atlantic Street improvements, the signalized intersection of Broad Street at Bedford Street/Atlantic Street is expected to operate at LOS B overall during the morning peak hour under Background (2025) Conditions and expected to experience one minor change to LOS C under Combined (2025) Conditions. During the afternoon peak hour, the intersection is expected to operate at LOS C overall under Background and Combined (2025) Conditions. Additionally, the westbound left movement is expected to experience one minor change from a LOS D to a LOS E under Combined (2025) Conditions. Minor changes to the signal timings to increase the green time for the westbound left movement could improve the operations at the movement. With the proposed Atlantic Street improvements, the City of Stamford will likely have to revise all the traffic signal timings along Atlantic Street. With these revisions, the city may wish to fine-tune the traffic signal timings at the intersection of Atlantic Street at Main Street/Stamford Town Center Drive as well after the redevelopment is built and opened.

With the assumed Atlantic Street improvements, the signalized intersection of Atlantic Street at Main Street/Stamford Town Center Drive is expected to operate at LOS D overall during the morning peak hour and a LOS C overall during the afternoon peak hour under Background and Combined (2025) Conditions. The signalized intersection of Atlantic Street at Tresser Boulevard (US Route 1) is expected to operate at LOS C overall during both peak hours under Background and Combined (2025) Conditions. The proposed parking garage access is expected to operate at acceptable conditions (LOS C or better) during both peak

hours under Combined (2025) Conditions. Importantly, and like with the traffic analysis findings summarized in Table 3 earlier, no LOS Fs are expected in the future at the study intersections in connection with this proposed development.

Table 4 Capacity Analysis Summary - Future (2025) With Atlantic Street Improvements Conditions

Intersection/Lane Group	Level of Service			
	A.M. Peak Hour		P.M. Peak Hour	
	Background	Combined	Background	Combined
Signalized				
1. Atlantic Street/Bedford Street at Broad Street				
Eastbound Left	B	B	C	C
Eastbound Through/Right	B	C	C	C
Westbound Left	B	B	D	E
Westbound Through/Right	B	B	C	C
Northbound Left/Through	C	C	D	D
Northbound Right	A	B	B	B
Overall	B	C	C	C
2. Atlantic Street at Main Street/Stamford Town Center Drive				
Eastbound Left	C	C	D	D
Eastbound Through/Right	B	B	B	B
Westbound Left/Through	C	C	C	C
Westbound Right	A	A	A	A
Northbound Left	C	C	C	C
Northbound Through/Right	D	D	D	D
Southbound Left	C	C	C	C
Southbound Through/Right	B	C	C	C
Overall	D	D	C	C
3. Atlantic Street at Tresser Boulevard (US Route 1)				
Eastbound Left	D	D	C	C
Eastbound Through/Right	C	C	D	D
Westbound Left	D	D	E	E
Westbound Through/Right	D	C	C	C
Northbound Left	B	B	C	C
Northbound Through	C	C	C	C
Northbound Right	A	A	A	A
Southbound Left	B	B	B	B
Southbound Through	B	B	C	C
Southbound Right	A	A	A	A
Overall	C	C	C	C

Table 4 Capacity Analysis Summary - Future (2025) With Atlantic Street Improvements Conditions (Continued)

Intersection/Lane Group	Level of Service			
	A.M. Peak Hour		P.M. Peak Hour	
	Background	Combined	Background	Combined
Unsignalized				
4. Atlantic Street at Proposed Garage Access				
Westbound Left/Right		B		C
Southbound Left		A		A

Notes: LOS calculations were performed using *Synchro 11*.

Queue Analysis with Atlantic Street Improvements

The study intersection queues were also evaluated using *Synchro 11 (Trafficware)* traffic analysis software package. The *Synchro* analysis worksheets are included in the Appendix. With the assumed Atlantic Street improvements, all approach lanes are expected to provide adequate storage length under Background and Combined (2025) Conditions during both peak periods.

INTERSECTION SIGHT DISTANCE

Intersection sight distance (ISD) was measured at the parking garage access. ISD is determined through the creation of clear sight triangles. Each quadrant of the intersection should contain a triangular area free of permanent obstructions to complete visibility. For vehicles approaching an intersection, the length of the legs of the triangle should be long enough such that the driver can see any potentially conflicting vehicles in sufficient time to slow or stop before colliding. For vehicles departing from an intersection, the length of the legs of the triangle should be sufficient for a stopped driver to depart from the intersection and turn onto the main road safely.

ISD was measured in accordance with criteria set forth in the 2003 CTDOT *Highway Design Manual*. Based on CTDOT traffic monitoring data collected in August 2020 (collected during the COVID-19 epoch), the 85th percentile speed for northbound traffic on Atlantic Street north of Main Street was 29.6 miles per hour (mph) and 25.7 mph for southbound traffic. For a design speed of 30 mph, 331 feet of sight distance is required for a passenger car turning right from a minor road. For a design speed of 26 mph, 287 feet of sight distance is required for a passenger car turning left from a minor road. Based on CTDOT minimum requirements for the 85th percentile speeds, there is adequate sight distance looking both left/south and right/north for motorists turning out of the proposed parking garage access with or without the Atlantic Street improvements.

Upon review of the existing site, it looks like there are a couple trees in the streetscape that should get their low branches trimmed to maintain the required sight distance. Vegetation within the clear sight triangle at the parking garage access must be kept trimmed, especially during the spring and summer, to

ensure that sufficient ISD is provided throughout the year.

SUMMARY

This study was conducted to assess the traffic impacts of the proposed redevelopment to be located at 3 Landmark Square in Stamford. The proposed project plans to replace the existing office building on site with a 400-unit multifamily residential building and approximately 5,200 square feet of retail space. Parking is proposed under the building. Access to the parking will be provided off Atlantic Street between Broad Street and Main Street.

To determine a profile of existing conditions, data assembly efforts were undertaken. Estimates of traffic that would be generated by the existing office building (if fully occupied) and that will be generated by the proposed redevelopment were developed based on statistical data published by ITE, and intersection capacity analysis and queue analysis was performed at the study intersections under Background and Combined (2025) Conditions with and without the City of Stamford's Atlantic Street improvements.

The proposed redevelopment is estimated to generate less trips during both peak hours compared to the existing office building (at full capacity). With the proposed redevelopment and the existing geometry, all study intersections are expected to operate at acceptable LOS during both peak periods. Likewise, with the proposed redevelopment and the Atlantic Street improvements, all study intersections are expected to operate at acceptable LOS during both peak periods. Based on the results of this traffic study, it is our opinion that the changes in traffic patterns, because of the proposed redevelopment, can be accommodated by the surrounding roadway system, with or without the Atlantic Street improvements, and without triggering need for offsite mitigation. While some minor signal timing changes could fine-tune traffic flow in the study area, these are not likely to be necessary as a direct result of this development and the signal timings for the Atlantic Street corridor on the whole are to be made as part of the city's Atlantic Street redesign project in any event.

We hope this report is useful to you and the City of Stamford. If you have any questions or need anything further, please do not hesitate to contact either of the undersigned.

Sincerely,

SLR Consulting US LLC

A handwritten signature in black ink, appearing to read "Neil C. Olinski".

Neil C. Olinski, MS, PTP
Principal Transportation Planner

A handwritten signature in black ink, appearing to read "Emily A. Foster".

Emily A. Foster, PE
Senior Transportation Engineer

Figures

- Figure 1 – Site Location Map
- Figure 2 – Study Area
- Figure 3 – Existing (2022) Conditions Peak-Hour Traffic Volumes
- Figure 4 – Existing (2022) Conditions Peak-Hour Pedestrian Volumes
- Figure 5 – Proposed Redevelopment Distribution
- Figure 6 – Proposed Redevelopment Peak-Hour Trip Assignment
- Figure 7 – Existing Office Distribution
- Figure 8 – Existing (Fully Occupied) Office Peak-Hour Trip Assignment
- Figure 9 – Nearby Planned Developments Locations
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- Figure 11 – Background (2025) Conditions Peak-Hour Traffic Volumes
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- Figure 13 – Assumed Geometry with the Atlantic Street Improvements
- Figure 14 – Proposed Redevelopment Distribution with the Atlantic Street Improvements
- Figure 15 – Proposed Redevelopment Peak-Hour Trip Assignment with the Atlantic Street Improvements
- Figure 16 – Combined (2025) With Atlantic Street Improvements Conditions Peak-Hour Traffic Volumes

Appendix

- Traffic and Pedestrian Counts
- Information on the Nearby Planned Developments Include in Background (2025) Conditions
- LOS Designation Descriptions
- *Synchro* Analysis Worksheets

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Figure 1
Site Location Map

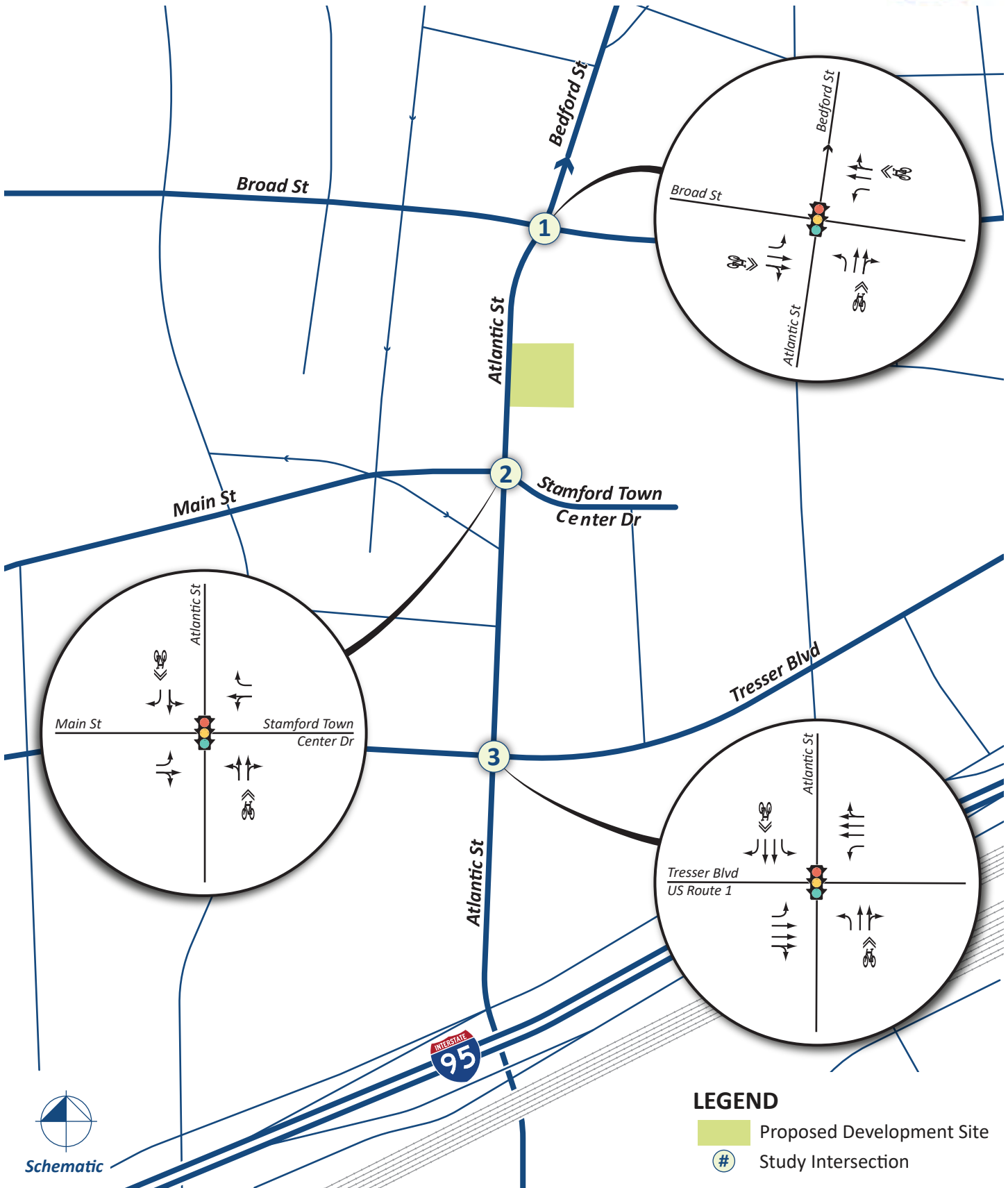


Figure 2
Study Area

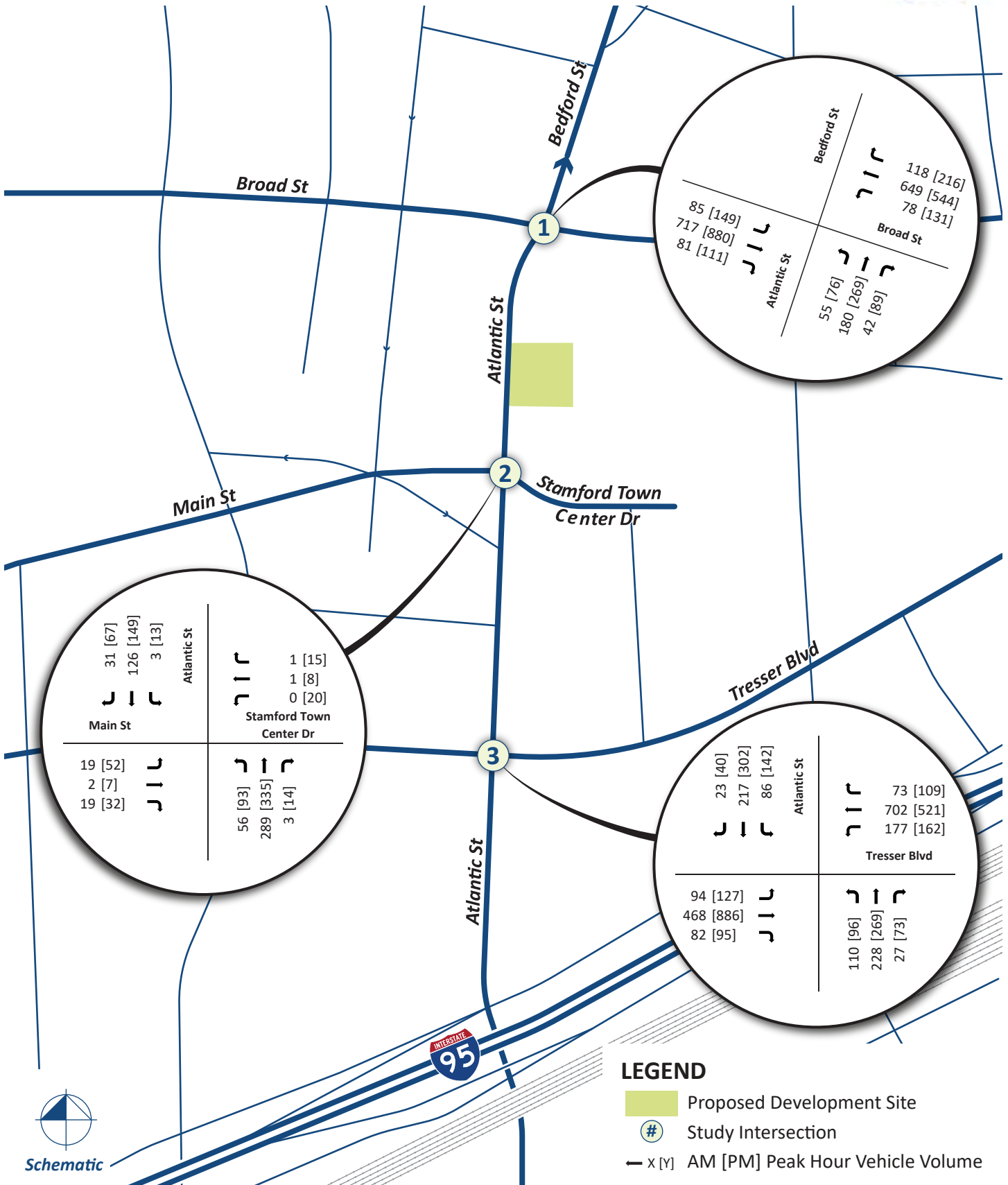


Figure 3
Existing (2022) Conditions Peak Hour Traffic Volumes

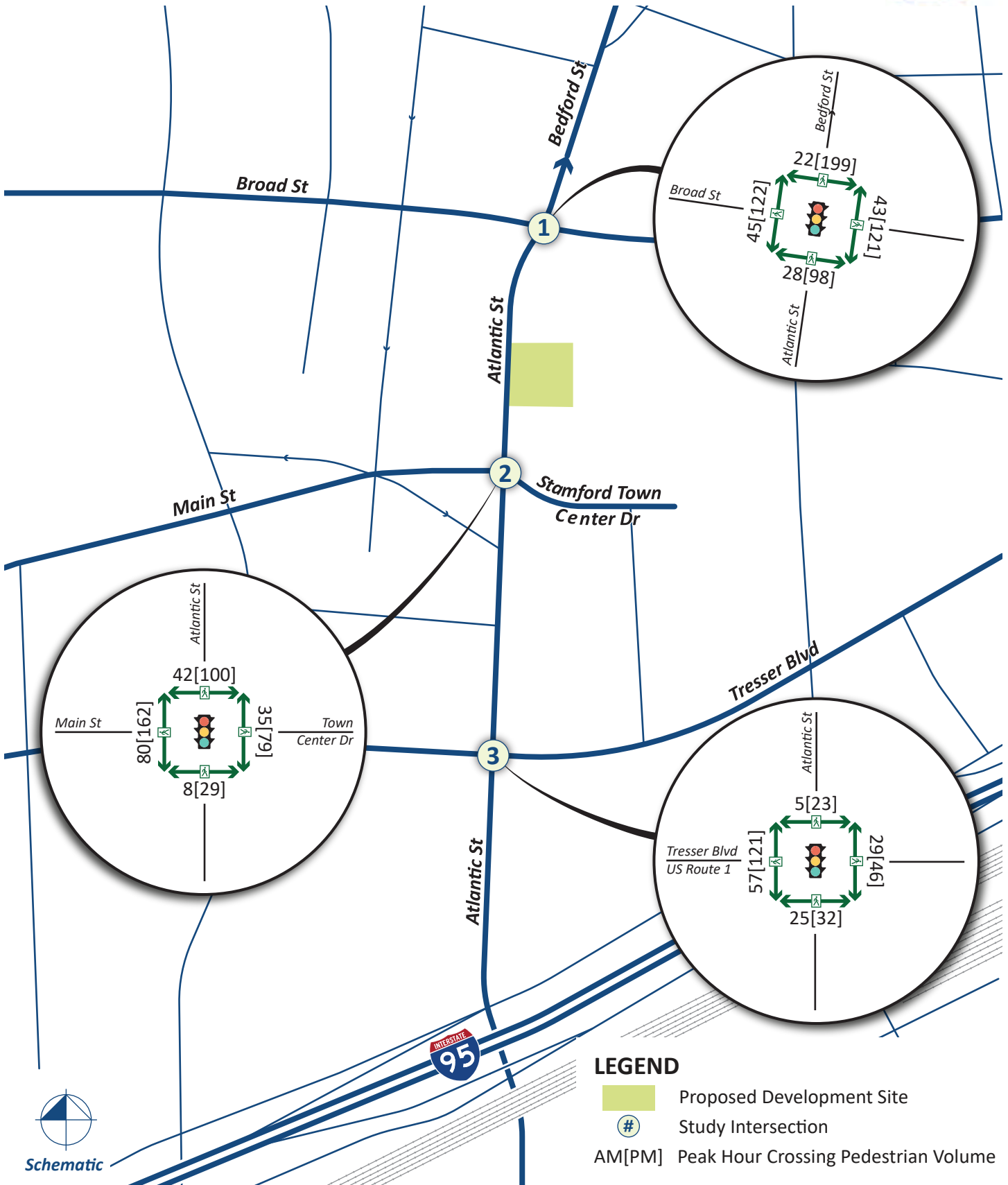


Figure 4
Existing (2022) Conditions Peak Hour Pedestrian Volumes

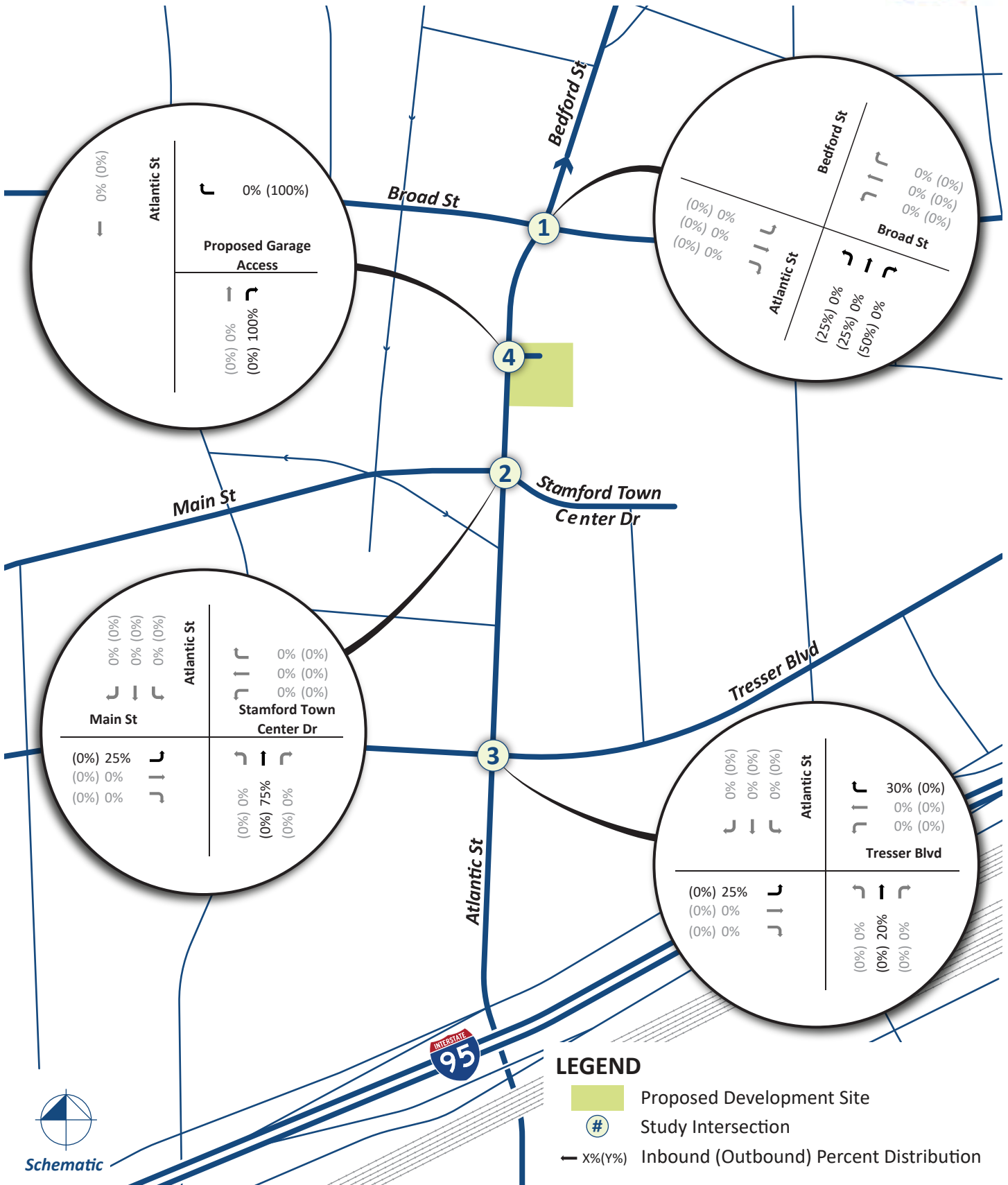


Figure 5
Proposed Redevelopment Distribution

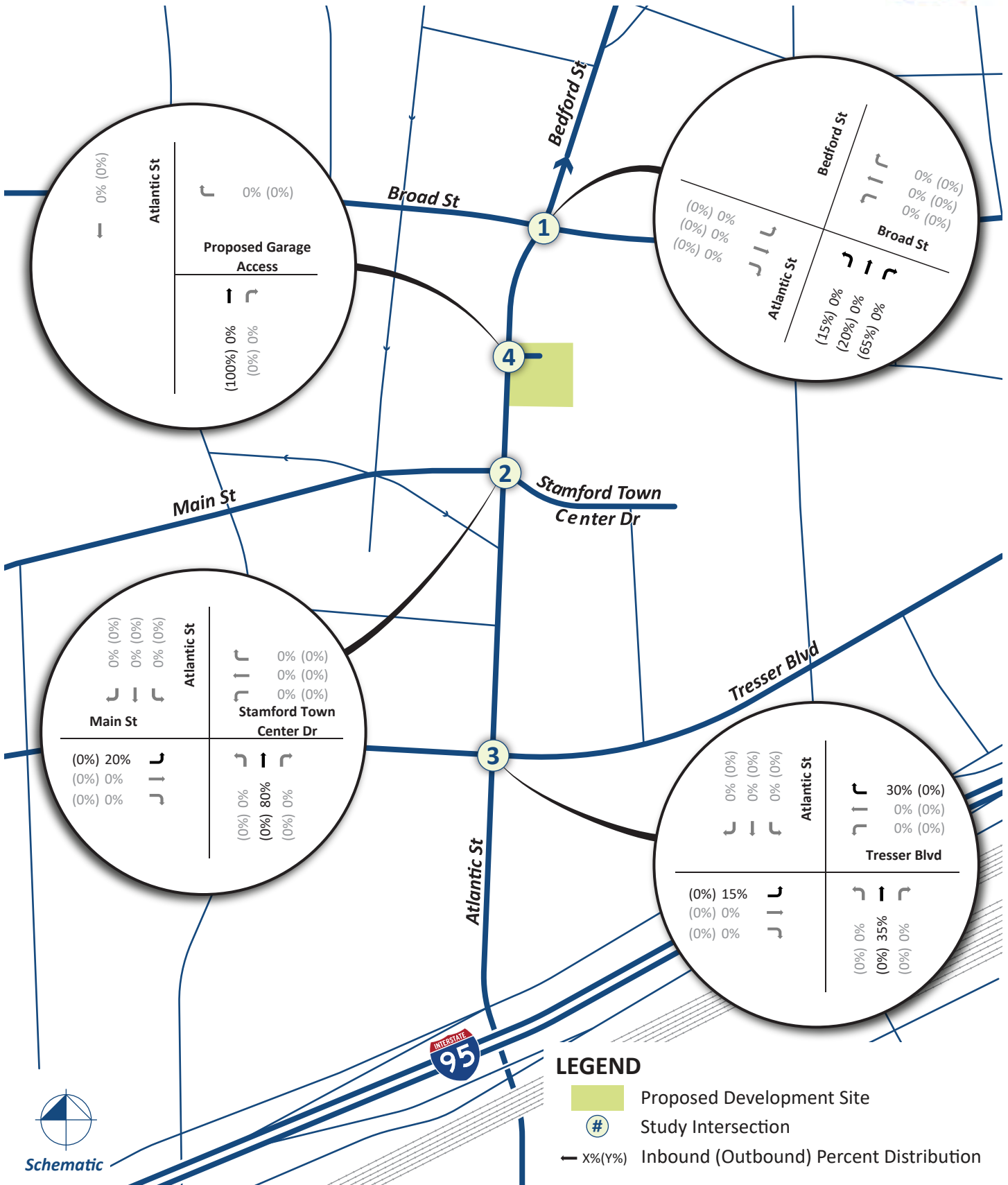


Figure 7
Existing Office Distribution

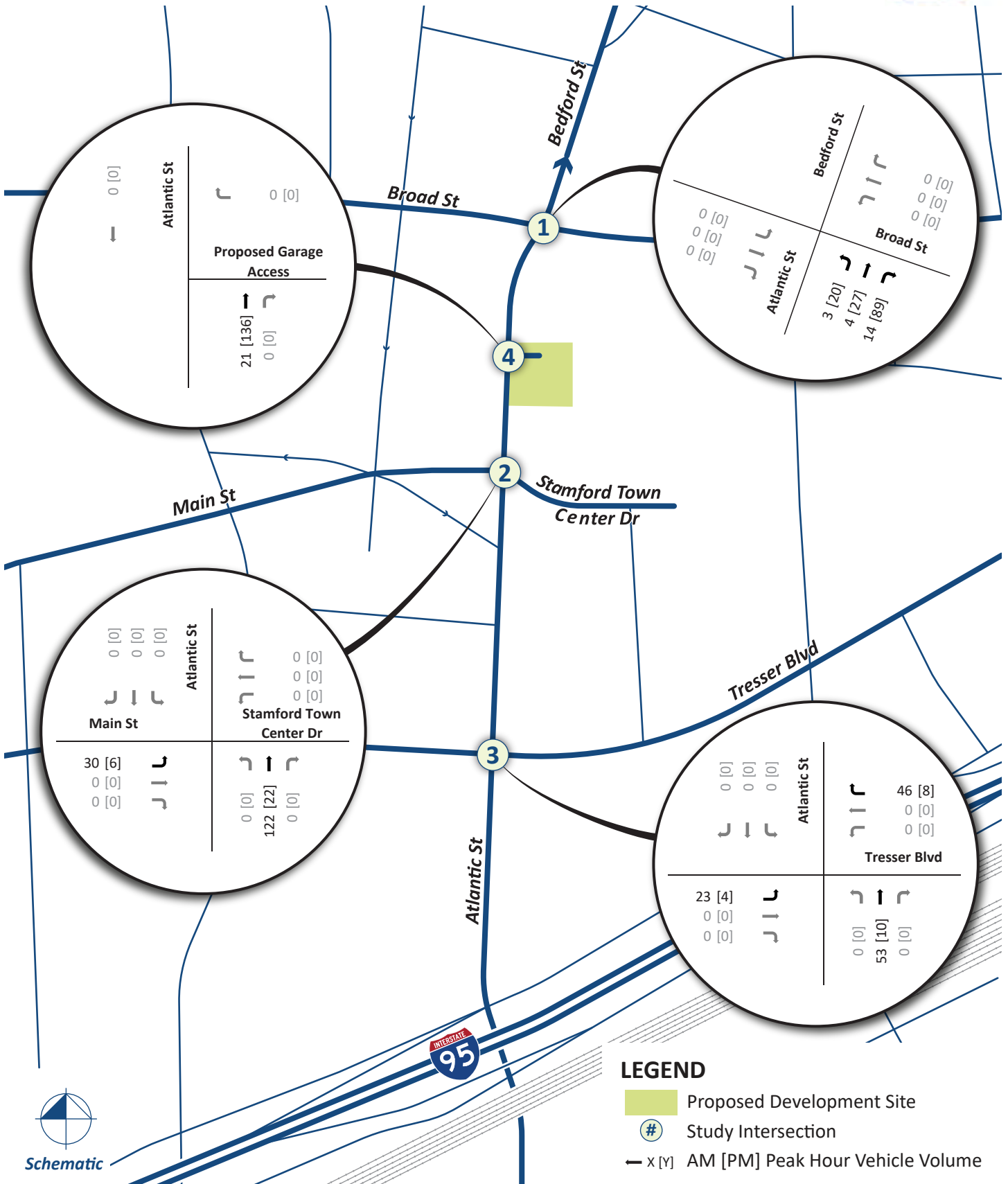


Figure 8
Existing (Fully Occupied) Office Peak Hour Trip Assignment

Nearby Planned Developments

1. Stamford Transportation Center
Parking Garage Expansion
2. 406 Washington Boulevard
Gateway Tower Expansion
Office Development
3. 885 Washington Boulevard
The Smyth
Mixed-Use Development
4. 245 Atlantic Street
True North
Mixed-Use Development
5. 677 Washington Boulevard
Mixed-Use Development
6. 154 Broad Street
Residential Development
7. 80 Prospect Street
Walton Place
Residential Development

LEGEND

- Proposed Development Location
- Planned Development Location

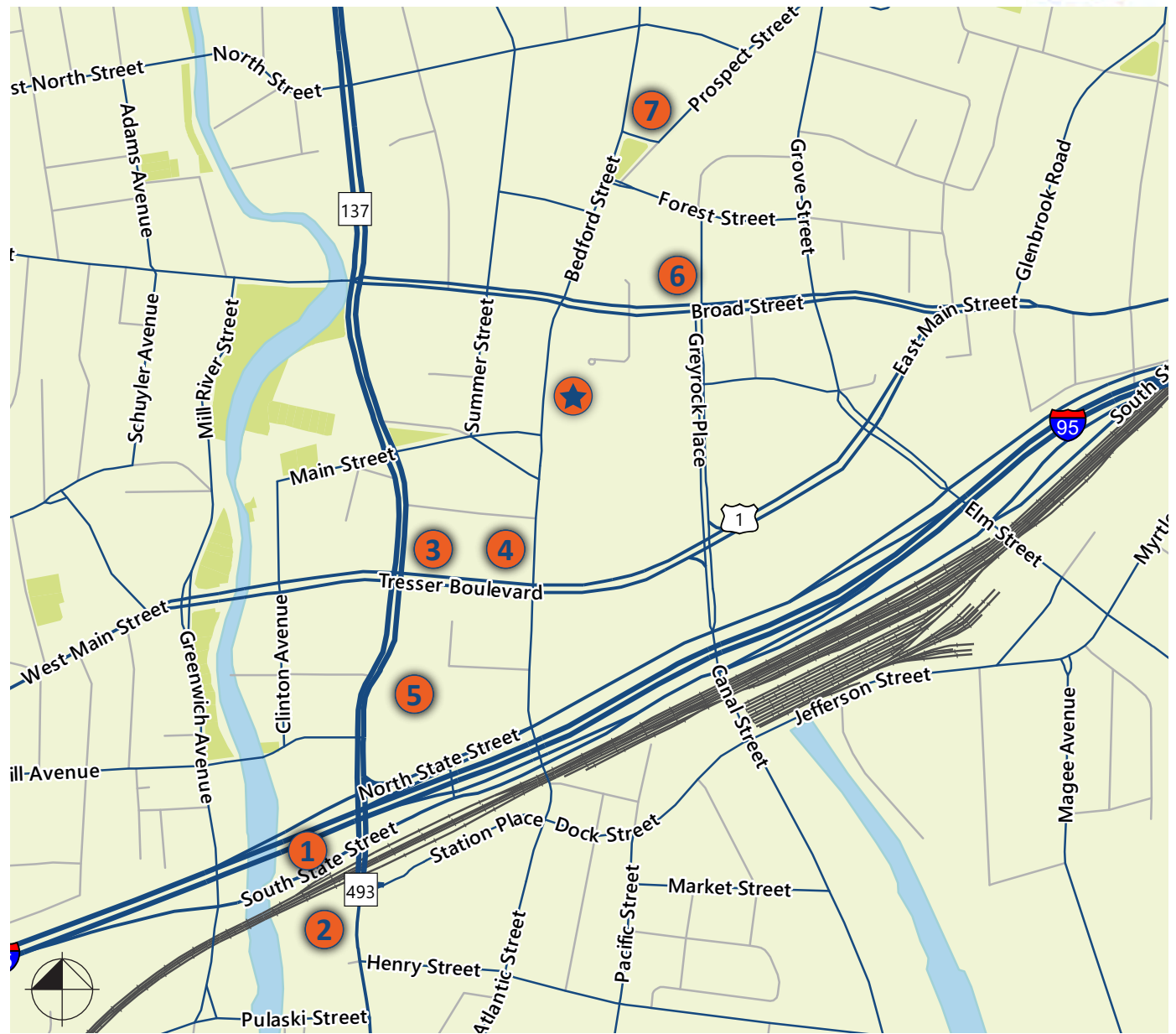


Figure 9
Nearby Planned Developments Locations

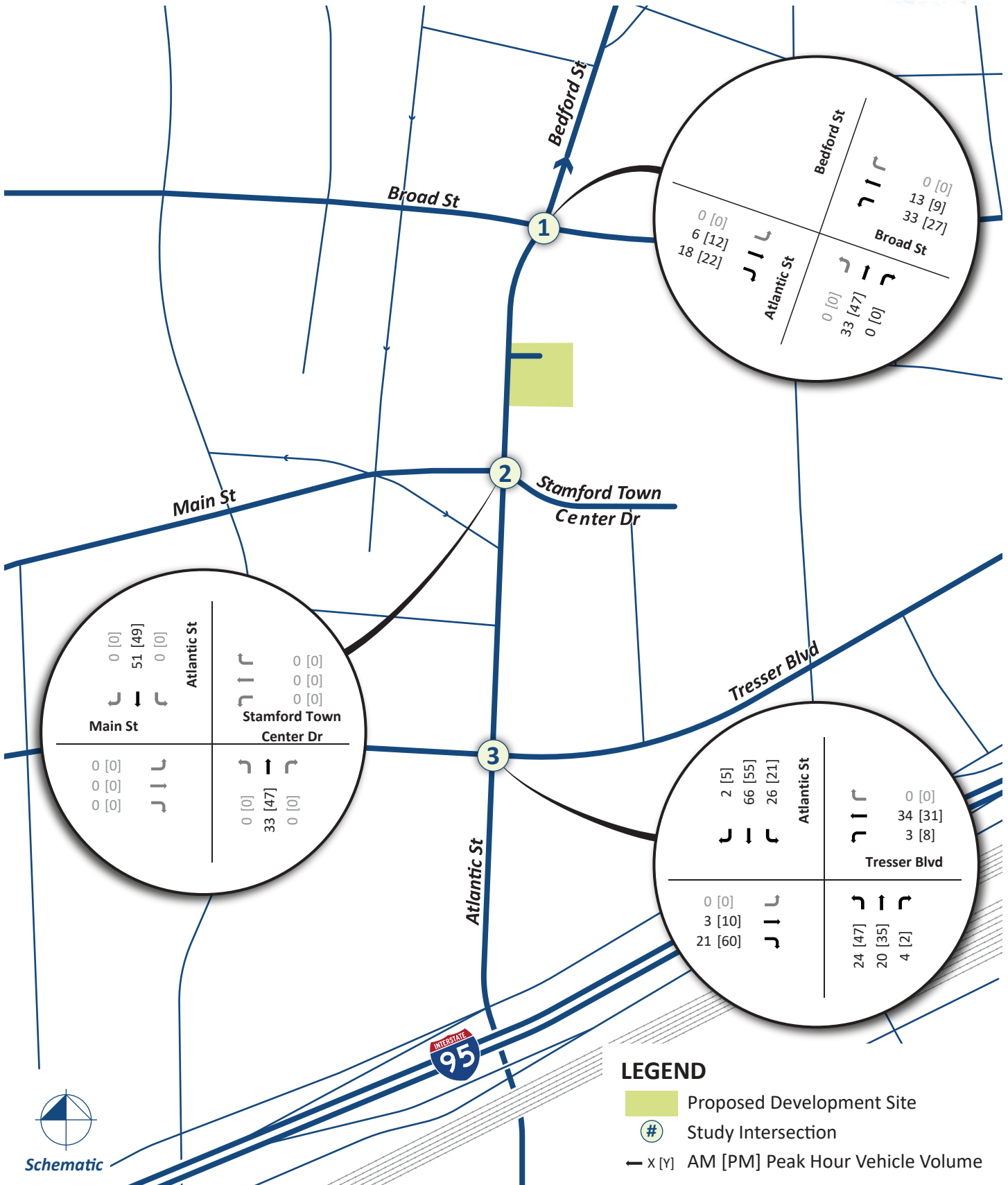


Figure 10
Nearby Planned Developments Total Peak Hour Trip Assignment

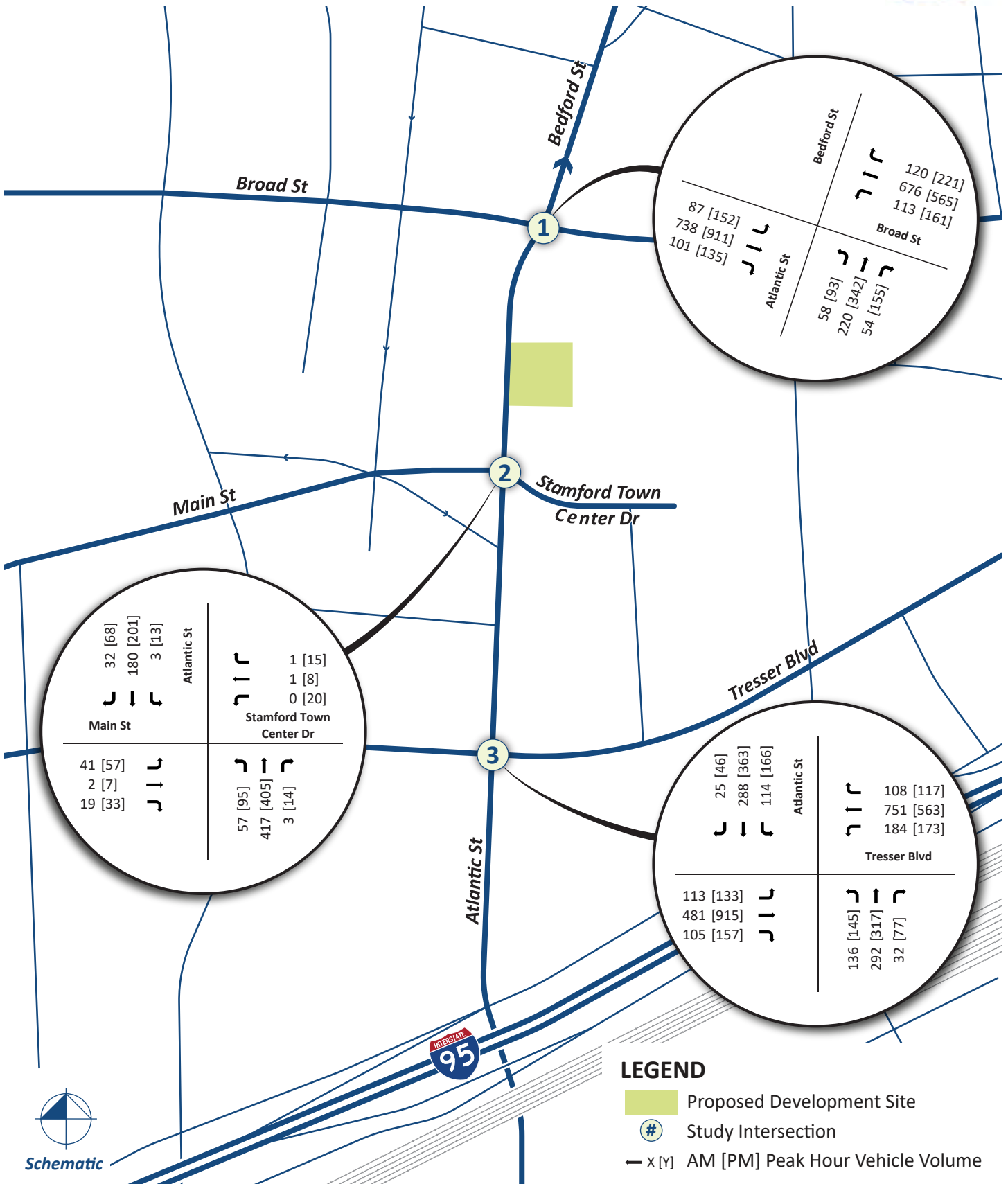


Figure 11
Background (2025) Conditions Peak Hour Traffic Volumes

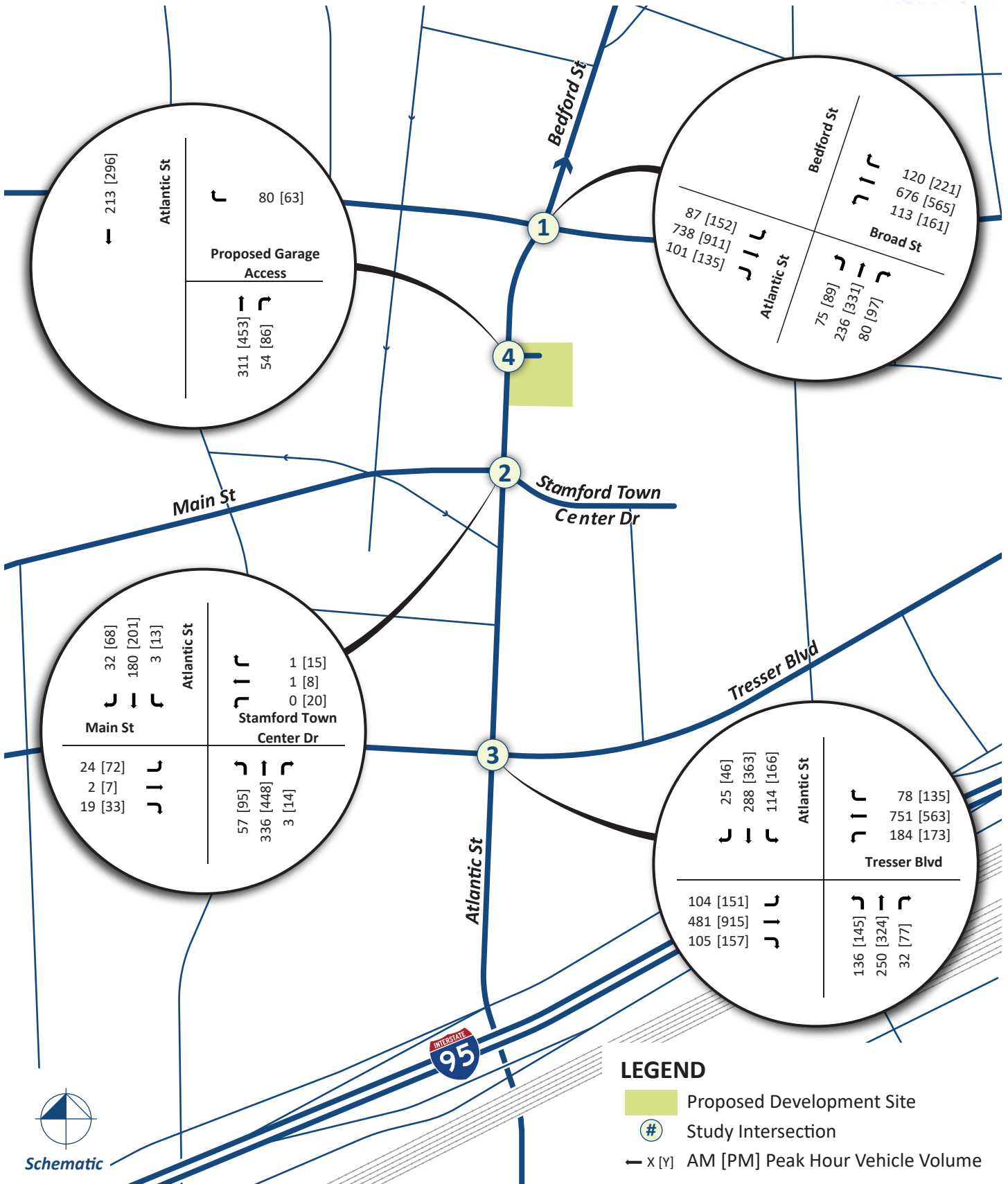


Figure 12
Combined (2025) Conditions Peak Hour Traffic Volumes

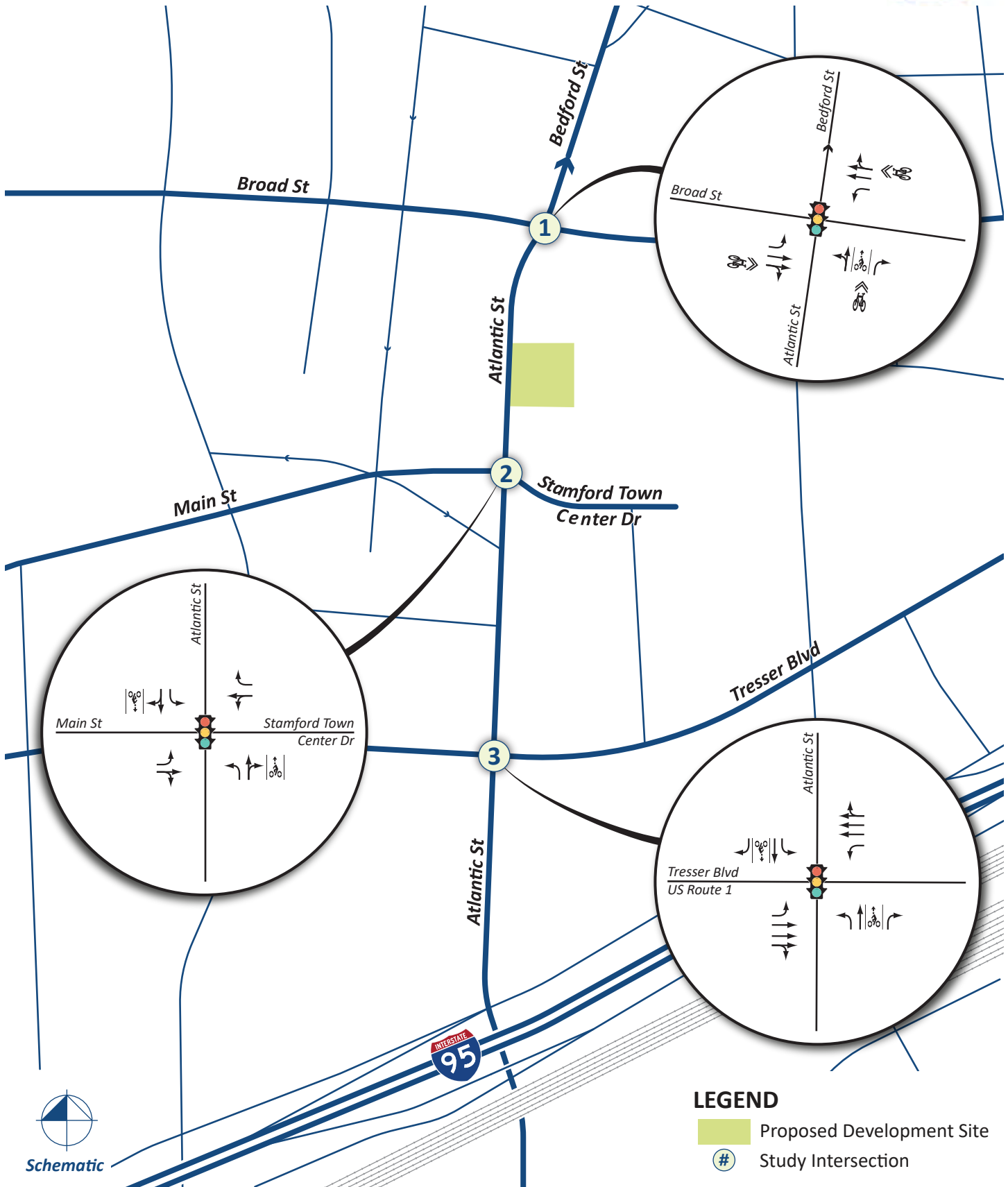


Figure 13
Assumed Geometry with the Atlantic Street Improvements

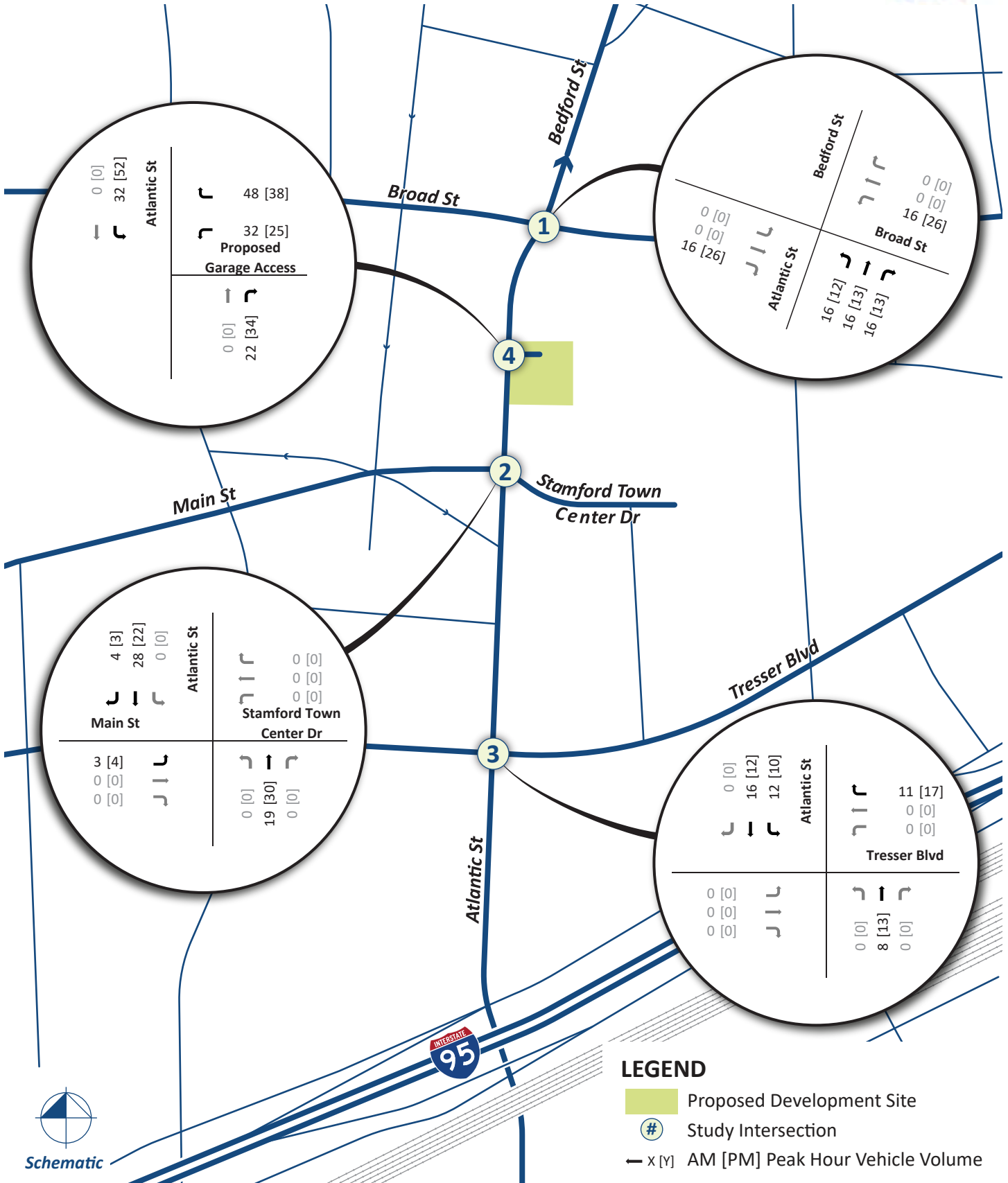


Figure 15
Proposed Redevelopment Peak-Hour Trip Assignment with the Atlantic Street Improvements

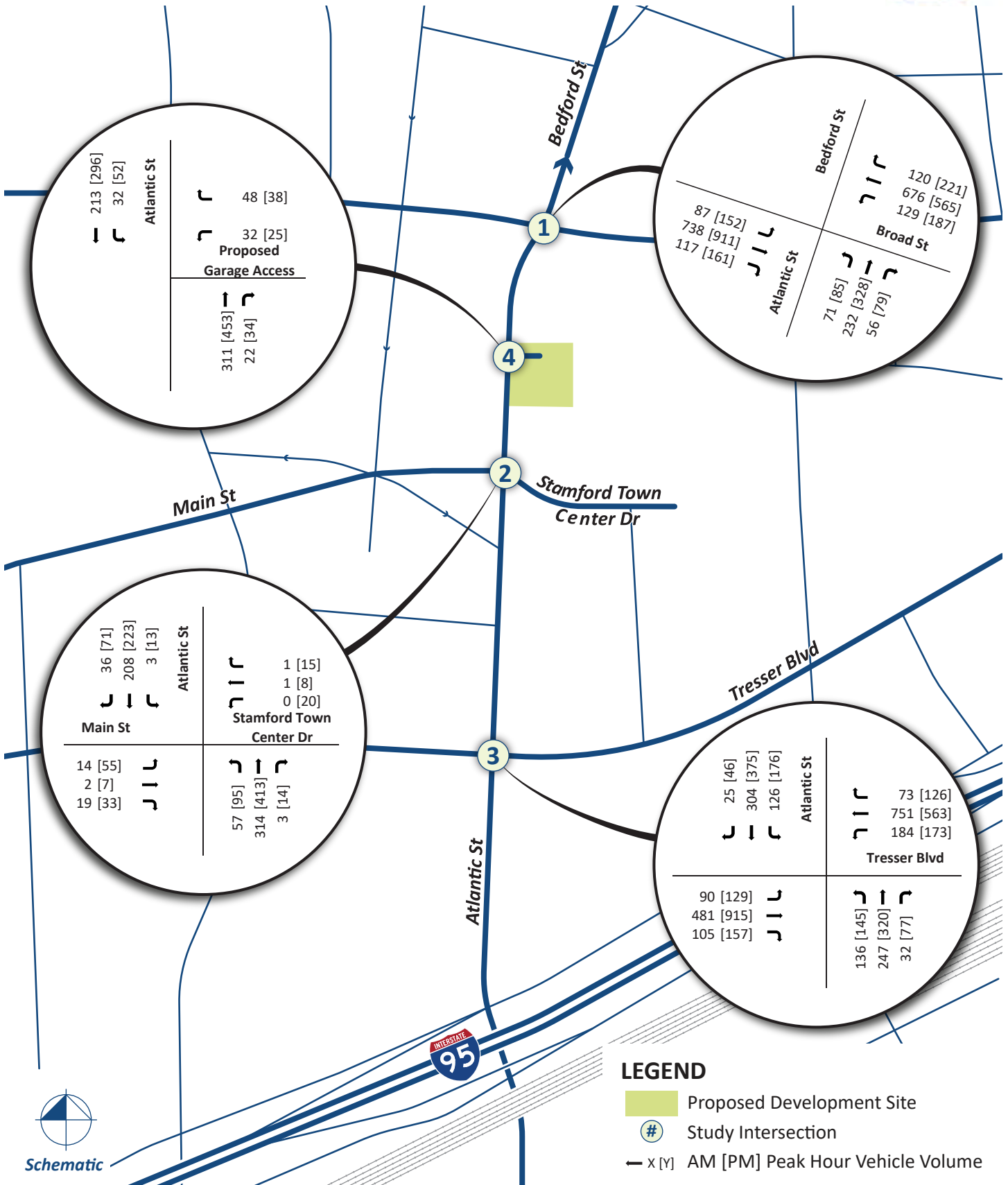


Figure 16 Combined (2025) with Atlantic Street Improvements Conditions Peak-Hour Traffic Volumes

APPENDIX

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Broad Street at Bedford/Atlantic Street
Stamford, Connecticut

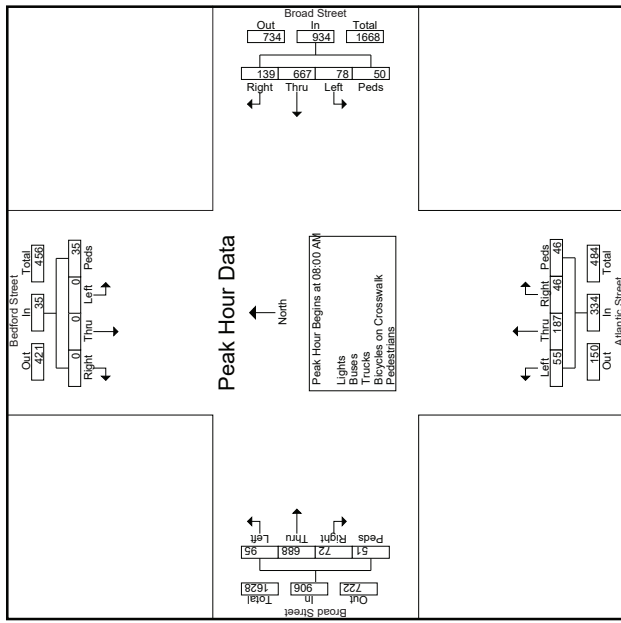
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Site Code : 22944
Start Date : 4/27/2022
Page No : 1

Connecticut Counts LLC
Kensington, Connecticut 06037
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File Name : 22944
Site Code : 22944
Start Date : 4/27/2022
Page No : 2

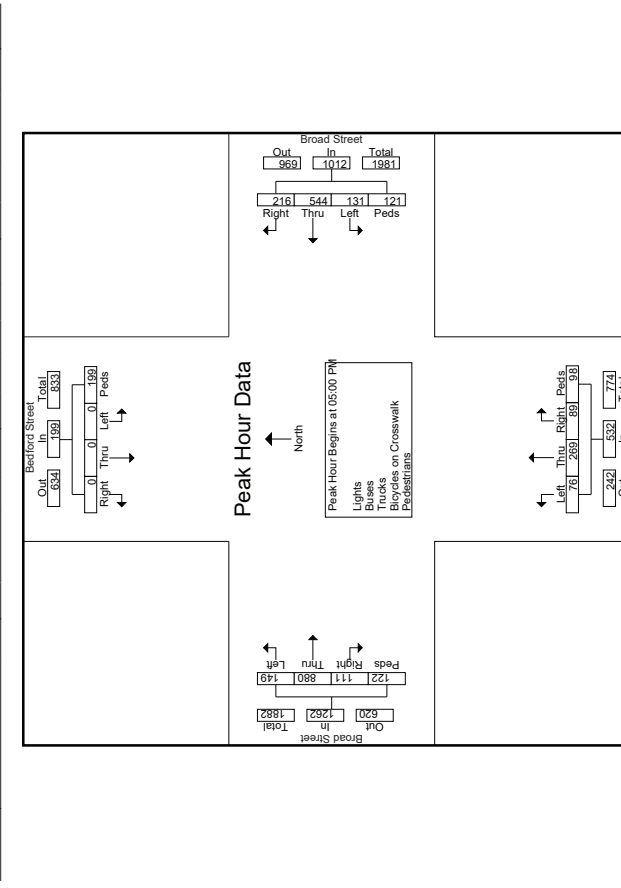
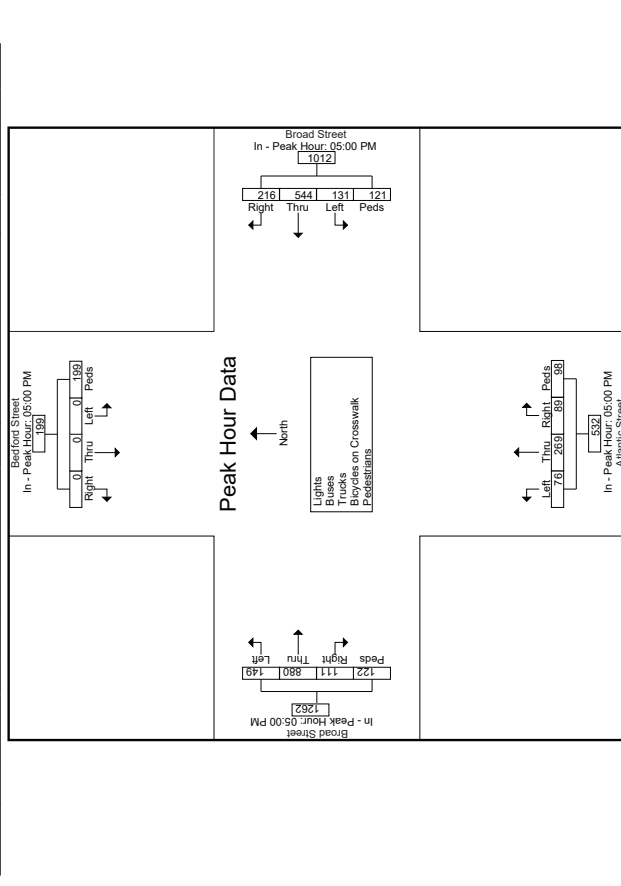
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	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds							
07:00 AM	0	0	0	2	27	117	17	15	176	5	38	15	1	59	12	136	22	6	176	413			
07:15 AM	0	0	0	9	34	139	20	8	201	5	32	3	7	47	26	163	31	11	231	488			
07:30 AM	0	0	0	3	30	124	23	10	167	11	52	15	7	85	25	179	23	0	237	512			
07:45 AM	0	0	0	4	23	182	15	9	233	6	27	19	8	35	27	194	8	2	231	366			
Total	0	0	0	16	1120	562	75	42	798	27	149	46	23	247	90	672	86	35	895	1959			
08:00 AM	0	0	0	6	6	29	173	19	11	232	11	50	11	6	78	15	162	15	8	200	516		
08:15 AM	0	0	0	9	30	170	21	13	234	14	51	14	7	86	14	182	25	19	240	569			
08:30 AM	0	0	0	10	43	154	15	12	224	12	40	17	17	86	21	144	28	15	208	528			
08:45 AM	0	0	0	10	37	170	23	14	244	9	46	13	16	84	22	200	27	9	258	586			
Total	0	0	0	35	139	667	78	50	934	46	187	55	46	334	72	688	95	51	906	2209			
Grand Total	0	0	0	53	259	1229	153	92	1733	73	336	103	69	581	162	1380	193	86	1801	4168			
Approach	0	0	0	100	14.9	70.9	8.8	5.3	6.2	29.5	3.7	2.2	41.6	1.8	8.1	2.5	1.7	13.9	3.9	32.6	4.6	2.1	43.2
Total %	0	0	0	1.3	6.2	29.5	3.7	2.2	41.6	1.8	8.1	2.5	1.7	13.9	3.9	32.6	4.6	2.1	43.2				
% Lights	0	0	0	0	0	245	1185																
% Buses	0	0	0	0	0	8	9	19	36	17	16	10	0	43	7	47	3	0	57	136			
% Trucks	0	0	0	0	0	3.1	0.7	12.4	0	2.1	23.3	4.8	9.7	0	7.4	4.3	3.5	1.6	0	3.2	3.3		
% Trucks	0	0	0	0	0	6	38	3	0	44	4	6	3	5	36	6	0	0	47	104			
% Trucks	0	0	0	0	0	2.3	2.8	2	0	2.3	5.5	1.8	2.9	0	2.2	3.1	2.8	3.1	0	2.8	2.3		
% Pedestrians	0	0	0	0	0	0	0	1.1	0.1	0	0	0	2.9	0.3	0	0	0	7	0.3	0.2			
% Pedestrians	0	0	0	53	53	0	0	0	91	91	0	0	0	67	67	0	0	80	80	281			
% Pedestrians	0	0	0	100	100	0	0	0	88.9	5.3	0	0	0	97.1	11.5	0	0	93	4.4	7			

Start Time	Bedford Street From North				Broad Street From East				Atlantic Street From South				Broad Street From West				In Total				
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds					
08:00 AM	0	0	0	0	6	29	173	19	11	232	11	50	11	6	78	15	162	15	8	200	516
08:15 AM	0	0	0	9	30	170	21	13	234	14	51	14	7	86	14	182	25	19	240	569	
08:30 AM	0	0	0	10	43	154	15	12	224	12	40	17	17	86	21	144	28	15	208	528	
08:45 AM	0	0	0	10	37	170	23	14	244	9	46	13	16	84	22	200	27	9	258	586	
Total	0	0	0	35	139	667	78	50	934	46	187	55	46	334	72	688	95	51	906	2209	
% Buses	0	0	0	0	0	8	9	19	36	17	16	10	0	43	7	47	3	0	57	136	
% Trucks	0	0	0	0	0	3.1	0.7	12.4	0	2.1	23.3	4.8	9.7	0	7.4	4.3	3.5	1.6	0	3.2	3.3
% Trucks	0	0	0	0	0	6	38	3	0	44	4	6	3	5	36	6	0	0	47	104	
% Trucks	0	0	0	0	0	2.3	2.8	2	0	2.3	5.5	1.8	2.9	0	2.2	3.1	2.8	3.1	0	2.8	2.3
% Pedestrians	0	0	0	0	0	0	0	1.1	0.1	0	0	0	2.9	0.3	0	0	0	7	0.3	0.2	
% Pedestrians	0	0	0	53	53	0	0	0	91	91	0	0	0	67	67	0	0	80	80	281	
% Pedestrians	0	0	0	100	100	0	0	0	88.9	5.3	0	0	0	97.1	11.5	0	0	93	4.4	7	



Start Time	Bedford Street From North			Broad Street From East			Atlantic Street From South			Broad Street From West			Mt. Total									
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		App. Total	App. Total	Mt. Total						
05:00 PM	0	0	0	0	50	50	47	121	24	37	229	25	66	19	25	135	20	210	35	27	292	
+0 mins.	0	0	0	53	58	137	36	30	261	20	52	19	16	117	34	241	38	27	340	27	340	
+15 mins.	0	0	0	57	52	137	40	20	249	24	76	16	29	145	30	211	37	42	320	42	320	
+30 mins.	0	0	0	39	39	99	58	1	144	27	53	20	65	76	117	118	118	118	118	118	118	
+45 mins.	0	0	0	199	218	544	131	14	273	12	1012	89	268	76	69	532	141	897	118	92	1262	
Total Volume	0	0	0	100	199	218	544	131	14	273	12	1012	89	268	76	69	532	141	897	118	92	1262
% Sat. PHF	0.000	0.000	0.000	0.873	0.873	0.873	0.915	0.913	0.818	0.927	0.890	0.885	0.864	0.845	0.917	0.816	0.913	0.955	0.726	0.726	0.928	

Start Time	Bedford Street From North			Broad Street From East			Atlantic Street From South			Broad Street From West			Mt. Total								
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		App. Total	App. Total	Mt. Total					
05:00 PM	0	0	0	50	47	121	24	37	229	25	66	19	25	135	20	210	35	27	292	706	
05:15 PM	0	0	0	53	58	137	36	30	261	20	52	19	16	117	34	241	38	27	340	771	
05:30 PM	0	0	0	57	52	137	40	20	249	24	76	16	29	145	30	211	37	42	320	771	
05:45 PM	0	0	0	39	39	99	58	1	144	27	53	20	65	76	117	118	118	118	118	118	
Total Volume	0	0	0	199	218	544	131	14	273	12	1012	89	268	76	69	532	141	897	118	92	1262
% Sat. PHF	0.000	0.000	0.000	0.873	0.873	0.873	0.915	0.913	0.818	0.927	0.890	0.885	0.864	0.845	0.917	0.816	0.913	0.955	0.726	0.726	0.928



Connecticut Counts LLC
 Kensington, Connecticut 06037
 (860) 828-1693

Atlantic Street at Main Street
 Stamford, Connecticut

File Name : 22942
 Site Code : 22942
 Start Date : 4/27/2022
 Page No : 1

Start Time	Atlantic Street From North			Main Street From East			Atlantic Street From South			Mai Street From West			MT Total								
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left									
07:00 AM	4	26	2	10	42	0	0	0	13	0	56	11	0	67	3	0	1	23	27	149	
07:15 AM	1	44	0	9	54	0	0	0	8	3	63	9	2	77	4	0	3	23	30	169	
07:30 AM	9	47	1	6	63	0	0	0	5	2	66	12	4	83	6	1	5	26	28	179	
07:45 AM	3	28	0	3	62	0	0	0	12	6	69	14	1	83	12	0	5	23	23	166	
Total	23	145	3	30	201	0	1	0	38	39	5	232	46	7	310	15	12	66	113	665	
08:00 AM	4	25	2	15	46	1	0	0	9	10	1	70	15	2	88	5	0	5	18	172	
08:15 AM	9	26	0	16	51	0	0	0	9	9	0	86	15	1	102	6	1	6	23	36	198
08:30 AM	8	26	0	19	53	0	0	0	14	14	0	72	16	5	93	5	0	5	37	47	207
08:45 AM	12	28	1	9	50	0	0	0	6	6	0	65	20	2	87	6	0	7	20	33	176
Total	33	105	3	59	200	1	0	0	38	39	1	293	66	10	370	22	1	23	98	144	753
Grand Total	56	250	6	89	401	1	1	0	76	78	6	545	112	17	680	37	2	35	183	257	1416
Approach %	14	62.3	1.5	22.2	1.3	1.3	0	87.4	0.9	80.1	16.5	2.5	14.4	0.8	13.6	71.2					
Total %	4	17.7	0.4	6.3	28.3	0.1	0.1	5.4	5.5	0.4	38.5	7.9	1.2	48	2.6	0.1	2.5	12.9	18.1		
Lights	55	216	6	0	277	1	1	0	2	6	480	106	0	602	14	2	35	0	51	932	
% Lights	95.2	86.4	100	0	69.1	100	100	0	2.6	100	89.9	94.6	0	88.5	37.8	100	100	0	19.8	65.8	
Buses	0	20	0	0	20	0	0	0	0	0	42	4	0	46	23	0	0	0	23	89	
% Buses	0	8	0	0	5	0	0	0	0	0	7.7	3.6	0	6.8	62.2	0	0	0	4.9	6.3	
Trucks	0	8	0	0	8	0	0	0	0	0	13	2	0	15	5	0	0	0	30	30	
% Trucks	1.8	5.6	0	0	3.7	0	0	0	0	0	2.4	1.8	0	2.2	0	0	0	0	0	2.1	
Other	0	0	0	3.4	0.7	0	0	0	6.6	6.4	0	0	0	0	0	0	0	0	2.2	1.6	0.8
Pedestrians	0	0	0	86	86	0	0	0	71	71	0	0	0	17	17	0	0	0	179	353	
% Pedestrians	0	0	0	86.6	21.4	0	0	0	83.4	91	0	0	0	100	2.5	0	0	0	97.8	69.6	24.9

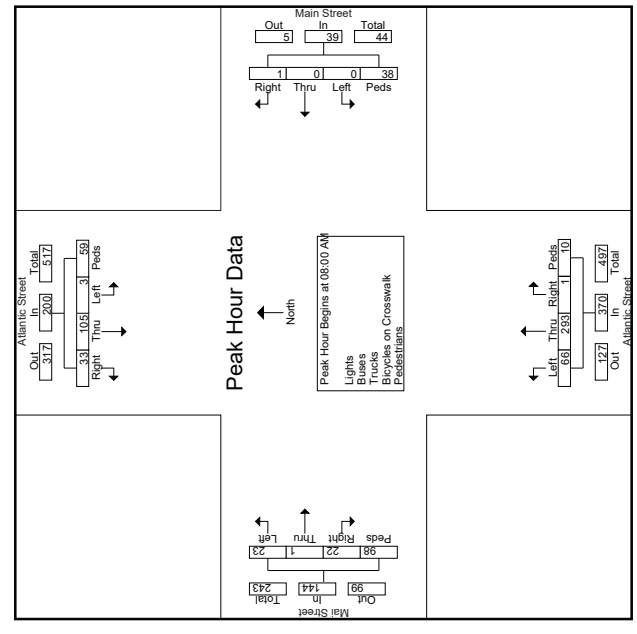
Connecticut Counts LLC
 Kensington, Connecticut 06037
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Atlantic Street at Main Street
 Stamford, Connecticut

File Name : 22942
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 Start Date : 4/27/2022
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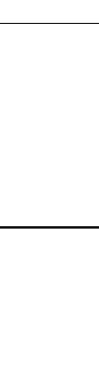
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	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left									
08:00 AM	4	25	2	15	46	1	0	0	9	10	1	70	15	2	88	5	0	5	18	28	172
08:15 AM	9	26	0	16	51	0	0	0	9	9	0	86	15	1	102	6	1	6	23	36	198
08:30 AM	8	26	0	19	53	0	0	0	14	14	0	72	16	5	93	5	0	5	37	47	207
08:45 AM	12	28	1	9	50	1	0	0	6	6	0	65	20	2	87	6	0	7	20	33	176
Total	23	145	3	30	201	1	0	0	38	39	1	293	66	10	370	22	1	23	98	144	753
% Lights	143.5	52.5	1.5	29.5	2.6	0	0	0	87.4	87.4	0.3	79.2	12.8	2.7	90.7	15.2	0.7	4.6	68.8	144	753
PHF	0.688	0.988	0.375	0.776	0.943	0.260	0.000	0.679	0.696	0.250	0.652	0.825	0.500	0.907	0.917	0.260	0.821	0.662	0.662	0.766	0.909

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 08:00 AM



Start Time	Atlantic Street From North			Main Street From East			Atlantic Street From South			Mai Street From West			Net Total							
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		Peds						
07:15 AM	1	44	0	9	54	0	1	0	12	13	1	70	15	2	88	5	0	5	18	28
+0 mins.	9	47	1	6	63	1	0	0	9	10	0	96	15	1	102	6	1	6	23	36
+15 mins.	9	26	0	6	42	0	0	0	9	14	0	72	16	5	93	5	0	7	37	47
+30 mins.	23	143	2	15	146	1	1	0	14	46	1	203	66	12	371	6	1	23	90	133
+45 mins.	23	143	2	15	146	1	1	0	14	46	1	203	66	12	371	6	1	23	90	133
Total Volume	112	702	15	174	205	2	2	2	2	2	2	203	178	27	917	15	2	16	68	144
%Obs.	11.2	70.2	1.5	17.4	20.5	0.2	0.2	0.2	0.2	0.2	0.2	20.3	17.8	2.7	91.7	15.0	2.0	16.0	68.2	76.6
PHF	1.639	766	375	563	813	250	250	250	250	250	250	821	250	852	907	917	250	821	662	766

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:



Peak Hour Data

North

Atlantic Street

Right Thru Left Peds

Atlantic Street

Right Thru Left Peds

Main Street

Right Thru Left Peds

Atlantic Street

Right Thru Left Peds

Main Street

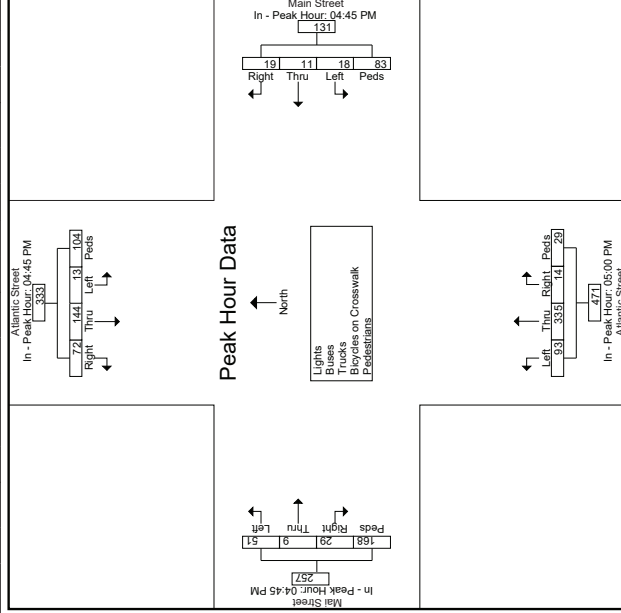
Right Thru Left Peds

Start Time	Atlantic Street From North			Main Street From East			Atlantic Street From South			Mai Street From West			Net Total							
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		Peds						
04:00 PM	11	30	2	18	61	4	2	2	6	14	11	53	23	1	88	8	1	14	33	56
04:15 PM	10	23	1	15	49	4	2	5	12	23	7	96	15	4	92	3	2	4	27	36
04:30 PM	20	41	1	12	44	4	3	3	21	31	6	72	15	6	101	12	1	10	45	66
04:45 PM	5	33	5	19	74	7	3	3	24	38	5	71	13	12	110	3	2	35	144	211
Total	56	127	9	64	258	18	12	13	63	106	32	266	66	25	391	26	6	35	144	211
05:00 PM	11	31	5	45	92	2	4	5	16	27	3	78	15	13	109	11	3	10	41	65
05:15 PM	18	43	0	22	83	6	2	2	15	25	3	85	21	5	114	6	1	15	35	57
05:30 PM	26	37	3	18	84	5	0	8	28	41	6	71	23	6	106	9	3	19	53	84
05:45 PM	12	38	5	15	70	2	2	5	20	29	2	101	34	5	142	6	0	8	33	47
Total	67	149	13	100	329	15	8	20	79	122	14	335	93	29	471	32	7	52	162	263
Grand Total	125	276	22	164	587	33	20	33	142	228	46	603	159	54	862	58	13	87	306	464
Approach %	21.3	47	3.7	27.9	14.5	8.8	14.5	62.3	5.3	70	18.4	6.3	12.5	2.8	18.8	65.9	12.5	2.8	18.8	65.9
Total %	5.8	12.9	1	7.7	27.4	1.5	0.9	1.5	6.6	10.6	2.1	28.2	7.4	2.5	40.3	2.7	0.6	4.1	14.3	21.7
Lights	124	246	22	0	392	33	20	33	0	86	46	561	156	0	763	36	11	84	0	131
% Lights	95.2	89.1	100	0	66.8	100	100	0	37.7	100	93	98.1	0	86.5	62.1	84.6	96.6	0	25.2	64.1
Buses	0	23	0	0	23	0	0	0	0	0	0	31	1	0	32	21	0	0	0	23
% Buses	0	8.3	0	0	3.9	0	0	0	0	0	0	5.1	0.6	0	3.7	36.2	15.4	0	0	8
Trucks	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
% Trucks	0.8	2.5	0	0	1.4	0	0	0	0	0	0	1.8	1.3	0	1.5	1.7	0	0	3.4	0.9
% Pedestrians	0	0	0	1.8	0.5	0	0	0	4.2	2.6	0	0	0	1.9	0.1	0	0	0	0.7	0.4
Pedestrians	0	0	0	161	161	0	0	0	136	136	0	0	0	53	53	0	0	0	304	654
% Pedestrians	0	0	0	88.2	27.4	0	0	0	95.8	59.6	0	0	0	98.1	6.1	0	0	0	99.3	30.5

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File Name : 22943
 Site Code : 22943
 Start Date : 4/27/2022
 Page No : 3

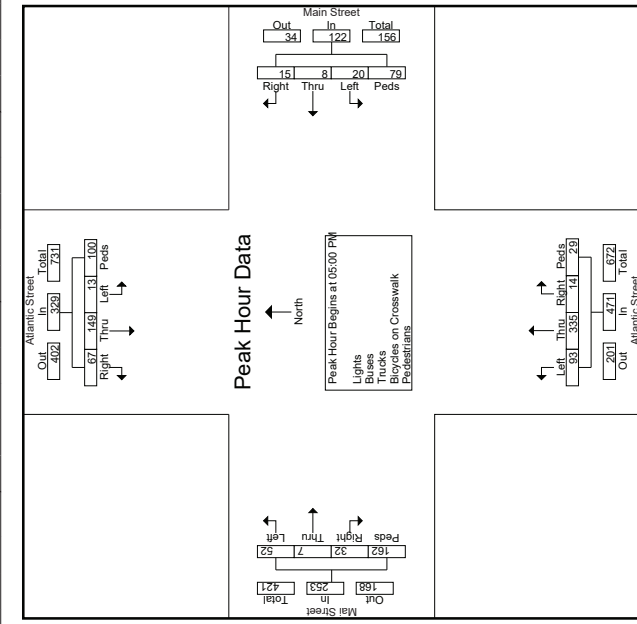
Start Time	Atlantic Street From North			Main Street From East			Atlantic Street From South			Main Street From West			Mt. Total							
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		Right	Thru	Left	APD Total	Mt. Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																				
Peak Hour for Each Approach Begins at:																				
+0 mins.	17	33	5	19	74	6	5	3	24	38	3	78	15	13	109	3	2	7	39	51
+15 mins.	11	31	5	45	92	2	4	5	16	27	3	95	21	5	114	11	3	10	41	65
+30 mins.	18	43	0	22	83	6	2	2	15	25	6	71	23	6	106	6	1	15	35	97
+45 mins.	29	34	3	18	64	3	10	11	8	28	11	40	33	5	142	9	3	9	57	84
Total Volume	74	134	13	103	333	19	14	19	63	131	14	205	83	29	471	29	9	57	183	257
% Sat.	21.6	43.2	3.9	31.2	90.5	14.5	8.4	13.7	18.7	6.2	11.3	3.5	19.8	65.0	25.7	8.6	11.3	3.5	19.8	65.0
PHF	.632	.837	.650	.578	.905	.732	.550	.563	.741	.799	.583	.829	.684	.558	.823	.659	.760	.671	.792	.765



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File Name : 22943
 Site Code : 22943
 Start Date : 4/27/2022
 Page No : 2

Start Time	Atlantic Street From North			Main Street From East			Atlantic Street From South			Main Street From West			Mt. Total							
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		Right	Thru	Left	APD Total	Mt. Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 05:00 PM																				
05:00 PM	11	31	5	45	92	2	4	5	16	27	3	78	15	13	109	11	3	10	41	65
05:15 PM	18	43	0	22	83	6	2	2	15	25	3	95	21	5	114	6	1	15	35	57
05:30 PM	26	37	3	18	64	5	0	8	28	41	6	71	23	6	106	9	3	19	53	84
05:45 PM	17	18	5	15	50	12	8	20	7	29	12	40	38	5	142	6	7	9	62	78
Total Volume	67	109	13	104	329	12	12	39	64	122	14	205	83	29	471	30	12	28	102	147
% Sat.	20.0	45.3	4.3	31.2	90.5	14.5	8.4	13.7	18.7	6.2	11.3	3.5	19.8	65.0	25.7	8.6	11.3	3.5	19.8	65.0
PHF	.644	.866	.650	.566	.884	.625	.705	.744	.583	.829	.684	.558	.823	.727	.583	.684	.764	.764	.763	.933



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Atlantic Street at Tresser Blvd
Stamford, Connecticut

File Name : 22938
Site Code : 22938
Start Date : 4/27/2022
Page No : 1

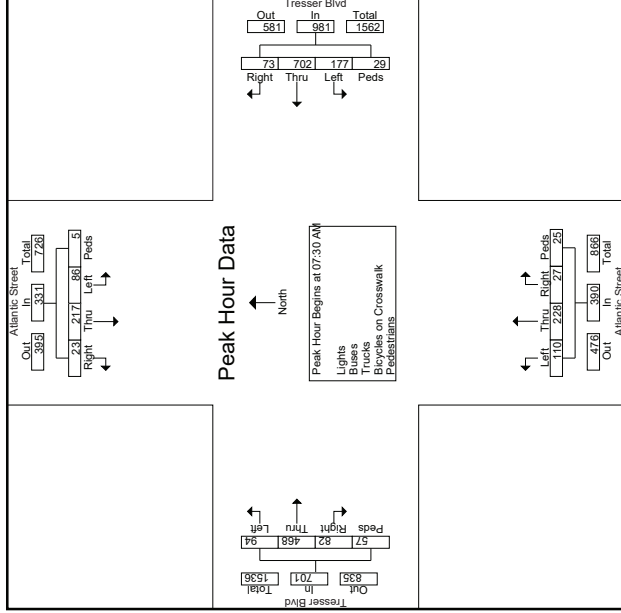
Start Time	Atlantic Street From North						Tresser Blvd From East						Atlantic Street From South						Tresser Blvd From West						In Total
	Right	Thru	Left	Peds	App. Total		Right	Thru	Left	Peds	App. Total		Right	Thru	Left	Peds	App. Total		Right	Thru	Left	Peds	App. Total		
07:00 AM	1	44	9	1	55	11	109	36	5	161	3	41	12	2	58	15	106	21	17	159	433				
07:15 AM	4	54	18	1	77	13	143	50	5	211	1	41	14	4	60	24	114	21	9	168	516				
07:30 AM	6	75	16	0	97	17	162	39	5	223	2	63	34	4	103	15	104	18	10	147	572				
07:45 AM	6	50	16	0	72	19	189	58	8	294	5	46	37	6	89	28	140	28	18	214	667				
08:00 AM	3	54	28	0	85	17	180	42	5	244	1	58	24	9	102	20	106	18	12	166	587				
08:15 AM	6	50	16	0	72	19	189	58	8	294	5	46	37	6	89	28	140	28	18	214	667				
08:30 AM	4	61	21	1	87	17	134	37	7	195	15	59	22	8	104	20	110	30	25	185	571				
08:45 AM	5	47	20	3	75	20	170	40	6	236	19	58	12	6	95	11	112	25	16	164	570				
Total	18	200	95	6	319	74	645	157	29	905	54	236	73	29	392	70	446	103	70	689	2305				
08:00 AM	3	54	28	0	85	17	180	42	5	244	1	58	24	9	102	20	106	18	12	166	587				
08:15 AM	6	38	26	2	72	20	161	38	11	230	9	61	15	6	91	19	118	30	17	184	577				
08:30 AM	4	61	21	1	87	17	134	37	7	195	15	59	22	8	104	20	110	30	25	185	571				
08:45 AM	5	47	20	3	75	20	170	40	6	236	19	58	12	6	95	11	112	25	16	164	570				
Grand Total	37	423	154	11	625	134	1258	340	52	1784	65	427	170	45	707	152	910	191	124	1377	4483				
Approach %	5.9	67.7	24.6	1.8	7.5	70.5	19.1	2.9	9.2	60.4	24	6.4	11	66.1	13.9	9	11	66.1	13.9	9	11	66.1			
Total %	0.8	9.4	3.4	0.2	13.9	3	28	7.6	1.2	39.7	1.4	9.5	3.8	1	15.7	3.4	20.3	4.3	2.8	30.6	30.6				
% Lights	32	366	148	0	546	128	1198	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
% Buses	0	45	2	0	47	0	20	14	0	34	1	4	2	0	7	17	38	45	0	100	188				
% Trucks	0	10.6	1.3	0	12	0	1.6	4.1	0	5.7	0	1.9	1.5	0.9	1.2	0	11.2	4.2	23.6	0	7.3	4.2			
% Pedestrians	5	12	4	0	21	6	40	5	0	51	1	5	4	0	10	4	41	2	0	47	29				
% Trucks	13.3	2.8	2.6	0	3.4	4.3	3.2	1.3	0	2.9	1.3	1.2	2.4	0	1.4	2.6	4.3	1	0	3.4	2.9				
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
% Pedestrians	0	0	0	11	11	0	0	0	47	47	0	0	0	42	42	0	0	0	119	119	219				
% Pedestrians	0	0	0	100	1.8	0	0	0	80.4	2.6	0	0	93.3	5.9	0	0	96	8.6	8.6	4.9	4.9				

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File Name : 22938
Site Code : 22938
Start Date : 4/27/2022
Page No : 2

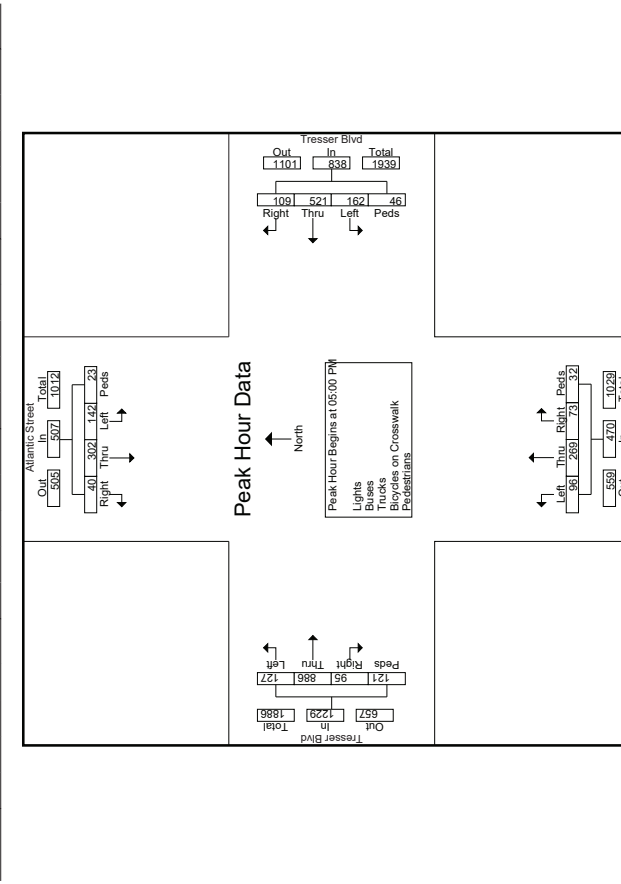
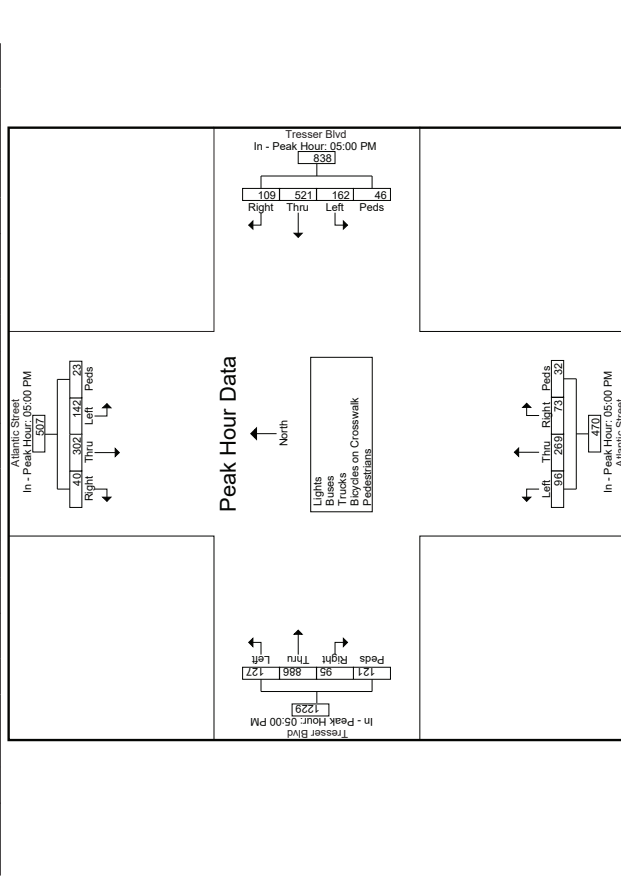
Start Time	Atlantic Street From North						Tresser Blvd From East						Atlantic Street From South						Tresser Blvd From West						In Total
	Right	Thru	Left	Peds	App. Total		Right	Thru	Left	Peds	App. Total		Right	Thru	Left	Peds	App. Total		Right	Thru	Left	Peds	App. Total		
07:30 AM	8	75	16	0	99	17	162	39	5	223	2	63	34	4	103	15	104	18	10	147	572				
07:45 AM	6	50	16	3	75	19	189	58	8	294	5	46	37	6	89	28	140	28	18	214	667				
08:00 AM	3	54	28	0	85	17	180	42	5	244	1	58	24	9	102	20	106	18	12	166	587				
08:15 AM	6	50	16	0	72	19	189	58	8	294	5	46	37	6	89	28	140	28	18	214	667				
08:30 AM	4	61	21	1	87	17	134	37	7	195	15	59	22	8	104	20	110	30	25	185	571				
08:45 AM	5	47	20	3	75	20	170	40	6	236	19	58	12	6	95	11	112	25	16	164	570				
Total	19	223	59	3	306	60	613	163	23	879	11	191	97	16	315	82	464	86	54	668	2186				
08:00 AM	3	54	28	0	85	17	180	42	5	244	1	58	24	9	102	20	106	18	12	166	587				
08:15 AM	6	38	26	2	72	20	161	38	11	230	9	61	15	6	91	19	118	30	17	184	577				
08:30 AM	4	61	21	1	87	17	134	37	7	195	15	59	22	8	104	20	110	30	25	185	571				
08:45 AM	5	47	20	3	75	20	170	40	6	236	19	58	12	6	95	11	112	25	16	164	570				
PHF	7.19	7.23	7.68	4.17	8.36	9.13	8.82	7.63	6.59	8.64	6.14	9.05	7.43	6.94	9.47	7.32	8.36	7.93	7.92	8.19	9.01				

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:30 AM



Start Time	Atlantic Street From North			Tresser Blvd From East			Atlantic Street From South			Tresser Blvd From West			Mt. Total							
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		App. Total						
05:00 PM	9	87	37	3	136	28	107	46	10	191	23	58	19	7	107	25	196	26	28	275
+0 mins.	6	61	33	1	101	26	130	39	9	204	15	66	29	2	112	27	252	38	19	336
+15 mins.	19	95	34	12	159	26	129	40	18	213	19	71	24	13	126	23	194	27	38	282
+30 mins.	40	303	145	23	507	103	591	162	48	630	173	269	56	32	470	60	686	137	135	236
+45 mins.	40	303	145	23	507	103	591	162	48	630	173	269	56	32	470	60	686	137	135	236
Total Volumes	719	5066	2264	415	797	1940	840	880	639	911	793	909	828	615	933	880	879	836	798	914
% Sat. PHF	5.56	7.95	3.94	4.79	5.56	6.39	5.56	6.39	5.56	6.39	5.56	6.39	5.56	6.39	5.56	6.39	5.56	6.39	5.56	6.39

Start Time	Atlantic Street From North			Tresser Blvd From East			Atlantic Street From South			Tresser Blvd From West			Mt. Total							
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		App. Total						
05:00 PM	9	87	37	3	136	28	107	46	10	191	23	58	19	7	107	25	196	26	28	275
+0 mins.	6	61	33	1	101	26	130	39	9	204	15	66	29	2	112	27	252	38	19	336
+15 mins.	19	95	34	12	159	26	129	40	18	213	19	71	24	13	126	23	194	27	38	282
+30 mins.	40	303	145	23	507	103	591	162	48	630	173	269	56	32	470	60	686	137	135	236
+45 mins.	40	303	145	23	507	103	591	162	48	630	173	269	56	32	470	60	686	137	135	236
Total Volumes	719	5066	2264	415	797	1940	840	880	639	911	793	909	828	615	933	880	879	836	798	914
% Sat. PHF	5.56	7.95	3.94	4.79	5.56	6.39	5.56	6.39	5.56	6.39	5.56	6.39	5.56	6.39	5.56	6.39	5.56	6.39	5.56	6.39



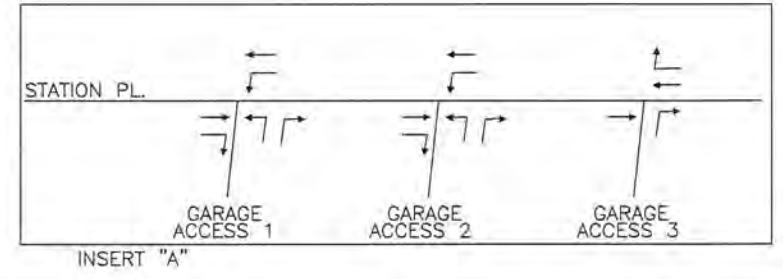
Background Project List

1. **Stamford Transportation Center/State Street Garage** – STEP 1 MTG Pre-Certification Application Traffic Volume Data Requirements (April 26, 2018)
2. **406 Washington Blvd - Gateway Tower Expansion** – Administrative Decision Review (February 11, 2021) / Traffic Impact Study (February 2019)
3. **885 Washington Blvd – The Smyth** – OSTA Response to Comments (June 26, 2018)
4. **245 Atlantic Street – True North** – Site Generated Traffic Volumes
5. **677 Washington Boulevard** – Traffic Access and Impact Study (October 2020)
6. **154 Broad Street** – Traffic Impact and Parking Study (April 9, 2021)
7. **80 Prospect Street** – Traffic Impact Study Proposed Walton Place Residential Development (September 6, 2022)



Same as approved

LEGEND:
90 IN (7 OUT)



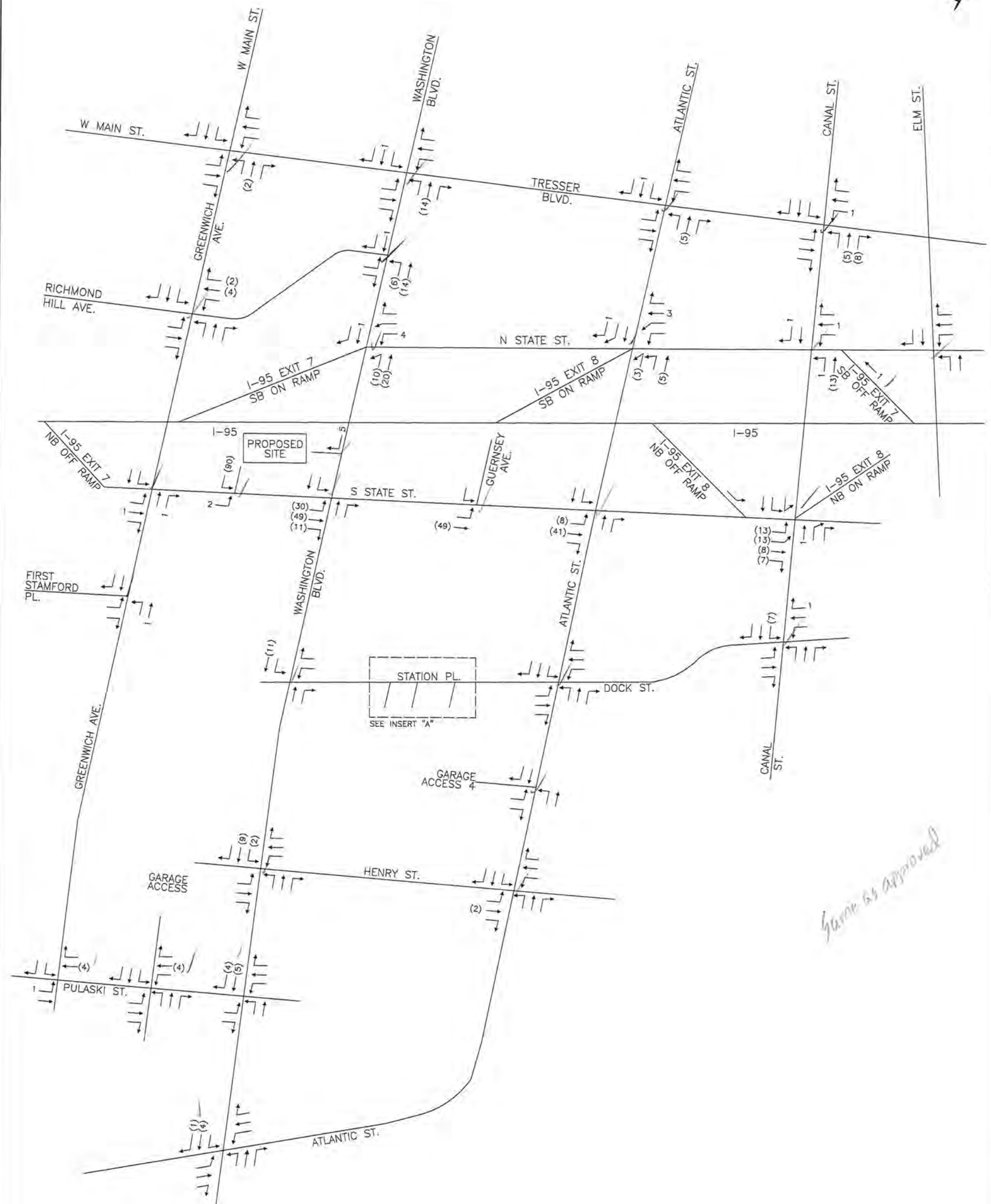
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STAMFORD
NEW TRIPS FOR PROPOSED
STATE STREET GARAGE AM

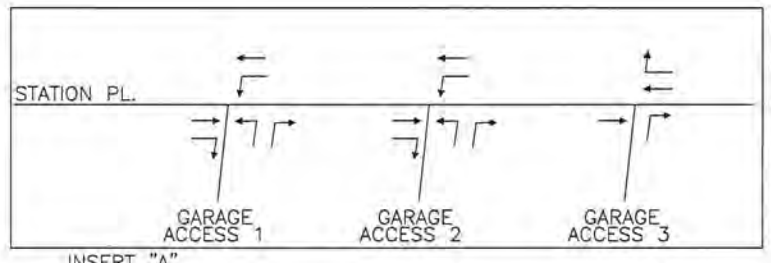
STAMFORD
PARKING GARAGE

FIGURE
7
DATE: 4/18



Same as approved

LEGEND:
7 IN (90 OUT)



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STAMFORD
NEW TRIPS FOR PROPOSED
STATE STREET GARAGE PM

STAMFORD
PARKING GARAGE

FIGURE

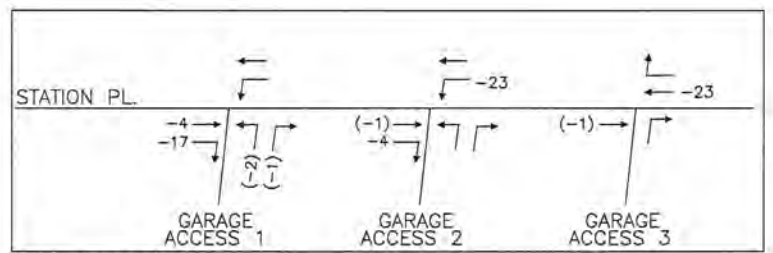
8

DATE: 4/18



Insert approved

LEGEND:
44 IN (3 OUT)



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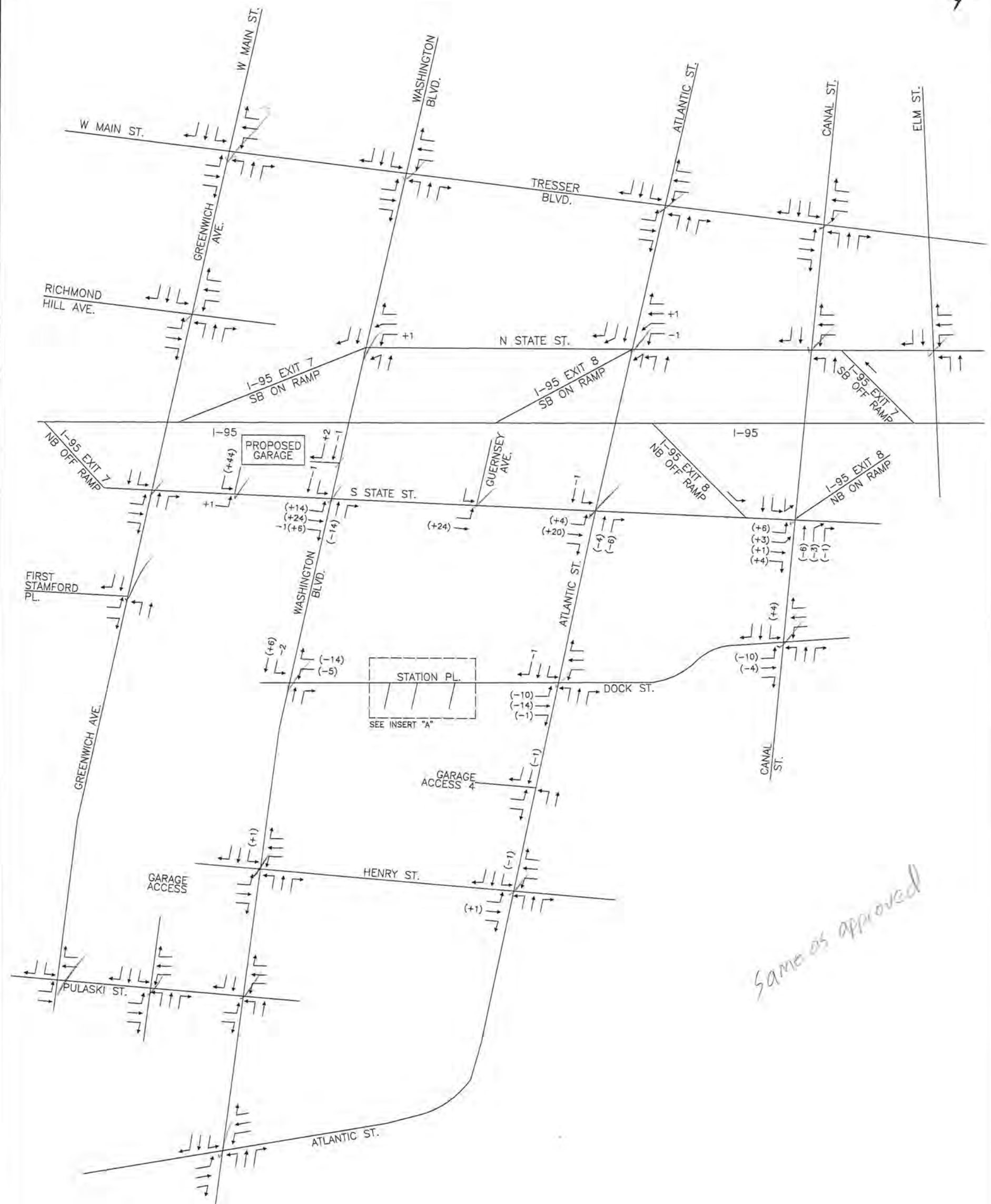
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STAMFORD
STATION PLACE ORIGINAL GARAGE
RELOCATED TRIPS AM

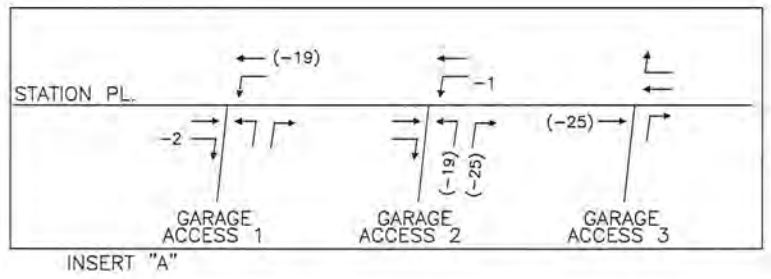
STAMFORD
PARKING GARAGE

FIGURE
9
DATE: 4/18



Same as approved

LEGEND:
3 IN (44 OUT)



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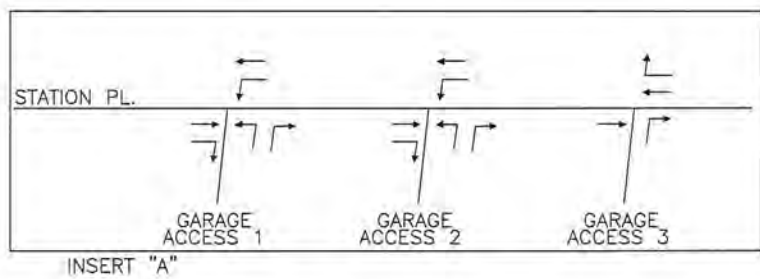
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 Rocky Hill, CT 06067
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STAMFORD
 STATION PLACE ORIGINAL GARAGE
 RELOCATED TRIPS PM
 STAMFORD
 PARKING GARAGE

FIGURE
10
 DATE: 4/18



LEGEND:
131 IN (9 OUT)



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STAMFORD
GATEWAY GARAGE
RELOCATED TRIPS AM

STAMFORD
PARKING GARAGE

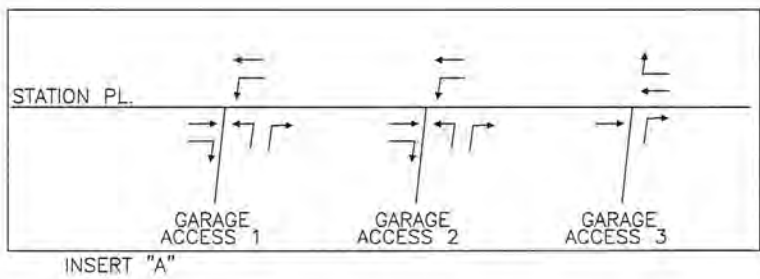
FIGURE
11

DATE: 4/18



Same as approved

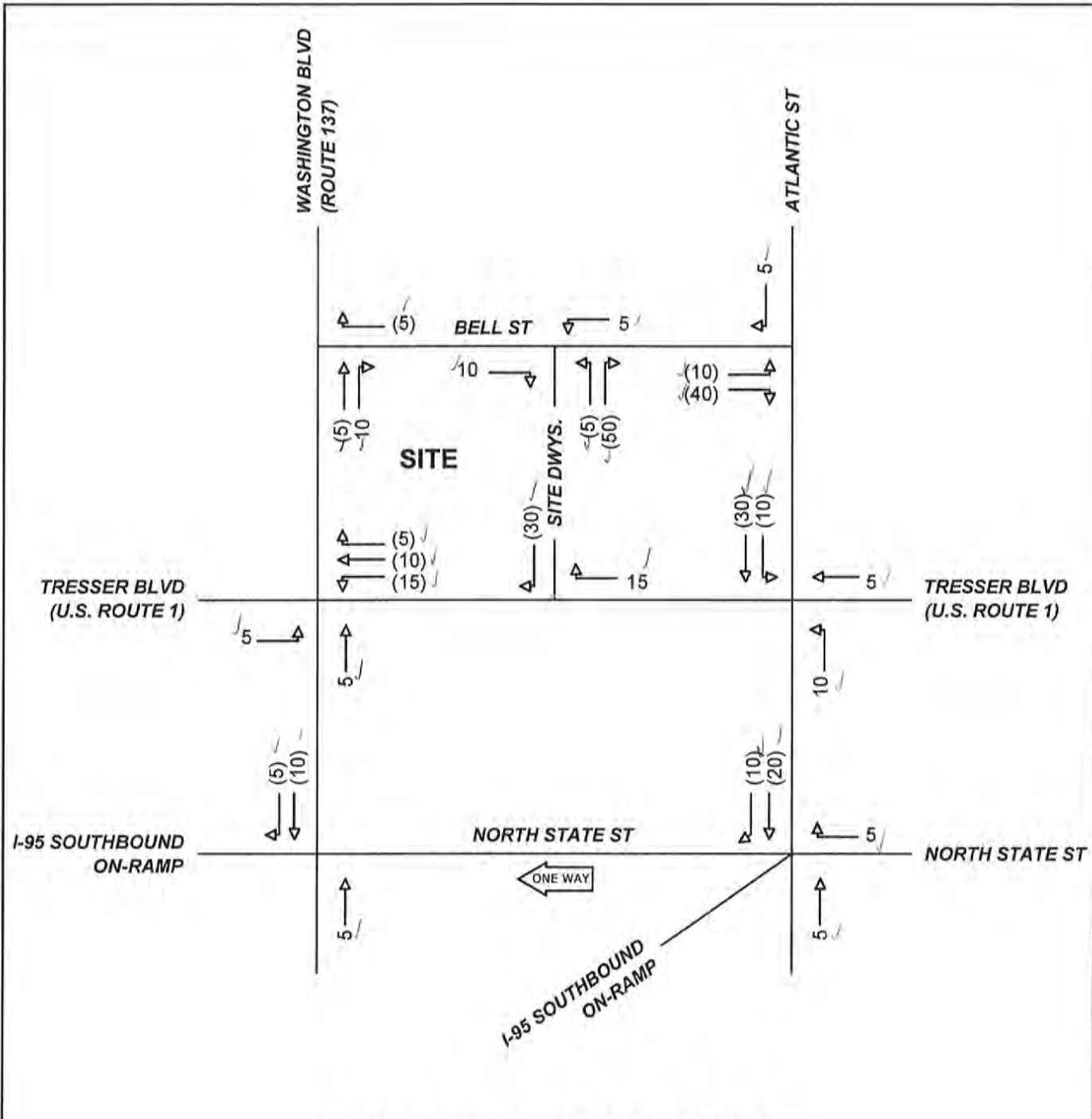
LEGEND:
9 IN (131 OUT)



STAMFORD
GATEWAY GARAGE
RELOCATED TRIPS PM

STAMFORD
PARKING GARAGE

FIGURE
12
DATE: 4/18

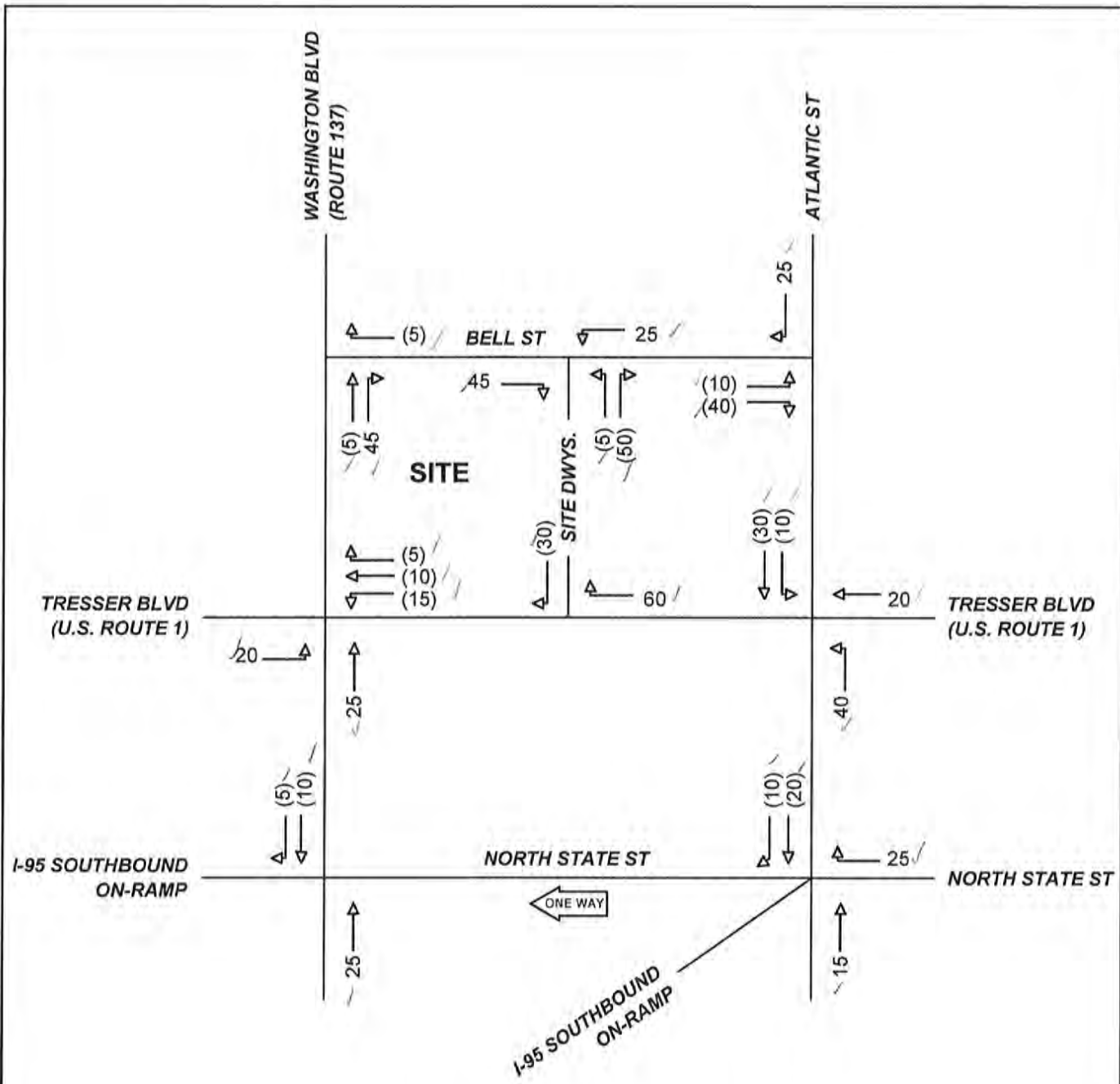


**ANTICIPATED SITE TRAFFIC VOLUMES
WEEKDAY MORNING PEAK HOUR**

Proposed Development at 885 Washington Blvd
Stamford, Connecticut

LEGEND
00 - ENTERING
(00) - EXITING





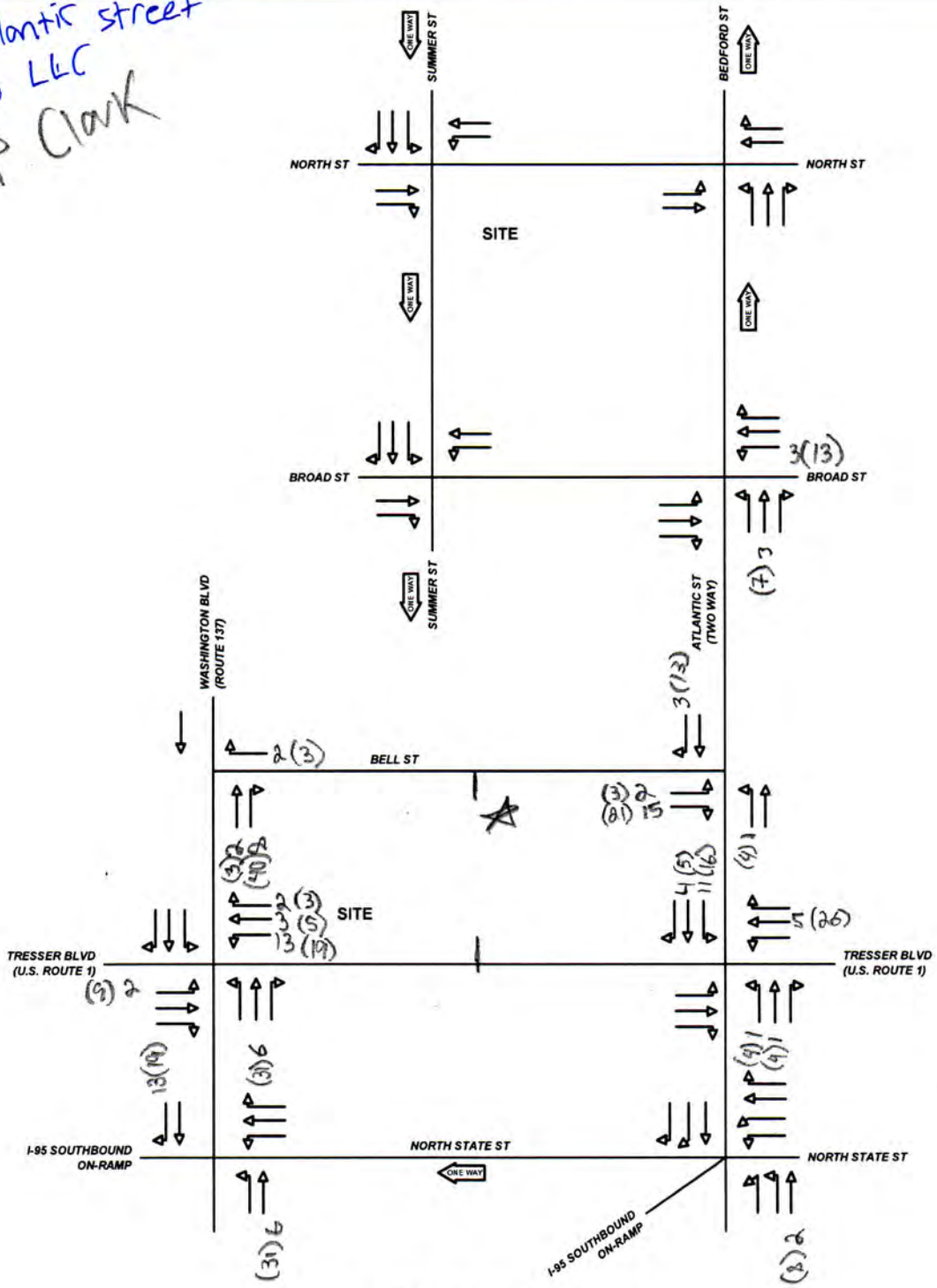
**ANTICIPATED SITE TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR**

Proposed Development at 885 Washington Blvd
Stamford, Connecticut

LEGEND
00 - ENTERING
(0) - EXITING



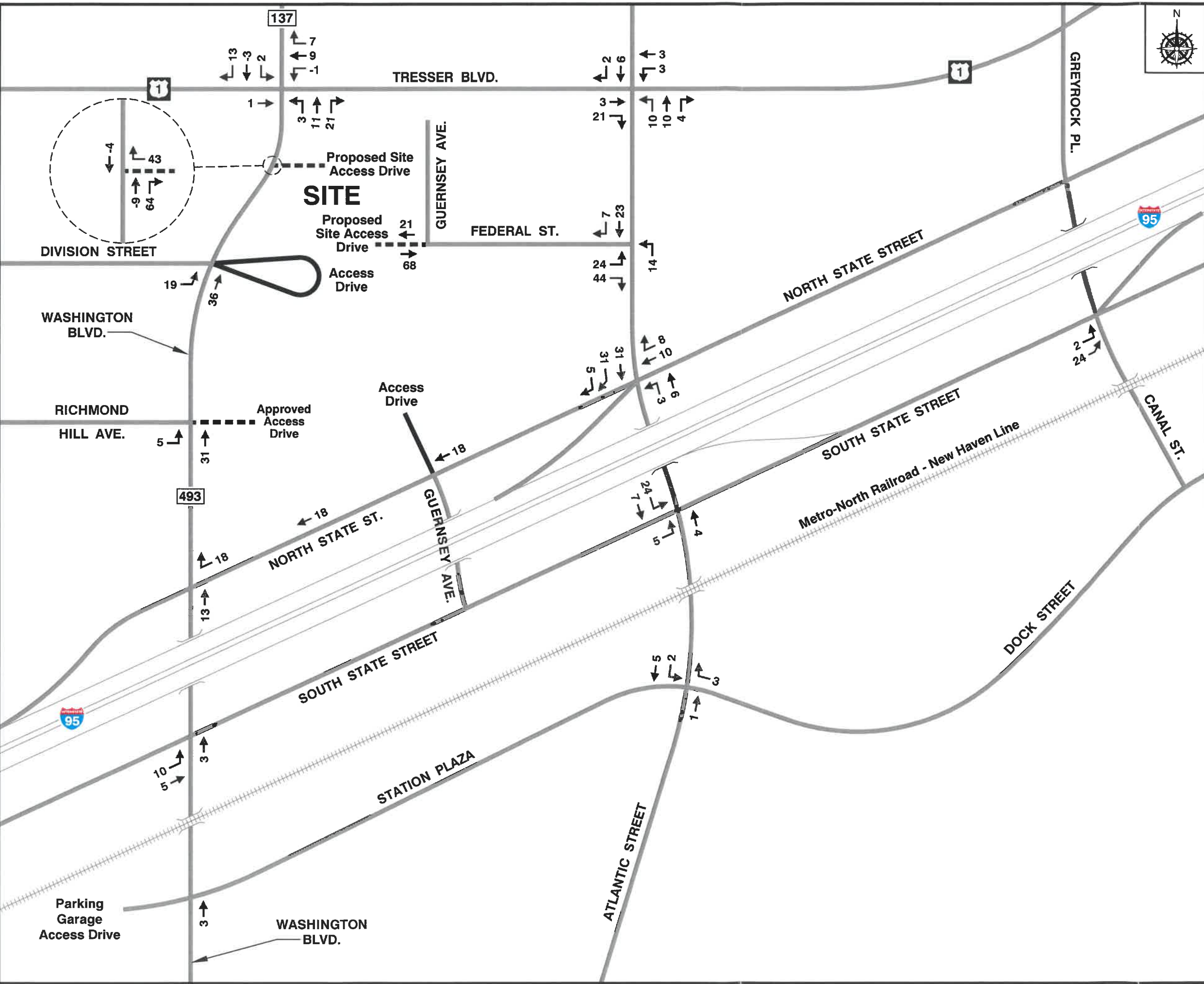
245 Atlantic street
 RoeCo LLC
 FP Clark



TRAFFIC VOLUMES
 AFTERNOON PEAK HOUR
 Stamford, Connecticut



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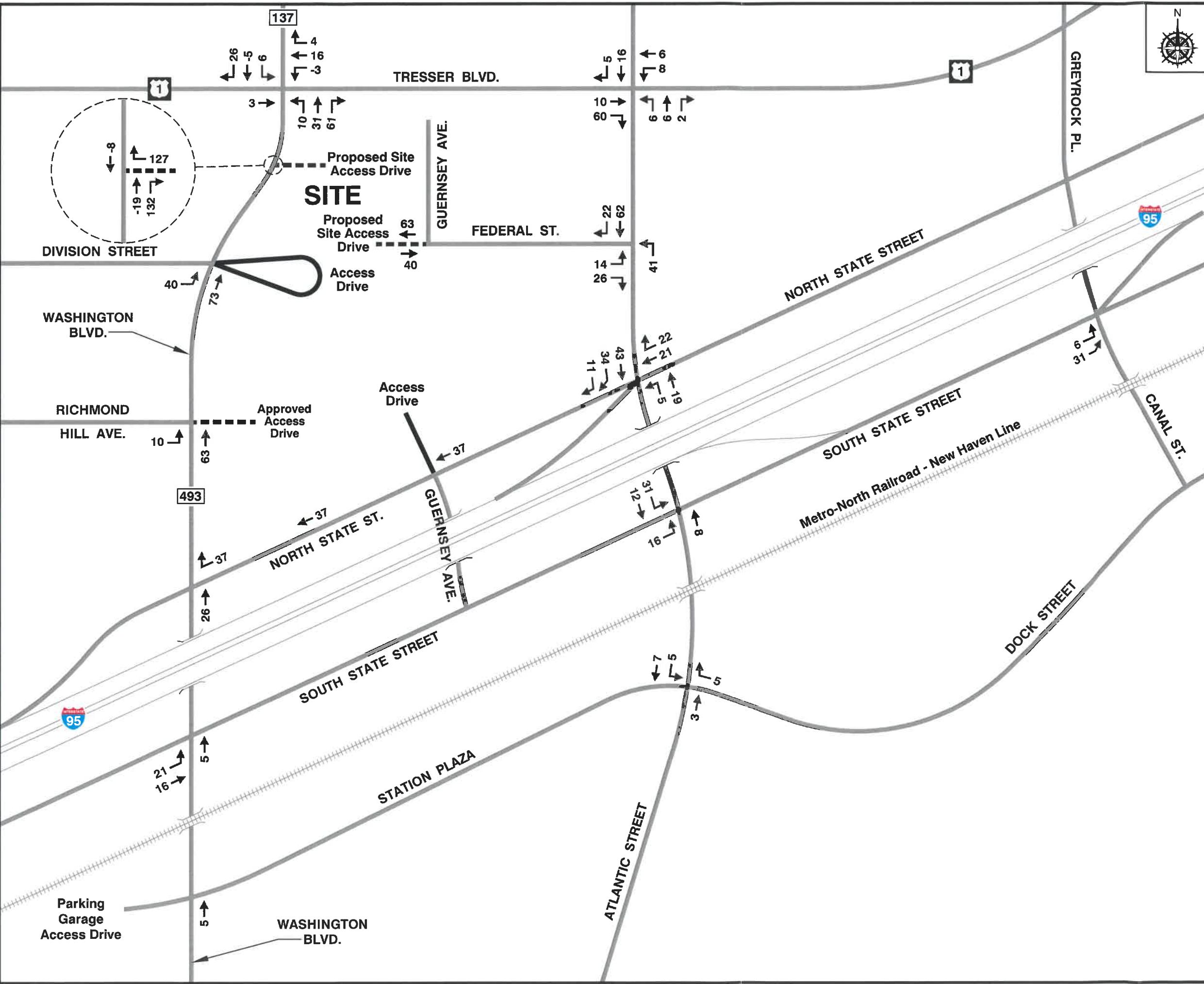


NOTE:
Total Site Traffic includes
Residential Site Traffic
and Retail Site Traffic.

TOTAL SITE TRAFFIC GENERATION & ASSIGNMENT WEEKDAY MORNING PEAK HOUR	
MIXED-USE DEVELOPMENT 677 WASHINGTON BOULEVARD Stamford, Connecticut	
FREDERICK P. CLARK / Hardesty ASSOCIATES & Hanover	
Not to Scale	27 8/31/20



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NOTE:
Total Site Traffic includes Residential Site Traffic and Retail Site Traffic.



TOTAL SITE TRAFFIC GENERATION & ASSIGNMENT WEEKDAY AFTERNOON PEAK HOUR

**MIXED-USE DEVELOPMENT
677 WASHINGTON BOULEVARD
Stamford, Connecticut**



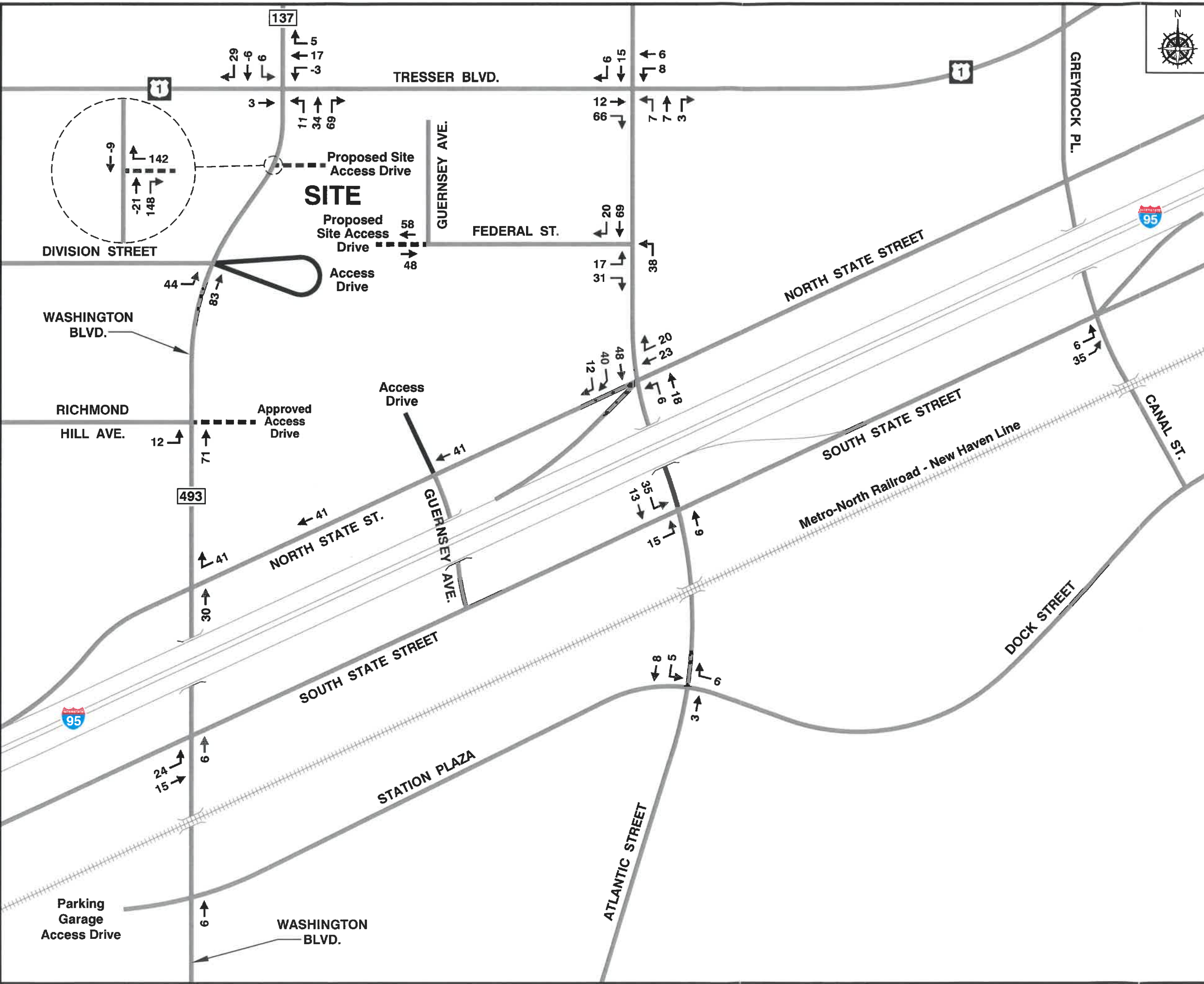
**FREDERICK P. CLARK / Hardesty
ASSOCIATES & Hanover**

28


Not to Scale

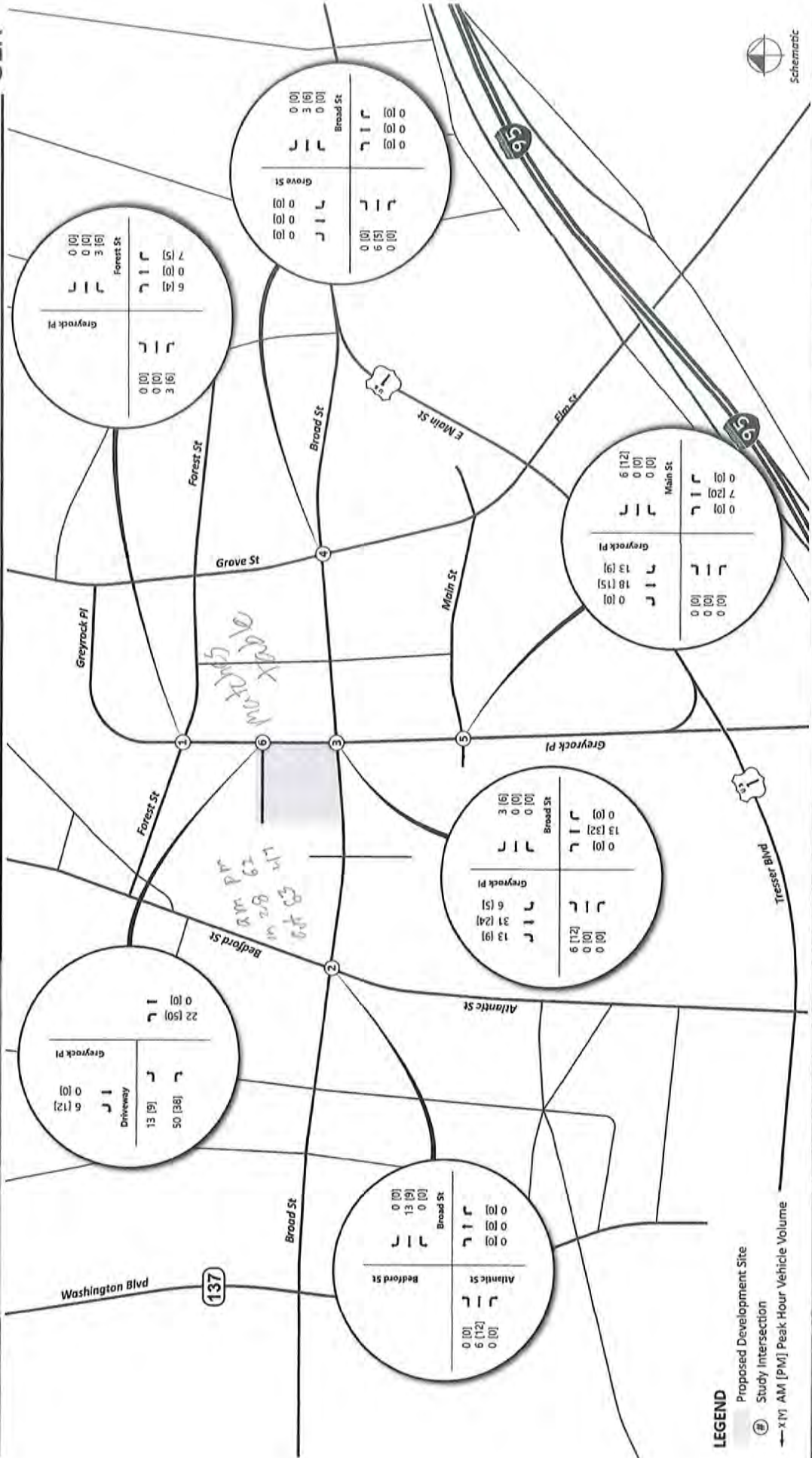
8/31/20

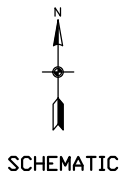
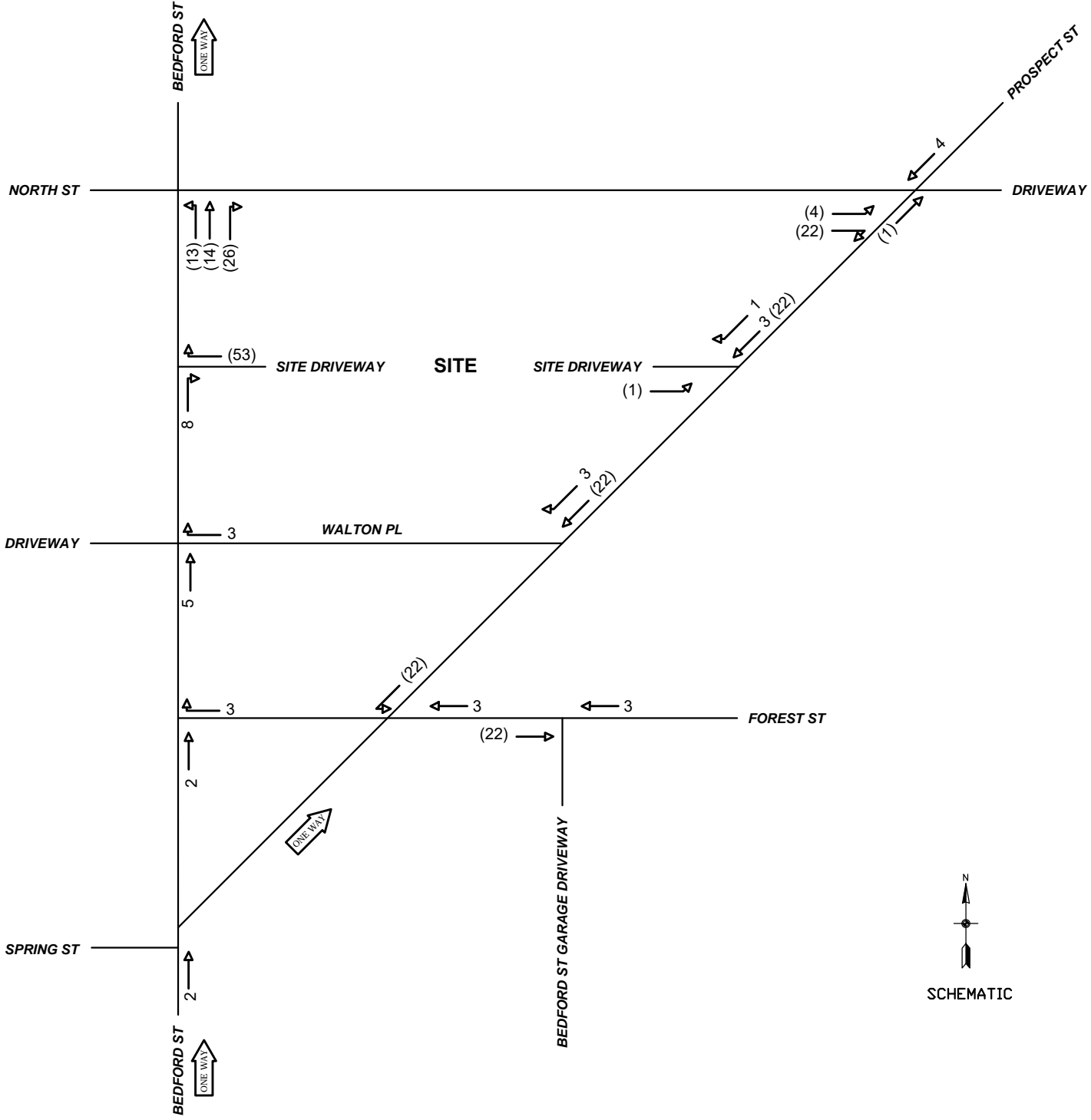
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NOTE:
Total Site Traffic includes Residential Site Traffic and Retail Site Traffic.

TOTAL SITE TRAFFIC GENERATION & ASSIGNMENT SATURDAY MIDDAY PEAK HOUR	
MIXED-USE DEVELOPMENT 677 WASHINGTON BOULEVARD Stamford, Connecticut	
FREDERICK P. CLARK / Hardesty ASSOCIATES & Hanover	
Not to Scale	29 8/31/20



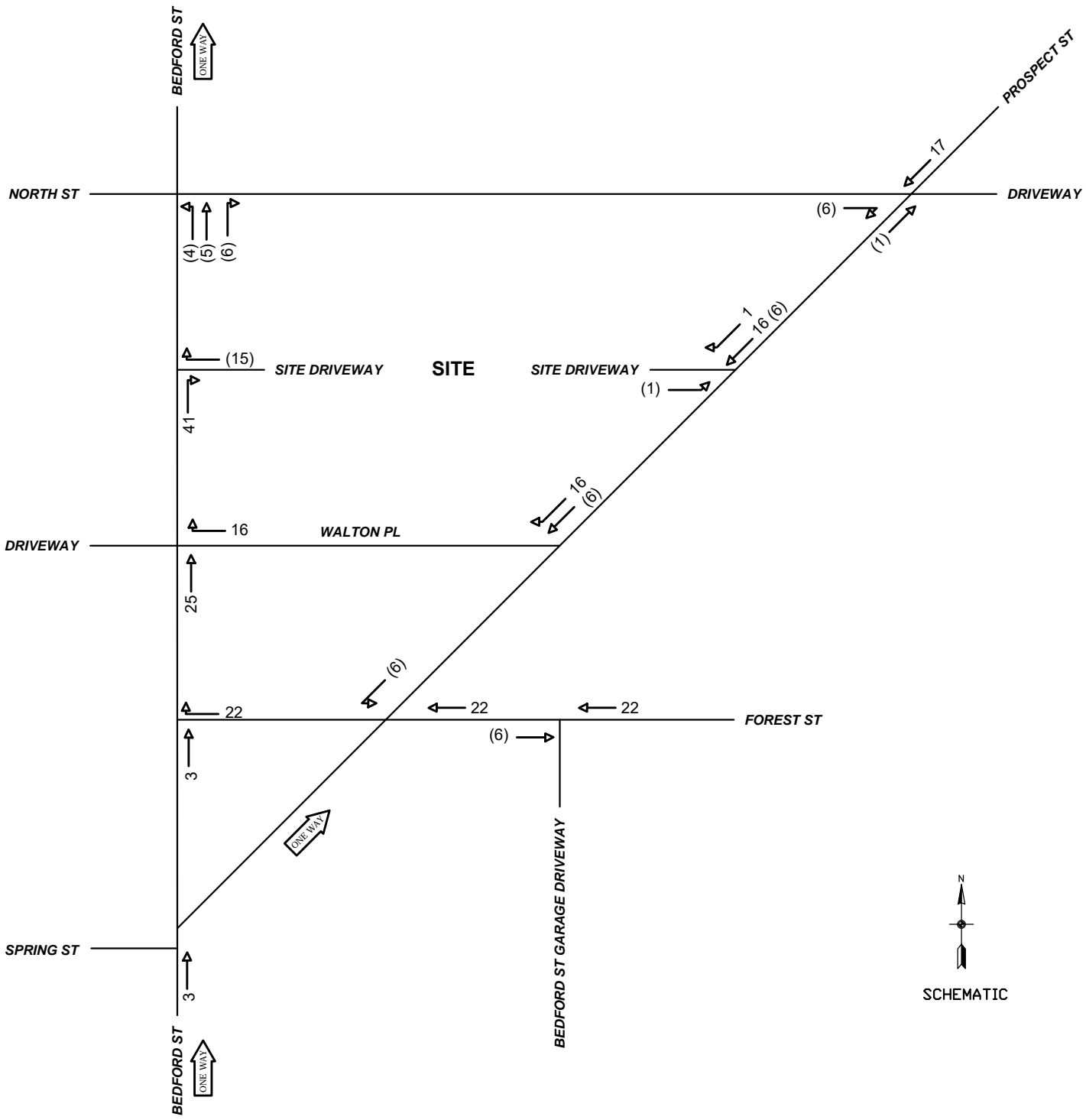


SLR
 195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 SLRCONSULTING.COM

**ANTICIPATED SITE TRAFFIC VOLUMES
 WEEKDAY MORNING PEAK HOUR**
**Walton Place Residential Development
 Stamford, Connecticut**

LEGEND
 00: ENTERING
 (00): EXITING

FIGURE 7



195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 SLRCONSULTING.COM

**ANTICIPATED SITE TRAFFIC VOLUMES
 WEEKDAY AFTERNOON PEAK HOUR**

**Walton Place Residential Development
 Stamford, Connecticut**

LEGEND
 00: ENTERING
 (00): EXITING

FIGURE 8

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS (MOTORIZED VEHICLE MODE)

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions: in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle, typically for a 15-min analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group. The criteria are given below.

LEVEL-OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS MOTORIZED VEHICLE MODE		
LOS By Volume-to-Capacity Ratio¹		CONTROL DELAY (s/veh)
v/c ≤ 1.0	v/c > 1.0	
A	F	≤ 10
B	F	> 10 AND ≤ 20
C	F	> 20 AND ≤ 35
D	F	> 35 AND ≤ 55
E	F	> 55 AND ≤ 80
F	F	> 80

¹ For approach-based and intersection-wide assessments, LOS is defined solely by control delay.

Specific descriptions of each LOS for signalized intersections are provided below:

Level of Service A describes operations with a control delay of 10 s/veh and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If LOS A is the result of favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

Level of Service B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

Level of Service C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

Level of Service D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

Level of Service E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

Level of Service F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Reference: Highway Capacity Manual 6, Transportation Research Board, 2016.

LEVEL OF SERVICE FOR TWO-WAY STOP SIGN CONTROLLED INTERSECTIONS

The level of service for a TWSC (two-way stop controlled) intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service is not defined for the intersection as a whole. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. LOS criteria are given in the Table. LOS criteria are given below:

LEVEL-OF SERVICE CRITERIA FOR AWSC INTERSECTIONS	
LOS¹	CONTROL DELAY (s/veh)
A	≤ 10
B	$> 10 \text{ AND } \leq 15$
C	$> 15 \text{ AND } \leq 25$
D	$> 25 \text{ AND } \leq 35$
E	$> 35 \text{ AND } \leq 50$
F	> 50

Note: LOS criteria apply to each lane on a given approach and to each approach on the minor street.
 LOS is not calculated for major-street approaches or for the intersection as a whole.
 LOS F is assigned to a movement if the volume-to-capacity ratio exceeds 1.0, regardless of the control delay

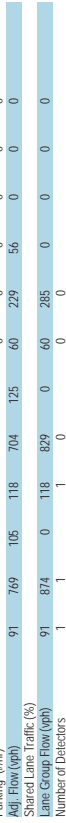
Reference: Highway Capacity Manual Version 6.0, Transportation Research Board, 2016.

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Approach Delay	14.1			13.7									40.3	
Approach LOS	B			B									D	
Queue Length (ft)	23	203		30	186								39	98
Queue Length (ft)	41	277		51	256								47	83
Internal Link Dist (ft)	150	348		250	313								230	
Turn Bay Length (ft)													25	
Base Capacity (vph)	482	1973		436	1994								362	734
Station Cap Reductn	0	0		0	0								0	0
Spillback Cap Reductn	0	0		0	0								0	0
Storage Cap Reductn	0	0		0	0								0	0
Reduced v/c Ratio	0.20	0.44		0.27	0.42								0.17	0.39
Intersection Summary														
Area Type:	Other													
Cycle Length:	120													
Offset:	30 (25%), Referenced to phase 2:WBL and 6:EBTL, Start of Yellow													
Natural Cycle:	85													
Control Type:	Actuated-Coordinated													
Maximum v/c Ratio:	0.51													
Intersection Signal Delay:	17.9													
Intersection Capacity Utilization:	64.1%													
Analysis Period (min):	15													

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Lane Configurations														
Trucks/Vol (vph)	87	724	101	113	674	120	58	22	54	0	0	0	0	0
Trucks/Vol (vph)	87	728	101	113	676	120	58	22	54	0	0	0	0	0
Heavy Vehicles (%)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250	0	25		0	0				0	
Storage Lanes	1		0	1		0		0	0				0	
Top of Link (ft)	65		65	65		85		85	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99	0.99	0.99	0.99	0.94	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Flt Protected	0.950		0.950		0.977		0.950		0.971				0.950	
Satd. Flow (prot)	1646	3200	0	1662	3227	0	1428	2890	0	0	0	0	0	0
Flt Permitted	0.298		0.291		0.291		0.291		0.291				0.291	
Right Turn on Red	513	3200	0	485	3227	0	1349	2890	0	0	0	0	0	0
Satd. Flow (RTOR)			No		No		No	No	No				No	No
Link Speed (mph)	25		25		25		25		25				25	
Link Distance (ft)	428		393		377		310		310				310	
Travel Time (s)	11.7		10.7		10.7		10.3		10.3				8.5	
Cont. Peds. (#/hr)	22		29		29		22		46				44	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	10%	10%	10%	2%	2%	2%	2%	2%
Parking (#/hr)														
Adj. Flow (vph)	91	769	105	118	704	125	60	229	56	0	0	0	0	0
Shared Lane Traffic (%)														
Lane Group Flow (vph)	91	874	0	118	829	0	60	285	0	0	0	0	0	0
Number of Detectors	1	1	0	1	0	0	0	0	0	0	0	0	0	0
Detector Template														
Leading Detector (ft)	30	356	24	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	0	350	-6	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	350	-6	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	30	6	30	6	30	6	20	6	20	6	20	6	20	6
Detector 1 Type	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+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	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	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	0.0	0.0	0.0	0.0	0.0
Turn Type	pm-pl	NA	pm-pl	NA	Split	NA	Split	NA	Split	NA	NA	NA	9	10
Protected Phases	6	2	2	4	4	4	4	4	4	4	4	4	9	10
Permitted Phases	6	2	2	4	4	4	4	4	4	4	4	4	9	10
Detector Phase														
Switch Phase														
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	2.0	2.0	2.0	2.0	2.0
Minimum Split (s)	9.0	31.7	9.0	31.7	35.5	35.5	35.5	35.5	35.5	4.0	4.0	4.0	4.0	4.0
Total Split (s)	13.0	63.0	13.0	63.0	36.0	36.0	36.0	36.0	36.0	3.0	3.0	3.0	3.0	3.0
Total Split (%)	10.8%	52.3%	10.8%	52.3%	30.0%	30.0%	30.0%	30.0%	30.0%	3%	3%	3%	3%	3%
Maximum Green (s)	9.0	57.3	9.0	57.3	30.5	30.5	30.5	30.5	30.5	2.0	2.0	2.0	2.0	2.0
Yellow Time (s)	3.0	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	2.0	2.0	2.0	2.0	2.0
All-Red Time (s)	1.0	2.4	1.0	2.4	2.2	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	4.0	5.7	4.0	5.7	5.5	5.5	5.5					
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Vehicle Extension(s)	None	C-Min	None	C-Min	None	None	None	None	None	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	C-Min	None	C-Min	None	None	None	None	None	None	None	None	None	None
Peak Time (s)	10.0		10.0		10.0		10.0		10.0				10.0	
First Don't Walk (s)	10.0		10.0		10.0		10.0		10.0				10.0	
Phase Change (s)	30		30		30		30		30				30	
Phase Change (vph)	83.2	74.0	83.2	74.0	74.0	74.0	74.0	74.0	74.0	23.1	23.1	23.1	23.1	23.1
Act Effct Green (s)	6.69	61.62	6.30	61.62	61.69	61.69	61.69	61.69	61.69	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.21	0.44	0.29	0.42	0.29	0.42	0.29	0.42	0.29	0.22	0.22	0.22	0.22	0.22
Control Delay	8.7	14.7	10.0	14.2	14.7	14.7	14.7	14.7	14.7	35.5	41.4	41.4	41.4	41.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	14.7	10.0	14.2	14.7	14.7	14.7	14.7	14.7	35.5	41.4	41.4	41.4	41.4
LOS	A	B	B	B	B	B	B	B	B	D	D	D	D	D

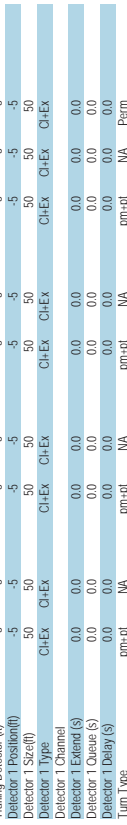


3. Landmark Square
3. Atlantic St & Tresser Blvd (US Route 1)

3. Landmark Square
3. Atlantic St & Tresser Blvd (US Route 1)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø10
Approach LOS	D	D	D	D	D	D	D	D	D	D	D	D	C
Queue Length (ft)	65	158	110	252	55	86	48	90	0	0	0	0	0
Queue Length (ft)	95	203	149	289	109	136	110	137	2	2	2	2	0
Internal Link Dist (ft)	175	256	180	423	300	371	100	147	75	75	75	75	0
Turn Bay Length (ft)	333	1035	404	1188	668	1566	600	1463	673	673	673	673	0
Storage Capacity (vph)	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.63	0.50	0.80	0.23	0.23	0.21	0.22	0.04	0.04	0.04	0.04	0.04

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø10
Lane Configurations	T	T	T	T	T	T	T	T	T	T	T	T	T
Trucks/Vol (vph)	113	46	105	184	75	108	134	32	114	268	25	25	25
Trucks/Vol (vph)	113	46	105	184	75	108	134	32	114	268	25	25	25
Heavy Vehicles (%)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175	0	180	0	300	0	100	0	100	75	75	75	0
Storage Lanes	1	0	1	0	1	0	1	0	1	1	1	1	1
Travel Length (ft)	65	158	110	252	55	86	48	90	0	0	0	0	0
Lane Util. Factor	1.00	0.99	0.99	1.00	0.91	0.91	0.95	1.00	0.95	1.00	0.95	1.00	0.92
Ped Bike Factor	1.00	0.99	0.99	1.00	0.91	0.91	0.95	1.00	0.95	1.00	0.95	1.00	0.92
Flt Protected	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Satd. Flow (prot)	1572	4359	0	1662	4674	0	1711	3354	0	1572	3144	1406	1406
Satd. Flow (beam)	0.171	0.264	0.264	0.549	0.519	0.519	0.519	0.519	0.519	0.519	0.519	0.519	0.519
Right Turn on Red	283	4359	0	456	4674	0	948	3354	0	842	3144	1297	1297
Satd. Flow (TOR)	38	30	30	30	30	30	30	30	30	30	30	30	30
Link Speed (mph)	336	503	503	503	451	451	451	451	451	451	451	451	451
Travel Time (s)	7.6	11.4	11.4	11.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
Cont. Peds. (f/hr)	5	26	26	26	5	58	30	30	30	30	30	58	58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	11%	11%	5%	5%	2%	2%	11%	11%	11%	11%	11%	11%
Adj. Flow (vph)	126	534	117	204	834	120	324	36	127	320	28	28	28
Shared Lane Traffic (%)	126	651	0	204	954	0	151	360	0	127	320	28	28
Lane Group Flow (vph)	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of Detectors	45	45	45	45	45	45	45	45	45	45	45	45	45
Leading Detector (ft)	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5
Trailing Detector (ft)	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5
Detector 1 Size(ft)	50	50	50	50	50	50	50	50	50	50	50	50	50
Detector 1 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 1 Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	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	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	0.0	0.0	0.0	0.0
Turn Type	pm-pl	NA	pm-pl	NA	pm-pl	NA	pm-pl	NA	pm-pl	NA	pm-pl	NA	pm-pl
Protected Phases	7	4	3	8	1	6	5	2	9	10	2	2	2
Permitted Phases	4	8	8	8	6	6	6	6	6	6	6	6	6
Detector Phase	7	4	3	8	1	6	5	2	9	10	2	2	2
Switch Phase	50	100	50	100	50	150	50	150	50	150	50	150	10
Minimum Initial (s)	90	32.3	90	32.3	90	36.7	90	36.7	90	36.7	36.7	30	30
Minimum Split (s)	250	330	250	330	190	370	190	370	190	370	370	30	30
Total Split (%)	20.8%	27.5%	20.8%	27.5%	15.8%	30.8%	15.8%	30.8%	15.8%	30.8%	30.8%	3%	3%
Maximum Green (s)	210	277	210	277	150	313	150	313	150	313	313	10	10
Yellow Time (s)	3.0	3.7	3.0	3.7	3.0	3.3	3.0	3.3	3.0	3.3	3.3	2.0	2.0
All-Red Time (s)	1.0	1.6	1.0	1.6	1.0	2.4	1.0	2.4	1.0	2.4	2.4	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.3	4.0	5.3	4.0	5.7	4.0	5.7	4.0	5.7	5.7	0.0	0.0
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
Resort Mode	None	None	None	None	None	None	None	None	None	None	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Bike/Dont Walk (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Pedestrian Cuts (f/hr)	35	30	35	30	35	30	35	30	35	30	30	30	30
Act Ldg G/C Ratio	0.29	0.20	0.27	0.24	0.52	0.46	0.52	0.46	0.52	0.46	0.46	0.46	0.46
Vehicle G/C Ratio	0.64	0.74	0.61	0.63	0.38	0.38	0.37	0.39	0.37	0.39	0.39	0.04	0.04
Vehicle Delay	54.6	47.8	45.3	48.7	17.9	20.6	20.4	22.9	17.9	20.6	20.6	0.6	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	47.8	45.3	48.7	17.9	20.6	20.4	22.9	17.9	20.6	20.6	0.6	0.6
LOS	D	D	D	D	B	B	C	C	C	C	C	A	A
Approach Delay	48.9	48.1	48.1	48.1	19.8	19.8	21.0	21.0	19.8	21.0	21.0	21.0	21.0



3 Landmark Square
1: Atlantic St/Bedford St & Broad St

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

Line Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Approach Delay	21.5	C		24.2			39.1							
Approach LOS														
Queue Length (ft)	41	314	43	237	48	182	D							
Queue Length (ft)	72	432	77	334	50	106								
Internal Link Dist (ft)	150	348		250	313	230								
Turn Bay Length (ft)	150	348		250	313	230								
Base Capacity (vph)	522	1749	387	1499	462	885								
Station Cap Reductn	0	0	0	0	0	0								
Spillback Cap Reductn	0	0	0	0	0	0								
Storage Cap Reductn	0	0	0	0	0	0								
Reduced v/c Ratio	0.30	0.62	0.43	0.55	0.21	0.58								
Intersection Summary														
Area Type:	Other													
Actuated Cycle Length:	120													
Offset:	24 (20%), Referenced to phase 2:WBL and 6:EBTL, Start of Yellow													
Natural Cycle:	85													
Control Type:	Actuated-Coordinated													
Maximum v/c Ratio:	0.80													
Intersection Signal Delay:	26.2													
Intersection LOS:	C													
Intersection Capacity Utilization:	76.7%													
Analysis Period (min):	15													

Line Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Lane Configurations														
Trucks/Vol (vph)	152	91	135	16	54	221	93	342	155	0	0	0	0	0
Trucks/Vol (vph)	152	91	135	16	54	221	93	342	155	0	0	0	0	0
Heavy Flow (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250	0	25	0	0	0	0	0	0	0	0	0
Storage Lanes	1	0	1	0	1	0	0	0	0	0	0	0	0	0
Top of Link (ft)	65	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.94	0.97	0.92	0.92	0.85	0.95	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped. Bike Factor	0.981		0.988		0.950		0.950		0.950		0.950		0.950	
Flt Protected	1711	3249	0	1711	3013	0	1481	2834	0	0	0	0	0	0
Flt Permitted	0.272		0.173		0.950		0.950		0.950		0.950		0.950	
Right Turn on Red	461	3249	0	312	3013	0	1259	2834	0	0	0	0	0	0
Satd. Flow (RTOR)	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Satd. Flow (RTOR)	25		25		25		25		25		25		25	
Link Speed (mph)	428		393		377		310		310		310		310	
Travel Time (s)	11.7		10.7		10.3		8.5		8.5		8.5		8.5	
Cont. Peds. (#/hr)	203		100		203		124		124		124		125	
Peak Hour Factor	0.96		0.96		0.96		0.96		0.96		0.96		0.96	
Heavy Vehicles (%)	2%		2%		2%		6%		6%		2%		2%	
Parking (#/hr)	0		0		0		0		0		0		0	
Adj. Flow (vph)	158	949	141	168	589	230	97	356	161	0	0	0	0	0
Shared Lane Traffic (%)														
Lane Group Flow (vph)	158	1090	0	168	819	0	97	517	0	0	0	0	0	0
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	30	356	24	0	0	0	0	0	0	0	0	0	0	0
Leading Detector (ft)	0	350	-6	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	0	350	-6	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)														
Detector 1 Size(ft)	30	6	30	6	20	6	20	6	20	6	20	6	20	6
Detector 1 Type	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+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	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	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	0.0	0.0	0.0	0.0	0.0
Turn Type	pm-pl	NA	pm-pl	NA	Split	NA	Split	NA	Split	NA	Split	NA	Split	NA
Protected Phases	1	6	5	2	4	4	4	4	4	4	4	4	9	10
Permitted Phases	6	2	2	2	2	2	2	2	2	2	2	2	2	2
Detector Phase	1	6	5	2	2	2	2	2	2	2	2	2	2	2
Switch Phase														
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	2.0	2.0
Minimum Split (s)	9.0	31.7	9.0	31.7	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	4.0	4.0
Total Split (s)	20.0	49.0	20.0	49.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	4.0	4.0
Total Split (%)	16.7%	40.8%	16.7%	40.8%	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%	35.8%	3%	3%
Maximum Green (s)	16.0	43.3	16.0	43.3	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	2.0	2.0
Yellow Time (s)	3.0	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.0	2.0
All-Red Time (s)	1.0	2.4	1.0	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	4.0	5.7	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	0.0	0.0
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	2.0	2.0
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	None	None
Vehicle Extension(s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	None	None
Recall Mode	None	C-Min	None	C-Min	None	None	None	None	None	None	None	None	None	None
Peak Time (s)	10.0		10.0		10.0		10.0		10.0		10.0		10.0	
Peak Don't Walk (s)	10.0		10.0		10.0		10.0		10.0		10.0		10.0	
Peak Don't Walk (%)	30		30		30		30		30		30		30	
Effective Green (s)	82.7	64.4	74.3	69.7	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
Act Effct Grn (s)	69.69	69.69	69.69	69.69	69.69	69.69	69.69	69.69	69.69	69.69	69.69	69.69	69.69	69.69
v/c Ratio	0.31	0.62	0.49	0.55	0.39	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Control Delay	12.8	22.7	23.0	24.4	27.1	41.3								
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	22.7	23.0	24.4	27.1	41.3								
LOS	B	C	C	C	C	C	C	C	C	C	C	C	D	D



3 Landmark Square
2. Atlantic St & Main St/Stamford Town Center Dr

3 Landmark Square
2. Atlantic St & Main St/Stamford Town Center Dr

2025 Background Conditions
PM Peak

2025 Background Conditions
PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR
Lane Configurations	3	3	3	2	2	2	2	2	2	2	2	2
Trucks/Vol (veh)	15	15	15	14	13	13	14	13	13	13	13	16
Trucks/Vol (veh)	57	7	33	20	8	15	95	405	14	13	201	68
Heavy Flow (veh)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50	0	0	0	0	0	0	0	0	0	0	130
Target Length (ft)	135	100	100	100	100	100	100	100	100	100	100	100
Lane Util. Factor	0.84	0.92	0.95	0.82	0.93	0.93	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor	0.950	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966
Flt Protected	1646	1390	0	1774	1561	0	3257	0	0	1744	1487	1487
Flt Permitted	0.738	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.807
Right Turn on Red	1074	1390	0	1402	1287	0	2540	0	0	1682	393	393
Satd. Flow (RTOR)	35	30	30	76	4	4	1	0	0	1	0	85
Link Speed (mph)	388	420	662	662	662	662	662	662	662	662	662	662
Travel Time (s)	8.8	9.5	102	165	81	81	81	81	81	81	81	165
Confl. Pts. (f/hr)	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Peak Hour Factor	6%	6%	6%	0%	0%	5%	5%	5%	5%	5%	5%	5%
Heavy Vehicles (%)	61	7	35	21	9	16	101	431	15	14	214	72
Adj. Flow (vph)	61	42	0	30	16	0	547	0	0	228	72	72
Shared Lane Traffic (%)	4	4	4	4	4	4	4	4	4	4	4	4
Lane Group Flow (vph)	32	-10	-10	-10	-10	-10	0	0	0	0	0	0
Number of Detectors	6	6	6	6	6	6	6	6	6	6	6	6
Detector 1 Channel	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 1 Extend (s)	0.0	0.0	0.0	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	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	0.0	0.0	0.0
Detector 2 Position(ft)	2	2	2	2	2	2	2	2	2	2	2	2
Detector 2 Size(ft)	6	6	6	6	6	6	6	6	6	6	6	6
Detector 3 Channel	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 3 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 3 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 3 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 4 Position(ft)	6	6	6	6	6	6	6	6	6	6	6	6
Detector 4 Size(ft)	6	6	6	6	6	6	6	6	6	6	6	6
Detector 5 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 5 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 5 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 5 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Protected Phases	4	4	4	4	4	4	2	2	2	1	1	1
Permitted Phases	4	4	4	4	4	4	2	2	2	1	1	1
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	4.0	4.0	4.0	4.0
Minimum Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	63.0	63.0	8.3%	8.3%	8.3%	8.3%
Green Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	68.2%	68.2%	8.3%	8.3%	8.3%	8.3%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.0	3.0	3.0	3.0
All Red Time (s)	1.6	1.6	1.6	1.6	1.6	1.6	4.1	4.1	1.0	1.0	1.0	1.0
Lost Time Adj (s)	4.9	4.9	4.9	4.9	4.9	4.9	7.4	7.4	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	7.4	7.4	0.0	0.0	0.0	0.0

Lanes, Volumes, Timings
SLR

Lanes, Volumes, Timings
SLR

Syncho 10 Report
Page 3

Syncho 10 Report
Page 4

3. Landmark Square
3. Atlantic St & Tresser Blvd (US Route 1)

3. Landmark Square
3. Atlantic St & Tresser Blvd (US Route 1)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø10
Approach LOS	D	D	D	D	D	D	D	D	D	D	D	D	C
Queue Length (ft)	64	293	86	176	65	107	97	125	1	1	1	1	1
Queue Length (ft)	93	339	119	221	122	179	164	194	6	6	6	6	6
Turn Bay Length (ft)	175	256	180	423	300	371	100	147	75	75	75	75	75
Base Capacity (vph)	425	1394	292	1348	528	1296	502	1273	562	562	562	562	562
Storage Capacity (veh)	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.81	0.62	0.53	0.29	0.32	0.35	0.30	0.09	0.09	0.09	0.09	0.09

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø10
Lane Configurations	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø10
Trucks/Vol (vph)	123	915	157	173	563	117	145	317	77	166	363	46	46
Trucks/Vol (vph)	123	915	157	173	563	117	145	317	77	166	363	46	46
Heavy Vehicle %	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175	0	180	0	300	0	300	0	100	100	75	75	75
Storage Length (ft)	175	0	180	0	300	0	300	0	100	100	75	75	75
Travel Time (s)	65	100	85	140	35	140	140	140	140	140	140	140	140
Link Util. Factor	1.00	0.91	0.91	0.91	0.91	0.91	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.92	0.99	0.97	0.97	0.85	0.85	0.85
Flt Protected	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Satd. Flow (prot)	1662	4633	0	1694	4707	0	1728	3312	0	1646	3292	1473	1473
Flt Permitted	0.227	0.169	0.169	0.169	0.169	0.169	0.485	0.485	0.460	0.460	0.460	0.460	0.460
Right Turn on Red	393	4633	0	300	4707	0	814	3312	0	775	3292	1247	1247
Satd. Flow (TOR)	28	30	37	30	30	30	24	24	Yes	30	30	30	30
Link Speed (mph)	30	30	30	30	30	30	30	30	30	30	30	30	30
Link Distance (ft)	336	503	503	503	451	451	10.3	10.3	5.2	5.2	5.2	5.2	5.2
Cont. Peds. (f/hr)	23	33	33	23	124	47	47	47	47	47	47	124	124
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	5%	3%	3%	3%	1%	1%	1%	6%	6%	6%	6%	6%
Adj. Flow (vph)	140	963	165	182	593	123	153	334	81	175	382	48	48
Shared Lane Traffic (%)	140	1128	0	182	716	0	153	415	0	175	382	48	48
Lane Group Flow (vph)	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of Detectors	45	45	45	45	45	45	45	45	45	45	45	45	45
Leading Detector (ft)	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5
Trailing Detector (ft)	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5
Detector 1 Size(ft)	50	50	50	50	50	50	50	50	50	50	50	50	50
Detector 1 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 1 Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	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	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	0.0	0.0	0.0	0.0
Turn Type	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	NA
Protected Phases	7	4	3	8	8	1	6	5	2	9	10	2	2
Permitted Phases	4	8	8	6	6	6	6	6	6	6	6	6	6
Switch Phase	7	4	3	8	8	1	6	5	2	2	2	2	2
Minimum Initial (s)	50	100	50	50	50	50	150	150	150	150	150	150	150
Minimum Split (s)	90	323	90	323	90	367	90	367	367	367	367	367	367
Total Split (s)	200	390	200	390	180	370	180	370	370	370	370	370	370
Total Split (%)	16.7%	32.5%	16.7%	32.5%	15.0%	30.8%	15.0%	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%
Maximum Green (s)	160	337	160	337	140	313	140	313	313	313	313	313	313
Yellow Time (s)	30	37	30	37	30	33	30	33	33	33	33	33	33
All-Red Time (s)	10	16	10	16	10	24	10	24	10	24	24	24	24
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.3	4.0	5.3	4.0	5.7	4.0	5.7	4.0	5.7	5.7	5.7	5.7
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Bike-Dont Walk (s)	20.0	20.0	20.0	20.0	20.0	20.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Pre-Saturn Cuts (ft/m)	30	30	30	30	30	30	30	30	30	30	30	30	30
Act. Left Grn (s)	52.9	34.0	38.6	23.7	55.1	46.0	55.1	46.0	55.1	46.0	55.1	46.0	55.1
Act. Left Grn Ratio	0.44	0.28	0.32	0.20	0.46	0.30	0.46	0.30	0.46	0.30	0.46	0.30	0.46
Act. Right Grn (s)	0.33	0.85	0.37	0.36	0.36	0.36	0.43	0.30	0.30	0.30	0.30	0.30	0.30
Act. Right Grn Ratio	30.0	45.9	55.6	47.8	24.6	26.9	32.0	33.0	33.0	33.0	33.0	33.0	33.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.0	45.9	55.6	47.8	24.6	26.9	32.0	33.0	33.0	33.0	33.0	33.0	33.0
LOS	C	D	E	D	C	C	C	C	C	C	C	C	A
Approach Delay	44.1	44.1	49.3	49.3	26.3	26.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3

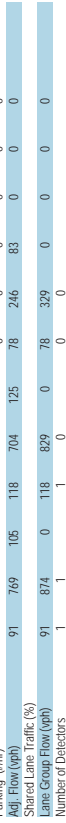


3 Landmark Square
1: Atlantic St/Bedford St & Broad St

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Approach Delay	14.3			13.9									42.6	
Approach LOS	B			B									D	
Queue Length (ft)	23	203		30	186								49	111
Queue Length (ft)	41	277		51	256								62	103
Internal Link Dist (ft)		348		250	313								230	
Turn Bay Length (ft)	150			250									25	
Base Capacity (vph)	447	1955		431	1978								362	725
Stallion Cap Reductn	0	0		0	0								0	0
Spillback Cap Reductn	0	0		0	0								0	0
Storage Cap Reductn	0	0		0	0								0	0
Reduced v/c Ratio	0.20	0.45		0.27	0.42								0.22	0.45
Intersection Summary														
Area Type:	Other													
Cycle Length:	120													
Offset:	30 (25%), Referenced to phase 2:WBL and 6:EBTL, Start of Yellow													
Natural Cycle:	85													
Control Type:	Actuated-Coordinated													
Maximum v/c Ratio:	0.58													
Intersection Signal Delay:	19.1													
Intersection Capacity Utilization:	64.4%													
Analysis Period (min):	15													

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔		
Trucks/Vol (vph)	87	724	101	113	674	120	75	224	80	0	0	0	0	0
Trucks/Vol (vph)	87	728	101	113	676	120	75	226	80	0	0	0	0	0
Heavy Flow (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	25		0	0	0	0	0	0
Storage Lanes	1		0	1		0	1		0	0	0	0	0	0
Top of Link (ft)	65		65	65		85	85		25		25		0	0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99	0.99	0.99	0.99	0.94	0.98	0.98	0.94	0.98	0.98	0.98	0.98	0.98
Flt Protected	0.950		0.950		0.950		0.950		0.950		0.950		0.950	
Satd. Flow (prot)	1646	3200	0	1662	3227	0	1428	2853	0	0	0	0	0	0
Flt Permitted	0.297		0.279		0.297		0.297		0.297		0.297		0.297	
Right Turn on Red	511	3200	0	481	3227	0	1349	2853	0	0	0	0	0	0
Satd. Flow (RTOR)	No		No		No		No		No		No		No	
Link Speed (mph)	25		25		25		25		25		25		25	
Link Distance (ft)	428		393		377		310		310		310		310	
Travel Time (s)	11.7		10.7		10.7		10.3		10.3		10.3		8.5	
Cont. Peds. (#/hr)	22		29		29		22		46		44		44	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	10%	10%	10%	2%	2%	2%	2%	2%
Parking (#/hr)							0		0		0		0	
Adj. Flow (vph)	91	769	105	118	704	125	78	246	83	0	0	0	0	0
Shared Lane Traffic (%)														
Lane Group Flow (vph)	91	874	0	118	829	0	78	329	0	0	0	0	0	0
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	30	356	24	0	0	0	0	0	0	0	0	0	0	0
Leading Detector (ft)	0	350	-6	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	0	350	-6	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)														
Detector 1 Size(ft)	30	6	30	6	30	6	20	6	30	6	30	6	30	6
Detector 1 Type	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+EX	G+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	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	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	0.0	0.0	0.0	0.0	0.0
Turn Type	pm-pl	NA	pm-pl	NA	Split	NA	Split	NA	Split	NA	Split	NA	Split	NA
Protected Phases	1	6	5	2	4	4	4	4	4	4	4	4	9	10
Permitted Phases	6	2	2	2	2	2	2	2	2	2	2	2	2	2
Detector Phase	1	6	5	2	2	2	2	2	2	2	2	2	2	2
Switch Phase														
Minimum Initial (s)	5.0	15.0	5.0	15.0	5.0	15.0	7.0	7.0	5.0	15.0	5.0	15.0	2.0	2.0
Minimum Split (s)	9.0	31.7	9.0	31.7	9.0	31.7	35.5	35.5	9.0	31.7	9.0	31.7	4.0	4.0
Total Split (s)	13.0	63.0	13.0	63.0	13.0	63.0	36.0	36.0	13.0	63.0	13.0	63.0	4.0	4.0
Total Split (%)	10.8%	52.3%	10.8%	52.3%	10.8%	52.3%	30.0%	30.0%	10.8%	52.3%	10.8%	52.3%	3%	3%
Maximum Green (s)	9.0	57.3	9.0	57.3	9.0	57.3	30.5	30.5	9.0	57.3	9.0	57.3	2.0	2.0
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.3	3.0	3.3	3.0	3.3	2.0	2.0
All-Red Time (s)	1.0	2.4	1.0	2.4	1.0	2.4	2.2	2.2	1.0	2.4	1.0	2.4	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	4.0	5.7	4.0	5.7	5.5	5.5	4.0	5.7	4.0	5.7	0.0	0.0
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	2.0	2.0
Vehicle Extension(s)	None	C-Min	None	C-Min	None	C-Min	None	None	None	C-Min	None	None	None	None
Recall Mode	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Peak Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	23.0	23.0	10.0	10.0	10.0	10.0	2.0	2.0
First Don't Walk (s)	10.0	10.0	10.0	10.0	10.0	10.0	23.0	23.0	10.0	10.0	10.0	10.0	2.0	2.0
Effective Green (s)	82.4	73.3	83.0	73.6	83.0	73.6	73.8	73.8	82.4	73.3	82.4	73.3	2.0	2.0
Effective Green (s)	69.69	60.61	69.69	60.61	69.69	60.61	60.61	60.61	69.69	60.61	69.69	60.61	0.00	0.00
v/c Ratio	0.22	0.45	0.29	0.42	0.29	0.42	0.28	0.58	0.22	0.45	0.29	0.42	0.00	0.00
Control Delay	8.8	14.9	10.2	14.4	10.2	14.4	37.8	43.7	8.8	14.9	10.2	14.4	0.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	14.9	10.2	14.4	10.2	14.4	37.8	43.7	8.8	14.9	10.2	14.4	0.0	0.0
LOS	A	B	B	B	B	B	D	D	A	B	B	B	D	D



3 Landmark Square
2: Atlantic St & Main St/Stamford Town Center Dr

3 Landmark Square
2: Atlantic St & Main St/Stamford Town Center Dr

2025 Combined Conditions
All Peak

2025 Combined Conditions
All Peak

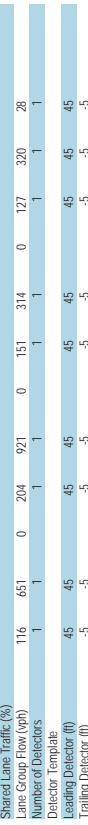
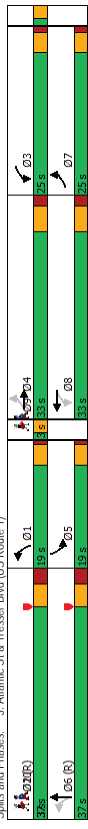
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR
Lane Configuration	2L	1R	1R	0	0	0	1	1	1	1	1	1
Trucks/Vol (vph)	24	19	0	0	0	0	57	32	3	3	16	20
Future Volume (vph)	24	2	19	0	1	1	57	32	3	3	16	20
Ideal Flow (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50	0	0	0	0	0	0	0	0	0	0	150
Storage Lanes	1	0	0	0	0	0	0	0	0	0	0	1
Target Length (ft)	135	100	100	100	100	100	100	100	100	100	100	100
Lane Util. Factor	0.93	0.96	0.92	0.92	0.92	0.92	0.97	0.97	0.95	1.00	1.00	1.00
Ped Bike Factor	0.883						0.880	0.999		1.00	1.00	0.850
Flt Protected	0.950						0.993			0.999		
Satd. Flow (prot)	1601	1399	0	0	1837	1561	0	3173	0	0	1683	1432
Flt Permitted	0.757						0.870			0.997		
Right Turn on Red	1186	1399	0	0	1837	1435	0	2705	0	0	1678	566
Satd. Flow (RTOR)	21	25	76	1	1	1	25	25	1	25	85	
Link Speed (mph)	388	420	662	662	662	662	662	662	662	662	662	372
Link Distance (ft)	10.6	11.5	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	10.1
Travel Time (s)	43	8	8	8	8	8	8	8	8	8	8	82
Confl. Peds. (#/hr)	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Peak Hour Factor	9%	9%	0%	0%	0%	0%	9%	9%	9%	9%	9%	9%
Heavy Vehicles (%)	26	2	21	0	1	1	62	365	3	3	196	35
Adj. Flow (vph)	26	23	0	0	1	1	0	430	0	0	199	35
Shared Lane Traffic (%)	4	4	1	4	4	4	1	0	1	0	0	0
Lane Group Flow (vph)	32	-10	-10	-10	-10	-10	0	0	0	0	0	0
Number of Detectors	6	6	6	6	6	6	6	6	6	6	6	6
Detector 1 Channel	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 1 Type	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Extend (s)	0.0	0.0	0.0	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	0.0	0.0	0.0
Detector 1 Delay (s)	2	2	2	2	2	2	2	2	2	2	2	2
Detector 2 Channel	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 2 Type	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Delay (s)	14	14	14	14	14	14	14	14	14	14	14	14
Detector 3 Channel	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 3 Type	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 3 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 3 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 3 Delay (s)	6	6	6	6	6	6	6	6	6	6	6	6
Detector 4 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 4 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 4 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 4 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 4 Delay (s)	2	2	2	2	2	2	2	2	2	2	2	2
Detector 5 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 5 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 5 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 5 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 5 Delay (s)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Detector 6 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 6 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 6 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 6 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 6 Delay (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Detector 7 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 7 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 7 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 7 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 7 Delay (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Detector 8 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 8 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 8 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 8 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 8 Delay (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Detector 9 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 9 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 9 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 9 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 9 Delay (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Detector 10 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 10 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 10 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 10 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 10 Delay (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Detector 11 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 11 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 11 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 11 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 11 Delay (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Detector 12 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 12 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 12 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 12 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 12 Delay (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Detector 13 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 13 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 13 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 13 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 13 Delay (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Detector 14 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 14 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 14 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 14 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 14 Delay (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Detector 15 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 15 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 15 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 15 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 15 Delay (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Detector 16 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 16 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 16 Extend (s)	4	4	4	4	4	4	4	4	4	4	4	4
Detector 16 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 16 Delay (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Detector 17 Channel	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Detector 17 Type	4	4	4	4	4	4	4	4	4	4	4	4
Detector 17 Extend (s)	4	4</										

3. Landmark Square
3. Atlantic St & Tresser Blvd (US Route 1)

3. Landmark Square
3. Atlantic St & Tresser Blvd (US Route 1)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø10
Approach LOS	D	D	D	D	D	D	D	D	D	D	D	D	C
Queue Length (ft)	59	158	109	245	56	72	115	110	137	2	0	0	
Queue Length (ft)	92	203	153	280	106	115	110	137	2	0	0		
Turn Bay Length (ft)	175	256	180	423	300	371	100	147	75				
Base Capacity (vph)	333	1035	397	1168	680	1601	638	1500	686				
Storage Cap Reduction	0	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reduction	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.35	0.63	0.51	0.79	0.22	0.20	0.20	0.21	0.04				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø10
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1	1
Trucks/Vol (vph)	104	46	105	184	75	78	134	25	32	114	268	25	
Future Volumes (vph)	104	461	105	184	751	78	136	250	32	114	268	25	
Ideal Flow (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	175	0	180	0	300	0	300	0	100	100	75		
Storage Lanes	1	0	1	0	1	0	1	0	1	1	1		
Travel Length (ft)	65	85	85	140	35	35	140	140	140	140	140		
Lane Util. Factor	1.00	0.91	0.91	0.91	0.91	0.91	0.95	0.95	0.95	1.00	0.95	1.00	
Ped Bike Factor	1.00	0.99	0.99	1.00	0.99	0.99	0.96	0.99	0.99	0.98	0.98	0.92	
Flt Protected	0.950	0.973	0.950	0.986	0.950	0.983	0.950	0.950	0.950	0.950	0.950	0.850	
Satd. Flow (prot)	1572	4359	0	1662	4700	0	1711	3345	0	1572	3144	1406	
Satd. Flow (beam)	0.171	0.261	0.261	0.550	0.550	0.550	0.555	0.555	0.555	0.555	0.555	0.555	
Right Turn on Red	283	4359	0	451	4700	0	950	3345	0	899	3144	1297	
Satd. Flow (TOR)	38	30	30	30	30	30	25	25	25	25	25	130	
Link Speed (mph)	336	503	503	503	451	451	227	227	227	227	227	227	
Travel Time (s)	7.6	11.4	11.4	11.4	12.3	12.3	6.2	6.2	6.2	6.2	6.2	6.2	
Cont. Peds. (f/hr)	5	26	26	26	5	58	30	30	30	30	30	58	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	11%	11%	11%	5%	5%	2%	2%	2%	11%	11%	11%	11%	
Adj. Flow (vph)	116	534	117	204	834	87	151	278	36	127	320	28	
Shared Lane Traffic (%)	116	651	0	204	921	0	151	314	0	127	320	28	
Lane Group Flow (vph)	1	1	1	1	1	1	1	1	1	1	1	1	
Number of Detectors	45	45	45	45	45	45	45	45	45	45	45	45	
Leading Detector (ft)	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	
Trailing Detector (ft)	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	
Detector 1 Position(ft)	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	
Detector 1 Size(ft)	50	50	50	50	50	50	50	50	50	50	50	50	
Detector 1 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	
Detector 1 Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Extend (s)	0.0	0.0	0.0	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	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	0.0	0.0	0.0	
Turn Type	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	
Protected Phases	7	4	3	8	1	6	5	2	9	10	2	2	
Permitted Phases	4	8	8	6	6	6	2	2	2	2	2	2	
Switch Phase	7	4	3	8	1	6	5	2	2	2	2	2	
Minimum Initial (s)	50	100	50	100	50	150	50	150	150	150	150	150	
Minimum Split (s)	90	32.3	90	32.3	90	36.7	90	36.7	36.7	36.7	36.7	36.7	
Total Split (s)	250	330	250	330	190	370	190	370	370	370	370	370	
Total Split (%)	20.8%	27.5%	20.8%	27.5%	15.8%	30.8%	15.8%	30.8%	30.8%	30.8%	30.8%	30.8%	
Maximum Green (s)	210	277	210	277	150	313	150	313	313	313	313	313	
Yellow Time (s)	3.0	3.7	3.0	3.7	3.0	3.3	3.0	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	1.6	1.0	1.6	1.0	2.4	1.0	2.4	2.4	2.4	2.4	2.4	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.3	4.0	5.3	4.0	5.7	4.0	5.7	5.7	5.7	5.7	5.7	
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Realt Mode	None	None	None	None	None	None	None	None	None	None	None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Bike/Dist Walk (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
Pedestrian Cuts (f/hr)	30	30	30	30	30	30	30	30	30	30	30	30	
Act. Eff. Green (s)	95.0	82.0	95.0	82.0	64.2	57.0	64.2	57.0	64.2	57.0	64.2	57.0	
Act. Eff. Red (s)	0.20	0.20	0.26	0.24	0.54	0.48	0.54	0.48	0.48	0.48	0.48	0.48	
Vehicle g/c Ratio	0.60	0.74	0.65	0.63	0.38	0.30	0.35	0.31	0.31	0.31	0.31	0.31	
Vehicle Delay	52.6	47.8	48.5	49.5	17.1	19.3	19.8	22.5	0.6	0.6	0.6	0.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	52.6	47.8	48.5	49.5	17.1	19.3	19.8	22.5	0.6	0.6	0.6	0.6	
LOS	D	D	D	D	D	B	B	C	A	A	A	A	
Approach Delay	48.5	48.5	48.5	49.4	18.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	



Intersection	1,2					
Int Delay, s/veh	WBL	WBR	NBT	NBR	SBL	SBR
Movement	0	80	311	54	0	213
Lane Configurations	0	80	311	54	0	213
Traffic Vol, veh/h	0	80	311	54	0	213
Future Vol, veh/h	0	80	311	54	0	213
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	0	0	0
Veh in Median Storage, #	0	0	0	0	0	0
Grade, %	0	0	0	0	0	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	9	9	9	9
Movt Flow	0	87	338	59	0	232

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	199	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.93	-
Critical Hdwy Sig 1	-	-	-
Critical Hdwy Sig 2	-	-	-
Follow-up Hdwy	-	3.319	-
Pot Cap-1 Maneuver	0	809	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	809	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	B	-	-

Minor Lane/Major Mvmt	NBT	NBR	WBLN1	SBT
Capacity (veh/h)	-	809	-	-
HCM Lane V/C Ratio	-	0.107	-	-
HCM Control Delay (s)	-	10	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %ile Q(veh)	-	0.4	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBR
Lane Configurations	0	80	311	54	0	213
Traffic Volume (vph)	0	80	311	54	0	213
Future Volume (vph)	0	80	311	54	0	213
Ideal Flow (vph)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Flt Protected	0.865	0.978	-	-	-	-
Satd. Flow (vph)	0	1558	3131	0	0	1685
Satd. Flow (perm)	0	1558	3131	0	0	1685
Link Speed (mph)	25	25	25	25	25	25
Link Distance (ft)	263	372	372	377	377	377
Travel Time (s)	7.2	10.1	10.1	0.92	0.92	10.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	9%	9%	9%	9%
Adj. Flow (vph)	0	87	338	59	0	232
Shared Lane Traffic (%)	-	-	-	-	-	-
Lane Group Flow (vph)	0	87	397	0	0	232
Sign Control	Stop	Free	Free	Free	Free	Free

Intersection Summary
Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 21.9%
Analysis Period (min) 15
ICU Level of Service A

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Approach Delay	20.1													
Approach LOS	C													
Queue Length (ft)	41	314		43	237		43	147						
Queue Length (ft)	66	408		70	320		66	124						
Internal Link Dist (ft)	150	348		250	313		25	297					230	
Turn Bay Length (ft)														
Base Capacity (vph)	535	1799		397	1545		462	910						
Station Cap Reductn	0	0		0	0		0	0						
Spillback Cap Reductn	0	0		0	0		0	0						
Storage Cap Reductn	0	0		0	0		0	0						
Reduced v/c Ratio	0.30	0.61		0.42	0.53		0.20	0.49						
Intersection Summary														
Area Type:	Other													
Cycle Length:	120													
Offset:	24 (20%), Referenced to phase 2:WBL and 6:EBTL, Start of Yellow													
Natural Cycle:	85													
Control Type:	Actuated-Coordinated													
Maximum v/c Ratio:	0.72													
Intersection Signal Delay:	25.0													
Intersection LOS:	C													
ICU Level of Service D														
Intersection Capacity Utilization:	76.7%													
Analysis Period (min):	15													

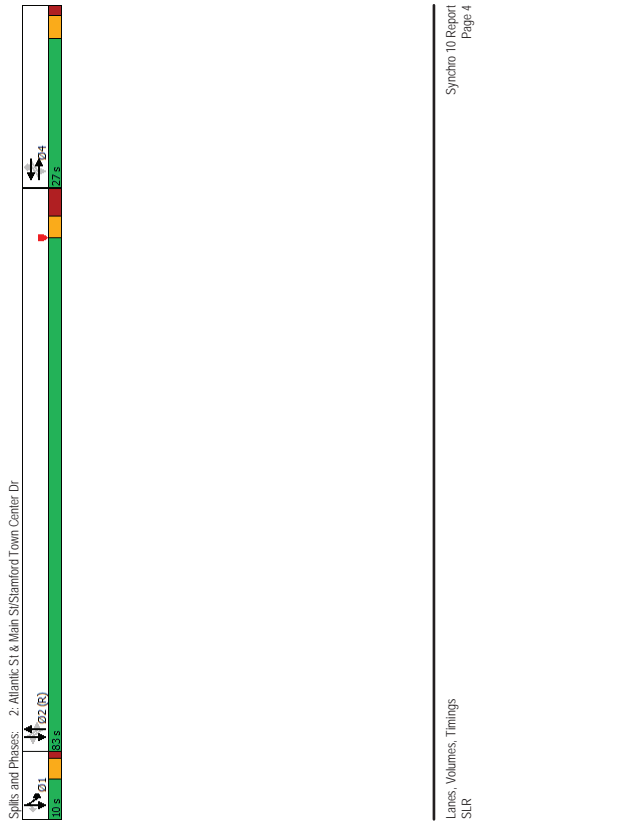
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Lane Configurations														
Trucks/Volumes (vph)	152	91	135	16	54	221	89	321	97	0	0	0	0	0
Trucks/Volumes (vph)	152	91	135	16	54	221	89	321	97	0	0	0	0	0
Heavy Flow (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150			0	250		0	25						
Storage Lanes	1			0	1		0	1						
Topst Length (ft)	65			65			85							
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.94	0.97		0.92	0.95		0.85	0.96		0.96				
Flt Protected	0.950			0.950			0.950			0.950				
Satd. Flow (prot)	1711	3249	0	1711	3013	0	1481	2913	0	0	0	0	0	0
Flt Permitted	0.277			0.179			0.950			0.950				
Satd. Flow (beam)	470	3249	0	322	3013	0	1259	2913	0	0	0	0	0	0
Right Turn on Red			No			No			No			No		
Satd. Flow (RTOR)														
Link Speed (mph)	25			25			25			25				
Link Distance (ft)	428			393			377			310				
Travel Time (s)	11.7			10.7			10.3			8.5				
Cont. Peds. (#/hr)	203			100			203			124			124	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Peak Hour Factor	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Heavy Vehicles (%)														
Parking (#/hr)														
Adj. Flow (vph)	158	949	141	168	589	230	93	345	101	0	0	0	0	0
Shared Lane Traffic (%)														
Lane Group Flow (vph)	158	1090	0	168	819	0	93	446	0	0	0	0	0	0
Number of Detectors	1	1		1			1			1				
Detector Template														
Leading Detector (ft)	30	356		24			0			0				
Trailing Detector (ft)	0	350		-6			0			0				
Detector 1 Position(ft)	0	350		-6			0			0				
Detector 1 Size(ft)	30	6		30	6		20	6		20				
Detector 1 Type	G+EX	G+EX		G+EX	G+EX		G+EX	G+EX		G+EX				
Detector 1 Channel														
Detector 1 Extend (s)	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				
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0				
Turn Type	pm-pl	NA		pm-pl	NA		Split	NA		Split		NA		
Protected Phases	1	6		5	2		4	4		4		9		10
Permitted Phases	6	2		2			4	4		4		4		
Detector Phase														
Switch Phase														
Minimum Initial (s)	5.0	15.0		5.0	15.0		7.0	7.0		2.0		2.0		2.0
Minimum Split (s)	9.0	31.7		9.0	31.7		35.5	35.5		4.0		4.0		4.0
Total Split (s)	20.0	49.0		20.0	49.0		43.0	43.0		4.0		4.0		4.0
Total Split (%)	16.7%	40.8%		16.7%	40.8%		35.8%	35.8%		3%		3%		3%
Maximum Green (s)	16.0	43.3		16.0	43.3		37.5	37.5		2.0		2.0		2.0
Yellow Time (s)	3.0	3.3		3.0	3.3		3.3	3.3		2.0		2.0		2.0
All-Red Time (s)	1.0	2.4		1.0	2.4		2.2	2.2		0.0		0.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	4.0	5.7		4.0	5.7		5.5	5.5		0.0		0.0		0.0
Lead/Lag	Lag	Lead		Lag	Lead		Lag	Lead		Lag		Lag		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		Yes		Yes
Vehicle Extension(s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0		2.0
Recall Mode	None	C-Min		None	C-Min		None	None		None		None		None
Peak Time (s)	10.0			10.0			10.0			10.0				10.0
Peak Time (s)	10.0			10.0			10.0			10.0				10.0
Peak Don't Walk (s)	3.0			3.0			3.0			3.0				3.0
Peak Don't Walk (s)	3.0			3.0			3.0			3.0				3.0
Act Effct Green (s)	84.4	46		76.2	46		25.5	25.5		0.31		0.31		0.31
Act Effct Green (s)	0.70	0.65		0.64	0.64		0.31	0.31		0.31		0.31		0.31
v/c Ratio	0.21	0.61		0.68	0.53		0.20	0.72		0.20		0.20		0.20
Control Delay	11.5	21.3		21.1	23.1		32.1	32.1		42.2		42.2		42.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0		0.0
Total Delay	11.5	21.3		21.1	23.1		32.1	32.1		42.2		42.2		42.2
LOS	B	C		C	C		C	C		C		C		D



3 Landmark Square
2: Atlantic St & Main St/Stamford Town Center Dr

3 Landmark Square
2: Atlantic St & Main St/Stamford Town Center Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR
Lane Configurations	7	7	7	33	20	4	15	95	41	14	13	20
Trucks/Vol (veh)	15	33	20	8	15	48	14	13	201	13	201	68
Heavy Trucks/Vol (veh)	72	7	7	1900	1900	1900	1900	1900	1900	1900	1900	1900
Heavy Flow (veh)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50	0	0	0	0	0	0	0	0	0	0	130
Storage Lanes	1	0	0	0	0	0	0	0	0	0	0	1
Target Length (ft)	135	100	100	25	25	25	25	25	25	25	25	1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Ped. Bike Factor	0.84	0.92	0.84	0.95	0.82	0.93	0.93	0.93	0.99	0.99	0.99	0.26
Flt. Protected	0.950	0.966	0.966	0.966	0.966	0.992	0.992	0.992	0.997	0.997	0.997	0.850
Satd. Flow (prot)	1646	1390	0	0	1774	1561	0	3262	0	0	1744	1487
Flt. Permitted	0.738	0.808	0.835	0.835	0.835	0.835	0.835	0.835	0.966	0.966	0.966	0.383
Right Turn on Red	1074	1390	0	0	1404	1287	0	2577	0	0	1679	393
Satd. Flow (RTOR)	35	30	30	76	76	4	4	4	4	4	4	85
Link Speed (mph)	388	420	420	662	662	662	662	662	372	372	372	8.5
Travel Time (s)	8.8	9.5	9.5	102	165	81	81	81	165	165	165	0.94
Confl. Peds. (f/hr)	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Peak Hour Factor	6%	6%	6%	0%	0%	5%	5%	5%	5%	5%	5%	5%
Heavy Vehicles (%)	77	7	7	35	21	9	16	101	477	15	14	214
Adj. Flow (vph)	77	42	42	0	0	30	16	0	593	0	0	228
Shared Lane Traffic (%)	4	4	4	4	4	4	4	4	4	4	4	4
Lane Group Flow (vph)	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detectors	32	32	32	32	32	32	32	32	32	32	32	32
Detector 1 Channel	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Position	6	6	6	6	6	6	6	6	6	6	6	6
Detector 1 Size	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 1 Type	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Channel	2	2	2	2	2	2	2	2	2	2	2	2
Detector 2 Position	6	6	6	6	6	6	6	6	6	6	6	6
Detector 2 Size	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 2 Type	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 3 Channel	14	14	14	14	14	14	14	14	14	14	14	14
Detector 3 Position	6	6	6	6	6	6	6	6	6	6	6	6
Detector 3 Size	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 3 Type	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 3 Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 4 Channel	6	6	6	6	6	6	6	6	6	6	6	6
Detector 4 Position	6	6	6	6	6	6	6	6	6	6	6	6
Detector 4 Size	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 4 Type	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 4 Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	DP+P	NA	custom	1
Permitted Phases	4	4	4	4	4	4	4	4	2	2	1	1
Detector Phase	4	4	4	4	4	4	4	4	2	2	1	1
Switch Phase	5.0	5.0	5.0	5.0	5.0	15.0	15.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	27.0	27.0	27.0	27.0	27.0	63.0	63.0	8.3%	8.3%	8.3%	8.3%	8.3%
Green Split (s)	27.0	27.0	27.0	27.0	27.0	68.2%	68.2%	8.3%	8.3%	8.3%	8.3%	8.3%
Yellow Split (s)	27.0	27.0	27.0	27.0	27.0	75.0	75.0	3.0	3.0	3.0	3.0	3.0
All Red Time (s)	1.6	1.6	1.6	1.6	1.6	4.1	4.1	1.0	1.0	1.0	1.0	1.0
Lost Time Adj (s)	4.9	4.9	4.9	4.9	4.9	7.4	7.4	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.9	4.9	4.9	4.9	4.9	7.4	7.4	0.0	0.0	0.0	0.0	0.0



Lanes, Volumes, Timings
SLR

Lanes, Volumes, Timings
SLR

Intersection	0.8			
Int Delay, s/veh	WBL	WBR	NBT	SBL
Int Delay, s/veh	0.8			
Movement				SRT
Lane Configurations				
Traffic Vol, veh/h	0	63	453	86
Future Vol, veh/h	0	63	453	86
Future Vol, veh/h	0	63	453	86
Conflicting Pkts, #/hr	0	0	0	0
Sign Control	Stop	Stop	Free	Free
RT Channelized	-	None	-	None
Storage Length	-	0	-	-
Veh in Median Storage, #	0	0	0	0
Grade, %	0	0	0	0
Peak Hour Factor	92	92	92	92
Heavy Vehicles, %	2	2	5	5
Mov Flow	0	68	492	93

Area Type	Other
Control Type: Unsignalized	
Intersection Capacity Utilization: 25.8%	ICU Level of Service A
Analysis Period (min): 15	

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	293	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.93	-
Critical Hdwy Sig 1	-	-	-
Critical Hdwy Sig 2	-	-	-
Follow-up Hdwy	-	3.19	-
Pot Cap-1 Maneuver	0	704	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	704	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		
Minor Lane/Major Mvmt	NBT	NBR	WBLN1
Capacity (veh/h)	-	-	704
HCM Lane V/C Ratio	-	-	0.997
HCM Control Delay (s)	-	-	10.7
HCM Lane LOS	-	-	B
HCM 95th %ile Q(veh)	-	-	0.3

Lane Group	WBL	WBR	NBT	NBR	SBL	SRT
Lane Configurations						
Traffic Volume (vph)	0	63	453	86	0	296
Future Volume (vph)	0	63	453	86	0	296
Initial Flow (vph)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Flt Protected	0.865	0.976				
Satd Flow (vph)	0	1558	3244	0	0	1749
Flt Permitted						
Satd Flow (vph)	0	1558	3244	0	0	1749
Link Speed (mph)	30	30	30	30	30	30
Link Distance (ft)	263	372	372	377	377	377
Travel Time (s)	6.0	8.5	8.5	8.6	8.6	8.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	5%	5%	5%	5%
Adj. Flow (vph)	0	68	492	93	0	322
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	68	585	0	0	322
Sign Control	Stop	Free	Free	Free	Free	Free

Area Type	Other
Control Type: Unsignalized	
Intersection Capacity Utilization: 25.8%	ICU Level of Service A
Analysis Period (min): 15	

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	293	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.93	-
Critical Hdwy Sig 1	-	-	-
Critical Hdwy Sig 2	-	-	-
Follow-up Hdwy	-	3.19	-
Pot Cap-1 Maneuver	0	704	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	704	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		
Minor Lane/Major Mvmt	NBT	NBR	WBLN1
Capacity (veh/h)	-	-	704
HCM Lane V/C Ratio	-	-	0.997
HCM Control Delay (s)	-	-	10.7
HCM Lane LOS	-	-	B
HCM 95th %ile Q(veh)	-	-	0.3

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

2025 Background Conditions with Atlantic St Improvements
All Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	B	C	C
Approach Length (ft)	23	202	184	30	184	184	18	18	3					
Queue Length (ft)	45	203	264	56	264	273	m273	m273	m28					
Internal Link Dist (ft)	150	348	313	250	313	297	60	60						
Turn Bay Length (ft)	359	1616	1695	354	1695	468	384	384						
Station Cap Reductn	0	0	0	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0	0	0						
Reduced v/c Ratio	0.25	0.54	0.33	0.49	0.62	0.15								
Intersection Summary														
Area Type:	Other													
Cycle Length:	95													
Offset:	54 (57%), Referenced to phase 2:WBL and 6:EBTL, Start of Yellow													
Natural Cycle:	85													
Control Type:	Actuated-Coordinated													
Maximum v/c Ratio:	0.74													
Intersection Signal Delay:	18.5													
Intersection LOS:	B													
Analysis Capacity Utilization:	67.0%													
Analysis Period (min):	15													
m:	Volume for 95th percentile queue is metered by upstream signal.													

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

2025 Background Conditions with Atlantic St Improvements
All Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Lane Configurations	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SS		
Trucks/Vol (vph)	87	728	101	113	674	120	58	220	54	0	0	0	0	0
Trucks/Vol (vph)	87	728	101	113	674	120	58	220	54	0	0	0	0	0
Heavy Flow (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250	0	80	60	0	0	0	0	0	0	0	0
Storage Lanes	1	0	1	0	1	1	0	0	0	0	0	0	0	0
Top of Link (ft)	65	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor	0.982			0.977			0.990		0.880					
Flt Protected	0.950			0.950			0.990		0.880					
Satd. Flow (prot)	1646	3205	0	1662	3218	0	0	1488	1277	0	0	0	0	0
Flt Permitted	0.275			0.254			0.990		0.990					
Satd. Flow (beam)	472	3205	0	439	3218	0	0	1474	1210	0	0	0	0	0
Right Turn on Red	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Satd. Flow (RTOR)	25			25			25		25			25		
Link Speed (mph)	428			393			377		310			310		
Travel Time (s)	11.7			10.7			10.3		8.5			8.5		
Cont. Peds. (#/hr)	22	29	29	29	29	22	46	44	44	44	44	46	46	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	10%	10%	10%	2%	2%	2%	2%	2%
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	91	769	105	118	704	125	60	229	56	0	0	0	0	0
Shared Lane Traffic (%)														
Lane Group Flow (vph)	91	874	0	118	829	0	0	289	56	0	0	0	0	0
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	30	356	24	0	0	0	0	0	20	0	0	0	0	0
Leading Detector (ft)	0	350	-6	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	0	350	-6	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	30	6	30	6	20	6	20	6	20	6	20	6	20	6
Detector 1 Size(ft)	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX
Detector 1 Type	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX	0+EX
Detector 1 Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	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	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	0.0	0.0	0.0	0.0	0.0
Turn Type	pm-pl	NA	pm-pl	NA	pm-pl	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	1	6	5	2	2	4	4	4	4	4	4	4	9	10
Permitted Phases	6	2	2	4	4	4	4	4	4	4	4	4	2.0	2.0
Detector Phase	1	6	5	2	2	4	4	4	4	4	4	4	2.0	2.0
Switch Phase	5.0	15.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	2.0	2.0
Minimum Split (s)	9.0	31.7	9.0	31.7	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	4.0	4.0
Total Split (s)	9.0	42.5	9.0	42.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	4.0	4.0
Total Split (%)	9.5%	44.7%	9.5%	44.7%	37.4%	37.4%	37.4%	37.4%	37.4%	37.4%	37.4%	37.4%	4%	4%
Maximum Green (s)	5.0	36.8	5.0	36.8	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	2.0	2.0
Yellow Time (s)	3.0	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.0	2.0
All-Red Time (s)	1.0	2.4	1.0	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lost Time (s)	4.0	5.7	4.0	5.7	4.0	5.7	5.5	5.5	5.5	5.5	5.5	5.5	0.0	0.0
Total Lost Time (s)	4.0	5.7	4.0	5.7	4.0	5.7	5.5	5.5	5.5	5.5	5.5	5.5	0.0	0.0
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension(s)	None	C-Min	None	C-Min	None	None	None	None	None	None	None	None	None	None
Recall Mode	None	C-Min	None	C-Min	None	None	None	None	None	None	None	None	None	None
Peak Time (s)	10.0	10.0	10.0	10.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	2.0	2.0
First Don't Walk (s)	10.0	10.0	10.0	10.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	2.0	2.0
Phase Change (s)	30			30			30		30			30		
Station Cap Reductn	0.561	0.719	0.576	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
Act Effct Green (s)	0.569	0.650	0.649	0.636	0.636	0.636	0.636	0.636	0.636	0.636	0.636	0.636	0.636	0.636
v/c Ratio	0.25	0.54	0.25	0.49	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Control Delay	12.4	19.3	14.6	17.9	14.6	17.9	23.5	8.3	8.3	8.3	8.3	8.3	8.3	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	19.3	14.6	17.9	14.6	17.9	23.5	8.3	8.3	8.3	8.3	8.3	8.3	8.3
LOS	B	B	B	B	B	B	C	C	C	C	C	C	A	A

3. Landmark Square
3. Atlantic St & Tresser Blvd (US Route 1)

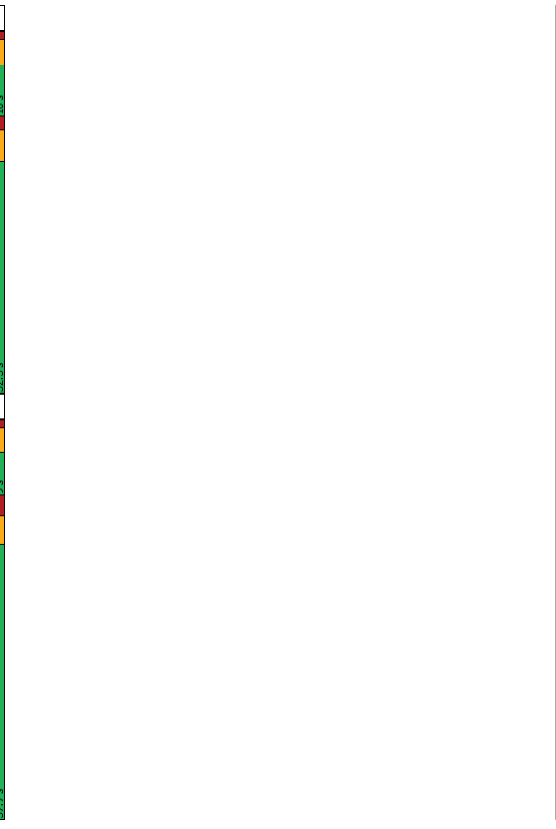
2025 Background Conditions with Atlantic St Improvements
All Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø10
Approach LOS	C												
Queue Length (ft)	47	110	80	183	48	147	0	24	82	0	0	0	Ø10
Queue Length (ft)	#64	147	126	223	89	233	0	62	210	0	0	0	Ø10
Internal Link Delay (ft)	175	256	180	423	120	371	0	100	808	0	0	0	Ø10
Turn Bay Length (ft)	199	1271	316	1368	439	728	692	410	673	632	0	0	Ø10
Storage Capacity (vph)	0	0	0	0	0	0	0	0	0	0	0	0	Ø10
Storage Capacity (vph)	0	0	0	0	0	0	0	0	0	0	0	0	Ø10
Storage Capacity (vph)	0	0	0	0	0	0	0	0	0	0	0	0	Ø10
Reduced v/c Ratio	0.63	0.51	0.65	0.70	0.34	0.45	0.05	0.31	0.48	0.04	0.00	0.00	Ø10

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SSR	Ø10
Lane Configurations	T											
Trucks/Vol (vph)	113	461	105	184	75	108	134	292	30	114	288	25
Trucks/Vol (vph)	113	461	105	184	75	108	134	292	30	114	288	25
Heavy Vehicles (%)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175	0	180	0	120	0	100	0	100	50	0	0
Storage Length (ft)	175	0	180	0	120	0	100	0	100	50	0	0
Travel Length (ft)	65	85	85	65	65	65	65	65	65	65	65	65
Lane Util. Factor	1.00	0.99	0.98	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped. Bike Factor	1.00	0.99	0.98	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Satd. Flow (prot)	1572	4344	0	1662	4668	0	1711	1801	1531	1572	1655	1406
Flt Permitted	0.181	0.301	0.301	0.471	0.471	0.471	0.466	0.466	0.466	0.466	0.466	0.466
Right Turn on Red	299	4344	0	518	4668	0	823	1801	1471	759	1655	1316
Satd. Flow (RTOR)	51	28	28	30	30	30	25	164	164	164	164	164
Link Speed (mph)	336	503	503	336	503	503	336	503	503	503	503	503
Travel Time (s)	7.6	11.4	11.4	7.6	11.4	11.4	12.3	24.2	24.2	24.2	24.2	24.2
Cont. Peds. (f/hr)	5	26	26	5	26	26	5	30	30	30	30	58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	11%	11%	5%	5%	5%	2%	2%	2%	11%	11%	11%
Adj. Flow (vph)	126	534	117	204	834	120	151	324	36	127	320	28
Shared Lane Traffic (%)	126	651	0	204	954	0	151	324	36	127	320	28
Lane Group Flow (vph)	1	1	1	1	1	1	1	1	1	1	1	1
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	Right											
Leading Detector (ft)	45	45	45	45	45	45	20	45	45	45	45	45
Trailing Detector (ft)	-5	-5	-5	-5	-5	-5	0	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	-5	-5	-5	-5	-5	0	-5	-5	-5	-5	-5
Detector 1 Size(ft)	50	50	50	50	50	50	20	50	50	50	50	50
Detector 1 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 1 Channel	O+EX											
Detector 1 Extend (s)	0.0	0.0	0.0	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	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	0.0	0.0	0.0
Turn Type	pm-plt	NA	pm-plt	NA	pm-plt	NA	pm-plt	NA	pm-plt	NA	pm-plt	NA
Protected Phases	7	4	3	8	8	6	6	6	6	5	2	9
Permitted Phases	4	8	8	8	8	6	6	6	6	2	2	2
Switch Phase	7 4											
Minimum Initial (s)	50	100	50	100	50	150	50	150	150	50	150	10
Minimum Split (s)	90	323	90	323	90	367	90	367	367	90	367	30
Total Split (s)	100	323	100	323	90	377	90	377	377	90	377	30
Total Split (%)	10.5%	34.0%	10.5%	34.0%	9.5%	39.7%	9.5%	39.7%	39.7%	9.5%	39.7%	3%
Maximum Green (s)	60	270	60	270	50	320	50	320	320	50	320	10
Yellow Time (s)	30	37	30	37	30	33	33	33	33	33	33	20
All-Red Time (s)	10	16	10	16	10	24	24	24	24	24	24	00
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.3	4.0	5.3	4.0	5.7	5.7	5.7	5.7	4.0	5.7	5.7
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
Resort Mode	None	None	None	None	None	None	None	None	None	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Bike/Dont Walk (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Precedence Cuts (f/hr)	30	248	35.6	248	45.3	385	45.7	385	45.7	385	45.7	30
Act. Eff. Gr. Ratio	0.22	0.23	0.22	0.23	0.22	0.23	0.22	0.23	0.23	0.22	0.23	0.22
Vehicle g/c Ratio	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Vehicle Delay	45.2	321	38.2	35.8	17.9	24.3	0.2	13.1	17.9	0.1	0.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	321	38.2	35.8	17.9	24.3	0.2	13.1	17.9	0.1	0.1	0.1
LOS	D	D	D	D	D	C	A	B	B	A	B	A
Approach Delay	34.2	36.2	34.2	36.2	34.2	36.2	34.2	36.2	36.2	34.2	36.2	34.2

Lanes, Volumes, Timings
SLR

2025 Background Conditions with Atlantic St Improvements
All Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SSR	Ø10
Lane Configurations	T											
Trucks/Vol (vph)	113	461	105	184	75	108	134	292	30	114	288	25
Trucks/Vol (vph)	113	461	105	184	75	108	134	292	30	114	288	25
Heavy Vehicles (%)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175	0	180	0	120	0	100	0	100	50	0	0
Storage Length (ft)	175	0	180	0	120	0	100	0	100	50	0	0
Travel Length (ft)	65	85	85	65	65	65	65	65	65	65	65	65
Lane Util. Factor	1.00	0.99	0.98	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped. Bike Factor	1.00	0.99	0.98	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Satd. Flow (prot)	1572	4344	0	1662	4668	0	1711	1801	1531	1572	1655	1406
Flt Permitted	0.181	0.301	0.301	0.471	0.471	0.471	0.466	0.466	0.466	0.466	0.466	0.466
Right Turn on Red	299	4344	0	518	4668	0	823	1801	1471	759	1655	1316
Satd. Flow (RTOR)	51	28	28	30	30	30	25	164	164	164	164	164
Link Speed (mph)	336	503	503	336	503	503	336	503	503	503	503	503
Travel Time (s)	7.6	11.4	11.4	7.6	11.4	11.4	12.3	24.2	24.2	24.2	24.2	24.2
Cont. Peds. (f/hr)	5	26	26	5	26	26	5	30	30	30	30	58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	11%	11%	5%	5%	5%	2%	2%	2%	11%	11%	11%
Adj. Flow (vph)	126	534	117	204	834	120	151	324	36	127	320	28
Shared Lane Traffic (%)	126	651	0	204	954	0	151	324	36	127	320	28
Lane Group Flow (vph)	1	1	1	1	1	1	1	1	1	1	1	1
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	Right											
Leading Detector (ft)	45	45	45	45	45	45	20	45	45	45	45	45
Trailing Detector (ft)	-5	-5	-5	-5	-5	-5	0	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	-5	-5	-5	-5	-5	0	-5	-5	-5	-5	-5
Detector 1 Size(ft)	50	50	50	50	50	50	20	50	50	50	50	50
Detector 1 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 1 Channel	O+EX											
Detector 1 Extend (s)	0.0	0.0	0.0	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	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0										

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

2025 Background Conditions with Atlantic St Improvements
pm Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1	0	0
Trucks/Vol (vph)	152	911	135	161	565	221	93	342	155	0	0	0	0	0
Trucks/Vol (vph)	152	911	135	161	565	221	93	342	155	0	0	0	0	0
Heavy Flow (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250	0	80	0	60	0	0	0	0	0	0	0
Storage Lanes	1	0	1	0	0	0	1	0	0	0	0	0	0	0
Top of Length (ft)	65	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.91	0.97	0.98	0.89	0.89	0.97	0.87	0.87	0.850					
Ped Bike Factor	0.981													
Flt Protected	0.950	0.950					0.989							
Satd. Flow (prot)	1711	3270	0	1711	2925	0	0	1542	1326	0	0	0	0	0
Flt Permitted	0.230	0.114					0.989							
Satd. Flow (beam)	378	3270	0	201	2925	0	0	1503	1157	0	0	0	0	0
Right Turn on Red			No		No				No			No		
Satd. Flow (RTOR)														
Link Speed (mph)	25		25		25		25		25		25			
Link Distance (ft)	428		393		377		10.3		310		8.5			
Travel Time (s)	11.7		10.7		10.7		10.3		8.5		8.5			
Cont. Peds. (#/hr)	203		100		100		203		124		124		125	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	6%	6%	2%	2%	2%	2%	2%
Parking (#/hr)							0	0	0	0	0	0	0	0
Adj. Flow (vph)	158	949	141	168	589	230	97	356	161	0	0	0	0	0
Shared Lane Traffic (%)														
Lane Group Flow (vph)	158	1090	0	168	819	0	0	453	161	0	0	0	0	0
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template									Right					
Leading Detector (ft)	30	356	24	0	0	0	0	0	20					
Trailing Detector (ft)	0	350	-6	0	0	0	0	0	0					
Detector 1 Position(ft)	0	350	-6	0	0	0	0	0	0					
Detector 1 Size(ft)	30	6	6	30	6	20	6	20	6	20	6	20		
Detector 1 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+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	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	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	0.0	0.0	0.0		
Turn Type	pm-pl	NA	pm-pl	NA	NA	NA	NA	NA	NA	NA	NA	NA	Perm	Perm
Protected Phases	1	6	5	2	2	4	4	4	4	4	4	4	9	10
Permitted Phases	6	2	2	4	4	4	4	4	4	4	4	4		
Detector Phase														
Switch Phase														
Minimum Initial (s)	5.0	15.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	2.0	2.0
Minimum Split (s)	9.0	31.7	9.0	31.7	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	4.0	4.0
Total Split (s)	11.0	41.0	9.0	39.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	4.0	4.0
Total Split (%)	11.6%	43.2%	9.5%	41.1%	38.9%	38.9%	38.9%	38.9%	38.9%	38.9%	38.9%	38.9%	4%	4%
Maximum Green (s)	7.0	35.3	5.0	33.3	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	2.0	2.0
Yellow Time (s)	3.0	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.0	2.0
All-Red Time (s)	1.0	2.4	1.0	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.7	4.0	5.7	4.0	5.7	5.5	5.5	5.5	5.5	5.5	5.5		
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Vehicle Extension(s)	None	C-Min	None	C-Min	None	None	None	None	None	None	None	None	2.0	2.0
Recall Mode	None	C-Min	None	C-Min	None	None	None	None	None	None	None	None	None	None
Peak Time (s)	10.0		10.0		10.0		10.0		10.0		10.0			
Peak Don't Walk (s)	10.0		10.0		10.0		10.0		10.0		10.0			
Peak Green (s)	3.0		3.0		3.0		3.0		3.0		3.0			
Effective Green (s)	51.8	30.1	45.7	36.1	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7		
Effective Red (s)	0.165	0.441	0.165	0.441	0.165	0.441	0.165	0.441	0.165	0.441	0.165	0.441		
Vehicle Delay Ratio	0.44	0.91	0.44	0.91	0.44	0.91	0.44	0.91	0.44	0.91	0.44	0.91		
Control Delay	24.4	30.6	24.4	30.6	24.4	30.6	24.4	30.6	24.4	30.6	24.4	30.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	24.4	30.6	24.4	30.6	24.4	30.6	24.4	30.6	24.4	30.6	24.4	30.6		
LOS	C	C	C	D	C	C	D	C	D	C	D	C		B

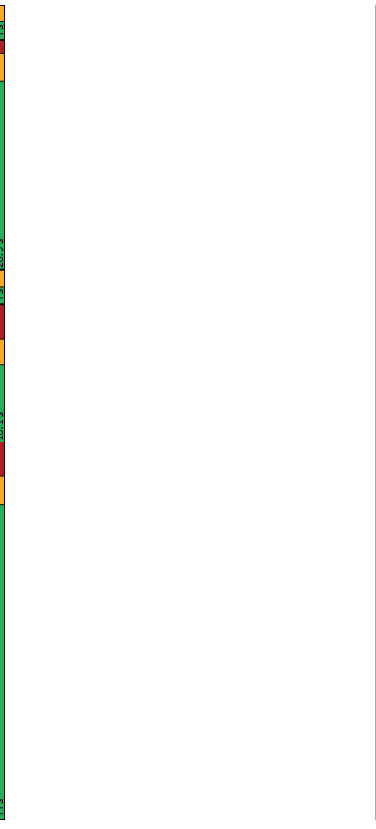
2025 Background Conditions with Atlantic St Improvements
pm Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	Ø9	Ø10
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1	0	0
Trucks/Vol (vph)	152	911	135	161	565	221	93	342	155	0	0	0	0	0
Trucks/Vol (vph)	152	911	135	161	565	221	93	342	155	0	0	0	0	0
Heavy Flow (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250	0	80	0	60	0	0	0	0	0	0	0
Storage Lanes	1	0	1	0	0	0	1	0	0	0	0	0	0	0
Top of Length (ft)	65	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.91	0.97	0.98	0.89	0.89	0.97	0.87	0.87	0.850					
Ped Bike Factor	0.981													
Flt Protected	0.950	0.950					0.989							
Satd. Flow (prot)	1711	3270	0	1711	2925	0	0	1542	1326	0	0	0	0	0
Flt Permitted	0.230	0.114					0.989							
Satd. Flow (beam)	378	3270	0	201	2925	0	0	1503	1157	0	0	0	0	0
Right Turn on Red			No		No				No			No		
Satd. Flow (RTOR)														
Link Speed (mph)	25		25		25		25		25		25			
Link Distance (ft)	428		393		377		10.3		310		8.5			
Travel Time (s)	11.7		10.7		10.7		10.3		8.5		8.5			
Cont. Peds. (#/hr)	203		100		100		203		124		124		125	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	6%	6%	2%	2%	2%	2%	2%
Parking (#/hr)							0	0	0	0	0	0	0	0
Adj. Flow (vph)	158	949	141	168	589	230	97	356	161	0	0	0	0	0
Shared Lane Traffic (%)														
Lane Group Flow (vph)	158	1090	0	168	819	0	0	453	161	0	0	0	0	0
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template									Right					
Leading Detector (ft)	30	356	24	0	0	0	0	0	20					
Trailing Detector (ft)	0	350	-6	0	0	0	0	0	0					
Detector 1 Position(ft)	0	350	-6	0	0	0	0	0	0					
Detector 1 Size(ft)	30	6	6	30	6	20	6	20	6	20	6	20		
Detector 1 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+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	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0													

3 Landmark Square
2. Atlantic St & Main St/Stamford Town Center Dr

3 Landmark Square
2. Atlantic St & Main St/Stamford Town Center Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SRT	SSR	Ø5	Ø6
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SRT	SSR	Ø5	Ø6
Lead Lag Optimizer?	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
Vehicle Delay (s)	None	None	None	None	None	None	None	None	None	None	None	None	None	None
Recall Mode	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	None	None
Walk Time (s)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	13.0	13.0
Flex Start Walk (s)	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Pedestrian Cals. (f/hr)	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	40.9	23.5
Act Effct Coeff (S)	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.43	0.25
Act Effct Coeff (R)	0.08	0.10	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.00	0.66
vc Ratio	30.1	13.8	28.0	0.0	0.0	25.6	53.4	21.0	27.1	21.0	27.1	21.0	0.0	0.0
Control Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Delay	30.1	13.8	28.0	0.0	0.0	25.6	53.4	21.0	27.1	21.0	27.1	21.0	0.0	0.0
Total Delay	30.1	13.8	28.0	0.0	0.0	25.6	53.4	21.0	27.1	21.0	27.1	21.0	0.0	0.0
LOS	C	B	C	A	C	D	C	D	C	C	C	C	C	C
Approach Delay	20.2	14.0	49.2	14.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	2.0	1.31
Approach LOS	C	B	C	B	C	D	C	D	C	C	C	C	C	C
Queue Length 50th (ft)	7	1	1	0	19	19.5	2	131	2	131	2	131	2	131
Queue Length 95th (ft)	24	21	5	0	m58	262	m4	91	m4	91	m4	91	m4	91
Internal Link Dist (ft)	308	308	308	308	308	308	308	308	308	308	308	308	308	308
Turn Bay Length (ft)	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Base Capacity (vph)	267	341	425	458	689	648	689	622	689	622	689	622	689	622
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.07	0.00	0.00	0.09	0.53	0.00	0.43	0.00	0.43	0.00	0.43	0.00	0.43
Intersection Summary	Area Type: Other Cycle Length: 95 Acquired Cycle Length: 95 Offset: 90 (95%), Referenced to phase 2: NBSBL Start of Yellow Natural Cycle: 75 Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.83 Intersection Signal Delay: 39.2 Intersection LOS: D Intersection Capacity Utilization: 53.5% Analysis Period (amp): 15 Volume for 95th percentile queue is measured by upstream signal.													



Lanes, Volumes, Timings
SLR

Lanes, Volumes, Timings
SLR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SRT	SSR	Ø5	Ø6
Lane Configurations	14	2	19	0	1	1	57	314	3	3	208	36	36	36
Future Volumes (vph)	14	2	19	0	1	1	57	314	3	3	208	36	36	36
Future Volumes (vph)	14	2	19	0	1	1	57	314	3	3	208	36	36	36
Peak Hour Factor	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Mean Flow (vph)	50	0	0	0	0	120	0	50	0	50	190	130	130	130
Storage Length (ft)	1	0	0	0	0	1	1	1	1	1	1	1	1	1
Storage Lanes	1	0	0	0	0	1	1	1	1	1	1	1	1	1
Target Length (ft)	135	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.91	0.97	0.89	0.89	0.87	1.00	0.95	0.97	0.95	0.97	0.978	0.978	0.978	0.978
Ped Bike Factor	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850
Flt Protected	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Satd. Flow (prot)	1601	1405	0	0	1837	1561	1601	1682	0	1601	1597	0	1597	0
Satd. Flow (beam)	0.757	1601	0	0	1837	1388	1385	1682	0	1516	1597	0	1597	0
Right Turn on Red	1157	1405	0	0	1837	1388	1385	1682	0	1516	1597	0	1597	0
Satd. Flow (RTOR)	21	25	178	1	1	1	1	1	1	1	1	1	1	1
Link Speed (mph)	388	420	888	888	888	888	888	888	888	888	888	888	888	888
Link Distance (ft)	10.6	11.5	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
Travel Time (s)	43	8	8	8	8	8	8	8	8	8	8	8	8	8
Confl. Peds. (f/hr)	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Peak Hour Factor	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Heavy Vehicles (%)	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Adj. Flow (vph)	15	23	0	0	1	62	341	3	3	226	39	39	39	39
Shared Lane Traffic (%)	15	23	0	0	1	62	341	3	3	226	39	39	39	39
Lane Group Flow (vph)	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detectors	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Detector Template	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Leading Detector (ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Trailing Detector (ft)	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Detector 1 Position(ft)	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 1 Size(ft)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Detector 2 Position(ft)	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Detector 2 Size(ft)	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 2 Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Delay (s)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Detector 3 Position(ft)	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Detector 3 Size(ft)	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 3 Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 3 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 3 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 3 Delay (s)	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Detector 4 Position(ft)	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Detector 4 Size(ft)	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX
Detector 4 Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 4 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 4 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 4 Delay (s)	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Protected Phases	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Detector Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Inhibit (s)	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9
Minimum Split (s)	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9
Green Split (s)	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9
Green Split (%)	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%	26.3%
Yellow Time (s)	3.3	3.3	3.3											

3 Landmark Square
4: Atlantic St & Proposed Garage Access

2025 Combined Conditions with Atlantic St Improvements
All Peak

Area Type	WB	WBR	NBT	NBR	SBL	SBT
Area Type						
Control Type	Unsignalized					
Intersection Capacity Utilization	45.4%					
Analysis Period (min)	15					
Area Type	Other					
Control Type	ICU Level of Service A					
Analysis Period (min)	15					
Area Type	Other					
Control Type	ICU Level of Service A					
Analysis Period (min)	15					

3 Landmark Square
4: Atlantic St & Proposed Garage Access

2025 Combined Conditions with Atlantic St Improvements
All Peak

Area Type	WB	WBR	NBT	NBR	SBL	SBT
Area Type						
Control Type	Unsignalized					
Intersection Capacity Utilization	45.4%					
Analysis Period (min)	15					
Area Type	Other					
Control Type	ICU Level of Service A					
Analysis Period (min)	15					
Area Type	Other					
Control Type	ICU Level of Service A					
Analysis Period (min)	15					

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

2025 Combined Conditions with Atlantic St Improvements
pm Peak

Link Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	09	010
Approach LOS														
Approach LOS														
Queue Length (ft)	44	295		69	222					279	24			
Queue Length (ft)	82	309		4224	286					4307	m25			
Internal Link Dist (ft)	150	348		250	313					297	60			
Turn Bay Length (ft)	150	348		250	313					297	60			
Base Capacity (vph)	392	1359		234	1103					528	406			
Station Cap Reductn	0	0		0	0					0	0			
Spillback Cap Reductn	0	0		0	0					0	0			
Storage Cap Reductn	0	0		0	0					0	0			
Reduced v/c Ratio	0.40	0.82		0.83	0.74					0.82	0.20			
Intersection Summary														
Area Type:	Other													
Actuated Cycle Length:	95													
Offset:	48 (51%), Referenced to phase 2:WBL and 6:EBTL, Start of Yellow													
Natural Cycle:	85													
Control Type:	Actuated-Coordinated													
Maximum v/c Ratio:	0.87													
Intersection Signal Delay:	33.1													
Intersection LOS:	C													
Intersection Capacity Utilization:	82.9%													
Analysis Period (min):	15													
<ul style="list-style-type: none"> - Volume exceeds capacity, queue is theoretically infinite. - Queue shown is maximum after two cycles. - Volume shown is maximum after two cycles. - Queue shown is maximum after two cycles. - Volume for 95th percentile queue is metered by upstream signal. 														

3 Landmark Square
1: Atlantic St/Bedford St & Broad St

2025 Combined Conditions with Atlantic St Improvements
pm Peak

Link Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSR	09	010
Lane Configurations														
Trucks/Vol (vph)	152	91	161	187	546	221	85	328	79	0	0	0	0	0
Trucks/Vol (vph)	152	91	161	187	546	221	85	328	79	0	0	0	0	0
Heavy Vehicle (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250	0	80	0	80	0	60	0	0	0	0	0
Storage Lanes	1	0	1	0	0	0	0	0	1	0	0	0	0	0
Travel Length (ft)	65	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.91	0.97	0.98	0.89	0.89	0.87	0.98	0.87	0.850					
Flt Protected	0.950													
Satd. Flow (prot)	1711	3242	0	1711	2925	0	0	1544	1326	0	0	0	0	0
Flt Permitted	0.231													
Satd. Flow (beam)	380	3242	0	197	2925	0	0	1506	1157	0	0	0	0	0
Right Turn on Red	No													
Satd. Flow (RTOR)	No													
Link Speed (mph)	25													
Link Distance (ft)	428	393	377	10.7	10.7	10.3	310	8.5						
Travel Time (s)	203	100	100	203	125	124	124	124	124	124	125	125		
Conf. Peds. (f/hr)	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96		
Peak Hour Factor	2%	2%	2%	2%	2%	2%	6%	6%	6%	2%	2%	2%		
Heavy Vehicles (%)	0	0	0	0	0	0	0	0	0	0	0	0		
Parking (f/hr)	158	949	168	195	589	230	89	342	82	0	0	0		
Adj. Flow (vph)	158	1117	0	195	819	0	0	431	82	0	0	0		
Lane Group Flow (vph)	1	1	1	1	1	1	1	1	1	1	1	1		
Number of Detectors	Right													
Detector Template	30 356 24 0 0 0 0 0 0 20													
Leading Detector (ft)	0	350	-6	0	0	0	0	0	0	0	0	0		
Trailing Detector (ft)	0	350	-6	0	0	0	0	0	0	0	0	0		
Detector 1 Position(ft)	0	350	-6	0	0	0	0	0	0	0	0	0		
Detector 1 Size(ft)	30	6	30	6	20	6	20	6	20	6	20	6		
Detector 1 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX		
Detector 1 Channel	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0													
Detector 1 Extend (s)	0.0 0.0 0.0 0.0 0.0 0.0 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 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 0.0 0.0 0.0 0.0 0.0 0.0													
Turn Type	pm-pl	NA	pm-pl	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Protected Phases	1	6	5	2	2	4	4	4	4	4	4	4		
Permitted Phases	6	2	2	2	4	4	4	4	4	4	4	4		
Detector Phase	Switch Phase													
Minimum Initial (s)	50	150	50	150	70	70	70	70	70	70	70	70		
Minimum Split (s)	90	317	90	317	355	355	355	355	355	355	355	355		
Total Split (s)	11.0	41.0	9.0	39.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0		
Total Split (%)	11.6%	43.2%	9.5%	41.1%	38.9%	38.9%	38.9%	38.9%	38.9%	38.9%	38.9%	38.9%		
Maximum Green (s)	7.0	35.3	5.0	33.3	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5		
Yellow Time (s)	3.0	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		
All-Red Time (s)	1.0	2.4	1.0	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2		
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7		
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Recall Mode	None	C-Min	None	C-Min	None	None	None	None	None	None	None	None		
Peak Time (s)	10	0	10	0	0	0	0	0	0	0	0	0		
First Don't Walk (s)	10	0	10	0	0	0	0	0	0	0	0	0		
Effective Green (vph)	53.7	30.8	46.2	35.8	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3		
Effective Green Ratio	0.57	0.49	0.57	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49		
v/c Ratio	0.40	0.92	0.83	0.74	0.87	0.74	0.87	0.74	0.87	0.74	0.87	0.74		
Control Delay	229	308	631	304	387	115								
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	229	308	631	304	387	115								
LOS	C	C	E	C	C	D	D	D	D	D	D	D		

Lanes, Volumes, Timings
SLR

Lanes, Volumes, Timings
SLR

3 Landmark Square
2. Atlantic St & Main St/Stamford Town Center Dr

3 Landmark Square
2. Atlantic St & Main St/Stamford Town Center Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SRT	SSR	Ø5	Ø6
Lane Configuration	33	20	4	33	20	4	14	13	22	71				
Trucks/Vol (vph)	55	7	33	20	8	15	95	413	14	13	223	71		
Trucks/Vol (vph)	55	7	33	20	8	15	95	413	14	13	223	71		
Mean Flow (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Storage Length (ft)	50	0	0	0	0	0	120	0	50	50	130			
Storage Lanes	1	0	0	0	0	0	1	1	0	0	1			
Travel Length (ft)	135	100	100	100	100	100	100	100	100	100	100	100		
Lane Util. Factor	0.79	0.93	0.96	0.76	0.75	0.99	0.99	0.90	0.90	0.90	0.90			
Ped Bike Factor	0.835			0.850		0.995		0.950		0.944				
Flt Protected	0.950			0.966		0.950		0.950		0.950				
Satd. Flow (prot)	1646	1411	0	1774	1561	1662	1728	0	1662	1521	0			
Flt Permitted	0.738			0.817		0.950		0.950		0.950				
Right Turn on Red	1009	1411	0	1436	1193	1240	1728	0	1492	1521	0			
Satd. Flow (RTOR)	35	30	30	131		2	30	30	20	20	Yes			
Link Speed (mph)	30	30	30	30	30	30	30	30	30	30	30			
Travel Time (s)	8.8	8.8	420	888		20.2	888		372		8.5			
Confl. Peds. (f/hr)	102	30	30	102	165		81	81	165		165			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Heavy Vehicles (%)	6%	6%	0%	0%	5%	5%	5%	5%	5%	5%	5%			
Adj. Flow (vph)	59	7	35	21	9	16	101	439	15	14	237	76		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	59	42	0	0	30	16	101	454	0	14	313	0		
Number of Detectors	4	4	1	4	4	1	0	1	0	1	0			
Detector Template	Left	Left	Left	Left	Left	Left	Left	Left	Left	Left	Left			
Leading Detector (ft)	32	-10	-10	32	32	20	0	0	0	0	0			
Trailing Detector (ft)	-10	-10	-10	-10	-10	-10	0	0	0	0	0			
Detector 1 Position(ft)	-10	-10	-10	-10	-10	-10	0	0	0	0	0			
Detector 1 Size(ft)	6	6	6	6	6	6	20	6	20	6	20	6		
Detector 1 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX			
Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	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	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	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	0.0	0.0			
Detector 2 Position(ft)	2	2	2	2	2	2	2	2	2	2	2			
Detector 2 Size(ft)	6	6	6	6	6	6	6	6	6	6	6			
Detector 2 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX			
Detector 2 Channel	Detector 2 Channel	Detector 2 Channel	Detector 2 Channel	Detector 2 Channel	Detector 2 Channel	Detector 2 Channel	Detector 2 Channel	Detector 2 Channel	Detector 2 Channel	Detector 2 Channel	Detector 2 Channel			
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 3 Position(ft)	14	14	14	14	14	14	14	14	14	14	14			
Detector 3 Size(ft)	6	6	6	6	6	6	6	6	6	6	6			
Detector 3 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX			
Detector 3 Channel	Detector 3 Channel	Detector 3 Channel	Detector 3 Channel	Detector 3 Channel	Detector 3 Channel	Detector 3 Channel	Detector 3 Channel	Detector 3 Channel	Detector 3 Channel	Detector 3 Channel	Detector 3 Channel			
Detector 3 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 4 Position(ft)	26	26	26	26	26	26	26	26	26	26	26			
Detector 4 Size(ft)	6	6	6	6	6	6	6	6	6	6	6			
Detector 4 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX			
Detector 4 Channel	Detector 4 Channel	Detector 4 Channel	Detector 4 Channel	Detector 4 Channel	Detector 4 Channel	Detector 4 Channel	Detector 4 Channel	Detector 4 Channel	Detector 4 Channel	Detector 4 Channel	Detector 4 Channel			
Detector 4 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm	NA		
Permitted Phases	4	4	4	4	4	4	2	1	2	1	2	1		5
Prohibited Phases	4	4	4	4	4	4	2	1	2	1	2	1		6
Switch Phase	5.0	5.0	5.0	5.0	5.0	4.0	15.0	4.0	15.0	4.0	15.0	2.0		2.0
Minimum Inlet (s)	28.9	28.9	28.9	28.9	28.9	7.0	27.4	7.0	27.4	7.0	27.4	4.0		4.0
Minimum Split (s)	27.0	27.0	27.0	27.0	27.0	16.0	24.1	16.0	24.1	16.0	24.1	4.0		4.0
Total Split (s)	28.4%	28.4%	28.4%	28.4%	28.4%	14.8%	44.3%	14.8%	44.3%	14.8%	44.3%	4%		4%
Total Split (%)	28.4%	28.4%	28.4%	28.4%	28.4%	14.8%	44.3%	14.8%	44.3%	14.8%	44.3%	4%		4%
Green Time (s)	27.2	27.2	27.2	27.2	27.2	13.3	26.6	13.3	26.6	13.3	26.6	2.0		2.0
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.0		2.0
All Red Time (s)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.0		0.0
Last Time Adj (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.9	4.9	4.9	4.9	4.9	3.0	7.4	3.0	7.4	3.0	7.4			

3 Landmark Square
2. Atlantic St & Main St/Stamford Town Center Dr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SRT	SSR	Ø5	Ø6
Lane Configuration	33	20	4	33	20	4	14	13	22	71				
Trucks/Vol (vph)	55	7	33	20	8	15	95	413	14	13	223	71		
Trucks/Vol (vph)	55	7	33	20	8	15	95	413	14	13	223	71		
Mean Flow (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Storage Length (ft)	50	0	0	0	0	0	120	0	50	50	130			
Storage Lanes	1	0	0	0	0	0	1	1	0	0	1			
Travel Length (ft)	135	100	100	100	100	100	100	100	100	100	100	100		
Lane Util. Factor	0.79	0.93	0.96	0.76	0.75	0.99	0.99	0.90	0.90	0.90	0.90			
Ped Bike Factor	0.835			0.850		0.995		0.950		0.944				
Flt Protected	0.950			0.966		0.950		0.950		0.950				
Satd. Flow (prot)	1646	1411	0	1774	1561	1662	1728	0	1662	1521	0			
Flt Permitted	0.738			0.817		0.950		0.950		0.950				
Right Turn on Red	1009	1411	0	1436	1193	1240	1728	0	1492	1521	0			
Satd. Flow (RTOR)	35	30	30	131		2	30	30	20	20	Yes			
Link Speed (mph)	30	30	30	30	30	30	30	30	30	30	30			
Travel Time (s)	8.8	8.8	420	888		20.2	888		372		8.5			
Confl. Peds. (f/hr)	102	30	30	102	165		81	81	165		165			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Heavy Vehicles (%)	6%	6%	0%	0%	5%	5%	5%	5%	5%	5%	5%			
Adj. Flow (vph)	59	7	35	21	9	16	101	439	15	14	237	76		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	59	42	0	0	30	16	101	454	0	14	313	0		
Number of Detectors	4	4	1	4	4	1	0	1	0	1	0			
Detector Template	Left	Left	Left	Left	Left	Left	Left	Left	Left	Left	Left			
Leading Detector (ft)	32	-10	-10	32	32	20	0	0	0	0	0			
Trailing Detector (ft)	-10	-10	-10	-10	-10	-10	0	0	0	0	0			
Detector 1 Position(ft)	-10	-10	-10	-10	-10	-10	0	0	0	0	0			
Detector 1 Size(ft)	6	6	6	6	6	6	20	6	20	6	20	6		
Detector 1 Type	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX	O+EX			
Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	Detector 1 Channel	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	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	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	0.0	0.0			
Detector 2 Position(ft)	2	2	2	2	2	2	2	2	2	2	2			
Detector 2 Size(ft)	6	6	6	6	6									

3. Landmark Square
3. Atlantic St & Tresser Blvd (US Route 1)

2025 Combined Conditions with Atlantic St Improvements
mi Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR	SSR	09	010
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Trucks/Vol (vph)	129	915	157	173	563	126	145	320	77	174	315	46	4	4
Future Volumes (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Initial Flow (vph)	175	0	180	0	120	0	100	0	100	100	50	50	0	0
Storage Length (ft)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage Capacity (vph)	65	85	85	65	65	65	65	65	65	65	65	65	65	65
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.80	0.77	0.51	0.48	0.51	0.13	0.50	0.62	0.08	0.08	0.08	0.08	0.08
Intersection Summary	Other													
Area Type	Other													
Actuated Cycle Length: 95	Actuated Cycle Length: 95													
Offset: 64 (67%)	Reference to phase 2: SBL and 6: NBL. Start of Yellow													
Natural Cycle: 95	Natural Cycle: 95													
Control Type: Actuated-Coordinated	Control Type: Actuated-Coordinated													
Maximum v/c Ratio: 0.83	Maximum v/c Ratio: 0.83													
Intersection Signal Delay: 318	Intersection Signal Delay: 318													
Intersection Capacity Utilization 83.2%	Intersection Capacity Utilization 83.2%													
Analysis Period (min): 75	Analysis Period (min): 75													
# 95th percentile volume exceeds capacity, queue may be longer.	# 95th percentile volume exceeds capacity, queue may be longer.													
Queue shown is maximum after two cycles.	Queue shown is maximum after two cycles.													
m Volume for 95th percentile queue is metered by upstream signal.	m Volume for 95th percentile queue is metered by upstream signal.													
Split and Phases: 3: Atlantic St & Tresser Blvd (US Route 1)	Split and Phases: 3: Atlantic St & Tresser Blvd (US Route 1)													
0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

3. Landmark Square
3. Atlantic St & Tresser Blvd (US Route 1)

2025 Combined Conditions with Atlantic St Improvements
mi Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR	SSR	09	010
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Trucks/Vol (vph)	129	915	157	173	563	126	145	320	77	174	315	46	4	4
Future Volumes (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Initial Flow (vph)	175	0	180	0	120	0	100	0	100	100	50	50	0	0
Storage Length (ft)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage Capacity (vph)	65	85	85	65	65	65	65	65	65	65	65	65	65	65
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)	0.02 (R)
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

February 1, 2023

City of Stamford Planning & Zoning Boards
c/o Ralph Blessing, Land Use Bureau Chief
888 Washington Boulevard
Stamford, CT 06901

***Re: 0 Atlantic Street (002-9034), 3 Atlantic Street (002-9978), 2 Broad Street (002-8012),
4 Broad Street (002-9471), 5 Broad Street (002-8013), and 101 Broad Street (003-5489) Stamford, CT***

Dear Mr. Blessing:

This letter serves to authorize Redniss & Mead, with offices at 22 First Street in Stamford, CT, and Carmody, Torrance, Sandak, & Hennessey, LLP with offices at 1055 Washington Blvd, Stamford, CT 06901, to act as our agents in connection with the preparing, filing, and processing of applications required for Planning and Zoning approvals relating to the above referenced properties.

Thank you for your acknowledgement of said authority.

Sincerely,

A handwritten signature in black ink, consisting of a stylized 'B' followed by a checkmark-like flourish.

Bruce Berg, CEO
Cappelli Development Company

January 30, 2023

City of Stamford Planning & Zoning Boards
c/o Ralph Blessing, Land Use Bureau Chief
888 Washington Boulevard
Stamford, CT 06901

**Re: 0 Atlantic Street (002-9034), 3 Atlantic Street (002-9978), 2 Broad Street (002-8012),
4 Broad Street (002-9471), 5 Broad Street (002-8013), and 101 Broad Street (003-5489) Stamford, CT**

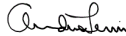
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Sincerely,

DocuSigned by:



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Landmark Square 1-6 LLC