REGULAR MEETING – PLANNING AND ZONING COMMISSION
AGENDA

SEPTEMBER 17, 2025, 6:00 PM
BY ZOOM VIRTUAL MEETING

To allow public access, anyone may access a meeting by telephone and/or Zoom, or a recording in the City of Norwalk YouTube channel. Specific instructions and links can be found at norwalkct.gov/meetings.

Members of the public may call in to participate. Callers will not be able to see the meeting participants. All participants will be muted upon entering the meeting. To speak, dial *9 on the phone and you will be called on by the host of the meeting during the public comment section. All speakers must state their name and address. Comments must be on a topic on the agenda, and are limited to three minutes. Anyone disrupting the orderly conduct of the meeting, including by using threatening, hateful, or sexually-explicit language, will be removed. Please find the information using the link above.

Members of the public who wish to provide "live comments" may also use the Zoom meeting platform. All participants will be muted upon entering the meeting. To speak, click the “raise your hand indicator” and you will be called by the host of the meeting during the public comment section. All speakers must state their name and address. Comments must be on a topic on the agenda, and are limited to three minutes. Anyone disrupting the orderly conduct of the meeting, including by using threatening, hateful, or sexually-explicit language, will be removed. Please find the information using the link above.

Members of the public who wish to provide public comment are encouraged to submit those via email in advance of the meeting. For these comments to be included into the record, they must be submitted by 12:00 p.m. the day of the meeting. Please email Steve Kleppin, Director of Planning & Zoning, at skleppin@norwalkct.gov with the subject line “Public Comment” to provide written public comment prior to the meeting.

I. CALL TO ORDER

II. ROLL CALL & SEATING OF ALTERNATES

III. REVIEW AND ACTION ON APPLICATIONS

A. #2025-70 8-24 Referral — City of Norwalk — 779 and 789 Connecticut Avenue — Temporary construction easement for the City of Norwalk - Report & recommended action

B. #2025-61 SPR - 38 Lois, LLC and One Bishop, LLC - 38 Lois Street & 1 Bishop Street (District 5, Block 17, Lots 226 and 17) - Site plan review application for the construction of two townhouse buildings for a total of 12 dwelling units - Report & recommended action

IV. PUBLIC HEARINGS

A. **#2025-48 SP – Enrico R. Costantini, Esq. – 284 New Canaan Avenue – After-the-fact clearing of 15,000 square feet to be restored with plantings - Public hearing, report & recommended action**

B. **#2025-49 SP – Enrico R. Costantini, Esq. – 284 New Canaan Avenue – Request to modify Special Permit #12-16 to expand the area of the previously approved contractor's yard and change the stormwater management - Public hearing, report & recommended action**

C. **#2025-60 R/SPR – Sound Communities, Inc. – 79 South Main Street (District 2, Block 57, Lot 7) – Zoning Regulation Text Amendment Application regarding Pocket Park Private Frontage Types and Site Plan Review Application to construct a seven-story, 68-dwelling unit, mixed-use development - Public hearing, report & recommended action**

V. DISCUSSION

A. **Executive Roles Committee**

VI. ACCEPTANCE OF MINUTES

A. **Regular Meeting: September 3, 2025**

B. **Special Meeting: September 10, 2025**

VII. COMMENTS OF DIRECTOR

VIII. COMMENTS OF COMMISSIONERS

IX. ADJOURNMENT

UPCOMING MEETINGS

October 8, 2025; October 22, 2025

Record and Return to:
Darin L, Callahan, Assistant Corp. Counsel
City of Norwalk
125 East Ave. Room 237
Norwalk, CT 06851

TEMPORARY CONSTRUCTION EASEMENT AGREEMENT

This TEMPORARY CONSTRUCTION EASEMENT AGREEMENT ("Easement"), dated as of the _____ day of _____, 2025, is entered into by and between **COSTCO WHOLESALE CORPORATION**, a corporation organized and existing under the laws of the State of Washington with a business address of 730 Lake Drive, Issaquah, Washington 98027, the ("Grantor"), and the **CITY OF NORWALK**, a municipal corporation organized and existing under the laws of the State of Connecticut, with a principal address at 125 East Avenue, Norwalk, Connecticut 006851, ("Grantee").

WHEREAS, Grantor is the owner in fee simple of certain real property located at 779 and 789 Connecticut Avenue, Norwalk, Connecticut, more particularly described in Exhibit A attached hereto and made a part hereof ("Property"); and

WHEREAS, a condition of a Certificate of Special Permit issued by the City of Norwalk Planning & Zoning Commission on February 21, 2024 to Grantor requires that Grantor "provide an easement for the future construction and possible location of a sidewalk from the secondary entrance, formerly the hotel site, exceeding to the end of their property, including a potential pedestrian bridge across the Five Mile River" (the "Condition"); and

WHEREAS, the Grantor is willing to grant a temporary, non-exclusive easement to the Grantee over a portion of the Grantor's Property for the purpose constructing and maintaining said sidewalk within a portion of the Grantee's right of way along Connecticut Avenue (the "Project"), as shown in that certain map entitled as "Temporary Sidewalk Construction Easement" dated August 4, 2025 and prepared by BL Companies (the "Easement Map"), said easement identified therein as "10' Wide Temporary Construction Easement to the City of Norwalk," a copy of said Easement Map being attached hereto as Exhibit B and made a part hereof; and

WHEREAS, in satisfaction of the Condition, Grantor and Grantee desire that Grantor should grant to Grantee certain easements hereinafter set forth over the portions of the Grantor's Property described herein.

NOW THEREFORE, in consideration of the sum of One Dollar ($1.00) paid by Grantee, the receipt and sufficiency of which is hereby acknowledged by Grantor, and in consideration of the mutual promises herein made, the parties hereby agree as follows:

1. Easement. Grantor does hereby give, grant, bargain, sell, convey and confirm unto Grantee, the temporary, non-exclusive easement (the "Easement") upon, over, under and upon the certain area of the Grantor's Property identified in the Easement Map as 10' Wide Temporary Construction Easement to the City of Norwalk (the "Easement Area")

for the purposes of: (a) Constructing the Project and related site work; (b) Allowing workers and equipment necessary to the construction of the Project to cross and recross the Easement Area; and (c) all other uses necessary and/or incidental to constructing the Project and related appurtenances.

2. Term. This Easement shall commence upon the date first written above and shall terminate automatically, without need for execution or recording of a release or termination agreement to confirm the date of termination, upon the completion of the Project.

3. Additional Requirements. Grantee shall use commercially reasonable efforts to ensure all work to be performed hereunder is completed in a good, workmanlike, expeditious and lien-free manner, and in accordance with all applicable laws and codes.

4. Restoration of Premises. Upon the expiration of this Easement, Grantee shall remove all equipment and materials from the Easement Area and Grantee shall restore any portion of the Easement Area disturbed in connection with or arising out of the exercise of Grantee's rights hereunder, as close as is reasonably possible, to the condition it was in prior to Grantee's entry.

5. Indemnification.

   A. Grantee covenants at all times to indemnify and save harmless Grantor from and against any and all claims, actions, damages, liabilities and expenses, including but not limited to, reasonable attorneys' and other professional fees and expenses (collectively, "**Indemnified Liabilities**"), in connection with loss of life, personal injury and/or damage to the Easement Area arising solely from the use of the Easement Area by Grantee, its contractors, subcontractors or other designees pursuant to this Easement, except to the extent such Indemnified Liabilities arise out of, relate to or result from the negligence or willful misconduct of Grantor and/or its successors, assigns, tenants, contractors, occupants, licensees, employees, agents and invitees.

   B. Grantor covenants at all times to indemnify and save harmless Grantee from and against any and all Indemnified Liabilities in connection with loss of life, personal injury and/or damage to the Property arising solely from the use of the Property by Grantor, its successors, assigns, tenants, contractors, occupants, licensees, employees, agents and invitees, except to the extent such Indemnified Liabilities arise out of, relate to or result from the gross negligence or willful misconduct of Grantee and/or its successors, assigns, tenants, contractors, occupants, licensees, employees, agents and invitees.

6. Insurance. Except to the extent that the party is self-insured, at all times during the term hereof, each party hereto shall procure, at its sole cost and expense, workers' compensation, public liability and property damage insurance against all claims for personal injury, death or property damage resulting from or in connection with the rights and obligations of the respective parties under this Easement. Except to the extent that the

party is self-insured, each party's insurance shall name the other party as an additional insured and shall afford protection in the following amounts:

A. Not less than One Million Dollars ($1,000,000.00) for bodily injury or death to a single person; and

B. Not less than Two Million Dollars ($2,000,000.00) for injury or death as a result of any one (1) occurrence.

7. Connecticut Law. This Easement shall be construed in accordance with, and governed by, the laws of the State of Connecticut without regard to principles of conflicts of laws.

8. Compliance with Law. Grantee shall comply with all applicable laws in connection with the exercise of its rights hereunder.

9. Breach Shall Not Permit Termination. It is expressly agreed that no breach of this Agreement shall entitle Grantor or Grantee to cancel, rescind, or otherwise terminate this Agreement, and such limitations shall not affect in any manner any of the rights or remedies which Grantor or Grantee may have by reason of any breach of this Agreement.

10. Entire Agreement; Recitals, Definitions and Exhibits. This Easement, together with all Exhibits attached hereto, contains and embodies the entire agreement of the parties hereto, and no representations, inducements or agreements, oral or otherwise, between the parties which are not contained and embodied in this Easement (including said Exhibits) shall be of any force or effect. All Exhibits attached to and recitals contained in this Easement are hereby incorporated herein and shall be deemed to be a portion of the enforceable provisions hereof as if restated within the body of this Easement.

11. Severability. The determination by a court that any provision hereof is invalid for any reason shall not affect the validity of any other provision hereof.

12. No Construction Covenant. Notwithstanding anything to the contrary contained herein, no provision of this Easement shall be construed to contain a covenant, express or implied, by Grantee to construct the Project. The foregoing shall not be deemed to modify any existing agreements between the parties.

13. Authority. Grantor hereby covenants with Grantee that Grantor is lawfully seized and in possession of Grantor's Property and that it has good right to grant the aforesaid easement and right of way free and clear of mortgages and other encumbrances. Grantor and Grantee each represents and warrants that it has the right, power and authority to execute and deliver this Easement, and this Easement has been duly authorized, executed and delivered by it and is a valid and binding obligation of it enforceable against it in accordance with the terms hereof.

14. [Intentionally omitted]

15. Counterparts. This Easement may be executed in one or more counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument.

16. Amendments. This Easement may not be amended, modified, supplemented, changed or terminated except by the written and recorded agreement of the parties.

17. No Waiver. Any waiver or failure to enforce any provision of this Easement in a particular situation shall not be a waiver or abandonment of such provision as it may apply in any other situation or to the same or a similar situation or of any other provision of this Easement. The failure of any party to enforce any provision herein contained shall in no event be a waiver of the right to do so thereafter nor of the right to enforce any other provision.

18. Successors and Assigns. This Easement shall be binding upon and inure to the benefit of and be enforceable by the successors (including successors in title) and assigns of the parties hereto. The easement rights granted herein also shall benefit the agents, employees, contractors, subcontractors, designees, licensees and invitees of Grantee.

[*Signatures follow on next page*]

IN WITNESS WHEREOF, Grantor has executed this Easement as of the day and year first above written.

Witnesses' signatures:

_____

_____

COSTCO WHOLESALE CORPORATION

BY _____
Rainey Astin
Assistant Secretary

_____ , 2025

STATE OF

ss.

COUNTY OF

_____ , 2025

Before me, the undersigned officer, personally appeared, Mark Marchisano, who acknowledged himself to be the Director of Development of COSTCO WHOLESALE CORPORATION, and that as such and being authorized to do so, executed the foregoing instruction for the purposes therein contained.

_____
Notary Public
My Commission Expires:

EXHIBIT A
779, 789 Connecticut Avenue, Norwalk

EXHIBIT A

LEGAL DESCRIPTION

779 Connecticut Avenue

All that piece or parcel of land located on the southeasterly side of Connecticut Avenue (U.S. Route 1), situated in the City of Norwalk, County of Fairfield and State of Connecticut, containing 425,488 square feet or 9.768 acres of land, and more particularly bounded and escribed as follows:

Commencing at a point of intersection of the southeasterly line of land now or formerly State of Connecticut (Route 95 exit ramp) and the southeasterly line of Connecticut Avenue (U.S. Route 1), said point being a CHD Monument with Disc;

Thence along said southeasterly line of Connecticut Avenue (U.S. Route 1) North 47°57'36" East a distance of 341.28 feet to a point; along a curve to the left having a radius of 2557.01 feet, a delta angle of 1°47'48", an arc length of 80.19 feet and a chord bearing of North 47°20'58" East a chord distance of 80.18 feet to the True point and place of beginning;

Thence along said southeasterly line of Connecticut Avenue (U.S. Route 1) the following three (3) courses and distances: North 66°31'12" West a distance of 10.95 feet to a point; along a curve to the left having a radius of 2547.01 feet, a delta angle of 1°33'29", an arc length of 69.26 feet and a chord bearing of North 45°24'36" East a chord distance of 69.26 feet to a point; North 44°45'29" East a distance of 141.85 feet to a point;

Thence along land now or formerly Sterling 777 LLC the following eight (8) courses and distances: South 45°14'25" East a distance of 134.99 feet to a point; South 23°41'43" East a distance of 56.67 feet to a point; North 66°18'17" East a distance of 250.00 feet to a point; North 23°41'43" West a distance of 169.07 feet to a point; along a curve to the left having a radius of 52.04 feet, a delta angle of 109°23'35", an arc length of 99.36 feet and a chord bearing of North 80°00'17" West a chord distance of 84.94 feet to a point; along a curve to the right having a radius of 4.50 feet, a delta angle of 88°29'53", an arc length of 6.95 feet and a chord bearing of South 89°31'38" West a chord distance of 6.28 feet to a point; North 45°14'38" West a distance of 15.08 feet to a point; North 43°45'14" East a distance of 197.29 feet to a point;

Thence along the westerly line of Richards Avenue the following ten (10) courses and distances: along a curve to the right having a radius of 50.00 feet, a delta angle of 65°50'20", an arc length of 57.45 feet and a chord bearing of South 36°30'13" East a chord distance of 54.35 feet to a point; South 3°36'20" East a distance of 130.80 feet to a point; South 2°54'30" East a distance of 170.27 feet to a point; South 15°45'20" East a distance of 56.66 feet to a point; South 17°27'05" East a distance of 123.08 feet to a point; South 19°29'20" East a distance of 103.53 feet to a point; South 22°29'10" East a distance of 9.90 feet to a point; South 22°43'10" East a distance of 44.97 feet to a point; South 22°13'30" East a distance of 60.31 feet to a point; South 22°44'40" East a distance of 90.37 feet to a point;

Thence along the northerly line of land now or formerly State of Connecticut (Route 95) along a curve to the right having a radius of 2714.79 feet, a delta angle of 8°48'24", an arc length of 417.28 feet and a chord bearing of South 61°54'18" West a chord distance of 416.87 feet to a point; South 66°18'30" West a distance of 553.61 feet to a point;

Thence along said land of State of Connecticut (Route 95 exit ramp) North 5°16’11” West a distance of 274.23 feet to a point;

Thence along land now or formerly 789 Connecticut Avenue Holdings, LLC the following eight (8) courses and distances: South 35°04’35” East a distance of 16.82 feet to a point; North 65°36’02” East a distance of 187.55 feet to a point; North 66°35’54” East a distance of 184.12 feet to a point; North 10°48’30” West a distance of 235.00 feet to a point; North 10°08’30” West a distance of 50.10 feet to a point; North 1°04’30” East a distance of 37.80 feet to a point; North 18°38’30” East a distance of 26.56 feet to a point; North 62°17’40” West a distance of 85.05 feet to the True point of beginning.

LEGAL DESCRIPTION

789 Connecticut Avenue

All that piece or parcel of land located on the southeasterly side of Connecticut Avenue (U.S. Route 1), situated in the City of Norwalk, County of Fairfield and State of Connecticut, containing 139,194 square feet or 3.196 acres of land, and more particularly bounded and escribed as follows:

Beginning at a point of intersection of the southeasterly line of land now or formerly State of Connecticut (Route 95 exit ramp) and the southeasterly line of Connecticut Avenue (U.S. Route 1), said point being a CHD Monument with Disc;

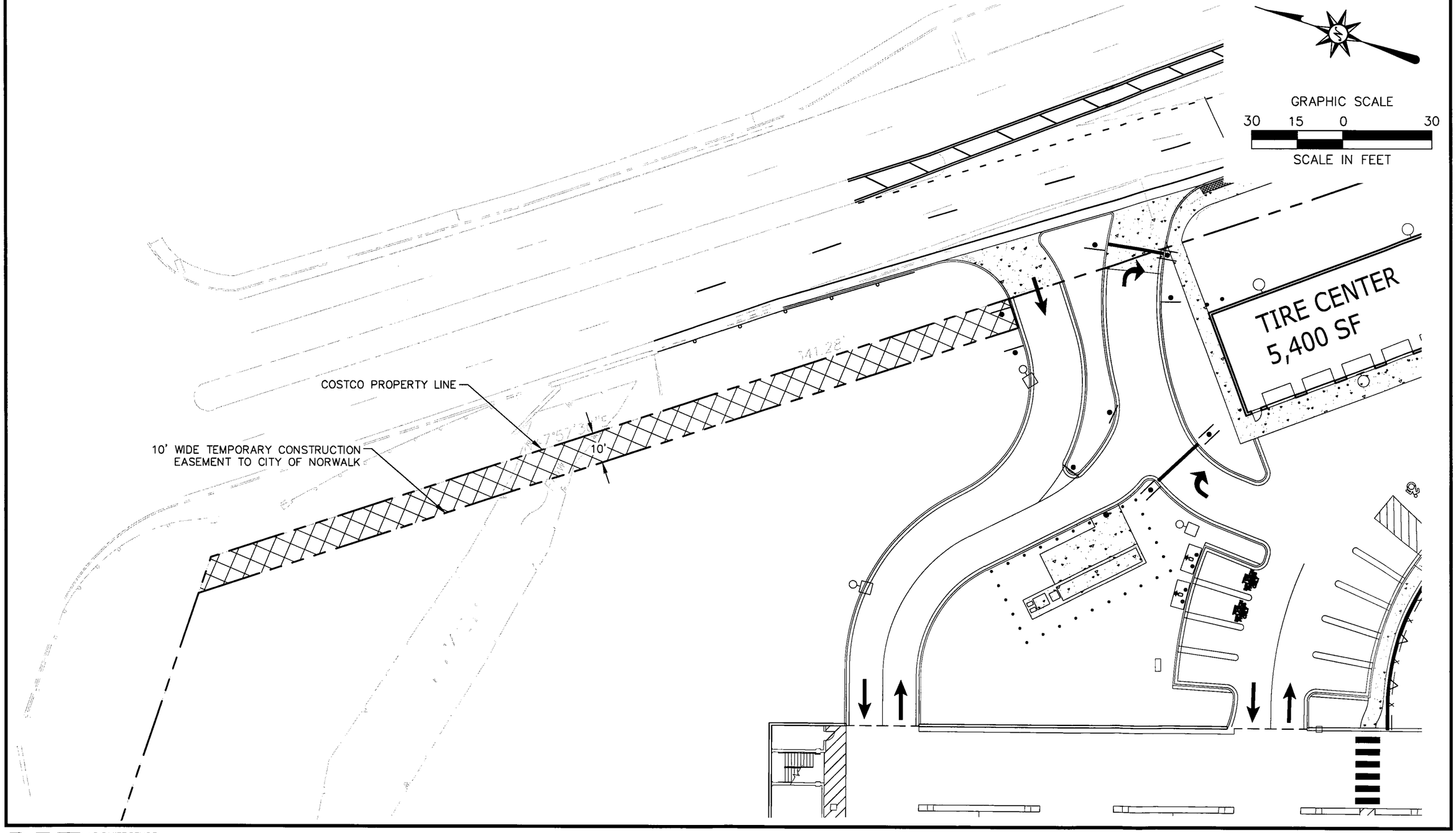
Thence along said southeasterly line of Connecticut Avenue (U.S. Route 1) North 47°57'36" East a distance of 341.28 feet to a point; along a curve to the left having a radius of 2557.01 feet, a delta angle of 1°47'48", an arc length of 80.19 feet and a chord bearing of North 47°20'58" East a chord distance of 80.18 feet to a point;

Thence along land now or formerly Costco Wholesale Corporation the following seven (7) courses and distances: South 62°17'40" East a distance of 85.05 feet to a point; South 18°38'30" West a distance of 26.56 feet to a point; South 1°04'30" West a distance of 37.80 feet to a point; South 10°08'30" East a distance of 50.10 feet to a point; South 10°48'30" East a distance of 235.00 feet to a point; South 66°35'54" West a distance of 184.12 feet to a point; South 65°36'02" West a distance of 187.55 feet to a point;

Thence along said land of Costco Wholesale Corporation and said southeasterly line of land of State of Connecticut (Route 95 exit ramp), partly by each, North 35°04'35" West a distance of 137.45 feet to a point;

Thence along said southeasterly line of Connecticut Avenue (U.S. Route 1) North 5°14'56" West a distance of 138.47 feet to the point and place of beginning.

EXHIBIT B
Easement Area Map



ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

BL Companies

TEMPORARY SIDEWALK CONSTRUCTION EASEMENT

779 CONNECTICUT AVENUE
NORWALK, CONNECTICUT

Designed	E.P.Z.
Drawn	E.P.Z.
Reviewed	J.A.B.
Scale	1"= 30'
Project No.	2100207
Date	06/16/2025
CAD File	EXH210020701-EXHIBIT A-Easement

EXHIBIT B

Site Plan Review Application

City of Norwalk Planning & Zoning Commission
Phone: 203-854-7780
www.norwalkct.gov

Date Received:

Per Section 8.4.5 of the Norwalk Zoning Regulations, the purpose of Site Plan Reviews is to aid in determining the conformity of proposals related to Development, Buildings, Structures, Uses, and other matters with the Zoning Regulations.

1. **Address of Subject Property(s):**
   1 Bishop Street and 38 Lois Street, Norwalk, CT
2. District: 5, Block: 17, Lot(s): 226, **3.** Zone: CD-3C, Overlay/Village District: No
4. Historic Structure(s): ☑ No ☐ Yes **5.** Flood Hazard Zone: ☑ No ☐ Yes, Flood Zone(s) _____
6. Coastal Area Management Zone: ☑ No ☐ Yes If yes, include application for Coastal Site Plan Review or specify Section allowing exemption: _____
7. Existing Use of Property:
   See Schedule A attached hereto.
8. Proposed Use of Property as Identified per **Table 4.3.9.A** Building, Lot & Building Site Principal Uses:
   See Schedule A attached hereto.

Applicant Information

Applicant Name: 38 Lois, LLC and One Bishop, LLC
Billing Address: 1 Bishop Street, Norwalk, CT 06851
Phone Number: c/o Elizabeth Suchy, Esq. - 203-252-2656 Email: c/o Elizabeth Suchy, Esq. - esuchy@carmodylaw.com
Signature: Carmody Torrance Sandak & Hennessey, LLP
By: Carmody Torrance Sandak & Hennessey LLP, Their Attorneys

Property Owner Information and Authorization

Owner of Record: 38 Lois, LLC and One Bishop, LLC
Billing Address: 1 Bishop Street, Norwalk, CT 06851
Phone Number: c/o Elizabeth Suchy, Esq. - 203-252-2656 Email: c/o Elizabeth Suchy, Esq. - esuchy@carmodylaw.com
Signature: Carmody Torrance Sandak & Hennessey, LLP
By: Carmody Torrance Sandak & Hennessey LLP, Their Attorneys

**By signing, the property owner confirms that the Applicant has been authorized to apply for Planning & Zoning approval, and attests that all information provided is true and accurate.*

38 Lois LLC and One Bishop LLC
38 LOIS STREET AND 1 BISHOP STREET, NORWALK, CT
APPLICATION FOR SITE PLAN REVIEW
NARRATIVE - SCHEDULE A

BACKGROUND

38 Lois LLC and One Bishop LLC are the owners (collectively the "Applicant") of two (2) contiguous parcels of real property with the improvements thereon located at 38 Lois Street (District 5, Block 17, Lot 226)["38 Lois"] and 1 Bishop Street (District 5, Block 17, Lot 31)["1 Bishop"] in Norwalk, CT (collectively the "Property"). (Refer to "Zoning Location Survey & Topographic Survey (S-1.0)" dated 6/3/24, revised to 7/29/25 prepared by LandTech Consult, attached hereto and made a part hereof). The Property is totaling 21,420+\- sq.ft./0.492+\- acres. Generally bounded by Lois Street to the west, Bishop Street to the south, other commercially developed properties to the east and north, the Property is zoned CD-3C.

An unnamed, intermittent watercourse exists offsite on an adjacent parcel to the north of the Property, and the 100' upland review area extends onto the Property onto currently improved/disturbed areas. The stream and linear drainage swale, drain westward toward a broader wetland complex and outfall system south of Lois Street.

38 Lois is improved with a 1,280+\- sq.ft. single-family dwelling constructed in 1964. 1 Bishop is improved with a one-story, 4,046+\- office building constructed in 1974 and associated on-grade parking spaces. Both structures are slated for demolition.

PROPOSAL

The Applicant submits this application for site plan review[1] for the redevelopment of the Property with the construction, use and occupancy of two (2) new residential structures containing a total of 12 townhouse apartments[2], along with new stormwater and sewage systems and associated site improvements including lighting, landscaping, off-street parking, sidewalks. As part of this proposal the two (2) lots will be consolidated.

STANDARDS OF REVIEW

The Applicant submits that the proposal complies with all standards of review for site plan applications as follows:

a. The development complies with Sec. 4.3.5 (Building Standards); Sec. 4.3.16 (Private Landscape Standards): Sec. 6.2 (Grading, Tree Removal and Drainage): Sec. 6.3 (Import/Export of Earth Materials); Sec. 6.4 (Soil Erosion & Sediment Control): Sec. 6.9 (Flood Hazard Overlay). The proposal complies with all of the foregoing standards. (Refer to plan by Beinfield Architecture, PC, LandTech Consult and Eric Rains Landscape Architecture, LLC attached hereto and made a part hereof).

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[1] An Application for Significant Regulated Activity was submitted to the City of Norwalk Conservation Commission prior to or this Application for Site Plan Review, and action is expected by that Commission on Aug. 12, 2025 or Aug. 26, 2025.
[2] One building will have four (4) units and the other building will have eight (8) units.

b. The proposed access and circulation are adequate with respect to traffic patterns, traffic control measures and street pavement areas, with provisions for maintaining traffic flows and reducing any negative effects of traffic on nearby properties. The project provides proper and adequate access to and from the Property and internal circulation to maintain traffic flows and reduce negative impacts on nearby properties and roadways. (Refer to plans by LandTech Consult and Beinfield Architecture, attached hereto and made a part hereof).
c. The Development complies with all applicable Development and site construction requirements. (Refer to plan by LandTech Consult and Beinfield Architecture, attached hereto and made a part hereof).
d. Adequacy of stormwater facilities, water supply, sanitary sewer service, fire protection, street signs, and street lighting as evidenced by conformance with City standards, specifications and guidelines. The site is and will continue to be served by all utilities. (Refer to plans and "Stormwater Management Report for 1 Bishop & 38 Lois Street" dated May 19, 2025 revised to July 29, 2025 prepared by LandTech Consult, attached hereto and made a part hereof).
e. Compliance with requirements for Easements or dedications. The development does not propose any new easements or dedications; the existing 15' drainage easement will not be impacted by the proposed development.
f. Proper ingress and egress to the site which does not adversely impact the normal flow of traffic or normal safe conditions of the roadways. Site plans shall be referred to each applicable reviewing authority for review and recommendations. This application and supporting documentation will be referred to the Department of Public Works and Transportation/Mobility/Parking for review and comment. (Refer to plans by LandTech Consult, attached hereto and made a part hereof).
g. Reasonable improvements as may be necessary to accommodate traffic increases caused by the proposed development to maintain existing levels of service and to improve traffic safety. A Traffic Impact Analysis, as specified below, may be required from the applicant to determine the extent of necessary improvements. Since the proposed use will generate far less than 500 trips per day and far less than 50 vehicle trips at any peak hour, a traffic impact analysis is not required.

38 LOIS, LLC AND ONE BISHOP, LLC
38 LOIS STREET AND ONE BISHOP STREET, NORWALK, CT
APPLICATION FOR SITE PLAN REVIEW
LIST OF PROPERTY OWNERS WITHIN 100' OF SUBJECT PROPERTY

1.
5/17/226
38 Lois, LLC
38 Lois Street
Norwalk, CT 06851

Mailing:
1 Bishop Street
Norwalk, CT 06851

2.
5/17/31
One Bishop, LLC
1 Bishop Street
Norwalk, CT 06851

3.
5/17/8/1
597 Westport Owner 1 LLC
595 Westport Avenue #1
Norwalk, CT 06851

Mailing:
c/o GDC Properties LLC
245 Saw Mill River Road
Hawthorne, NY 10532-1526

4.
5/17/8/2
Pepperidge Farm, Incorporated
595 Westport Avenue #2
Norwalk, CT 06851

Mailing:
Attn: Property and Sales Tax Manager
PO Box 32368
Charlotte, NC 28232-2368

5.
5/17/240
Koestner Family Limited Partnership
35 Lois Street
Norwalk, CT 06851

Mailing:
134 Garden Drive
Kalispell, MT 59901

6.
5/17/262
27 Lois Street LLC
27 Lois Street
Norwalk, CT 06851

Mailing:
195 North Avenue
Westport, CT 06880

7.
5/17/238
39 Lois, LLC
39 Lois Street
Norwalk, CT 06851

Mailing:
943 Post Road East
Westport, CT 06880

8.
5/17/225
Eiliane A. Legrand
Arios Legrand
43 Lois Street
Norwalk, CT 06851

9.
5/17/228
Peter Chagaris
Dina Chagaris
57 Fullin Road
Norwalk, CT 06851-3416

10.
5/17/229
Thomas M. Cincotta
Gloria T. Cincotta
55 Fullin Road
Norwalk, CT 06851-3416

11.
5/17/30
Complete Solutions LLC
24 Lois Street
Norwalk, CT 06851

12.
5/17/35A
86 South Main Street LLC
30 Brookfield Street
Norwalk, CT 06851

Mailing:
24 Walter Avenue
Norwalk, CT 06851

13.
5/17/52
Marcos Alarcon & Jenny Calderon
2 Kittredge Street
Norwalk, CT 06851

Mailing:
106 Soundview Court
Stamford, CT 06902

14.
5/17/43
One Kittredge Street LLC
1 Kittredge Street
Norwalk, CT 06851

Mailing:
42 Blueberry Hill Road
Redding, CT 06896-3303

15.
5/17/44
Nathaniel Rodriguez
3 Kittredge Street
Norwalk, CT 06851

16.
5/17/61
18 25 Lois LLC
25 Lois Street
Norwalk, CT 06851

Mailing:
30 High Street
Norwalk, CT 06851

17.
5/17/23
Jane E. Sherman, trustee
21 Lois Street
Norwalk, CT 06951

Mailing:
195 North Avenue
Westport, CT 06880

18.
5/17/224
Hiru Bellara
45 Lois Street
Norwalk, CT 06851

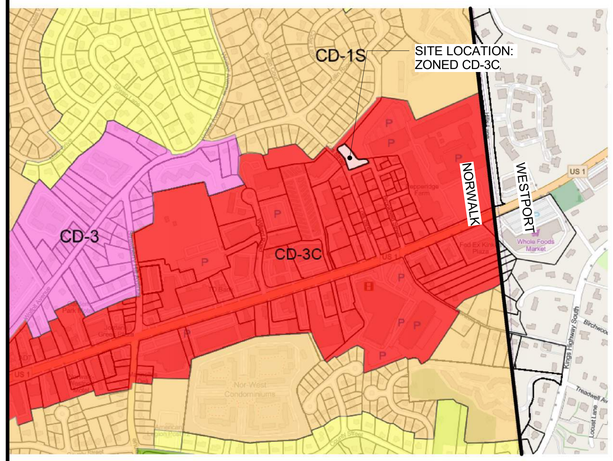
19.
5/17/230
Gene Tressan
53 Fullin Road
Norwalk, CT 06851

BISHOP AND LOIS STREET

BEINFIELD ARCHITECTURE

6-10-2025

VICINITY MAP



ZONING ANALYSIS

SITE A	ZONE CD3C	LOT AREA: 8115 SF
SITE B	ZONE CD3C	LOT AREA: 13,316 SF
COMBINED	ZONE CD3C	LOT AREA: 21,431 SF

ZONE: CD-3C		REQUIRED/ALLOWED	PROVIDED
HEIGHT	MAX	PRINCIPAL BUILDING: 4 STORIES ACCESSORY BUILDING: 2 STORIES	4 STORY
	MIN	PRINCIPAL BUILDING: 2 STORIES	
MIN. LOT SIZES	AREA	NOT REGULATED	
	LOT WIDTH	50 FT. MIN.; 100 FT. MAX.;	
SETBACKS		***FRONT SETBACK*** PRINCIPAL FRONTAGE: 6' MIN. 12' MAX. SECONDARY FRONTAGE: 6' MIN. 12' MAX. ***SIDE SETBACK:*** 0 FT ***REAR SETBACK:*** 3 FT MIN	
MAX LOT COVERAGE		NOT REGULATED	N/A
RESIDENTIAL DENSITY		**SITE-A DENSITY** 1DU / 1,650 SF 8,115 / 1,650 = 4.9 DU ***4 UNITS ARE PERMITTED*** **SITE-B DENSITY** 1DU / 1,650 SF 13,315 / 1,650 = 8 DU ***8 UNITS ARE PERMITTED***	**12 UNITS PROVIDED** **SITE A:** 4 UNITS **SITE B:** 8 UNITS
PARKING		**SITE-A PARKING** 1 PER TOWNHOUSE= **4 SPACES REQUIRED** **SITE-B PARKING** 1 PER TOWNHOUSE = **8 SPACES REQUIRED**	PROVIDED SPACES **SITE A: 8** **SITE B: 10**
FRONTAGE BUILDOUT		60% min.	***SITE A:*** TOTAL FRONTAGE BUILDOUT: 60% ***SITE B:*** TOTAL FRONTAGE BUILDOUT: 80%
BUILDING TYPE			BLDG A: TOWNHOUSES BLDG B: TOWNHOUSES

BUILDING AREAS BY BUILDING

Area Schedule BY PROGRAM BLDG A

Name	Number	Area
BLDG A		
GARAGE	1A	432 SF
GARAGE	2A	440 SF
GARAGE	3A	440 SF
GARAGE	4A	432 SF
		1,744 SF
TH	1A	2,149 SF
TH	2A	2,205 SF
TH	3A	2,209 SF
TH	4A	2,185 SF
		8,748 SF
		10,492 SF

Area Schedule BY PROGRAM BLDG B

Name	Number	Area
BLDG B		
GARAGE	1B	432 SF
GARAGE	2B	360 SF
GARAGE	3B	360 SF
GARAGE	4B	360 SF
GARAGE	5B	360 SF
GARAGE	6B	360 SF
GARAGE	7B	370 SF
GARAGE	SHARED	3,260 SF
		5,862 SF
TH	1B	2,664 SF
TH	2B	2,167 SF
TH	3B	2,167 SF
TH	4B	2,167 SF
TH	5B	2,167 SF
TH	6B	2,173 SF
TH	7B	1,951 SF
TH	8B	1,831 SF
		17,288 SF
		23,151 SF

PARKING ANALYSIS

PARKING SCHEDULE

STALL TYPE	COUNT
BLDG A	
ST - PARKING SPACE: 8.5 x 19 - garage	8
	8
BLDG B	
ST - PARKING SPACE: 8 x 19	2
ST - PARKING SPACE: 8.5 x 19 - garage	7
ST - PARKING SPACE: 10' x 19' ADA VAN	1
	10
TOTAL PARKING SPACES	18

Area Schedule BY PROGRAM TOTAL

Name	Area
GARAGE	
GARAGE	7,606 SF
TH	
TH	26,037 SF
	33,643 SF

UNIT SCHEDULES

UNIT SCHEDULE

UNIT TYPE	Count
BLDG A	
TH	4
	4
BLDG B	
TH	8
	8
	12

UNIT MIX

UNIT TYPE	COUNT	PERCENTAGE
3 BEDROOM		
TH	12	100%
	12	100%

BUILDING SUMMARY

BUILDING SUMMARY

GROSS SF	UNIT COUNT	PARKING COUNT
33,656	12	18

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1 SD0.03 Site
1/16" = 1'-0"

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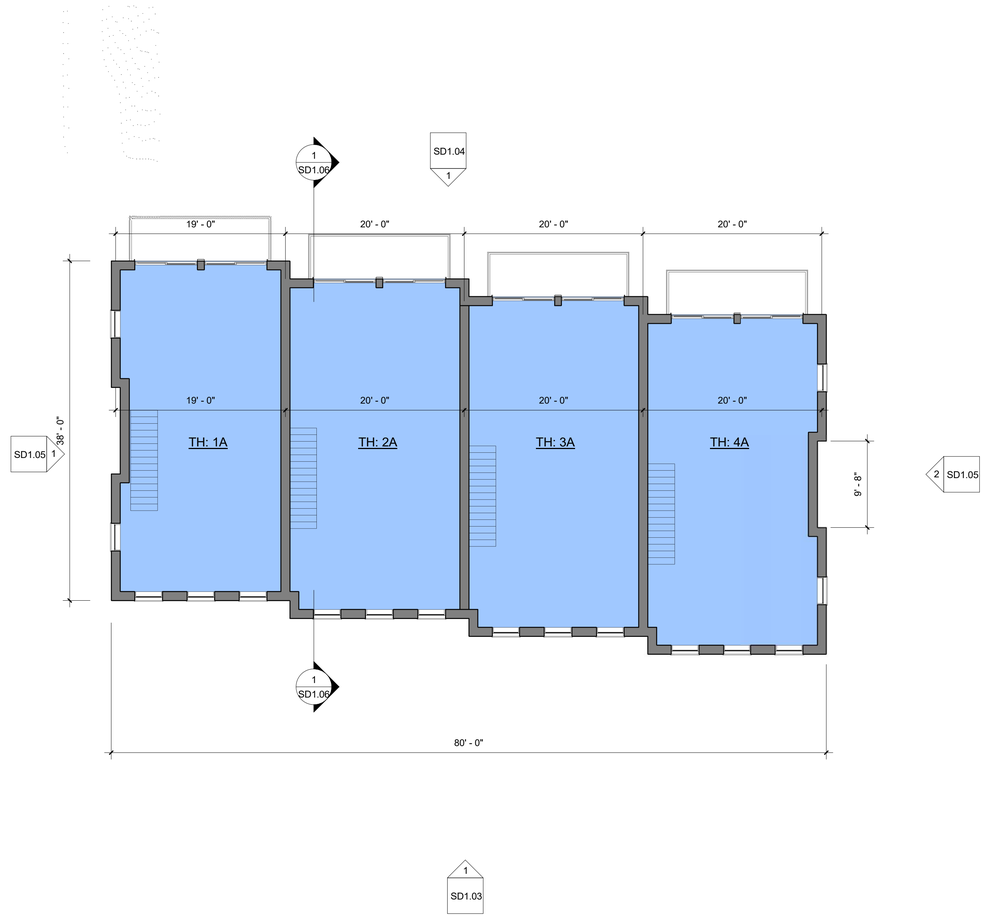
1 SD1.00 SITE - A - Garage/ Level 01
1/8" = 1'-0"



2 SD1.00 SITE A - Level 02
1/8" = 1'-0"

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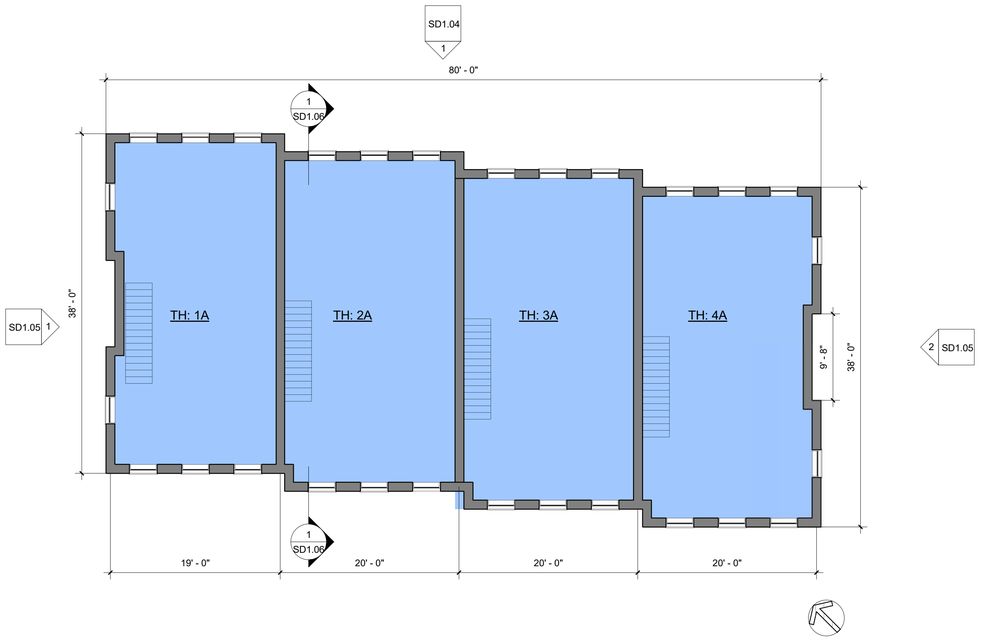

1 SD1.01 SITE A - Level 3
1/8" = 1'-0"

2 SD1.01 SITE A - Level 04
1/8" = 1'-0"

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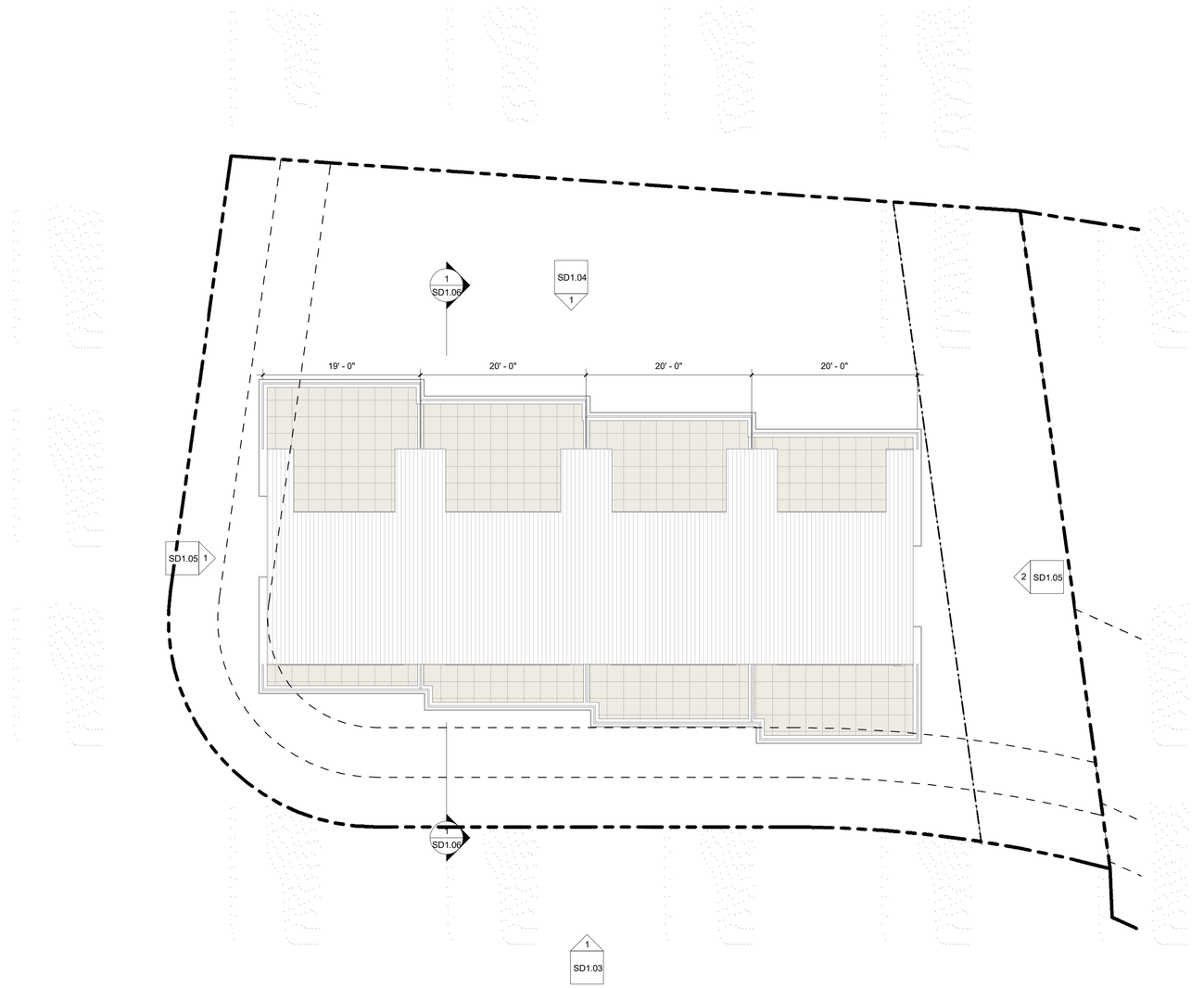

1 SD1.02 ROOF
1/8" = 1'-0"

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1 SD1.03 BLDG A_ELEVATION A
1/4" = 1'-0"

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1 SD1.04 BLDG A_ELEVATION - C
1/4" = 1'-0"

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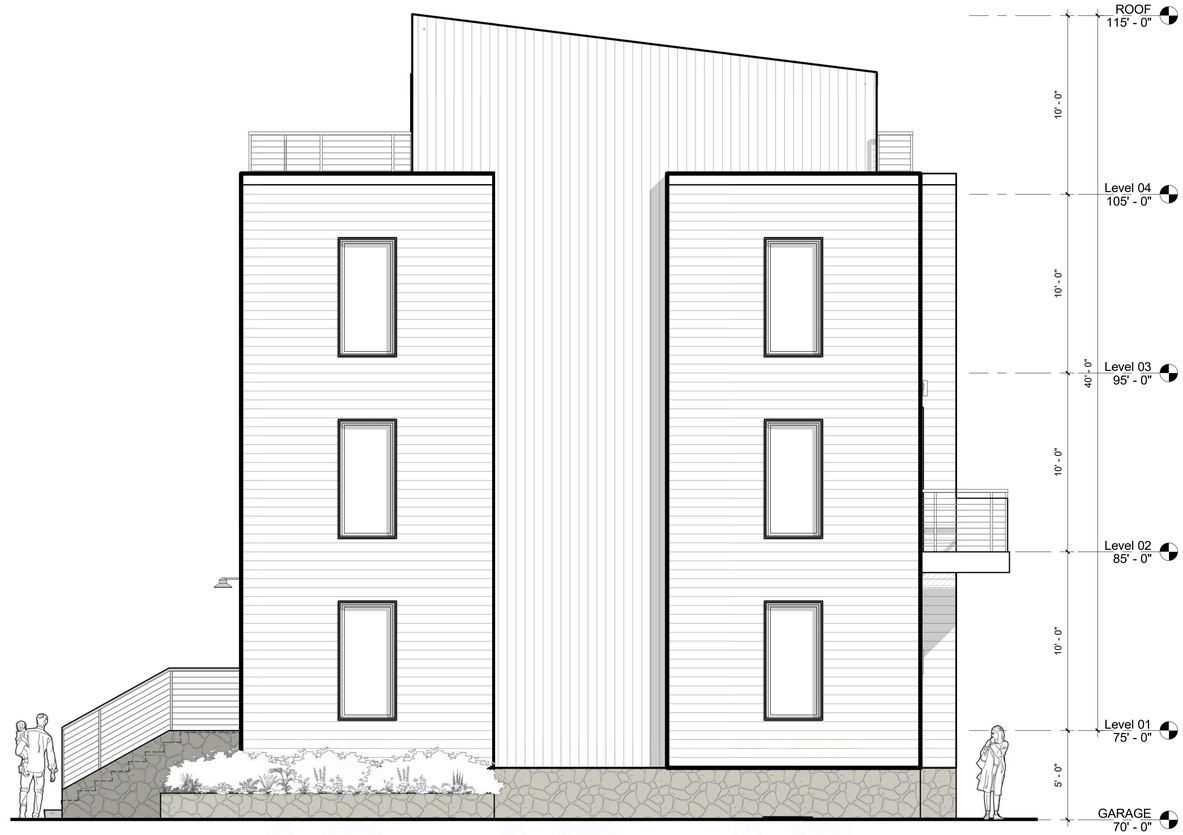
1 SD1.05 BLDG A_ELEVATION - B
1/4" = 1'-0"



2 SD1.05 BLDG A_ELEVATION - D
1/4" = 1'-0"

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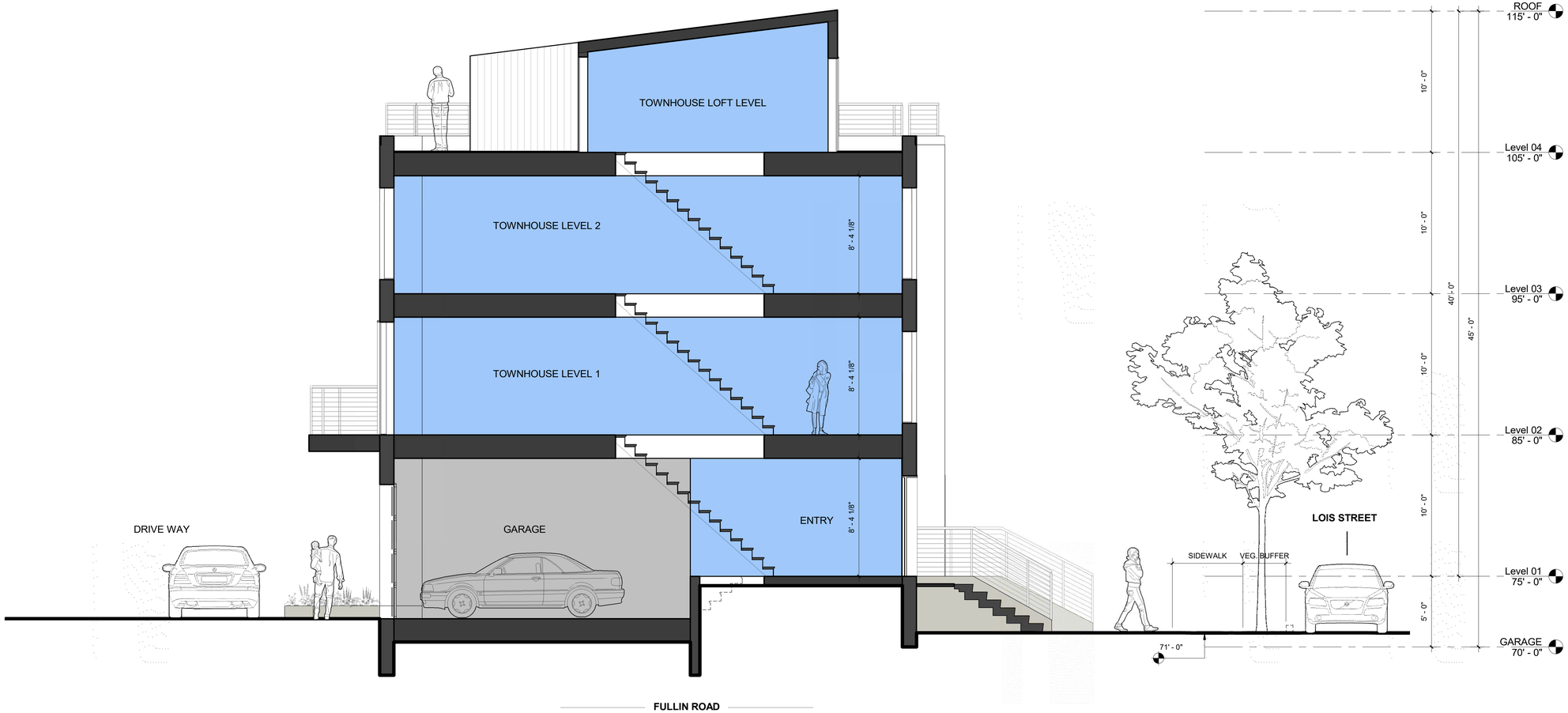

1 SD1.06 Section 15
1/4" = 1'-0"

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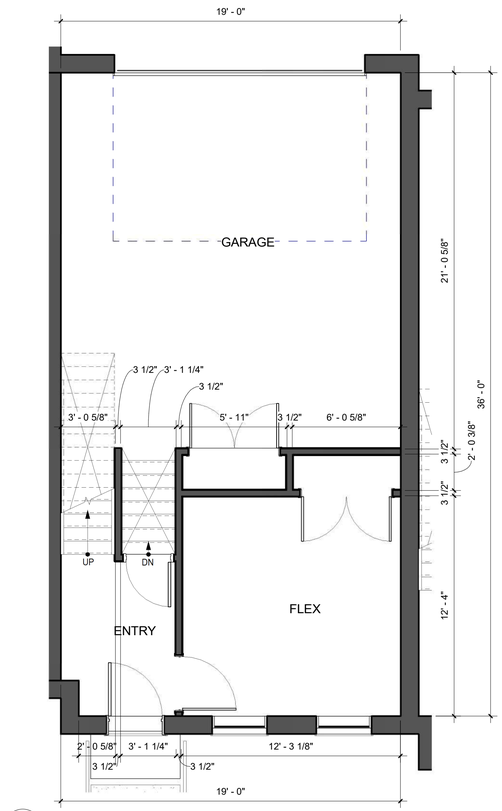
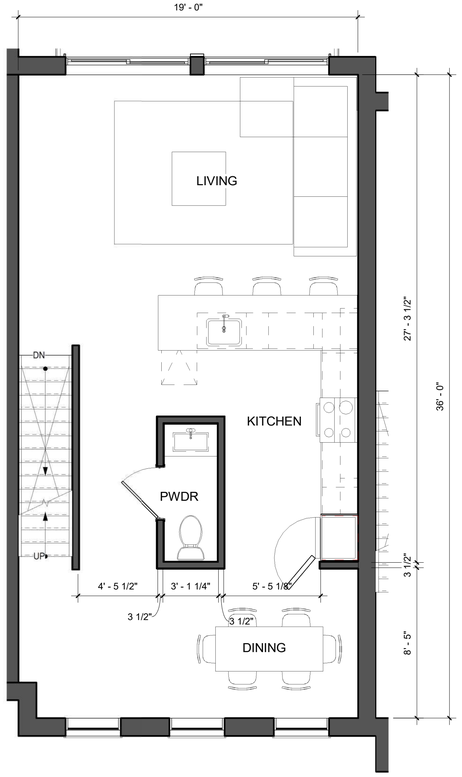
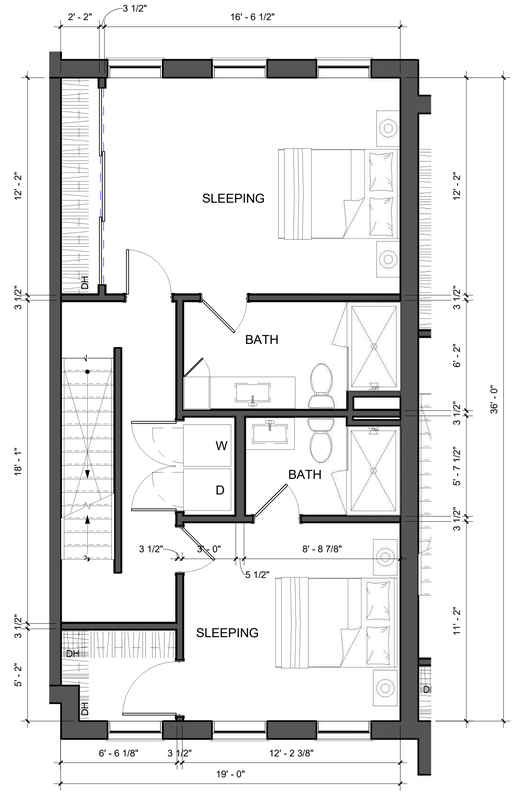


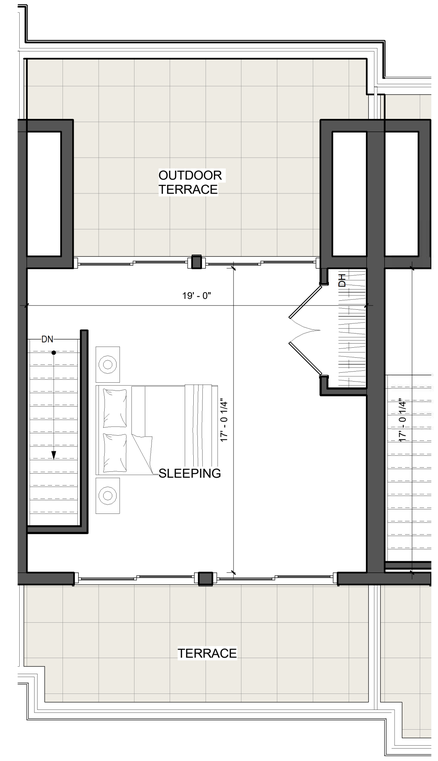
1 SD1.07 TOWNHOUSE A LEVEL 1
1/4" = 1'-0"



2 SD1.07 TOWNHOUSE A LEVEL 2
1/4" = 1'-0"

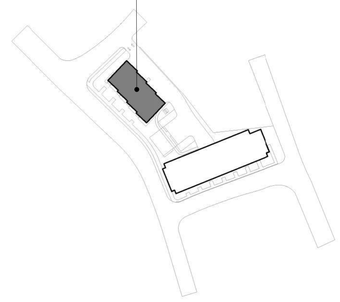


3 SD1.07 TOWNHOUSE A LEVEL 3
1/4" = 1'-0"



4 SD1.07 TOWNHOUSE A LEVEL 4
1/4" = 1'-0"

BLDG A:



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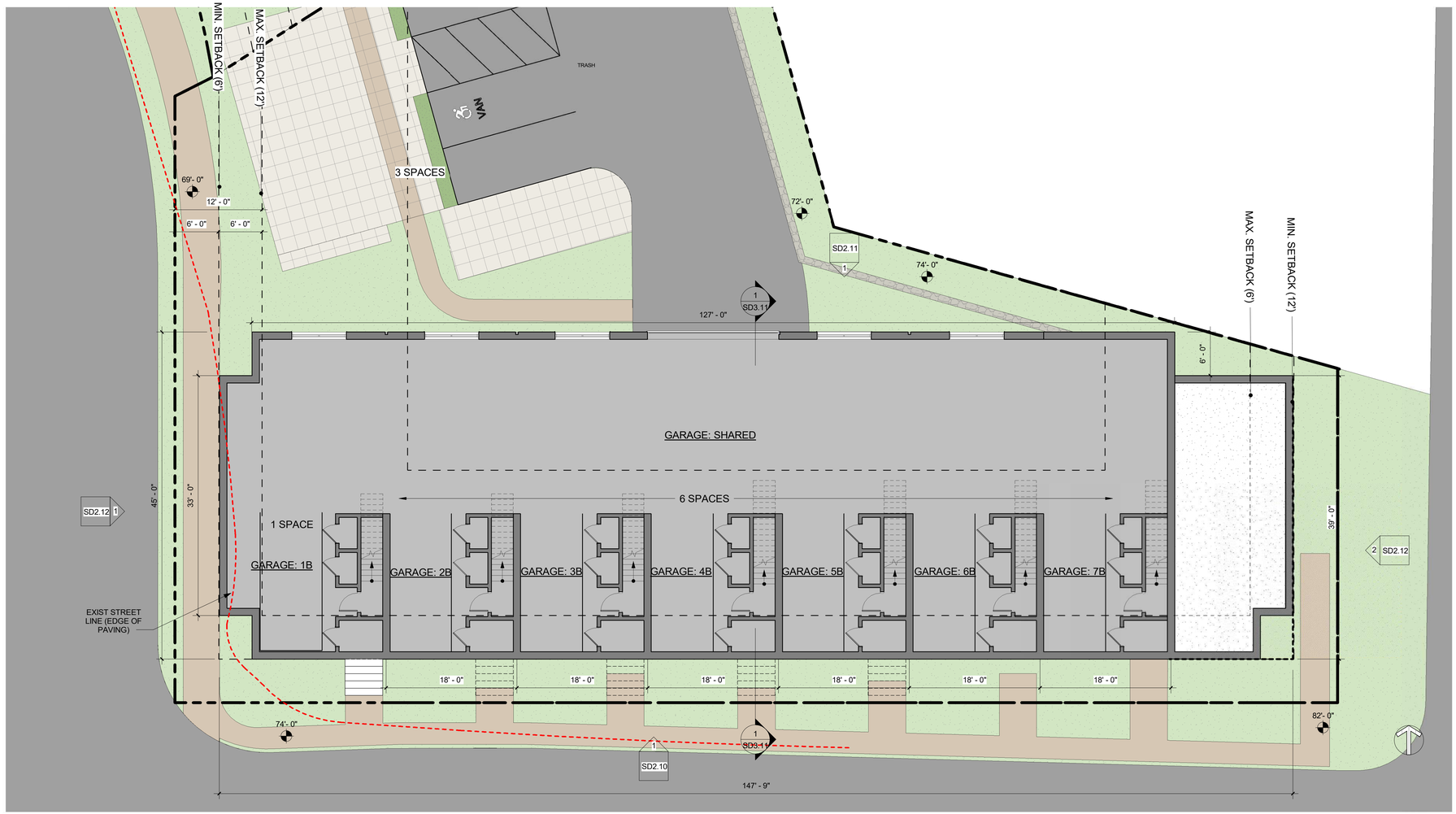

1 SD1.10 SITE B - GARAGE
1/8" = 1'-0"

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1 SD1.11 SITE B - LEVEL 01
1/8" = 1'-0"

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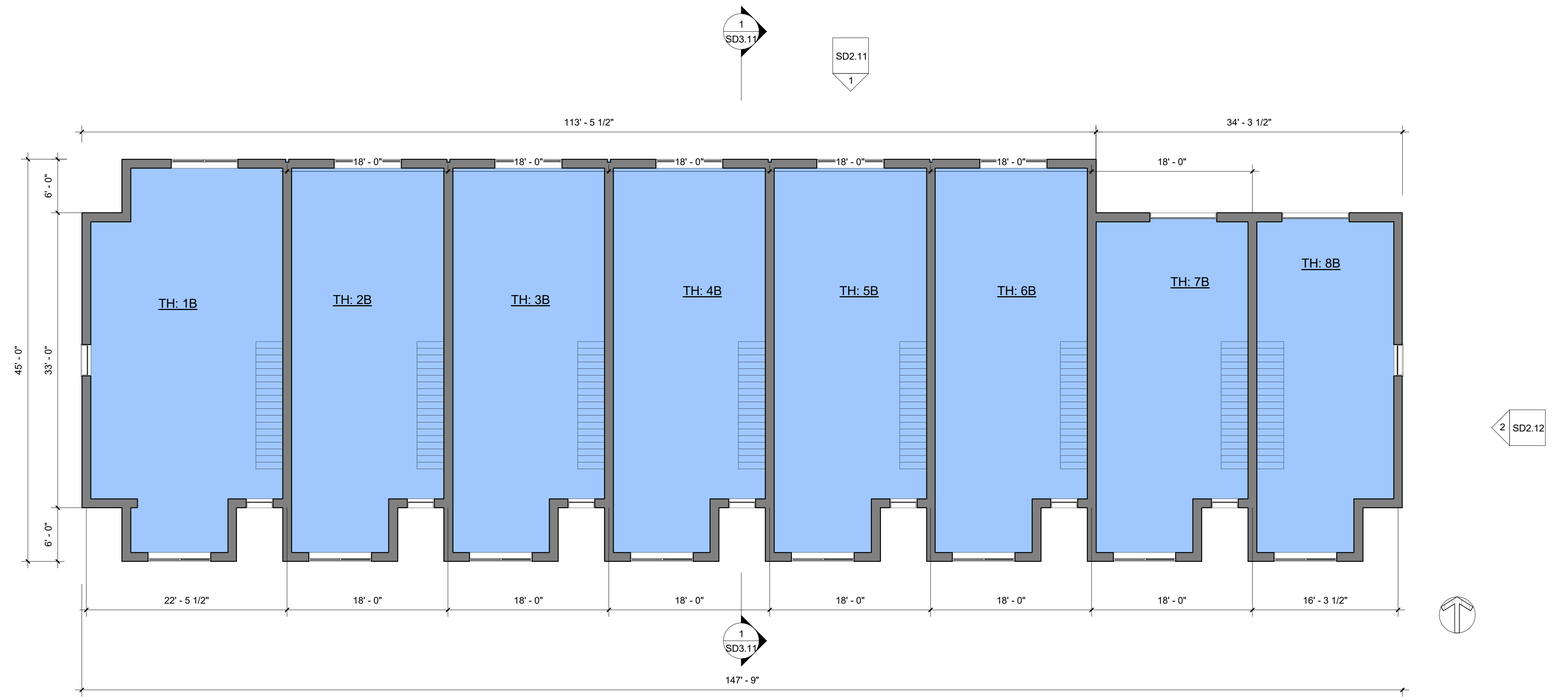
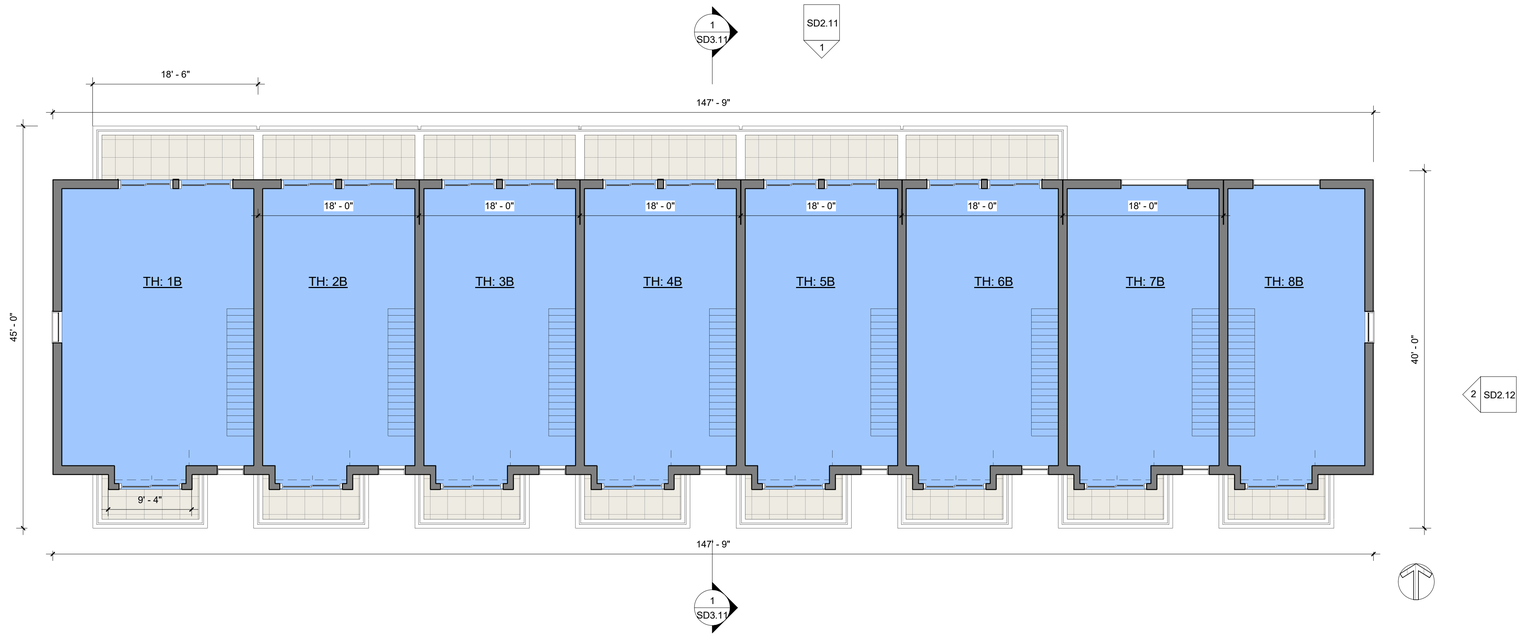


1 SD1.12 SITE - B Level 2
1/8" = 1'-0"



2 SD1.12 SITE B - LEVEL 3
1/8" = 1'-0"

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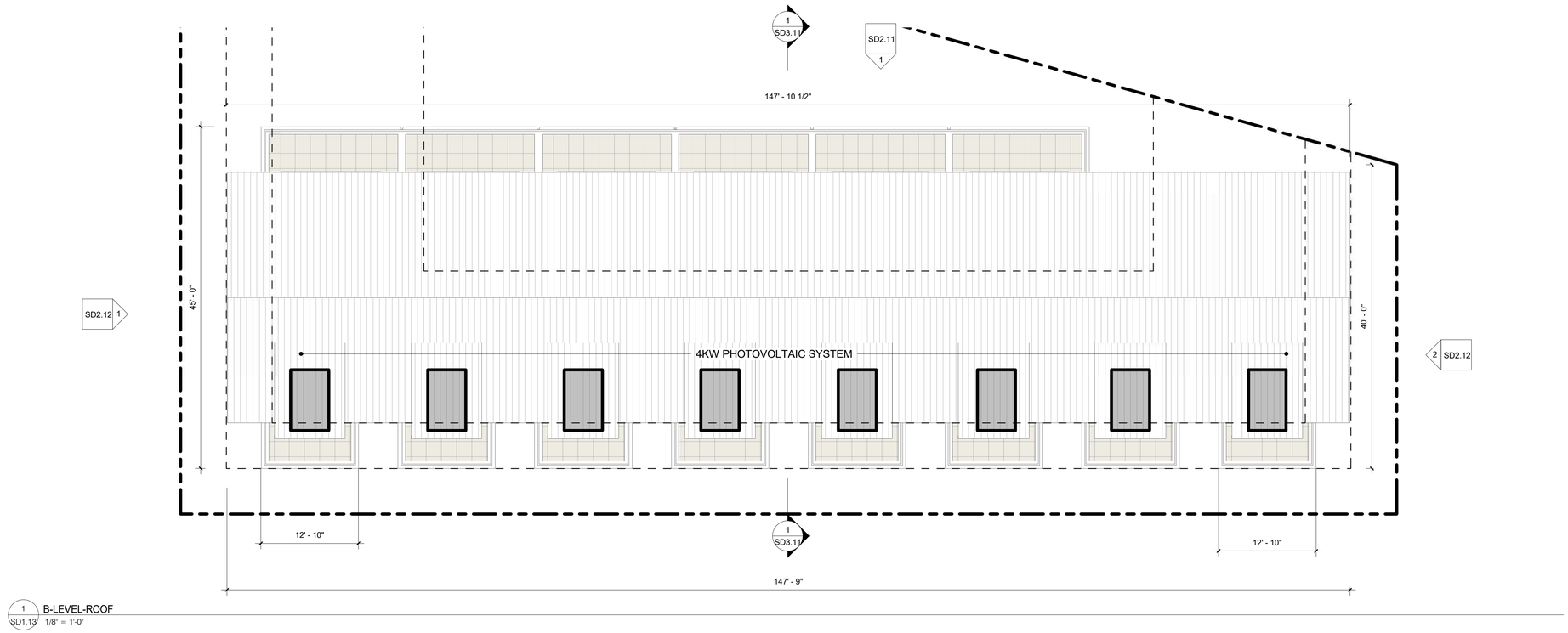

1 SD1.13 B-LEVEL-ROOF
1/8" = 1'-0"

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1 SD2.10 BLDG B_ELEVATION - A
3/16" = 1'-0"

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1 SD2.11 BLDG B_ELEVATION - D
3/16" = 1'-0"

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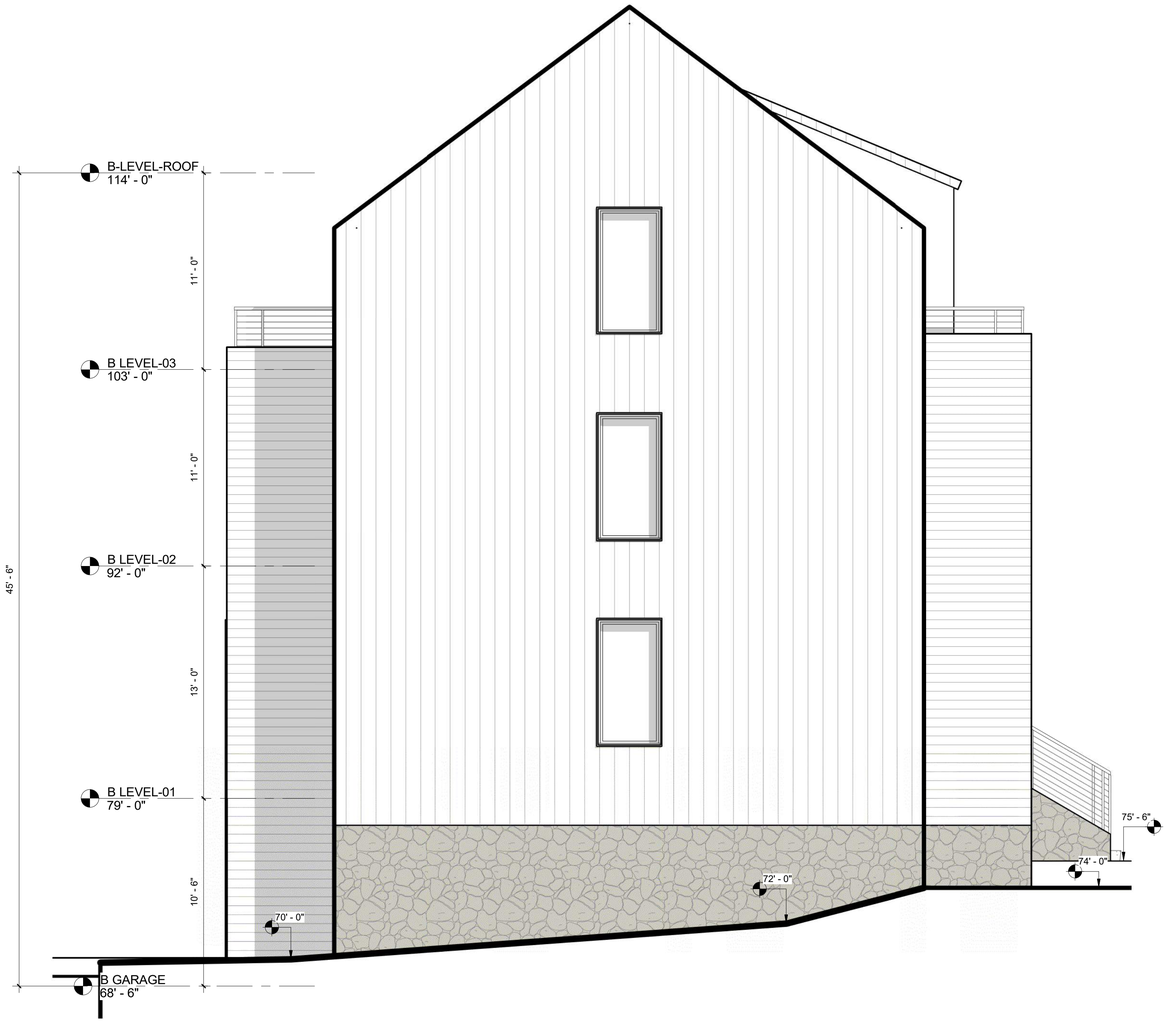
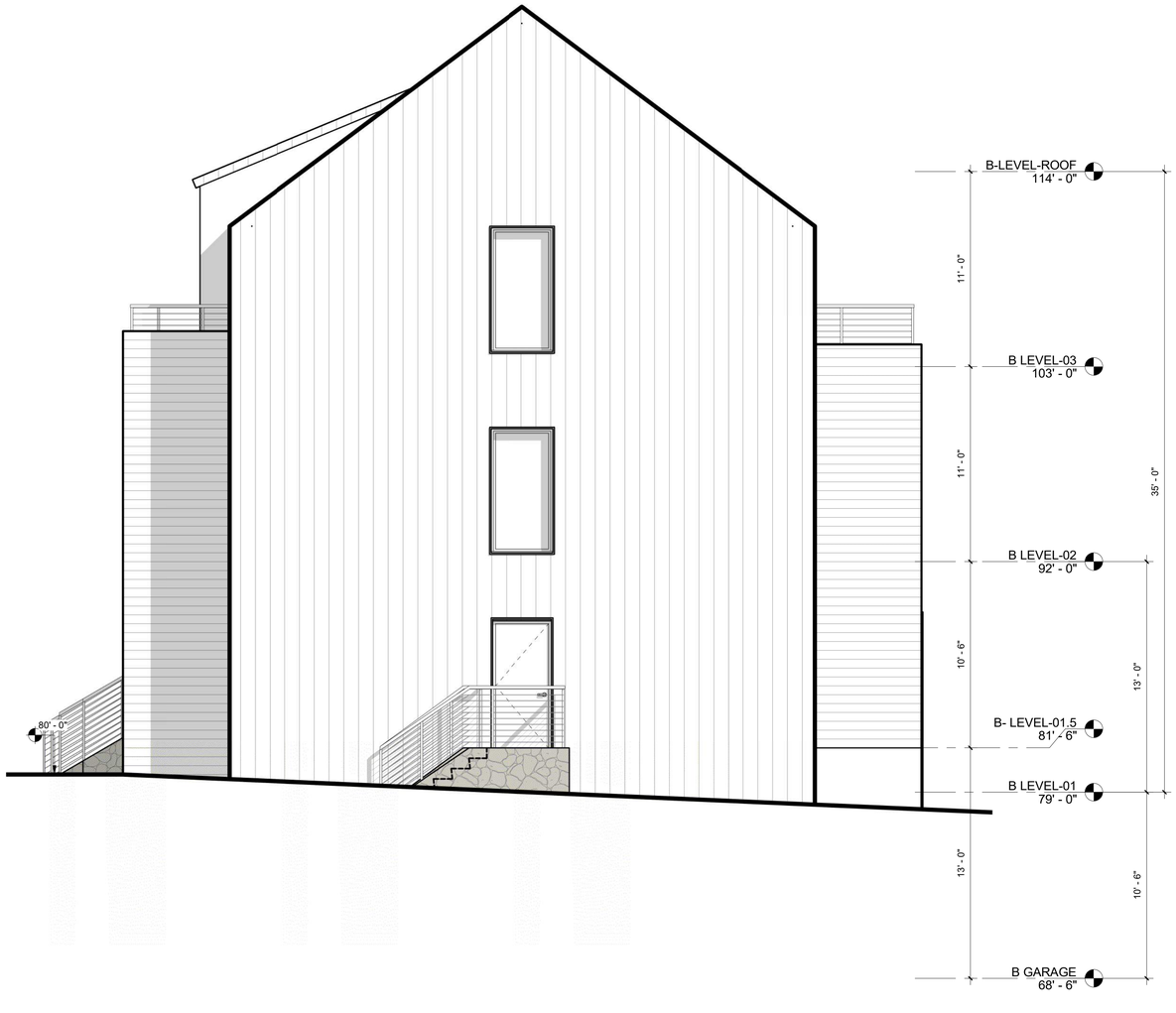


1 SD2.12 BLDG B_ELEVATION - B
1/4" = 1'-0"



2 SD2.12 BLDG B_ELEVATION - C
1/4" = 1'-0"

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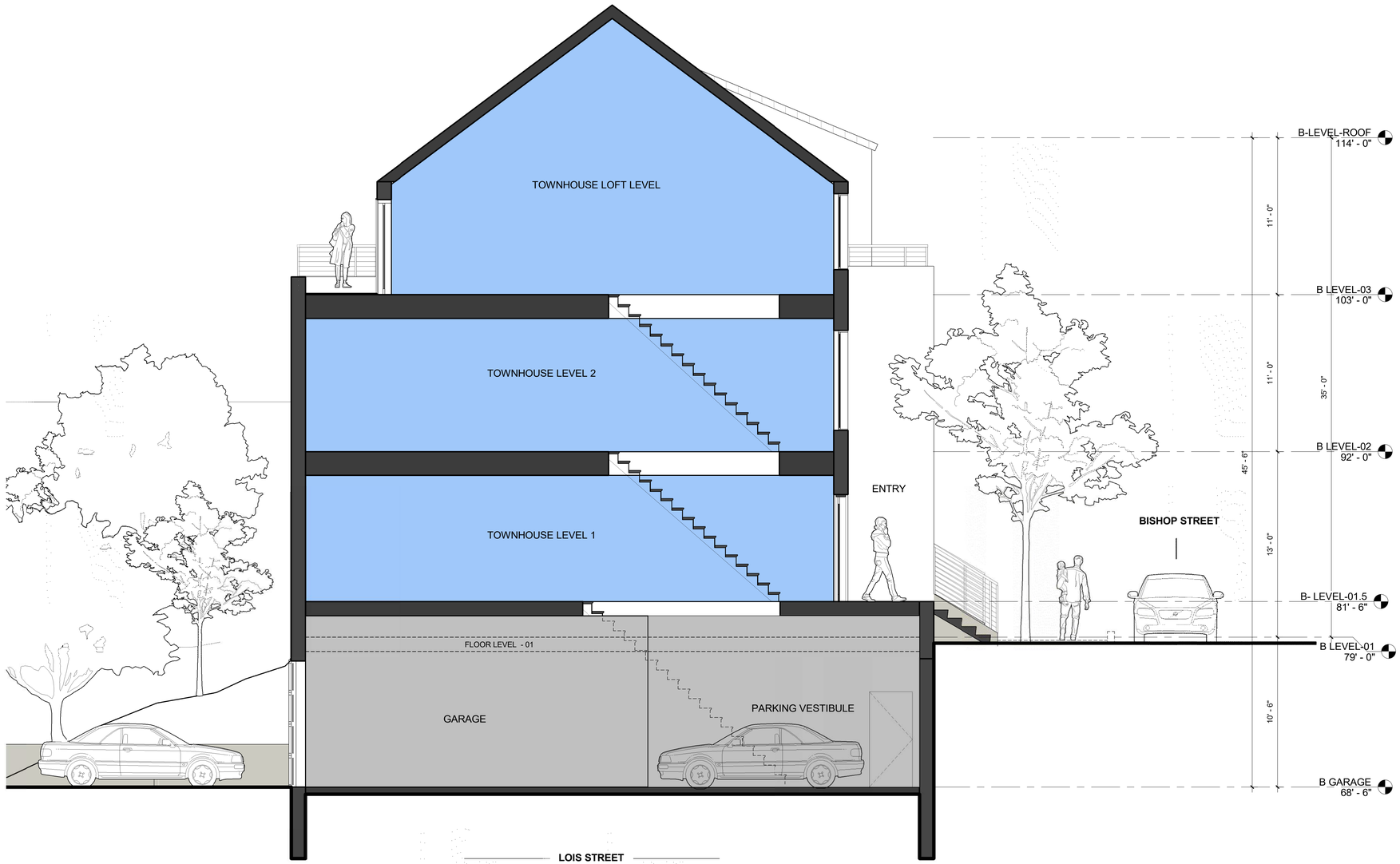

1 / SD3.11 Section 14
1/4" = 1'-0"

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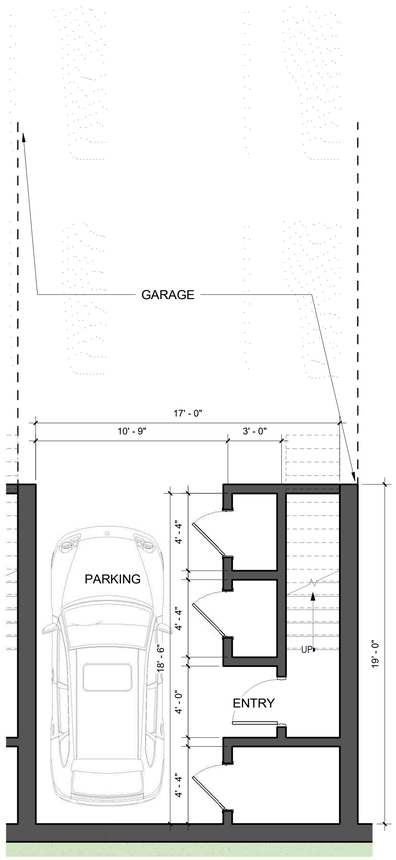
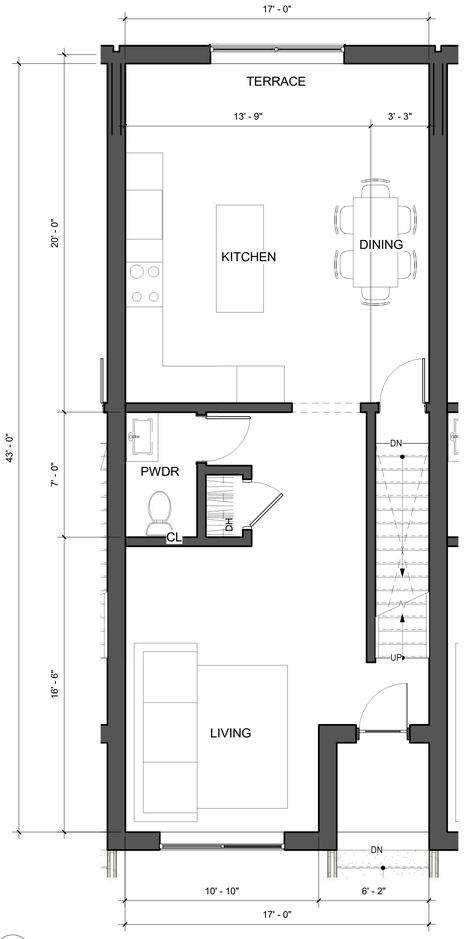
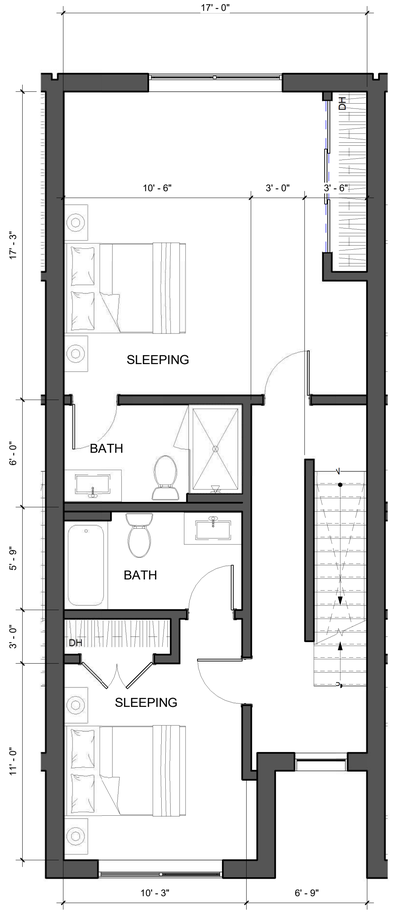


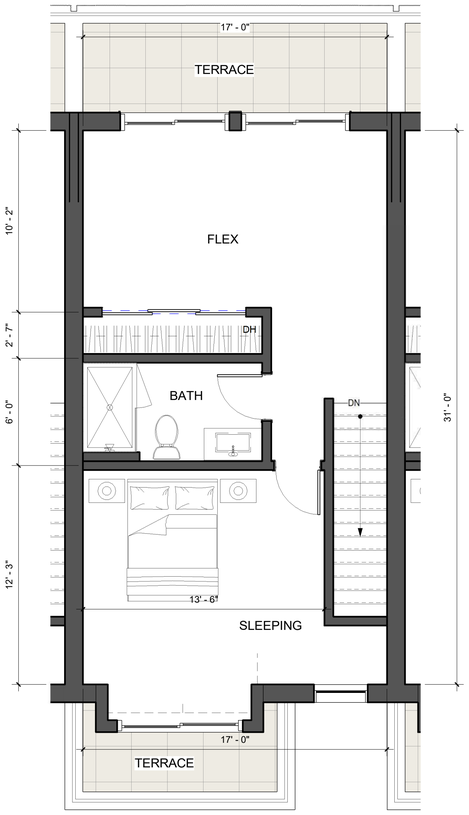
1 SD3.12 TOWNHOUSE B GARAGE
1/4" = 1'-0"



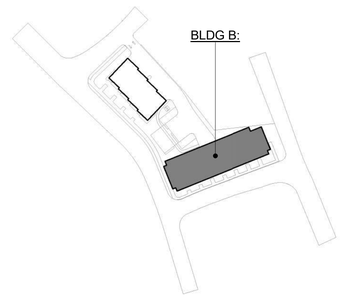
2 SD3.12 TOWNHOUSE B LEVEL 1
1/4" = 1'-0"



3 SD3.12 TOWNHOUSE B LEVEL 2
1/4" = 1'-0"



4 SD3.12 TOWNHOUSE B LEVEL 3
1/4" = 1'-0"



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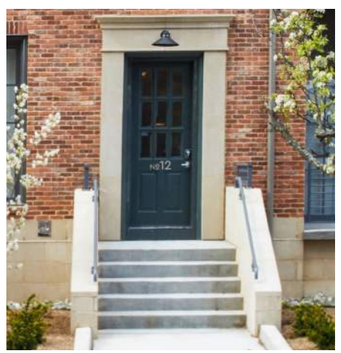
1. Dark Grey Gorrugated Metal

2. Fiber Cement in Rich Espresso

3. Stone Foundation

4. RHEA Wood Windows



5. Front Stoop

6. Cable Rail

7. Teka Wall Mount Light

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203.838.5789 | 11 Chestnut Street #102 | South Norwalk, CT 06854

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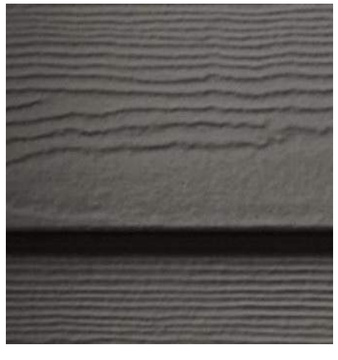
1. Dark Grey Gorrugated Metal



2. Fiber Cement in Rich Espresso

3. Stone Foundation

4. RHEA Wood Windows

5. Front Stoop

6. Cable Rail

7. Teka Wall Mount Light

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BISHOP AND LOIS STREET | 6.10.2025 | RENDERING 1

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BEINFIELD ARCHITECTURE PC

BISHOP AND LOIS STREET | 6.10.2025 | RENDERING 2

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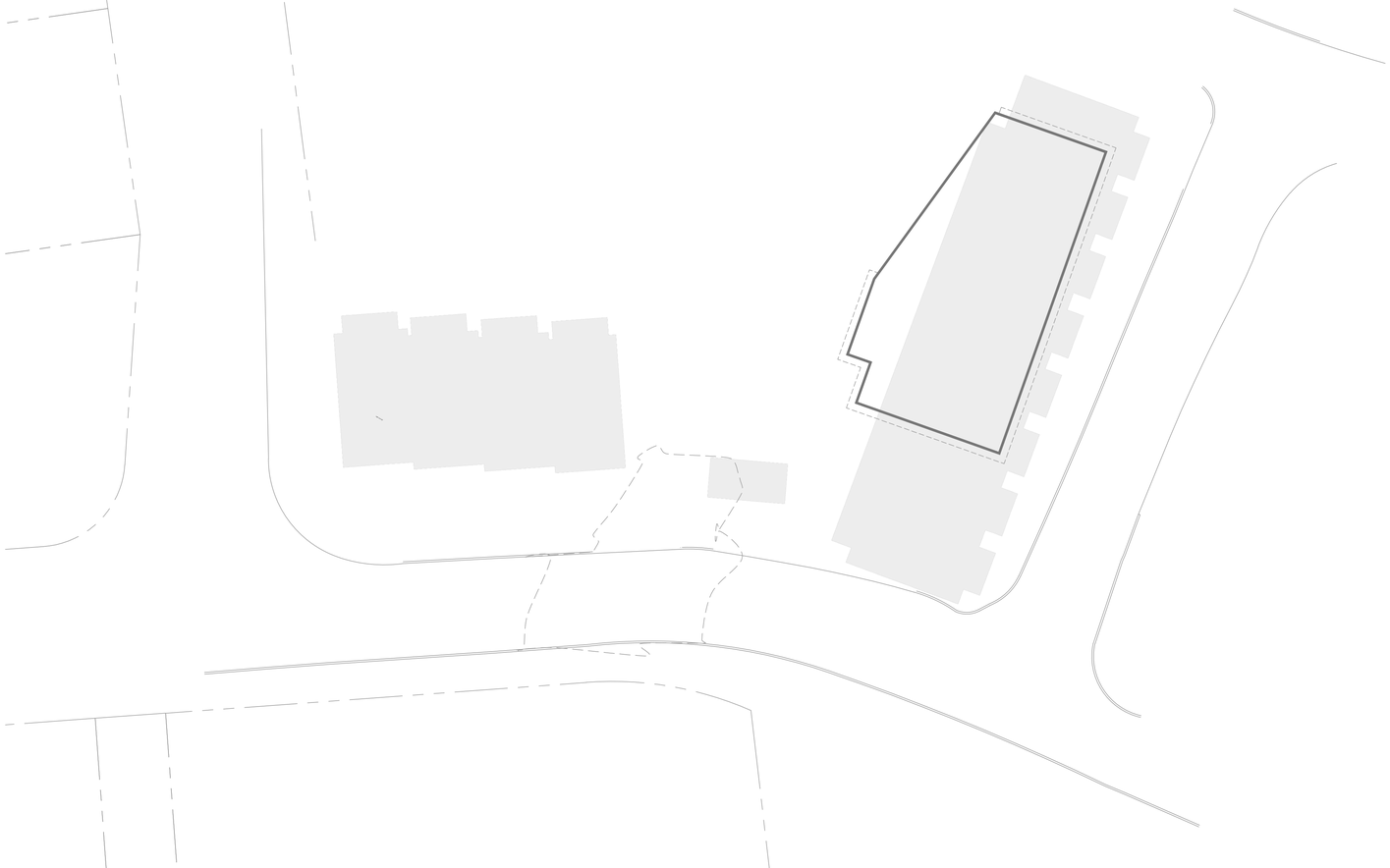
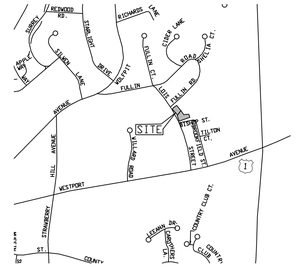
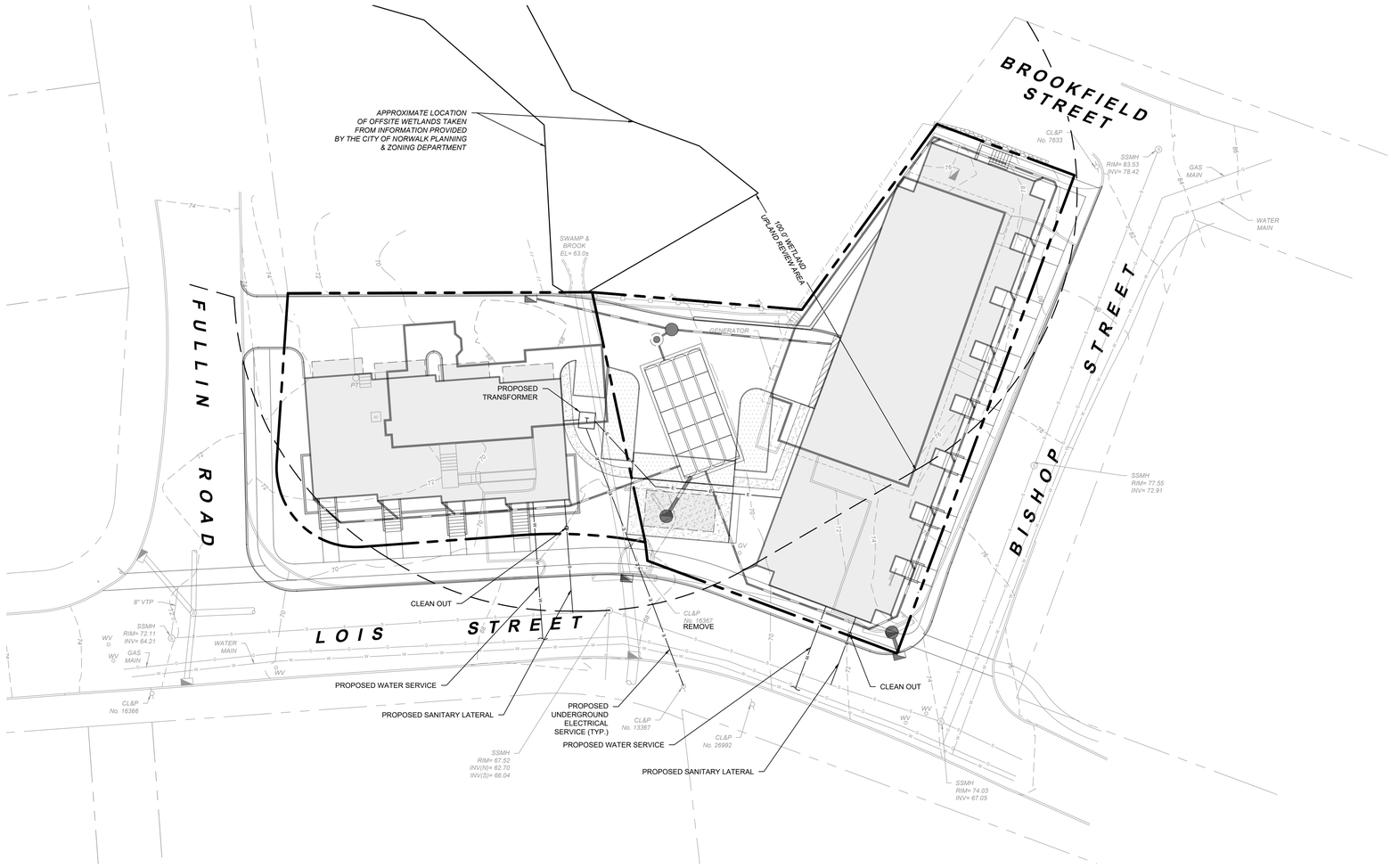
APPROXIMATE LOCATION OF OFFSITE WETLANDS TAKEN FROM INFORMATION PROVIDED BY THE CITY OF NORWALK PLANNING & ZONING DEPARTMENT
50.2'
BROOKFIELD STREET
BIT. CONC. CURB
EDGE OF ROAD
STONE RET. WALL
CHAIN LINK FENCE
S09° 37' 40"E 46.00'
4' ±
ASPHALT DRIVEWAY
N/F
597 WESTPORT OWNER 1 LLC
40.0'
BIT. CONC. WALK
15' DRAINAGE EASEMENT
APPROX. LIMITS OF EXISTING TREE CANOPY (TYP.)
SWAMP & BROOK EL= 63.0±
WOOD FENCE
METAL STEPS ENCROACHES OVER PROPERTY LINE
100' WETLAND UPLAND REVIEW AREA
S63° 56' 31"E 72.00'
S30° 12' 00"E 95.44'
S25° 13' 20"E 66.00'
TREE TO BE REMOVED (TYP.)
EDGE OF ROAD
BIT. CONC. CURB
FULLIN ROAD
N63° 48' 30"E 53.04'
20.7'
WOOD DECK
1 1/2 STORIES FRAMED RESIDENCE
FLAGSTONE WALK
TRASH
N48° 00' 00"E 90.16'
1 STORY CONCRETE BUILDING
GARAGE ENTRANCE
LOT AREA
13,315 S.F.
0.306 ACRES
BIT. CONC. WALK
S80° 22' 20"W 160.00'
49.9'
R = 25.00'
Δ = 097° 59' 55"
L = 42.76'
CD = N14° 48' 32"E
LC = 37.74'
LOT AREA
8,115 S.F.
0.186 ACRES
30.2'
BITUMINOUS CONCRETE PARKING LOT
EAVES (TYP.)
14.1'
BISHOP
12' MAX. FRONT SETBACK LINE
6' MIN. FRONT SETBACK LINE
NO PARKING SIGN
STOP SIGN
STREET NAME SIGN
STOP LINE
SPEED LIMIT SIGN
EDGE OF ROAD BIT. CONC. CURB
CONCRETE WALK
LOIS STREET
50.0'
40.0'
EDGE OF ROAD
BIT. CONC. CURB
N34° 11' 00"W 50.27'
R = 149.25'
Δ = 014° 55' 46"
L = 38.89'
CD = N26° 43' 07"W
LC = 38.78'
N53° 23' 00"E 5.86'
N09° 37' 40"W 83.46'

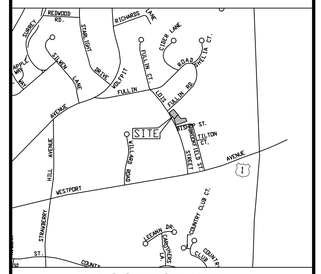
SITE
WESTPORT
REDWOOD RD
STRAWBERRY HILL AVENUE
COMPO RD
COMPO RD. NORTH
COMPO RD. SOUTH
CLEMAN RD
COUNTRY CLUB CT.
COUNTRY CLUB
CRANE ST.
I-95




SITE
VESTPORT
AVENUE
HILL
STRAWBERRY
COUNTY
FULLIN
FULLIN RD
FULLIN CT.
CLIFFS LANE
RICHARDS LANE
STIMBLEDOT
BRIVE
BOLTFIT
WILLARD ROAD
TILTON CT.
COUNTRY CLUB CT.
CLEEMAN DR.
CLEEMAN CT.
COUNTY
1

ALL EXISTING UTILITY CONNECTIONS TO BE REMOVED PER UTILITY PROVIDER REGULATIONS.





LOCATION MAP
(NTS)

REVISION DATE	ISSUE
07/29/2025	REVISED PER DPW COMMENTS
07/15/2025	ADDED OFFSITE WETLANDS
04/18/2025	UPDATED ZLS/TOPO

LANDTECH
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518 RIVERSIDE AVENUE • WESTPORT, CT 06880 • 203-454-2110
HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

PREPARED FOR:

ONE BISHOP LLC & 38 LOIS LLC

PROJECT LOCATION:

1 BISHOP STREET & 38 LOIS STREET
NORWALK, CT

PROJECT TITLE:

SITE IMPROVEMENTS FOR PROPOSED MULTI-FAMILY RESIDENTIAL BUILDINGS

DRAWING TITLE:

SITE UTILITY PLAN

PROJECT No. 24137-01

DATE:	DESIGNED BY:	CHECKED BY:
4/15/2025	SM	AS

SCALE: 1" = 20'

IN FEET
0 20 40 60

PROJECT STATUS:

DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

STATE OF CONNECTICUT · ANDREW SOUWLIDIS · 27803 · LICENSED PROFESSIONAL ENGINEER

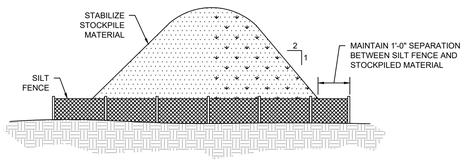
C-3.0

LANDTECH

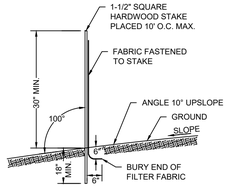
T:\1 ACTIVE PROJECTS\24137-01 KOZLOWSKI - 1 BISHOP ST- NORWALK\DRAWINGS\1 BISHOP & 38 LOIS STREET- PLAN SET.DWG

GENERAL EROSION AND SEDIMENT CONTROL NOTES

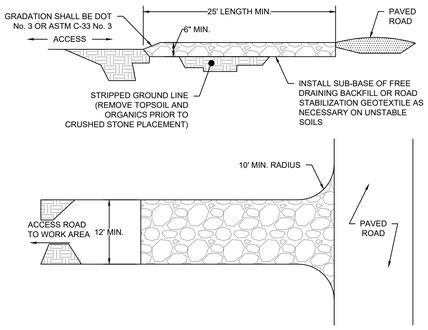
1. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM; RESTABILIZATION WILL BE SCHEDULED AS SOON AS POSSIBLE.
2. SILT FENCE WILL BE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES, SOIL STOCKPILE AREAS, AND IN THOSE AREAS SHOWN ON THE PLAN.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE STATE OF CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL 2002.
4. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO LAND DISTURBANCE WHENEVER POSSIBLE.
5. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED UNTIL STABILIZATION HAS BEEN ACHIEVED.
6. ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD IF NECESSARY OR REQUIRED. A MINIMUM OF 50 FEET OF SILT FENCE SHALL BE STORED AT THE SITE FOR EMERGENCY USE.
7. ANY EXCAVATIONS THAT MUST BE DEWATERED WILL BE PUMPED INTO A 15'x15' DIRTBAG ON-SITE. THE INLETS OF ALL PUMPS ARE TO BE FLOATED A MINIMUM OF 24 INCHES OFF THE BOTTOM OF THE EXCAVATION. THE CONTRACTOR SHALL KEEP A MINIMUM OF (2) 15'x15' DIRTBAGS ON-SITE THROUGHOUT THE EXCAVATION OF PROPOSED FOUNDATIONS.
8. WATER AND CALCIUM CHLORIDE SHALL BE APPLIED TO UNPAVED ACCESSWAYS TO PREVENT WIND GENERATED SEDIMENTS AND DUST.
9. DEBRIS AND OTHER WASTES RESULTING FROM EQUIPMENT MAINTENANCE AND CONSTRUCTION ACTIVITIES WILL NOT BE DISCARDED ON-SITE.
10. SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH INTENT OF THE PLAN.
11. SILT FENCES SHALL HAVE SEDIMENT REMOVED WHEN THE DEPTH OF THE SEDIMENT IS EQUAL TO ⅓ TO ½ THE HEIGHT OF THE FENCE. FENCES SHALL BE PROPERLY INSTALLED AND RIPPED FENCE OR BROKEN POSTS REPAIRED AS SOON AS PRACTICAL.
12. ANTI-TRACKING PADS AND GRAVEL CHECK DAMS SHALL BE REPLACED WHEN VOID SPACES ARE FULL OR STRUCTURES ARE BREACHED, AS APPLICABLE.
13. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND THE SOIL SURFACE STABILIZED WHEN CONSTRUCTION IS COMPLETE AND THE SOIL SURFACES ARE PERMANENTLY STABILIZED. STRUCTURAL COMPONENTS SHALL BE CLEANED OF ALL SEDIMENT UPON COMPLETION OF CONSTRUCTION.
14. THE OWNER IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES INSTALLATION AND MAINTENANCE OF CONTROL MEASURES. INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE PLANNING AND ZONING COMMISSION OF ANY TRANSFER OF THIS RESPONSIBILITY, AND FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT PLAN IF AND WHEN THE TITLE OF LAND IS TRANSFERRED.



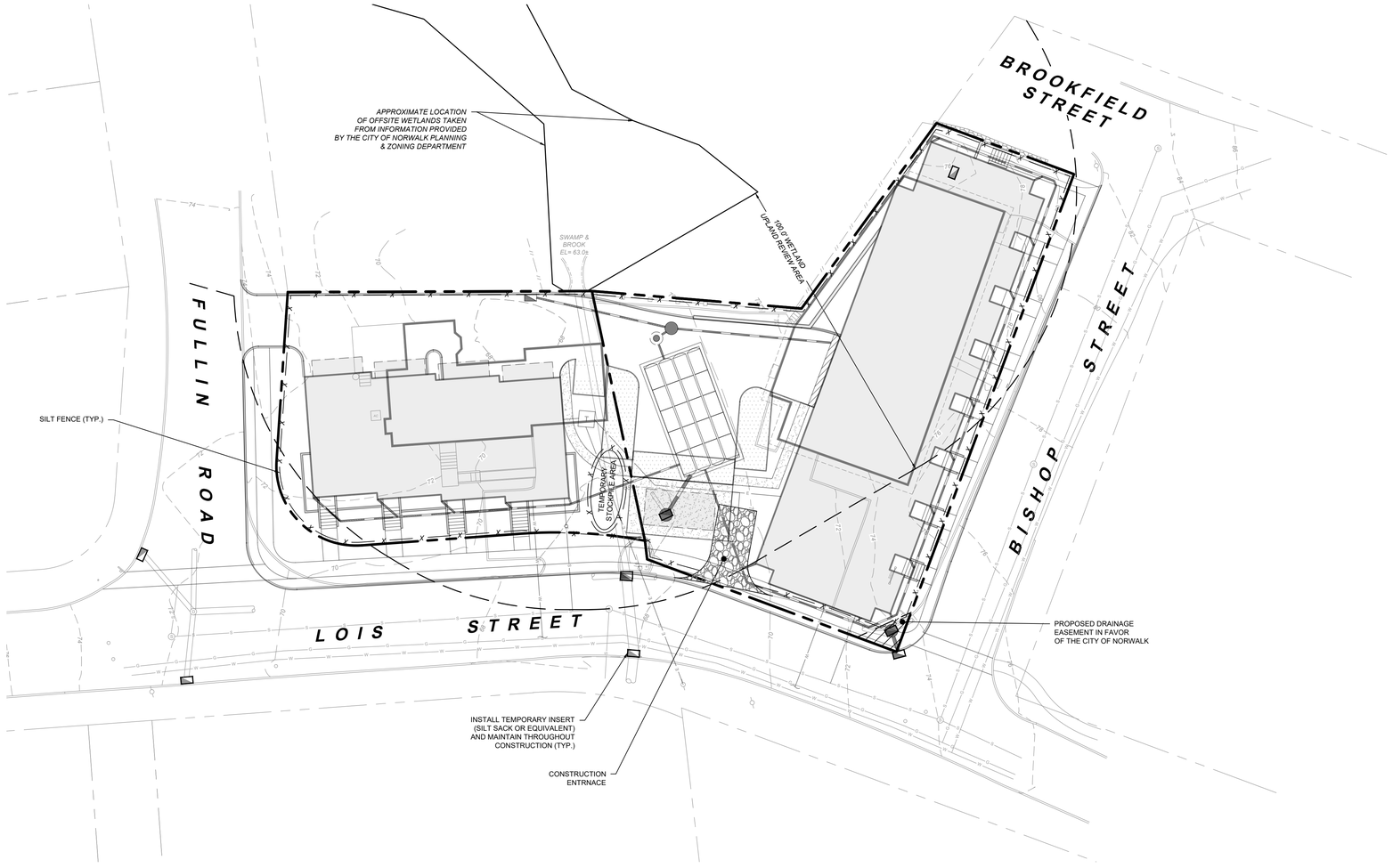
STOCKPILE DETAIL
(NTS)

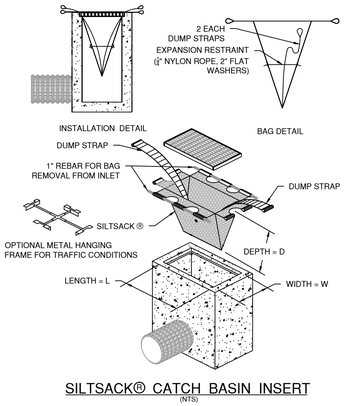


GEOTEXTILE SILT FENCE
(NTS)

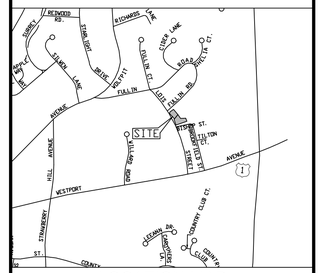


CONSTRUCTION ENTRANCE
(NTS)





SILTSACK® CATCH BASIN INSERT
(NTS)



LOCATION MAP
(NTS)

REVISION DATE	ISSUE
07/29/2025	REVISED PER DPW COMMENTS
07/15/2025	ADDED OFFSITE WETLANDS
04/18/2025	UPDATED ZLS/TOPO

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HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

PREPARED FOR:

ONE BISHOP LLC & 38 LOIS LLC

PROJECT LOCATION:

1 BISHOP STREET & 38 LOIS STREET
NORWALK, CT

PROJECT TITLE:

SITE IMPROVEMENTS FOR PROPOSED MULTI-FAMILY RESIDENTIAL BUILDINGS

DRAWING TITLE:

SOIL EROSION & SEDIMENT CONTROL PLAN

PROJECT No. 24137-01

DATE:	DESIGNED BY:	CHECKED BY:
4/15/2025	SM	AS

SCALE: 1" = 20'

IN FEET
0 20 40 60

PROJECT STATUS:

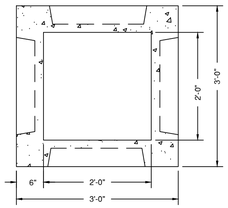
DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

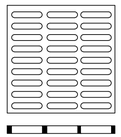
STATE OF CONNECTICUT · SOUMYA DUTT · 27803 · LICENSED PROFESSIONAL ENGINEER

C-4.0

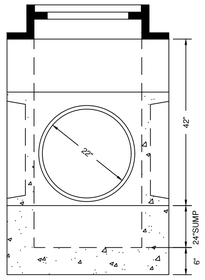
LANDTECH

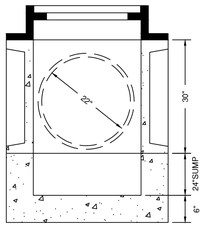
T:\1- ACTIVE PROJECTS\24137-01 KOZLOWSKI - 1 BISHOP ST - NORWALK\DRAWINGS\01 BISHOP & 38 LOIS STREET - PLAN SET.DWG





GRATE DETAIL

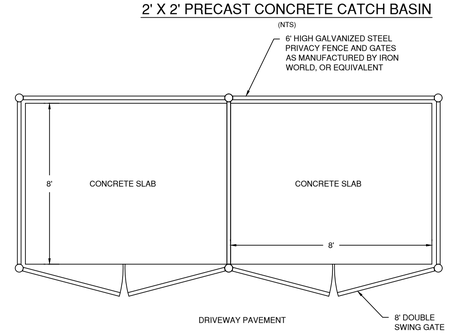




GENERAL NOTES
1. REINFORCED 6 X 6 X 10 GUAGE MESH OR TO SPECIFICATIONS.
2. GRATE - STEEL OR CAST IRON.
3. 4' HIGH SUMP HAS TWO KNOCKOUTS LOW AND 2 KNOCKOUTS UP HIGH.
4. APPROXIMATE WEIGHTS:
   3' - 2100 LBS.
   4' - 2800LBS.

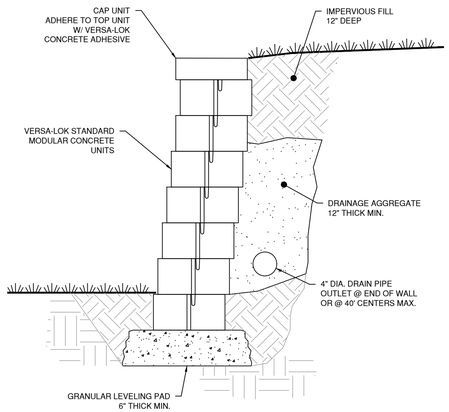
2' X 2' PRECAST CONCRETE CATCH BASIN

(NTS)



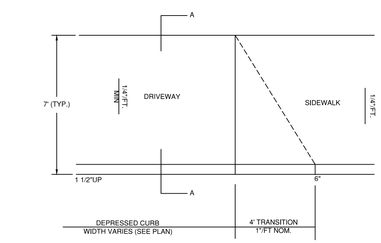
DUMPSTER ENCLOSURE

(NTS)

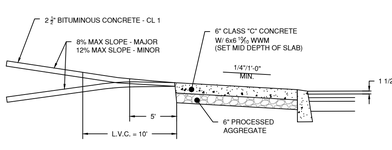


TYPICAL SECTION - VERSA-LOK UNREINFORCED RETAINING WALL

(NTS)



PLAN

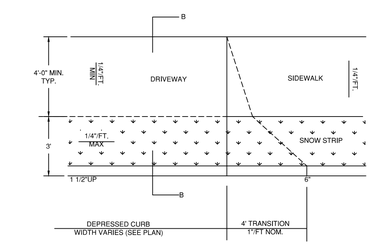


SECTION A-A

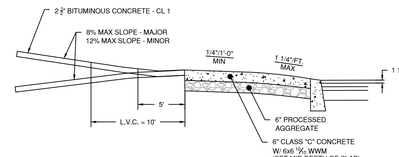
TYPE 'A' DRIVE (WITHOUT SNOW STRIP)

CONCRETE APRON W/ CONCRETE CURBING

(NTS)



PLAN



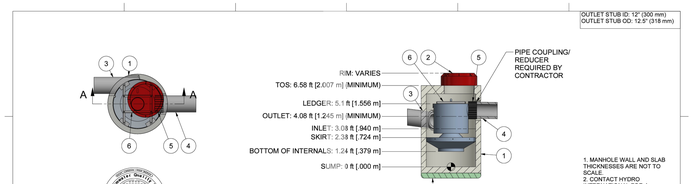
SECTION B-B

TYPE 'B' DRIVE (WITH SNOW STRIP)

CONCRETE APRON W/ CONCRETE CURBING

(NTS)

NOTE: ALL DETAILS COMPLY WITH CITY OF NORWALK DPW REQUIREMENTS/STANDARDS



HYDRO FRAME AND COVER (INCLUDED)

GRADE RINGS BY OTHERS AS REQUIRED

1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING DOWNSTREAM DEFENDER MANHOLE.

NOTE: NOT FOR CONSTRUCTION. CONTACT HYDRO FOR SITE SPECIFIC DETAIL

EQUIPMENT PERFORMANCE
The stormwater treatment unit shall adhere to the hydraulic parameters given in the chart below and provide the removal efficiencies and storage capacities as follows:

1. The treatment system shall use an induced vortex to separate pollutants from stormwater runoff
2. Peak Hydraulic Capacity: 3.0 cfs (85 l/s)
3. Sediment Storage Capacity: 0.70 cu. yd. (0.53 cu. m)
4. Continuous Oil Storage Capacity: 70 gal. (265 liters)
5. Sediment shall be stored in a zone that is isolated from the main flow path and protected from reintrainment by a benching skirt.
6. For more product information including regulatory acceptances, please visit https://hydro-int.com/en/products/downstream-defender.

PARTS LIST					
ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	48	1200	PRECAST MANHOLE (BY HYDRO VIA PRECASTER)
2	1	30	750	FRAME AND COVER
3	1	12 (MAX)	300 (MAX)	INLET PIPE (BY OTHERS)
4	1	12 (MAX)	300 (MAX)	OUTLET PIPE (BY OTHERS)
5	1			PIPE COUPLING (BY OTHERS)
6	1			INTERNAL COMPONENTS (PRE-INTALLED)

PROJECTION

IF IN DOUBT ASK

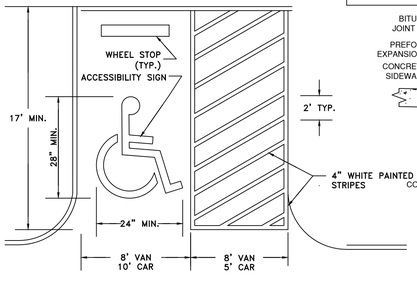
DATE	SCALE
12/7/2020	1:1
DRAWN BY: ER	CHECKED BY: MRJ
APPROVED BY:

PK
48-DIAMETER
DOWNSTREAM DEFENDER

GENERAL ARRANGEMENT

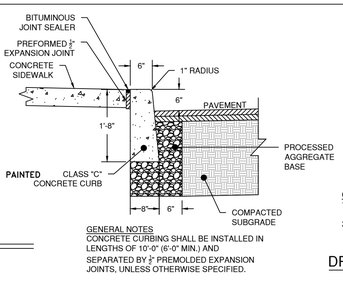
Hydro International
a xylem brand
hydro-int.com
HYDRO INTERNATIONAL

REVISIT: N/A	MATERIAL:
STOCK NUMBER:	
DRAWING NO.: DD GA-4	
SHEET SIZE: B	SHEET: 1 OF 1
Rev: A	



DISABLED PARKING MARKING

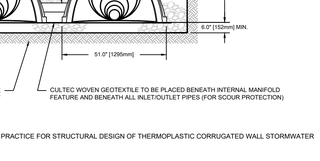
(NTS)



GENERAL NOTES
CONCRETE CURBING SHALL BE INSTALLED IN LENGTHS OF 10'-0" (6'-0" MIN.) AND SEPARATED BY ½" PREMOLDED EXPANSION JOINTS, UNLESS OTHERWISE SPECIFIED.

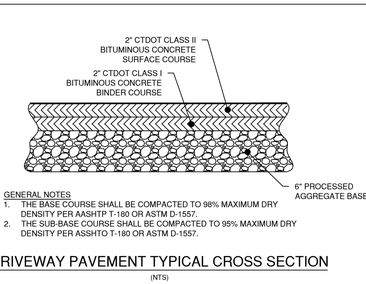
CONCRETE CURB

(NTS)



NOTES:
1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   3.a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F2418
   3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

CULTEC RECHARGER 300HD HEAVY DUTY CROSS SECTION

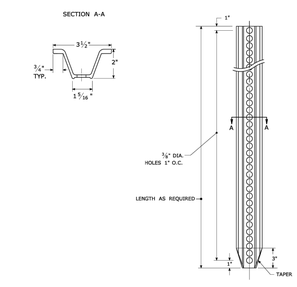


GENERAL NOTES
1. THE BASE COURSE SHALL BE COMPACTED TO 98% MAXIMUM DRY DENSITY PER AASHTP T-180 OR ASTM D-1557.
2. THE SUB-BASE COURSE SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER ASSHTO T-180 OR ASTM D-1557.

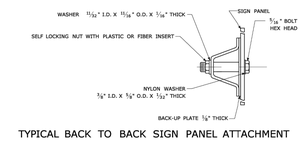
DRIVEWAY PAVEMENT TYPICAL CROSS SECTION

(NTS)

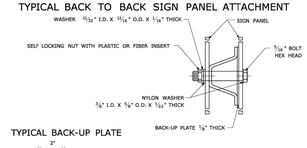
TYPICAL METAL SIGN POSTS



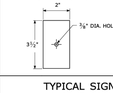
TYPICAL SIGN PANEL ATTACHMENT



TYPICAL BACK TO BACK SIGN PANEL ATTACHMENT



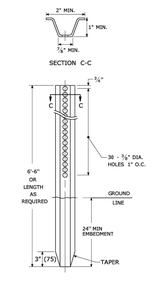
TYPICAL BACK-UP PLATE



BOLTS - STAINLESS STEEL CONFORMING TO ASTM F593, ALLOY GROUP 1 OR 2 (ALLOY TYPES 304 OR 316).
SELF LOCKING NUTS - STAINLESS STEEL CONFORMING TO ASTM F594, ALLOY GROUP 1 OR 2 (ALLOY TYPES 304 OR 316).
WASHERS - STAINLESS STEEL CONFORMING TO ASTM A240, (ALLOY TYPES 304 OR 316).

METAL DELINEATOR POST

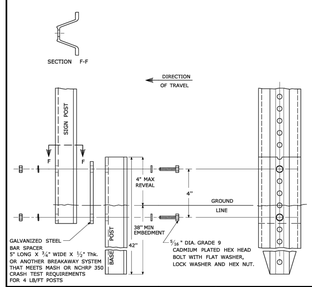
WT./FT. = 1.12 LBS./FT. MIN.



GENERAL NOTES:

1. STEEL FOR DELINEATOR POSTS SHALL BE ASTM A36 STEEL. STEEL FOR ALL OTHER POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499 GRADE 80 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT (MASS) OF 91 LBS. OR GREATER PER LINEAR YARD.
2. AFTER FABRICATION, ALL STEEL POSTS, STRAPS AND PLATES SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A123.
3. WASHERS FOR BREAKAWAY INSTALLATIONS SHALL MEET ASTM F436, TYPE 1.
4. SPACER BAR FOR BREAKAWAY INSTALLATION SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A36.
5. ALL BOLTS, NUTS, AND WASHERS FOR BREAKAWAY INSTALLATIONS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A153.
6. ALL SIGN POSTS SHALL HAVE BREAKAWAY FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS." THE BREAKAWAY FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGNS SHOWN IN THE PLANS AT 80 mph WIND LOADINGS. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
7. SIGN POSTS SHALL BE 4 LBS./FT.

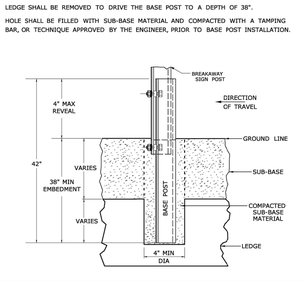
BREAKAWAY INSTALLATION FOR 4 LBS./FT. POSTS



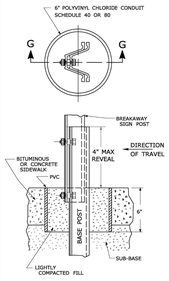
TYPICAL SIGN POST INSTALLATION IN LEDGE

LEDGE SHALL BE REMOVED TO DRIVE THE BASE POST TO A DEPTH OF 38".

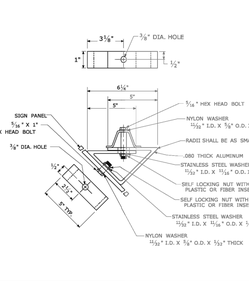
HOLE SHALL BE FILLED WITH SUB-BASE MATERIAL AND COMPACTED WITH A TAMPING BAR, OR TECHNIQUE APPROVED BY THE ENGINEER, PRIOR TO BASE POST INSTALLATION.



TYPICAL SLEEVE FOR PAVED AREAS



45° MOUNTING BRACKET FOR INSTALLATION OF PARKING SIGNS



REV.	DATE	REVISION DESCRIPTION
2	6-2017	SIGN POST REVISIONS.
1	2-2011	MINOR REVISIONS.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS MADE PRIOR TO DATE AND IS IN NO WAY WARRANTED TO INDICATE THE TYPE, EXTENT OR QUANTITY OF WORK WHICH WILL BE REQUIRED.

Posted Date: 4/5/2017

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: TR-1208_02 -May_2017-Revision.dgn Model: TR-1208_02

SUBMITTED BY:	MANUFACTURER:
Mark F. Malouin, P.E. 2017.05.31 07:50:26-04'00'	Mary E. Baker, P.E. 2017.06.13 09:26:14-04'00'
APPROVED BY:	MANUFACTURER:
Gregory M. Dorosh, P.E. 2017.06.15 09:27:20-04'00'	

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
METAL SIGN POSTS AND SIGN MOUNTING DETAILS

RIDGE SHEET NO.:
TR-1208_02

T:\1 ACTIVE PROJECTS\24137-01 KIDDLOWSKI - 1 BISHOP ST - NORWALK\DRAWINGS\1 BISHOP & 38 LOIS STREET - PLAN SET.DWG

LANDTECH

07/29/2025	REVISED PER DPW COMMENTS
07/15/2025	ADDED OFFSITE WETLANDS
04/18/2025	UPDATED ZLS/TOPO
REVISION DATE	ISSUE

LANDTECH
SITE/CIVIL • ENVIRONMENTAL • SURVEYING • PLANNING
518 RIVERSIDE AVENUE • WESTPORT, CT 06880 • 203-454-2110
HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

PREPARED FOR:

ONE BISHOP LLC & 38 LOIS LLC

PROJECT LOCATION:

1 BISHOP STREET & 38 LOIS STREET
NORWALK, CT

PROJECT TITLE:

SITE IMPROVEMENTS FOR PROPOSED MULTI-FAMILY RESIDENTIAL BUILDINGS

DRAWING TITLE:

NOTES AND DETAILS

PROJECT No.		
24137-01		
DATE: 4/15/2025	DESIGNED BY: SM	CHECKED BY: AS

SCALE:

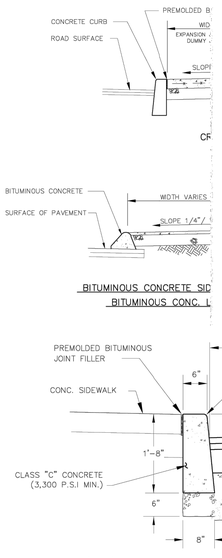
N.T.S.

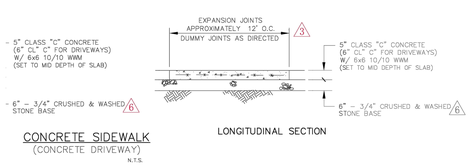
PROJECT STATUS:

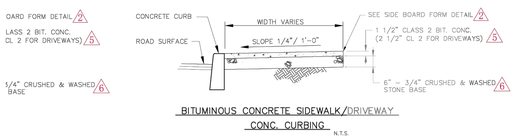
DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

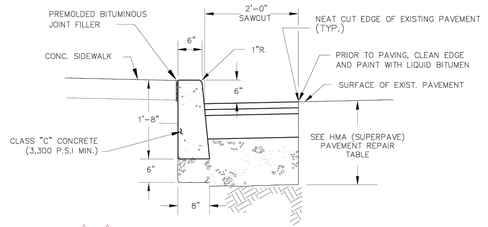
STATE OF CONNECTICUT · ANDREW SOUMELIDIS · 27803 · LICENSED PROFESSIONAL ENGINEER

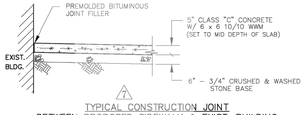
C-5.0

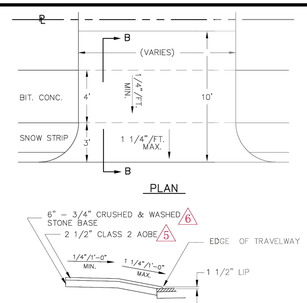


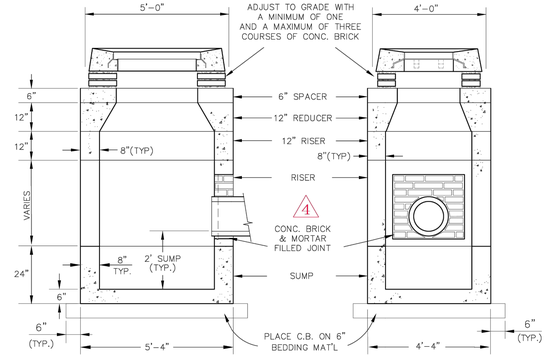








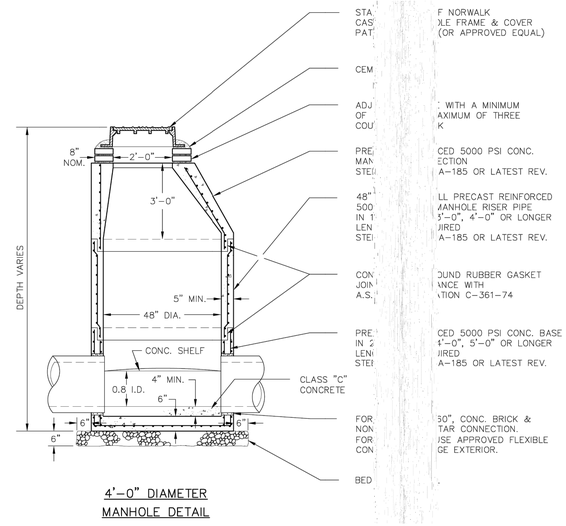


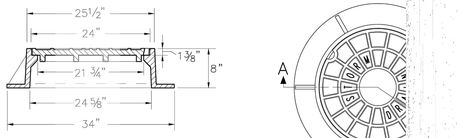


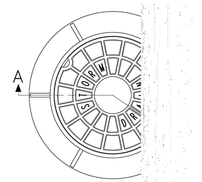
NOTES: 1. ALL CATCH BASIN COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS WITH AN HS-20 TRUCK LOAD. ALL JOINTS ARE TO BE MORTARED. CATCH BASIN SHALL CONFORM TO ASTM C478.
2. KNOCK OUTS ARE TO BE APPLIED ONLY AS REQ'D TO ACCOMMODATE PIPES LOCATED PER PROJECT DESIGN.

STANDARD CATCH BASIN DETAIL

N.T.S.

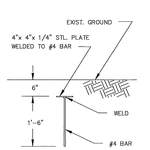


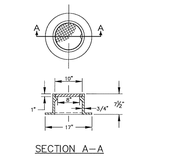




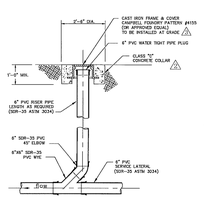
MANHOLE FRAME & COVER
1" = 1'-0"

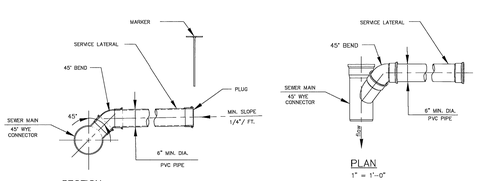
NOTE:
MANHOLE FRAMES & COVERS SHALL BE PATTERN #1007D AS MANUFACTURED BY THE "CAMPBELL FOUNDRY COMPANY" OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.

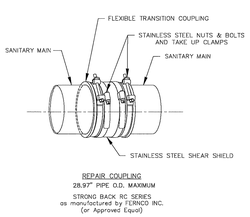


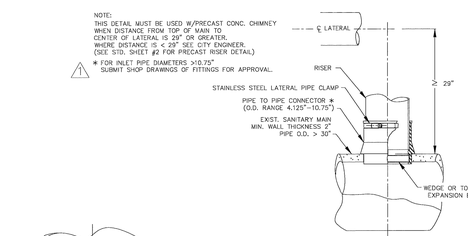


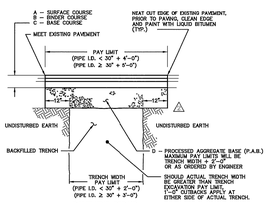
NOTE:
CLEAN OUT FRAMES & COVERS SHALL BE PATTERN #4155 AS MANUFACTURED BY THE "CAMPBELL FOUNDRY COMPANY" OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.





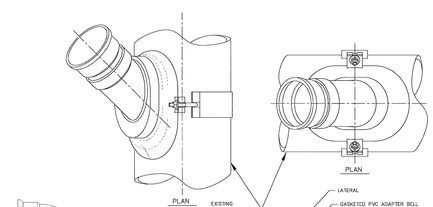


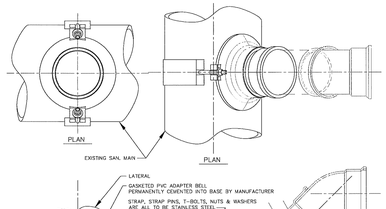




OVERLAP ON TOP, THE ENTIRE WIDTH OF TRENCH (PAY LIMIT)

ENCASE SEWER MAIN/LATERAL TRENCH IN MIRAFI 140 OR SUPAC 5NP FILTER FABRIC OR AN APPROVED EQUAL CONFORMING TO THE REQUIREMENTS OF CONN DOT FORM 816, 2004, ARTICLE M.08.01.39 AS AMENDED.
(SHALL BE INCLUDED IN THE COST OF THE UNIT PRICE BID FOR SANITARY SEWER PIPE.) 3





NOTE:
1.) THESE EXAMPLES ARE NOT TO BE CONSIDERED ALL-INCLUSIVE, BUT RATHER AS GUIDES TO CITY ACCEPTED PRACTICES.
2.) ALL PIPE OPENINGS TO BE MADE BY CORE DRILL. NO IMPACT TOOLS ARE PERMITTED.

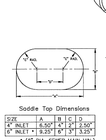
	A	B	C	D	E	F
	A = E	X"=STONE SIZE A (T)=LEVEL + e.g. 0.50"(1)				
	0.375"(2)	0.50"(2)	1.00"(2)	0.50"(3)	1.00"(3)	P.A.B.
STATE ROAD				3"	6"	12"
MAJOR ARTERIAL				4"	6"	14"
MINOR ARTERIAL	1.5"	2"	3"			12"
COLLECTOR	1.5"	1.5"	3"			12"
LOCAL	3"					12"

PAVEMENT REPAIR TABLE
(SUPERPAVE) 1

ALLOWABLE UNCOMPACTED THICKNESS PER LIFT:		
STONE SIZE	LIFT THICKNESS	
	MIN.	MAX.
0.375"	1.5"	2"
0.50"	1.75"	2.5"
1.00"	3.0"	5.0"

	A	B	C	D
	CL. 2	CL. 1	CL. 4	P.A.B.
STATE ROAD	–	3"	6"	12"
MAJOR ARTERIAL	3"	3"	6"	14"
MINOR ARTERIAL	1 1/2"	3"	3"	12"
COLLECTOR	1 1/2"	1 1/2"	3"	12"
LOCAL	1 1/2"	1 1/2"	—	12"

PAVEMENT REPAIR TABLE
(MARSHALL MIX)
1 MAXIMUM ALLOWABLE UNCOMPACTED THICKNESS PER LIFT:
CLASS 2 – 2" THK.
CLASS 1 – 2 1/2" THK.
CLASS 4 – 4" THK.



SIZE	A	B	C	D
4" INLET	6.50"	4"	3"	2.50"
6" INLET *	9.25"	6"	3"	3.25"

* (8" DIA. SEWER MAIN MIN.)
Template Supplied with each Wye Saddle

NOTE: ALL DETAILS COMPLY WITH CITY OF NORWALK DPW REQUIREMENTS/STANDARDS

REVISION DATE	ISSUE
07/29/2025	REVISED PER DPW COMMENTS
07/15/2025	ADDED OFFSITE WETLANDS
04/18/2025	UPDATED ZLS/TOPO

LANDTECH
SITE/CIVIL • ENVIRONMENTAL • SURVEYING • PLANNING
518 RIVERSIDE AVENUE • WESTPORT, CT 06880 • 203-454-2110
HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

PREPARED FOR:

ONE BISHOP LLC & 38 LOIS LLC

PROJECT LOCATION:

1 BISHOP STREET & 38 LOIS STREET
NORWALK, CT

PROJECT TITLE:

SITE IMPROVEMENTS FOR PROPOSED MULTI-FAMILY RESIDENTIAL BUILDINGS

DRAWING TITLE:

NOTES AND DETAILS

PROJECT No.		
24137-01		
DATE: 4/15/2025	DESIGNED BY: SM	CHECKED BY: AS

SCALE: N.T.S.

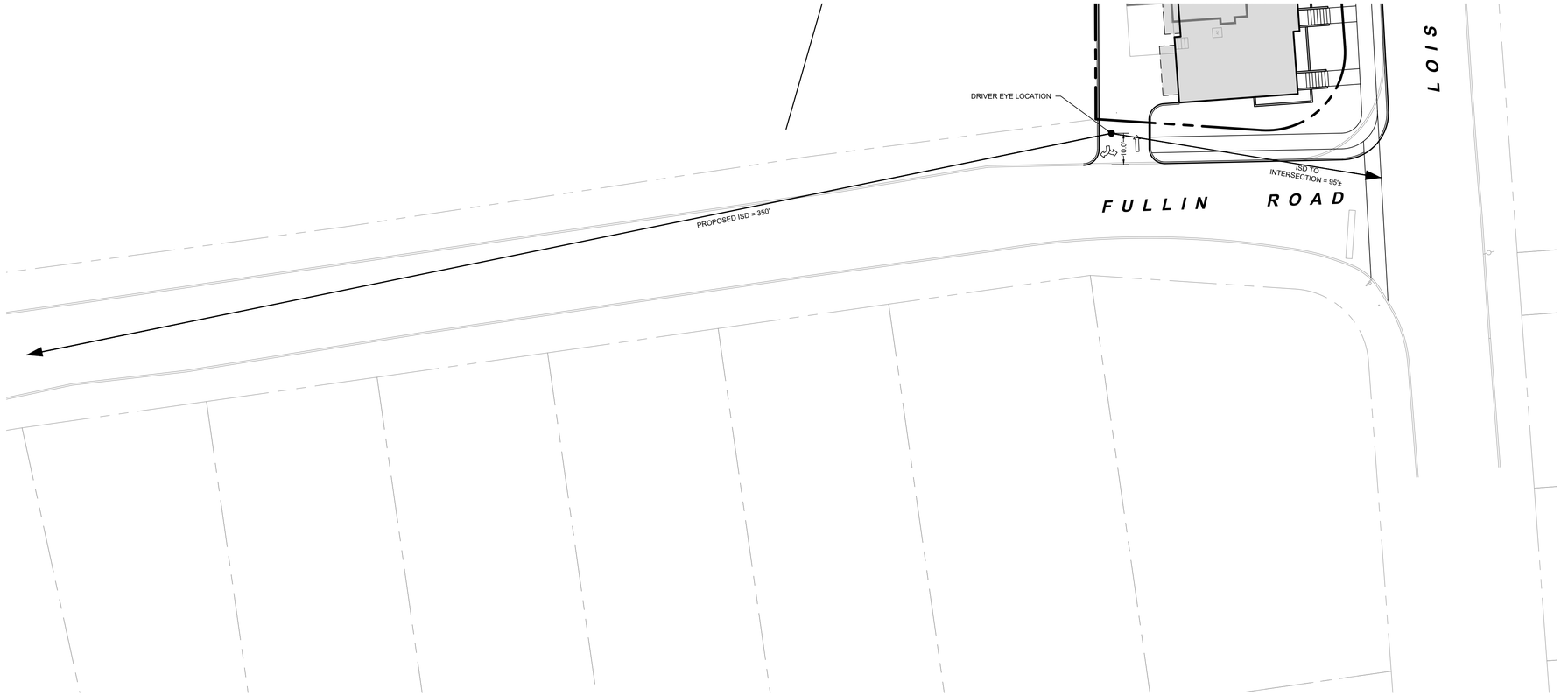
PROJECT STATUS:

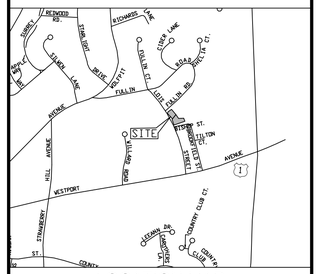
DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

STATE OF CONNECTICUT · ANDREW S. DOUGLAS · 27803 · LICENSED PROFESSIONAL ENGINEER

C-5.1

T:\1 ACTIVE PROJECTS\24-137-01 NORWALK\DRAWINGS\1 BISHOP ST - NORWALK\DRAWINGS\1 BISHOP & 38 LOIS STREET - PLANS.DET.DWG





LOCATION MAP
(NTS)

REVISION DATE	ISSUE
07/29/2025	REVISED PER DPW COMMENTS
07/15/2025	ADDED OFFSITE WETLANDS
04/18/2025	UPDATED ZLS/TOPO

LANDTECH
SITE/CIVIL • ENVIRONMENTAL • SURVEYING • PLANNING
518 RIVERSIDE AVENUE • WESTPORT, CT 06880 • 203-454-2110
HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

PREPARED FOR:
ONE BISHOP LLC & 38 LOIS LLC

PROJECT LOCATION:
1 BISHOP STREET & 38 LOIS STREET
NORWALK, CT

PROJECT TITLE:
SITE IMPROVEMENTS FOR PROPOSED MULTI-FAMILY RESIDENTIAL BUILDINGS

DRAWING TITLE:
SIGHT DISTANCE PLAN

PROJECT No. 24137-01

DATE:	DESIGNED BY:	CHECKED BY:
4/15/2025	SM	AS

SCALE: 1" = 20'
IN FEET
0 20 40 60

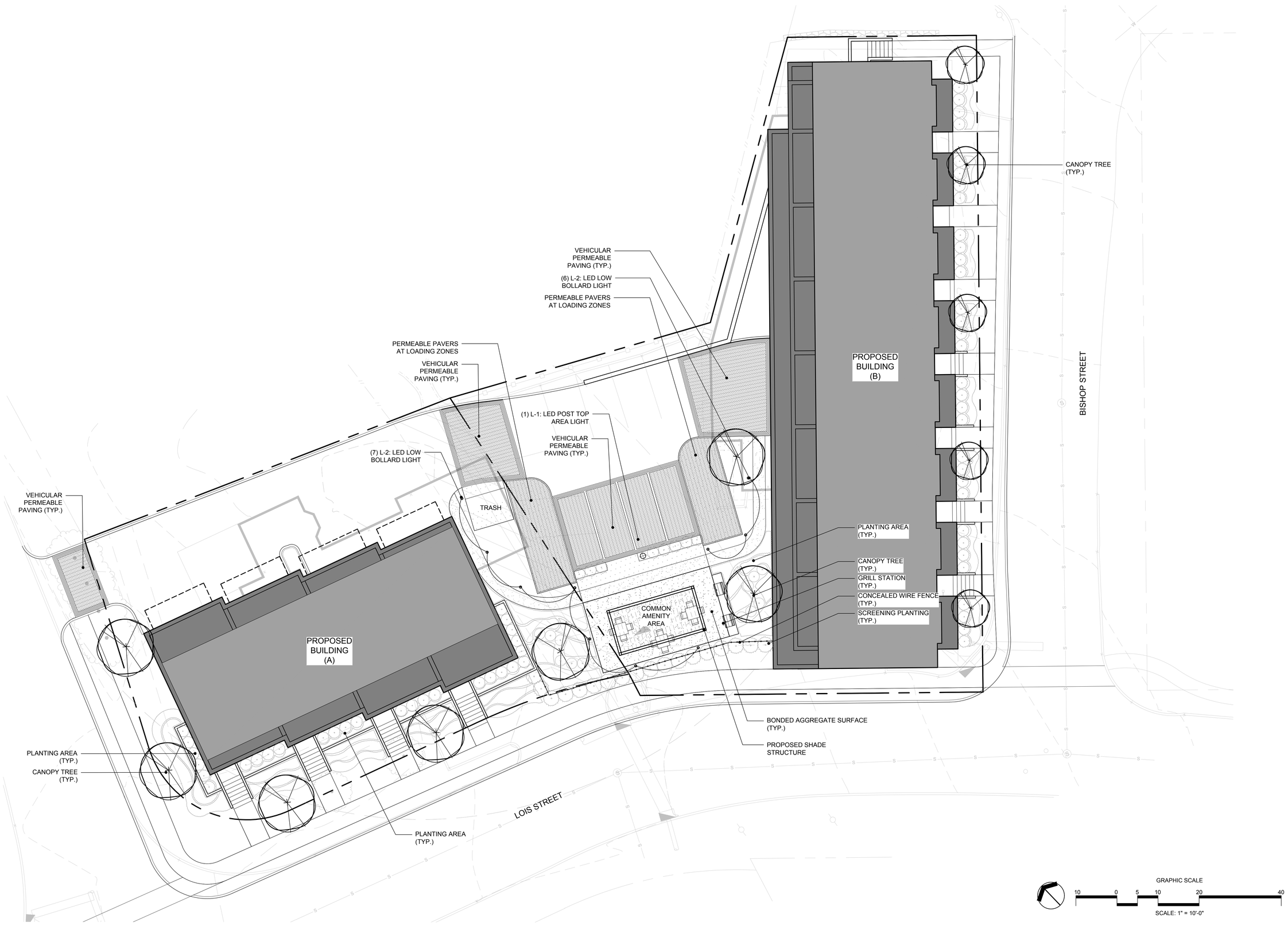
PROJECT STATUS:
DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

STATE OF CONNECTICUT
NOT SOUMELIDIS
27803
LICENSED
PROFESSIONAL ENGINEER

SD-1.0

LANDTECH

T:\1 ACTIVE PROJECTS\24137-01 KOZLOWSKI - 1 BISHOP ST, NORWALK\DRAWINGS\1 BISHOP & 38 LOIS STREET - PLAN SET.DWG



erla landscape architecture, llc
eric rains
11a N Main Street SoNo, CT 203.354.6500 www.ericrains.com

NO.	ISSUE	DATE
7	ZONING SUBMISSION - REVISED	25.07.29
6	ZONING SUBMISSION	25.07.26
5	FOR MUNICIPAL REVIEW	25.06.04
4	FOR MUNICIPAL REVIEW	25.05.29
3	PROGRESS - FOR COORDINATION	25.04.30
2	PROGRESS - FOR COORDINATION	25.04.23
1	FOR CLIENT REVIEW	25.04.17

BISHOP AND LOIS STREET

38 LOIS STREET
NORWALK CT

PROJECT

DWG TITLE
OVERALL LANDSCAPE SITE PLAN

JOB NO.

DATE
2025.04.15

SCALE
1"=10'-0"

SPL-1.0

PROPOSED BUILDING (B)

PROPOSED BUILDING (A)

TRASH

BISHOP STREET

LOIS STREET

(5) GB
(9) LM
(4) IG
(10) LM
(4) IG
(9) LM
(4) IG
(10) LM
(4) IG
(9) LM
(4) IG
(10) LM
(4) IG
(9) LM
(4) IG
(12) LM
(4) IG
(7) LT
(9) GC
(5) TC
(8) IG
(3) RP
(9) LM
(2) RP
(9) LM
(18) IM
(7) PV
(6) HQ
(16) LM
(7) LM
(23) GC
(7) TC
(14) LM
(15) IS
(10) IG
(15) IS
(4) IG
(15) IS
(4) IG
(15) IS
(4) IG
(13) LM
(7) HQ
(7) PV
(5) TC
(15) LM
(13) GC
(6) IG
(25) LM
(36) GC
(5) TC
(16) LM
(13) GC
(5) TC
(15) LM
(11) GC
(5) TC
(13) LM
(8) GC

GRAPHIC SCALE
10 0 5 10 20 40
SCALE: 1" = 10'-0"

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NO.	ISSUE	DATE
7	ZONING SUBMISSION - REVISED	25.07.29
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2	PROGRESS - FOR COORDINATION	25.04.23
1	FOR CLIENT REVIEW	25.04.17

PROJECT
BISHOP AND LOIS STREET
38 LOIS STREET
NORWALK CT

DWG TITLE
OVERALL PLANTING PLAN

JOB NO.

DATE
2025.04.15

SCALE
1"=10'-0"

SPL-2.0

SITE LIGHTING SCHEDULE

SYM	QTY.	DESCRIPTION
L-1	1	LED POST TOP AREA LIGHT - MODEL: UR20-24L-65-3K7-3-CLR-PT. TEMP: 3000K LED. DISTRIBUTION: TYPE 3. HEIGHT: 16'-0" POLE. COLOR: BLACK. BY KIM LIGHTING. CONTACT: CLIFF GILBERT. (203) 788-0814
L-2	10	LED LOW BOLLARD LIGHT - MODEL: PA7R-NU-3-12L-010-3K7-24A-BLT-MW-120. TEMP: 3000K LED. DISTRIBUTION: TYPE 3, HEIGHT: 24". COLOR: BLACK. BY KIM LIGHTING.

PLANTING SCHEDULE

SYM	QTY	BOTANICAL NAME	COMMON NAME	ROOT	MIN.SIZE	COMMENTS
TREE						
GB	5	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginko	B&B	2 -2 .5" CAL.	Full, Nicely shaped
LT	7	Liriodendron tulipifera 'Fastigiatum'	Columnar Tulip Tree	B&B	2 -2 .5" CAL.	Full, Nicely shaped
SHRUB						
RP	5	Rosa Carefree Wonder	Shrub Rose	CONT.	#3	Full, 36in Spacing O.C.
HQ	13	Hydrangea quercifolia 'Little Honey'	Oak Leaf Hydrangea	CONT.	#3	Full, 36in Spacing O.C.
IG	69	Ilex glabra 'Shamrock'	Inkberry	CONT.	#3	Full, Nicely shaped
IM	18	Ilex x meserveae	Castle Wall Blue Holly	CONT.	#3	Full, Nicely shaped
PERENNIALS, FERNS AND GRASSES						
PV	14	Panicum virgatum	Switch Grass	CONT.	#1	Full, Nicely shaped, 24 -36in Spacing O.C.
GC	113	Geranium x cantabrigiense 'Karmina'	Hardy Geranium	CONT.	#1	Full, Nicely shaped, 15-20in Spacing O.C.
TC	32	Tiarella cordifolia	Foam Flower	CONT.	#1	Full, Nicely shaped, Spacing 24" O.C.
LM	230	Liriope muscari	Blue Lily Turf	CONT.	#1	Full, Nicely shaped, Spacing 18" O.C.
IS	60	Iberis sempervirens	Evergreen Candytuft	CONT.	#1	Full, Nicely shaped, Spacing 12" O.C.

PLANTING NOTES:

1. THE CONTRACTOR SHALL PROVIDE A SOIL TEST RESULT FOR ALL PLANTING AND LAWN AREAS THAT MINIMALLY INDICATE PH, SOIL TYPE AND NUTRIENT LEVELS. THE CONTRACTOR SHALL AMEND SOILS AS REQUIRED TO PROVIDE APPROPRIATE CONDITIONS FOR THE PLANTS AND OR SEED INDICATED ON THE PLANS

2. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE REPRESENTATIVE SAMPLE OF EACH PLANT VARIETY WITH AN ATTACHED LABEL INDICATING THE NAME, SIZE, AND ORIGIN, OF ALL PLANT MATERIALS

3. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANT MATERIALS AT ANY POINT PRIOR TO INSTALLATION. ALL MATERIALS SHALL CONFORM TO THE AMERICAN STANDARDS FOR NURSERY STOCK" ANSI Z60.1-2014 (AVAILABLE AT AMERIHORT.ORG)

4. THE LAYOUT OF ALL BED LINES AND LOCATION OF ALL PLANT MATERIAL SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.

5. ALL PLANT MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS ON THE DRAWINGS

6. PLANTING BEDS SHALL BE MULCHED WITH A 3" (THREE INCH) MINIMUM OF SHREDDED AGED HARDWOOD BARK UNLESS OTHERWISE NOTED

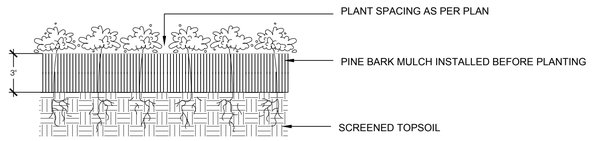
7. ALL VEGETATION SHOWN ON THE DRAWINGS SHALL BE MAINTAINED IN A HEALTHY CONDITION THROUGHOUT THE DURATION OF THE PROJECT OR PROJECT PHASE

8. ALL PLANT MATERIAL SHALL BE COVERED BY A ONE-YEAR FULL REPLACEMENT WARRANTEE THAT SHALL INCLUDE ALL MATERIALS AND LABOR. THE CONTRACTOR SHALL REPLACE PLANTS AS SOON AS WEATHER AND SEASONAL CONDITIONS PERMIT

9. IF THERE IS A DIFFERENCE IN COUNT OR SIZE OF PLANT MATERIALS BETWEEN THE PLAN AND THE LIST THE HIGHER NUMBER AND OR SIZE SHALL PREVAIL

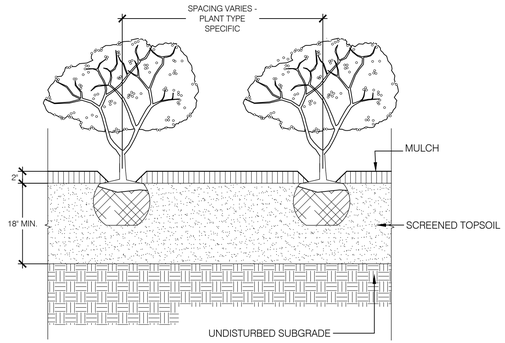
IRRGATION NOTES:

1. ALL NEW PLANTINGS & LAWN SHALL BE IRRIGATED.
2. CONTRACTOR SHALL PROVIDE FULLY FUNCTIONING IRRIGATION SYSTEM. SYSTEM SHALL BE DESIGNED AND INSTALLED BY A LICENSED PROFESSIONAL CERTIFIED TO WORK IN THE STATE OF CONNECTICUT.
3. IRRIGATION SYSTEM SHALL PROVIDE COMPLETE COVERAGE FOR ALL NEW PLANTING AND LAWN AREAS.
4. CONTRACTOR SHALL PROVIDE IRRIGATION PLAN FOR ENTIRE SITE FOR APPROVAL.
5. CONTRACTOR RESPONSIBLE FOR ACQUISITION OF ALL REQUIRED PERMITS.
6. CONTRACTOR TO PROVIDE AND INSTALL ALL MATERIALS & COMPONENTS NECESSARY FOR THE OPERATION OF THE IRRIGATION SYSTEM; INCLUDING BUT NOT LIMITED TO: WELLS, BACKFLOW PREVENTERS, RPZs, ELECTRICAL AND COMPUTER COMPONENTS AND ENTIRE WATER DELIVERY SYSTEM.



1 GROUNDCOVER PLANTING

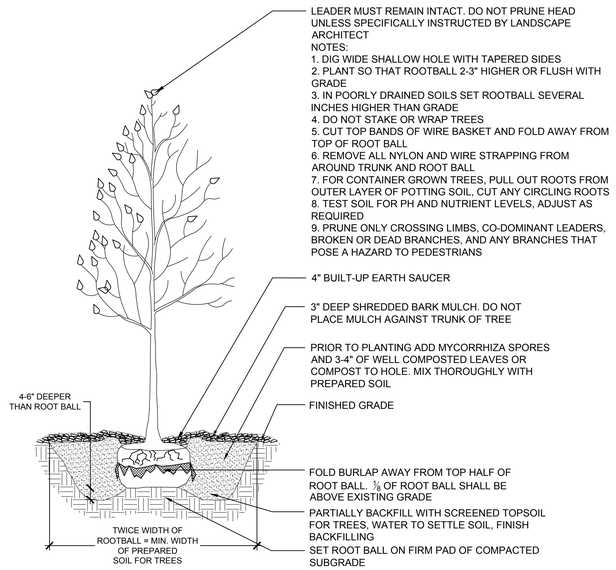
SCALE: NTS



NOTE: PLANTS ARE TO BE SPACED AS REQUIRED BY PLANTING SCHEDULE

2 SHRUB PLANTING

SCALE: NTS



3 TREE PLANTING

SCALE: NTS

UR20 - Post Top

ARCHITECTURAL AREA/SITE

CATALOG #:

Ouro

Ouro Post Top

FEATURES

- 20" size in single/dual arm post top, pole and wall mount
- High performance optics up to 16,874 delivered lumens
- Elegant form factor
- Diffusion lens option
- UL/cUL listed for wet locations, IP66 and 4G/1.5G vibration rated

3000K and warmer CCTs only

CONTROL TECHNOLOGY

LIGHTING CONTROLS | LIGHTGRID

RELATED PRODUCTS

Ouro Small Arm Mount | Ouro Large Post Top | Ouro Large Arm Mount

SPECIFICATIONS

CONSTRUCTION
- Low copper aluminum alloy die-casting is designed as one-piece.
- Molded silicone gasket throughout insures the sealing between the two compartments and provides ingress protection.
- All external fasteners are stainless steel.
- Cover is secured to Lens frame by the latch and hinge.

OPTICS
- LEDs mount to a metal printed circuit board assembly (MCPCB).
- Optical lenses are clear injection molded PMMA acrylic.
- Optional Backlight Control on each LED module to completely control unwanted backlight.
- Optional fixture finish optical surfaces will not exceed BUG ratings of the standard white finish.

LENS
- Standard lens (CLR) IK08
- Clear Polycarbonate Lens (CP) IK10

INSTALLATION
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

ELECTRICAL
- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed.
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed.
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments.
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Surge protection: 10,000k in parallel, 20,000k in series
- Wiring: No. 18AWM rated 105°C, wet rating.

CONTROLS

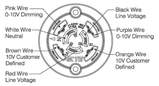
7PR
- Fully gasketed and wired 7-pin receptacle option. Easy access location above the electrical compartment. 7-pin construction allows for a user-defined interface and provides a controlled definition of operational performance. ANSI twist-lock control module by-others.

Standard customer operation modes:
- Traditional on/off photoelectric control.
- 5-pin wireless photoelectric control for added dimming feature.
- 7-pin wireless photoelectric control for for dimming and additional I/O connections for customer use.

7-Pin receptacle placement

KEY DATA	
Lumen Range	2694 – 16874
Wattage Range	25 – 150
Efficacy Range (LPW)	95 – 133
Reported Life (Hours)	L70/>60,000
Weight	35 lbs – 15.8 Kg
EPA	0.608

[1]Clear Polycarbonate Lens (CP) IK10, Standard lens (CLR) IK08. Consult factory for details



(Specifications continued on page 3)

4 LOW BOLLARD LIGHT - TYPE L-1

SCALE: NTS

KIM LIGHTING

DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

PA7R

BOLLARD

Pavilion

FEATURES

- IDA Dark Sky Compliant, No Up-light configuration
- Elegant form factor blended with Performance Optics
- Integral NEMA 3R Enclosure
- Dual receptacle power panel
- PA System capability
- Bluetooth® enabled RGBW accent

NU configurations in 3000K and warmer CCTs only

CONTROL TECHNOLOGY

Bluetooth® DMX | phoros | LIGHTING CONTROLS

RELATED PRODUCTS

Pavilion Square | Pavilion Round Impact Rated

SPECIFICATIONS

CONSTRUCTION

HOUSING:
- Castings are low copper aluminum alloy die-cast
- Gaskets are molded silicone to prevent harmful ingress to the lamp and driver compartments
- IP65 rated

SHAFT:
- Aluminum shaft(s) is .125" thick extruded aluminum 6061 alloy
- Concrete shaft(s) conforms to current specifications for "Portland Cement." ASTM C150, Type I or II. Aggregates shall meet current requirements of "Specifications for Concrete Aggregates," ASTM C33. Water shall be clean and free from deleterious amounts of silt, oil, acids, alkalies or organic materials. Wire for reinforcement shall conform to ASTM A185. Steel for lugs and plates shall conform to ASTM A36, or A283 grade D
- Concrete shaft(s) is medium sand-blasted with anti-graffiti sealer and material color shall be integral to the concrete mix
- Concrete shaft(s) is cured to allow for completion of the hydration process, and result in a 28 day compressive strength of not less than 4,500 psi
- Concrete shaft(s) is cast from fiberglass molds used to insure uniform parts. Mold parting lines maybe slightly visible in finished parts

OPTICS
- LEDs mount to a metal printed circuit board assembly (MCPCB)
- Optical lenses are clear injection molded PMMA acrylic
- U0 configurations have an optically clear flat tempered glass lens, all other configurations have either an optically clear or high transmission diffused acrylic lens

INSTALLATION
- Aluminum shaft configurations will have four 3/8" x 10" x 2" zinc plated L-hook anchor bolts shall to be installed with an included template. Nuts and washers are provided to level and secure the mounting plate to the anchor bolts
- Aluminum shaft configurations will have a mounting plate and be able to be rotated 20° in either direction during installation for aiming adjustment
- Concrete shaft configurations will have four steel mounting tabs for installation on four 1/2" x 10" + 2" zinc electroplated L-hook anchor bolts. Each anchor bolt is supplied with two nuts, two washers, and a rigid pressed board template
- Concrete shaft configurations are palletized with adequate hold-downs to prevent load movement in transit
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

ELECTRICAL
- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed
- High voltage configurations, 208-277, 347/480. Driver is Underwriters Laboratories listed
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers are greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaire is capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C

(Specifications continued on page 3)

KEY DATA	
Lumen Range	397–2350
Wattage Range	14–22
Efficacy Range (LPW)	29–108
Reported Life (Hours)	L70/60,000

5 LOW BOLLARD LIGHT - TYPE L-2

SCALE: NTS

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NO.	ISSUE	DATE
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4.	FOR MUNICIPAL REVIEW	25.05.29
3.	PROGRESS - FOR COORDINATION	25.04.30
2.	PROGRESS - FOR COORDINATION	25.04.23
1.	FOR CLIENT REVIEW	25.04.17

BISHOP AND LOIS STREET

38 LOIS STREET
NORWALK CT

PROJECT

DWG. TITLE
LANDSCAPE SITE DETAILS

JOB NO.

DATE
2025.04.15

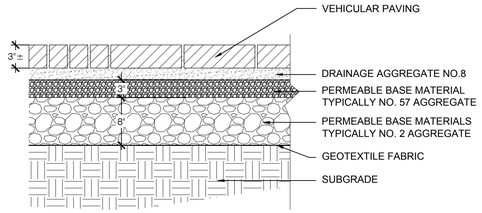
SCALE
NTS

SPL-3.0

MATERIALS SCHEDULE

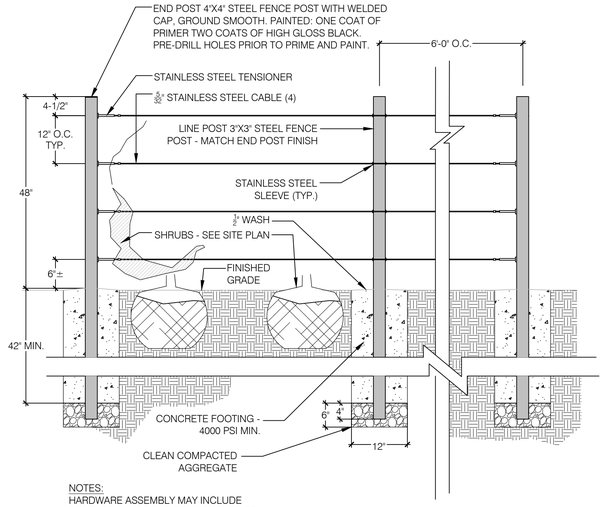
A	BONDED AGGREGATE WALKWAY - STONE BLEND: RI BEIGE. BINDER: Profi DEKO. CONTACT HENRI HILLMANN - PHONE: (860) 840-4637.
B	VEHICULAR CONCRETE PAVERS (CROSSWALKS) - TYPE: ECO-PROMENADE PLANK. COLORS: FRENCH GREY, WINTER MARVEL, GRENADA WHITE (BLENDED EQUALLY ON SITE). SIZE: 3" x 12" (NOM.). BY UNILOCK. CONTACT BEN CANINO, O&G INDUSTRIES. (860) 840-4637
C	STEEL EDGING - MODEL: "BORDER KING" 1/4" X 5" DEPTH, MANUFACTURED BY BORDER CONCEPTS, INC. PHONE: 704-541-5509.
E	VINYL-COATED CHAINLINK FENCE - SIZE: 4'-0" HT. COLOR: BLACK. BY FENCE CONTRACTOR

NOTES: CONTRACTOR SHALL SUBMIT SAMPLES, PRODUCT DATA AND SHOP DRAWINGS FOR ALL MATERIALS FOR APPROVAL.



1 BONDED AGGREGATE WALKWAY

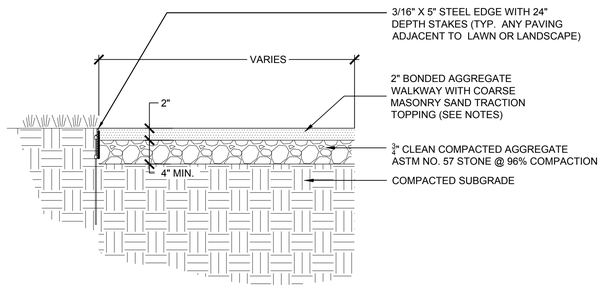
SCALE: NTS



NOTES:
HARDWARE ASSEMBLY MAY INCLUDE SOME OR ALL OF THE COMPONENTS OF THE 'RAIL EASY' ASSEMBLY SUPPLIED BY: WWW.ATLANTISRAIL.COM

3 CONCEALED WIRE FENCE DETAIL

SCALE: NTS



DETAIL SECTION

REFERENCE IMAGE

BONDED AGGREGATE NOTES:
1. CONTRACTOR MUST INSTALL 4' x 4' MOCKUP OF BONDED AGGREGATE WALKWAY AND COARSE SAND TRACTION TOPPING FOR REVIEW AND APPROVAL BY CLIENT AND LANDSCAPE ARCHITECT.

2 BONDED AGGREGATE WALKWAY

SCALE: NTS

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PROJECT
BISHOP AND LOIS STREET
38 LOIS STREET
NORWALK CT

DWG TITLE
LANDSCAPE SITE DETAILS

JOB NO:

DATE
2025.04.15

SCALE
NTS

SPL-3.1

CITY OF NORWALK
Transportation Mobility & Parking
P: 203-854-7335
Norwalk City Hall
125 East Avenue, PO Box 5125
Norwalk, CT 06856-5125

Sent via email to: ESuchy@carmodylaw.com

To: Elizabeth A.B. Suchy, Esq. – Carmody Law

From: Benjamin Yeung, P.E. – Senior Traffic Engineer, TMP
James Travers – Director, TMP

Date: August 27, 2025

Subject: 38 Lois Street & 1 Bishop Street – Proposed Multi-Family Residential – TMP Comments

---

The City of Norwalk Transportation, Mobility, and Parking (TMP) Department has completed a substantive review of the following documents related to the proposed residential development at 38 Lois Street & 1 Bishop Street:

- Civil Site Plans, prepared by Landtech, dated April 15, 2025, revised July 29, 2025;
- Zoning Location Survey & Topographic Survey, prepared by Landtech, dated June 3, 2024, revised July 29, 2025;
- Zoning Improvement Survey, prepared by Landtech, dated July 29, 2025;
- Landscape Plans, prepared by Eric Rains Landscape Architecture, dated April 15, 2025, revised July 29, 2025; and
- Architectural Plans, prepared by Beinfield Architecture, dated June 10, 2025.

Based on review of the aforementioned documents, the followed items must be addressed.

Civil Plans:

1. Please include dimensions for all roadway cross-section elements (curb-to-curb width, amenity zone width, sidewalk width) for each of the three roadways surrounding the Site.
    a. The sidewalk width along Bishop St is drawn at only 3’ wide, which is not PROWAG compliant and not consistent with the 5’-wide sidewalk which had been agreed upon in previous correspondence with TMP.
    b. Additional dimensions should be indicated on the plan along the length of Lois Street since it is proposed to widen out from 22’ at Bishop Street to about 27’ at Fullin Road.

2. TMP recommends the addition of a "sidewalk easement exhibit" to the plan set, clearly delineating the area of the Public Right of Way Passage Easement to be granted to the City (see **Figure 1** for general area in yellow).

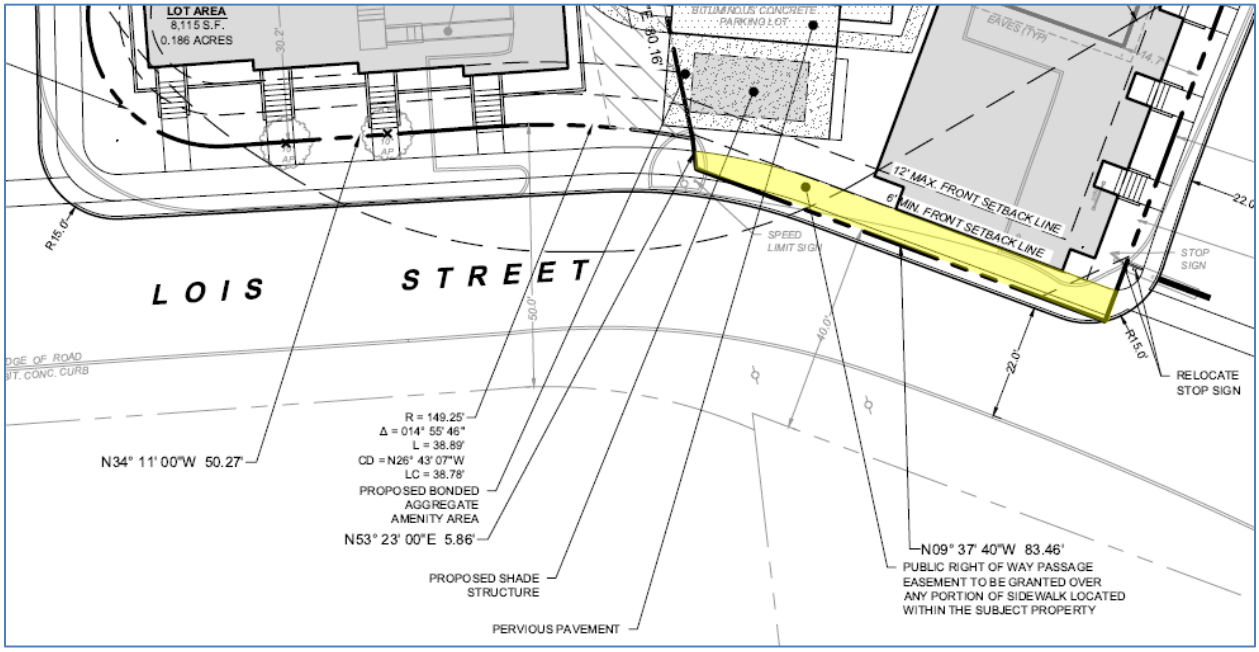


Figure 1: Approximate limits of sidewalk easement to be granted to the City of Norwalk.

3. The proposed driveway apron on Fullin Rd should be a Type B. Please confirm and clarify through plan callouts/detail sheet revisions whether Type B proposed for the site access driveway on Fullin Rd. There is a Type A and a Type B driveway apron detail on Sheet C-5.0 and another Type B driveway apron detail on Sheet C-5.1.

4. The proposed sidewalk should be continuous with the new driveway apron. There should not be any raised or drop curb between the sidewalk and driveway apron, and since there is a snow strip/amenity zone, the amount of elevation that the sidewalk needs to ramp down to meet driveway apron grade should be minimized.

5. Please indicate the pedestrian curb ramp type on plans and add detail to detail sheet. Refer to CT DOT standard details for curb ramps.

6. All new street frontage curbing should be concrete. Please confirm and clarify through plan callouts/detail sheet revisions. There is a concrete curb detail on Sheet C-5.0 and both a bituminous and concrete curb detail on Sheet C-5.1.

7. Please provide a narrative plan for construction worker parking. Parking during construction should be contained to the site to the maximum extent possible, and on-street parking off-site is discouraged.

SUMMARY:

Please note this review is based on all documents submitted to date. TMP reserves the right to comment on forthcoming revised/updated site plans.

Sincerely,

Benjamin Yeung

Benjamin Yeung, P.E., Senior Traffic Engineer – TMP

James Travers, Director – TMP

Cc: DPW Permits
Jay Habansky - Chief of Economic and Community Development
Garrett Bolella, P.E., PTOE, RSP1, Assistant Director – TMP
Nathan Fankhanel, E.I.T., Junior Engineer – TMP
Vanessa Valadares, P.E., Chief of Department of Public Works
Wilber Giron, P.E., Permit Engineer – Department of Public Works
Christine Cardascia, P.E., Assistant Engineer – Department of Public Works
Steven Kleppin, Director – Planning and Zoning
Bryan Baker, Principal Planner – Planning and Zoning
Michelle Andrzejewski, Land Use Planner – Planning and Zoning
Amelia Williams, Land Use Planner – Planning and Zoning
William Ireland, Chief Building Official – Building and Code Enforcement
Leo Guerrero, Assistant Building Official – Building and Code Enforcement
Peter Kelly, Assistant Building Official – Building and Code Enforcement
Ralph Kolb, P.E., Sr. Environmental Engineer – WPCA
Christopher Cavaliere, Junior Engineer – WPCA
Alexis Cherichetti, Senior Environmental Officer – Conservation Office
William Mooney, Assistant Director of Health – Health Department
Troy Donohue, Deputy Fire Marshal – Fire Department

125 East Avenue
Norwalk, Connecticut

September 12, 2025

Memorandum

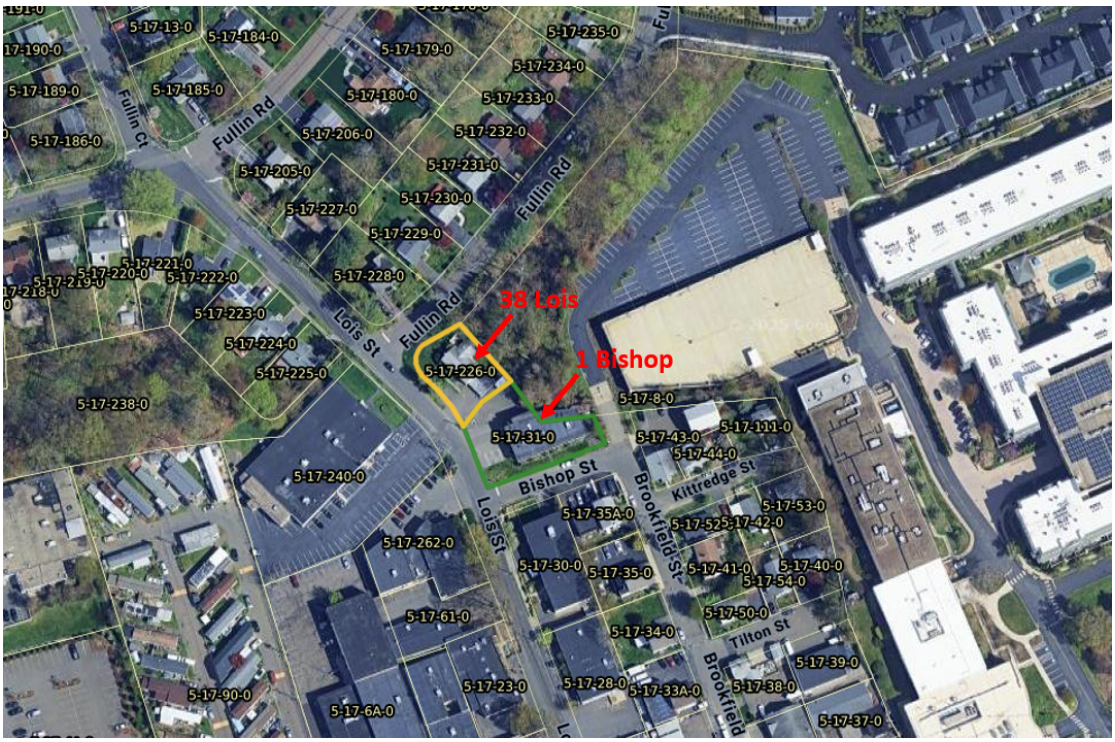
To: **Planning & Zoning Commission, Galen Wells Chair**

From: Steve Kleppin, Planning & Zoning Director

Re: **#2025-61 SPR, 38 Lois St & 1 Bishop St., 38 Lois LLC and One Bishop LLC**

Zone: CD-3C

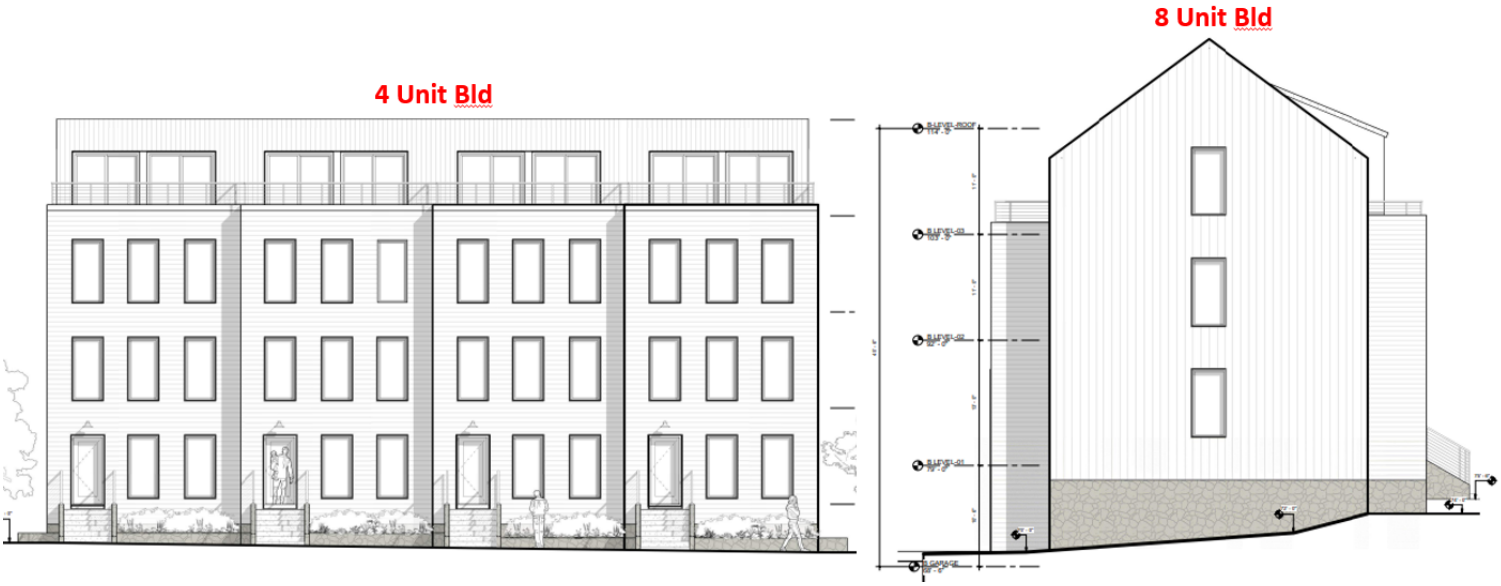
Current Use: 38 Lois St: 1.5-story Single Family Dwelling
1 Bishop St: 2-story Commercial Building



Proposed Use

The applicant is proposing to demolish both structures, combine the lots and construct twelve (12) townhomes.

Lois St. Elevation



Fullin Rd, Elevation

Bishop St. Elevation

It is important to note that prior to adoption of the current zoning regulations in February, 2024, 38 Lois Street was located in the B Residence Zone (single-family) and 1 Bishop Street was located in the Business #2 Zone. Business 1 & Business 2 were mostly folded into the CD-3C zone, while the boundaries around those zones were adjusted, resulting in 38 Lois Street getting added to CD-3C. North of this area is predominantly single-family uses and zoning designations. The type of development proposed is an example of moderate sized missing-middle housing. The portion of the development on 1 Bishop Street is similar in scale to what could have been developed previously, while the 4-unit building on 38 Lois Street is more dense than the existing single-family dwelling. The proposed 4-unit building has a footprint that is approximately 1,000 SF larger than what would be permitted in the CD-1S Zone and is approximately a story taller than allowed in the CD-1S Zone.

Site Plan/Zoning Compliance

The proposed structures are both in compliance with the bulk and height standards for the zone, including density, setbacks and heights. Staff has requested confirmation of the location and height of the proposed retaining walls to ensure they comply with the zone standards. Staff has requested that the applicant see if there are treatments that can be made to the western portion of the 8-unit building to lessen the massing appearance at the corner. The applicant has indicated that they can add an additional pedestrian entry and a canopy. To date, a modified drawing has not been submitted.

The zoning regulations require 1 parking space/townhouse (8 required). The applicant is proposing a total eighteen (18) spaces, laid out as follows:

- 4-unit building – 2 garage spaces/unit (8 total)
- 8-unit building – 7 garage spaces
- 3 screened surface spaces, including 1 handicap space

16 total

Parking spaces for the 8-unit building will be shared amongst tenants. Considering there are only seven garage spaces and eight units, will the tenants access the garage and see if any spaces are available? While not striped or indicated, overflow parking will likely occupy the periphery of the drive aisles and the loading spaces.

For reference, prior to the change in regulations a 12-unit development would require sixteen spaces.

As required by the regulations, the 8-unit building contains a 4KW solar array.

Form-Based Standards

The proposed structures appear to be in compliance with the form-based design standards in the CD-3C zone, including building articulation, window alignment and building materials. Staff has requested confirmation of window trim dimensions.

Workforce Housing

Twelve proposed units requires setting aside one (1) unit as a Workforce Housing Unit and pay the Inclusionary Zoning Fee on the fractional 2 units. The applicant should provide the location of that unit prior to approval.

DPW Comments

The Engineering Department provided comments in a memorandum dated August 27, 2025. Many of the comments are technical in nature and can be addressed upon submission of the building permit, while others pertain to easements and access. Staff has addressed compliance with those requirements in the draft resolution.

TMP Comments

Similar to the Engineering Department comments, TMP's comments are both technical clarifications in nature and also deal with easements as required. In addition, TMP has requested the applicant provide a narrative on how parking during construction will occur. The road network is tight in this area and there have been complaints about street parking in the past on nearby streets.

The attached resolution is offered for your consideration.

END

I ♥ NORWALK
PLANNING & ZONING

DRAFT RESOLUTION TO APPROVE SITE PLAN

Now, **THEREFORE BE IT RESOLVED** by the Norwalk Planning & Zoning Commission, that the Site Plan application **#2025-61 SPR, 38 Lois St & 1 Bishop St., 38 Lois LLC and One Bishop LLC** be **APPROVED,** subject to the following conditions:

1. A consolidation map must be filed on the Norwalk Land Records prior to obtaining a Zoning Permit.
2. That the site shall be developed in accordance with the following plans, and as further revised per these conditions of approval:
    a. Per the site plans entitled "One Bishop LLC & 38 Lois LLC", prepared by Landtech, dated 4/15/25; and
    b. Per the architectural drawings entitled "Bishop and Lois Street," prepared by Beinfield Architecture, dated 6/10/25; and
    c. Per the landscape plans entitled "Bishop and Lois Street," prepared by Eric Rains Landscape Architecture, LLC, dated 4/15/25; and
3. That the applicant shall submit a Workforce Housing Affordability Plan, subject to Staff approval, prior to the issuance of a zoning permit; and
4. That an approved Workforce Housing Affordability Plan shall be filed on the Norwalk Land Records prior to the issuance of a Certificate of Zoning Compliance for the residential portion of the building(s); and
5. All site lighting installed shall be in compliance Article 4.3.17, Private Lighting Standards; and
6. That all utilities servicing the site shall be installed underground; and
7. That should any building façade material become damaged and/or deteriorated, the applicant and any future owner(s) shall repair the damaged and/or deteriorated façade within thirty (30) days upon receiving notice from the City; and
8. That any pruning of trees within the city right-of-way shall be done in coordination with the City of Norwalk's Tree Warden; and
9. That prior to obtaining a Zoning Permit, conditions 1-9 as indicated in the memorandum from DPW, dated 8.27.25 be satisfied; and
10. That prior to obtaining a Zoning Permit, conditions 1-7 as indicated in the memorandum from TMP, dated 8.27.25 be satisfied; and
11. That a surety shall be submitted, in an amount determined by Staff, to guarantee the installation of the required erosion and sediment controls prior to the issuance of a zoning permit; and
12. That all erosion and sediment controls shall be installed and maintained prior to the start of any construction or site work, shall be maintained throughout all construction and site work, and that additional controls be installed at the direction of Staff; and

13. That a Connecticut licensed engineer shall certify that all required improvements, including any required off-site improvements, were installed to City standards prior to the issuance of a Certificate of Zoning Compliance; and

BE IT FURTHER RESOLVED that this application complies with all applicable sections of the Norwalk Zoning Regulations; and

BE IT FURTHER RESOLVED that the effective date of this action be September 26, 2025.

Special Permit Application

City of Norwalk Planning & Zoning Commission
Phone: 203-854-7780
www.norwalkct.gov

Date Received:

Per Section 8.4.8 of the Norwalk Zoning Regulations, Special Permits are for Uses, Buildings, or Structures that are considered to be generally appropriate in the applicable District, but because of their potential for impacts with Adjacent Uses, Buildings, or Structures, require individual review for specific locations.

1. **Address of Subject Property(s):**
   284 New Canaan Avenue, Norwalk, CT
2. District: 5 Block: 46 Lot(s): 76 **3.** Zone: AAA, Overlay/Village District: _____
4. Historic Structure(s): ☑ No ☐ Yes **5.** Flood Hazard Zone ☑ No ☐ Yes, Flood Zone(s) _____
6. Coastal Area Management Zone: ☑ No ☐ Yes If yes, include application for Coastal Site Plan Review or specify Section allowing exemption: _____
7. Existing Use of Property:
   Contractor's Yard - Public Utilities
8. Proposed Use of Property as Identified per **Table 4.3.9.A:** Building, Lot & Building Site Principal Uses:
   Contractor's Yard - Public Utilities

Applicant Information

Applicant Name: Enrico R. Costantini, Esq.
Billing Address: FLB LAW, PLLC, 315 Post Road West, Westport, CT 06880
Phone Number: 203-635-2200 Email: costantini@flb.law
Signature: _____

Property Owner Information and Authorization

Owner of Record: _____
Billing Address: _____
Phone Number: _____ Email: _____
Signature: _____

**By signing, the property owner confirms that the Applicant has been authorized to apply for Planning & Zoning approval, and attests that all information provided is true and accurate.*

March 12, 2025

Norwalk Planning & Zoning Department
125 East Avenue, Room 129
Norwalk, CT 06856

Re: 284 New Canaan Avenue, Norwalk, Connecticut (the "Property")

To Whom It May Concern:

As the Owner of the Property, this letter is to advise you that Indian Hill RE, LLC hereby consents to the preparation, filing and presentation of any and all zoning, land use, or other applications seeking approvals in connection the Property by the law firm of FLB Law, PLLC, and the engineering firm of LandTech.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Indian Hill RE, LLC

By:
Duly Authorized

APPLICANT'S PROJECT DESCRIPTION

PENNA CONSTRUCTION – 284 NEW CANAAN AVENUE

Penna Construction, by way of their attorneys, FLB Law, PLLC, (the "Applicant"), submits this application for a special permit (the "Application") pursuant to the Nowalk, Zoning Regulations (the "Regulations") for the property commonly known as 284 New Canaan Avenue, Norwalk, Connecticut (the "Property"), which is located in a CD-1L District. The goal of this Application is to correct the zoning violation related to Section 6.2.2. D (Article 6) of the Regulations. As part of this Application we are submitting the following documents:

- Restoration Plan, dated October 31, 2024, and revised as of April 2, 2025, prepared by LANDTECH for Indian Hill RE, LLC (the "Restoration Plan") (one full-size and two 11" x 17" hard copies);
- List of Abutters within one hundred feet (100') of the Property;

Additionally, the Applicant hereby seeks a waiver for the submission of the following documents:

- Certified Class A-2 Existing Conditions Survey;
- Environmental Impact Assessment;
- Architectural Plans and Drawings; and
- Traffic Impact Analysis – the proposed use at the Property will not generate over five hundred (500) vehicle trips per day, as set forth in Section 8.4.8.2.c of the Regulations.

BACKGROUND & PROPOSAL

On January 18, 2017, the Norwalk Zoning Commission (the "Commission") approved a Special Permit Application (the "2017 Special Permit") for the Property to repurpose said Property from a former state armory building to a public utility storage facility.[1] On October 24, 2024, the Applicant received a Notice of Zoning Violation: 284 New Canaan Ave (5-46-76-0) (the "Notice of Violation") from the Norwalk Deputy Zoning Inspector in the Planning & Zoning Department. In part, the Notice of Violation was related to the clear-cutting of more than 10,000 square feet in violation of Section 6.2.2.D(Article 6) of the Norwalk Zoning Regulations (the "Regulations"). The Notice of Violation also identified two other violations, specifically: (a) the non-compliance with the previously approved Special Permit conditions, and (c) the failure to obtain a Certificate of Zoning Compliance related to the previously approved Special Permit. At the direction of the Norwalk Planning & Zoning Section staff, the other two zoning violations identified in the Notice

[1] The 2017 Special Permit was subsequently modified in 2018 to permit the Applicant to swap an above-ground detention basin for an underground cultec system. Reference to the '2017 Special Permit' herein includes by reference the subsequent modification.

of Violation are being addressed by a separate special permit application which has been submitted simultaneously herewith.

The Applicant has already received approval from the Norwalk Conservation Commission ("NCC") on February 19, 20205 for the Restoration Plan for a Corrective Action Permit (#S24-648). The Restoration Plan addressed the restoration of a roughly 15,000 SF area (wetland and upland woodland) which was clear cut. The Restoration Plan, as approved by NCC and submitted herein, proposes to plant 60 trees, 240 shrubs and native see mix over the disturbed area.

The Applicant proposes to restore the affected area by replacing the various trees and shrubs that had been previously removed from the Property and to properly grade the Property to match natural contours and ensure appropriate drainage.

CONCLUSION

As proposed, the Restoration Plan provides a thorough response to the specific zoning violation related to the clear-cutting of more than 10,000 square feet and as such we respectfully request that this Commission approve this Application.

Neighbors within 100' of Subject Property

Piotr Suchocki
11 May Drive
Norwalk, CT 06850

Luis Alfredo Vallejo & Reyna Vallejo
4 Klim Lane
Norwalk, CT 06850

James William Mayfield
3 Klim Lane
Norwalk, CT 06850

Andrew John Frucci & Emily Schneider Frucci
156 Pocconock Trail
Norwalk, CT 06850

Alain & Alicja Chebeir
166 Pocconock Trail
Norwalk, CT 06850

Peter B. Wilson, Jr. & Karen P. Wilson
178 Pocconock Trail
Norwalk, CT 06850

Robert C. Kolodny, as Trustee
Robert C. Kolodny Revocable Trust of 1978
48 Carter Street
Norwalk, CT 06850

Elena Zaika & Marwan Saidi
46 Carter Street
Norwalk, CT 06850

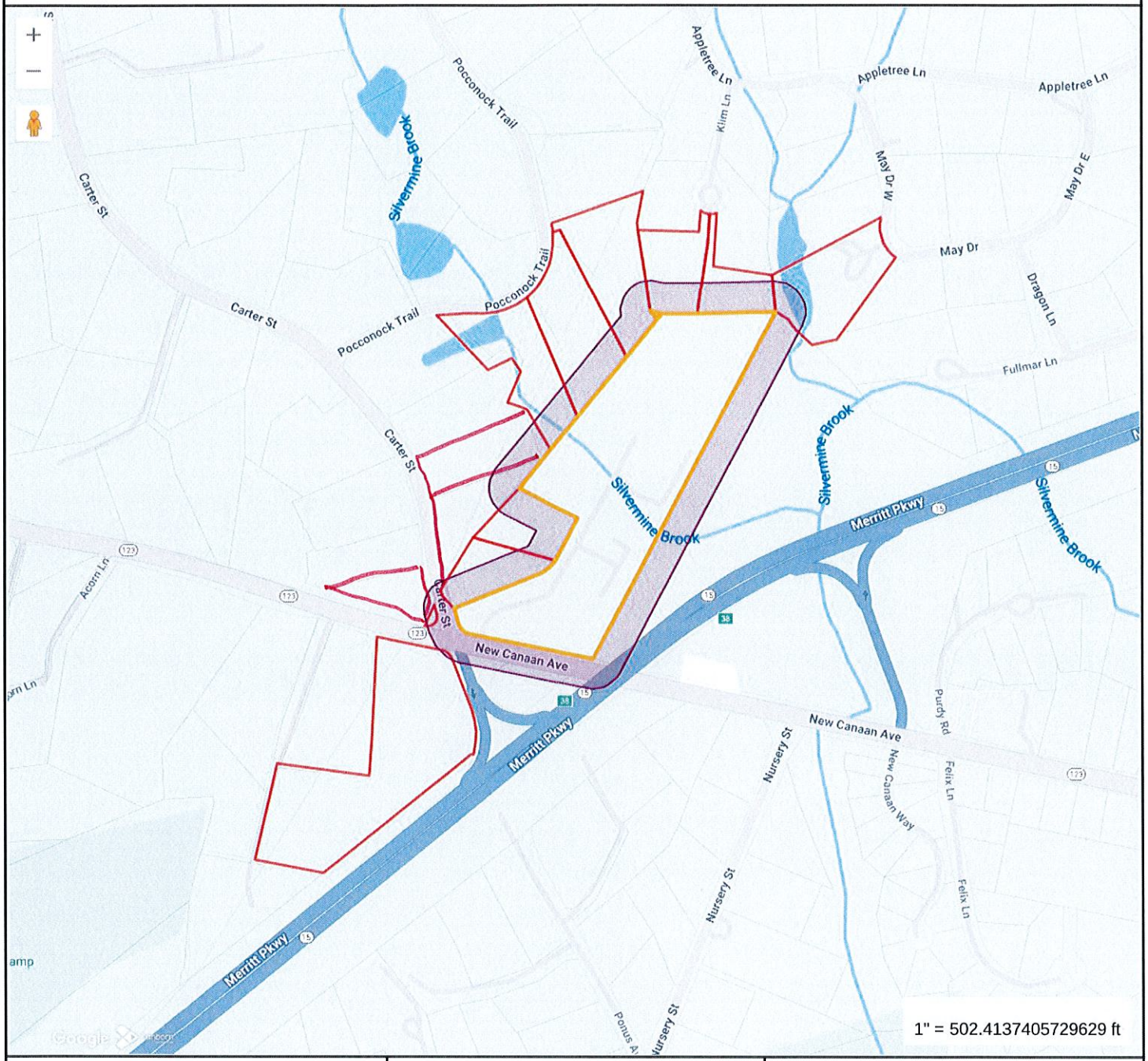
Andrew J. & Josephina Bell
293 New Canaan Avenue
Norwalk, CT 06850

Mauro A. Rojas
(For property located at Ponus Avenue, Norwalk, CT)
c/o: 845 Carter Street
New Canaan, CT 06840

Peter Hantes, Jr.
824 carter Street
New Canaan, CT 06840

Mauro A. Rojas
845 Carter Street
New Canaan, CT 06840

Jimmy Nguyen
830 Carter Street
New Canaan, CT 06840



Norwalk Information

ID	103-5-46-76-0
Site Address	284 NEW CANAAN AVE
Owner	INDIAN HILL RE LLC
Co-Owner	
Owner Address	46 INDIAN HILL RD

WESTCOG

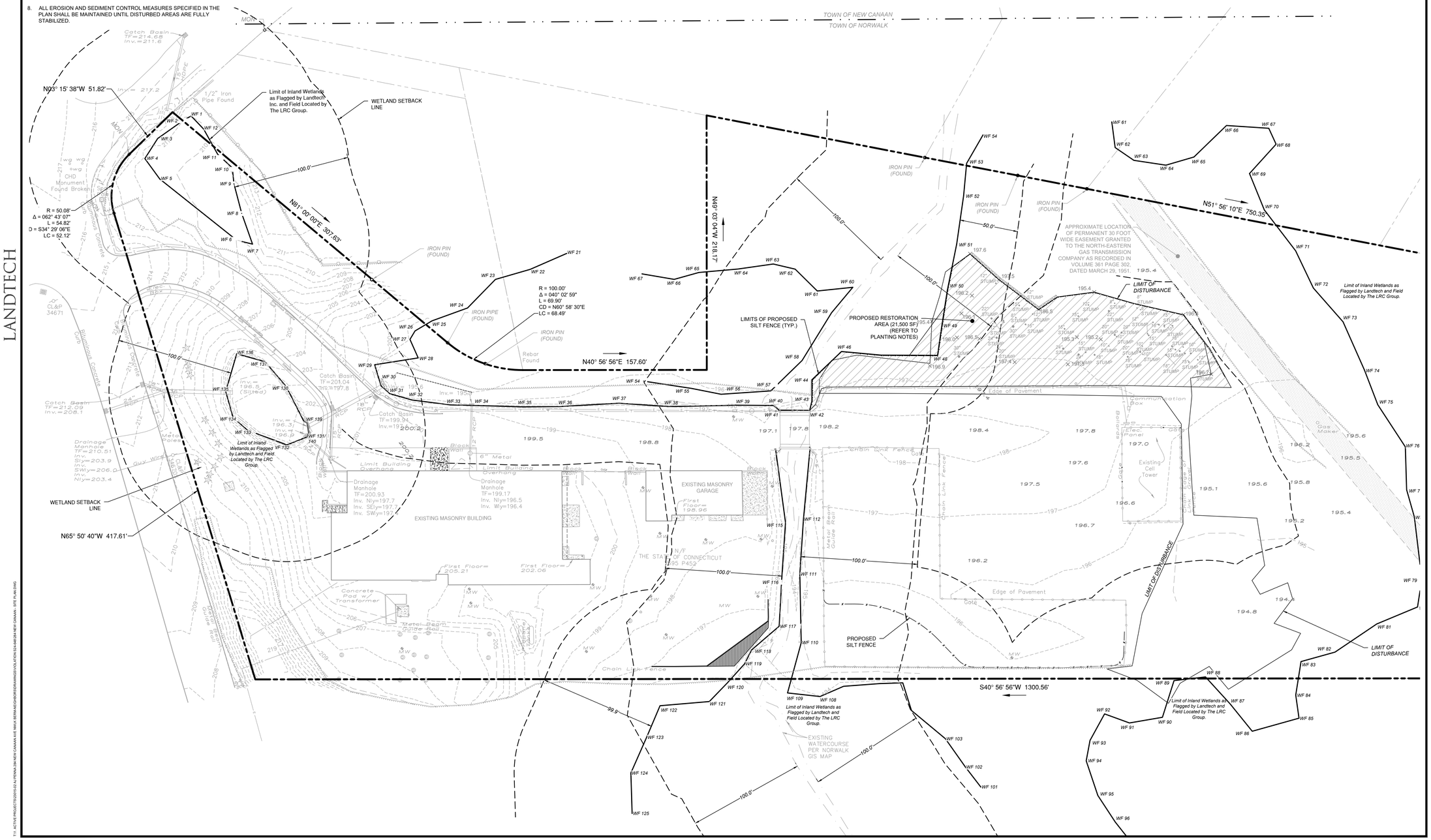
MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

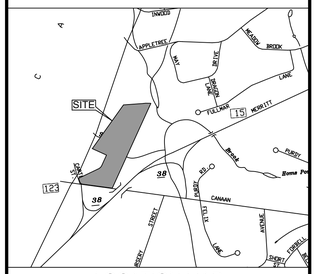
Regional Map Viewer makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

GENERAL NOTES

1. LOT LINE & TOPOGRAPHIC INFORMATION FOR 284 NEW CANAAN AVENUE TAKEN FROM ZONING LOCATION SURVEY & TOPOGRAPHIC SURVEY PREPARED BY LANDTECH DATED SEPTEMBER 7.
2. DATUM: NAVD 88
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UNDERGROUND PIPING, UTILITIES, AND OTHER FEATURES ARE TAKEN FROM EXISTING AS-BUILT MAPPING AND OTHER SOURCES OF INFORMATION AND ARE APPROXIMATE. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IN ADDITION, THERE MAY BE OTHER UNDERGROUND PIPING, UTILITIES, AND OTHER FEATURES PRESENT THAT ARE NOT SHOWN. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE PRESENCE OF ANY OF THESE EXISTING ELEMENTS BY WHATEVER MEANS NECESSARY AND PROTECTING THESE ELEMENTS AS REQUIRED OR RELOCATING THEM IF THEY ARE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALL "CALL BEFORE YOU DIG," 1-800-922-4455, THREE FULL WORKING DAYS PRIOR TO ANY EXCAVATION WORK ON THE PROPERTY.
5. SUBJECT PROPERTY IS LOCATED IN FEMA FLOOD ZONE "X" AS SHOWN ON FEMA FIRM PANEL No. 09001C0389F, EFFECTIVE JUNE 18, 2010.
6. WETLANDS FLAGS AS TAKEN FROM MAP PREPARED BY LRC GROUP, DATED SPETEMBER 7, 2010.
7. A NEW BENCHMARK SHALL BE SET PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
8. ALL EROSION AND SEDIMENT CONTROL MEASURES SPECIFIED IN THE PLAN SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE FULLY STABILIZED.





LOCATION MAP
(NTS)

08/19/2025	REVISED PLANTING PLAN PER COMMENTS
04/02/2025	REVISED PLANTING PLAN
01/23/2025	REVISED PLANTING PLAN
REVISION DATE	ISSUE

LANDTECH
SITE/CIVIL • ENVIRONMENTAL • SURVEYING • PLANNING
518 RIVERSIDE AVENUE • WESTPORT, CT 06880 • 203-454-2110
HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

PREPARED FOR:

INDIAN HILL RE, LLC

PROJECT LOCATION:

284 NEW CANAAN AVENUE
NORWALK, CT

PROJECT TITLE:

CORRECTIVE ACTION
PERMIT #S24-648

DRAWING TITLE:

RESTORATION PLAN

PROJECT No.		
23015-02		
DATE: 10/31/2024	DESIGNED BY: SM	CHECKED BY: BC

SCALE: 1" = 40'

IN FEET
0 40 80 120

PROJECT STATUS:

DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

STATE OF CONNECTICUT · SOUMEDUTT · 27803 · LICENSED PROFESSIONAL ENGINEER

C-1.0

T:\1 ACTIVE PROJECTS\2015-02 ALFRENDA, 284 NEW CANAAN AVE NWLK, BEING AS SHOWN ON MAPS\WORKING\REVISION 12-24\284 NEW CANAAN - SITE PLAN.DWG

New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites

BOTANICAL NAME	COMMON NAME	INDICATOR
ELYMUS RIPARIUS	RIVERBANK WILD RYE	FACW
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
FESTUCA RUBRA	RED FESCUE	FACU
ANDROPOGON GERARDII	BIG BLUESTEM	FAC
PANICUM VIRGATUM	SWITCH GRASS	FAC
VERNONIA NOVEBORACENSIS	NEW YORK IRONWEED	FACW+
AGROSTIS PERENNANS	UPLAND BENTGRASS	FACU
BIDENS FRONDOSA	BEGGAR TICKS	FACW
EUPATORIUM MACULATUM (EUTROCHIUM MACULATUM)	SPOTTED JOE PYE WEED	OBL
EUPATORIUM PERFOLIATUM	BONESET	FACW
ASTER NOVAE-ANGLIAE (SYMPHYOTRICHUM NOVAE-ANGLIA)	NEW ENGLAND ASTER	FACW-
SCIRPUS CYPERINUS	WOOL GRASS	FACW
JUNCUS EFFUSUS	SOFT RUSH	FACW+

The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation. This mix is particularly appropriate for detention basins that do not hold standing water. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding. The mix may be applied by hand, by mechanical spreader, or by hydro- seeder. After sowing, lightly rake, roll or cultipack to insure good seed-to-soil contact. Best results are obtained with a Spring or late summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. A light mulching of clean, weed-free straw is recommended. APPLY: 35 LBS/ACRE :1250 sq ft/lb

WETLAND RESTORATION AREA

KEY	BOTANICAL NAME	COMMON NAME	DESCRIPTION	SIZE	QTY
AR	*ACER RUBRUM*	RED MAPLE	Fast-growing tree (60-75') with fall foliage. Provides food for wildlife. Suitable for buffer areas with wetter and drier conditions (FAC).	4-6'	20
NS	*NYSSA SYLVATICA*	BLACK GUM	Medium to large tree (40-80'), horizontal branching habit. Fruit provides wildlife food. Thrives in buffer areas with moist soils (FAC).	4-6'	17
QB	*QUERCUS BICOLOR*	SWAMP WHITE OAK	Majestic, widely spreading crown (50-80'). Tolerates seasonal flooding, drought and some salinity. Acorns feed many birds and other animals.	4-6'	17
CA	*LINDERA BENZOIN*	COMMON SPICEBUSH	Medium shrub found in seasonal wetlands and moist woods. Red fruit important food source for many birds. The primary food of larval Spicebush Swallowtail butterflies. Fall foliage.	2-3'	54
AI	*ALNUS INCANA*	SPECKLED ALDER	A large shrub (15') that grows along stream edges and swamps. Has ability to fix nitrogen. Clumps of Alder form excellent wildlife cover. Good for bank stabilization. One of the most adaptable shrubs for difficult sites. (FACW)	2-3'	43
PM	*ARONIA ARBUTIFOLIA*	RED CHOKEBERRY	A medium-sized shrub (6-10') with small white to pinkish flowers in the spring. Persistent red berries are eaten by wildlife in winter. Very soil adaptable. (FACW)	2-3'	50
VA	*VIBURNUM ACERIFOLIUM*	MAPLELEAF VIBURNUM	Small shrub (4-6') that thrives in partial shade. Provides berries for birds and adds multi-season interest to the buffer zone.	2-3'	50
RD	*CORNUS SERICEA*	RED OSIER DOGWOOD	Large shrub (6-12') effective for erosion control and wildlife habitat. Its bright red stems provide winter interest. (FACW).	3-4'	53
PM	*PICEA MARIANA*	BLACK SPRUCE	An important tree of northern bogs and hilltops. This tree can withstand periodic flooding. Cones provide food for wildlife.	5-6'	11

WETLAND PLANTING STATUS TERMS	
OBL: Obligate Wetland Species	Plants that almost always grow in wetlands (estimated probability >99%), under natural conditions.
FACW: Facultative Wetland Species	Plants that usually grow in wetlands (estimated probability 67%-99%), but are occasionally found in non-wetlands areas.
FAC: Facultative Species	Plants equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66% in wetlands).
FACU: Facultative Upland Species	Plants usually found in non-wetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).
UPL: Obligate Upland Species	Plants almost always found in non-wetlands or upland sites (estimated probability >99%).

RESTORATION AND PLANTING NOTES

Project Overview and Goals

This upland review area restoration project at 284 New Canaan Avenue is designed to:

- **Reestablish ecological health** by introducing native plants adapted to local hydrology and soil conditions.
- **Implement erosion control measures**, stabilize soils, and support long-term habitat restoration.
- **Enhance wildlife habitat** by restoring a native overstory and shrub buffer to protect water quality and biodiversity.

Site Assessment and Preparations

Key Site Considerations:

1. **Soil Conditions**: Perform soil sampling to assess organic content, nutrient levels, and hydric properties. Amend soils with compost or wetland soils where needed to support native species.
2. **Hydrology**: Assess hydrologic conditions to ensure soil moisture levels support target wetland vegetation. Incorporate any necessary drainage adjustments or microtopography to enhance water retention in planting zones.

Restoration Sequence and Activities

1. Site Preparation

- **Invasive Species Control**: Remove identified invasive plants mechanically (using hand tools) to minimize soil disturbance. Apply selective herbicides only as necessary and under supervision.
- **Wood Chip Removal**: Transport all wood chips currently on-site to designated upland areas. Ensure no remnants remain within the wetland boundary to prevent interference with native seedbed conditions.

2. Erosion Control and Sediment Management

- **Silt Fencing**: Install silt fencing around the restoration perimeter, focusing on downgradient edges to block sediment migration into adjacent wetland areas.
- **Mulching and Stabilization**: Immediately apply straw mulch (1.5-2 tons/acre) to all newly seeded areas. Mulch should be lightly integrated with the soil to prevent it from displacing during rainfall.
- **Initial Cover Crops**: Sow quick-growing native cover crops, like riverbank wild rye, for temporary soil stabilization until slower-growing wetland plants take hold.

3. Native Plant Installation

Tree and Shrub Planting Layout

- Install a mix of red maple, black gum, swamp white oak, and spicebush to establish a layered canopy and buffer zone. These species are well-suited for wetland edge conditions.
- **Spacing and Depth**:
  - **Trees**: Space trees 15-20 feet apart. Ensure root flares are visible; plant at the nursery depth with no added soil over the root ball.
  - **Shrubs**: Space shrubs 4-6 feet apart to create a continuous buffer that reduces invasive regrowth and provides wildlife habitat.

Installation and Maintenance

- **Watering**: Water plants immediately post-planting. Apply a 2-3 inch mulch layer around plants, avoiding direct contact with trunks/stems to prevent rot.
- **Planting Season**: Complete planting in optimal growing seasons: between October 1 and the onset of frozen soil conditions or between April 15 and June 15.

Monitoring and Adaptive Management

1. Monitoring Schedule and Criteria

- **Vegetation Survival and Coverage**: Every six months, assess survival rates, vegetative cover, and growth. Replace any plants that fail to establish, maintaining target densities.
- **Invasive Species Monitoring**: Conduct quarterly inspections to detect any re-emergence of invasive species and address them mechanically as needed.
- **Soil and Erosion Controls**: Inspect and maintain erosion controls like silt fencing and mulch until stable vegetation cover is achieved.

2. Adaptive Management Actions

If restoration goals are not met, consider:

- **Soil Amendments**: Add organic material if growth is poor.
- **Hydrologic Adjustments**: Implement microtopography adjustments to improve water retention or adjust drainage patterns to enhance plant survivability.

3. Reporting and Data Sharing

Provide annual monitoring reports to the Norwalk Conservation Commission, summarizing project findings, monitoring data, and any adjustments made to support restoration success.

General Planting and Care Notes

1. **Plant Quality and Inspection**: Inspect all plants for damage before planting. Remove and replace substandard plants as needed.
2. **Field Adjustments**: Adjust plant locations to accommodate existing desirable vegetation and other field conditions. Any species changes should be approved by the landscape designer.
3. **Handling and Planting Techniques**: Install all plants by hand within the wetland restoration area. After fill removal, do not allow machinery to enter the wetland.
4. **Planting Depth and Mulching**: Plant nursery stock at the correct depth, ensuring root balls are well supported and surrounded by tamped soil to eliminate air pockets. Apply mulch around each plant, avoiding direct contact with stems or trunks.
5. **Seasonal Timing**: Complete all plantings between October 1 and the first frost or between April 15 and June 15.
6. **Deer Protection and Irrigation**: Ensure adequate irrigation during the establishment phase and install deer protection where necessary until plants are well established.
7. **Spacing for Shrubs and Plugs**: Space planting plugs 12 inches apart and shrubs 4-6 feet apart for optimal coverage.

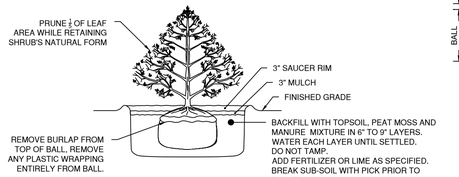
Seed Bed Preparation

1. **Site Preparation**: Clear the upland planting area of large roots and add up to 6 inches of topsoil.
2. **Grading and Soil Conditioning**: Fine grade and rake soil, removing stones over 2 inches in diameter. Apply limestone at a rate of 2 tons/acre or 90 lbs/1000 sq. ft.
3. **Seeding and Fertilizing**: Spread seed evenly by hand or with a cyclone seeder. Use slow-release fertilizer (e.g., Osmocote™ 18-6-12) at 300 lbs/acre. Lightly roll the seeded surface to ensure soil contact and cover seeds with a thin soil layer.
4. **Mulching**: Apply straw or hay mulch at 1.5-2 tons/acre, "tucking" it 2-3 inches into the soil surface to secure against wind and rain.

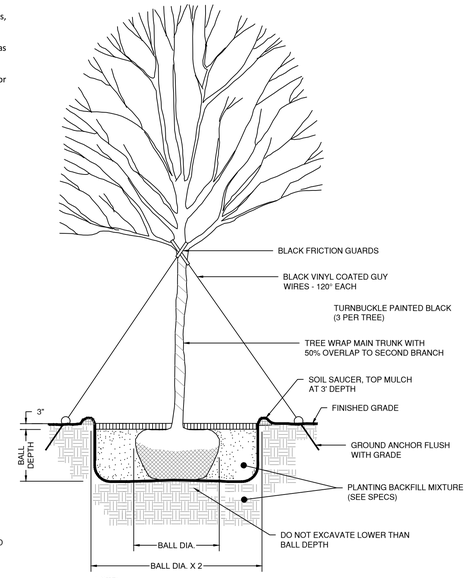
Tree Planting Notes

1. **Pruning**: Minimal pruning at planting, only to address any damage.
2. **Wire Basket Handling**: Remove the top 1/3 of any wire basket around the root ball before planting.
3. **Orientation and Planting Height**: Rotate trees so the north side faces north, if marked, and set the root ball flush with the soil grade or slightly higher in slower-draining soils.
4. **Pit Preparation**: When using a power auger, break vertical sides of the planting pit to prevent root circling. For hand-dug pits, scarify the pit sides.
5. **Mulching and Staking**: Apply a 2-3 inch mulch layer around each tree, keeping mulch away from the trunk. Stake trees only as needed per ISA guidelines.

This project-specific restoration and planting plan is designed to ensure successful wetland rehabilitation by following best practices for hydrology, soil stabilization, and native plant establishment.



PLANTING DETAIL FOR SHRUBS
(NTS)



NOTE:
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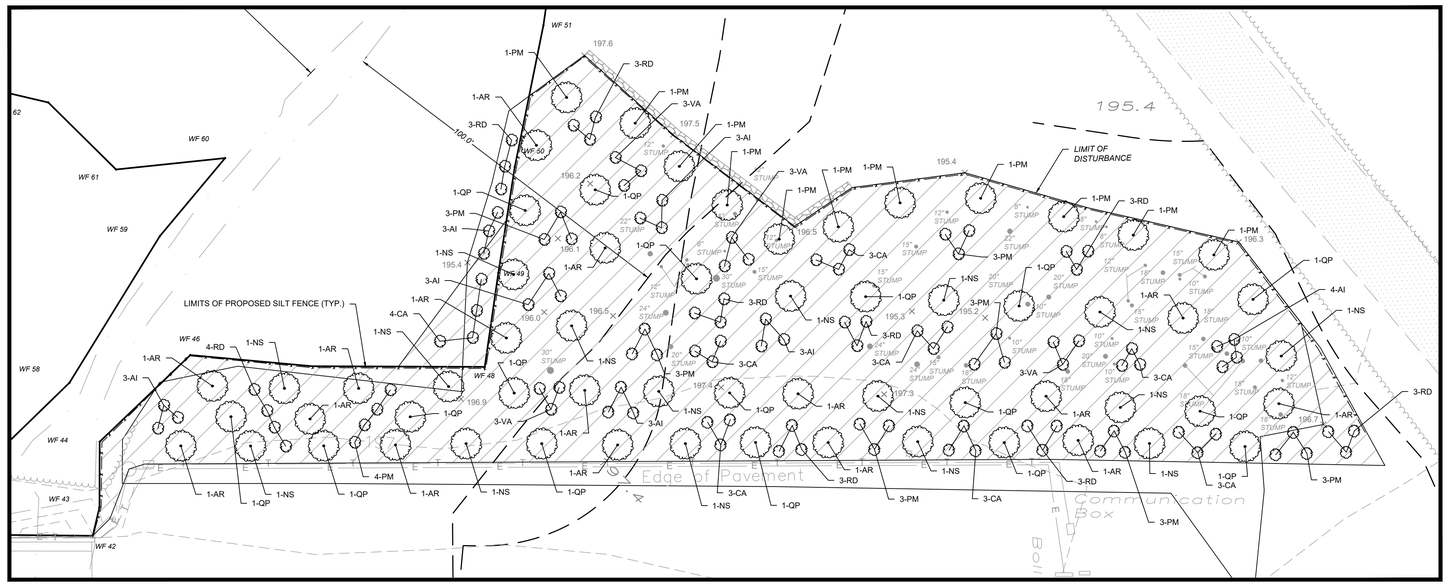
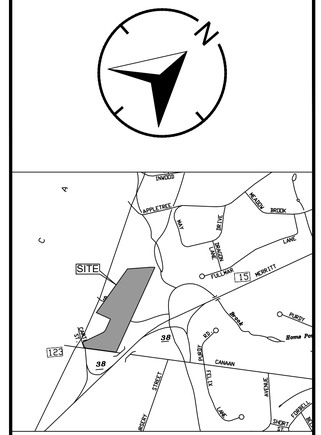
2. DO NOT CUT BURLAP FROM SIDES OF BALL
3. REMOVE ALL PLASTIC CORDS FROM TREE BALL, IF PRESENT

TREE PLANTING
(NTS)



RESTORATION PLAN
SCALE: 1"=20'



LOCATION MAP
(NTS)

REVISION DATE	ISSUE
08/19/2025	REVISED PLANTING PLAN PER COMMENTS
04/02/2025	REVISED PLANTING PLAN
01/23/2025	REVISED PLANTING PLAN

LANDTECH
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518 RIVERSIDE AVENUE • WESTPORT, CT 06880 • 203-454-2110
HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

PREPARED FOR:

INDIAN HILL RE, LLC

PROJECT LOCATION:

284 NEW CANAAN AVENUE
NORWALK, CT

PROJECT TITLE:

CORRECTIVE ACTION
PERMIT #S24-648

DRAWING TITLE:

RESTORATION PLAN

PROJECT No. 23015-02

DATE:	DESIGNED BY:	CHECKED BY:
10/31/2024	SM	BC

SCALE: 1" = 20'

IN FEET
0 20 40 60

PROJECT STATUS:

DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

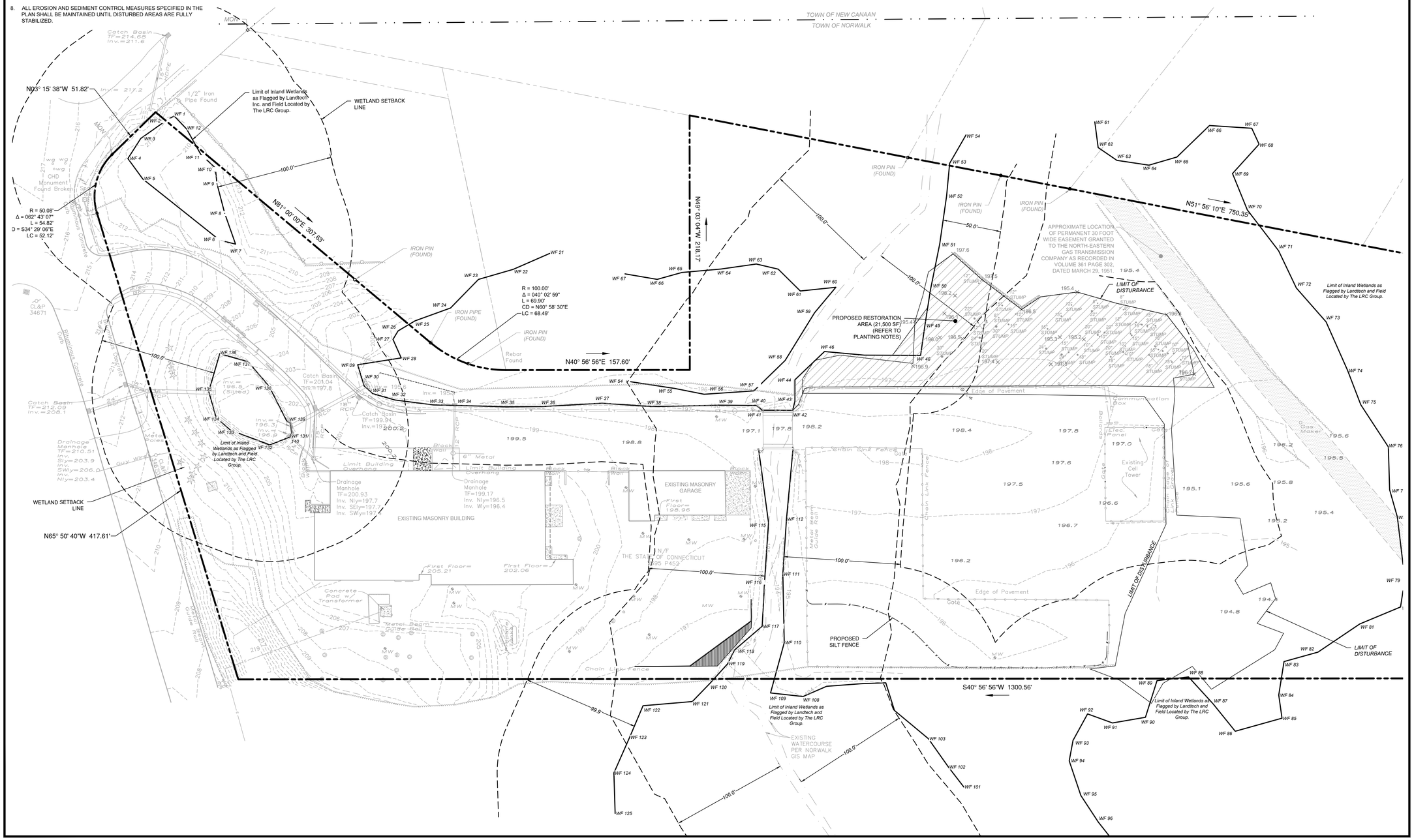
STATE OF CONNECTICUT
ROY SOUWLOS
27803
LICENSED
PROFESSIONAL ENGINEER

C-1.1

LANDTECH
T:\1. ACTIVE PROJECTS\23015-02 A\PENNA 284 NEW CANAAN AVE NWLK, BERNARD\WORKING\DWGS_ATCH\24-648 284 NEW CANAAN - SITE PLAN.DWG

GENERAL NOTES

1. LOT LINE & TOPOGRAPHIC INFORMATION FOR 284 NEW CANAAN AVENUE TAKEN FROM ZONING LOCATION SURVEY & TOPOGRAPHIC SURVEY PREPARED BY LANDTECH DATED SEPTEMBER 7.
2. DATUM: NAVD 88
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UNDERGROUND PIPING, UTILITIES, AND OTHER FEATURES ARE TAKEN FROM EXISTING AS-BUILT MAPPING AND OTHER SOURCES OF INFORMATION AND ARE APPROXIMATE. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IN ADDITION, THERE MAY BE OTHER UNDERGROUND PIPING, UTILITIES, AND OTHER FEATURES PRESENT THAT ARE NOT SHOWN. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE PRESENCE OF ANY OF THESE EXISTING ELEMENTS BY WHATEVER MEANS NECESSARY AND PROTECTING THESE ELEMENTS AS REQUIRED OR RELOCATING THEM IF THEY ARE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALL "CALL BEFORE YOU DIG," 1-800-922-4455, THREE FULL WORKING DAYS PRIOR TO ANY EXCAVATION WORK ON THE PROPERTY.
5. SUBJECT PROPERTY IS LOCATED IN FEMA FLOOD ZONE "X" AS SHOWN ON FEMA FIRM PANEL No. 09001C0389F, EFFECTIVE JUNE 18, 2010.
6. WETLANDS FLAGS AS TAKEN FROM MAP PREPARED BY LRC GROUP, DATED SPETEMBER 7, 2010.
7. A NEW BENCHMARK SHALL BE SET PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
8. ALL EROSION AND SEDIMENT CONTROL MEASURES SPECIFIED IN THE PLAN SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE FULLY STABILIZED.


TOWN OF NEW CANAAN
TOWN OF NORWALK
N03° 15' 38"W 51.82'
Limit of Inland Wetlands as Flagged by Landtech Inc. and Field Located by The LRC Group.
WETLAND SETBACK LINE
1/2" Iron Pipe Found
Catch Basin TF=214.68 Inv.=211.6
R = 50.08'
Δ = 062° 43' 07"
L = 54.82'
D = S34° 29' 06"E
LC = 52.12'
N81° 00' 00"E 307.63'
IRON PIN (FOUND)
R = 100.00'
Δ = 040° 02' 59"
L = 69.90'
CD = N60° 58' 30"E
LC = 68.49'
IRON PIPE (FOUND)
Rebar Found
N40° 56' 56"E 157.60'
N49° 03' 04"W 218.17'
IRON PIN (FOUND)
IRON PIN (FOUND)
IRON PIN (FOUND)
N51° 56' 10"E 750.35'
APPROXIMATE LOCATION OF PERMANENT 30 FOOT WIDE EASEMENT GRANTED TO THE NORTH-EASTERN GAS TRANSMISSION COMPANY AS RECORDED IN VOLUME 361 PAGE 302, DATED MARCH 29, 1951.
LIMIT OF DISTURBANCE
PROPOSED RESTORATION AREA (21,500 SF) (REFER TO PLANTING NOTES)
Limit of Inland Wetlands as Flagged by Landtech and Field Located by The LRC Group.
Limit of Inland Wetlands as Flagged by Landtech and Field Located by The LRC Group.
Limit of Inland Wetlands as Flagged by Landtech and Field Located by The LRC Group.
Limit of Inland Wetlands as Flagged by Landtech and Field Located by The LRC Group.
EXISTING WATERCOURSE PER NORWALK GIS MAP
PROPOSED SILT FENCE
LIMIT OF DISTURBANCE
LIMIT OF DISTURBANCE
WETLAND SETBACK LINE
N65° 50' 40"W 417.61'
S40° 56' 56"W 1300.56'
EXISTING MASONRY BUILDING
EXISTING MASONRY GARAGE
First Floor= 205.21
First Floor= 202.06
THE STATE OF CONNECTICUT 395 P452
Drainage Manhole TF=200.93 Inv. NIy=197.7 Inv. SEiy=197.4 Inv. SWiy=197.4
Drainage Manhole TF=199.17 Inv. NIy=196.5 Inv. Wiy=196.4
Drainage Manhole TF=210.51 Inv. SIy=203.9 Inv. SWiy=206.0 Inv. NIy=203.4
Catch Basin TF=201.04 Inv.=197.8
Catch Basin TF=199.94 Inv.=197.5
Catch Basin TF=212.09 Inv.=208.1
CL&P 34671
CHD Monument Found Broken
Block Wall
Chain Link Fence
Edge of Pavement
Gate
Concrete Pad w/ Transformer
Metal Beam Guide Rail
Guy Wire
Utility Pole
Electric Panel
Communication Box
Gas Meter
Existing Cell Tower
Limit Building Overhang
6" Metal
Bituminous Concrete Curb
Bituminous Concrete Sidewalk
Bituminous Concrete Driveway
Bituminous Concrete Parking Area
Metal Beam Guide Rail
Chain Link Fence
Gate
Edge of Pavement
Limit of Inland Wetlands as Flagged by Landtech and Field Located by The LRC Group.
Inv.= 196.5 (Silted)
Inv.= 196.3
Inv.= 196.8
Inv.= 195.9
Inv.= 211.2
Inv.= 211.5
Inv.= 211.8
Inv.= 212.0
Inv.= 212.2
Inv.= 212.4
Inv.= 212.6
Inv.= 212.8
Inv.= 213.0
Inv.= 213.2
Inv.= 213.4
Inv.= 213.6
Inv.= 213.8
Inv.= 214.0
Inv.= 214.2
Inv.= 214.4
Inv.= 214.6
Inv.= 214.8
Inv.= 215.0
Inv.= 215.2
Inv.= 215.4
Inv.= 215.6
Inv.=

New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites

BOTANICAL NAME	COMMON NAME	INDICATOR
ELYMUS RIPARIUS	RIVERBANK WILD RYE	FACW
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
FESTUCA RUBRA	RED FESCUE	FACU
ANDROPOGON GERARDII	BIG BLUESTEM	FAC
PANICUM VIRGATUM	SWITCH GRASS	FAC
VERNONIA NOVEBORACENSIS	NEW YORK IRONWEED	FACW+
AGROSTIS PERENNANS	UPLAND BENTGRASS	FACU
BIDENS FRONDOSA	BEGGAR TICKS	FACW
EUPATORIUM MACULATUM (EUTROCHIUM MACULATUM)	SPOTTED JOE PYE WEED	OBL
EUPATORIUM PERFOLIATUM	BONESET	FACW
ASTER NOVAE-ANGLIAE (SYMPHYOTRICHUM NOVAE-ANGLIA)	NEW ENGLAND ASTER	FACW-
SCIRPUS CYPERINUS	WOOL GRASS	FACW
JUNCUS EFFUSUS	SOFT RUSH	FACW+

The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation. This mix is particularly appropriate for detention basins that do not hold standing water. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding. The mix may be applied by hand, by mechanical spreader, or by hydro- seeder. After sowing, lightly rake, roll or cultipack to insure good seed-to-soil contact. Best results are obtained with a Spring or late summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. A light mulching of clean, weed-free straw is recommended. APPLY: 35 LBS/ACRE :1250 sq ft/lb

WETLAND RESTORATION AREA

KEY	BOTANICAL NAME	COMMON NAME	DESCRIPTION	SIZE	QTY
AR	*ACER RUBRUM*	RED MAPLE	Fast-growing tree (60-75') with fall foliage. Provides food for wildlife. Suitable for buffer areas with wetter and drier conditions (FAC).	4-6'	20
NS	*NYSSA SYLVATICA*	BLACK GUM	Medium to large tree (40-80'), horizontal branching habit. Fruit provides wildlife food. Thrives in buffer areas with moist soils (FAC).	4-6'	17
QB	*QUERCUS BICOLOR*	SWAMP WHITE OAK	Majestic, widely spreading crown (50-80'). Tolerates seasonal flooding, drought and some salinity. Acorns feed many birds and other animals.	4-6'	17
CA	*LINDERA BENZOIN*	COMMON SPICEBUSH	Medium shrub found in seasonal wetlands and moist woods. Red fruit important food source for many birds. The primary food of larval Spicebush Swallowtail butterflies. Fall foliage.	2-3'	54
AI	*ALNUS INCANA*	SPECKLED ALDER	A large shrub (15') that grows along stream edges and swamps. Has ability to fix nitrogen. Clumps of Alder form excellent wildlife cover. Good for bank stabilization. One of the most adaptable shrubs for difficult sites. (FACW)	2-3'	43
PM	*ARONIA ARBUTIFOLIA*	RED CHOKEBERRY	A medium-sized shrub (6-10') with small white to pinkish flowers in the spring. Persistent red berries are eaten by wildlife in winter. Very soil adaptable. (FACW)	2-3'	50
VA	*VIBURNUM ACERIFOLIUM*	MAPLELEAF VIBURNUM	Small shrub (4-6') that thrives in partial shade. Provides berries for birds and adds multi-season interest to the buffer zone.	2-3'	50
RD	*CORNUS SERICEA*	RED OSIER DOGWOOD	Large shrub (6-12') effective for erosion control and wildlife habitat. Its bright red stems provide winter interest. (FACW).	3-4'	53
PM	*PICEA MARIANA*	BLACK SPRUCE	An important tree of northern bogs and hilltops. This tree can withstand periodic flooding. Cones provide food for wildlife.	5-6'	11

WETLAND PLANTING STATUS TERMS	
OBL: Obligate Wetland Species	Plants that almost always grow in wetlands (estimated probability >99%), under natural conditions.
FACW: Facultative Wetland Species	Plants that usually grow in wetlands (estimated probability 67%-99%), but are occasionally found in non-wetlands areas.
FAC: Facultative Species	Plants equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66% in wetlands).
FACU: Facultative Upland Species	Plants usually found in non-wetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).
UPL: Obligate Upland Species	Plants almost always found in non-wetlands or upland sites (estimated probability >99%).

RESTORATION AND PLANTING NOTES

Project Overview and Goals

This upland review area restoration project at 284 New Canaan Avenue is designed to:

- **Reestablish ecological health** by introducing native plants adapted to local hydrology and soil conditions.
- **Implement erosion control measures**, stabilize soils, and support long-term habitat restoration.
- **Enhance wildlife habitat** by restoring a native overstory and shrub buffer to protect water quality and biodiversity.

Site Assessment and Preparations

Key Site Considerations:

1. **Soil Conditions**: Perform soil sampling to assess organic content, nutrient levels, and hydric properties. Amend soils with compost or wetland soils where needed to support native species.
2. **Hydrology**: Assess hydrologic conditions to ensure soil moisture levels support target wetland vegetation. Incorporate any necessary drainage adjustments or microtopography to enhance water retention in planting zones.

Restoration Sequence and Activities

1. Site Preparation

- **Invasive Species Control**: Remove identified invasive plants mechanically (using hand tools) to minimize soil disturbance. Apply selective herbicides only as necessary and under supervision.
- **Wood Chip Removal**: Transport all wood chips currently on-site to designated upland areas. Ensure no remnants remain within the wetland boundary to prevent interference with native seedbed conditions.

2. Erosion Control and Sediment Management

- **Silt Fencing**: Install silt fencing around the restoration perimeter, focusing on downgradient edges to block sediment migration into adjacent wetland areas.
- **Mulching and Stabilization**: Immediately apply straw mulch (1.5-2 tons/acre) to all newly seeded areas. Mulch should be lightly integrated with the soil to prevent it from displacing during rainfall.
- **Initial Cover Crops**: Sow quick-growing native cover crops, like riverbank wild rye, for temporary soil stabilization until slower-growing wetland plants take hold.

3. Native Plant Installation

Tree and Shrub Planting Layout

- Install a mix of red maple, black gum, swamp white oak, and spicebush to establish a layered canopy and buffer zone. These species are well-suited for wetland edge conditions.
- **Spacing and Depth**:
  - **Trees**: Space trees 15-20 feet apart. Ensure root flares are visible; plant at the nursery depth with no added soil over the root ball.
  - **Shrubs**: Space shrubs 4-6 feet apart to create a continuous buffer that reduces invasive regrowth and provides wildlife habitat.

Installation and Maintenance

- **Watering**: Water plants immediately post-planting. Apply a 2-3 inch mulch layer around plants, avoiding direct contact with trunks/stems to prevent rot.
- **Planting Season**: Complete planting in optimal growing seasons: between October 1 and the onset of frozen soil conditions or between April 15 and June 15.

Monitoring and Adaptive Management

1. Monitoring Schedule and Criteria

- **Vegetation Survival and Coverage**: Every six months, assess survival rates, vegetative cover, and growth. Replace any plants that fail to establish, maintaining target densities.
- **Invasive Species Monitoring**: Conduct quarterly inspections to detect any re-emergence of invasive species and address them mechanically as needed.
- **Soil and Erosion Controls**: Inspect and maintain erosion controls like silt fencing and mulch until stable vegetation cover is achieved.

2. Adaptive Management Actions

If restoration goals are not met, consider:

- **Soil Amendments**: Add organic material if growth is poor.
- **Hydrologic Adjustments**: Implement microtopography adjustments to improve water retention or adjust drainage patterns to enhance plant survivability.

3. Reporting and Data Sharing

Provide annual monitoring reports to the Norwalk Conservation Commission, summarizing project findings, monitoring data, and any adjustments made to support restoration success.

General Planting and Care Notes

1. **Plant Quality and Inspection**: Inspect all plants for damage before planting. Remove and replace substandard plants as needed.
2. **Field Adjustments**: Adjust plant locations to accommodate existing desirable vegetation and other field conditions. Any species changes should be approved by the landscape designer.
3. **Handling and Planting Techniques**: Install all plants by hand within the wetland restoration area. After fill removal, do not allow machinery to enter the wetland.
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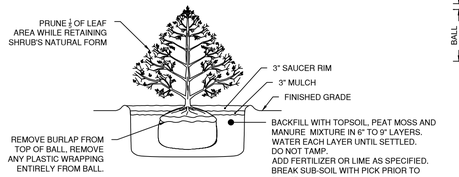
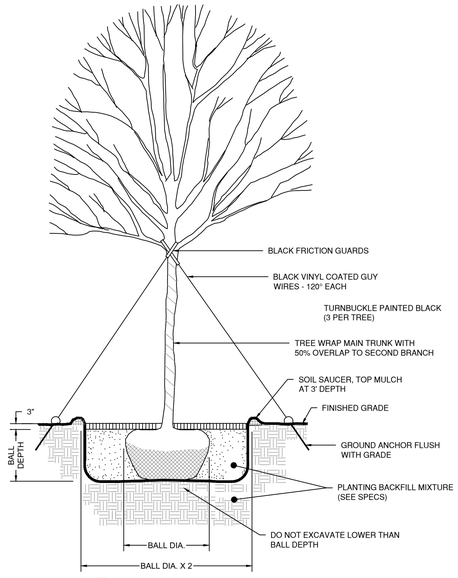


PLANTING DETAIL FOR SHRUBS
(NTS)



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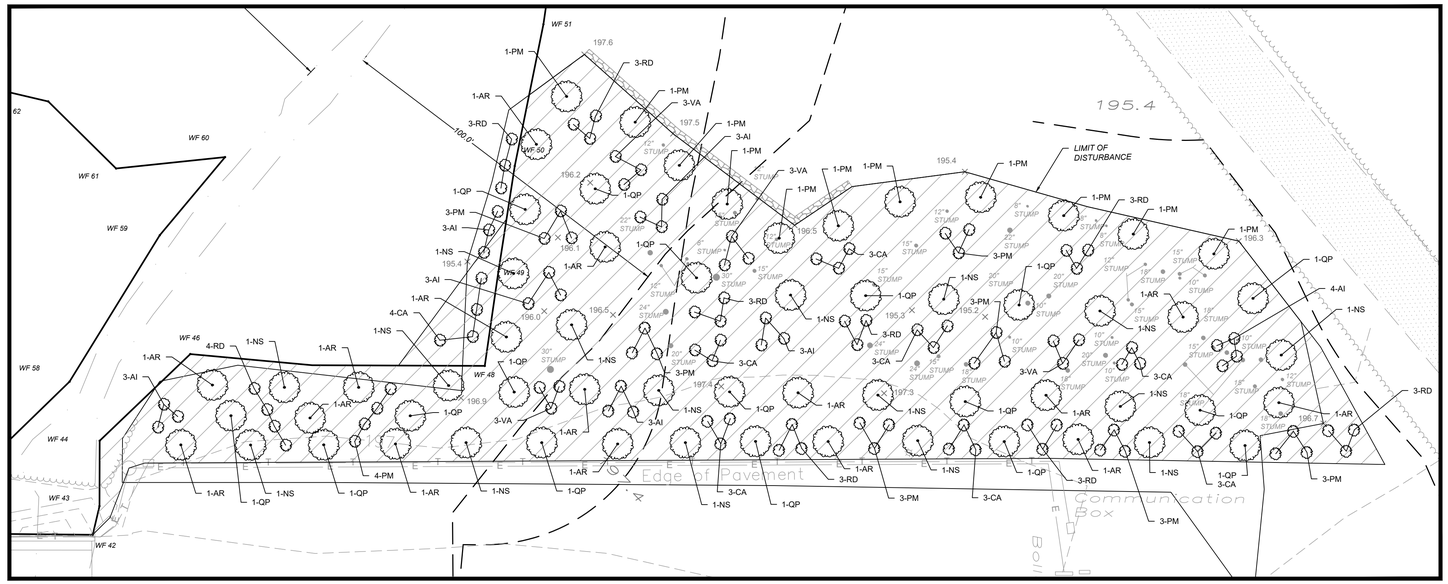
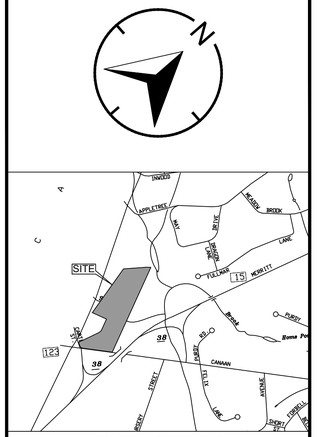
TREE PLANTING
(NTS)



RESTORATION PLAN
SCALE: 1"=20'



LOCATION MAP
(NTS)

REVISION DATE	ISSUE
04/02/2025	REVISED PLANTING PLAN
01/23/2025	REVISED PLANTING PLAN

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SITE/CIVIL • ENVIRONMENTAL • SURVEYING • PLANNING
518 RIVERSIDE AVENUE • WESTPORT, CT 06880 • 203-454-2110
HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

PREPARED FOR:

INDIAN HILL RE, LLC

PROJECT LOCATION:

284 NEW CANAAN AVENUE
NORWALK, CT

PROJECT TITLE:

CORRECTIVE ACTION
PERMIT #S24-648

DRAWING TITLE:

RESTORATION PLAN

PROJECT No. 23015-02

DATE:	DESIGNED BY:	CHECKED BY:
10/31/2024	SM	BC

SCALE: 1" = 20'

IN FEET
0 20 40 60

PROJECT STATUS:

DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

STATE OF CONNECTICUT · ROY SOUWLOS · 27803 · LICENSED PROFESSIONAL ENGINEER

C-1.1

LANDTECH
T:\1 ACTIVE PROJECTS\2023-02 A-J PENNA (284 NEW CANAAN AVE NWLK, BERNARD)\WORKING\DWGS\A-PLAN-284 NEW CANAAN - SITE PLAN.DWG

TECHNICAL MEMORANDUM

To: Amelia Williams, Land Use Planner

From: Brian Carey, PWS, Director of Environmental Services, LANDTECH

Date: August 18, 2025

Re: Response to Preliminary Review Comments – Special Permit Application #2025-48 SP

Subject Property: 284 New Canaan Avenue, Norwalk, CT

INTRODUCTION

This memorandum confirms that all preliminary review comments issued by Staff in the July 8, 2025 letter have been satisfied. The application, prepared in response to the October 24, 2024 Notice of Violation, proposes restoration of approximately 21,500 square feet of previously cleared woodland through installation of native trees, shrubs, and meadow seed mix, as detailed on the Restoration Plan prepared by LANDTECH (10/31/2024, revised 4/2/2025).

Confirmation of Compliance with Preliminary Comments

1. Initial Neighbor Notification
   – Proof of notification has been submitted to Staff.
2. Public Hearing Notices
   – Proof of sign posting (≥15 days in advance) and proof of mailed notices to abutters (≥10 days in advance) have been submitted. Staff has coordinated legal ad publication.
3. Silt Fence Depiction
   – The Restoration Plan (Sheets C-1.0 and C-1.1) has been revised to clearly depict a continuous silt fence between the restoration planting area and the adjacent watercourse.

RESTORATION PLAN HIGHLIGHTS

- Plantings: 65 native trees (4–6’ height), 250 native shrubs (2–3’ height), and a native seed mix.
- Extent: Full 21,500 SF restoration area, including both the 15,300 SF clearing and the 6,200 SF transition area to the contractor’s yard.
- E&S Controls: Silt fence and other sedimentation controls will be installed and maintained for the duration of restoration activities.
- Permit Coordination: Activities remain consistent with the associated Corrective Action Wetland Permit.

CONCLUSION

All items raised in the preliminary review have been addressed in full. The record now reflects that noticing requirements, plan revisions, and inter-municipal referrals are complete. The applicant respectfully requests that the Commission accept this memorandum into the record and proceed with approval of the Special Permit, consistent with Staff's August 13, 2025 memorandum and draft resolution.

Prepared by:

Brian Carey

Brian Carey, PWS
Director of Environmental Services
LANDTECH
518 Riverside Avenue
Westport, CT 06880
Tel: (203) 454-2110
Email: bcarey@landtechconsult.com

9/10/25 Norwalk Planning and Zoning Commission Special Meeting (6 pm)

284 New Canaan Avenue Site Walk Map - Applications #2025-48 SP and #2025-49 SP

CITY OF NORWALK
Planning and Zoning

www.norwalkct.gov

P: 203-854-7780

Norwalk City Hall
Room 129
125 East Avenue, PO Box 5125
Norwalk, CT 06856-5125

July 8, 2025

Enrico R. Costantini, Esq.
FLB LAW, PLLC
315 Post Road West
Westport, CT 06880

Re: 284 New Canaan Avenue
Preliminary Review of Special Permit Application #2025-48
After-the-fact clearing of 15,000 square feet to be restored with plantings

Dear Attorney Costantini:

I have preliminarily reviewed the referenced plans. Tentatively, the Commission is scheduled to review the application and open the Public Hearing at their August 6, 2025, meeting. The below reflects my initial comments and the Commission may continue their review of the application at their regularly scheduled meetings that follow.

Please submit or comment on the following.

1) Please provide proof of initial neighbor notification.

2) Proof of the required notice sign must be provided at least fifteen (15) days prior to the Public Hearing and proof of mailing notices to properties within 100' must be provided at least ten (10) days prior. Staff will coordinate the legal notice publication.

3) Staff suggest silt fence location be depicted on the site plan between the proposed planting area and the watercourse.

4) This application has been referred to the Town of New Canaan and the Western Connecticut Council of Governments. The link to the webpage can be found here.

The application is still being reviewed and requests for further information or clarification may be forthcoming. Please email (amelia.williams@norwalkct.gov) or call (203-854-7259) if you have any questions regarding your application or the application process.

Sincerely,

Amelia Williams

Amelia Williams
Land Use Planner

CITY OF NORWALK
Planning & Zoning Commission
Norwalk City Hall, Room 129
125 East Avenue,
Norwalk, CT 06856-5125

MEMORANDUM September 11th, 2025

TO: Planning and Zoning Commission – Galen Wells, Chair

FROM: Amelia Williams, Land Use Planner

SUBJECT: #2025 - 48 SP – Enrico R. Costantini, Esq. – 284 New Canaan Avenue – After-the-fact clearing of 15,000 square feet to be restored with plantings.

District: 5 **Block:** 46 **Lot:** 76 **Zone:** CD-1L

ZONING HISTORY:
The applicant applied for a Special Permit as directed by a Notice of Zoning Violation (NoV) issued 10/24/2024. One of the violations outlined in the NoV concerned the clearing of approximately 15,300 square feet of previously wooded area. Per section 6.2.2.D of the zoning regulations, clear-cutting (including removal of vegetative ground cover) of 10,000 square feet in area or more requires a Special Permit.

PROPOSED USE/STRUCTURE:
The application for restoration includes the planting of sixty-five (65) trees (4-6 foot height at time of planting), two hundred fifty (250) shrubs (2-3 foot height at time of planting) and native seed mix throughout the disturbed area. The total disturbed area (21,500 SF or a ½ acre) proposed for replanting as part of this permit application encompasses the 15,300 SF woodland area cited in the NoV as well as the 6,200 SF area between cleared area and the approved contractor's yard limit.

STAFF COMMENTS:
- Staff recommend the site plan be revised to include a silt fence between the proposed planting area and the watercourse. As some plantings are located within the wetland, it is appropriate to have the silt fence located in the wetland as well.
- The related Corrective Action Wetland Permit can be found here.
- During the 9/10 Special Meeting Site Visit, Staff erroneously indicated the planting work had begun which it has not.
- The Public Hearing for this application must be closed at the 9/17 meeting unless the applicant grants an extension of time.

The following resolutions are offered:

DRAFT RESOLUTION TO APPROVE

BE IT RESOLVED that application #2025 - 48 SP – Enrico R. Costantini, Esq. – 284 New Canaan Avenue – After-the-fact clearing of 15,000 square feet to be restored with plantings be **APPROVED** subject to the following conditions:

1. That the site be developed in accordance with the following plan:

    a. Per the site plan set titled "Restoration Plan" dated 10/31/2024 and revised 4/2/2025 prepared by LANDTECH, Westport, CT

2. That a certificate of special permit and mylar map of the approved Site Plan (as revised by any conditions of approval) be filed on the Norwalk Land Records prior to the issuance of a zoning permit; and

3. That the site plan be revised to include a silt fence between the proposed planting area and the watercourse; and

4. That all required soil sedimentation and erosion controls are in place prior to the start of any construction; and

5. That any additional needed soil sedimentation and erosion controls be installed at the direction of the Staff; and

6. That any changes to the plans be reviewed by Staff prior to implementation; and

7. That all plantings be implemented prior to COZC; and

8. That all plantings be maintained, and any dead plantings must be replaced in accordance with the approved planting plan; and

9. Nothing in this permit shall obviate the requirements for the applicant to obtain any other assents, permits or licenses required by law or regulation by the City of Norwalk, State of Connecticut, or the Government of the United States, including any approval required by the Connecticut Department of Environmental Protection and U.S. Army Corps of Engineers- obtaining such assents, permits or licenses is the sole responsibility of the applicant; and

BE IT FURTHER RESOLVED that this proposal complies with all applicable sections of the Zoning Regulations for the City of Norwalk; and

BE IT FURTHER RESOLVED that these preceding conditions and modifications of this application are integral to the Commission's approval because, if not for those conditions and modifications, the Commission would have denied this application.

BE IT FURTHER RESOLVED that the effective date of this approval shall be August 29th, 2025.

You must obtain a zoning approval prior to any work on the site.

DRAFT

DRAFT RESOLUTION TO DENY

BE IT RESOLVED that application **:** #2025 - 48 SP – Enrico R. Costantini, Esq. – 284 New Canaan Avenue – After-the-fact clearing of 15,000 square feet to be restored with plantings as shown on the site plan set titled "Restoration Plan" dated 10/31/2024 and revised 4/2/2025 prepared by LANDTECH, Westport, C,T be **DENIED** subject to the following reasons:

1.
2.

BE IT FURTHER RESOLVED that the effective date of this approval shall be August 29th, 2025.

DRAFT

Special Permit Application

City of Norwalk Planning & Zoning Commission
Phone: 203-854-7780
www.norwalkct.gov

Date Received:

Per Section 8.4.8 of the Norwalk Zoning Regulations, Special Permits are for Uses, Buildings, or Structures that are considered to be generally appropriate in the applicable District, but because of their potential for impacts with Adjacent Uses, Buildings, or Structures, require individual review for specific locations.

1. **Address of Subject Property(s):**
   284 New Canaan Avenue, Norwalk, CT
2. District: 5 Block: 46 Lot(s): 76 **3.** Zone: AAA, Overlay/Village District: _____
4. Historic Structure(s): ☑ No ☐ Yes **5.** Flood Hazard Zone: ☑ No ☐ Yes, Flood Zone(s) _____
6. Coastal Area Management Zone: ☑ No ☐ Yes If yes, include application for Coastal Site Plan Review or specify Section allowing exemption: _____
7. Existing Use of Property:
   Contractor's Yard - Public Utilities
8. Proposed Use of Property as Identified per **Table 4.3.9.A:** Building, Lot & Building Site Principal Uses:
   Contractor's Yard - Public Utilities

Applicant Information

Applicant Name: Enrico R. Costantini, Esq.
Billing Address: FLB LAW, PLLC, 315 Post Road West, Westport, CT 06880
Phone Number: 203-635-2200 Email: costantini@flb.law
Signature: _____

Property Owner Information and Authorization

Owner of Record: _____
Billing Address: _____
Phone Number: _____ Email: _____
Signature: _____

**By signing, the property owner confirms that the Applicant has been authorized to apply for Planning & Zoning approval, and attests that all information provided is true and accurate.*

March 12, 2025

Norwalk Planning & Zoning Department
125 East Avenue, Room 129
Norwalk, CT 06856

Re: 284 New Canaan Avenue, Norwalk, Connecticut (the "Property")

To Whom It May Concern:

As the Owner of the Property, this letter is to advise you that Indian Hill RE, LLC hereby consents to the preparation, filing and presentation of any and all zoning, land use, or other applications seeking approvals in connection the Property by the law firm of FLB Law, PLLC, and the engineering firm of LandTech.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Indian Hill RE, LLC

By:
Duly Authorized

APPLICANT'S PROJECT DESCRIPTION

PENNA CONSTRUCTION – 284 NEW CANAAN AVENUE

Penna Construction, by way of their attorneys, FLB Law, PLLC, (the "Applicant"), submits this application for a special permit (the "Application") pursuant to the Nowalk, Zoning Regulations (the "Regulations") for the property commonly known as 284 New Canaan Avenue, Norwalk, Connecticut (the "Property"), which is located in a CD-1L District. The goal of this Application is to modify the existing Special Permit that the Applicant obtained on October 10, 2017, Permit #S16-499A (the "2017 Special Permit"). Along with this Project Description, the Application includes the following documents:

- Site Development Plan, dated December 18, 2024, revised as of March 11, 2025 (the "Site Plan");
- Stormwater Management Report for 284 New Canaan Avenue, dated December 18, 2024, revised as of March 11, 2025 (the "Drainage Report"); and
- Operations and Maintenance Plan, dated December 18, 2024 (the "O&M Plan").

Additionally, the Applicant seeks a waiver for the submission of the following documents required by the Regulations:

- Certified Class A-2 Existing Conditions Survey;
- Environmental Report;
- Architectural Plans and Drawings; and
- Traffic Impact Analysis – the proposed use at the Property will not generate over five hundred (500) vehicle trips per day, as set forth in Section 8.4.8.2.c of the Regulations.

BACKGROUND

On October 24, 2024, the Applicant received a Notice of Zoning Violation: 284 New Canaan Ave (5-46-76-0) from the Planning and Zoning Department Enforcement Office, related to: (a) the clearing of more than 10,000 square feet, (b) non-compliance with the previously approved Special permit conditions, and (c) the failure to obtain a Certificate of Zoning Compliance (the "Zoning Violation"). Please note that item (a), related to the clearing of more than 10,000 square feet, is being addressed by way of a separate special permit application, at the direction of the Norwalk Planning & Zoning Department staff, which has been filed simultaneously herewith.

In an effort to address the remaining two violations identified in the Zoning Violation, the Applicant is now requesting a modification to the 2017 Special Permit to implement a change to the stormwater management system (as detailed further below) and also to take corrective action for the unpermitted yard expansion and return the site to initial approved boundaries. Please also

note, the Applicant is not proposing to expand the boundaries of the yard area as approved under the 2017 Special Permit.

In the Applicant's 2017 Special Permit, the Planning and Zoning Commission approved the construction of an above-ground stormwater detention pond, which was intended to protect the Property and surrounding areas from experiencing heightened water flow in the event of rain or other precipitation. The Applicant is now seeking to modify the original approvals in order to construct a Subsurface Detention System utilizing Cultec chambers to better address the stormwater requirements outlined in the 2017 Special Permit. This proposal was recently approved by the Norwalk Inland Wetland Agency (Permit #S16-499B)[1]. Furthermore, this system will serve the same purpose as the originally approved detention pond, while providing the following benefits:

i. Optimized space for restoration;
ii. Improved water quality and management;
iii. Reduced visual impact and compliance with permitting requirements.

The Applicant seeks approval of the proposed corrective measures outlined in the Site Plan to correct the Zoning Violations. As such, and for the reasons set forth herein, the Applicant submits that the Application meets the standards set forth in the Regulations and requests approval for the work detailed herein. As set forth in the Site Plan, the construction of the Subsurface Detention System will require the Applicant to construct the following:

1. A silt fence along the rear of the Existing Masonry Garage;

2. A temporary stockpile area for materials to be used in the course of construction;

3. A low concrete block wall or berm to surround the expanded construction area in accordance with the Wetland Demarcation Boundary detail; and

4. The Subsurface Detention System itself.

Finally, the Applicant is also proposing to reconfigure the material storage bins on-site to allow for maximizing the usable space for yard activities within defined boundaries. The proposed change is depicted in the enclosed Site Plan.

[1] Please note, the Applicant has appealed the decision of the Norwalk Inland Wetland Agency as it related to the imposition of a specific condition requiring a twenty-five (25') buffer on the eastern property line.

SPECIAL PERMIT STANDARDS

Section 8.4.8 of the Regulations sets forth the requirements that must be met to obtain a Special Permit. The Applicant submits that it meets each of the requirements for the reasons set forth below:

Section 8.4.8.G.1.a – If the Special Permit if for a Use, the proposed Use must be listed as a Special Permit Use for the applicable District and conforms to all applicable standards listed in Section 4.3.9.F, for the proposed use.

The Applicant submits that this Section of the Regulations does not apply to this Application. The Applicant is seeking approval for the construction of the Subsurface Detention System instead of the originally approved above-ground retention pond. The Applicant is not proposing to change the Use, nor is the Applicant seeking any of the Temporary Uses set forth in Section 4.3.9.F of the Regulations.

Section 8.4.8.G.1.b – The proposed Use, Building, or Structure must be so designed, located, and proposed to be operated that the public health, safety, and welfare will be protected.

The Subsurface Detention System will protect the public health, safety, and welfare by protecting from increased flows of stormwater discharge from the Property into the immediately surrounding area. As set forth in the Drainage Report, the Subsurface Detention System will retain excessive water that may result from storms and similar weather events. As with the originally approved above-ground detention pond, without the Subsurface Detention System there is a risk that flood-like events could occur due to stormwater run-off at the Property. Additionally, the Applicant will maintain the Subsurface Detention System in accordance with the O&M Plan so that the existing and proposed stormwater components installed at the Property are maintained in operational condition throughout the life of the project. The construction of the Subsurface Detention System will protect from such events and clearly promotes the public health, safety, and welfare of the citizens of Norwalk.

Therefore, the Applicant submits that the requirements of Section 8.4.8.1.b are met.

Section 8.4.8.G.1.c – The proposed Use, Building, or Structure must not adversely affect other property in the area in which it is located.

The Subsurface Detention System will not have any adverse effect on the other properties located in the area surrounding the Property. As set forth above, the proposal will provide a benefit, not a harm, by protecting from increased stormwater discharge that may occur in the future.

Section 8.4.8.G.1.d – The proposed Use, Building, or Structure must conform to all applicable provisions of these Regulations for the District in which it is to be located.

The Applicant submits that the proposed Subsurface Detention System complies and conforms with all applicable provisions of the Regulations that apply to CD-1L Districts.

Section 8.4.8.G.1.e – The Proposed Use, Building, or Structure must be in harmony with the general purpose and intent of these Regulations.

The Subsurface Detention System is in harmony with the general purpose and intent of the Regulations. First, the Regulations have been implemented to "protect and promote the public health, safety, morals, comfort, convenience, and general welfare of the people and community." (§1.5.1.A). As stated above, the Subsurface Detention System will protect the people and community from stormwater discharge. The Subsurface Detention System will allow for the orderly and beneficial development of the Property by allowing for the efficient and effective disposition of stormwater runoff, while increasing the total surface area of the Property that may be used for development by the Applicant. (§1.5.1.C). The proposal will also secure and provide protection from hazards such as flooding by providing for and ensuring that stormwater discharge does not impact the immediately area surrounding the Property. (§1.5.1.L). Similarly, the Subsurface Detention System will conserve the value of the land and buildings both at the Property and in the surrounding area by protecting said properties from water flows.

Taking all of this together, granting the Special Permit is in line with the clearly stated purposes of the Regulations.

Section 8.4.8.G.1.f – Except for Buildings designated as historic under a Local, State or National inventory, any proposed Building containing a Footprint of 5,000 square feet or more or a Floor Area of 20,000 square feet or more[.]

This Application does not seek approval to construct a new Building – therefore, the Applicant submits that Section 8.4.8.G.1.f does not apply to this Application.

CONCLUSION

As proposed, the Subsurface Detention System, if approved, will allow the Applicant to resolve the outstanding Zoning Violations and as such we respectfully request that this Commission approve this Application.

Neighbors within 100' of Subject Property

Piotr Suchocki
11 May Drive
Norwalk, CT 06850

Luis Alfredo Vallejo & Reyna Vallejo
4 Klim Lane
Norwalk, CT 06850

James William Mayfield
3 Klim Lane
Norwalk, CT 06850

Andrew John Frucci & Emily Schneider Frucci
156 Pocconock Trail
Norwalk, CT 06850

Alain & Alicja Chebeir
166 Pocconock Trail
Norwalk, CT 06850

Peter B. Wilson, Jr. & Karen P. Wilson
178 Pocconock Trail
Norwalk, CT 06850

Robert C. Kolodny, as Trustee
Robert C. Kolodny Revocable Trust of 1978
48 Carter Street
Norwalk, CT 06850

Elena Zaika & Marwan Saidi
46 Carter Street
Norwalk, CT 06850

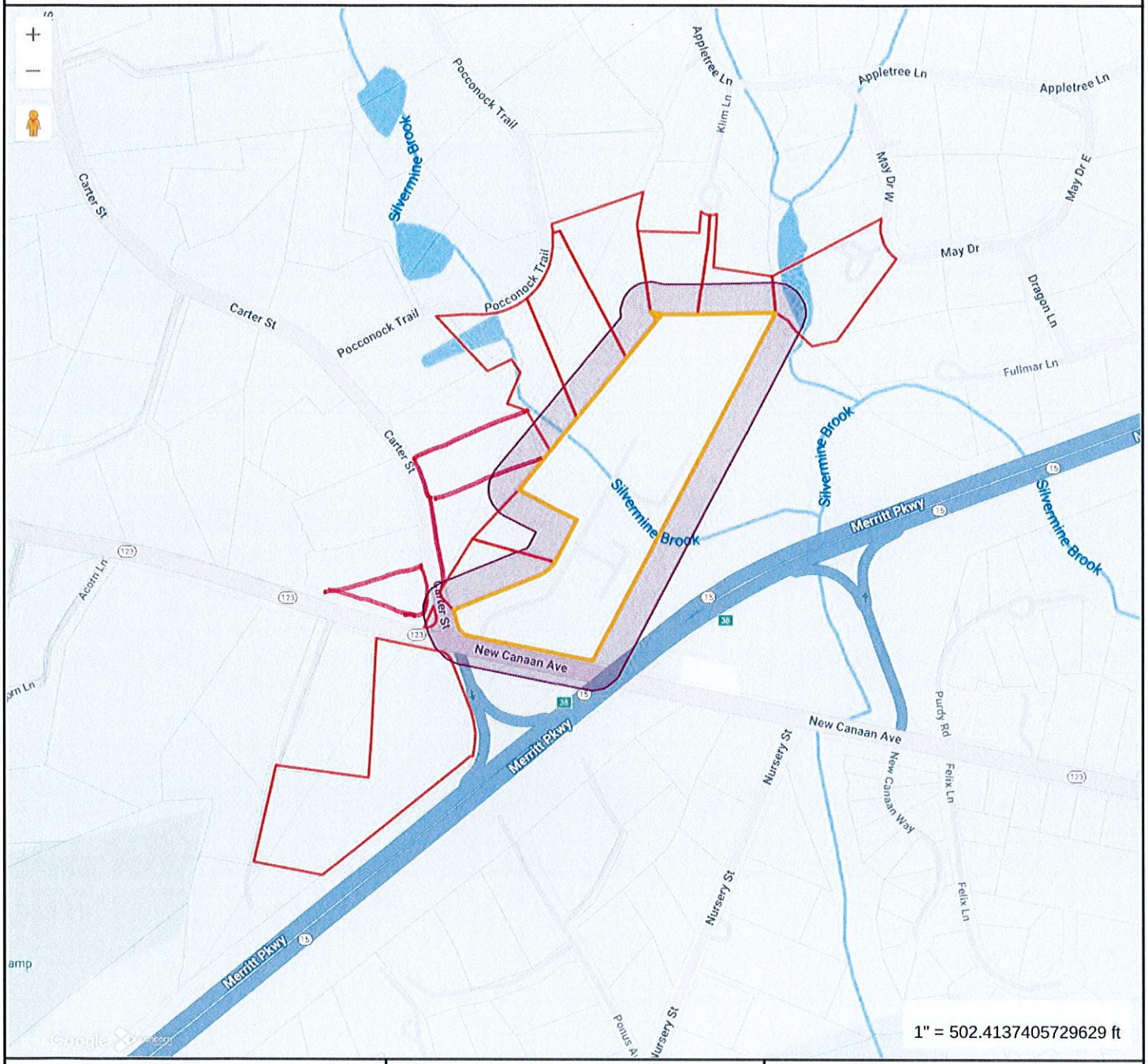
Andrew J. & Josephina Bell
293 New Canaan Avenue
Norwalk, CT 06850

Mauro A. Rojas
(For property located at Ponus Avenue, Norwalk, CT)
c/o: 845 Carter Street
New Canaan, CT 06840

Peter Hantes, Jr.
824 carter Street
New Canaan, CT 06840

Mauro A. Rojas
845 Carter Street
New Canaan, CT 06840

Jimmy Nguyen
830 Carter Street
New Canaan, CT 06840



Norwalk Information

ID	103-5-46-76-0
Site Address	284 NEW CANAAN AVE
Owner	INDIAN HILL RE LLC
Co-Owner	
Owner Address	46 INDIAN HILL RD

WESTCOG

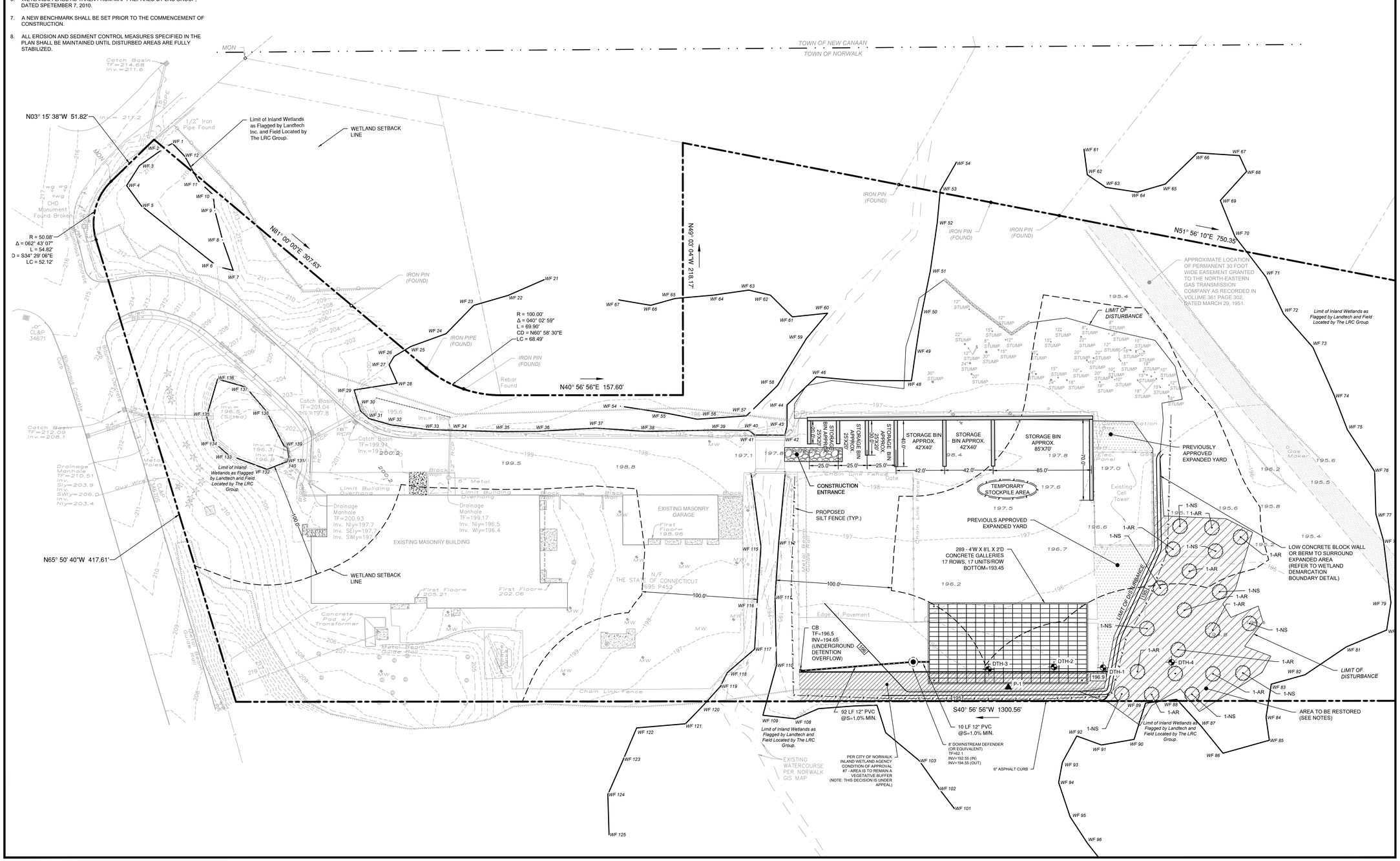
MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

Regional Map Viewer makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

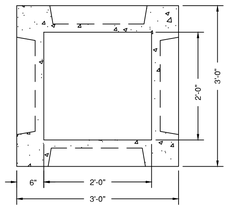
GENERAL NOTES

1. LOT LINE & TOPOGRAPHIC INFORMATION FOR 284 NEW CANAAN AVENUE TAKEN FROM ZONING LOCATION SURVEY & TOPOGRAPHIC SURVEY PREPARED BY LANDTECH DATED SEPTEMBER 7.
2. DATUM: NAVD 88
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UNDERGROUND PIPING, UTILITIES, AND OTHER FEATURES ARE TAKEN FROM EXISTING AS-BUILT MAPPING AND OTHER SOURCES OF INFORMATION AND ARE APPROXIMATE. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IN ADDITION, THERE MAY BE OTHER UNDERGROUND PIPING, UTILITIES, AND OTHER FEATURES PRESENT THAT ARE NOT SHOWN. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE PRESENCE OF ANY OF THESE EXISTING ELEMENTS BY WHATEVER MEANS NECESSARY AND PROTECTING THESE ELEMENTS AS REQUIRED OR RELOCATING THEM IF THEY ARE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALL "CALL BEFORE YOU DIG," 1-800-922-4455, THREE FULL WORKING DAYS PRIOR TO ANY EXCAVATION WORK ON THE PROPERTY.
5. SUBJECT PROPERTY IS LOCATED IN FEMA FLOOD ZONE "X" AS SHOWN ON FEMA FIRM PANEL No. 09001C0389F, EFFECTIVE JUNE 18, 2010.
6. WETLANDS FLAGS AS TAKEN FROM MAP PREPARED BY LRC GROUP, DATED SPETEMBER 7, 2010.
7. A NEW BENCHMARK SHALL BE SET PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
8. ALL EROSION AND SEDIMENT CONTROL MEASURES SPECIFIED IN THE PLAN SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE FULLY STABILIZED.

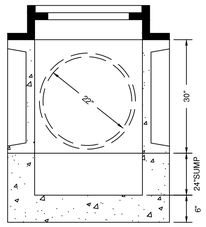

TOWN OF NEW CANAAN
TOWN OF NORWALK
MON
N03° 15' 38"W 51.82'
Limit of Inland Wetlands as Flagged by Landtech Inc. and Field Located by The LRC Group.
WETLAND SETBACK LINE
1/2" Iron Pipe Found
Catch Basin TF=214.68 Inv.=211.6
N81° 00' 00"E 307.63'
R = 50.08'
Δ = 062° 43' 07"
L = 54.82'
D = S34° 29' 06"E
LC = 52.12'
IRON PIN (FOUND)
IRON PIPE (FOUND)
Rebar Found
R = 100.00'
Δ = 040° 02' 59"
L = 69.90'
CD = N60° 58' 30"E
LC = 68.49'
N40° 56' 56"E 157.60'
N49° 03' 04"W 218.17'
N65° 50' 40"W 417.61'
WETLAND SETBACK LINE
Limit of Inland Wetlands as Flagged by Landtech and Field Located by The LRC Group.
EXISTING MASONRY BUILDING
EXISTING MASONRY GARAGE
THE STATE OF CONNECTICUT 695 P452
N/F
Drainage Manhole TF=200.93 Inv. Nly=197.7 Inv. SEly=197.7 Inv. SWly=197.8
Drainage Manhole TF=199.17 Inv. Nly=196.5 Inv. Wly=196.4
Drainage Manhole TF=210.51 Inv. Sly=203.9 Inv. SWly=206.0 Inv. Nly=203.4
Catch Basin TF=212.09 Inv.=208.1
Catch Basin TF=199.94 Inv.=197.8
Catch Basin TF=201.04 Inv.=197.8
Inv.= 196.5 (Silted)
Inv.= 196.3
Inv.= 196.8
Inv.= 195.8
Inv.= 200.2
Inv.= 195.6
Inv.= 195.5
Inv.= 195.6
Inv.= 195.6
Inv.= 195.6

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM; RESTABILIZATION WILL BE SCHEDULED AS SOON AS POSSIBLE.
2. SILT FENCE WILL BE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES, SOIL STOCKPILE AREAS, AND IN THOSE AREAS SHOWN ON THE PLAN.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE STATE OF CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL 2002.
4. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO LAND DISTURBANCE WHENEVER POSSIBLE.
5. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED UNTIL STABILIZATION HAS BEEN ACHIEVED.
6. ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD IF NECESSARY OR REQUIRED. A MINIMUM OF 50 FEET OF SILT FENCE SHALL BE STORED AT THE SITE FOR EMERGENCY USE.
7. ANY EXCAVATIONS THAT MUST BE DEWATERED WILL BE PUMPED INTO A 15'x15' DIRTBAG ON-SITE. THE INLETS OF ALL PUMPS ARE TO BE FLOATED A MINIMUM OF 24 INCHES OFF THE BOTTOM OF THE EXCAVATION. THE CONTRACTOR SHALL KEEP A MINIMUM OF (2) 15'x15' DIRTBAGS ON-SITE THROUGHOUT THE EXCAVATION OF PROPOSED FOUNDATIONS.
8. WATER AND CALCIUM CHLORIDE SHALL BE APPLIED TO UNPAVED ACCESSWAYS TO PREVENT WIND GENERATED SEDIMENTS AND DUST.
9. DEBRIS AND OTHER WASTES RESULTING FROM EQUIPMENT MAINTENANCE AND CONSTRUCTION ACTIVITIES WILL NOT BE DISCARDED ON-SITE.
10. SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH INTENT OF THE PLAN.
11. SILT FENCES SHALL HAVE SEDIMENT REMOVED WHEN THE DEPTH OF THE SEDIMENT IS EQUAL TO ½ TO ⅔ THE HEIGHT OF THE FENCE. FENCES SHALL BE PROPERLY INSTALLED AND RIPPED FENCE OR BROKEN POSTS REPAIRED AS SOON AS PRACTICAL.
12. ANTI-TRACKING PADS AND GRAVEL CHECK DAMS SHALL BE REPLACED WHEN VOID SPACES ARE FULL OR STRUCTURES ARE BREACHED, AS APPLICABLE.
13. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND THE SOIL SURFACE STABILIZED WHEN CONSTRUCTION IS COMPLETE AND THE SOIL SURFACES ARE PERMANENTLY STABILIZED. STRUCTURAL COMPONENTS SHALL BE CLEANED OF ALL SEDIMENT UPON COMPLETION OF CONSTRUCTION.
14. THE OWNER IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES INSTALLATION AND MAINTENANCE OF CONTROL MEASURES. INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE PLANNING AND ZONING COMMISSION OF ANY TRANSFER OF THIS RESPONSIBILITY, AND FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT PLAN IF AND WHEN THE TITLE OF LAND IS TRANSFERRED.

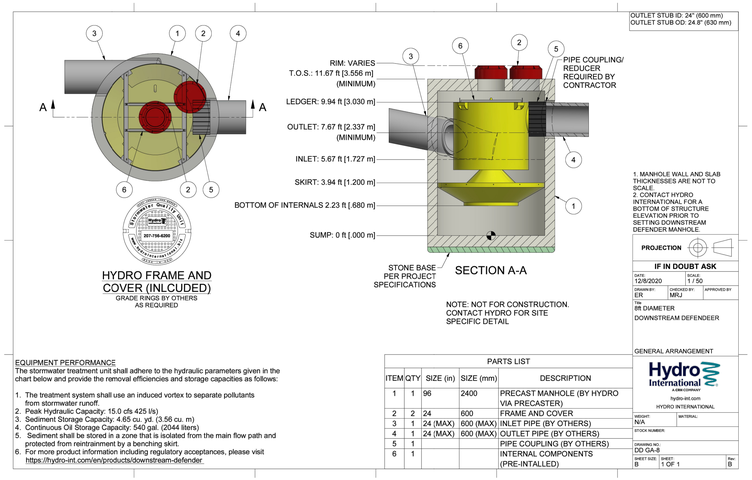


GRATE DETAIL



GENERAL NOTES
1. REINFORCED 6 X 6 X 10 GUAGE MESH OR TO SPECIFICATIONS.
2. GRATE - STEEL OR CAST IRON.
3. 4' HIGH SUMP HAS TWO KNOCKOUTS LOW AND 2 KNOCKOUTS UP HIGH.
4. APPROXIMATE WEIGHTS:
   3' - 2100 LBS.
   4' - 2800LBS.

2' X 2' PRECAST CONCRETE CATCH BASIN
(NTS)



OUTLET STUB ID: 24" (600 mm)
OUTLET STUB OD: 24.8" (630 mm)

1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING DOWNSTREAM DEFENDER MANHOLE.

PROJECTION

IF IN DOUBT ASK

DATE:	SCALE:
12/8/2020	1 / 50
DRAWN BY: ER	CHECKED BY: MRJ
APPROVED BY	

Title: 8ft DIAMETER DOWNSTREAM DEFENDEER

GENERAL ARRANGEMENT

Hydro International
A Xylem brand
hydro-int.com
HYDRO INTERNATIONAL

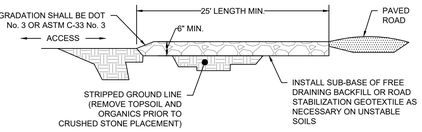
WEIGHT:	MATERIAL:
N/A	
STOCK NUMBER:	
DRAWING NO.: DD GA-8	
SHEET SIZE: B	SHEET: 1 OF 1
Rev: B	

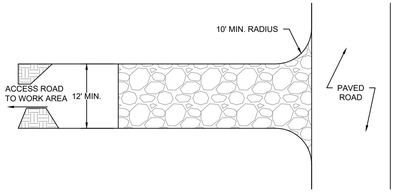
EQUIPMENT PERFORMANCE
The stormwater treatment unit shall adhere to the hydraulic parameters given in the chart below and provide the removal efficiencies and storage capacities as follows:

1. The treatment system shall use an induced vortex to separate pollutants from stormwater runoff.
2. Peak Hydraulic Capacity: 15.0 cfs 425 l/s)
3. Sediment Storage Capacity: 4.65 cu. yd. (3.56 cu. m)
4. Continuous Oil Storage Capacity: 540 gal. (2044 liters)
5. Sediment shall be stored in a zone that is isolated from the main flow path and protected from reintrainment by a benching skirt.
6. For more product information including regulatory acceptances, please visit https://hydro-int.com/en/products/downstream-defender

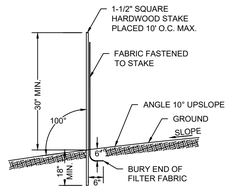
PARTS LIST

ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	96	2400	PRECAST MANHOLE (BY HYDRO VIA PRECASTER)
2	2	24	600	FRAME AND COVER
3	1	24 (MAX)	600 (MAX)	INLET PIPE (BY OTHERS)
4	1	24 (MAX)	600 (MAX)	OUTLET PIPE (BY OTHERS)
5	1			PIPE COUPLING (BY OTHERS)
6	1			INTERNAL COMPONENTS (PRE-INTALLED)

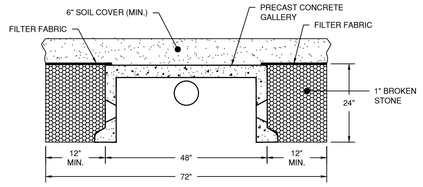




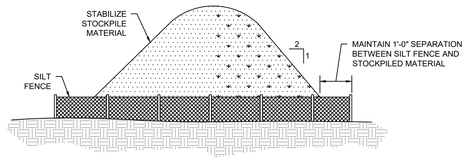
CONSTRUCTION ENTRANCE
(NTS)



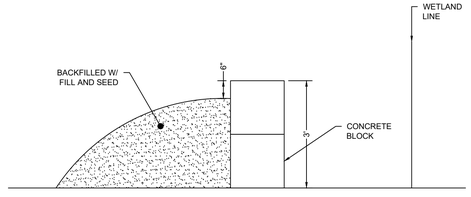
GEOTEXTILE SILT FENCE
(NTS)



24"x48" PRECAST CONCRETE GALLERY TYPICAL CROSS SECTION
(NTS)



STOCKPILE DETAIL
(NTS)



WETLAND DEMARCATION DETAIL
(NTS)

Restoration Plan for Disturbed Area at 284 New Canaan Avenue

1. **Removal of Materials**
   - All deposited concrete blocks and other materials present in the disturbed area will be removed as part of the corrective action.
2. **Site Grading**
   - The area will be properly graded to restore natural contours and ensure proper drainage.
3. **Soil Preparation**
   - All disturbed areas will be covered with topsoil to provide a suitable growing medium for vegetation.
   - The topsoil will be spread evenly and raked to achieve uniform coverage.
4. **Seeding and Vegetation Restoration**
   - The entire area will be seeded with a Conservation Wildlife Mix sourced from New England Plants to promote native habitat restoration.
   - The seed mix will include native grasses and wildflowers suitable for local wildlife and soil stabilization.
5. **Erosion Control Measures**
   - Temporary erosion control measures (such as straw mulch or erosion control blankets) will be applied to stabilize the soil until vegetation establishes.
   - Additional erosion control measures will be implemented as necessary to prevent soil displacement.
6. **Monitoring and Maintenance**
   - The restored area will be monitored for vegetation establishment.
   - Any bare or eroded spots will be reseeded as needed.
   - Regular inspections will ensure successful restoration, and additional corrective actions will be taken if necessary.

New England Conservation/Wildlife Mix

BOTANICAL NAME	COMMON NAME	INDICATOR STATUS
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	FACW-
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
ANDROPOGON GERARDII	BIG BLUESTEM	FAC
FESTUCA RUBRA	RED FESCUE	FACU
SORGHASTRUM NUTANS	INDIAN GRASS	UPL
PANICUM VIRGATUM	SWITCH GRASS	FAC
CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	FACU
DESMODIUM CANADENSE	SHOWY TICK TREFOIL	FAC
ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	NI
BIDENS FRONDOSA	BEGGAR TICKS	FACW
EUPATORIUM PURPUREUM (EUTROCHIUM MACULATUM)	PURPLE JOE PYE WEED	FAC
RUDBECKIA HIRTA	BLACK EYED SUSAN	FACU-
ASTER PILOSUS (SYMPHYOTRICHUM PILOSUM)	HEATH (OR HAIRY) ASTER	UPL

APPLY: 25 LBS/ACRE :1750 SQ FT/LB

THE NEW ENGLAND CONSERVATION/WILDLIFE MIX PROVIDES A PERMANENT COVER OF GRASSES, WILDFLOWERS, AND LEGUMES FOR BOTH GOOD EROSION CONTROL AND WILDLIFE HABITAT VALUE. THE MIX IS DESIGNED TO BE A NO MAINTENANCE SEEDING, AND IS APPROPRIATE FOR CUT AND FILL SLOPES, DETENTION BASIN SIDE SLOPES, AND DISTURBED AREAS ADJACENT TO COMMERCIAL AND RESIDENTIAL PROJECTS.

Soil Test Pit Excavation Observations

DTH-1:

Depth	Color	Texture	Notes
0-17"	Gray	Sandy Gravel	Processed gravel
17-48"	Brown	Sandy Loam	
48-58"	Dark Gray	Sandy loam	with roots
58-60"	Brown	Sandy Loam	
60-72"	Brown and Gray	Silt loam	mottled

BOH = 84"
Groundwater discharge at 5 ft.

DTH-2:

Depth	Color	Texture	Notes
0-12"	Gray	Sandy Gravel	Processed gravel
12-38"	Brown	Sandy Loam	With cobble
38-48"	Dark brown	Sandy Loam	With roots
48-60"	Brown	Sandy Loam	
60-82"	Brown and Gray	Silt loam	mottled

BOH = 84"
Groundwater discharge at 6.8'

DTH-3:

Depth	Color	Texture	Notes
0-9"	Gray	Sandy Gravel	Processed gravel
9-24"	Brown	sand	
24 – 43"	Reddish	sand	
43-84"	Gray	sand	Depleted layer

BOH = 7'
GW @ 6'

DTH-4:

Depth	Color	Texture	Notes
0-20"	Dark Gray	Sandy Gravel	Processed bituminous gravel
20-38"	Yellowish brown	Fine sandy loam	Abundant roots
38-77"	Grayish brown	Silt loam	Mottling to bottom of hole

BOH = 6.5'
GW @ 5'

PERCOLATION TEST DATA

Perc Hole: 1 — Date: 1/21/2025
Depth: 30 in. — Presoak: 1 hr

Time	Depth (in.)	Drop (in.)	Interval (min.)	Rate (min./in.)
	8.00			
11:10	12.00	4.00	00:10	2.50
11:30	15.50	3.50	00:10	2.86
11:40	19.00	3.50	00:10	2.86
11:50	20.50	1.50	00:10	6.67
12:00	22.00	1.50	00:10	6.67
12:10	23.00	1.00	00:10	10.00

Final Rate: 1" in 10.00 minutes

REVISION DATE	ISSUE
08/19/2025	REVISED PER ZONING COMMENTS
03/11/2025	REVISED PER REVIEW COMMENTS
02/28/2025	REVISED PER DPW COMMENTS
01/23/2025	PLANTINGS AND NOTES

LANDTECH
SITE/CIVIL • ENVIRONMENTAL • SURVEYING • PLANNING
518 RIVERSIDE AVENUE • WESTPORT, CT 06880 • 203-454-2110
HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

PREPARED FOR:
INDIAN HILL RE, LLC

PROJECT LOCATION:
284 NEW CANAAN AVENUE
NORWALK, CT

PROJECT TITLE:
#S19-499B
SITE IMPROVEMENTS FOR AN EXPANDED CONTRACTORS YARD

DRAWING TITLE:
NOTES AND DETAILS

PROJECT No.: 23015-02

DATE:	DESIGNED BY:	CHECKED BY:
12/18/2024	SM	BC

SCALE: N.T.S.

PROJECT STATUS:
DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

STATE OF CONNECTICUT · BRIAN T. CHUT · 27803 · LICENSED PROFESSIONAL ENGINEER

C-2.0

T:\1 - ACTIVE PROJECTS\2015-02 AJ FENOL 284 NEW CANAAN AVE NWLK\1 BERNA\SHEDRSES\RAWDSS\VOLATION 5-16-#S19-499B 284 NEW CANAAN - SITE PLAN.DWG

PLANTING LIST

KEY	BOTANICAL NAME	COMMON NAME	DESCRIPTION	SIZE	QTY
AR	ACER RUBRUM	RED MAPLE	A fast-growing tree (60-75') with fall foliage. Seed, sap, and buds serve as food for wildlife. One of the most common trees in northeast wetlands.	4-6'	10
NS	NYSSA SYLVATICA	BLACK GUM, SOUR GUM, TUPELO, PEPPERIDGE	Medium to large tree (40-80') of forested wetlands and moist woods. Unusual horizontal branching habit. Partial shade to full sun. Fruit provides food for wildlife.	4-6'	10

New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites

BOTANICAL NAME	COMMON NAME	INDICATOR
ELYMUS RIPARIUS	RIVERBANK WILD RYE	FACW
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
FESTUCA RUBRA	RED FESCUE	FACU
ANDROPOGON GERARDII	BIG BLUESTEM	FAC
PANICUM VIRGATUM	SWITCH GRASS	FAC
VERNONIA NOVEBORACENSIS	NEW YORK IRONWEED	FACW+
AGROSTIS PERENNANS	UPLAND BENTGRASS	FACU
BIDENS FRONDOSA	BEGGAR TICKS	FACW
EUPATORIUM MACULATUM (EUTROCHIUM MACULATUM)	SPOTTED JOE PYE WEED	OBL
EUPATORIUM PERFOLIATUM	BONESET	FACW
ASTER NOVAE-ANGLIAE (SYMPHYOTRICHUM NOVAE-ANGLIA)	NEW ENGLAND ASTER	FACW-
SCIRPUS CYPERINUS	WOOL GRASS	FACW
JUNCUS EFFUSUS	SOFT RUSH	FACW+

The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation. This mix is particularly appropriate for detention basins that do not hold standing water. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding. The mix may be applied by hand, by mechanical spreader, or by hydro- seeder. After sowing, lightly rake, roll or cultipack to insure good seed-to-soil contact. Best results are obtained with a Spring or late summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. A light mulching of clean, weed-free straw is recommended. APPLY: 35 LBS/ACRE :1250 sq ft/lb

WETLAND PLANTING STATUS TERMS	
OBL: Obligate Wetland Species	Plants that almost always grow in wetlands (estimated probability >99%), under natural conditions.
FACW: Facultative Wetland Species	Plants that usually grow in wetlands (estimated probability 67%-99%), but are occasionally found in non-wetlands areas.
FAC: Facultative Species	Plants equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66% in wetlands).
FACU: Facultative Upland Species	Plants usually found in non-wetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).
UPL: Obligate Upland Species	Plants almost always found in non-wetlands or upland sites (estimated probability >99%).

CONSTRUCTION NOTES

1. ALL EROSION AND SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF WORK.
2. AREA AS DICTATED ON THE SITE PLAN TO BE CLEARED AND GRUBBED PRIOR TO THE PREPARATION OF THE PLANTING AREA. ALL INVASIVE VEGETATION SHALL BE TREATED PER THE SITE-SPECIFIC INVASIVE MANAGEMENT PLAN PRIOR TO PREPARATION OF THE PLANTING AREA.
3. TREE PROTECTION LIMITS SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AROUND ALL OF THE TREES THAT ARE MARKED TO REMAIN AS PART OF THE PROJECT. ANY WORK COMPLETED WITHIN THE DRIP LINE OF THE EXISTING TREES SHALL BE COMPLETED BY HAND AND NOT WITH THE USE OF MECHANICAL EQUIPMENT. COMPACTION WITHIN THE DRIP LINE OF ANY TREES MARKED TO REMAIN SHALL BE KEPT TO A MINIMUM.
4. AREAS THAT ARE CLEARED AND GRUBBED SHALL BE RE-ESTABLISHED WITH THE ADDITION OF 6 INCHES. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 7, A MINIMUM OF 4 PERCENT OF ORGANIC MATERIAL CONTENT; LESS THAN 3 PERCENT STONES ¼ INCH OR LARGER IN ANY DIMENSION AND ROOTS, PLANTS, SOD, CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH.

PLANTING NOTES

GENERAL PLANTING NOTES

1. ALL PLANT MATERIALS SHALL BE INSPECTED FOR DEFECTS OR DAMAGE BEFORE PLANTING. SUBSTANDARD PLANTS SHALL BE RETURNED TO, AND REPLACED BY THE NURSERY. ACCEPTABLE PLANTS ARE TO BE PLANTED PER THE SPECIFICATIONS OF THE PLANTING PLAN. IT IS THE RESPONSIBILITY OF THE PLANTING CONTRACTOR TO PROVIDE FOR THE SAFEKEEPING AND MAINTENANCE OF THESE PLANTS FOR THE DURATION OF SITE CONSTRUCTION ACTIVITY. ALL PLANTINGS AND SEEDING WITHIN THE LIMITS OF THE WETLAND RESTORATION AREA SHALL BE COMPLETED BY HAND. NO MACHINERY SHOULD ENTER THE WETLAND AREA AFTER THE COMPLETION OF THE FILL REMOVAL IS COMPLETED.
2. PLANT LOCATIONS ARE SUBJECT TO FIELD REVISION BASED ON LOCATIONS OF EXISTING DESIRABLE PLANT SPECIES AND OTHER EXISTING CONDITIONS. ANY CHANGES TO PLANT LOCATION OR SPECIES SELECTION ARE TO BE REVIEWED BY THE LANDSCAPE DESIGNER.
3. ALL PLANTINGS SHALL BE PERFORMED AND COMPLETED BETWEEN OCTOBER 1 AND THE DATE AT WHICH FROZEN SOIL CONDITIONS EXIST, AND/OR BETWEEN APRIL 15 AND JUNE 15.
4. PLANT NURSERY STOCK BY DIGGING A SUFFICIENTLY LARGE ENOUGH HOLE TO ACCOMMODATE THE PLANTS AND ROOTS. THE PLANTING HOLE SHALL THEN BE FILLED WITH WATER SUFFICIENT TO SATURATE THE SURROUNDING SOIL. THE ROOTS SHALL BE SPREAD OUT ADEQUATELY TO PROMOTE GOOD GROWTH. ALL PLANTS SHALL BE SET AT THE LEVEL OF THE EXISTING GRADE.
5. THE PLANTING HOLE SHALL BE FILLED WITH SOIL AND FIRMED BY TAMPING TO FILL ANY VOIDS. APPLY ADEQUATE DEPTH OF MULCH AROUND SHRUBS AND TREES TO INHIBIT WEED GROWTH DURING THE PLANTS FIRST YEAR OF GROWTH.
6. PROVIDE ADEQUATE IRRIGATION AND PROTECTION FROM DEER UNTIL PLANTED AREAS ARE ESTABLISHED.
7. PLANTING PLUGS SHOULD BE PLANTED AT A SPACING OF 12" FEET OFF CENTER; SHRUBS SHOULD BE PLANTED AT A MINIMUM SPACING OF 4 TO 6" FEET OFF CENTER.

SEED BED PREPARATION

1. PREPARE UPLAND AREA BY REMOVING LARGE ROOTS. PLACE UP TO 6 INCHES OF TOP SOIL IN THE PROPOSED PLANTING AREA
2. FINE GRADE AND RAKE SOIL SURFACE TO REMOVE STONES LARGER THAN 2" IN DIAMETER. APPLY LIMESTONE AT A RATE OF 2 TONS/ACRE OR 90 LBS/1000 SQ.FT.
3. SEED AND FERTILIZER APPLICATION
4. APPLY SEED MIXTURE IN AN EVEN COVERAGE BY HAND OR CYCLONE SEEDER. APPLY 8 TO 9 MONTH RELEASE OSMOCOTE™ 18-6-12 FERTILZER OR EQUIVALENT AT A RATE OF 300 LBS PER ACRE. LIGHTLY ROLL THE SEEDED SURFACE TO ENSURE GOOD CONTACT WITH SEDIMENTS. LIGHTLY DRAG THE TO SEEDED SURFACE TO COVER SEED WITH A THIN (LESS THAN 1/8 INCH) FILM OF SOIL. SEEDING SHOULD BE DONE BETWEEN APRIL 15 AND JUNE 1 OR BETWEEN AUGUST 15TH AND OCTOBER 15TH. IF SEEDING CANNOT BE DONE DURING THESE TIMES, REPEAT MULCHING PROCEDURE DESCRIBED BELOW UNTIL SEEDING CAN TAKE PLACE.

MULCHING

IMMEDIATELY FOLLOWING SEEDING, MULCH THE SEEDED SURFACE WITH STRAW OR HAY AT A RATE OF 1.5 TO 2 TONS/AC. SPREAD MULCH BY HAND OR MULCH BLOWER. PUNCH MULCH INTO SOIL SURFACE WITH TRACK MACHINE OR DISK HARROW SET STRAIGHT UP. MULCH MATERIAL SHOULD BE "TUCKED" APPROXIMATELY 2"-3" INTO THE SOIL SURFACE.

TREE PLANTING NOTES:

1. DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNING SHOULD ONLY BE DONE TO CORRECT DAMAGE AT THE TIME OF PLANTING. USE CORRECTIVE PRUNING TECHNIQUES AFTER ESTABLISHMENT BASED ON ISA STANDARDS.
2. IF PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, REMOVE ALL TWINE, ROPE, BURLAP, AND WIRE BASKET FROM TOP 1/3 OF ROOT BALL.
3. MARK THE NORTH SIDE OF THE TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHEN EVER POSSIBLE.
4. SET TOP OF ROOT BALL FLUSH TO GRADE OR 1-2 INCHES HIGHER IN SLOWLY DRAINING SOILS.
5. IF PLANTING PITS ARE EXCAVATED USING A POWER AUGER, BREAK VERTICAL SIDES WITH A BALLING BAR OR SPADE TO INTERRUPT CONTINUOUS CURVE INFLUENCE ON ROOT DEVELOPMENT.
6. IF PLANTING PITS ARE HAND DUG, SCARIFY SIDES OF PIT.
7. 2" TO 3" INCHES OF MULCH. DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK. MULCH RING TO COVER EARTH SAUCER.
8. STAKE TREES ONLY AS NEEDED ACCORDING TO ISA GUIDELINES.
9. PLACE ROOT BALL ON UNEXCAVATED OR TAMPED SOIL
10. TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.
11. 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.

SOIL AMENDMENT PLAN FOR 27 ABBOTT AVENUE – DETAILED CONSTRUCTION SEQUENCE

1. INITIAL SITE PREPARATION

EXCAVATION OF EXISTING TOPSOIL:

- SCOPE: THE SITE INCLUDES PLANTING AREAS NEAR WETLAND BUFFERS AND URBAN LANDSCAPES. STRIP THE TOP 4-6 INCHES OF SOIL FROM THE DESIGNATED GARDEN AREAS AND BUFFER PLANTING ZONES, INCLUDING THE WILDFLOWER PLUGS AND TURF GRASS BLEND ZONES IDENTIFIED ON THE SITE PLAN (L-1.0).
- STORAGE: TRANSPORT THIS TOPSOIL TO A TEMPORARY STOCKPILE. KEEP IT COVERED WITH TARPS OR EROSION CONTROL BLANKETS TO PREVENT RUNOFF OR SEDIMENTATION INTO THE WETLAND AREA TO THE EAST.
- EROSION CONTROL: INSTALL SILT FENCES AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN TO PROTECT THE WETLAND BUFFER DURING TOPSOIL EXCAVATION AND PREVENT EROSION. PLACE COIR LOGS ALONG THE STEEP AREAS, PARTICULARLY NEAR THE 75-FOOT UPLAND REVIEW AREA.

SOIL TESTING:

- TESTING AREA: TEST THE SOIL IN MULTIPLE LOCATIONS ACROSS THE SITE, FOCUSING ON BOTH THE WETLAND BUFFER AND UPLAND ZONES TO ENSURE THE SPECIFIC NEEDS OF DIFFERENT AREAS (E.G., MOISTURE RETENTION NEAR WETLANDS VS. DRAINAGE IN HIGHER ZONES).
- PARAMETERS: CONDUCT TESTS FOR PH, ORGANIC MATTER CONTENT, NITROGEN (N), PHOSPHORUS (P), POTASSIUM (K), AND SOIL TEXTURE. PARTICULAR ATTENTION SHOULD BE GIVEN TO THE MOISTURE-RETENTION CAPABILITIES IN THE BUFFER AREA ADJACENT TO THE WETLANDS AND TO COMPACTION ISSUES IN AREAS THAT PREVIOUSLY HAD CONSTRUCTION TRAFFIC.

2. SUBSOIL LOOSENING

BREAKING SUBSOIL COMPACTION:

- EQUIPMENT: USE A TRACTOR-MOUNTED SUBSOILER OR HAND TOOLS IN MORE SENSITIVE AREAS (NEAR THE BUFFER) TO LOOSEN THE SUBSOIL TO A DEPTH OF 12-18 INCHES. THIS IS ESPECIALLY IMPORTANT IN AREAS ADJACENT TO THE EXISTING DRIVEWAY AND PARKING WHERE COMPACTION FROM CONSTRUCTION VEHICLES LIKELY OCCURRED.
- SITE-SPECIFIC LOCATIONS: FOCUS SUBSOIL LOOSENING EFFORTS ALONG THE GARDEN AREA AND WITHIN 50-100 FEET OF THE WETLAND LINE, WHERE COMPACTION CAN RESTRICT ROOT GROWTH FOR SPECIES SUCH AS RED CHOKEBERRY (*PHOTINIA MELANOCARPA*) AND RED MAPLE (*ACER RUBRUM*) THAT ARE PROPOSED FOR THESE ZONES.

AMEND SUBSOIL:

- AMENDMENTS FOR COMPACTION: IF SOIL TESTS INDICATE HEAVY COMPACTION IN SUBSOIL, APPLY GYPSUM AT A RATE OF 40-50 LBS PER 1,000 SQUARE FEET TO LOOSEN THE SOIL STRUCTURE. GYPSUM IS PARTICULARLY EFFECTIVE WHERE COMPACTION INTERFERES WITH DRAINAGE, SUCH AS THE SOUTHERN BUFFER AREA.
- DRAINAGE CONSIDERATION: FOR AREAS WITH POOR DRAINAGE (E.G., NEAR THE WETLAND BUFFER AND AREAS AT ELEVATIONS BELOW 205 FEET), INCORPORATE ORGANIC MATTER OR COARSE SAND TO IMPROVE PERMEABILITY. COMPOST AT 10-20% BY VOLUME IS RECOMMENDED FOR THE GARDEN ZONE, ENSURING DEEPER ROOT GROWTH FOR WETLAND-ADJACENT PLANTS.

3. SOIL AMENDMENT INCORPORATION

TOPSOIL ENRICHMENT:

- REAPPLY TOPSOIL: REINTRODUCE THE STORED TOPSOIL INTO PLANTING AREAS, ESPECIALLY WITHIN THE WILDFLOWER PLUG PLANTING AREAS AND AROUND THE NORTHERN SPICEBUSH AND AMERICAN HOLLY PROPOSED PLANTINGS NEAR THE BUFFER.
- COMPOST APPLICATION: INCORPORATE 3-4 INCHES OF ORGANIC COMPOST (CONTAINING HUMUS OR LEAF MOLD) INTO THE TOPSOIL TO IMPROVE STRUCTURE AND ORGANIC MATTER CONTENT. ENSURE A CONSISTENT MIX THROUGH ROTOTILLING TO A DEPTH OF 6-9 INCHES.
- PEAT MOSS ADDITION: IN THE UPLAND AREAS AND DRYER PORTIONS OF THE SITE (NEAR THE PARKING LOT AND DRIP LINE OF THE TREES), ADD PEAT MOSS TO IMPROVE WATER RETENTION.

PH ADJUSTMENT:

- BUFFER AND UPLAND ADJUSTMENT: APPLY AGRICULTURAL LIME IN AREAS THAT REQUIRE PH RAISING, PARTICULARLY FOR TURF GRASS BLENDS IN THE BUFFER AND GARDEN ZONES, WHERE PH SHOULD BE RAISED TO 6.5-7.0.
- BUFFER AREA TARGET: IN WETLAND-ADJACENT ZONES, MAINTAIN PH BETWEEN 5.5 AND 6.5. USE ELEMENTAL SULFUR IN AREAS IDENTIFIED WITH HIGHER PH NEAR THE BUFFER IF NEEDED (BASED ON SOIL TEST RESULTS). APPLY 10 LBS OF SULFUR PER 1,000 SQUARE FEET TO GRADUALLY LOWER THE PH.

4. FERTILIZER APPLICATION

STARTER FERTILIZER:

- FERTILIZER TYPE: USE A BALANCED, SLOW-RELEASE GRANULAR FERTILIZER SUCH AS 10-10-10 FOR NEWLY PLANTED TREES, SHRUBS, AND WILDFLOWER AREAS. THIS APPLIES TO BOTH THE WILDFLOWER CONSERVATION MIX ZONE AND THE GARDEN PLANTING AREA.
- APPLICATION RATE: APPLY AT A RATE OF 5 POUNDS PER 1,000 SQUARE FEET ACROSS THE SITE, WITH A FOCUS ON THE WILDFLOWER PLUGS, TURF GRASS, AND SHRUB ZONES (E.G., PLANTING ZONES WITH NORTHERN SPICEBUSH AND AMERICAN HOLLY).

SITE-SPECIFIC ADDITIVES:

- NITROGEN BOOST: IN AREAS WITH WILDFLOWER PLUGS NEAR THE PARKING LOT, ADD ADDITIONAL NITROGEN-BASED FERTILIZER (SUCH AS UREA) TO IMPROVE PLANT ESTABLISHMENT IN NUTRIENT-POOR SOILS.
- PHOSPHORUS AND POTASSIUM ADDITIVES: INCORPORATE PHOSPHORUS-HEAVY FERTILIZERS FOR ROOT ESTABLISHMENT IN THE WETLAND BUFFER PLANTING ZONE (APPLY SUPERPHOSPHATE AT 2 LBS PER 100 SQUARE FEET FOR DEEP-ROOTED SPECIES LIKE RED MAPLE).

5. MULCHING

MULCH PREPARATION:

- BUFFER AREA MULCH: IN THE WETLAND BUFFER (AS SHOWN ON THE PLAN), SPREAD A 3-INCH LAYER OF ORGANIC MULCH (SUCH AS SHREDDED HARDWOOD OR BARK) AROUND THE BASE OF TREES AND SHRUBS, ENSURING A CLEAR AREA OF 3-4 INCHES FROM TRUNKS AND STEMS.
- WILDFLOWER PLUG ZONE: FOR WILDFLOWER AREAS, USE COMPOSTED LEAF MULCH IN THE PLANTING BEDS TO ASSIST WITH MOISTURE RETENTION AND PROVIDE NUTRIENTS OVER TIME.

MULCH DISTRIBUTION:

- SLOPE PROTECTION: ON SLOPES LEADING TO THE WETLAND BUFFER, ENSURE MULCH IS APPLIED THICKLY (4 INCHES) TO HELP PREVENT EROSION.
- BUFFER SETBACK AREAS: SPREAD MULCH EVENLY IN THE UPLAND BUFFER SETBACK ZONE TO MAINTAIN SOIL MOISTURE AND SUPPRESS WEED GROWTH.

6. FINAL GRADING

FINE GRADING:

- AFTER SOIL AMENDMENTS AND MULCH ARE APPLIED, MICRO GRADE THE SURFACE USING A LANDSCAPE RAKE.
- ATTENTION TO SLOPE: ENSURE PROPER GRADING TOWARDS STORMWATER RUNOFF POINTS AND AWAY FROM STRUCTURES, PAYING PARTICULAR ATTENTION TO AREAS NEAR THE PERMEABLE DRIVEWAY AND WETLAND BUFFER TO PREVENT WATER ACCUMULATION.

7. MONITORING AND MAINTENANCE

SOIL TESTING POST-PLANTING:

- FIRST YEAR ASSESSMENT: RE-TEST THE SOIL IN BOTH THE WETLAND BUFFER AND GARDEN ZONES AFTER THE FIRST GROWING SEASON TO ADJUST FERTILIZER AND PH LEVELS AS NEEDED.
- ADJUST NUTRIENTS OR PH BASED ON THE HEALTH OF PLANTINGS, ESPECIALLY FOR AMERICAN HOLLY AND NORTHERN SPICEBUSH, WHICH ARE SENSITIVE TO SOIL NUTRIENT IMBALANCES.
-

MULCH AND COMPOST REAPPLICATION:

- REAPPLY ORGANIC MULCH ANNUALLY, PARTICULARLY IN AREAS WHERE EROSION IS EVIDENT, SUCH AS NEAR THE WILDFLOWER PLUG ZONE AND ALONG THE SLOPES NEAR THE BUFFER ZONE.
- TOP-DRESS WITH COMPOST AS NECESSARY TO MAINTAIN SOIL FERTILITY AND STRUCTURE IN THE GARDEN AND BUFFER PLANTING ZONES.

REVISION DATE	ISSUE
08/19/2025	REVISED PER ZONING COMMENTS
03/11/2025	REVISED PER REVIEW COMMENTS
02/28/2025	REVISED PER DPW COMMENTS
01/23/2025	PLANTINGS AND NOTES

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PREPARED FOR:

INDIAN HILL RE, LLC

PROJECT LOCATION:

284 NEW CANAAN AVENUE
NORWALK, CT

PROJECT TITLE:

#S19-499B
SITE IMPROVEMENTS FOR AN EXPANDED CONTRACTORS YARD

DRAWING TITLE:

PLANTING NOTES

PROJECT No. 23015-02

DATE:	DESIGNED BY:	CHECKED BY:
12/18/2024	SM	BC

SCALE: N.T.S.

PROJECT STATUS:

DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

STATE OF CONNECTICUT · BRIAN T. COLLINS · 27803 · LICENSED PROFESSIONAL ENGINEER

C-3.0

LANDTECH
T:\ - ACTIVE PROJECTS\2023\23-02 ALFRENNA 284 NEW CANAAN AVE NWLK BERNARD\GIS\RDS\WARRIS\SVOLATION\S19-499B 284 NEW CANAAN - SITE PLAN.DWG

TECHNICAL MEMORANDUM

To: Amelia Williams, Land Use Planner

From: Brian Carey, PWS, Director of Environmental Services, LANDTECH

Date: August 18, 2025

Re: Response to Preliminary Review Comments – #2025-49 SP

(Modify SP #12-16: expand contractor's yard & change stormwater)

Subject Property: 284 New Canaan Avenue, Norwalk, CT

INTRODUCTION

This memorandum provides responses to Staff's July 8, 2025 preliminary review comments for #2025-49 SP. The submittal aligns the Special Permit modification materials with the IWA's May 13–14, 2025 Corrective Action approval (Permit #S16-499B) and implements the required plan changes, O&M updates, and compliance confirmations.

Point-by-Point Responses

1) Proof of initial neighbor notification

Response: Proof of initial neighbor notification has been submitted to Staff for the record.

2) Public hearing noticing (site sign ≥15 days; mailings ≥10 days)

Response: Photographic proof of site sign posting and certificates of mailing to properties within 100 feet have been provided within the stated timelines.

3) Revise site plan to reflect IWA Permit (conditions #3 and #7); update revision date

Response: The site plan set has been revised as follows, and the revision date has been updated:

- IWA Condition #3 (Planting augmentation): Plan modified to provide ≥20 native shade trees (minimum 1½" DBH) within the restoration area, plus native seed mix; removal of manmade materials from the restored woodland is noted.
- IWA Condition #7 (Paving/curbing & buffer): Plan now shows all portions of the contributing drainage area paved and bounded by minimum 6-inch curb along the south/east limits, with the curb no less than 25 feet west of the eastern property line. The area between the curb and the east property line is designated and labeled as a vegetated buffer seeded with a native mix. The block wall and berm along the northern limit are also confirmed on the drawings.

These changes fully implement the IWA directives and ensure consistency between the Special Permit plans and the wetland authorization.

4) Clarify whether the request includes modifying SP #12-16 Condition #11 (sprinklers in bins)

Response: The applicant is not requesting to modify Special Permit #12-16 Condition #11. The existing requirement for a fixed dust suppression system on the bins remains in place and will be maintained. In addition, the updated Operations & Maintenance (O&M) Plan supplements this condition by specifying performance-based dust control measures, including:

- As-needed water application via water truck or hose for yard-wide dust suppression;
- Prompt covering of friable stockpiles to minimize wind dispersal;
- Sweeping/power-vac maintenance of paved surfaces; and
- Cessation of activities generating visible off-site dust under dry/windy conditions until controls are applied.

This combined approach preserves the original bin sprinkler system while adding site-wide practices to ensure effective and enforceable dust suppression, consistent with IWA-required paving/curbing and stormwater controls.

5) Address Notice of Zoning Violation (Oct 24, 2024) items related to SP non-compliance (hours, parking location, noise)

Response: The Site Operating Plan and drawings have been updated to memorialize the following compliance measures:

- Hours of Operation: Operations limited to the City's allowable hours and codified in the Site Operating Plan; no operations outside permitted hours; no Sunday/holiday work.
- All employee and contractor vehicle parking is limited to the designated striped spaces within the paved contractor yard, as shown on the approved site plan. Visitor parking is provided at the front of the site near the office entrance
- Noise Ordinance Compliance: On-site equipment to comply with the City's noise limits; idling minimized; tonal alarms discouraged where permissible; loading/unloading confined to approved yard area.

These measures, together with the physical controls in the revised plan set, remedy the NOV elements pertaining to the Special Permit.

6) O&M Report to be site-specific

Response: A site-specific O&M Plan has been prepared and submitted. It aligns with IWA Condition #6, detailing each stormwater component and its maintenance frequency/inspection method; incorporates the dust suppression program (see Item 4); and includes inspection logs and responsible

party contacts. The plan also references IWA Condition #8 (post-installation stormwater certification) and ties start-up/verification to construction milestones.

Implementation of IWA Conditions (for Commission awareness)

- Timing & Monitoring: Restoration work completion window, monitoring frequency, measurable success criteria, invasive management, and photographic documentation are incorporated (IWA Conditions #1–2, 5).
- Stormwater Certification & Bonding: Post-installation certification committed (IWA #8); $14,120 bond posting acknowledged prior to recommencement of work (IWA #9).
- Change Management: Any future plan change will be returned to IWA as required (IWA #10).

Conclusion

All preliminary review items for #2025-49 SP have been addressed through plan revisions, a site-specific O&M, operating restrictions, and agency coordination, with full integration of IWA Permit #S16-499B conditions. We respectfully request placement on the Commission agenda for action and acceptance of the revised materials into the record.

Enclosures (submitted with this memo)

1. Revised Site Plan Set (updated to reflect IWA #3 and #7; new revision date noted).
2. Site-Specific O&M Plan (per IWA #6), including dust suppression, inspection logs, and stormwater certification workflow.
3. Proof of initial neighbor notification, site sign posting, and abutter mailings.

If you have any questions, please feel free to contact me directly at (203) 454.2110 or at bcarey@landtechconsult.com.

Best regards,
LANDTECH

Brian Carey

Brian Carey, PWS
Director of Environmental Services

Operations and Maintenance Plan

284 New Canaan Avenue, Norwalk, CT
December 18, 2024

Scope:

The purpose of this Operations and Maintenance (O&M) Plan is to establish clear procedures to ensure the long-term functionality, reliability, and compliance of the stormwater management system installed at 284 New Canaan Avenue, Norwalk, Connecticut.

Stormwater management systems are designed to control the quantity and quality of stormwater runoff, reduce pollutant loading, and protect downstream water resources, including wetlands and watercourses located adjacent to the site. To remain effective, these systems require regular inspection, preventative maintenance, and corrective actions when deficiencies are identified.

This O&M Plan provides a framework for:

- Protecting Public and Environmental Resources: Ensuring that stormwater discharges from the site meet the performance standards required by the City of Norwalk Inland Wetlands Agency and the Connecticut Department of Energy and Environmental Protection (CTDEEP), thereby protecting wetlands, groundwater, and surface waters.
- Maintaining System Performance: Outlining inspection schedules and service procedures necessary to sustain the intended hydraulic capacity, pollutant removal efficiency, and infiltration capability of system components such as catch basins, underground detention galleries, the hydrodynamic separator (Downstream Defender), and drywell/infiltration units.
- Ensuring Regulatory Compliance: Meeting conditions of approval issued by the City of Norwalk, including ongoing monitoring, recordkeeping, and reporting requirements associated with the site's Special Permit and Inland Wetland approvals.
- Preventing System Failures: Reducing the risk of flooding, erosion, clogging, or bypassing caused by sediment buildup, debris blockage, or lack of timely maintenance.
- Supporting Accountability: Defining the roles and responsibilities of the Owner (Indian Hill RE, LLC), contractors, and qualified inspectors in carrying out inspections and documenting all maintenance activities.

By following this Plan, the Owner ensures that the stormwater management system will remain in good working condition throughout the life of the project, protect the health and safety of the community, and preserve the environmental integrity of the surrounding watershed.

Recommended Frequency of Service:

As further defined below, all stormwater components at 284 New Canaan Avenue must be checked on a periodic basis and kept in full working order. The frequency of inspection and service will depend on runoff volumes generated from the paved contractor's yard, pollutant loading (sediment, hydrocarbons, and debris from vehicle and material storage areas), and clogging due to leaves and litter.

At a minimum:

- Twice per year inspections (once in spring, once before winter).
- First year after construction: Quarterly inspections of all structures.

- **Every 5 years:** Comprehensive inspection by a licensed Professional Engineer.
- **Every 10 years:** Video inspection of underground detention galleries and storm drain piping

Qualified Inspector:

The inspections must be completed by an individual experienced in the construction and maintenance of stormwater drainage systems. Once every five years the inspections must be completed by a professional engineer.

Service Procedures:

1. Catch Basins & Drainage Inlets:

    a. Catch basins and drainage inlets shall be completely cleaned of accumulated debris and sediments at the completion of construction.
    b. For the first year, catch basins and drainage inlets shall be inspected on a quarterly basis.
    c. Any accumulated debris within the catch basins/inlets shall be removed and any repairs as required.
    d. From the second year onward, visual inspections shall occur twice per year, once in the spring and once in the fall, after fall cleanup of leaves has occurred.
    e. Accumulated debris within the catch basins/inlets shall be removed and repairs made as required.
    f. Accumulated sediments shall be removed at which time they are within 12 inches of the invert of the outlet pipe.
    g. Any additional maintenance required per the manufacturer's specifications shall also be completed.

2. Storm Drainage Piping and Manholes/Junction Boxes:

    a. All storm drainage piping shall be completely flushed of debris and accumulated sediment at the completion of construction.
    b. Manholes/Junction Boxes shall be inspected and repaired on an annual basis.
    c. Unless system performance indicates degradation of piping, comprehensive video inspection of storm drainage piping shall occur once every ten years.
    d. Any additional maintenance required per the manufacturer's specifications shall also be completed.

3. Stormwater Control Structures:

    a. All control structures (orifice, weir, etc.) shall be completely cleaned of accumulated debris and sediments at the completion of construction. Any repairs shall be performed.
    b. For the first year, control structures (orifice, weir, etc.) shall be inspected on a quarterly basis.
    c. Any accumulated debris shall be removed and any repairs made to the control structures (orifice, weir, etc.) as required.
    d. From the second year onward, visual inspections shall occur twice per year, once in the spring and once in the fall, after fall cleanup of leaves has occurred.
    e. Accumulated debris shall be removed and repairs made as required.
    f. Any additional maintenance required per the manufacturer's specifications shall also be completed.

4. Drywells and Infiltration Systems:

    a. All drywells/infiltrators shall be completely cleaned of accumulated debris and sediments upon the completion of construction.
    b. For the first year, the drywells/infiltrators shall be inspected on a quarterly basis.
    c. Any accumulated debris within the drywells/infiltrators shall be removed and any repairs made to the units as required.
    d. From the second year onward, visual inspection shall occur twice per year, once in the spring and once in the fall, after fall cleanup of leaves has occurred.
    e. Accumulated debris within the units shall be removed and repairs made as required.
    f. Any additional maintenance required per the manufacturer's specifications shall also be completed.

Disposal of Debris and Sediment:

All debris and sediment removed from the stormwater structures and bioretention/biofiltration basins shall be disposed of legally. There shall be no dumping of silt or debris into or in proximity to any inland or tidal wetlands.

Maintenance Records:

The Owner, Indian Hill RE, LLC, shall maintain complete records of all inspections, cleanings, repairs, and disposal activities. Records may include inspection logs, photographs, vacuum truck manifests, and engineering reports. These records must be retained for a minimum of five (5) years and be made available to the City of Norwalk Planning & Zoning Department and the Inland Wetlands Agency upon request.

Operations and Maintenance Log (Page 1 of 3)

284 New Canaan Avenue, Norwalk, CT
December 18, 2024

Type of Inspection: ☐ Spring ☐ Fall ☐ Other

Inspector's Name:_____ Date of Inspection:_____

Affiliation:_____ Phone #:_____

Catch Basins & Drainage Inlets:

- Has accumulated debris been removed from grates? ☐ Yes ☐ No ☐ N/A
- Do any basins require additional repair? (identify below): ☐ Yes ☐ No ☐ N/A
- Have sumps been cleaned of sediment? ☐ Yes ☐ No ☐ N/A

Notes:

Storm Drainage Piping and Manholes/Junction Boxes:

- Has accumulated debris been removed? ☐ Yes ☐ No ☐ N/A
- Do any manholes require additional repair? (identify below): ☐ Yes ☐ No ☐ N/A
- Is there any evidence of stormwater piping failure? ☐ Yes ☐ No ☐ N/A
- Has a comprehensive video inspection been completed? ☐ Yes ☐ No ☐ N/A

Notes:

Stormwater Control Structures:

- Has accumulated debris been removed? ☐ Yes ☐ No ☐ N/A
- Are any repairs required? (identify below): ☐ Yes ☐ No ☐ N/A
- Have orifices and weirs been cleaned of debris? ☐ Yes ☐ No ☐ N/A

Notes:

Operations and Maintenance Log (Page 2 of 3)

284 New Canaan Avenue, Norwalk, CT
December 18, 2024

Drywells and Infiltration Systems:

- Have units been cleared of debris/sediments? ☐ Yes ☐ No ☐ N/A
- Do units require additional repair? (identify below): ☐ Yes ☐ No ☐ N/A
- Has draining times of system been verified? ☐ Yes ☐ No ☐ N/A

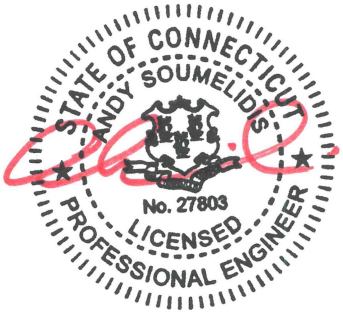
Notes:

Operations and Maintenance Log (Page 3 of 3)

284 New Canaan Avenue, Norwalk, CT
December 18, 2024

Please make additional notes/observations and particular concerns below. Also record any additional maintenance that has been performed:

Signature of Inspector: **Date:**

STORMWATER MANAGEMENT REPORT for **284 New Canaan Avenue** Norwalk, CT December 18, 2024 Revised: March 11, 2025	

Narrative:

The owner of 284 New Canaan Avenue, Norwalk, CT proposes to construct an addition to an existing contractor's yard and related improvements. Improvements are limited to the areas related to the construction of the above-listed structures and lawn areas as shown on the site plans prepared by LANDTECH.

The property is 11.12 acres in size, it is located to the north of the Merritt Parkway. There are wetlands located throughout the property.

The NRCS soils map indicates the upland soils in the vicinity of the proposed improvements to be Scarboro Muck, a well-drained soil in Hydrologic Soil Group A/D. The site also contains Udorthents Urban Land and Canton and Charlton fine sandy loam which are well-drained soils in Hydrologic Soil Group B. The site also contains Leicester fine sandy loam which is a well-drained soil in Hydrologic Soil Group B/D. Based on field observation, an infiltration rate of 3"/hour (observed infiltration rate of 1" in 10 min.) was utilized in the design for the proposed drainage system. It is assumed that the underlying soils will allow the detained storm water to infiltrate within 72 hours, per CT DEEP guidance (requires a 0.50"/hour infiltration rate).

For the purposes of modeling the pre and post development conditions, we have analyzed one (1) drainage area in the pre-development conditions and two (2) subareas in the post-development conditions. Existing drainage area 1 currently sheet flows to the south towards the existing wetlands and contains the entire property including the existing buildings and parking/driveway areas.

Proposed subarea 1A contains the proposed expanded yard and a portion of the existing parking/driveway area and will be collected via a system of catch basin and collection piping and will discharge to a proposed water quality chamber that will discharge to a proposed underground detention system. The proposed underground detention system will discharge via the inlet catch basin. Proposed subarea 1B contains the remainder of the site including the existing buildings and the remainder of the existing parking/driveway areas and will discharge via sheet flow to the south towards the existing wetlands matching existing conditions.

The proposed underground detention system is only intended to capture runoff from the proposed expanded yard and a portion of the existing parking/driveway area. The proposed underground detention system is sized based on the required water quality volume as well as runoff control for the 2-yr, 10-yr, 25-yr, 50-yr, and 100-yr storm events.

Table 1 on the following page summarizes the required and proposed water quality volume (WQv) and runoff control for the design storm events in accordance with the City of Norwalk Drainage Manual.

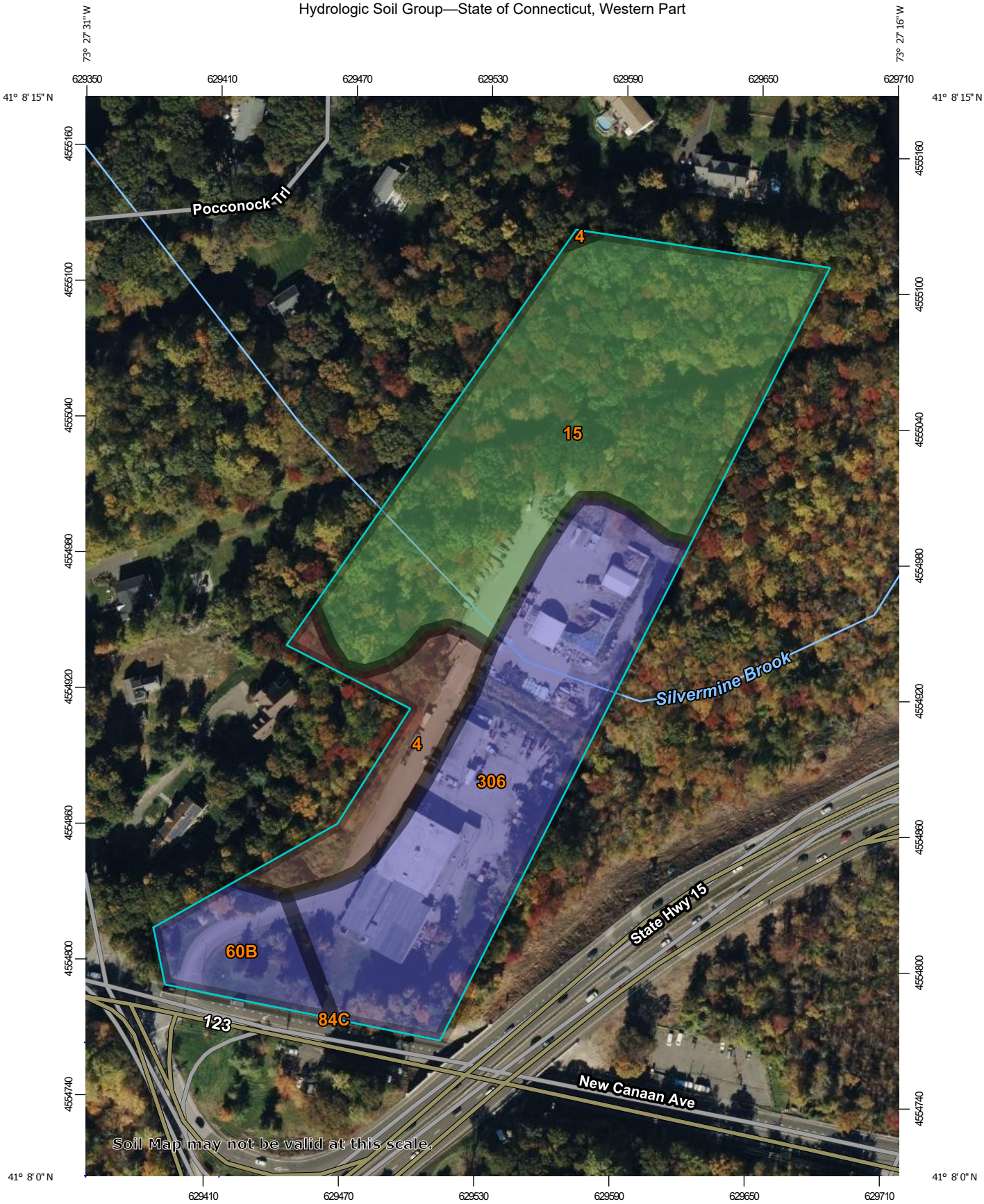
Storm Event	Drainage Area	Existing / Req.	Proposed	Δ	Δ (%)
2-YR	DA-1	2.5 cfs	0.7 cfs	-1.8	-72.0%
10-YR	DA-1	10.9 cfs	5.5 cfs	-5.4	-49.5%
25-YR	DA-1	17.8 cfs	11.0 cfs	-6.8	-38.2%
50-YR	DA-1	23.4 cfs	19.1 cfs	-4.3	-18.4%
100-YR	DA-1	29.8 cfs	19.8 cfs	-10.0	-33.6%
WATER QUALITY VOLUME (cf)		5510.70	22675.10		
WATER QUALITY FLOW (cf)		2.49	6.90		

It is our professional opinion that upon construction of the proposed improvements, stormwater discharge from the site will comply with the applicable rules and regulations of the City of Norwalk and will not result in any adverse impacts to adjacent neighbors or downstream drainage systems.

***Exhibits**:*

- NRCS Soils Report
- Watershed Maps
- Water Quality and Groundwater Recharge Volume
- Stormwater Runoff Computations

NRCS Soils Report



Map Scale: 1:2,330 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

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

Soil Rating Lines

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

Soil Rating Points

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

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut, Western Part
Survey Area Data: Version 1, Sep 15, 2023

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

Date(s) aerial images were photographed: Oct 21, 2022—Oct 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
4	Leicester fine sandy loam	B/D	1.0	9.7%
15	Scarboro muck, 0 to 3 percent slopes	A/D	5.2	47.8%
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes	B	0.7	6.9%
84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	C	0.0	0.0%
306	Udorthents-Urban land complex	B	3.8	35.6%
Totals for Area of Interest			**10.8**	**100.0%**

Description

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

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

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

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

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

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

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

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Watershed Maps

LANDTECH

T:\1. ACTIVE PROJECTS\23015-02 AJ PENNA 284 NEW CANAAN AVE NWLK BERM-NEIGHBORS\DRAWINGS\VIOLATION S16-4998\284 NEW CANAAN - SITE PLAN.DWG

HSG "B" SOILS
HSG "A" SOILS

EX-DA-1
484,215 SF
CN=57
Tc=16.4

HSG "A" SOILS
HSG "B" SOILS

EXISTING WATERCOURSE PER NORWALK GIS MAP

N

SCALE IN FEET

0 100 200 300

NOT FOR CONSTRUCTION
FOR REVIEW AND APPROVAL BY PUBLIC AGENCIES ONLY

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HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

REVISION DATE	ISSUE

PREPARED FOR: INDIAN HILL RE, LLC

PROJECT LOCATION: 284 NEW CANAAN AVENUE NORWALK, CT

TITLE: SITE IMPROVEMENTS FOR A PROPOSED CONTRACTORS YARD
EXISTING WATERSHED MAP

PROJECT No.	23015-02
SCALE	DATE
1" = 100'	12/18/2024
DESIGNED BY:	CHECKED BY:
SM	AS

EX-WS

LANDTECH

T:\1. ACTIVE PROJECTS\23015-02 A-J PENNA 284 NEW CANAAN AVE NWLK BERM-NEIGHBORS\DRAWINGS\VIOLATION S16-499\B284 NEW CANAAN - SITE PLAN.DWG

HSG "B" SOILS
HSG "A" SOILS

PR-DA-1B
414,587 SF
CN=51
Tc=16.4

PR-DA-1A
69,628 SF
CN=98
Tc=5.0

EXISTING MASONRY BUILDING

EXISTING MASONRY GARAGE

EXISTING WATERCOURSE PER NORWALK GIS MAP

HSG "A" SOILS
HSG "B" SOILS

N

SCALE IN FEET
0 100 200 300

NOT FOR CONSTRUCTION
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HELLO@LANDTECHCONSULT.COM • WWW.LANDTECHCONSULT.COM

REVISION DATE	ISSUE

PREPARED FOR: INDIAN HILL RE, LLC

PROJECT LOCATION: 284 NEW CANAAN AVENUE NORWALK, CT

TITLE: SITE IMPROVEMENTS FOR A PROPOSED CONTRACTORS YARD
PROPOSED WATERSHED MAP

PROJECT No.	23015-02
SCALE: 1" =	DATE: 12/18/2024
DESIGNED BY: SM	CHECKED BY: AS

PR-WS

Water Quality and Groundwater Recharge Volume Calculations

Project:	**284 New Canaan Ave**	By:	**SM**	Date:	**12/18/2024**
	Norwalk, CT	Checked:	**AS**	Revised:	**2/28/2025**

1. Water Quality Volume

a. Compute volumetric runoff coefficient, R R = 0.05+0.009(*I*)

	Proposed	
Total Drainage Area, *A*	1.598	acres
Total Impervious Area	1.598	acres
Percentage of Impervious Area, *I*	100.0%	
Runoff Coefficient, *R*	0.950	

b. Compute water quality volume, WQV WQV = [(1")(*R*)(*A*)]/12

Total Project Area, *A*	1.598	acres	
Runoff Coefficient, *R*	0.950		
Water Quality Volume, *WQV*	0.127	acre-foot	
Water Quality Volume, *WQV*	**5,510.70**	**cf**	
WQV in Underground Detention	**22,675.10**	**cf**	***Provided***

Water Quality Volume provided > required

PROJECT	284 New Canaan Avenue	PREPARED BY	SM
DATE	2/28/2025	CHECKED BY	AS
SUBJECT	Water Quality Flow Calculations DA-1A		

SUBCATCHMENT AREAS

Inlet ID	Impervious Area	Grass Area	Wooded Area
DA-1A	1.598	0.000	0.000
	1.598	0.000	0.000

WATER QUALITY VOLUME (WQV) CALCULATION

Area (A) =	1.598	acres
Area (A) =	0.00250	square miles
Design Precipitation (P) =	1.5	inch
% Impervious Cover (I) =	100	
Volumetric Runoff Coefficient (R) =	0.950	

WQV =	**0.190**	**ac-ft**

WATER QUALITY FLOW (WQF) CALCULATION

RUNOFF CURVE NUMBER (CN)

Runoff Depth (Q) =	1.425	inches
CN =	99	Figure 2-1 (SWQM)

TIME OF CONCENTRATION (Tc), 10 minute minimum

Tc =	10	min
Tc =	0.17	hours

Initial Abstraction (I_a) =	0.128	Table 4-1 (SWQM)
I_a/P Calculation =	0.085333333	
Unit Peak Discharge (q_u) =	700	Exhibit 4-111 (SWQM)

WQF =	**2.49**	**cfs**

Performance Verification of Very Fine Sediment Removal with 50-Micron Silica Sand

The Downstream Defender® is an advanced Hydrodynamic Vortex Separator that removes sediment, oil and floatables from stormwater runoff. It has flow modifying internal components to stabilize the flow regime within the device, providing higher pollutant removal capabilities and protection from high scour velocities during intense storm events (Fig.1).

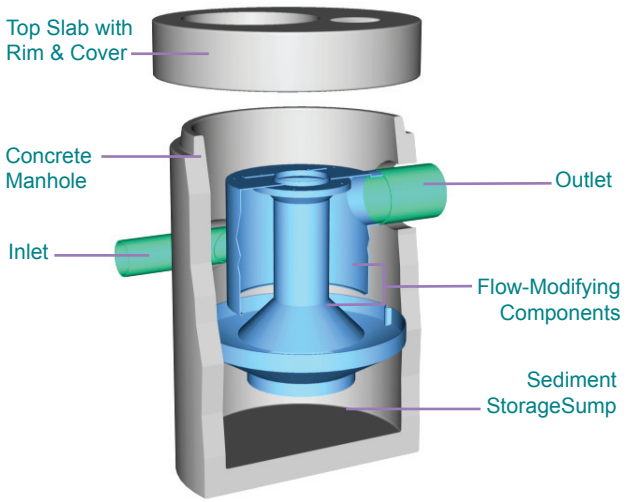


Fig.1 The flow modifying components stabilize the flow regime to provide higher pollutant removal capabilities.

Verification of Fine Sediment Removal

Although runoff from intense storm events has enough energy to mobilize large pollutants such trash and coarse sediments, small storm events tend to mobilize very fine sediment. To evaluate the ability of the Downstream Defender® to capture these pollutants, a full-scale 4-ft diameter unit was tested under controlled laboratory conditions (Fig.2).

Test procedures were based on requirements to obtain General Use Level Designation (GULD) for Pretreatment by the Washington Department of Ecology (WA DOE) and a Certificate of Technology Assessment under the New Environmental Technology Evaluation (NETE) Program by the Ontario Ministry of the Environment.

Clean water from a 23,000 gal reservoir was pumped to the Downstream Defender® for 4 test runs with target flow rates of 0.4 cfs to 2.2 cfs with no bypassed flows, and inlet concentrations of 200 to 300 mg/L (Fig.3). A very fine gradation of test sediment was produced by mechanically sieving U.S. Silica grade F-110 sand with a #200 sieve to ensure that all test sediment was less than 75-micron with an approximate mean particle size of 50-micron.

Five influent and effluent grab samples were collected per test run, for a total of 18 sample pairs. All samples were analyzed for Total Suspended Solids (TSS) by APHA SM2540D. Background influent and effluent samples were analyzed to ensure the reservoir supplied clean water. The average removal efficiency was calculated for each flow rate.

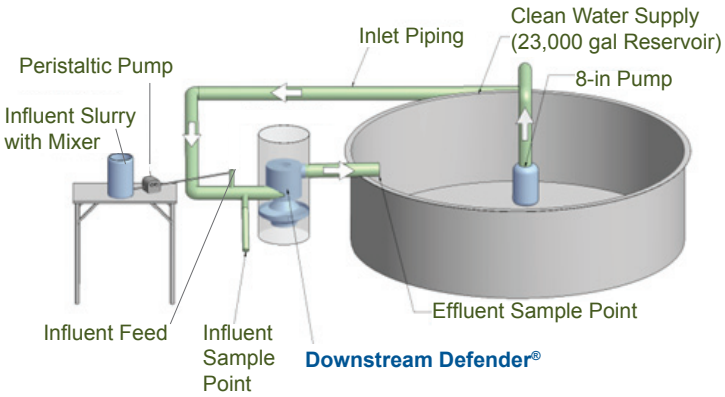


Fig.2 Hydro International's Portland, Maine test facility.

Fig.3 Grab samples were taken from the effluent discharge (pictured, left) and the influent to determine removal efficiency.

Downstream Defender®

Performance Testing Results

Test data demonstrates 80% removal of very fine sediment for all flows up to 1.2 cfs (Fig.4). As the Downstream Defender® does not incorporate an internal bypass, it will continue to capture sediment as flows increase. Whereas internally bypassing units will begin to discharge higher flows without any treatment, the test results project that the Downstream Defender® will continue to provide positive removal efficiencies up to its Peak Treatment Flow Rate of 3 cfs (Fig.4).

These results confirm the efficiency of the Dowstream Defender® over the wide range of tested flow rates and highlight the benefit of internal components that stabilize the flow regime and prevent bypassing of untreated flow.

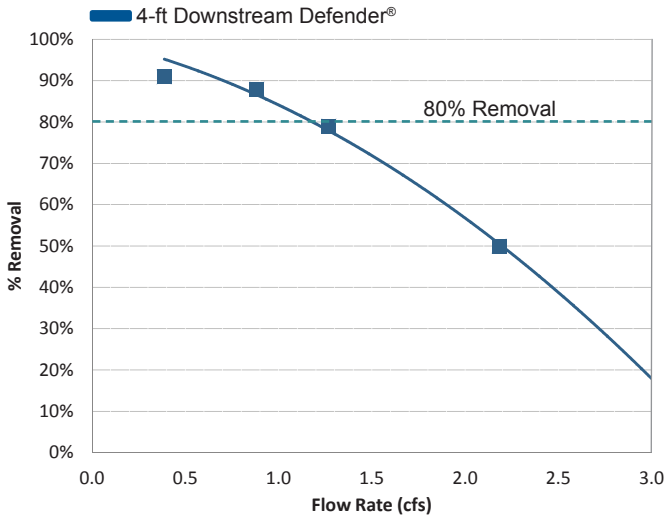


Fig.4 Results of the testing show 80% removal of the very fine test sediment up to 1.2 cfs.

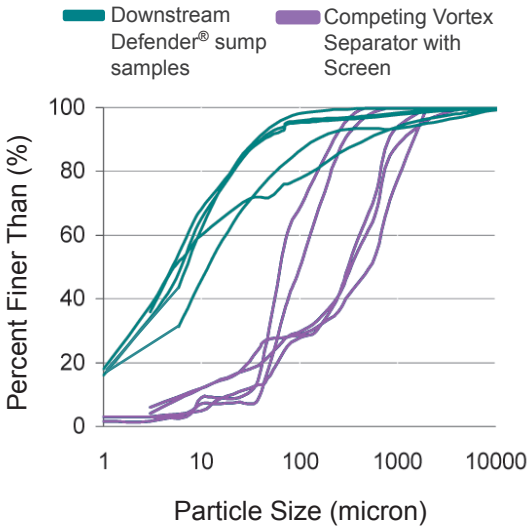
Downstream Defender® Sizing

Flow rates for the 6, 8, 10 and 12-ft diameter Downstream Defender® models for 80% removal of 50-micron sediment are shown in the table below.

Model Unit Diameter	Treatment Flow Rates (80% Removal)	Peak Treatment Flow Rates
(ft)	(cfs)	(cfs)
4	1.2	3.0
6	3.4	8.0
8	6.9	15.0
10	12.1	25.0
12	19.0	38.0

Field Samples Confirm Fine Sediment Removal Performance

The results from the 50-micron sediment removal laboratory testing are consistent with observations from field sampling of Downstream Defender® sump material at many different sites. Sediment captured and retained in the sumps of various Downstream Defender® installations has been shown to be significantly finer than the sediment captured and retained in other stormwater treatment chambers (Faram et al., 2007)[1]. This observation has been corroborated from comparing particle size distributions of sediments captured in a competing vortex separator installed at sites with equivalent land use. In most cases, at least 80% of the material in the Downstream Defender® sump samples was 20-micron or finer. Sump samples from the competing vortex separator showed much less capture and retention of fine material, with only 10 - 18% of sump material in the range of 20-micron or finer.



Gradation of Sediment Captured in Sump

References

1. Faram, M. G., Iwugo, K.O. and Andoh, R.Y.G., 2007, "A Field Study of Sediments Captured by Flow-Through Stormwater Interceptors", Novatech: 6th International Conference on Sustainable Techniques and Strategies in Urban Water Management, Lyon, France, 25-28 June, pp 641-648.

Hydro International, 94 Hutchins Drive, Portland, ME 04102
Tel: 207.756.6200 Fax: 207.756.6212
Email: stormwaterinquiry@hydro-int.com Web: www.hydro-int.com

Stormwater Solutions

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Project:	**284 New Canaan Avenue**	By:	**SM**	Date:	**12/18/2024**
	Norwalk, CT	Checked:	**AS**	Revised:	

1. Water Quality Volume

a. Compute volumetric runoff coefficient, R R = 0.05+0.009(*I*)

	Proposed		Existing	
Total Drainage Area, *A*	1.598	acres	1.598	acres
Total Impervious Area	1.598	acres	1.503	acres
Percentage of Impervious Area, *I*	100.0%		94.1%	
Runoff Coefficient, *R*	0.950		0.896	

b. Compute water quality volume, WQV WQV = [(1")(*R*)(*A*)]/12

Total Project Area, *A*	1.598	acres	
Runoff Coefficient, *R*	0.950		
Water Quality Volume, *WQV*	0.127	acre-foot	
Water Quality Volume, *WQV*	**5,510.70**	**cf**	***Required***
WQV in 24" High Concrete Galleries	**22,675.10**	**cf**	***Provided***

Water Quality Volume provided > required

2. Groundwater Recharge Volume

Compute the groundwater recharge volume (GRV) using the hydrologic soil group approach.

a. Read runoff depth to be recharged, *D* (Table 1-1 of 2017 Rev. City of Norwalk Stormwater Drainage Manual)

Runoff Depth to be recharged, *D*	0.6	inches	(A Soils)

b. Compute net increase in site imperviousness *I* (proposed) - *I* (existing

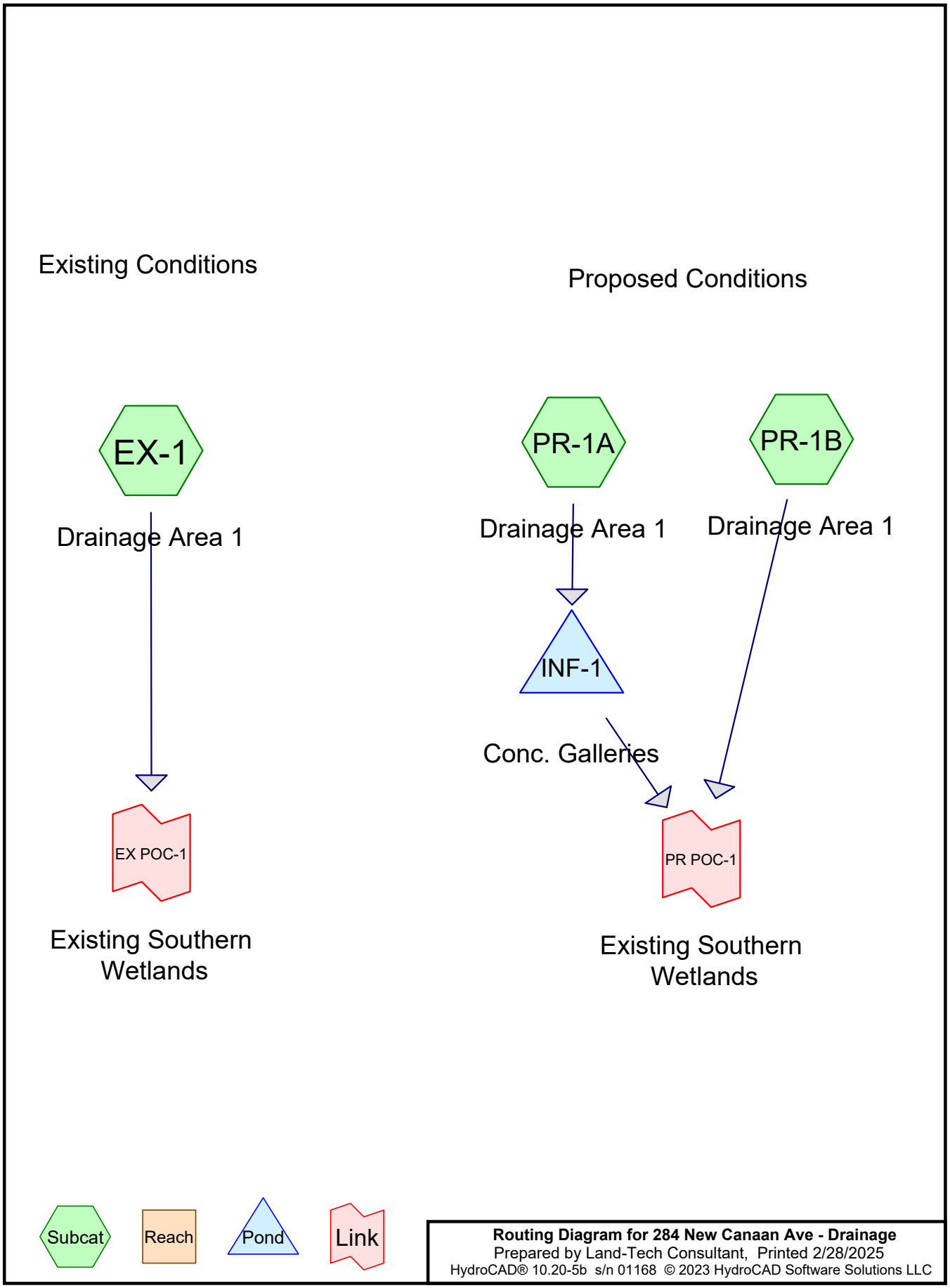
Net Increase, *Delta I*	0.054

c. Compute groundwater recharge volume, *GRV* *GRV* = [(*D*)(*A*)(*I*)]/12

Runoff Depth to be recharged, *D*	0.6	inches
Total Drainage Area, *A*	1.598	acres
Net Increase, *Delta I*	0.054	
GRV	0.00428	acre-foot
GRV	**186**	**cf**

Retention Volume provided = 22675 cf > 186 cf

Stormwater Runoff Computations


Existing Conditions
EX-1
Drainage Area 1
EX POC-1
Existing Southern Wetlands
Proposed Conditions
PR-1A
PR-1B
Drainage Area 1
Drainage Area 1
INF-1
Conc. Galleries
PR POC-1
Existing Southern Wetlands
Subcat
Reach
Pond
Link
Routing Diagram for 284 New Canaan Ave - Drainage
Prepared by Land-Tech Consultant, Printed 2/28/2025
HydroCAD® 10.20-5b s/n 01168 © 2023 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2yr Storm	Type III 24-hr		Default	24.00	1	3.56	2
2	10yr Storm	Type III 24-hr		Default	24.00	1	5.40	2
3	25yr Storm	Type III 24-hr		Default	24.00	1	6.55	2
4	50yr Storm	Type III 24-hr		Default	24.00	1	7.41	2
5	100yr Storm	Type III 24-hr		Default	24.00	1	8.33	2

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
88,436	61	>75% Grass cover, Good, HSG B (EX-1, PR-1B)
44,316	98	Existing Buildings (EX-1, PR-1B)
240,838	98	Existing Parking/Driveway Areas (EX-1, PR-1A, PR-1B)
2,910	98	Existing Walks & Stairs (EX-1, PR-1B)
4,143	98	Previously Approved Parking/Driveway Areas (PR-1A)
441,090	30	Woods, Good, HSG A (EX-1, PR-1B)
146,697	55	Woods, Good, HSG B (EX-1, PR-1B)
968,430	**57**	**TOTAL AREA**

Summary for Subcatchment EX-1: Drainage Area 1

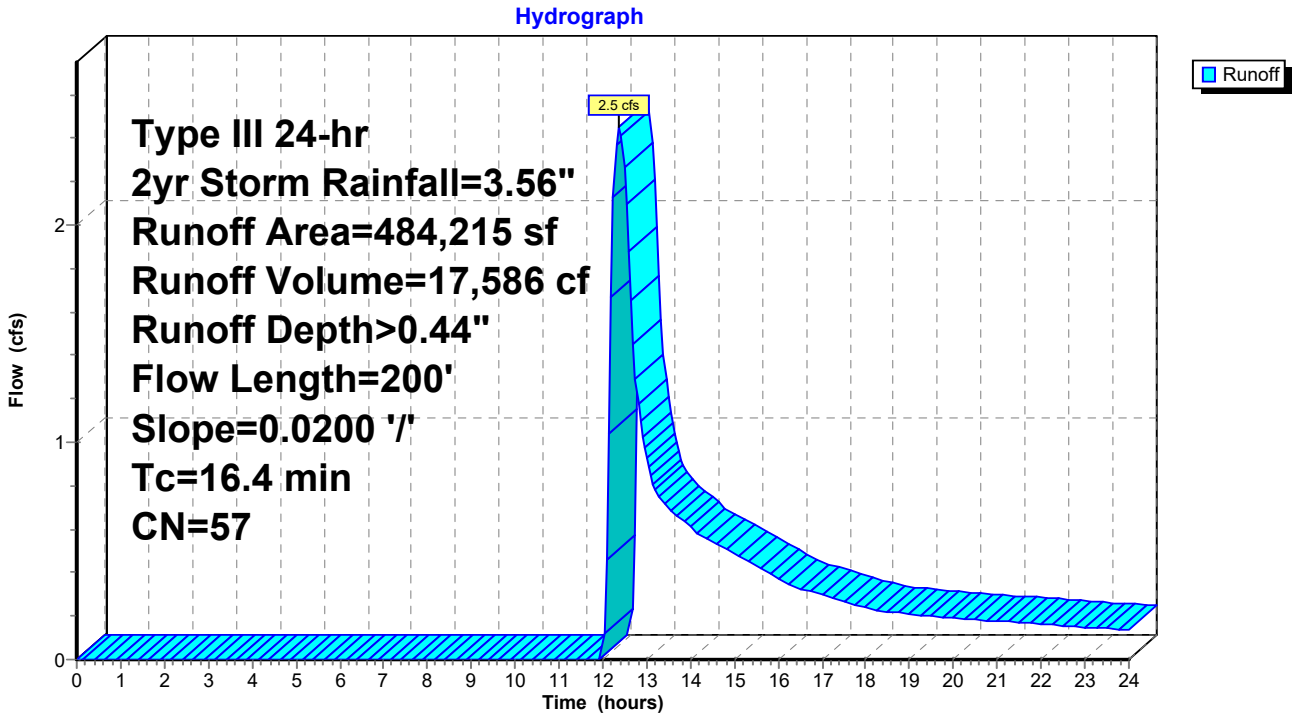
Runoff = 2.5 cfs @ 12.37 hrs, Volume= 17,586 cf, Depth> 0.44"
Routed to Link EX POC-1 : Existing Southern Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2yr Storm Rainfall=3.56"

	Area (sf)	CN	Description
*	22,158	98	Existing Buildings
*	120,419	98	Existing Parking/Driveway Areas
*	1,455	98	Existing Walks & Stairs
	42,983	61	>75% Grass cover, Good, HSG B
	221,097	30	Woods, Good, HSG A
	76,103	55	Woods, Good, HSG B
	484,215	57	Weighted Average
	340,183		70.25% Pervious Area
	144,032		29.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	200	0.0200	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.48"

Subcatchment EX-1: Drainage Area 1



Summary for Subcatchment PR-1A: Drainage Area 1

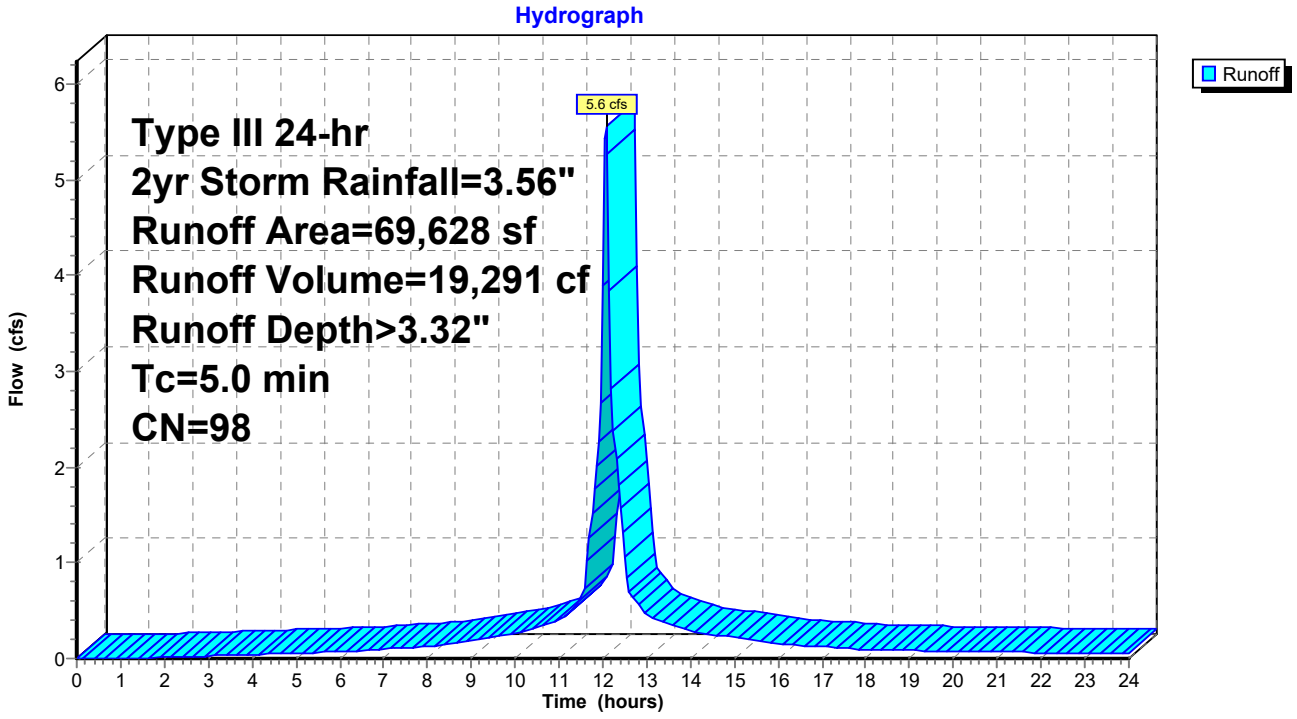
Runoff = 5.6 cfs @ 12.07 hrs, Volume= 19,291 cf, Depth> 3.32"
Routed to Pond INF-1 : Conc. Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2yr Storm Rainfall=3.56"

	Area (sf)	CN	Description
*	65,485	98	Existing Parking/Driveway Areas
*	4,143	98	Previously Approved Parking/Driveway Areas
	69,628	98	Weighted Average
	69,628		100.00% Impervious Area

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

Subcatchment PR-1A: Drainage Area 1



Summary for Subcatchment PR-1B: Drainage Area 1

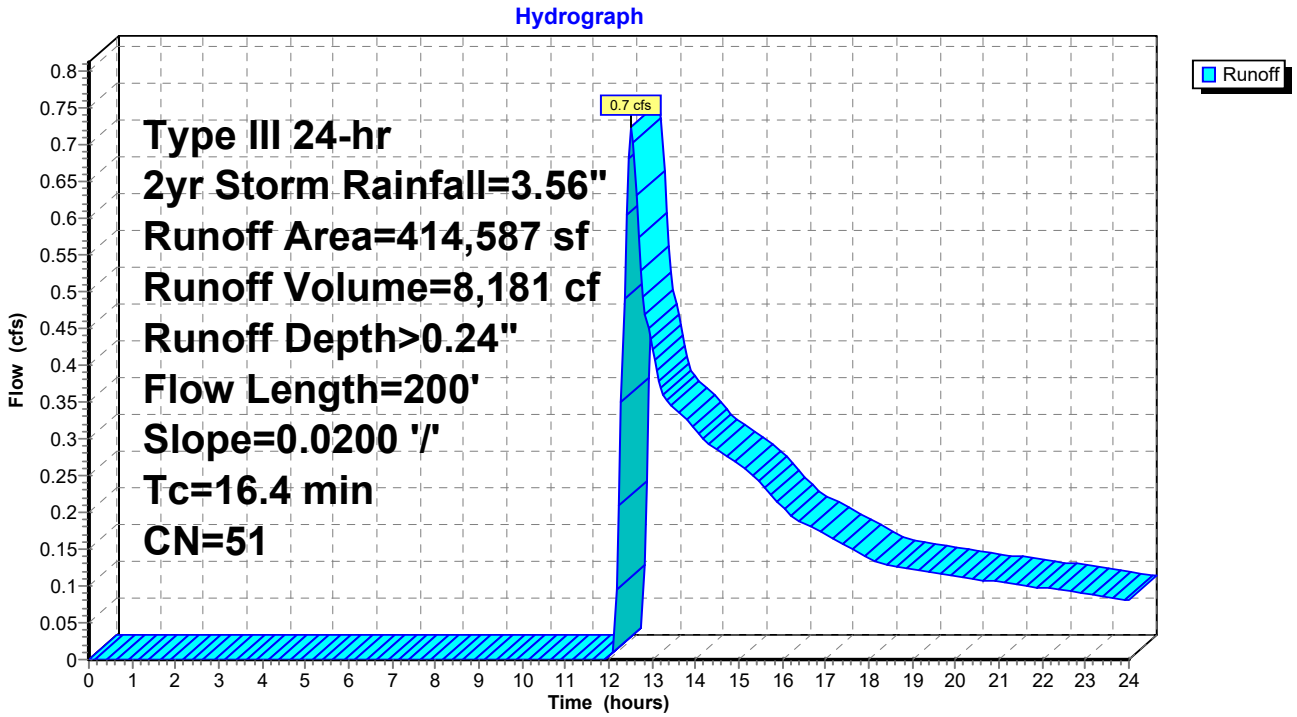
Runoff = 0.7 cfs @ 12.52 hrs, Volume= 8,181 cf, Depth> 0.24"
Routed to Link PR POC-1 : Existing Southern Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2yr Storm Rainfall=3.56"

	Area (sf)	CN	Description
*	22,158	98	Existing Buildings
*	54,934	98	Existing Parking/Driveway Areas
*	1,455	98	Existing Walks & Stairs
	45,453	61	>75% Grass cover, Good, HSG B
	219,993	30	Woods, Good, HSG A
	70,594	55	Woods, Good, HSG B
	414,587	51	Weighted Average
	336,040		81.05% Pervious Area
	78,547		18.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	200	0.0200	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.48"

Subcatchment PR-1B: Drainage Area 1



Summary for Pond INF-1: Conc. Galleries

Inflow Area = 69,628 sf,100.00% Impervious, Inflow Depth > 3.32" for 2yr Storm event
Inflow = 5.6 cfs @ 12.07 hrs, Volume= 19,291 cf
Outflow = 0.6 cfs @ 11.60 hrs, Volume= 19,279 cf, Atten= 88%, Lag= 0.0 min
Discarded = 0.6 cfs @ 11.60 hrs, Volume= 19,279 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link PR POC-1 : Existing Southern Wetlands

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 194.25' @ 12.66 hrs Surf.Area= 9,248 sf Storage= 6,078 cf

Plug-Flow detention time= 61.2 min calculated for 19,239 cf (100% of inflow)
Center-of-Mass det. time= 60.7 min (813.6 - 753.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	193.45'	74 cf	**68.00'W x 136.00'L x 2.00'H Field A** 18,496 cf Overall - 18,311 cf Embedded = 185 cf x 40.0% Voids
#2A	193.45'	13,092 cf	**Concrete Galley 4x8x2** x 289 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf 289 Chambers in 17 Rows
		13,166 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	195.50'	**24.0" x 24.0" Horiz. Catch Basin Overflow** C= 0.600 Limited to weir flow at low heads
#2	Discarded	193.45'	**3.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.6 cfs @ 11.60 hrs HW=193.47' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.6 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=193.45' (Free Discharge)
↑—**1=Catch Basin Overflow** (Controls 0.0 cfs)

Pond INF-1: Conc. Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

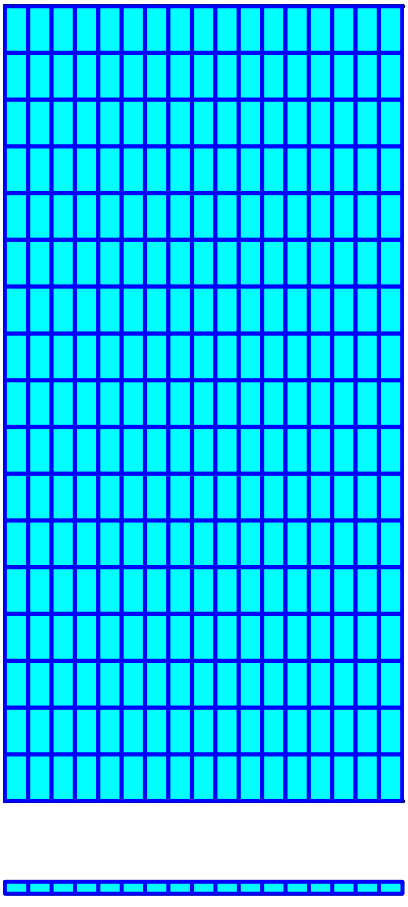
17 Chambers/Row x 8.00' Long = 136.00' Row Length
17 Rows x 48.0" Wide = 68.00' Base Width
24.0" Chamber Height = 2.00' Field Height

289 Chambers x 45.3 cf = 13,091.7 cf Chamber Storage
289 Chambers x 63.4 cf = 18,311.0 cf Displacement

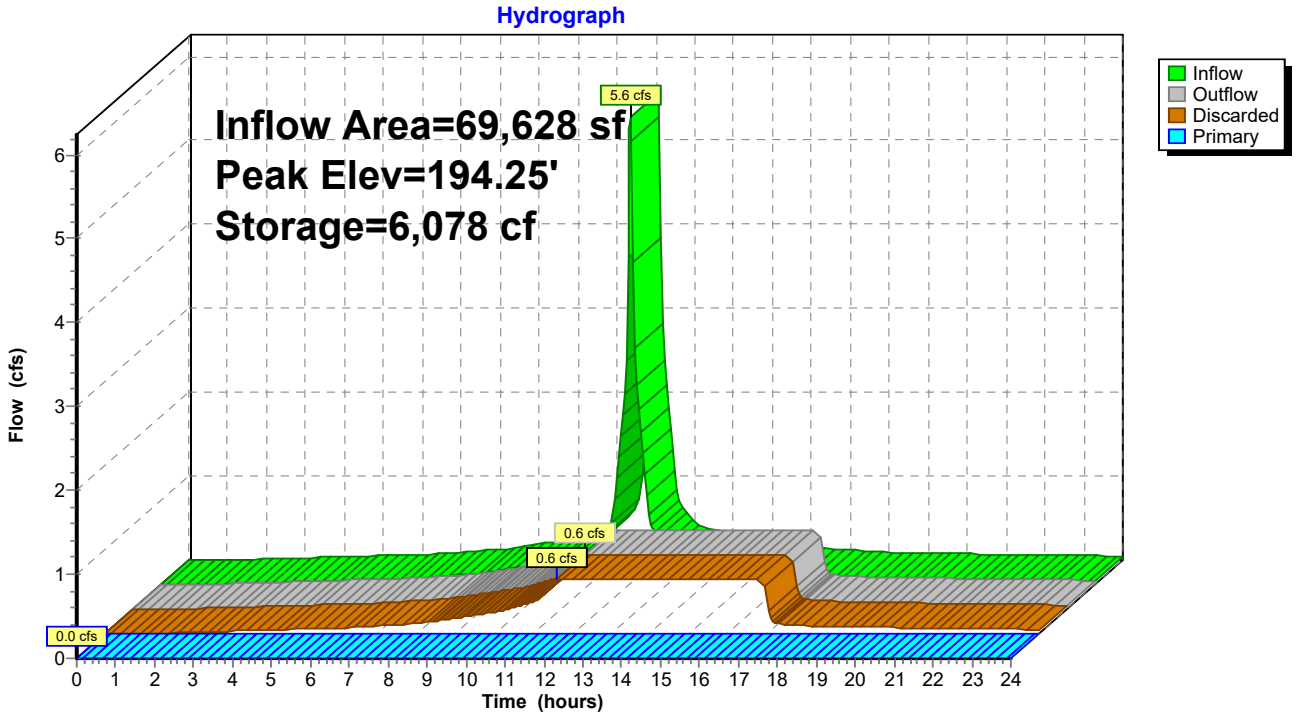
18,496.0 cf Field - 18,311.0 cf Chambers = 185.0 cf Stone x 40.0% Voids = 74.0 cf Stone Storage

Chamber Storage + Stone Storage = 13,165.7 cf = 0.302 af
Overall Storage Efficiency = 71.2%
Overall System Size = 136.00' x 68.00' x 2.00'

289 Chambers
685.0 cy Field
6.9 cy Stone



Pond INF-1: Conc. Galleries

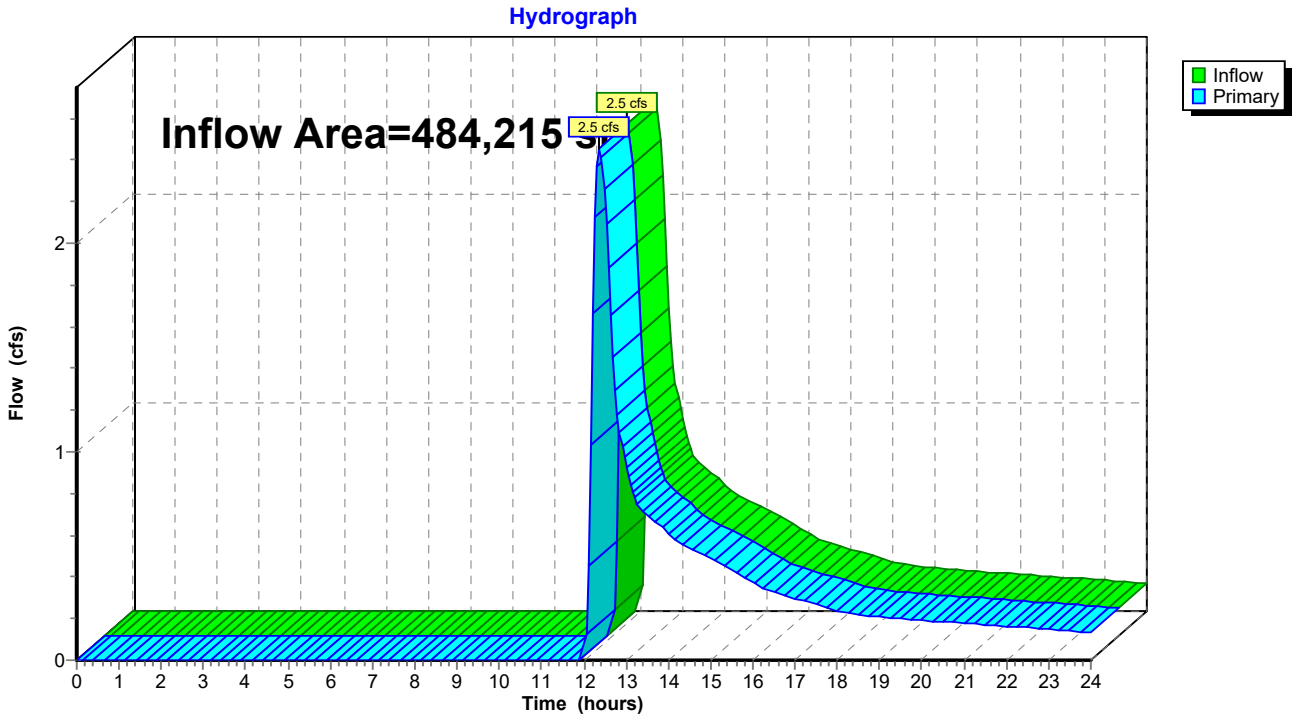


Summary for Link EX POC-1: Existing Southern Wetlands

Inflow Area = 484,215 sf, 29.75% Impervious, Inflow Depth > 0.44" for 2yr Storm event
Inflow = 2.5 cfs @ 12.37 hrs, Volume= 17,586 cf
Primary = 2.5 cfs @ 12.37 hrs, Volume= 17,586 cf, Atten= 0%, Lag= 0.0 min

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

Link EX POC-1: Existing Southern Wetlands

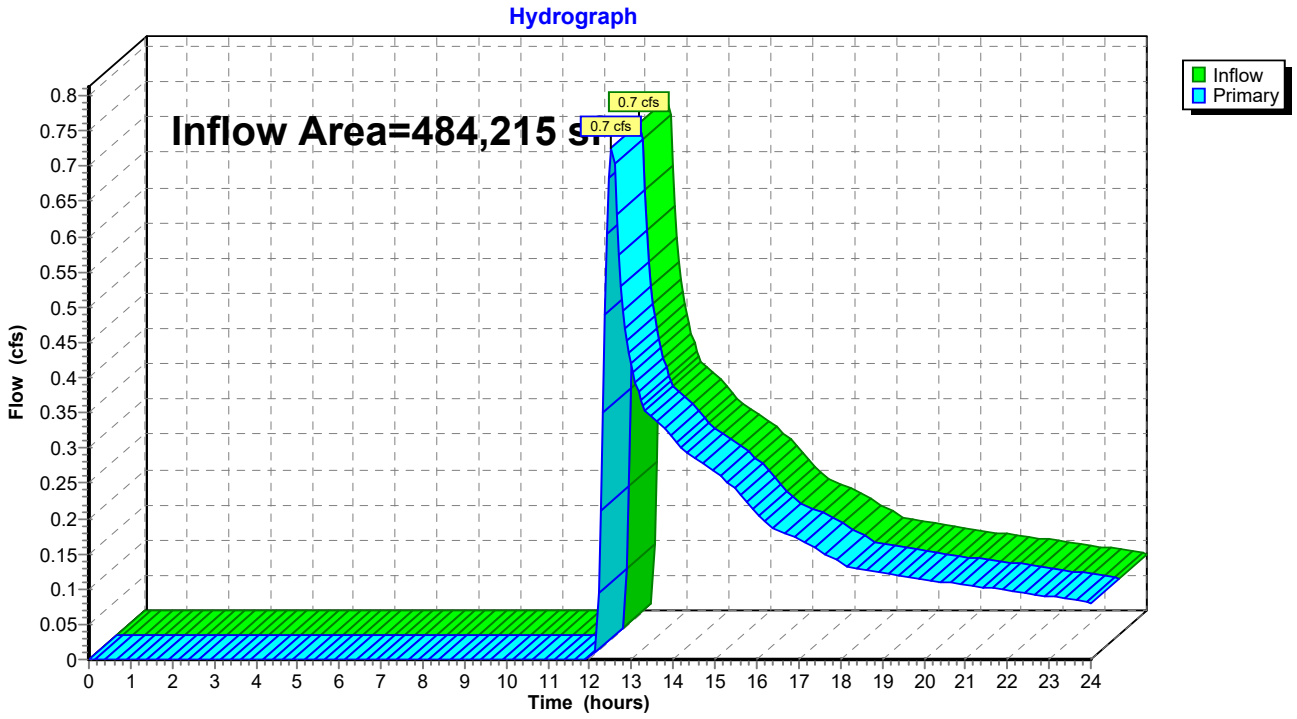


Summary for Link PR POC-1: Existing Southern Wetlands

Inflow Area = 484,215 sf, 30.60% Impervious, Inflow Depth > 0.20" for 2yr Storm event
Inflow = 0.7 cfs @ 12.52 hrs, Volume= 8,181 cf
Primary = 0.7 cfs @ 12.52 hrs, Volume= 8,181 cf, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 6L

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

Link PR POC-1: Existing Southern Wetlands



Summary for Subcatchment EX-1: Drainage Area 1

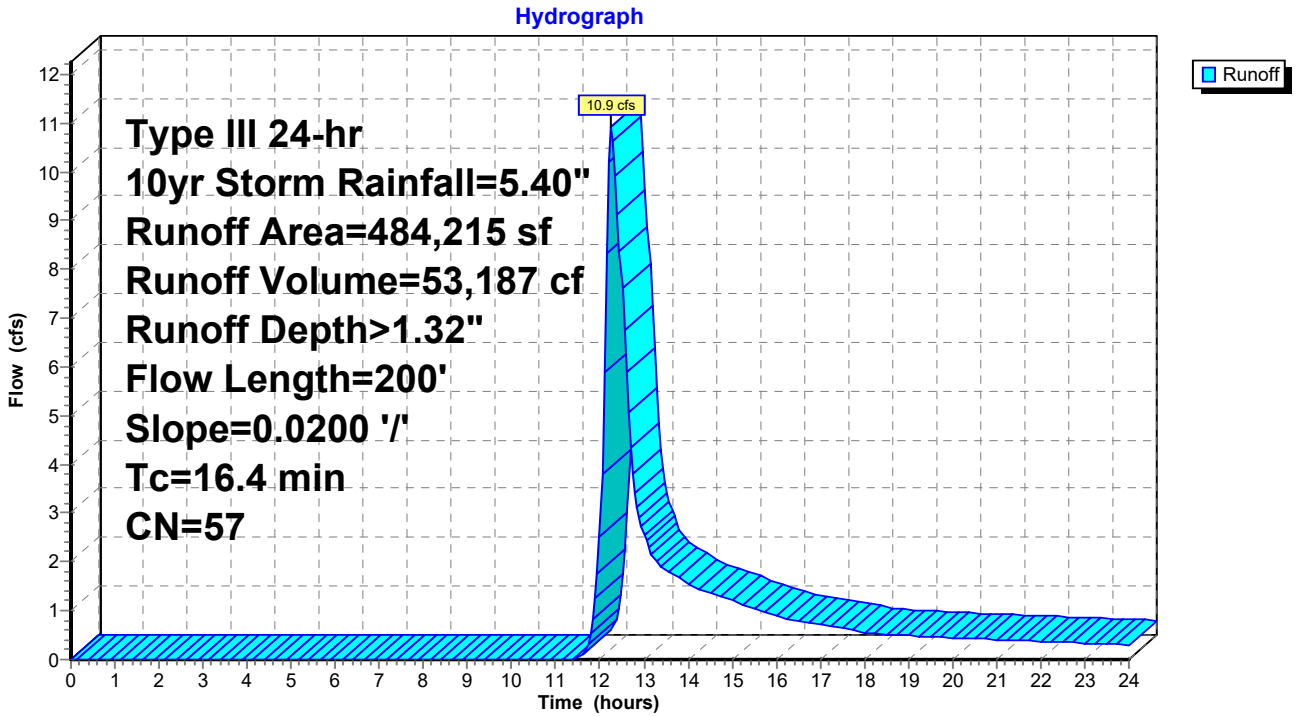
Runoff = 10.9 cfs @ 12.26 hrs, Volume= 53,187 cf, Depth> 1.32"
Routed to Link EX POC-1 : Existing Southern Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10yr Storm Rainfall=5.40"

	Area (sf)	CN	Description
*	22,158	98	Existing Buildings
*	120,419	98	Existing Parking/Driveway Areas
*	1,455	98	Existing Walks & Stairs
	42,983	61	>75% Grass cover, Good, HSG B
	221,097	30	Woods, Good, HSG A
	76,103	55	Woods, Good, HSG B
	484,215	57	Weighted Average
	340,183		70.25% Pervious Area
	144,032		29.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	200	0.0200	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.48"

Subcatchment EX-1: Drainage Area 1



Summary for Subcatchment PR-1A: Drainage Area 1

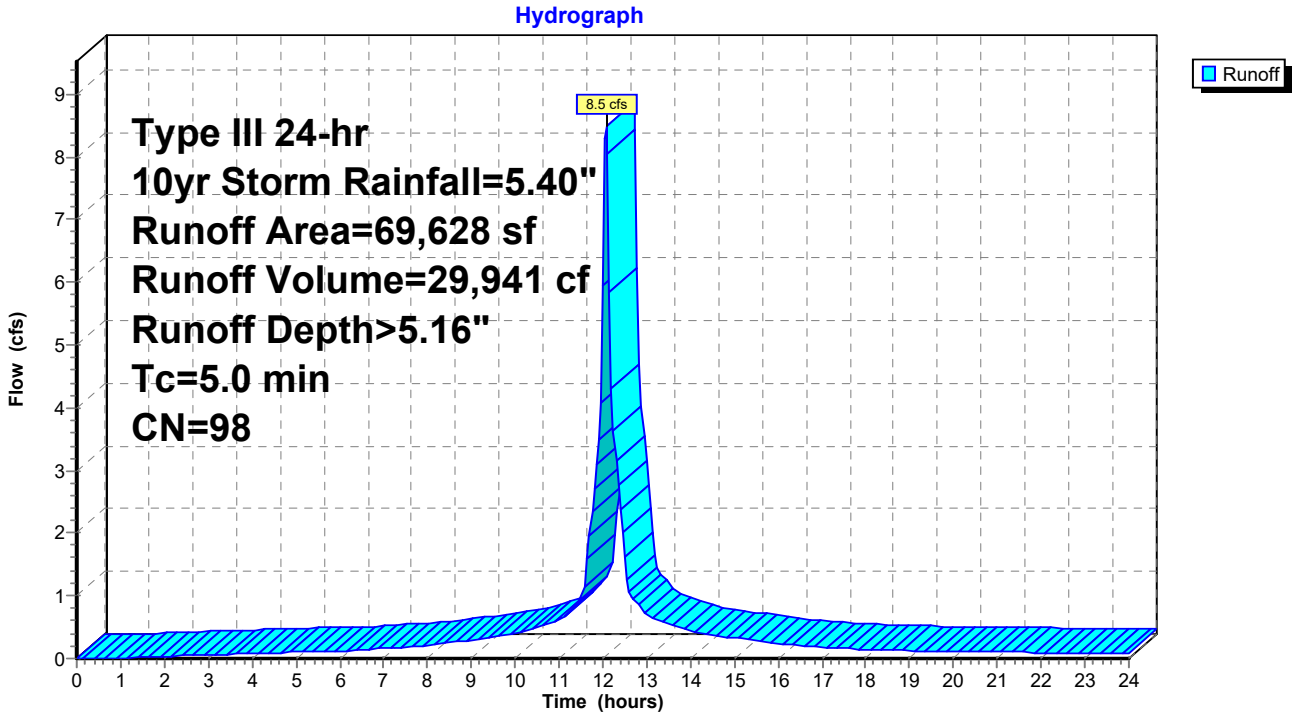
Runoff = 8.5 cfs @ 12.07 hrs, Volume= 29,941 cf, Depth> 5.16"
Routed to Pond INF-1 : Conc. Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10yr Storm Rainfall=5.40"

	Area (sf)	CN	Description
*	65,485	98	Existing Parking/Driveway Areas
*	4,143	98	Previously Approved Parking/Driveway Areas
	69,628	98	Weighted Average
	69,628		100.00% Impervious Area

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

Subcatchment PR-1A: Drainage Area 1



Summary for Subcatchment PR-1B: Drainage Area 1

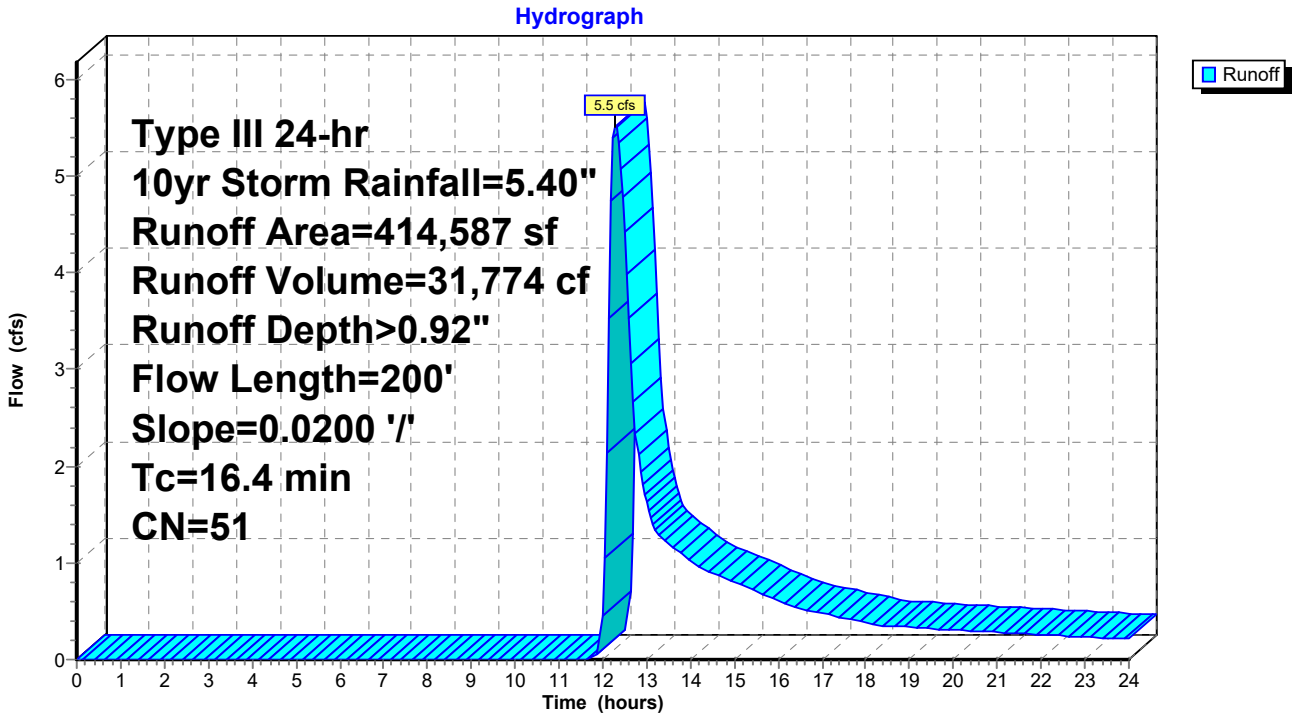
Runoff = 5.5 cfs @ 12.30 hrs, Volume= 31,774 cf, Depth> 0.92"
Routed to Link PR POC-1 : Existing Southern Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10yr Storm Rainfall=5.40"

	Area (sf)	CN	Description
*	22,158	98	Existing Buildings
*	54,934	98	Existing Parking/Driveway Areas
*	1,455	98	Existing Walks & Stairs
	45,453	61	>75% Grass cover, Good, HSG B
	219,993	30	Woods, Good, HSG A
	70,594	55	Woods, Good, HSG B
	414,587	51	Weighted Average
	336,040		81.05% Pervious Area
	78,547		18.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	200	0.0200	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.48"

Subcatchment PR-1B: Drainage Area 1



Summary for Pond INF-1: Conc. Galleries

Inflow Area = 69,628 sf,100.00% Impervious, Inflow Depth > 5.16" for 10yr Storm event
Inflow = 8.5 cfs @ 12.07 hrs, Volume= 29,941 cf
Outflow = 0.6 cfs @ 11.15 hrs, Volume= 29,922 cf, Atten= 92%, Lag= 0.0 min
Discarded = 0.6 cfs @ 11.15 hrs, Volume= 29,922 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link PR POC-1 : Existing Southern Wetlands

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 194.90' @ 13.08 hrs Surf.Area= 9,248 sf Storage= 11,089 cf

Plug-Flow detention time= 125.6 min calculated for 29,922 cf (100% of inflow)
Center-of-Mass det. time= 125.1 min (870.7 - 745.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	193.45'	74 cf	**68.00'W x 136.00'L x 2.00'H Field A** 18,496 cf Overall - 18,311 cf Embedded = 185 cf x 40.0% Voids
#2A	193.45'	13,092 cf	**Concrete Galley 4x8x2** x 289 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf 289 Chambers in 17 Rows
		13,166 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	195.50'	**24.0" x 24.0" Horiz. Catch Basin Overflow** C= 0.600 Limited to weir flow at low heads
#2	Discarded	193.45'	**3.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.6 cfs @ 11.15 hrs HW=193.47' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.6 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=193.45' (Free Discharge)
↑—**1=Catch Basin Overflow** (Controls 0.0 cfs)

Pond INF-1: Conc. Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

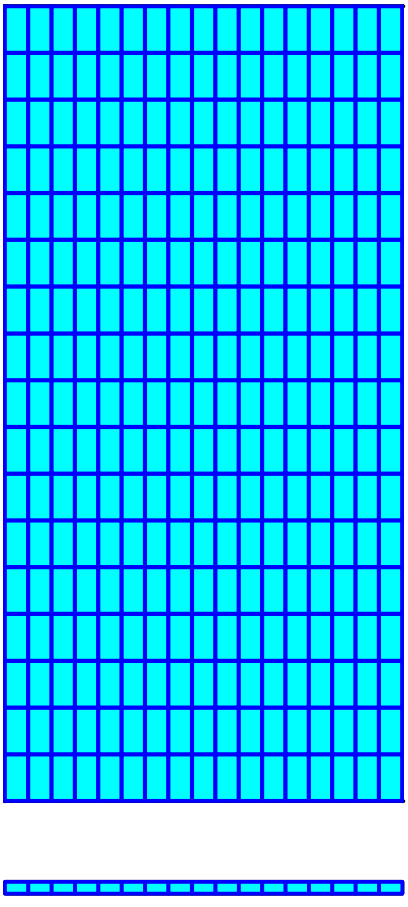
17 Chambers/Row x 8.00' Long = 136.00' Row Length
17 Rows x 48.0" Wide = 68.00' Base Width
24.0" Chamber Height = 2.00' Field Height

289 Chambers x 45.3 cf = 13,091.7 cf Chamber Storage
289 Chambers x 63.4 cf = 18,311.0 cf Displacement

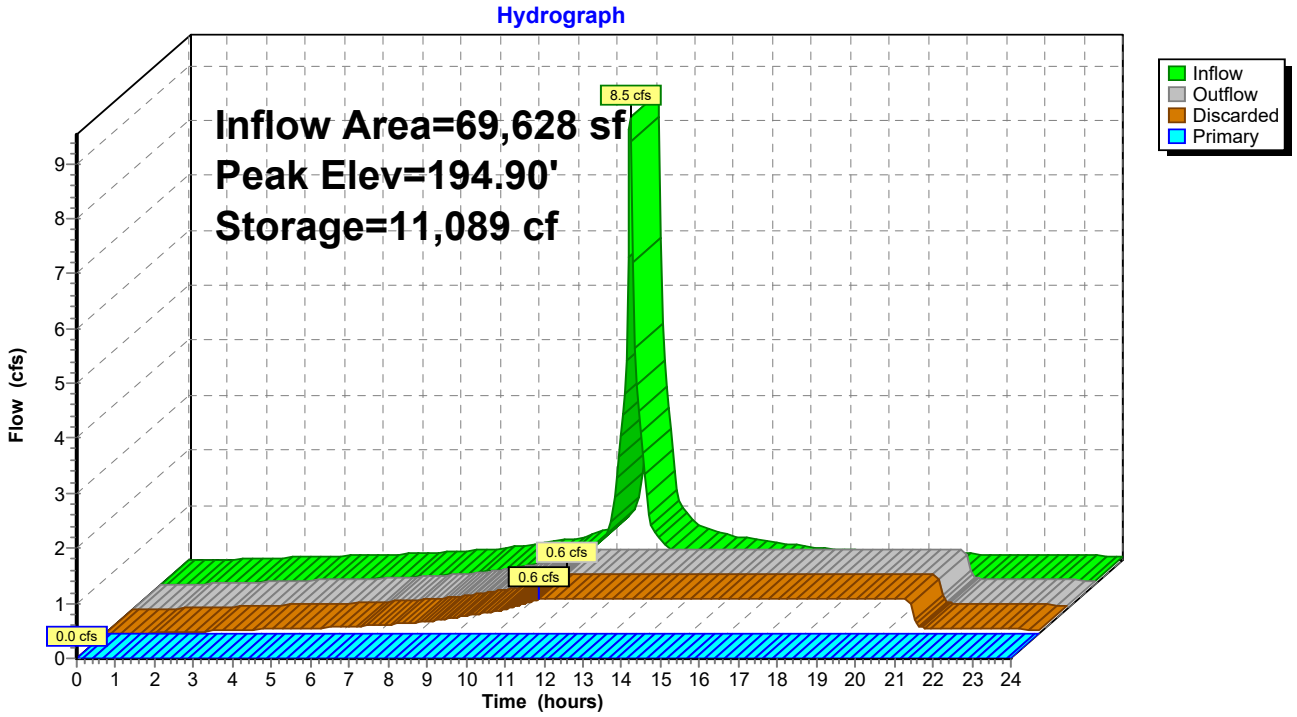
18,496.0 cf Field - 18,311.0 cf Chambers = 185.0 cf Stone x 40.0% Voids = 74.0 cf Stone Storage

Chamber Storage + Stone Storage = 13,165.7 cf = 0.302 af
Overall Storage Efficiency = 71.2%
Overall System Size = 136.00' x 68.00' x 2.00'

289 Chambers
685.0 cy Field
6.9 cy Stone



Pond INF-1: Conc. Galleries

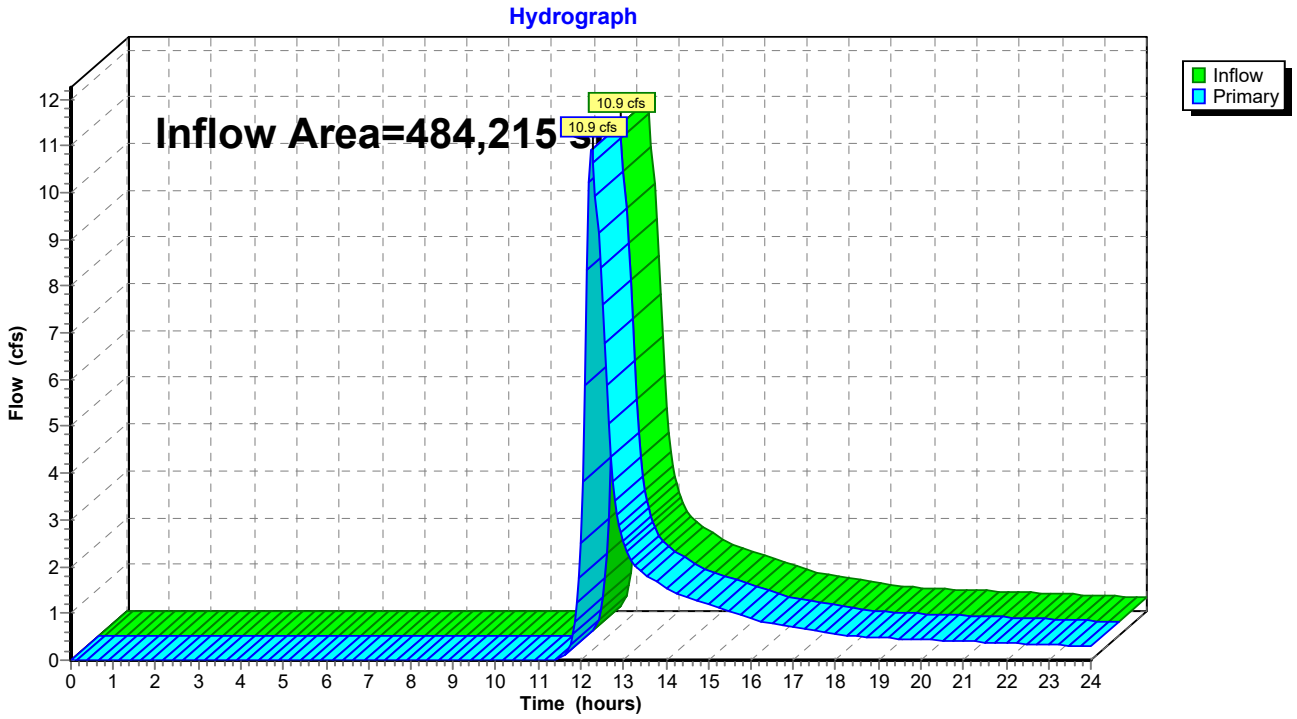


Summary for Link EX POC-1: Existing Southern Wetlands

Inflow Area = 484,215 sf, 29.75% Impervious, Inflow Depth > 1.32" for 10yr Storm event
Inflow = 10.9 cfs @ 12.26 hrs, Volume= 53,187 cf
Primary = 10.9 cfs @ 12.26 hrs, Volume= 53,187 cf, Atten= 0%, Lag= 0.0 min

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

Link EX POC-1: Existing Southern Wetlands

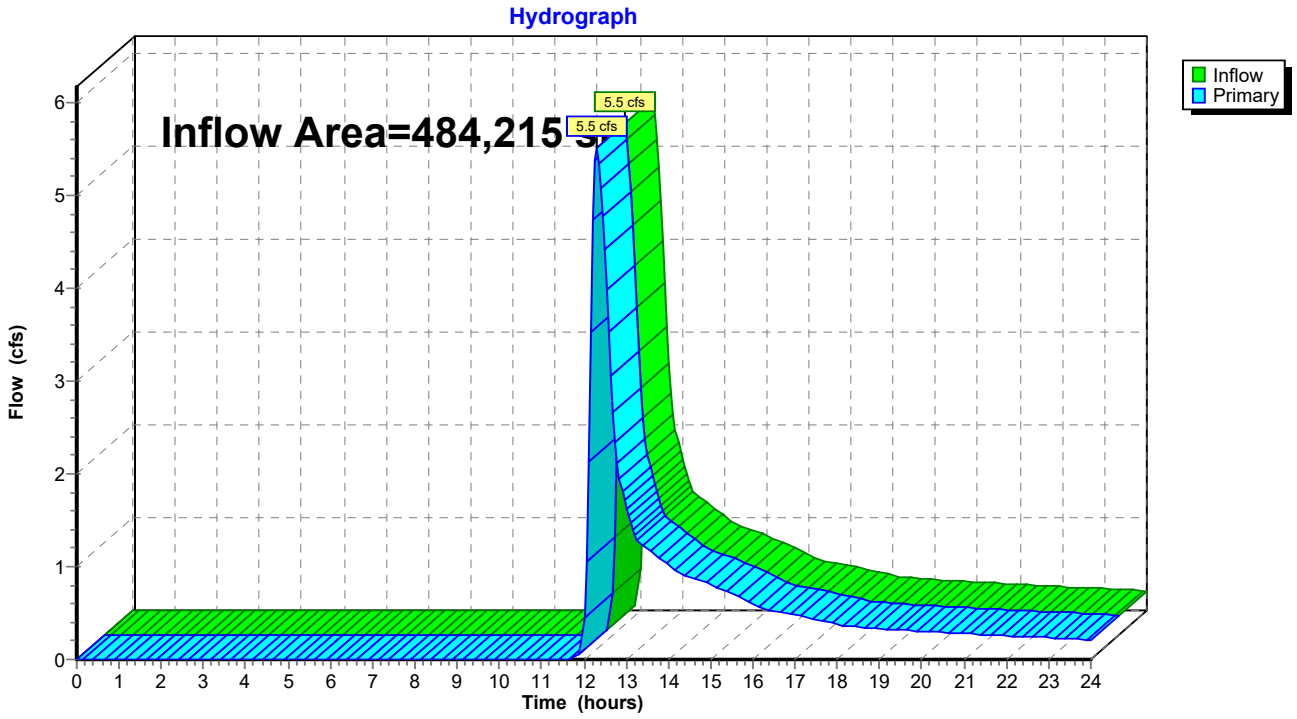


Summary for Link PR POC-1: Existing Southern Wetlands

Inflow Area = 484,215 sf, 30.60% Impervious, Inflow Depth > 0.79" for 10yr Storm event
Inflow = 5.5 cfs @ 12.30 hrs, Volume= 31,774 cf
Primary = 5.5 cfs @ 12.30 hrs, Volume= 31,774 cf, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 6L

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

Link PR POC-1: Existing Southern Wetlands



Summary for Subcatchment EX-1: Drainage Area 1

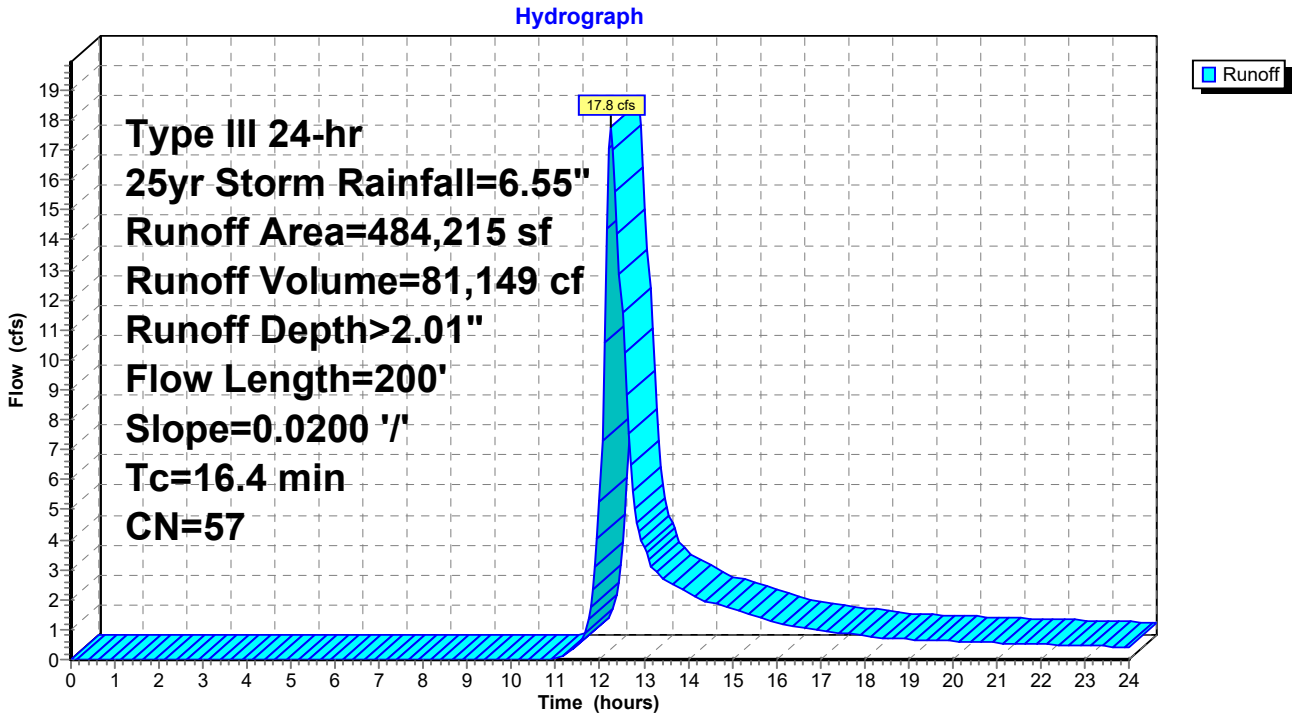
Runoff = 17.8 cfs @ 12.25 hrs, Volume= 81,149 cf, Depth> 2.01"
Routed to Link EX POC-1 : Existing Southern Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25yr Storm Rainfall=6.55"

	Area (sf)	CN	Description
*	22,158	98	Existing Buildings
*	120,419	98	Existing Parking/Driveway Areas
*	1,455	98	Existing Walks & Stairs
	42,983	61	>75% Grass cover, Good, HSG B
	221,097	30	Woods, Good, HSG A
	76,103	55	Woods, Good, HSG B
	484,215	57	Weighted Average
	340,183		70.25% Pervious Area
	144,032		29.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	200	0.0200	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.48"

Subcatchment EX-1: Drainage Area 1



Summary for Subcatchment PR-1A: Drainage Area 1

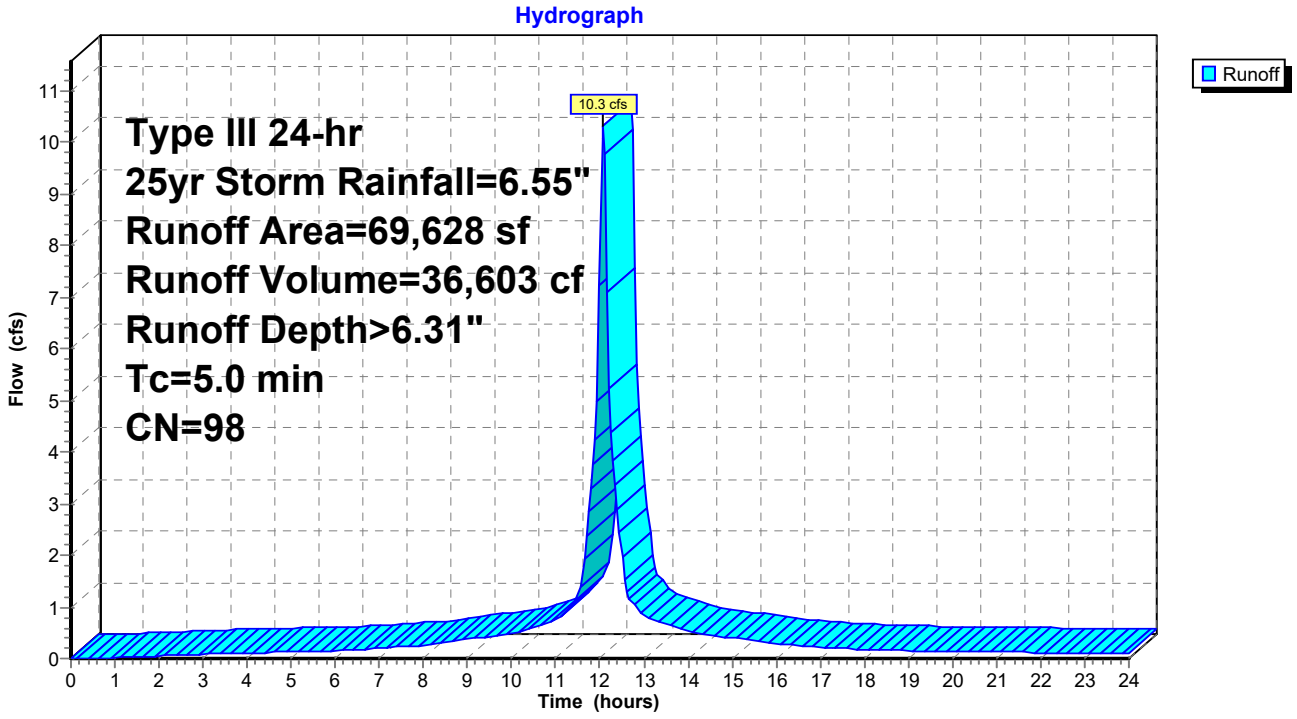
Runoff = 10.3 cfs @ 12.07 hrs, Volume= 36,603 cf, Depth> 6.31"
Routed to Pond INF-1 : Conc. Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25yr Storm Rainfall=6.55"

	Area (sf)	CN	Description
*	65,485	98	Existing Parking/Driveway Areas
*	4,143	98	Previously Approved Parking/Driveway Areas
	69,628	98	Weighted Average
	69,628		100.00% Impervious Area

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

Subcatchment PR-1A: Drainage Area 1



Summary for Subcatchment PR-1B: Drainage Area 1

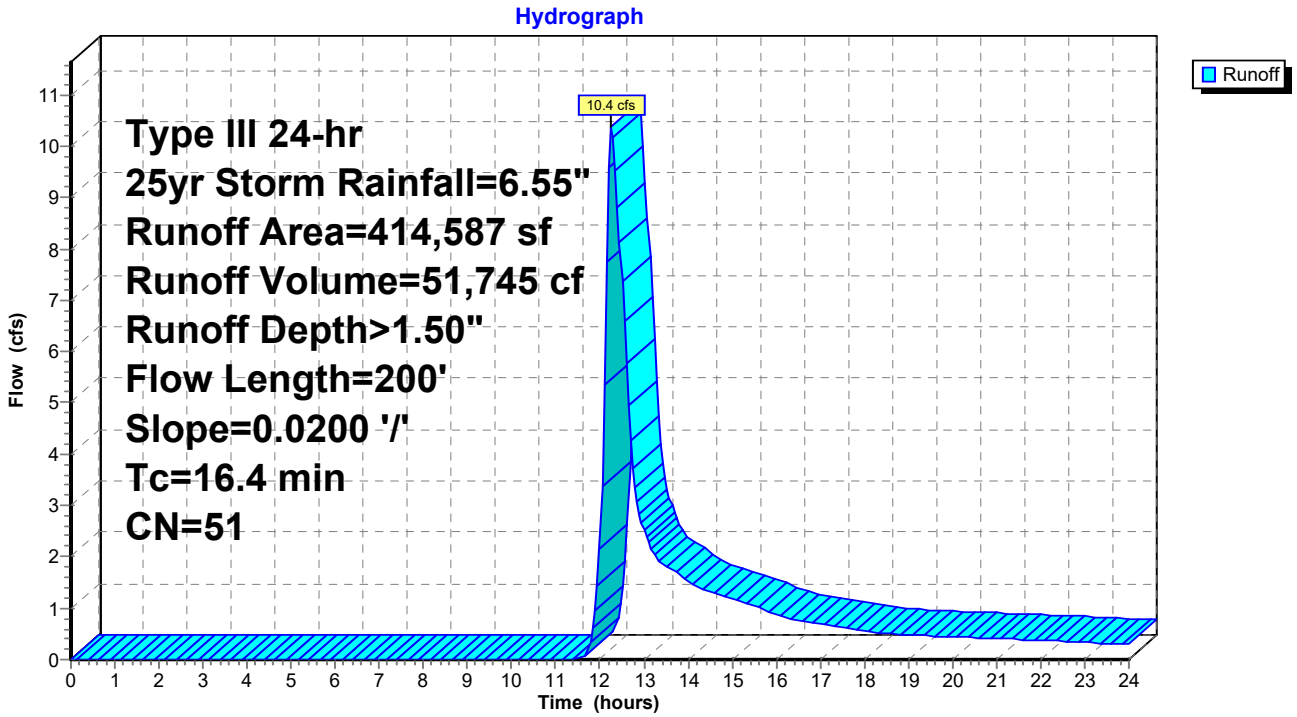
Runoff = 10.4 cfs @ 12.26 hrs, Volume= 51,745 cf, Depth> 1.50"
Routed to Link PR POC-1 : Existing Southern Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25yr Storm Rainfall=6.55"

	Area (sf)	CN	Description
*	22,158	98	Existing Buildings
*	54,934	98	Existing Parking/Driveway Areas
*	1,455	98	Existing Walks & Stairs
	45,453	61	>75% Grass cover, Good, HSG B
	219,993	30	Woods, Good, HSG A
	70,594	55	Woods, Good, HSG B
	414,587	51	Weighted Average
	336,040		81.05% Pervious Area
	78,547		18.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	200	0.0200	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.48"

Subcatchment PR-1B: Drainage Area 1



Summary for Pond INF-1: Conc. Galleries

Inflow Area = 69,628 sf,100.00% Impervious, Inflow Depth > 6.31" for 25yr Storm event
Inflow = 10.3 cfs @ 12.07 hrs, Volume= 36,603 cf
Outflow = 3.7 cfs @ 12.47 hrs, Volume= 37,943 cf, Atten= 64%, Lag= 23.9 min
Discarded = 0.6 cfs @ 10.70 hrs, Volume= 35,085 cf
Primary = 3.1 cfs @ 12.47 hrs, Volume= 2,858 cf
Routed to Link PR POC-1 : Existing Southern Wetlands

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 195.79' @ 12.47 hrs Surf.Area= 9,248 sf Storage= 13,166 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 144.4 min (887.1 - 742.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	193.45'	74 cf	**68.00'W x 136.00'L x 2.00'H Field A** 18,496 cf Overall - 18,311 cf Embedded = 185 cf x 40.0% Voids
#2A	193.45'	13,092 cf	**Concrete Galley 4x8x2** x 289 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf 289 Chambers in 17 Rows
		13,166 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	195.50'	**24.0" x 24.0" Horiz. Catch Basin Overflow** C= 0.600 Limited to weir flow at low heads
#2	Discarded	193.45'	**3.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.6 cfs @ 10.70 hrs HW=193.47' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.6 cfs)

Primary OutFlow Max=2.7 cfs @ 12.47 hrs HW=195.72' (Free Discharge)
↑—**1=Catch Basin Overflow** (Weir Controls 2.7 cfs @ 1.54 fps)

Pond INF-1: Conc. Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

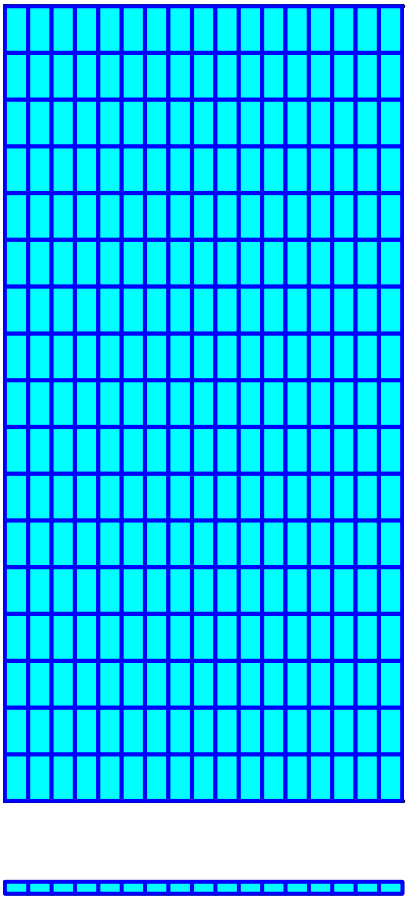
17 Chambers/Row x 8.00' Long = 136.00' Row Length
17 Rows x 48.0" Wide = 68.00' Base Width
24.0" Chamber Height = 2.00' Field Height

289 Chambers x 45.3 cf = 13,091.7 cf Chamber Storage
289 Chambers x 63.4 cf = 18,311.0 cf Displacement

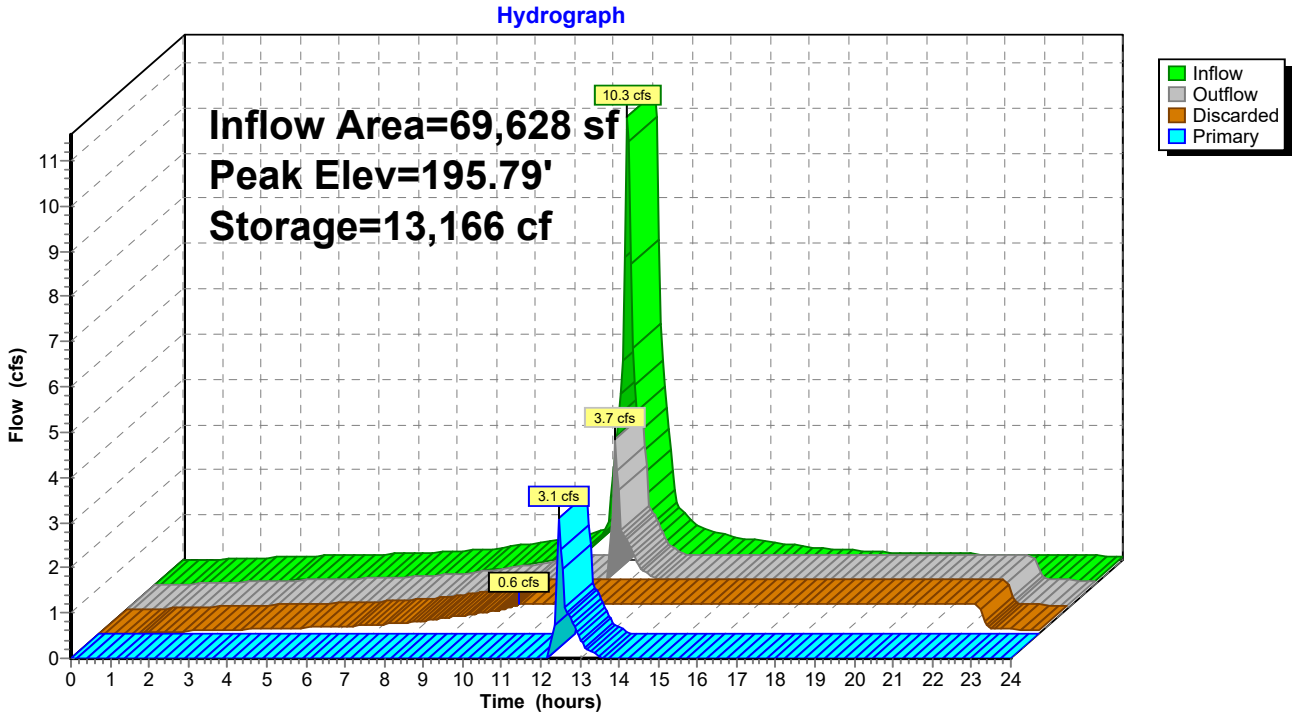
18,496.0 cf Field - 18,311.0 cf Chambers = 185.0 cf Stone x 40.0% Voids = 74.0 cf Stone Storage

Chamber Storage + Stone Storage = 13,165.7 cf = 0.302 af
Overall Storage Efficiency = 71.2%
Overall System Size = 136.00' x 68.00' x 2.00'

289 Chambers
685.0 cy Field
6.9 cy Stone



Pond INF-1: Conc. Galleries

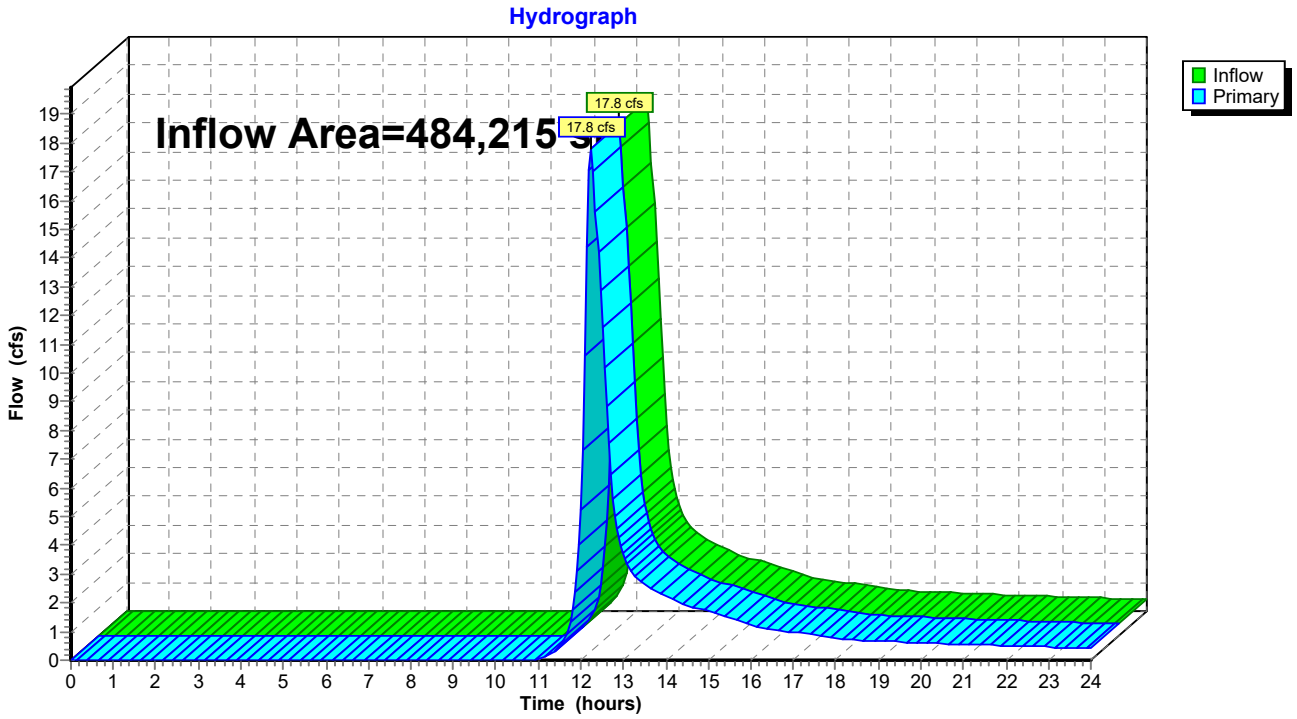


Summary for Link EX POC-1: Existing Southern Wetlands

Inflow Area = 484,215 sf, 29.75% Impervious, Inflow Depth > 2.01" for 25yr Storm event
Inflow = 17.8 cfs @ 12.25 hrs, Volume= 81,149 cf
Primary = 17.8 cfs @ 12.25 hrs, Volume= 81,149 cf, Atten= 0%, Lag= 0.0 min

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

Link EX POC-1: Existing Southern Wetlands

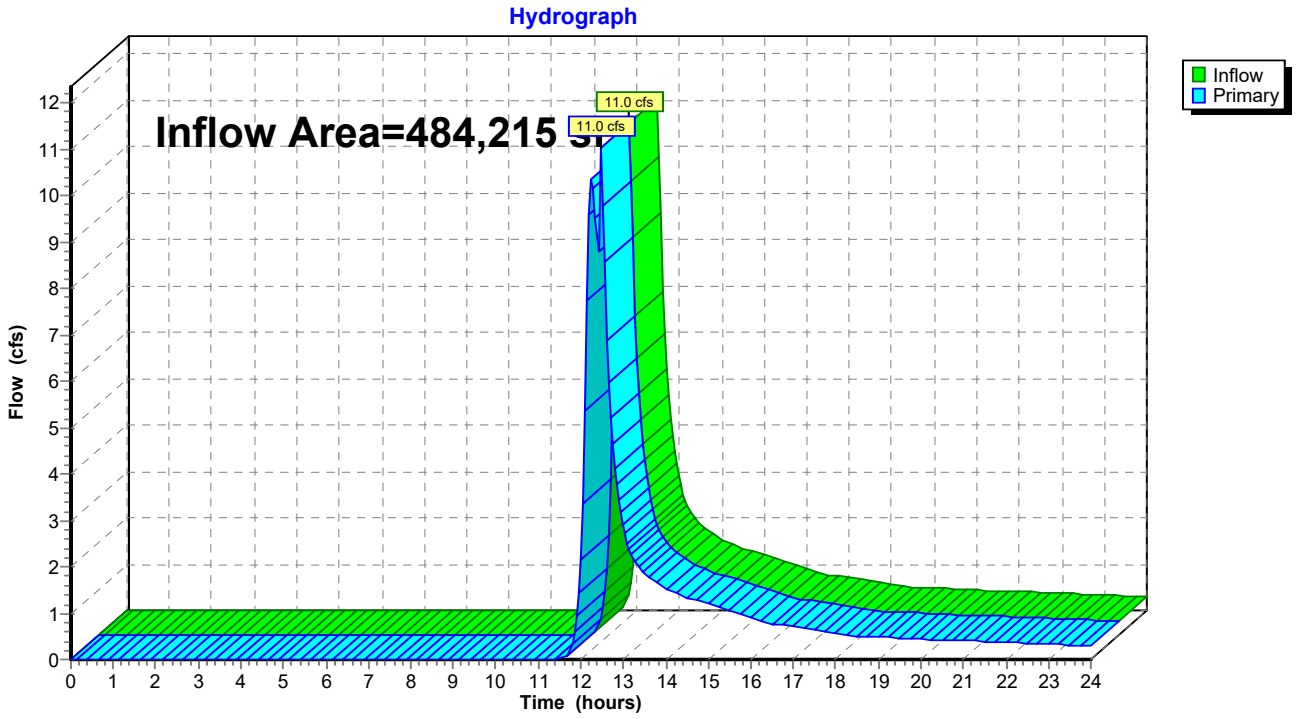


Summary for Link PR POC-1: Existing Southern Wetlands

Inflow Area = 484,215 sf, 30.60% Impervious, Inflow Depth > 1.35" for 25yr Storm event
Inflow = 11.0 cfs @ 12.46 hrs, Volume= 54,603 cf
Primary = 11.0 cfs @ 12.46 hrs, Volume= 54,603 cf, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 6L

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

Link PR POC-1: Existing Southern Wetlands



Summary for Subcatchment EX-1: Drainage Area 1

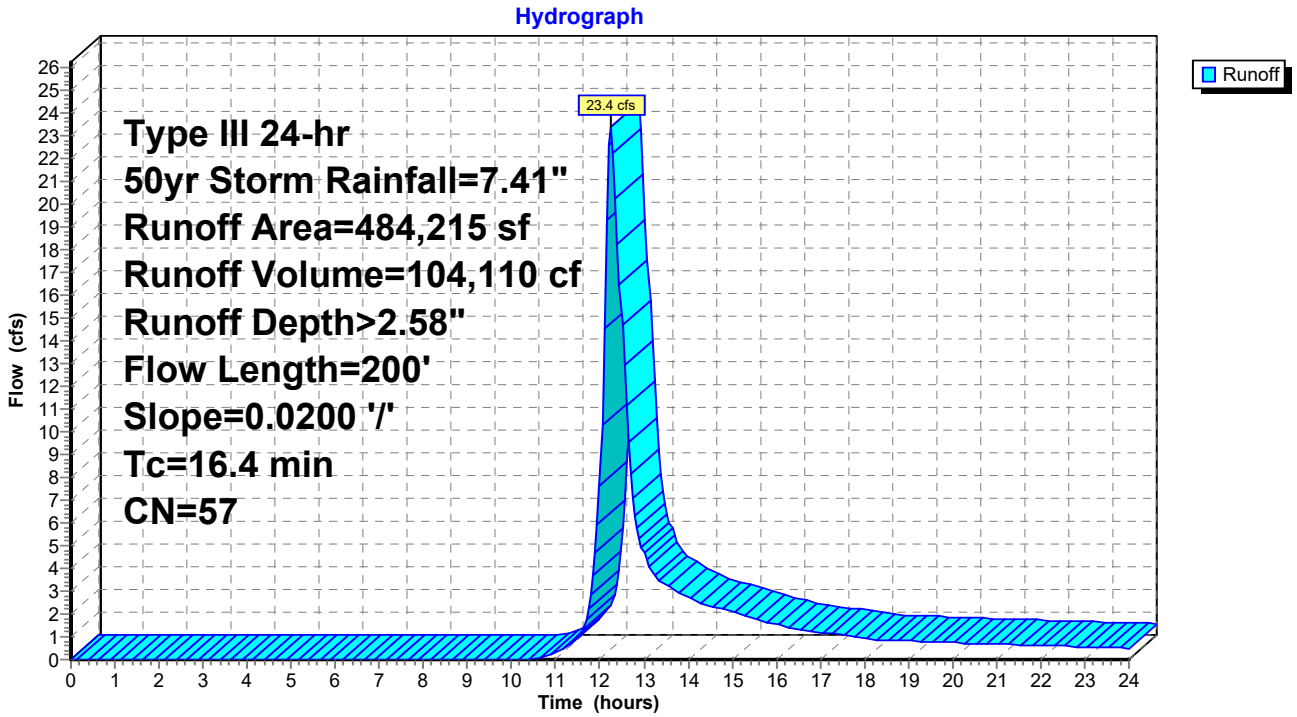
Runoff = 23.4 cfs @ 12.24 hrs, Volume= 104,110 cf, Depth> 2.58"
Routed to Link EX POC-1 : Existing Southern Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50yr Storm Rainfall=7.41"

	Area (sf)	CN	Description
*	22,158	98	Existing Buildings
*	120,419	98	Existing Parking/Driveway Areas
*	1,455	98	Existing Walks & Stairs
	42,983	61	>75% Grass cover, Good, HSG B
	221,097	30	Woods, Good, HSG A
	76,103	55	Woods, Good, HSG B
	484,215	57	Weighted Average
	340,183		70.25% Pervious Area
	144,032		29.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	200	0.0200	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.48"

Subcatchment EX-1: Drainage Area 1



Summary for Subcatchment PR-1A: Drainage Area 1

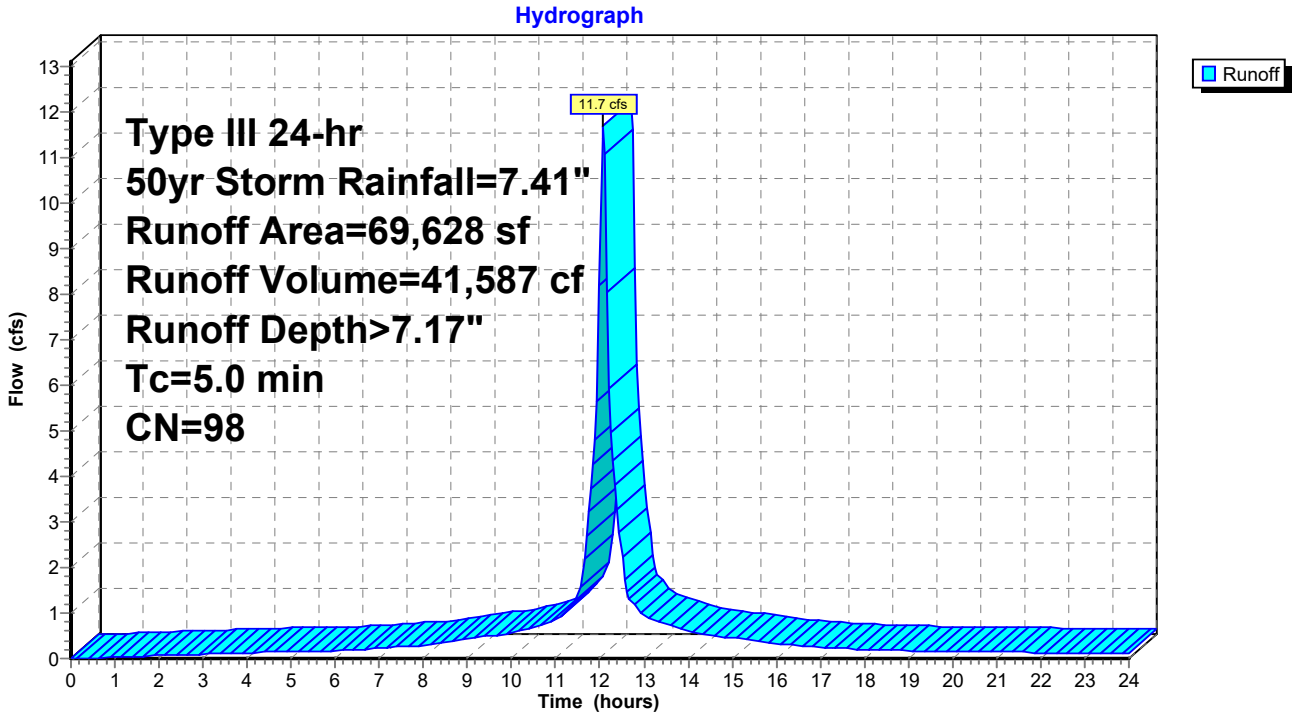
Runoff = 11.7 cfs @ 12.07 hrs, Volume= 41,587 cf, Depth> 7.17"
Routed to Pond INF-1 : Conc. Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50yr Storm Rainfall=7.41"

	Area (sf)	CN	Description
*	65,485	98	Existing Parking/Driveway Areas
*	4,143	98	Previously Approved Parking/Driveway Areas
	69,628	98	Weighted Average
	69,628		100.00% Impervious Area

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

Subcatchment PR-1A: Drainage Area 1



Summary for Subcatchment PR-1B: Drainage Area 1

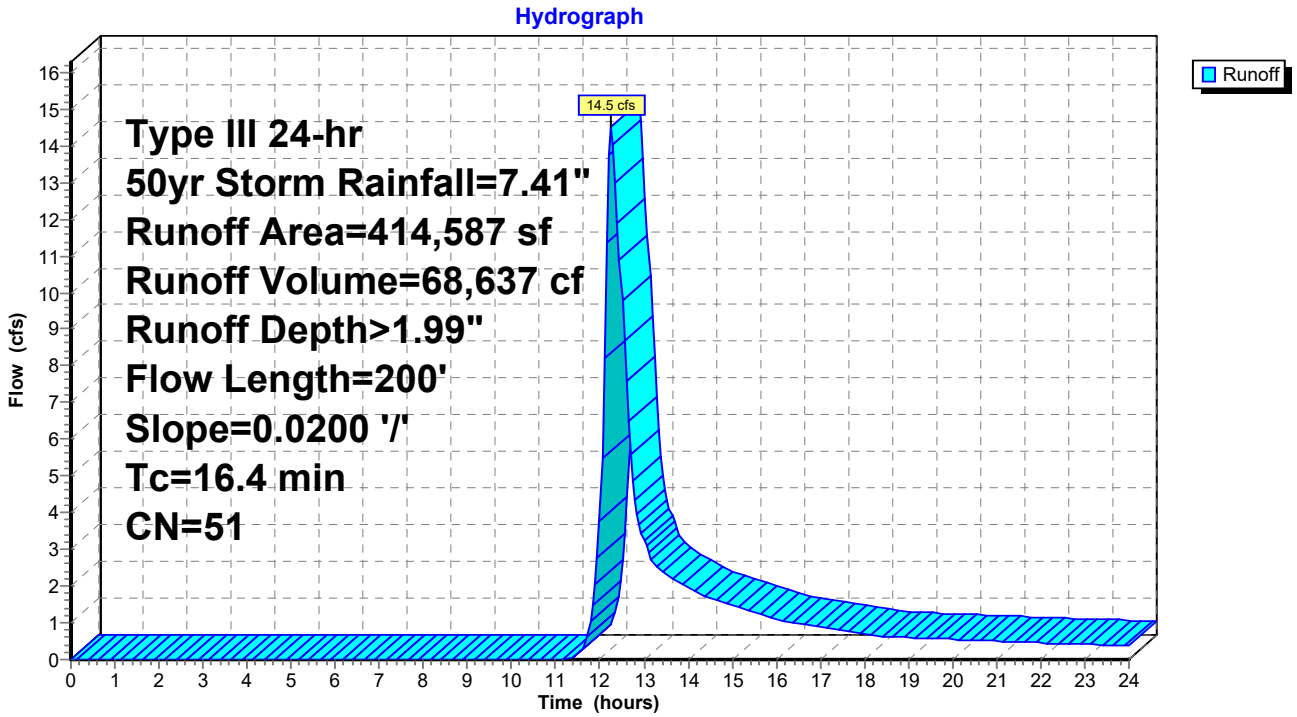
Runoff = 14.5 cfs @ 12.26 hrs, Volume= 68,637 cf, Depth> 1.99"
Routed to Link PR POC-1 : Existing Southern Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 50yr Storm Rainfall=7.41"

	Area (sf)	CN	Description
*	22,158	98	Existing Buildings
*	54,934	98	Existing Parking/Driveway Areas
*	1,455	98	Existing Walks & Stairs
	45,453	61	>75% Grass cover, Good, HSG B
	219,993	30	Woods, Good, HSG A
	70,594	55	Woods, Good, HSG B
	414,587	51	Weighted Average
	336,040		81.05% Pervious Area
	78,547		18.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	200	0.0200	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.48"

Subcatchment PR-1B: Drainage Area 1



Summary for Pond INF-1: Conc. Galleries

Inflow Area = 69,628 sf,100.00% Impervious, Inflow Depth > 7.17" for 50yr Storm event
Inflow = 11.7 cfs @ 12.07 hrs, Volume= 41,587 cf
Outflow = 5.2 cfs @ 12.27 hrs, Volume= 41,321 cf, Atten= 55%, Lag= 11.9 min
Discarded = 0.6 cfs @ 10.40 hrs, Volume= 37,144 cf
Primary = 4.6 cfs @ 12.27 hrs, Volume= 4,176 cf
Routed to Link PR POC-1 : Existing Southern Wetlands

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 195.87' @ 12.27 hrs Surf.Area= 9,248 sf Storage= 13,166 cf

Plug-Flow detention time= 146.0 min calculated for 41,321 cf (99% of inflow)
Center-of-Mass det. time= 141.6 min (882.5 - 740.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	193.45'	74 cf	**68.00'W x 136.00'L x 2.00'H Field A** 18,496 cf Overall - 18,311 cf Embedded = 185 cf x 40.0% Voids
#2A	193.45'	13,092 cf	**Concrete Galley 4x8x2** x 289 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf 289 Chambers in 17 Rows
		13,166 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	195.50'	**24.0" x 24.0" Horiz. Catch Basin Overflow** C= 0.600 Limited to weir flow at low heads
#2	Discarded	193.45'	**3.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.6 cfs @ 10.40 hrs HW=193.47' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.6 cfs)

Primary OutFlow Max=4.0 cfs @ 12.27 hrs HW=195.79' (Free Discharge)
↑—**1=Catch Basin Overflow** (Weir Controls 4.0 cfs @ 1.75 fps)

Pond INF-1: Conc. Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

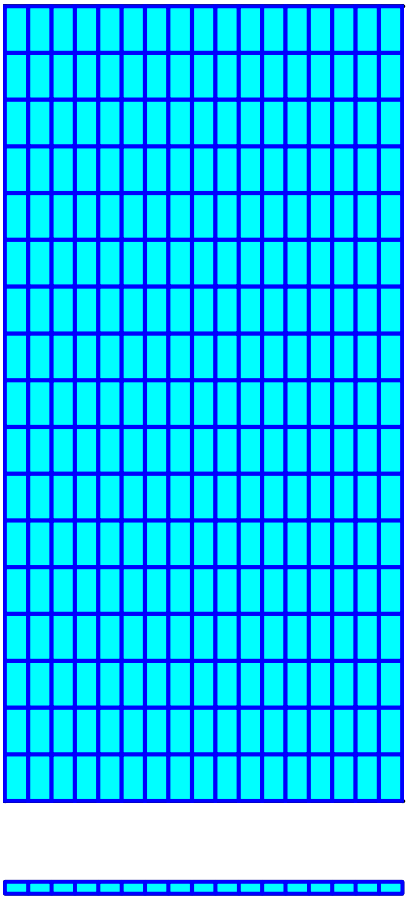
17 Chambers/Row x 8.00' Long = 136.00' Row Length
17 Rows x 48.0" Wide = 68.00' Base Width
24.0" Chamber Height = 2.00' Field Height

289 Chambers x 45.3 cf = 13,091.7 cf Chamber Storage
289 Chambers x 63.4 cf = 18,311.0 cf Displacement

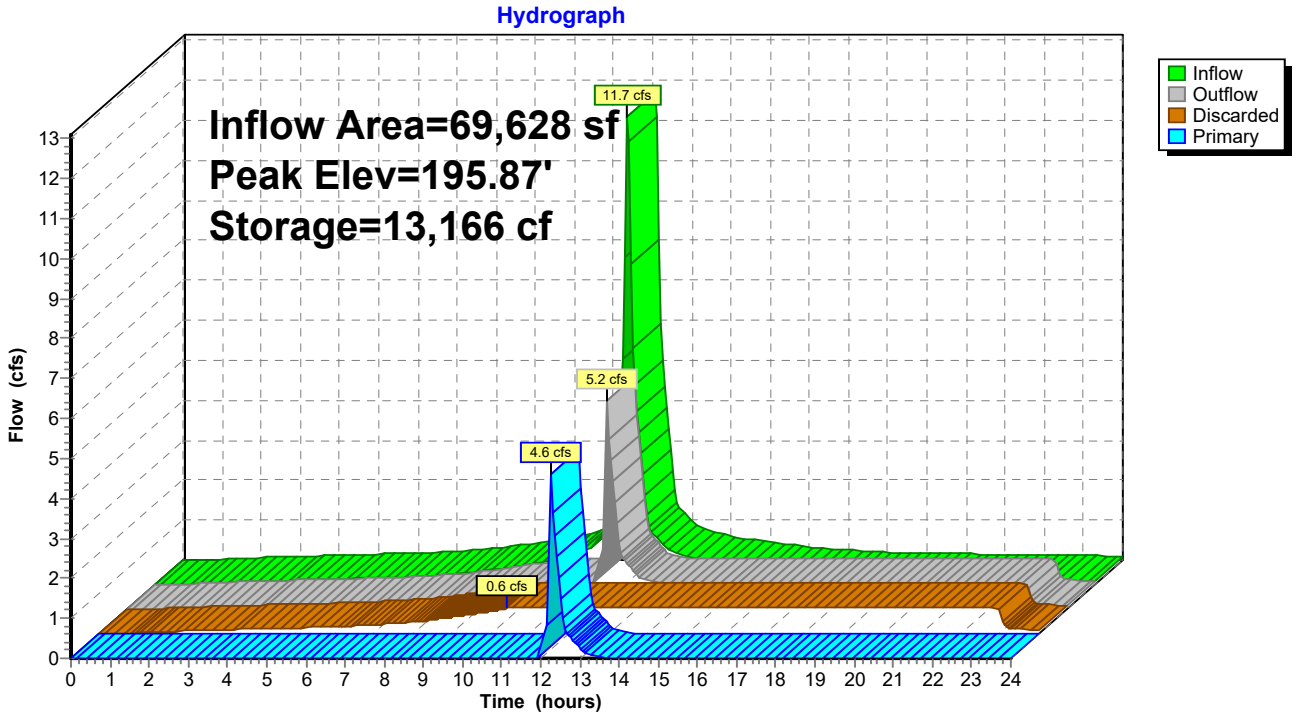
18,496.0 cf Field - 18,311.0 cf Chambers = 185.0 cf Stone x 40.0% Voids = 74.0 cf Stone Storage

Chamber Storage + Stone Storage = 13,165.7 cf = 0.302 af
Overall Storage Efficiency = 71.2%
Overall System Size = 136.00' x 68.00' x 2.00'

289 Chambers
685.0 cy Field
6.9 cy Stone



Pond INF-1: Conc. Galleries

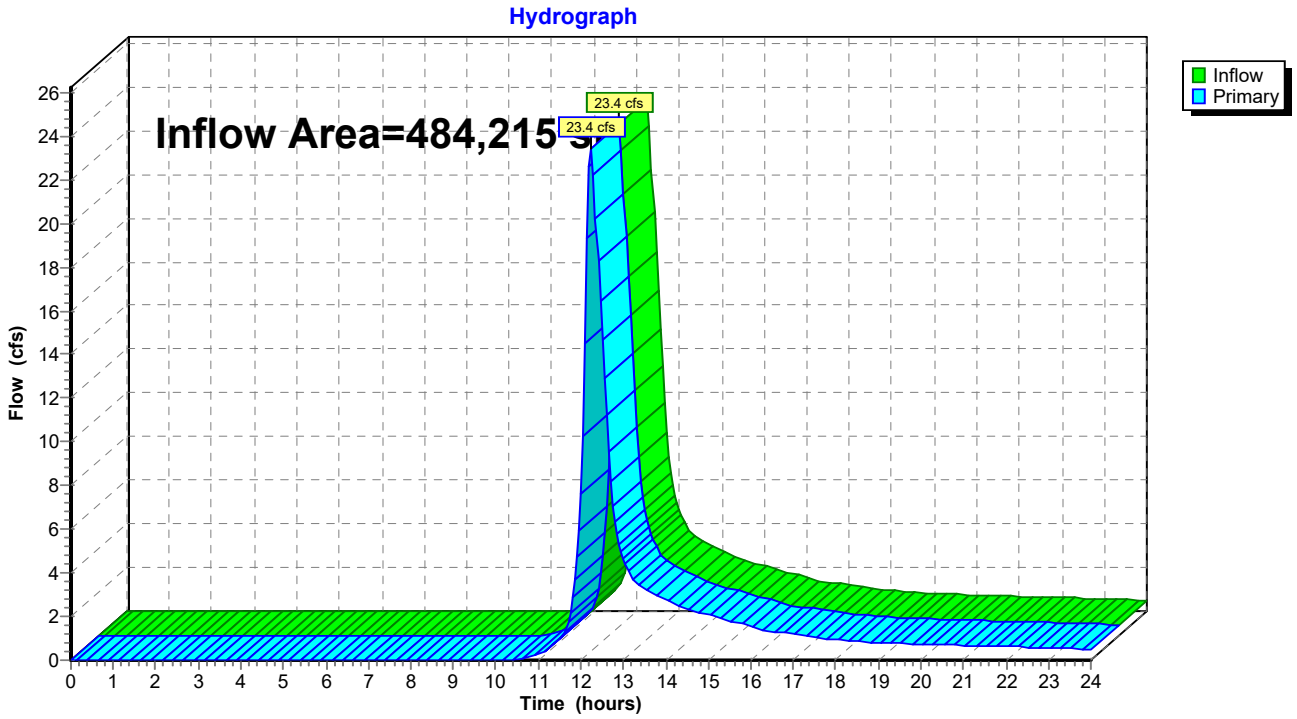


Summary for Link EX POC-1: Existing Southern Wetlands

Inflow Area = 484,215 sf, 29.75% Impervious, Inflow Depth > 2.58" for 50yr Storm event
Inflow = 23.4 cfs @ 12.24 hrs, Volume= 104,110 cf
Primary = 23.4 cfs @ 12.24 hrs, Volume= 104,110 cf, Atten= 0%, Lag= 0.0 min

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

Link EX POC-1: Existing Southern Wetlands

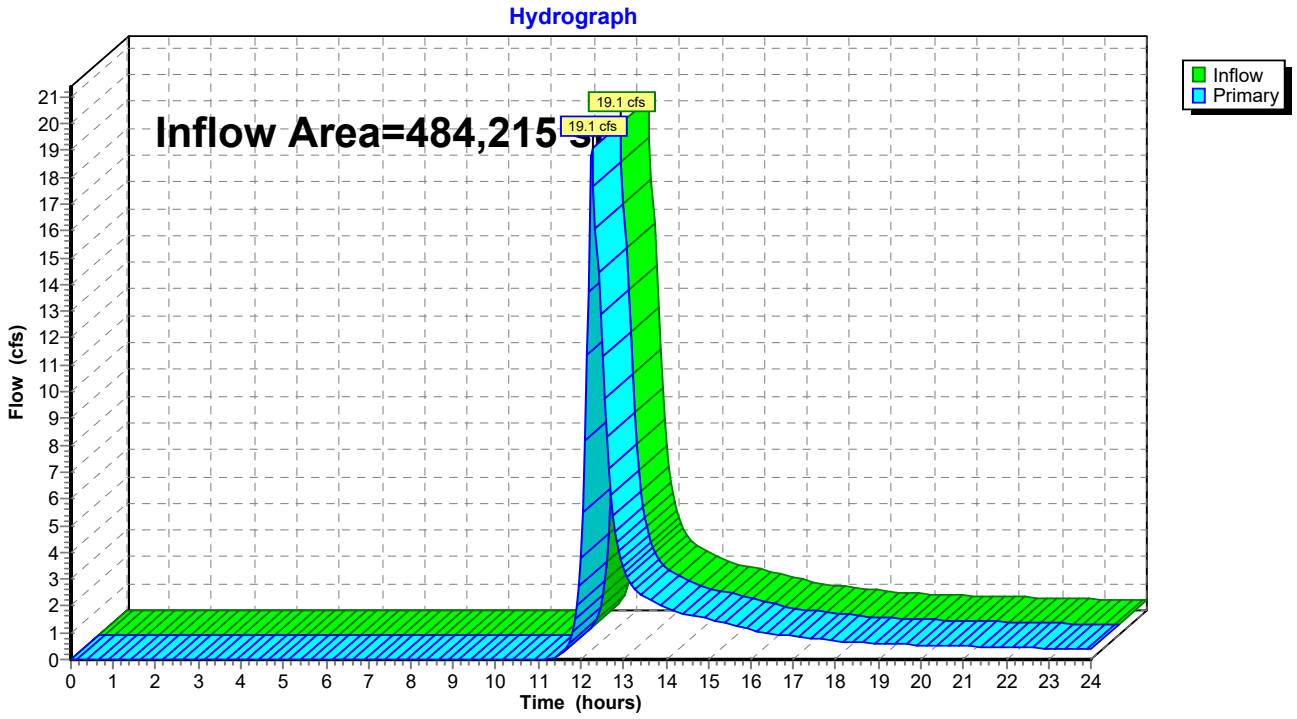


Summary for Link PR POC-1: Existing Southern Wetlands

Inflow Area = 484,215 sf, 30.60% Impervious, Inflow Depth > 1.80" for 50yr Storm event
Inflow = 19.1 cfs @ 12.27 hrs, Volume= 72,814 cf
Primary = 19.1 cfs @ 12.27 hrs, Volume= 72,814 cf, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 6L

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

Link PR POC-1: Existing Southern Wetlands



Summary for Subcatchment EX-1: Drainage Area 1

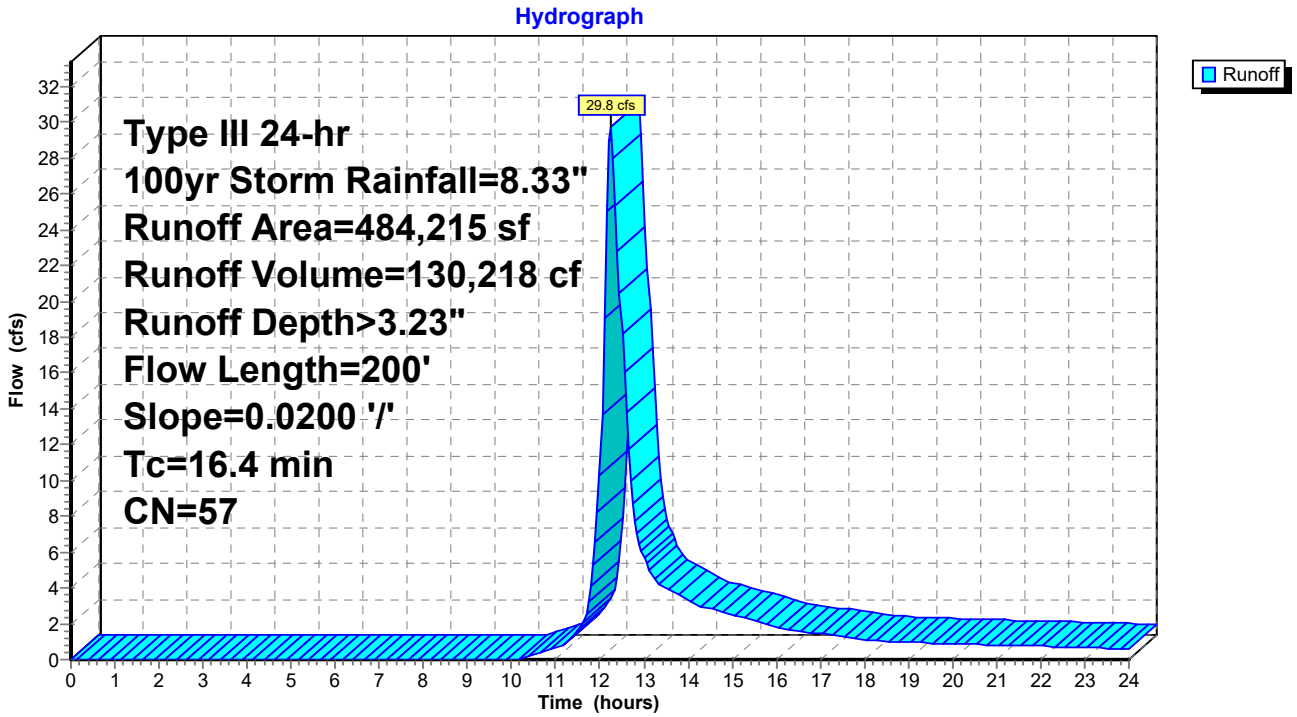
Runoff = 29.8 cfs @ 12.24 hrs, Volume= 130,218 cf, Depth> 3.23"
Routed to Link EX POC-1 : Existing Southern Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100yr Storm Rainfall=8.33"

	Area (sf)	CN	Description
*	22,158	98	Existing Buildings
*	120,419	98	Existing Parking/Driveway Areas
*	1,455	98	Existing Walks & Stairs
	42,983	61	>75% Grass cover, Good, HSG B
	221,097	30	Woods, Good, HSG A
	76,103	55	Woods, Good, HSG B
	484,215	57	Weighted Average
	340,183		70.25% Pervious Area
	144,032		29.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	200	0.0200	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.48"

Subcatchment EX-1: Drainage Area 1



Summary for Subcatchment PR-1A: Drainage Area 1

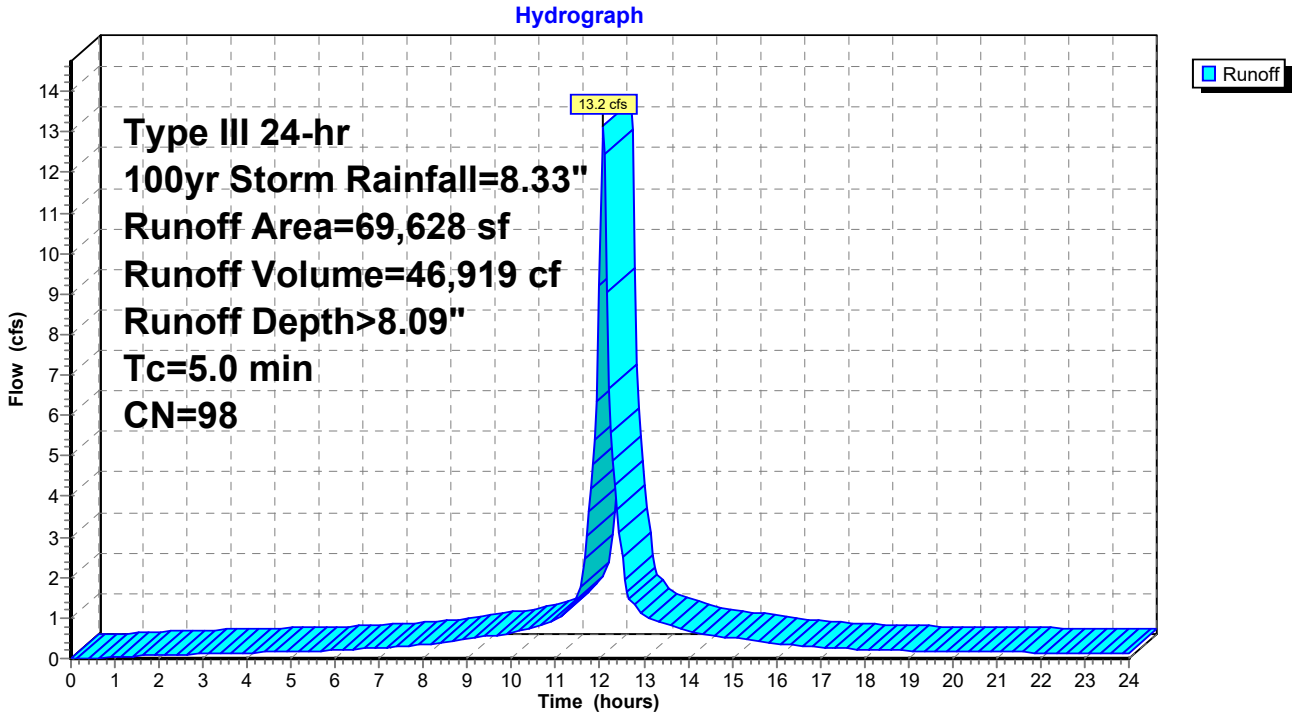
Runoff = 13.2 cfs @ 12.07 hrs, Volume= 46,919 cf, Depth> 8.09"
Routed to Pond INF-1 : Conc. Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100yr Storm Rainfall=8.33"

	Area (sf)	CN	Description
*	65,485	98	Existing Parking/Driveway Areas
*	4,143	98	Previously Approved Parking/Driveway Areas
	69,628	98	Weighted Average
	69,628		100.00% Impervious Area

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

Subcatchment PR-1A: Drainage Area 1



Summary for Subcatchment PR-1B: Drainage Area 1

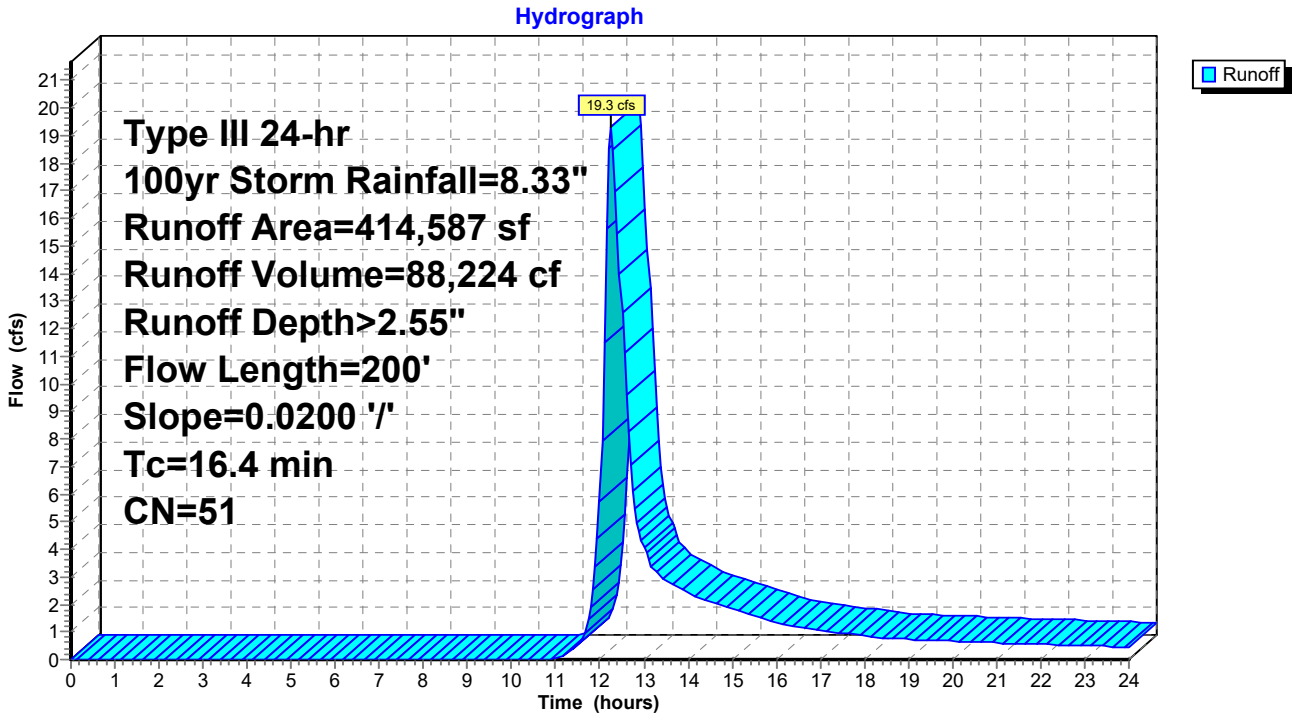
Runoff = 19.3 cfs @ 12.25 hrs, Volume= 88,224 cf, Depth> 2.55"
Routed to Link PR POC-1 : Existing Southern Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100yr Storm Rainfall=8.33"

	Area (sf)	CN	Description
*	22,158	98	Existing Buildings
*	54,934	98	Existing Parking/Driveway Areas
*	1,455	98	Existing Walks & Stairs
	45,453	61	>75% Grass cover, Good, HSG B
	219,993	30	Woods, Good, HSG A
	70,594	55	Woods, Good, HSG B
	414,587	51	Weighted Average
	336,040		81.05% Pervious Area
	78,547		18.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	200	0.0200	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.48"

Subcatchment PR-1B: Drainage Area 1



Summary for Pond INF-1: Conc. Galleries

Inflow Area = 69,628 sf,100.00% Impervious, Inflow Depth > 8.09" for 100yr Storm event
Inflow = 13.2 cfs @ 12.07 hrs, Volume= 46,919 cf
Outflow = 4.3 cfs @ 12.16 hrs, Volume= 40,139 cf, Atten= 67%, Lag= 5.1 min
Discarded = 0.6 cfs @ 10.10 hrs, Volume= 39,191 cf
Primary = 3.6 cfs @ 12.16 hrs, Volume= 948 cf
Routed to Link PR POC-1 : Existing Southern Wetlands

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 195.83' @ 12.17 hrs Surf.Area= 9,248 sf Storage= 13,166 cf

Plug-Flow detention time= 218.4 min calculated for 40,056 cf (85% of inflow)
Center-of-Mass det. time= 154.9 min (894.4 - 739.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	193.45'	74 cf	**68.00'W x 136.00'L x 2.00'H Field A** 18,496 cf Overall - 18,311 cf Embedded = 185 cf x 40.0% Voids
#2A	193.45'	13,092 cf	**Concrete Galley 4x8x2** x 289 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf 289 Chambers in 17 Rows
		13,166 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	195.50'	**24.0" x 24.0" Horiz. Catch Basin Overflow** C= 0.600 Limited to weir flow at low heads
#2	Discarded	193.45'	**3.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.6 cfs @ 10.10 hrs HW=193.47' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.6 cfs)

Primary OutFlow Max=3.3 cfs @ 12.16 hrs HW=195.75' (Free Discharge)
↑—**1=Catch Basin Overflow** (Weir Controls 3.3 cfs @ 1.64 fps)

Pond INF-1: Conc. Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

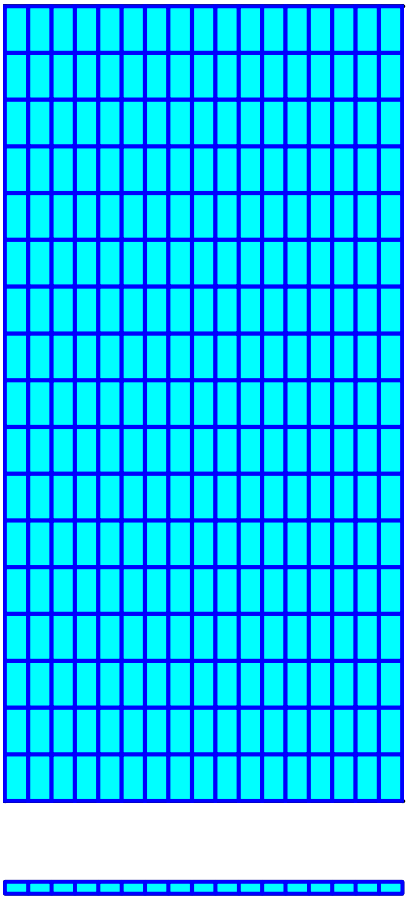
17 Chambers/Row x 8.00' Long = 136.00' Row Length
17 Rows x 48.0" Wide = 68.00' Base Width
24.0" Chamber Height = 2.00' Field Height

289 Chambers x 45.3 cf = 13,091.7 cf Chamber Storage
289 Chambers x 63.4 cf = 18,311.0 cf Displacement

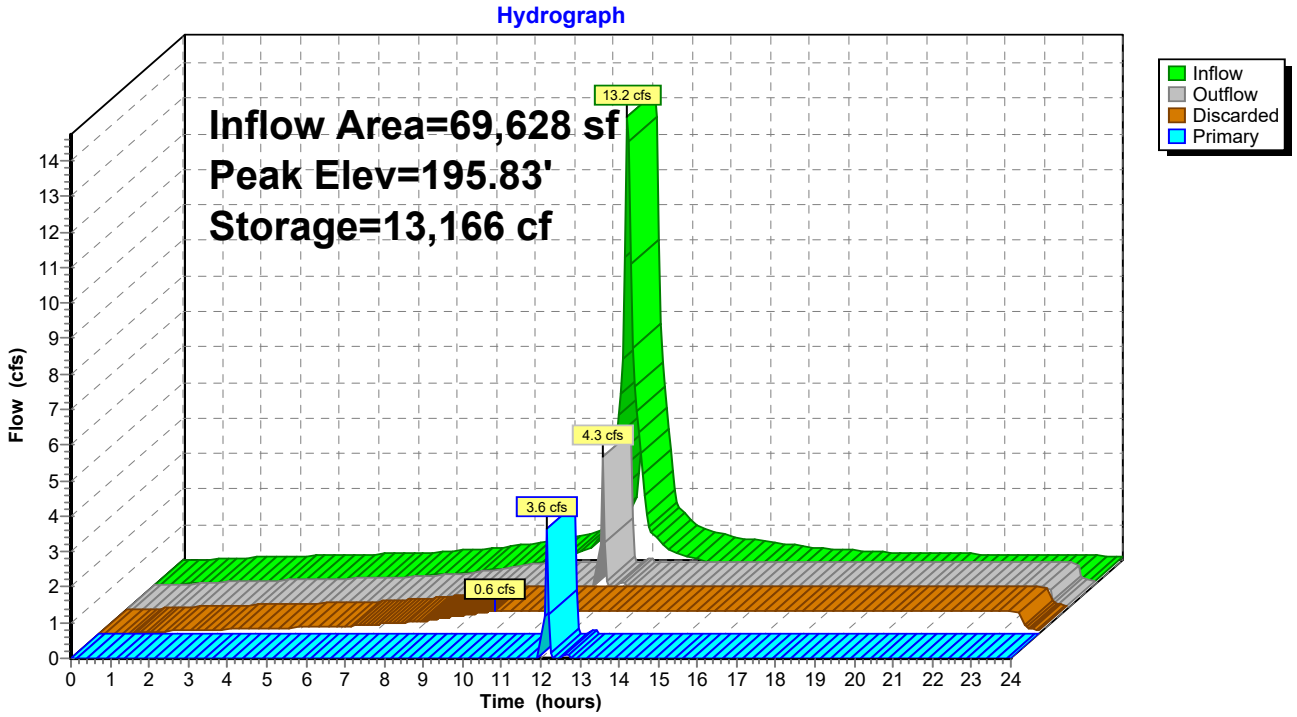
18,496.0 cf Field - 18,311.0 cf Chambers = 185.0 cf Stone x 40.0% Voids = 74.0 cf Stone Storage

Chamber Storage + Stone Storage = 13,165.7 cf = 0.302 af
Overall Storage Efficiency = 71.2%
Overall System Size = 136.00' x 68.00' x 2.00'

289 Chambers
685.0 cy Field
6.9 cy Stone



Pond INF-1: Conc. Galleries

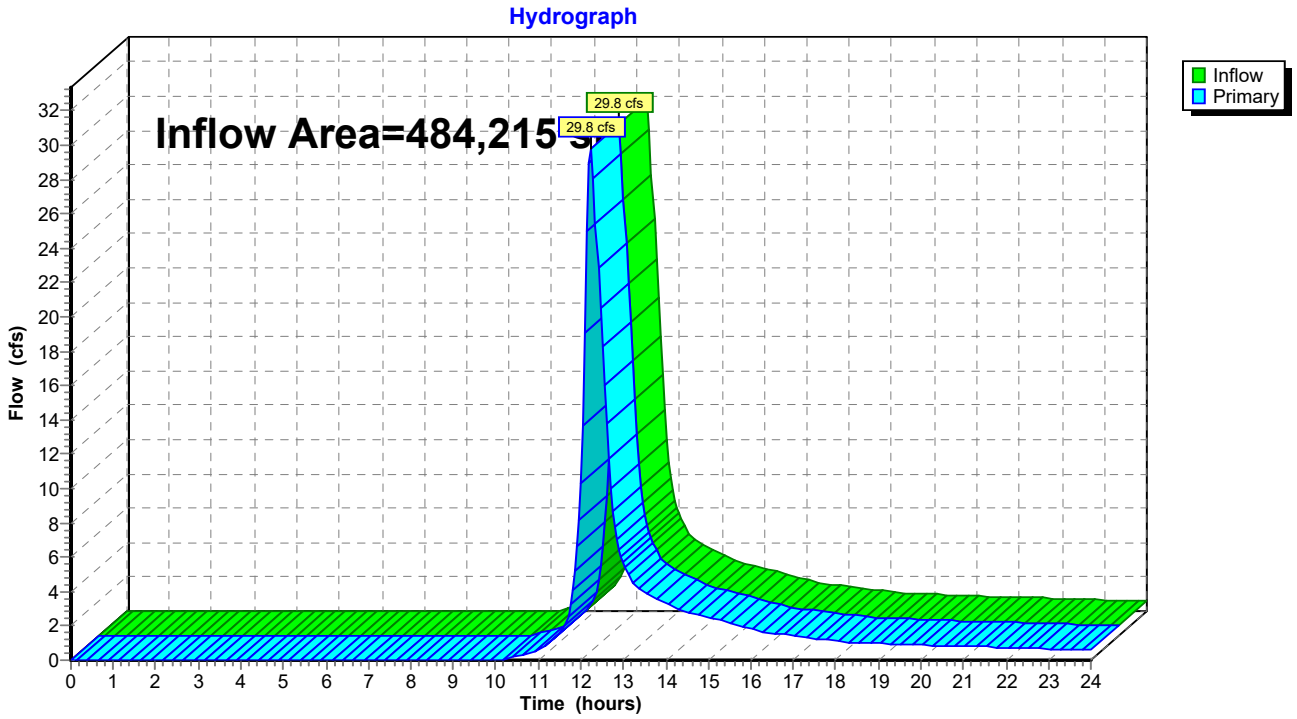


Summary for Link EX POC-1: Existing Southern Wetlands

Inflow Area = 484,215 sf, 29.75% Impervious, Inflow Depth > 3.23" for 100yr Storm event
Inflow = 29.8 cfs @ 12.24 hrs, Volume= 130,218 cf
Primary = 29.8 cfs @ 12.24 hrs, Volume= 130,218 cf, Atten= 0%, Lag= 0.0 min

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

Link EX POC-1: Existing Southern Wetlands

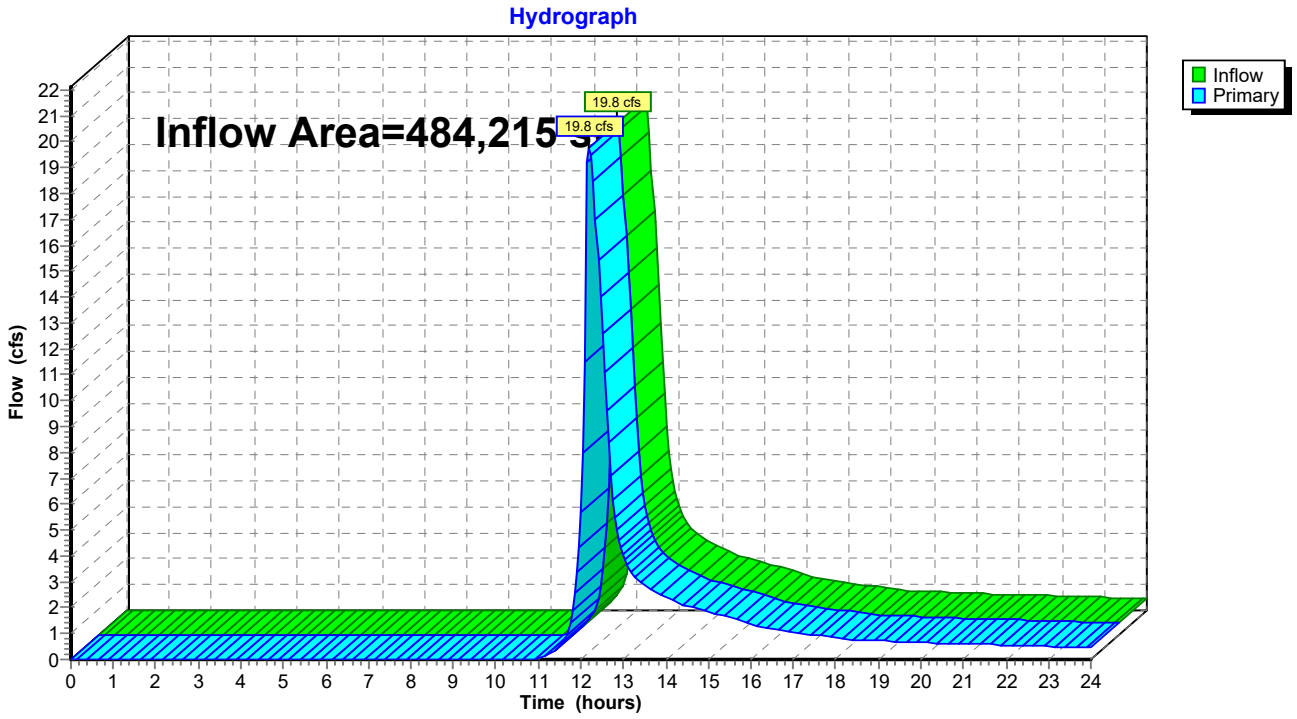


Summary for Link PR POC-1: Existing Southern Wetlands

Inflow Area = 484,215 sf, 30.60% Impervious, Inflow Depth > 2.21" for 100yr Storm event
Inflow = 19.8 cfs @ 12.21 hrs, Volume= 89,172 cf
Primary = 19.8 cfs @ 12.21 hrs, Volume= 89,172 cf, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 6L

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

Link PR POC-1: Existing Southern Wetlands



9/10/25 Norwalk Planning and Zoning Commission Special Meeting (6 pm)

284 New Canaan Avenue Site Walk Map - Applications #2025-48 SP and #2025-49 SP

CITY OF NORWALK
Planning and Zoning

www.norwalkct.gov

P: 203-854-7780

Norwalk City Hall
Room 129
125 East Avenue, PO Box 5125
Norwalk, CT 06856-5125

July 8, 2025

Enrico R. Costantini, Esq.
FLB LAW, PLLC
315 Post Road West
Westport, CT 06880

Re: 284 New Canaan Avenue
Preliminary Review of Special Permit Application #2025-49
Request to modify Special Permit #12-16 to expand the area of the previously approved contractor's yard and change the stormwater management

Dear Attorney Costantini:

I have preliminarily reviewed the referenced plans. Tentatively, the Commission is scheduled to review the application and open the Public Hearing at their August 6, 2025, meeting. The below reflects my initial comments and the Commission may continue their review of the application at their regularly scheduled meetings that follow.

Please submit or comment on the following.

1) Please provide proof of initial neighbor notification.

2) Proof of the required notice sign must be provided at least fifteen (15) days prior to the Public Hearing and proof of mailing notices to properties within 100' must be provided at least ten (10) days prior. Staff will coordinate the legal notice publication.

3) The site plan submitted has the most recent revision date of 3/11/25. However, the plan references the Inland Wetland Agency (IWA) permit issued on 5/13/25. Please revise the plan per the IWA permit, including the requirements of conditions #3 and #7, and update the revision date accordingly.

4) Does this request include the modification of condition #11 of SP 12-16 to remove "that the bins have sprinklers to control any dust, as shown on the submitted plan"?

5) Please specifically address how the elements cited in the October 24th, 2024, Notice of Zoning Violation that pertain to the Special Permit non-compliance will be

remedied. This includes, but is not limited to, issues with hours of operation, vehicle parking location, and noise ordinance.

6) The O&M report should be revised to be site specific.

7) This application has been referred to the Town of New Canaan and the Western Connecticut Council of Governments. Please provide comments/approvals from DPW, WPCA, etc. The link to the webpage can be found here.

The application is still being reviewed and requests for further information or clarification may be forthcoming. Please email (amelia.williams@norwalkct.gov) or call (203-854-7259) if you have any questions regarding your application or the application process.

Sincerely,

Amelia Williams

Amelia Williams
Land Use Planner

CITY OF NORWALK
Planning & Zoning Commission
Norwalk City Hall, Room 129
125 East Avenue,
Norwalk, CT 06856-5125

MEMORANDUM September 11th, 2025

TO: Planning and Zoning Commission – Galen Wells, Chair

FROM: Amelia Williams, Land Use Planner

SUBJECT: #2025 - 49 SP – Enrico R. Costantini, Esq. – 284 New Canaan Avenue – Request to modify Special Permit #12-16 to expand the area of the previously approved contractor's yard and change the stormwater management.

District: 5 **Block:** 46 **Lot:** 76 **Zone:** CD-1L

ZONING HISTORY:

The applicant applied for a modification to Special Permit #12-16 as directed by a Notice of Zoning Violation (NoV) issued 10/24/2024. The violation concerned non-compliance with at least nine (9) conditions of the original Special Permit approval. The applicant also received enforcement orders from the Inland Wetland Agency, which have since been addressed. The non-compliance includes the expansion of the previously approved yard area and alterations to the approved stormwater management.

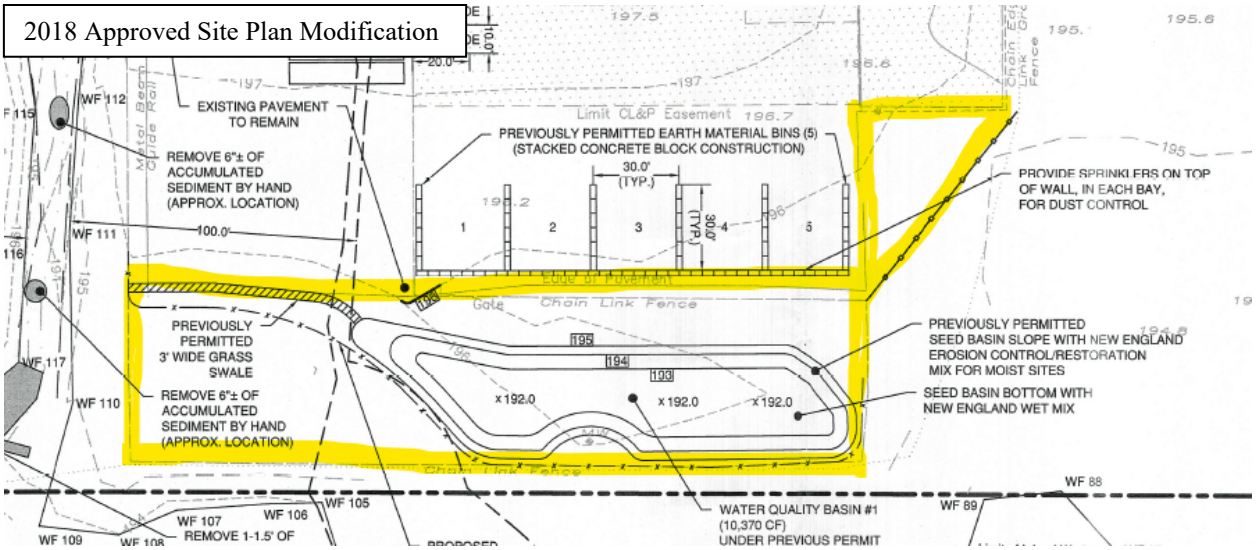
PROPOSED USE/STRUCTURE:

An expansion of the yard area to the East, where the previously permitted water quality basin #1 was to be located, is proposed. The applicant is also proposing to restore the area to the North that was used for material stockpiling without a permit. However, a portion of this area is proposed to remain yard area, though the submitted site plan erroneously indicates that it has been previously approved. Please find below snippets of the modified site plan approved in 2018 and the currently proposed modification, with the proposed areas of expansion highlighted. Also proposed is the layout change of the elements within the yard.

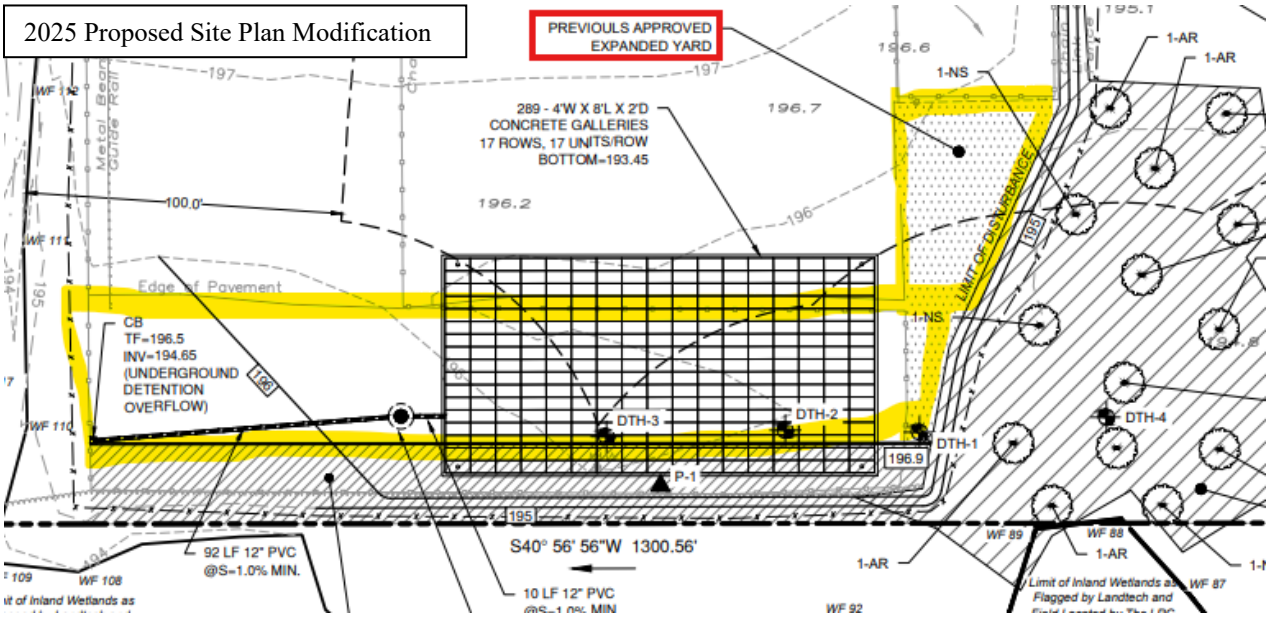
The applicant also proposes replacing the above-ground stormwater management system previously approved for the northern portion of the yard with an underground retention gallery system. The applicant seeks to use the 40-foot wide area above the proposed underground system in a similar manner to how it has been used since early 2021, as active yard area. The underground retention system has been signed off by DPW; they determined the proposed system meets the standards of the City's stormwater management standards.

The applicant has not sufficiently addressed how they propose to comply with, or modify, the existing Special Permit conditions cited in the NoV.

2018 Approved Site Plan Modification



2025 Proposed Site Plan Modification



STAFF COMMENTS:

- Staff is still awaiting responses to the concerns outlined in the Preliminary Review Letter which can be found here. Items #3-7 have yet to be addressed.
- One of these items concerns consistency with the related Corrective Action Wetland Permit, which can be found here.
- Staff recommend the applicant explain how machine drips and oil are handled on site, especially on areas that aren't hardscaped.
- The Public Hearing must be closed during the 9/17 meeting, unless the applicant grants an extension of time.
- Staff will draft resolutions once compliance is determined.

CARMODY
TORRANCE | SANDAK | HENNESSEY LLP

Jason A. Klein
Partner
Direct: 203-252-2669
Fax: 203-325-8608
JKlein@carmodylaw.com

1055 Washington Blvd.
Fourth Floor
Stamford, CT 06901

August 19, 2025

VIA E-MAIL

Planning & Zoning Commission
c/o Amelia Williams
Land Use Planner
Norwalk City Hall
125 East Avenue, Room 129
Norwalk, Connecticut 06851
amelia.williams@norwalkct.gov

RE: 2025-48 and 2025-49: 284 New Canaan Avenue (the "Applications")

Dear Chair Wells and Members of the Commission:

Our firm represents Karen and Peter Wilson, the owners of property located at 178 Pocconock Trail, New Canaan, Connecticut, which includes land in Norwalk and is adjacent to the subject Property at 284 New Canaan Avenue (the "Property"). The Wilsons purchased their property in 2007. We write on behalf of the Wilsons to outline the continued violations of various conditions of approval obtained for the Property on Application 12-16 SP on January 18, 2017 (the "2017 Approval") and the Applicants' ongoing violation of the Inland Wetland Agency of the City of Norwalk's ("Inland Wetland Agency") approval of their Application for Corrective Action. Given the Applicants' ongoing violations, we submit that pending Applications 2025-48 and 2025-49 **(**the "Applications") as submitted by Applicants cannot be approved.

I. Introduction

By way of background, on October 24, 2024, the City of Norwalk Deputy Zoning Inspector issued a Notice of Zoning Violation (the "Zoning Violation") to Indian Hill Ree LLC, care of Robin and Vincent Penna (the "Applicants") due to various violations of the City of Norwalk, Connecticut Zoning Regulations ("Zoning Regulations") occurring at the Property. Despite the issuance of the Zoning Violation, which was issued by the Commission, the Applicants continue to violate various conditions of the 2017 Approval. These violations have persisted over multiple years, continuously causing harm, nuisance, and damages to my clients, their surrounding neighborhood, and property values.

As a further result of the disruptive and invasive nature of the Applicants' ongoing violations, my clients have suffered a persistent invasion of their privacy and severe limits to the basic enjoyment of their property. In addition to daytime violations, they are often woken up in the middle of the night by construction activity on the Property.

These ongoing violations not only harm my clients but demonstrate a blatant disregard for the Commission's authority notwithstanding the fact that the Commission maintains jurisdiction over the Applicant's use of the Property. These ongoing violations show that the

pending Applications fail to comply with the Special Permit Criteria contained in Article 8 of the Zoning Regulations.

II. Violations of 2017 Approval

Our clients' remaining concerns, and ongoing violations of the 2017 Approval can be summarized as follows[1]:

- **That no work, storage or expansion, temporary or permanent, is allowed into any areas of the site, beyond what is shown on the above referenced plans.**
    - The Applicants have allowed work, storage, and expansion into various areas of the site that go beyond their original site plans, as also set out in the Zoning Violation. Photographs depicting the continuous creep of the work yard beyond the bounds permitted in the 2017 Approval are attached to this letter as Schedule A. Prior to considering any approvals that would modify the 2017 Approval, the Commission should require the Applicant rectify these violations and provide the Commission with evidence of same.

- **That parking of vehicles shall only occur in the locations designated on the approved Site Plan.**
- **That the total number of vehicles (pickup trucks, dump trucks, box trucks, etc.) on the site (inside and outside) is initially proposed to be 30. The applications are allowed a 50% future growth, to a maximum of 45 vehicles on the site.**
    - My clients have observed an excess of forty-five (45) vehicles parked on the Property in varying areas, with no specific parking designation. Prior to acting on the Applications, the Commission should require the Applicant to bring the Property into compliance with this condition and update its Site Plan to clearly depict previously approved parking areas. This should be required prior to the close of the public hearing.

- **That other than in the designated outdoor storage bins there by no storage of materials outside; and that the bins have sprinklers to control any dust, as shown on the submitted plan.**
    - Photographs attached to this letter as Schedule A show total violations of this condition over the past several years, and as recent as July 2025. The Applicants continue to have various types of pipes, fencing, and other construction supply-like materials outside and around the site.
    - The Applicants have also failed to install sprinklers as required for dust control, leaving the dust from ongoing activity to freely contaminate the air in the surrounding areas. Prior to acting on the Applications, the Commission should require the Applicant to bring the Property into compliance with this condition. This should be required prior to the close of the public hearing.

- **That the hours of operation be generally Monday – Friday from 6:30 am – 5:30 pm; although the facility may operate later seasonally or on weekends during utility emergencies be made part of this approval.**

[1] Conditions imposed by the 2017 Approval are in bold text.

- Our clients have had to endure ongoing loud noises from the Applicant's trucks being emptied, including at night, early morning, and weekends. The invasive noise level has adversely impacted my clients and caused severe disruptions to their day-to-day life.
- As pointed out in the Zoning Violation, the Applicants continue to operate outside of the established hours of operation, with some regularity at nighttime, which was not contemplated by the Approval. In addition, the Applicant has admitted to my client that they have taken on non-emergency contract work at the Property, which requires operations outside of the permitted hours of operation.
- The Commission should require independent acoustic analysis of the current environment to ensure compliance with this condition and the Norwalk Noise Ordinance of mitigating "unwanted and/or harmful sounds to which the public is involuntarily exposed to" prior to taking action on the pending Applications.

- **That any modifications to the approved plan, including any changes required by any other agency that requires a substantial change to these plans, be submitted to the Zoning Commission for review and approval.**
  - The Applicants have failed to obtain approval from the Zoning Commission for any instance of their expanded use of land outside of what was permitted in the initial permit, including the clear-cutting of more than 10,000 square feet in both upland and wetland areas.
  - In addition, the Applicants have continued with processing and sorting of excavation materials on site, which was not contemplated in the original Approval.
  - Further, failure to comply with conditions related to material and bin storage, parking of vehicles, and other conditions would all constitute modifications to the previously approved plan that have not been approved by the Commission.

The Zoning Violation also required that Applicants cease all active operations beyond those previously approved in active yard areas; to date, Applicants have failed to do so, and work has continued uninterrupted even in the areas which were not contemplated in the Approval to date. The Applicants' blatant disregard of this Commission's 2017 Approval and conditions further demonstrate their lack of good faith and consideration for the surrounding neighborhood.

As a result of the ongoing violations, on February 26, 2025, the Inland Wetland Agency of the City of Norwalk granted Applicant's application for Corrective Action. Since that time, Applicants have not taken any steps to remediate the outstanding issues in the subject wetlands area on the Property.

The Applicant should be required to provide the Commission with a point-by-point analysis of the conditions of the 2017 Approval affirmatively documenting compliance with each and every condition, or, in the alternative, demonstrating resolution of outstanding violations. Additional, duly noticed Special Permit applications to the Commission may be necessary in the event the Applicant wishes to modify conditions to the 2017 Approval beyond the scope of the pending Applications.

III. Compliance with Special Permit Criteria

The Applications fail to satisfy several of the Special Permit Criteria contained in Article 8 of the Zoning Regulations.

Specifically, a use must be "so designed, located, and proposed to be operated that the public health, safety, and welfare will be protected"[2] and "not adversely affect other property in the area in which it is located."[3] The Applications fail to satisfy this condition, as violations of the 2017 Approval adversely impact the health, safety and welfare of neighboring property owners. For almost a decade, the Applicant has been permitted to push beyond the limits of its previously granted Special Permit Approval. The Commission must show that continued, future violations will not be tolerated. Property values are adversely impacted if neighboring industrial uses are allowed to grow unchecked and in violation of applicable land use approvals and regulations. Similarly, the expanded storage of materials and stockpiling, onsite processing and violation of hours of operation (all in violation of the 2017 Approval) create "[a]dverse impact[s] from noise, odor fumes" and dust.[4]

IV. Conclusion

Since the commencement of the development of the Property, the Applicants have disregarded the authority of the Commission and expanded the use of the Property far beyond what was contemplated in the 2017 Approval. To date, the Applicants continue to engage in activity on the Property in violation of the above Zoning Regulation standards applicable to special permits.

Moreover, the Applicants continue to violate various conditions of the 2017 Approval and have yet to comply with the requirements set out in the Inland Wetland Corrective Action permit. Even so, my clients have faith in the governmental process which exists to ensure compliance with local regulations and conditions imposed by this Commission will serve their purpose and protect residents in cases such as the present one. In sum, we submit that their newly submitted Applications for special permit approval cannot be approved pursuant to the Zoning Regulations until they are in full compliance with all conditions of the 2017 Approval.

Thank you for your time and attention to this important matter and your continued attention to the concerns of the neighborhood.

Sincerely,

Jay Klein

Jason A. Klein

cc: B. Baker bbaker@norwalkct.gov

[2] Zoning Regulations, Sec. 8.4.8.G.1.b.
[3] Zoning Regulations Sec. 8.4.8.G.1.c.
[4] See Zoning Regulations, Sec. 8.4.8.G.2.f.

Williams, Amelia

From: Kleppin, Steven
Sent: Wednesday, August 20, 2025 8:04 AM
To: Robert Kolodny
Cc: karenpwilson@yahoo.com; pbwilson@yahoo.com; marwansaidi5217@gmail.com; elaina1268@earthlink.net; Williams, Amelia
Subject: RE: the 8-20-25 hearing re Penna & Son Construction

Hi Robert,

Your email was forwarded to the Commission.

Steve

From: Robert Kolodny <rckolodny@aol.com>
Sent: Tuesday, August 19, 2025 6:14 PM
To: Kleppin, Steven <skleppin@norwalkct.gov>
Cc: karenpwilson@yahoo.com; pbwilson@yahoo.com; marwansaidi5217@gmail.com; elaina1268@earthlink.net
Subject: the 8-20-25 hearing re Penna & Son Construction

You don't often get email from rckolodny@aol.com. Learn why this is important

CAUTION: EXTERNAL Email: Don't open links or attachments from untrusted senders

Mr. Kleppin,

I want to register the following issues with the Zoning and Planning Commission's meeting tomorrow regarding the A.J. Penna & Son Construction operation at 284 New Canaan Avenue.

After I moved into my home at 48 Carter Street in Norwalk in early 2019, I was astonished at the late night and early morning industrial activity noises at the Penna property that were loud enough to wake me up repeatedly at 1 or 2 or 4 AM. The noise violations included incessant electronic high-pitched beeping of backing up trucks or other types of construction equipment, and for more than four years, the noise occurred at least 3 or 4 nights a week. (Admittedly, in the past 6 months, as there have been hearings into Penna's activities, the high pitched backup beeping is much less frequent.)

As I tried to understand what was going on, I obtained a copy of the City of Norwalk's Special Permit No. 12-16 SP with an effective date listed as January 27, 2017. Notably, these conditions included a stipulation that the total number of parked vehicles of all types on the property be a maximum of 45, which Penna blatantly and consistently disregards. As I have considerable footage directly adjacent to the Penna site, for the 6 months of the year when there isn't much foliage on the trees, I can see the Penna driveway directly from my 2nd floor windows and from my deck, and I have counted scores and scores of days when there are over 70 parked vehicles. On occasion, I have driven part way down the Penna driveway and have counted at least 50 automobiles in addition to the dozens of trucks of various types.

The noise situation is so bad that I am unable to use my deck for entertaining; the fumes from trucks idling makes it unpleasant to either sit on my deck or to attempt to grill food outdoors.

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The Norwalk Board of Assessment agreed that Penna's activities have reduced the value of the property of my home and my next door neighbor's homes in appeals that we filed in the latest round of tax updates. There are concrete financial impacts to the homeowners in Norwalk who are adjacent to the Penna property.

Robert C. Kolodny, M.D.
48 Carter Street
New Canaan, CT 06840

tel 475-558-9595
cell 203-981-8424
fax 475-558-9594

Williams, Amelia

From: Kleppin, Steven
Sent: Wednesday, August 20, 2025 8:10 AM
To: Williams, Amelia
Subject: FW: Penna Construction - Hearing August 20th

From: Elena Zaika <elaina1268@earthlink.net>
Sent: Tuesday, August 19, 2025 10:33 PM
To: Kleppin, Steven <skleppin@norwalkct.gov>
Cc: 'Karen Wilson' <karenpwilson3@yahoo.com>; 'Peter Wilson Jr.' <pbwilsonjr@yahoo.com>
Subject: Penna Construction - Hearing August 20th

You don't often get email from elaina1268@earthlink.net. Learn why this is important

CAUTION: EXTERNAL Email: Don't open links or attachments from untrusted senders

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Penna has trucks coming and going at all hours. It is a constant nuisance. The noise and exhaust have been an issue since we purchased our home seven years ago and have been woken up in the middle of the night countless times from trucks rumbling up and down the driveway. They have flood lights and office lights that are left on at night and shine directly into our bedroom windows. We've had to purchase light and noise blocking curtains just to muffle the sound. It is impossible to enjoy our backyard or even have our windows open because of the noise and exhaust.
I tried to get these issues resolved with the owner via email and phone for over two years. The owner always assured me that they were a "good neighbor" and would have these issues addressed, but nothing ever changed. It became apparent that Penna was all talk and no action.

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I truly can't comprehend how anyone thought it would be a good idea to put a construction company in a AAA residential neighborhood. It just doesn't make any sense. Penna is not only a nuisance, but is also bringing down the value of the whole neighborhood. I suggest they move somewhere more appropriate and the area gets cleaned up from Penna's pollution and allowed to go back to its natural wetlands.

Thank you for your consideration,

Elena Zaika
46 Carter Street, Norwalk CT 06850

August 19, 2025,

Dear Commissioners,

We are Alain & Alicja Chebeir and we are writing to express our concerns regarding the ongoing disturbances caused by Penna Construction Company near our residence, which is located at 166 Pocconock Trl along the boundary of the City of Norwalk and the Town of New Canaan. The majority of our property is located in the City of Norwalk and we are taxpayers to Norwalk and New Canaan.

When we initially moved in, we were under the impression that the adjacent property was an inactive armory, which would contribute to the quiet, residential nature of the area. However, beginning the following year, we began to notice construction related noise that has steadily grown more disruptive. In addition to the noise, a lot of trees were cut down making Penna Construction Company operation extremely visible and the noise intolerable, often continuing late into the night and early morning hours, often disrupting the sleep of our family.

Moreover, the construction activities have significantly compromised our privacy and security. In the fall of 2024, Penna Construction Company removed numerous trees, including some from private properties, which has drastically altered the landscape and amplified the noise. Where we once had a view of trees from our windows, we now have an unobstructed view of construction vehicles, rock piles, and bright lights glaring into our home at night.

The proximity of the construction site, the volume of vehicular traffic exceeding what was initially authorized under the permit, the dust contamination, the constant movement of personnel, materials and noise pollution have raised serious concerns.

The constant disruptions caused by the noise of trucks reversing and unloading, as well as the lights and equipment in constant operation, stone crushing, are a direct violation of the permit that was issued by the City of Norwalk and the expectations set for this community. These issues have been escalating ever since Penna Construction Company began work in the area, and the situation has only worsened over time.

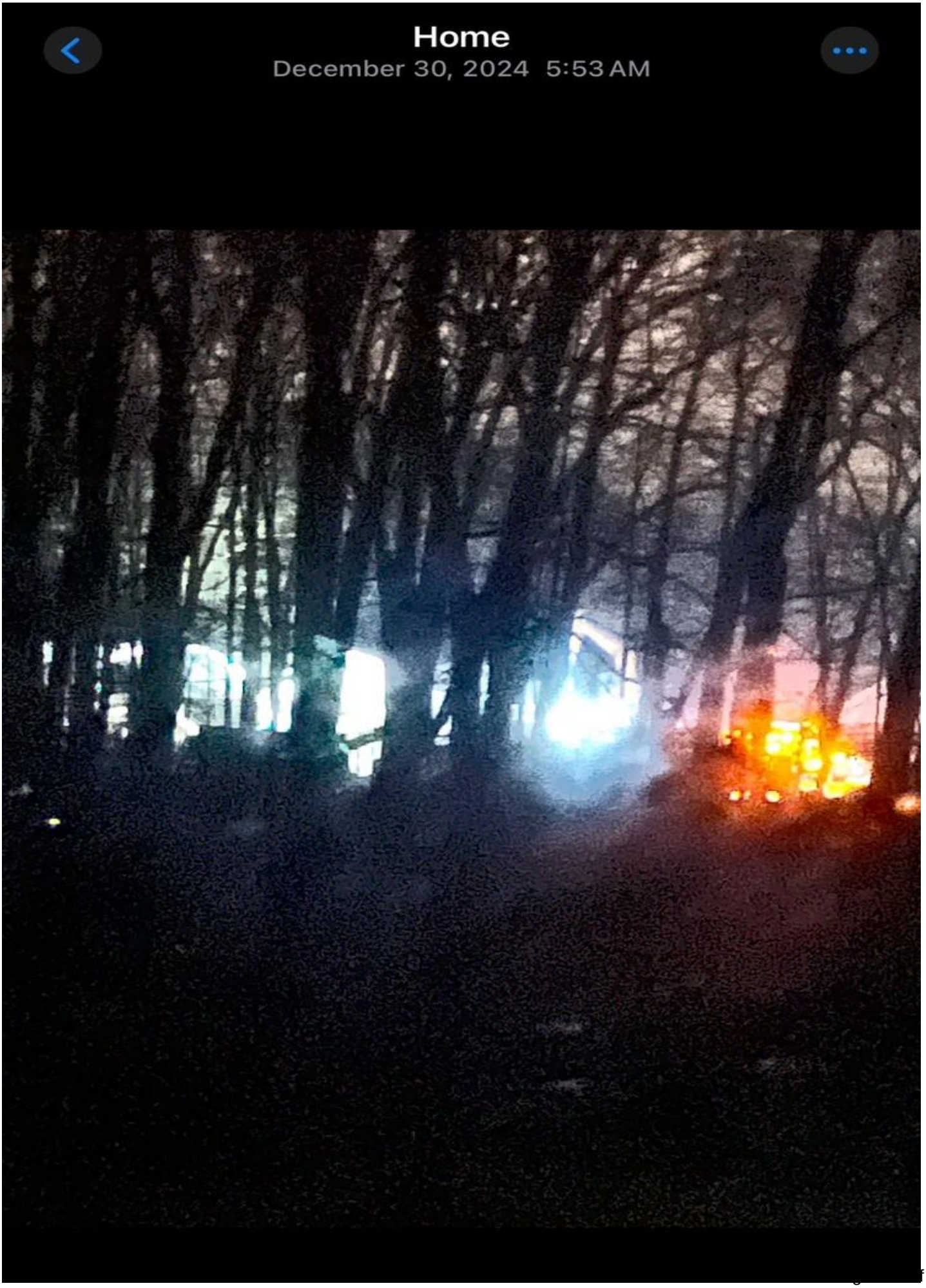
We are profoundly disappointed by Penna Construction Company’s continued failure to comply with the conditions set forth in their permit, as well as their unfulfilled commitments/promises and their blatant disregard for the well-being of the surrounding community. We are also disappointed with the City of Norwalk for rezoning 284 New Canaan Ave and not holding Penna Construction Company accountable for adhering to the permit approval. The noise levels and environmental disturbances have grown progressively worse, directly contradicting the commitments made to mitigate these impacts. Additional activities on the land, including the removal of trees and other natural ground cover, place increased stress on the local water table. Given that many households in our neighborhood rely on well water for drinking, bathing, and other essential uses, we strongly oppose any expansion of activities in the area.

We respectfully urge the City of Norwalk to hold Penna Construction Company accountable for their numerous violations, particularly their disregard for wetland protection and the surrounding habitat. Additionally, we request that any further expansion requests and modifications be denied.

Thank you for your attention to this matter. We look forward to your prompt response and resolution of these concerns.

Sincerely,

Alain & Alicja Chebeir
166 Pocconock Trl
New Canaan, CT 06840


Home
December 30, 2024 5:53 AM

Home

November 20 9:02 AM

HDR

Home

May 8 7:20 PM

8:19

March 23, 2020

11:35 AM

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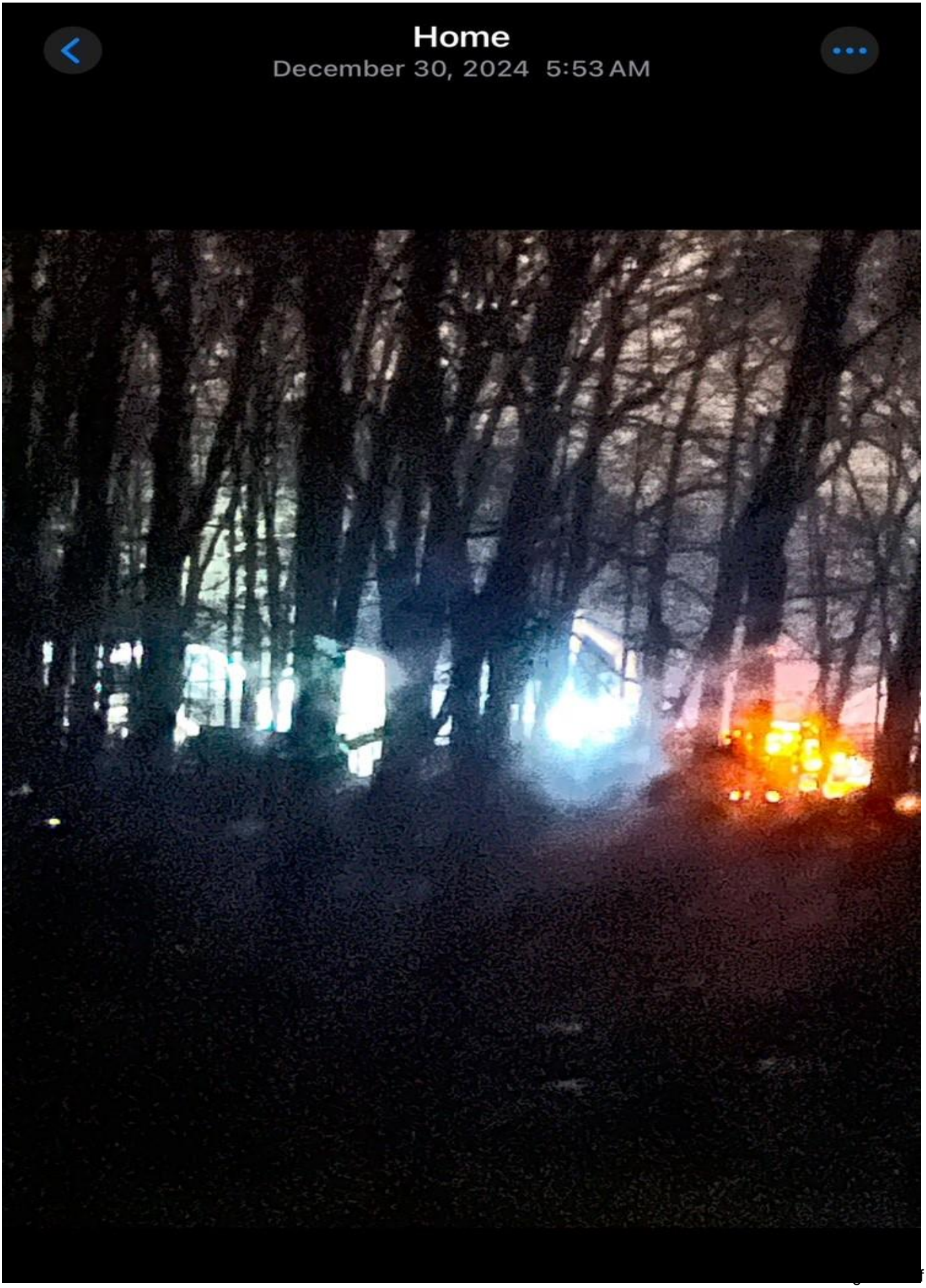
166 Pocconock Trl
New Canaan, CT 06840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Williams, Amelia

From: Kleppin, Steven
Sent: Wednesday, August 20, 2025 8:04 AM
To: Robert Kolodny
Cc: karenpwilson@yahoo.com; pbwilson@yahoo.com; marwansaidi5217@gmail.com; elaina1268@earthlink.net; Williams, Amelia
Subject: RE: the 8-20-25 hearing re Penna & Son Construction

Hi Robert,

Your email was forwarded to the Commission.

Steve

From: Robert Kolodny <rckolodny@aol.com>
Sent: Tuesday, August 19, 2025 6:14 PM
To: Kleppin, Steven <skleppin@norwalkct.gov>
Cc: karenpwilson@yahoo.com; pbwilson@yahoo.com; marwansaidi5217@gmail.com; elaina1268@earthlink.net
Subject: the 8-20-25 hearing re Penna & Son Construction

You don't often get email from rckolodny@aol.com. Learn why this is important

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Mr. Kleppin,

I want to register the following issues with the Zoning and Planning Commission's meeting tomorrow regarding the A.J. Penna & Son Construction operation at 284 New Canaan Avenue.

After I moved into my home at 48 Carter Street in Norwalk in early 2019, I was astonished at the late night and early morning industrial activity noises at the Penna property that were loud enough to wake me up repeatedly at 1 or 2 or 4 AM. The noise violations included incessant electronic high-pitched beeping of backing up trucks or other types of construction equipment, and for more than four years, the noise occurred at least 3 or 4 nights a week. (Admittedly, in the past 6 months, as there have been hearings into Penna's activities, the high pitched backup beeping is much less frequent.)

As I tried to understand what was going on, I obtained a copy of the City of Norwalk's Special Permit No. 12-16 SP with an effective date listed as January 27, 2017. Notably, these conditions included a stipulation that the total number of parked vehicles of all types on the property be a maximum of 45, which Penna blatantly and consistently disregards. As I have considerable footage directly adjacent to the Penna site, for the 6 months of the year when there isn't much foliage on the trees, I can see the Penna driveway directly from my 2nd floor windows and from my deck, and I have counted scores and scores of days when there are over 70 parked vehicles. On occasion, I have driven part way down the Penna driveway and have counted at least 50 automobiles in addition to the dozens of trucks of various types.

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Robert C. Kolodny, M.D.
48 Carter Street
New Canaan, CT 06840

tel 475-558-9595
cell 203-981-8424
fax 475-558-9594

CARMODY
TORRANCE | SANDAK | HENNESSEY LLP

Jason A. Klein
Partner
Direct: 203-252-2669
Fax: 203-325-8608
JKlein@carmodylaw.com

1055 Washington Blvd.
Fourth Floor
Stamford, CT 06901

August 19, 2025

VIA E-MAIL

Planning & Zoning Commission
c/o Amelia Williams
Land Use Planner
Norwalk City Hall
125 East Avenue, Room 129
Norwalk, Connecticut 06851
amelia.williams@norwalkct.gov

RE: 2025-48 and 2025-49: 284 New Canaan Avenue (the "Applications")

Dear Chair Wells and Members of the Commission:

Our firm represents Karen and Peter Wilson, the owners of property located at 178 Pocconock Trail, New Canaan, Connecticut, which includes land in Norwalk and is adjacent to the subject Property at 284 New Canaan Avenue (the "Property"). The Wilsons purchased their property in 2007. We write on behalf of the Wilsons to outline the continued violations of various conditions of approval obtained for the Property on Application 12-16 SP on January 18, 2017 (the "2017 Approval") and the Applicants' ongoing violation of the Inland Wetland Agency of the City of Norwalk's ("Inland Wetland Agency") approval of their Application for Corrective Action. Given the Applicants' ongoing violations, we submit that pending Applications 2025-48 and 2025-49 **(**the "Applications") as submitted by Applicants cannot be approved.

I. Introduction

By way of background, on October 24, 2024, the City of Norwalk Deputy Zoning Inspector issued a Notice of Zoning Violation (the "Zoning Violation") to Indian Hill Ree LLC, care of Robin and Vincent Penna (the "Applicants") due to various violations of the City of Norwalk, Connecticut Zoning Regulations ("Zoning Regulations") occurring at the Property. Despite the issuance of the Zoning Violation, which was issued by the Commission, the Applicants continue to violate various conditions of the 2017 Approval. These violations have persisted over multiple years, continuously causing harm, nuisance, and damages to my clients, their surrounding neighborhood, and property values.

As a further result of the disruptive and invasive nature of the Applicants' ongoing violations, my clients have suffered a persistent invasion of their privacy and severe limits to the basic enjoyment of their property. In addition to daytime violations, they are often woken up in the middle of the night by construction activity on the Property.

These ongoing violations not only harm my clients but demonstrate a blatant disregard for the Commission's authority notwithstanding the fact that the Commission maintains jurisdiction over the Applicant's use of the Property. These ongoing violations show that the

pending Applications fail to comply with the Special Permit Criteria contained in Article 8 of the Zoning Regulations.

II. Violations of 2017 Approval

Our clients' remaining concerns, and ongoing violations of the 2017 Approval can be summarized as follows[1]:

- **That no work, storage or expansion, temporary or permanent, is allowed into any areas of the site, beyond what is shown on the above referenced plans.**
    - The Applicants have allowed work, storage, and expansion into various areas of the site that go beyond their original site plans, as also set out in the Zoning Violation. Photographs depicting the continuous creep of the work yard beyond the bounds permitted in the 2017 Approval are attached to this letter as Schedule A. Prior to considering any approvals that would modify the 2017 Approval, the Commission should require the Applicant rectify these violations and provide the Commission with evidence of same.

- **That parking of vehicles shall only occur in the locations designated on the approved Site Plan.**
- **That the total number of vehicles (pickup trucks, dump trucks, box trucks, etc.) on the site (inside and outside) is initially proposed to be 30. The applications are allowed a 50% future growth, to a maximum of 45 vehicles on the site.**
    - My clients have observed an excess of forty-five (45) vehicles parked on the Property in varying areas, with no specific parking designation. Prior to acting on the Applications, the Commission should require the Applicant to bring the Property into compliance with this condition and update its Site Plan to clearly depict previously approved parking areas. This should be required prior to the close of the public hearing.

- **That other than in the designated outdoor storage bins there by no storage of materials outside; and that the bins have sprinklers to control any dust, as shown on the submitted plan.**
    - Photographs attached to this letter as Schedule A show total violations of this condition over the past several years, and as recent as July 2025. The Applicants continue to have various types of pipes, fencing, and other construction supply-like materials outside and around the site.
    - The Applicants have also failed to install sprinklers as required for dust control, leaving the dust from ongoing activity to freely contaminate the air in the surrounding areas. Prior to acting on the Applications, the Commission should require the Applicant to bring the Property into compliance with this condition. This should be required prior to the close of the public hearing.

- **That the hours of operation be generally Monday – Friday from 6:30 am – 5:30 pm; although the facility may operate later seasonally or on weekends during utility emergencies be made part of this approval.**

[1] Conditions imposed by the 2017 Approval are in bold text.

- Our clients have had to endure ongoing loud noises from the Applicant's trucks being emptied, including at night, early morning, and weekends. The invasive noise level has adversely impacted my clients and caused severe disruptions to their day-to-day life.
- As pointed out in the Zoning Violation, the Applicants continue to operate outside of the established hours of operation, with some regularity at nighttime, which was not contemplated by the Approval. In addition, the Applicant has admitted to my client that they have taken on non-emergency contract work at the Property, which requires operations outside of the permitted hours of operation.
- The Commission should require independent acoustic analysis of the current environment to ensure compliance with this condition and the Norwalk Noise Ordinance of mitigating "unwanted and/or harmful sounds to which the public is involuntarily exposed to" prior to taking action on the pending Applications.

- **That any modifications to the approved plan, including any changes required by any other agency that requires a substantial change to these plans, be submitted to the Zoning Commission for review and approval.**
  - The Applicants have failed to obtain approval from the Zoning Commission for any instance of their expanded use of land outside of what was permitted in the initial permit, including the clear-cutting of more than 10,000 square feet in both upland and wetland areas.
  - In addition, the Applicants have continued with processing and sorting of excavation materials on site, which was not contemplated in the original Approval.
  - Further, failure to comply with conditions related to material and bin storage, parking of vehicles, and other conditions would all constitute modifications to the previously approved plan that have not been approved by the Commission.

The Zoning Violation also required that Applicants cease all active operations beyond those previously approved in active yard areas; to date, Applicants have failed to do so, and work has continued uninterrupted even in the areas which were not contemplated in the Approval to date. The Applicants' blatant disregard of this Commission's 2017 Approval and conditions further demonstrate their lack of good faith and consideration for the surrounding neighborhood.

As a result of the ongoing violations, on February 26, 2025, the Inland Wetland Agency of the City of Norwalk granted Applicant's application for Corrective Action. Since that time, Applicants have not taken any steps to remediate the outstanding issues in the subject wetlands area on the Property.

The Applicant should be required to provide the Commission with a point-by-point analysis of the conditions of the 2017 Approval affirmatively documenting compliance with each and every condition, or, in the alternative, demonstrating resolution of outstanding violations. Additional, duly noticed Special Permit applications to the Commission may be necessary in the event the Applicant wishes to modify conditions to the 2017 Approval beyond the scope of the pending Applications.

III. Compliance with Special Permit Criteria

The Applications fail to satisfy several of the Special Permit Criteria contained in Article 8 of the Zoning Regulations.

Specifically, a use must be "so designed, located, and proposed to be operated that the public health, safety, and welfare will be protected"[2] and "not adversely affect other property in the area in which it is located."[3] The Applications fail to satisfy this condition, as violations of the 2017 Approval adversely impact the health, safety and welfare of neighboring property owners. For almost a decade, the Applicant has been permitted to push beyond the limits of its previously granted Special Permit Approval. The Commission must show that continued, future violations will not be tolerated. Property values are adversely impacted if neighboring industrial uses are allowed to grow unchecked and in violation of applicable land use approvals and regulations. Similarly, the expanded storage of materials and stockpiling, onsite processing and violation of hours of operation (all in violation of the 2017 Approval) create "[a]dverse impact[s] from noise, odor fumes" and dust.[4]

IV. Conclusion

Since the commencement of the development of the Property, the Applicants have disregarded the authority of the Commission and expanded the use of the Property far beyond what was contemplated in the 2017 Approval. To date, the Applicants continue to engage in activity on the Property in violation of the above Zoning Regulation standards applicable to special permits.

Moreover, the Applicants continue to violate various conditions of the 2017 Approval and have yet to comply with the requirements set out in the Inland Wetland Corrective Action permit. Even so, my clients have faith in the governmental process which exists to ensure compliance with local regulations and conditions imposed by this Commission will serve their purpose and protect residents in cases such as the present one. In sum, we submit that their newly submitted Applications for special permit approval cannot be approved pursuant to the Zoning Regulations until they are in full compliance with all conditions of the 2017 Approval.

Thank you for your time and attention to this important matter and your continued attention to the concerns of the neighborhood.

Sincerely,

Jay Klein

Jason A. Klein

cc: B. Baker bbaker@norwalkct.gov

[2] Zoning Regulations, Sec. 8.4.8.G.1.b.
[3] Zoning Regulations Sec. 8.4.8.G.1.c.
[4] See Zoning Regulations, Sec. 8.4.8.G.2.f.

Williams, Amelia

From: Kleppin, Steven
Sent: Wednesday, August 20, 2025 8:10 AM
To: Williams, Amelia
Subject: FW: Penna Construction - Hearing August 20th

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Sent: Tuesday, August 19, 2025 10:33 PM
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Elena Zaika
46 Carter Street, Norwalk CT 06850

PLANNING & ZONING COMMISSION
125 EAST AVENUE
P.O. BOX 5125
NORWALK, CONNECTICUT 06856-5125
Revised October 12, 2022

REQUIREMENTS FOR SUBMISSION OF ZONING AMENDMENT APPLICATION

APPLICATION INFORMATION (3 HARD COPIES AND A DIGITAL COPY OF ALL REQUIRED DOCUMENTS)

1. **Fee: $1,060.00**
   Submitted herewith.

2. **Applicant's Name and Address**
   Sound Communities, Inc.
   24 1/2 Monroe Street
   Norwalk, CT 06854

3. **Street address of applicant's property affected by proposed amendment and district, block and lot number. Applications for amendments which are accompanied by a site plan, special permit or zone change shall list all adjoining property owners and all property owners directly across the street from the subject property.**
   79 South Main Street
   South Norwalk, Connecticut 06854
   Assessor's Map No. 22SE, 22SW
   District 2, Block 57, Lot 7
   See Schedule A list of abutting property owners to be provided.

4. **Provide the text of the proposed amendment, including appropriate article, section and paragraph references, and a written narrative with reasons for the requested change in the zoning regulations and the effect upon other similarly zoned areas of the city, if such change were approved.**
   See Schedule B attached hereto and made a part hereof.

5. **Provide a zoning history of the property and its adjacent area, beginning in 1929, and the current Plan of Development category for the property**.
   See Schedule C attached hereto and made a part hereof.

6. **Provide dates of any previous zoning amendments or map changes, special exceptions, and/or variances requested for same property or portion thereof, including the file name and number and a copy of any variances(s) requested and granted.**
   Information requested from zoning staff and will be provided.

7. **Provide maps of area in the vicinity of the applicant's property and all other properties with 500' radius (1" = 100') showing:**
   - **a. Current zoning of all property**
   - **b. All other property within 500' radius owned by the applicant**
   - **c. All properties that will become nonconforming uses as a result of the requested change.**

   Refer to "500' Site Vicinity Exhibit Depicting 79 South Main Street Prepared for Sound Communities (Sheet No. EX-1)" dated 7/18/2025 prepared by Redniss & Mead, attached hereto and made a part hereof.

8. **Provide a map of the city showing all zones affected by the zoning amendment including a calculation of the areas involved.**
   See Schedule D attached hereto and made a part hereof. CD-4 zone highlighted in purple.

9. **PUBLIC ACT NO. 95-320 requires that approval of building applications be withheld when taxes are delinquent for a property. Please stop at the Tax Collector's Office (Room 105) to get written confirmation of your tax status before submitting an application for zoning approval. Copies of the form are available in the Planning & Zoning and Tax Collector's Offices.**
   See Schedule E attached hereto and made a part hereof.

10. **Notice Requirements.**
    If the amendment is accompanied by a site plan or special permit application, the applicant shall notify by certified mail, return receipt requested at least ten (10) days prior to the public hearing, the owners of land which abut or are directly across the street from the area affected by the amendment or site plan. The names of the owners shall be taken from the latest Tax Assessor records. When a condominium is located within, across the street, or abuts the subject parcel, notification may be sent to the condominium association in lieu of the individual unit owners. Evidence of certified mailings shall be submitted by the application on or before the public hearing date.
    Applicant to notify appropriate parties in accordance with the zoning regulations.

11. **Traffic & Drainage Reports: Applicants which will have a significant impact upon drainage or traffic conditions shall include the following information, computed on the basis of any of the uses the zoning would allow, calculated on the maximum development potential of the site, and upon the contemplated development, if any. (Eleven copies required).**
    Refer to Stormwater Management report by Redniss & Mead and Traffic and Parking Analysis by Hardesty & Hanover. Both attached hereto and made a part hereof.

Respectfully submitted this the 25th day of July 2025.

Sound Communities, Inc.

By Carmody Torrance Sandak & Hennessey LLP

Carmody Torrance Sandak & Hennessey LLP
Its Attorneys
1055 Washington Boulevard, 4th Floor
Stamford, CT 06901
Phone: (203) 425-4200
Fax: (203) 325-8608

SOUND COMMUNITIES, INC.
79 SOUTH MAIN STREET, 6 & 8 CHESTNUT STREET, SOUTH NORWALK, CT
APPLICATION FOR ZONE TEXT AMENDMENT
EXISTING & PROPOSED USES
SCHEDULE B

I. BACKGROUND

79 South Main Corp. is the owner of real property with the improvements thereon located at 79 South Main Street and also fronting on Chestnut Street in South Norwalk, CT (the "Property"). Sound Communities, Inc. (the "Applicant") is a wholly-controlled subsidiary of Norwalk Housing Authority ("NHA") Designated as Tax Lot 7 in Block 57 of the Second Taxing District, the Property is 0.56+\- acres and is improved with four structures of varying ages, used and occupied as retail and as multi-family residences. (Refer to "Boundary/Topography Survey 79 South Main Street 6 & 8 Chestnut Street Norwalk, Fairfield County, Connecticut 06850" dated 6/4/24 prepared by BLEW Surveying, attached hereto and made a part hereof).

The Property is zoned CD-4 and is a considered a through lot because it has frontage on two streets – Chestnut Street and South Main Street.

II. PROPOSAL

The Applicant purposes the redevelopment of the Property with a new, seven story structure offering 68 units for low-income senior citizens.[1] (Refer to "Zoning Site Plan Depicting 79 South Main Street Norwalk, CT prepared for Sound Communities (ZSP-1)" ["Site Plan"] dated July 22, 2025 prepared by Redniss & Mead, attached hereto and made a part hereof). The new structure will have 64 one-bedroom and 4 two-bedroom units, all to be rented to senior citizens age 62 and older, who earn no more than 30-50% of state AMI. Accordingly, all of the units can be characterized as affordable.

The NHA will demolish all existing buildings on the Property. The new structure will meet the minimum/maximum front yard/front setback on Chestnut Street. However, it proposes a pocket park along the South Main Street frontage, instead of constructing a structure that also enfronts on that roadway.

However, since the Property is a through lot, the Norwalk Zoning Regulations require that for through lots, "the Frontage and Front setback regulations shall apply to both Frontages." (Sec. 4.3.3.E) As a consequence of this regulation, the structure must occupy nearly the entire lot from east to west. The NHA's Site Development Plan proposes a less imposing structure which enfronts on Chestnut Street but locates the residential building approximately 130 feet from the property line on South Main Street. This design allows the creation of a pocket park about 35' x 20' on both sides of the main ingress/egress drive into the Property. As a result, a well-planned park with robust landscaping and public gathering area can be created in the midst of one of the city's most urban environments. (Refer to "Public Spaces Exhibit" dated July 22, 2025 prepared by Eric Rains Landscape Architecture, LLC, attached hereto and made a part hereof).

---

[1]Tenants residing in the Leroy Downs apartment Complex on Monroe Street at Dr Martin Luther King Jr. Boulevard, will be relocated to the proposed new multi-family dwelling.

However, to achieve this goal, the NHA needs to submit this application for zone text amendment to modify the through lot restriction. Toward that end, the Applicant proposes the following revisions to the Zoning Regulations.

1. **Revise Sec. 4.3.3.E as follows:**

   "For through Lots or Building Sites, the Frontage and Front Setback regulations shall apply to both Frontages, *except when located behind a pocket park. (New language italicized and underlined)*

2. **Revise Table 4.3.1-H "District Standards" for Setbacks the CD-4 zone to read as follows:**

Existing Language

"Front Setback Principal Frontage	0 ft. min., 12 ft. max from the property line or from the edge of any public improvements required as part of the development, 50 ft. max. where the Principle frontage is a Watercourse (once the min. Frontage buildout requirement is met, the max. front yard setback shall not apply to additional Principal Structure(s)."

Proposed Language (new in *italics, underlined*):

"Front Setback Principal Frontage	0 ft. min., 12 ft. max from the property line or from the edge of any public improvements required as part of the development, 50 ft. max. *except when located behind a Pocket Park as permitted in Table 4.3.7.A,* where the Principle Frontage is a Watercourse (once the min. Frontage Buildout requirement is met, the max. front yard setback shall not apply to additional Principal Structure(s)."

3. **Revise Table 4.3.1-H "District Standards" for Private Frontage Types, to include Pocket Park as a permitted use.**

4. **Revise Table 4.3.1-H "Vehicular Parking Requirements" for Parking Location to read as follows:**

Existing Language

"Required Parking Spaces	P provided that Parking spaces must be within and/or Behind the Principal Structure; see "Additional Parking Requirements and Additional Standards within The Screens, Streetscreens & Buffers section of This Table"

Proposed Language (new in ***italics, underlined*** *and bold*):

"Required Parking Spaces	P provided that Parking spaces must be within and/or Behind the Principal Structure *or behind a Pocket Park as permitted in Table 4.3.7.A*; see "Additional Parking Requirements and Additional Standards within The Screens, Streetscreens & Buffers section of This Table"

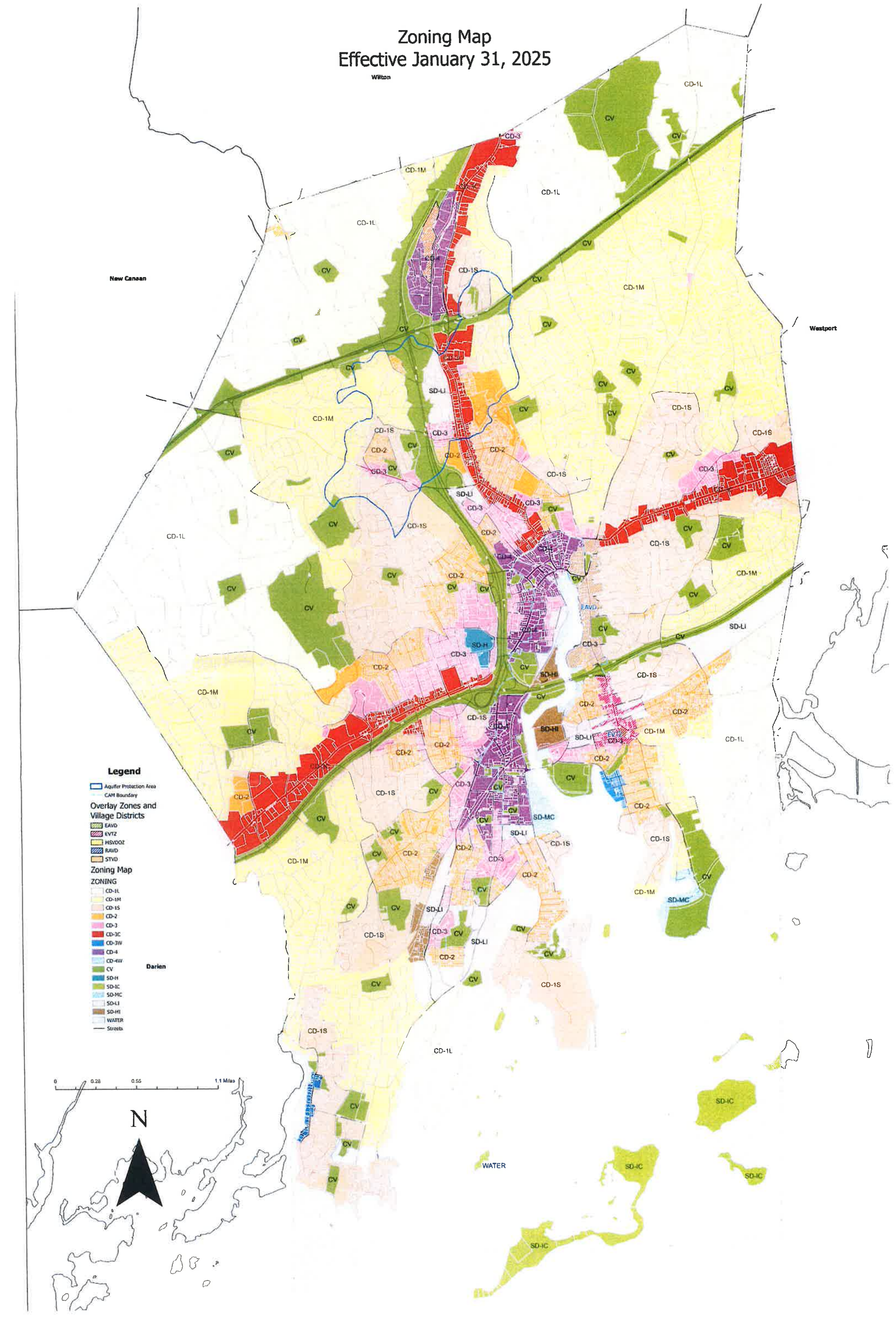
5. Revise the Private Frontage Types in Table 4.3.7.A to add a graphic depicting pocket parks as permitted in the CD-4 zone.

The proposed text amendments are consistent with overarching goals of the City of Norwalk's advisory Plan of Conservation & Development (POCD), adopted by the Common Council in October 2019, and which became effective in December 2019. Notably, the POCD recognized that "[h]ealthy, vibrant cities are constantly evolving in big and small ways to remain desirable by meeting changing demands." (POCD Ch. 12, p. 223). Therefore, consideration and adoption of the proposed text to permit a pocket park addresses the POCD's concern that "[i]f a place always stays the same, it risks stagnation and slowly being left behind." (Id.) Furthermore, when considering an amendment to zoning regulations a Zoning Commission acts in a legislative capacity and is therefore " . . . free to amend its regulations whenever time, experience and responsible planning for contemporary or future conditions reasonably indicate the need for a change." Konigsberg v. Board of Aldermen of the City of New Haven, 283 Conn. 553, 582-583 (2007). Moreover, such legislative discretion is wide and liberal. Id.

CITY OF NORWALK HOUSING AUTHORITY
79 SOUTH MAIN STREET, SOUTH NORWALK, CT
APPLICATION FOR ZONE TEXT AMENDMENT
ZONING HISTORY OF PARCEL
SCHEDULE C

Current Zoning Classification	CD-4
Prior classification	SSDD

Zoning Map
Effective January 31, 2025



Site Plan Review Application

City of Norwalk Planning & Zoning Commission
Phone: 203-854-7780
www.norwalkct.gov

Date Received:

Per Section 8.4.5 of the Norwalk Zoning Regulations, the purpose of Site Plan Reviews is to aid in determining the conformity of proposals related to Development, Buildings, Structures, Uses, and other matters with the Zoning Regulations.

1. **Address of Subject Property(s):**

79 South Main Street, Norwalk, CT

2. District: 2, Block: 57, Lot(s): 7 **3.** Zone: CD-4, Overlay/Village District: No

4. Historic Structure(s): ☐ No ☑ Yes **5.** Flood Hazard Zone: ☑ No ☐ Yes, Flood Zone(s) _____

6. Coastal Area Management Zone: ☑ No ☐ Yes If yes, include application for Coastal Site Plan Review or specify Section allowing exemption: N/A

7. Existing Use of Property:

See Schedule A attached hereto and made a part hereof.

8. Proposed Use of Property as Identified per **Table 4.3.9.A** Building, Lot & Building Site Principal Uses:

See Schedule A attached hereto and made a part hereof.

Applicant Information

Applicant Name: Sound Communities, Inc.

Billing Address: 24 1/2 Monroe Street, Norwalk, CT 06854

Phone Number: c/o Elizabeth Suchy, Esq - 203-252-2656 Email: c/o Elizabeth Suchy, Esq. - esuchy@carmodylaw.com

Signature: Carmody Torrance Sandak & Hennessey LLP

By: Carmody Torrance Sandak & Hennessey LLP, Their Attorneys

Property Owner Information and Authorization

Owner of Record: City of Norwalk Housing Authority

Billing Address: 24 1/2 Monroe Street, Norwalk, CT 06854

Phone Number: c/o Elizabeth Suchy, Esq. - 203-252-2656 Email: c/o Elizabeth Suchy, Esq. - esuchy@carmodylaw.com

Signature: Carmody Torrance Sandak & Hennessey LLP

By: Carmody Torrance Sandak & Hennessey LLP, Their Attorneys

**By signing, the property owner confirms that the Applicant has been authorized to apply for Planning & Zoning approval, and attests that all information provided is true and accurate.*

SOUND COMMUNITIES, INC.
79 SOUTH MAIN STREET and fronting also on
CHESTNUT STREET, SOUTH NORWALK, CT
APPLICATION FOR SITE PLAN REVIEW
NARRATIVE - SCHEDULE A

BACKGROUND

79 South Main Corp. is the owner of real property with the improvements thereon located at 79 South Main Street and also fronting on Chestnut Street in South Norwalk, CT (the "Property"). Sound Communities, Inc. (the "Applicant") is a wholly-controlled subsidiary of Norwalk Housing Authority ("NHA") Designated as Tax Lot 7 in Block 57 of the Second Taxing District, the Property is 0.56+\- acres and is improved with multiple structures of varying ages, used and occupied as multi-family residences. The Property is zoned CD-4. (Refer to "Boundary/Topography Survey 79 South Main Street 6 & 8 Chestnut Street Norwalk, Fairfield County, Connecticut 06850" dated 6/4/24 prepared by BLEW Surveying, attached hereto and made a part hereof).

PROPOSAL

The Applicant proposes the redevelopment of the site with a new, seven-story multi-family residential building containing 68 units, based upon 30-50% of AMI, so all units are affordable under the Norwalk Zoning Regulations (the "regulations"). The units will be geared toward low-income senior citizens age 62 and over.[1] (Refer to "Zoning Site Plan Depicting 79 South Main Street Norwalk, CT prepared for Sound Communities (ZSP-1)" ["Site Plan"] dated July 22, 2025 prepared by Redniss & Mead, attached hereto and made a part hereof).

Per Sec. 4-3-1-H (CD-4) and Sec. 6.12.4.5 of the regulations, residential density in the CD-4 zone is one unit for every 500 sq.ft. of land area. Accordingly, this Property could be developed with 48 units. However, per Section 6.12.4.5.b, residential density in the CD-4 zone can be increased by 50% when more than 50% of the units in a development are at 30-50% AMI. Since all of the units will be affordable and therefor meet the aforementioned guidelines, the residential density can be increased by 50% - and therefore 68 units can be proposed for this site.[2] In addition, Section 6.12.4.5 of the regulations requires that 34 parking spaces be provided for the 68 units.[3] Fourteen (14) uncovered spaces are proposed to be located on the eastern side of the parcel, with the remaining 20 spaces to be located underneath the structure. (Refer to Site Plan, "Zoning Standards and Unit Matrix (A1.00)," "First Floor Plan (A1.010," Second Floor Plan (A1.02)," "Third Through Sixth Floor Plan (A1.03)," "Seventh Floor Plan (A1.04)," "Roof Plan (A1.10)," "Exterior Elevations (A2.01 & A2.02)," "Enlarged Elevation (A2.03)," "Rendering (A2.04 & A2.05)," "Building Section (A3.01)," "Details (A4.01)," all dated 7/22/25 prepared by Amenta Emma Architecture, and "Photometric Calculation (SL-1)" dated 5/15/2025 prepared by Illuminate, all attached hereto and made a part hereof).

Although the Property is a through lot which demands adherence to setback and frontage requirements on both the South Main and Chestnut Street frontages per Sec. 4.3.3.E, the NHA has submitted a text amendment so that it can create a pocket park with robust landscaping and significant

[1] Tenants at the Leroy Downs complex at Monroe Street/Dr. Martin Luther King Jr. Boulevard, will be relocated to this new muti-family development.
[2] A total of 72 units is theoretically possible.
[3] The project envisions 64 one-bedroom and four (4) two-bedroom units.

public space rather than being required to construct what would be a front-to-back building that entirely covers the Property. The purposed pocket park will be a welcomed green space within one of the city's most densely populated and significantly developed areas, which has limited spaces for the public. (Refer to "Landscape Site Materials Plan (SPL-1.0)," "Site Planting Plans (SPL-2.0)," "Site Lighting Plans (SPL-3.0)," "Amenity Courtyard Plans (SPL-4.0)," "Site Materials and Lighting Details (SPL-5.0 and 5.1)," all dated 5/14/25 revised to 7/22/25; "Public Spaces Exhibit" dated July 22, 2025 prepared by Eric Rains Landscape Architecture, LLC, attached hereto and made a part hereof).

STANDARDS OF REVIEW

This site plan review application is submitted pursuant to Sec.8.4.5 (Site Plan Review) and Table 4.3.1-H (CD-4 District Standards). The standards of review for site plan review applications are set forth below and the NHA submits that it meets or exceeds all regulatory standards.[4] The proposed multi-family development complies with the zoning regulations and standards of review for site plan applications set forth in Sec. 8.4.5.N. including appropriateness of design and intensity of development, adequacy of proposed access and circulation with respect to traffic patterns, traffic control measures and, street pavement areas, sufficiency of stormwater facilities, water supply, sanitary sewer service, fire protection, street signs and street lighting, among other requirements set forth in Articles 1-5 and 7 of the zoning regulations.

Specifically, the Applicant submits that the proposal complies with all standards of review for site plan applications as follows:

a. The development complies with Sec. 4.3.5 (Building Standards); Sec. 4.3.16 (Private Landscape Standards): Sec. 6.2 (Grading, Tree Removal and Drainage): Sec. 6.3 (Import/Export of Earth Materials); Sec. 6.4 (Soil Erosion & Sediment Control): Sec. 6.9 (Flood Hazard Overlay). The proposal complies with all of the foregoing standards. (Refer to plans by Amenta Emma Architects, Eric Rains Landscape Architecture, LLC, and Redniss & Mead, attached hereto and made a part hereof.

b. The proposed access and circulation are adequate with respect to traffic patterns, traffic control measures and street pavement areas, with provisions for maintaining traffic flows and reducing any negative effects of traffic on nearby properties. The project provides proper and adequate access to and from the Property and internal circulation to maintain traffic flows and reduce negative impacts on nearby properties and roadways. (Refer to "Zoning Site Plan Depicting 79 South Main Street Norwalk, CT Prepared for Sound Communities (ZSP-1)" dated July 22, 2025 prepared by Redniss & Mead, attached hereto and made a part hereof).

c. The Development complies with all applicable Development and site construction requirements. (Refer to plans by Redniss & Mead, attached hereto and made a part hereof).

d. Adequacy of stormwater facilities, water supply, sanitary sewer service, fire protection, street signs, and street lighting as evidenced by conformance with City standards, specifications and guidelines. The site is and will continue to be served by all utilities. (Refer to "Site Grading & Utility Plan Depicting 79 South Main Street Norwalk, CT Prepared for Sound Communities (SE-1)," "Sound Communities Development Site Engineering Report" and "Stormwater Operations

[4] Provided the text amendment application to modify the requirements of through lots in the CD-4 zone is approved.

and Maintenance Plan 79 South Main Street, Norwalk, CT" all dated July 22, 2025 prepared by Redniss & Mead, attached hereto and made a part hereof).

e. Compliance with requirements for Easements or dedications. The development does not propose any new easements or dedications.

f. Proper ingress and egress to the site which does not adversely impact the normal flow of traffic or normal safe conditions of the roadways. Site plans shall be referred to each applicable reviewing authority for review and recommendations. This proposal does not impact traffic or roadway safety, as the proposed driveway has been designed to city public works standards. This application and supporting documentation will be referred to the Department of Public Works and Transportation/Mobility/Parking for review and comment. (Refer to "Zoning Site Plan Depicting 79 South Main Street Norwalk, CT Prepared for Sound Communities (ZSP-1)" and "Notes & Details Depicting 79 South Main Street Norwalk, CT Prepared for Sound Communities (Sheet SE-3, SE-4, SE-5, SE-6)" all dated July 22, 2025, attached hereto and made a part hereof.

g. Reasonable improvements as may be necessary to accommodate traffic increases caused by the proposed development to maintain existing levels of service and to improve traffic safety. A Traffic Impact Analysis, as specified below, may be required from the applicant to determine the extent of necessary improvements. According to Hardesty & Hanover, " . . .the surrounding roadways are anticipated to operate similarly to existing conditions, with no anticipated significant impacts during the weekday morning and afternoon, respectively." Moreover, "[t]he proposed development will provide sufficient parking based on the Zoning Regulations, ITE parking rates and a similar site's parking rates." (Refer to p. 3 of "Traffic & Parking Evaluation – Senior Affordable Housing Development – 79 South Main Street Nowalk, Connecticut" dated July 23, 2025 prepared by Hardesty & Hanover, attached hereto and made a part hereof.)

79 SOUTH MAIN ST.

SITE PLAN SUBMISSION

NORWALK, CT 06854

07.22.2025

SHEET LIST	
Sheet Number	Sheet Name
COVER	COVER SHEET
SURVEY	BOUNDARY / TOPOGRAPHIC SURVEY
ZSP-1	ZONING SITE PLAN
SE-1	SITE GRADING & UTILITY PLAN
SE-2	SEDIMENT & EROSION CONTROL AND SITE REMOVALS PLAN
SE-3	NOTES & DETAILS
SE-4	DETAILS
SE-5	DETAILS
SE-6	DETAILS
SPL-1.0	LANDSCAPE SITE MATERIALS PLAN
SPL-2.0	SITE PLANTING PLANS
SPL-3.0	SITE LIGHTING PLAN
SPL-4.0	AMENITY COURTYARD PLANS
SPL-5.0	SITE MATERIALS AND LIGHTING DETAILS
SPL-5.1	SITE PLANTING DETAILS
A1.00	ZONING STANARDS AND UNIT MATRIX
A1.01	FIRST FLOOR PLAN
A1.02	SECOND FLOOR PLAN
A1.03	THIRD THROUGH SIXTH FLOOR PLAN
A1.04	SEVENTH FLOOR PLAN
A1.10	ROOF PLAN
A2.01	EXTERIOR ELEVATIONS
A2.02	EXTERIOR ELEVATIONS
A2.03	ENLARGED ELEVATION
A2.04	RENDERING
A2.05	RENDERING
A3.01	BUILDING SECTION
A4.01	DETAILS
SL-1	SITE LIGHTING PHOTOMETRIC CALCULATION

AMENTA|EMMA
ARCHITECTS

OWNER:
SOUND COMMUNITIES, INC.
24 1/2 MONROE STREET
NORWALK, CT 06854
203.354.1830

ARCHITECT:
AMENTA|EMMA ARCHITECTS, P.C.
242 TRUMBULL STREET, SUITE 201
HARTFORD, CT 06103
860.549.4725

CIVIL ENGINEER:
REDNISS & MEAD, INC.
22 FIRST STREET
STAMFORD, CT 06905
203.327.0500

LANDSCAPE ARCHITECT:
ERIC RAINS LANDSCAPE
ARCHITECTURE, LLC
11A NORTH MAIN STREET
NORWALK, CT 06854
203.354.6500

SURVEYOR:
BLEW & ASSOCIATES, P.C.
3825 N. SHILOH DRIVE
FAYETTEVILLE, AR 72703
479.443.4506

TRAFFIC:
HARDESTY & HANOVER
59 ELM STREET, SUITE 406
NEW HAVEN, CT, 06510
203.772.2857

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CD-4 ZONING DATA

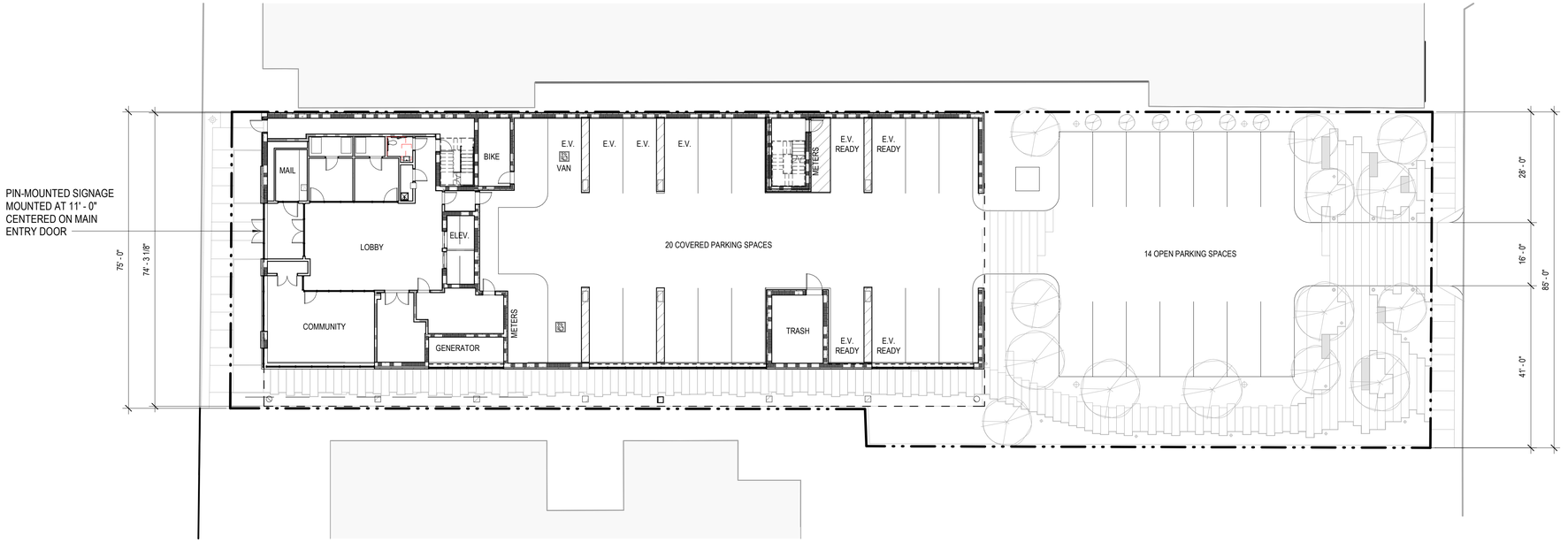
CODE PROVISION	REQUIRED	PROVIDED	REMARKS
LOT OCCUPATION			
LOT/BUILDING SITE WIDTH	300' MAX.	COMPLIES	85'
FRONTAGE BUILDOUT	80% MIN.		99% AT CHESTNUT STREET;81% AT SOUTH MAIN STREET
LOT/BUILDING SITE AREA	NOT REGULATED	-	
IMPERVIOUS SURFACE COVERAGE	80% MAX./90% MAX. IF 10% DEVEOTED TO PUBLIC REALM	COMPLIES	83% IMPERVIOUS; 29 % PUBLIC REALM
LOT/BUILDING SITE ENFRONTMENT	MUST ENFRONT A STREET	COMPLIES	
LOT/BUILDING SITE ACCESS	LEGAL AND PHYSICAL ACCESS REQUIRED	ACCESS FROM SOUTH MAIN STREET	
SETBACKS			
FRONT SETBACK, PRINCIPAL FRONTAGE (CHESTNUT STREET)	12' MAX.	COMPLIES	7'-6" AT CHESTNUT STREET
FRONT SETBACK, SECONDARY FRONTAGE (SOUTH MAIN STREET)	12' MAX. TO EDGE OF ANY PUBLIC IMPROVEMENTS	COMPLIES	0' AT SOUTH MAIN STREET
SIDE SETBACK	0' MIN.	COMPLIES	
REAR SETBACK	3' MIN.	NOT APPLICABLE FOR A THROUGH LOT	
PRIVATE FRONTAGE TYPES	COMMERCIAL FRONT	PERMITTED	
CIVIC SPACE TYPES	POCKET PARK	PERMITTED	
PERMITTED USE	MID-RISE	PERMITTED WITH LIMITATIONS	PER 6.12.5.14, 8 STORIES ALLOWED MAX (7 PROVIDED)
DENSITY	1 DWELLING UNIT PER 500 SF	COMPLIES WITH BONUS	PER 6.12.5.14, 72 UNITS ALLOWED MAX (68 PROVIDED)
BUILDING STANDARDS			
BUILDING HEIGHT	2 STORIES MIN./6.5 STORIES MAX.	COMPLIES WITH BONUS	PER 6.12.5.14, 8 STORIES ALLOWED MAX (7 PROVIDED)
CEILING HEIGHT	13' MAX. FLOOR TO FLOOR; FIRST FLOOR BUSINESS MIN, 15'	COMPLIES	
BUILDING COMPOSITION	BASE/MIDDLE/CAP	COMPLIES	
	10' SETBACK AT UPPERMOST STORY	COMPLIES	
GROUND FLOOR ELEVATION	36" MAX.	COMPLIES	0" GROUND FLOOR ELEVATION
MAIN ENTRANCE	REQUIRED TO BE ON PRINCIPAL FRONTAGE	COMPLIES	
FACADE POSITION	PARRALLEL TO FRONTAGE LINE	COMPLIES	
FACADE DESIGN PROPORTIONS	MUST BE VERTICALLY PROPORTIONED	COMPLIES	
FACADE ARTICULATION	REQUIRED FOR FACADES GREATER THAN 100' IN WIDTH	NOT REQUIRED	75' MAX BUILDING WIDTH
FACADE GLAZING	10% MIN. TOTAL FACADE	COMPLIES	39% GLAZING
	20% MIN. FIRST STORY COMMERCIAL FRONT	COMPLIES	40% GLAZING AT FIRST FTORY
WINDOW SHAPE	SQUARE OR VERITCAL IN PROPORTION	COMPLIES	
WINDOW ALIGNMENT	UPPER WINDOWS MUST GENERALLY ALIGN WITH FIRST FLOOR	COMPLIES	
WINDOW TYPE	SINGLE OR DOUBLE HUNG, CASEMEN OR AWNING	COMPLIES	
	ABOVE FIRST STORY, GLAZING MUST BE LESS THAN 50% TOTAL FACADE		36% GLAZING ABOVE FIRST STORY
WINDOW TRIM	MIN. 3" TRIM	COMPLIES	
ROOF TYPE AND PITCH	FLAT	COMPLIES	
PRIMARY BUILDING MATERIALS	BRICK/CEMENTITIOUS SIDING	COMPLIES	
CHANGES IN BUILDING MATERIAL	PRIMARY BUILDING MATERIALS MUST WRAP ALONG SIDE ELEVATIONS	COMPLIES	
BUILDING COLORS	3 MAX.	COMPLIES	
BUILDING TYPE			
MID-RISE	PERMITTED	COMPLIES	
LARGE MULTIFAMILY BUILDING	PERMITTED	COMPLIES	
PARKING			
REQUIRED PARKING SPACES	LOCATED WITHIN AND/OR BEHIND THE PRINCIPAL STRCUTURE	COMPLIES	
GARAGE	8.5' X 19' MIN. PARKING SPACE DIMENSIONS	COMPLIES	
BIKE PARKING	1 BIKE SPOT PER 10 DWELLING UNITS	COMPLIES	68 DWELLING UNITS; 7 SPOTS PROVIDED
	SHELTERED BIKE PARKING REQUIRED FOR MORE THAN 10 DWELLING UNITS	COMPLIES	
LOADING	1 LOADING SPACE REQUIRED FOR GREATER THAN 99 UNITS	NOT REQUIRED	68 DWELLING UNITS
ELECTRIC VEHICLE CHARGING	PERMITTED	COMPLIES	PROVIDED IN GARAGE AND AT EXTERIOR PARKING AREA

CD-4 ZONING DATA

CODE PROVISION	REQUIRED	PROVIDED	REMARKS
SIGNAGE			
BAND SIGN (1 PER FRONTAGE)	1.5 SF PER LINEAR FT OF FACADE; 3' MAX HEIGHT; 7" MAX DEPTH	COMPLIES	112.5 SF ALLOWED; 15 SF PROVIDED
LIGHTING			
REQUIRED PRIVATE LIGHTING	PARKING AREAS AND ACCESSWAYS	COMPLIES	
POLE	ALUMINUM	COMPLIES	
HEAD	COLONIAL, COACH OR ACORN HEAD	APPROPRIATE FIXTURES PROVIDED; NOT COBRA HEAD	
PRIVATE LIGHTING COVERAGE	1.0 TO 2.0 FC THROUGHOUT PARKING AREA	COMPLIES	
PUBLIC REALM			
REQUIRED PUBLIC REALM	10% LOT AREA	COMPLIES	29% PUBLIC REALM
PRIVATE LANDSCAPING AND FENCING			
LANDSCAPING	NOT REQUIRED IF PAVED	COMPLIES	
	CONTINUOUS SHRUBS AT FOUNDATION IF GREATER THAN 3' FRONT YARD	COMPLIES	
PEDESTRAN CONNECTION	CONNECTION THROUGH TO ADJACENT NEIGHBORHOOD OR USES	COMPLIES	
SCREENS, STREETSCREEN AND BUFFERS			
PARKING AREA SCREENING	HEDGE SCREEN AT FRONTAGE 3'-5'; MIN. 80% OPACITY	COMPLIES	
	HEDGE SCREEN AT FRONTAGE 5'-6'; MIN. 80% OPACITY	COMPLIES	

UNIT MATRIX

LEVEL	UNIT TYPE	# OF BATHS	UNIT COUNT	UNIT SIZE	UNIT SF	AMENITY SF
FLOOR 1	-	-	-	0 SF	0 SF	1562 SF
FLOOR 2	1 BR	1	12	641 SF	7692 SF	2306 SF
FLOOR 3	1 BR	1	12	641 SF	7692 SF	256 SF
FLOOR 4	1 BR	1	12	641 SF	7692 SF	256 SF
FLOOR 5	1 BR	1	12	641 SF	7692 SF	256 SF
FLOOR 6	1 BR	1	12	641 SF	7692 SF	256 SF
FLOOR 7	1 BR	1	4	641 SF	2564 SF	0 SF
	2 BR	1	2	962 SF	1924 SF	
	2 BR CORNER	1	2	940 SF	1880 SF	
TOTAL			68		44828 SF	4892 SF



17 ARCHITECTURE SITE PLAN
SCALE: 1/16" = 1'-0"

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AMENTA|EMMA
ARCHITECTS

STATE OF CONNECTICUT
WILLIS R. BROWN
NO. 9695
LICENSED ARCHITECT

SOUND COMMUNITIES

79 SOUTH MAIN ST.

NORWALK, CT 06854

CONSULTANTS

KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
DRAWN	
CHECKED	Checker
SCALE	1/16" = 1'-0"
FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_CENTRAL_DD_2025_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

No.	Date	Description

SITE PLAN SUBMISSION

SHEET TITLE

ZONING STANARDS AND UNIT MATRIX

A1.00

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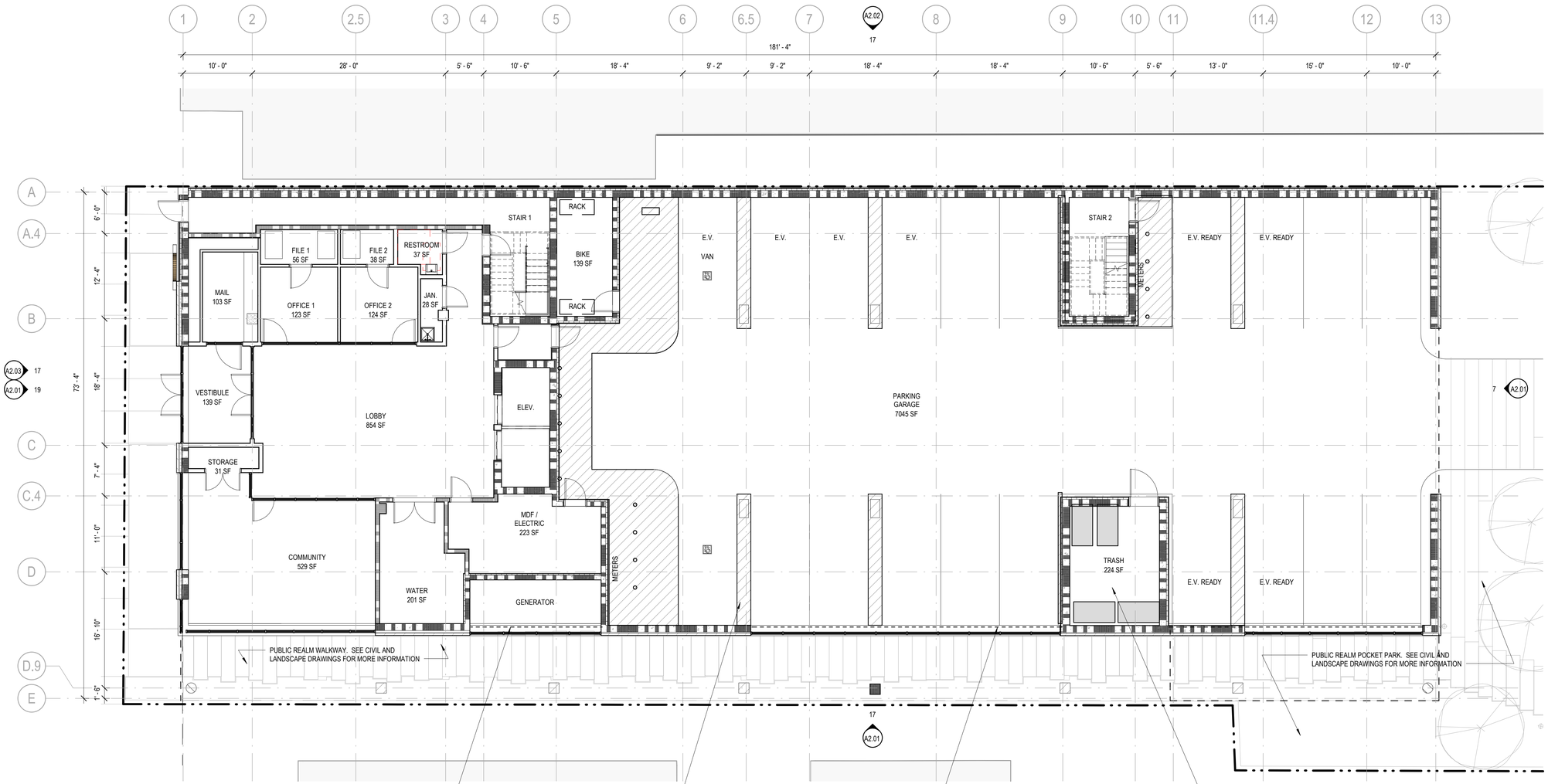
ARCHITECTS



17 FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

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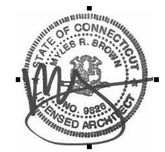

SOUND COMMUNITIES

79 SOUTH MAIN ST.

NORWALK, CT 06854

CONSULTANTS

KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
DRAWN	
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HISTORY OF SUBMISSIONS

No.	Date	Description

SITE PLAN SUBMISSION

SHEET TITLE

FIRST FLOOR PLAN

A1.01

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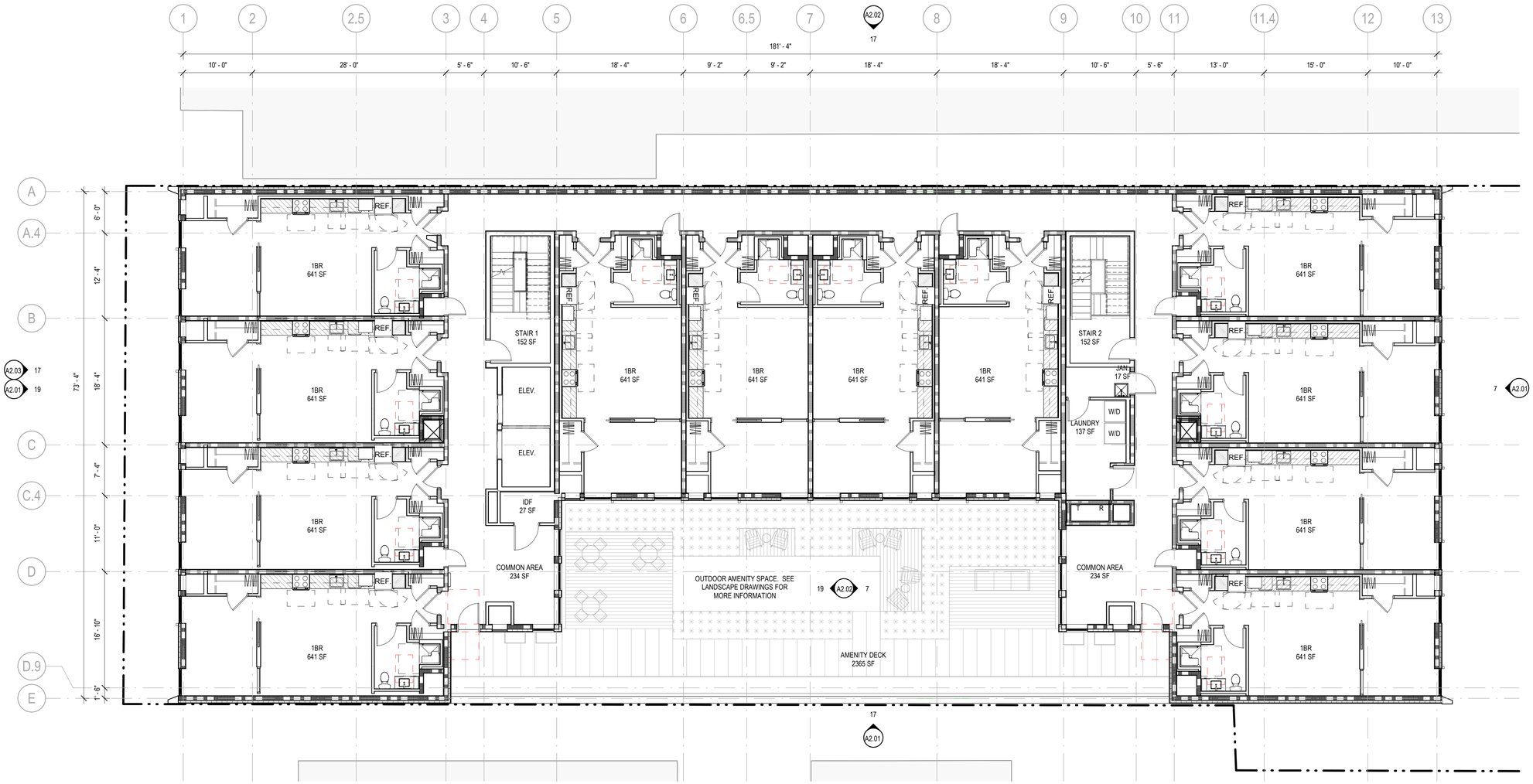

17 SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

7/22/2025 8:04:34 AM
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SOUND
COMMUNITIES

79 SOUTH MAIN ST.

NORWALK, CT 06854

CONSULTANTS

KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
DRAWN	
CHECKED	Checker
SCALE	1/8" = 1'-0"
FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_CENTRAL_DD_2025_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

No.	Date	Description

SITE PLAN
SUBMISSION

SHEET TITLE

SECOND FLOOR PLAN

A1.02

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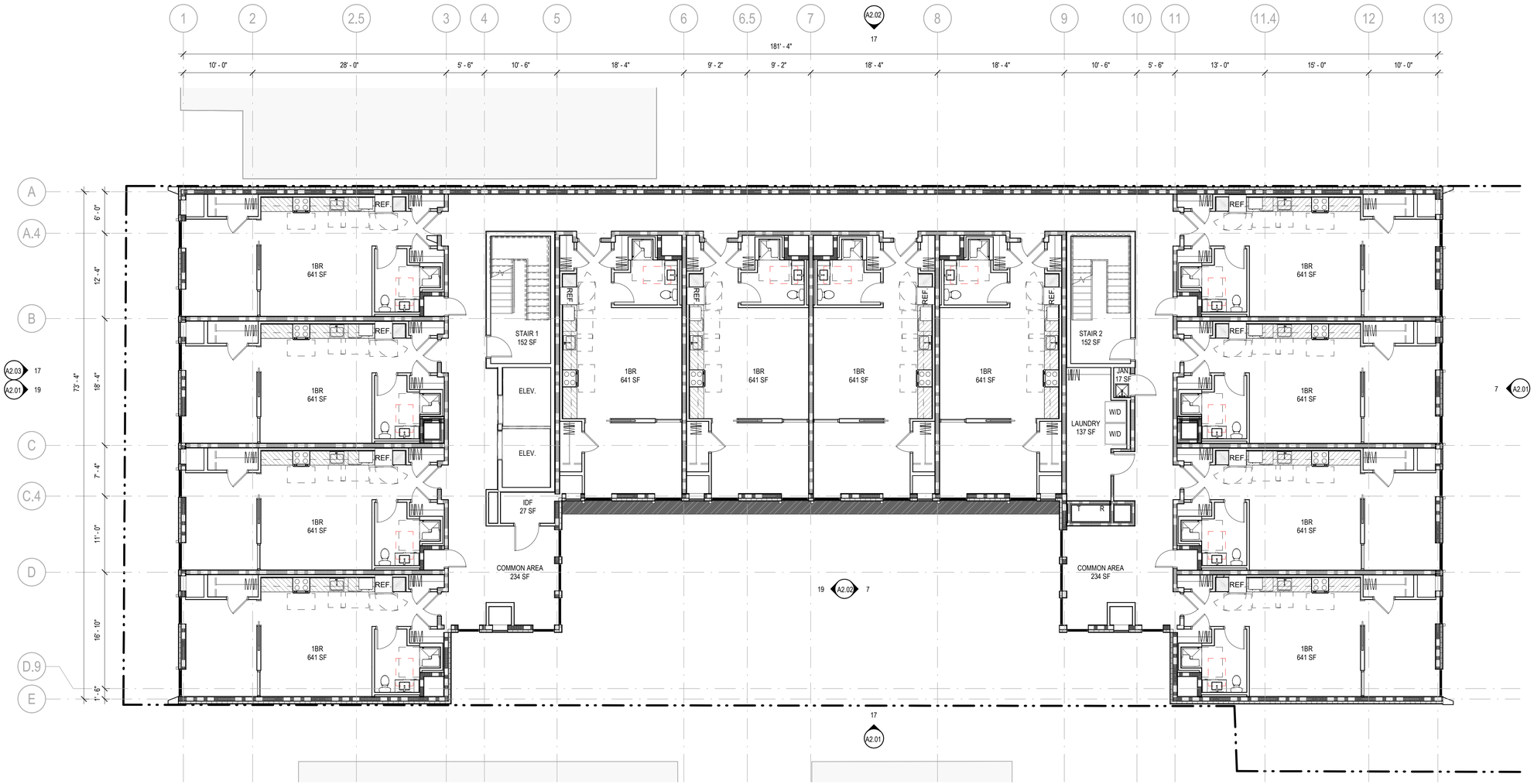

SOUND COMMUNITIES

79 SOUTH MAIN ST.

NORWALK, CT 06854

CONSULTANTS

KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
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CHECKED	Checker
SCALE	1/8" = 1'-0"
FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_CENTRAL_DD_2025_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

No.	Date	Description

SITE PLAN SUBMISSION

SHEET TITLE

THIRD THROUGH SIXTH FLOOR PLAN

17 THIRD THROUGH SIXTH FLOOR PLANS
SCALE: 1/8" = 1'-0"

N

A1.03

7/22/2025 8:04:36 AM
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VEGETATIVE ROOF

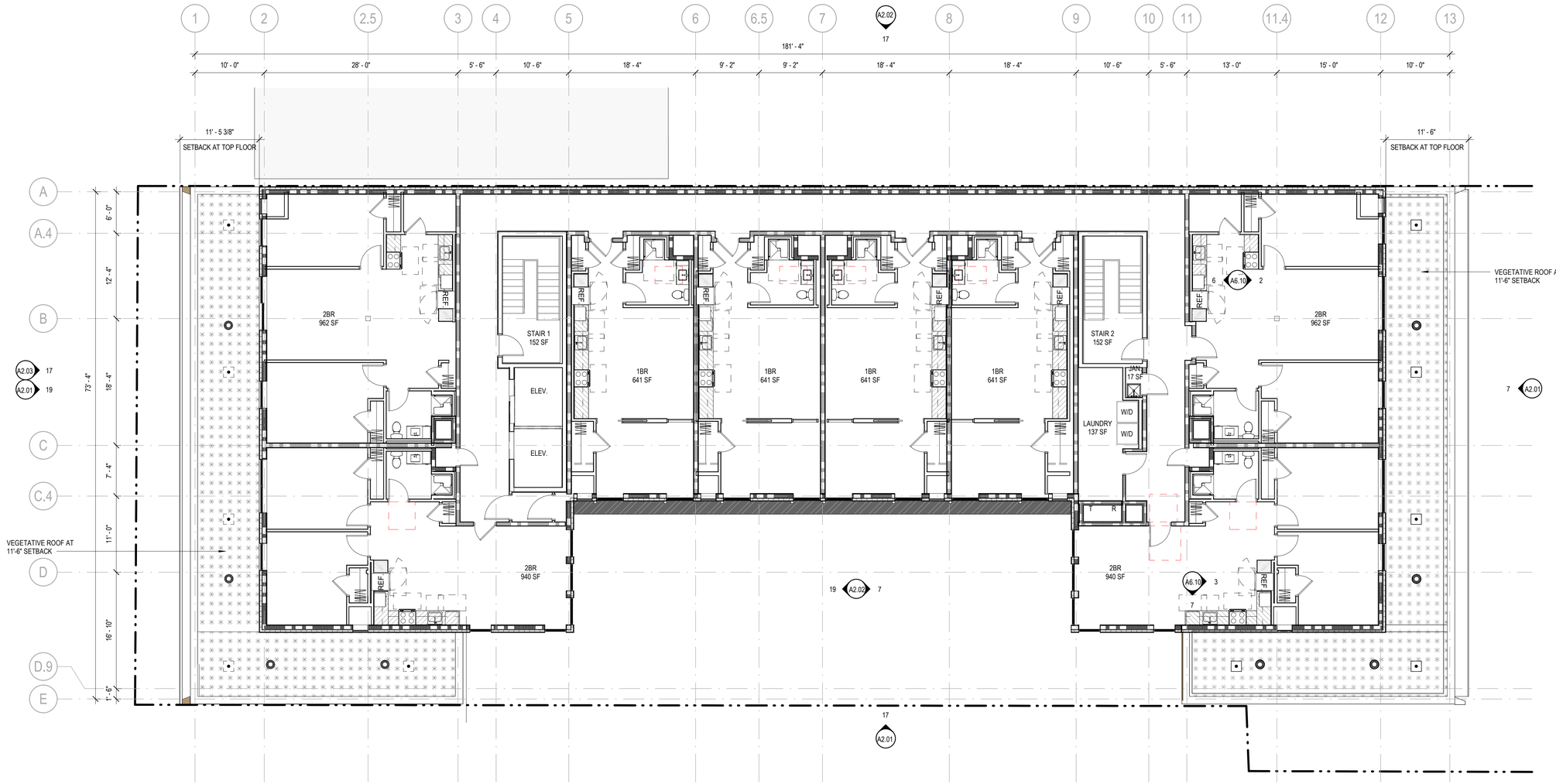
FUTURE PHOTOVOLTAIC ARRAY

ROOF DRAIN

ROOF DAVIT

ROOF ACCESS HATCH

4 ROOF PLAN LEGEND



17 SEVENTH FLOOR PLAN
SCALE: 1/8" = 1'-0"

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79 SOUTH MAIN ST.

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KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
DRAWN	
CHECKED	Checker
SCALE	1/8" = 1'-0"
FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_CENTRAL_DD_2025_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

No.	Date	Description

SITE PLAN SUBMISSION

SHEET TITLE

SEVENTH FLOOR PLAN

A1.04

VEGETATIVE ROOF

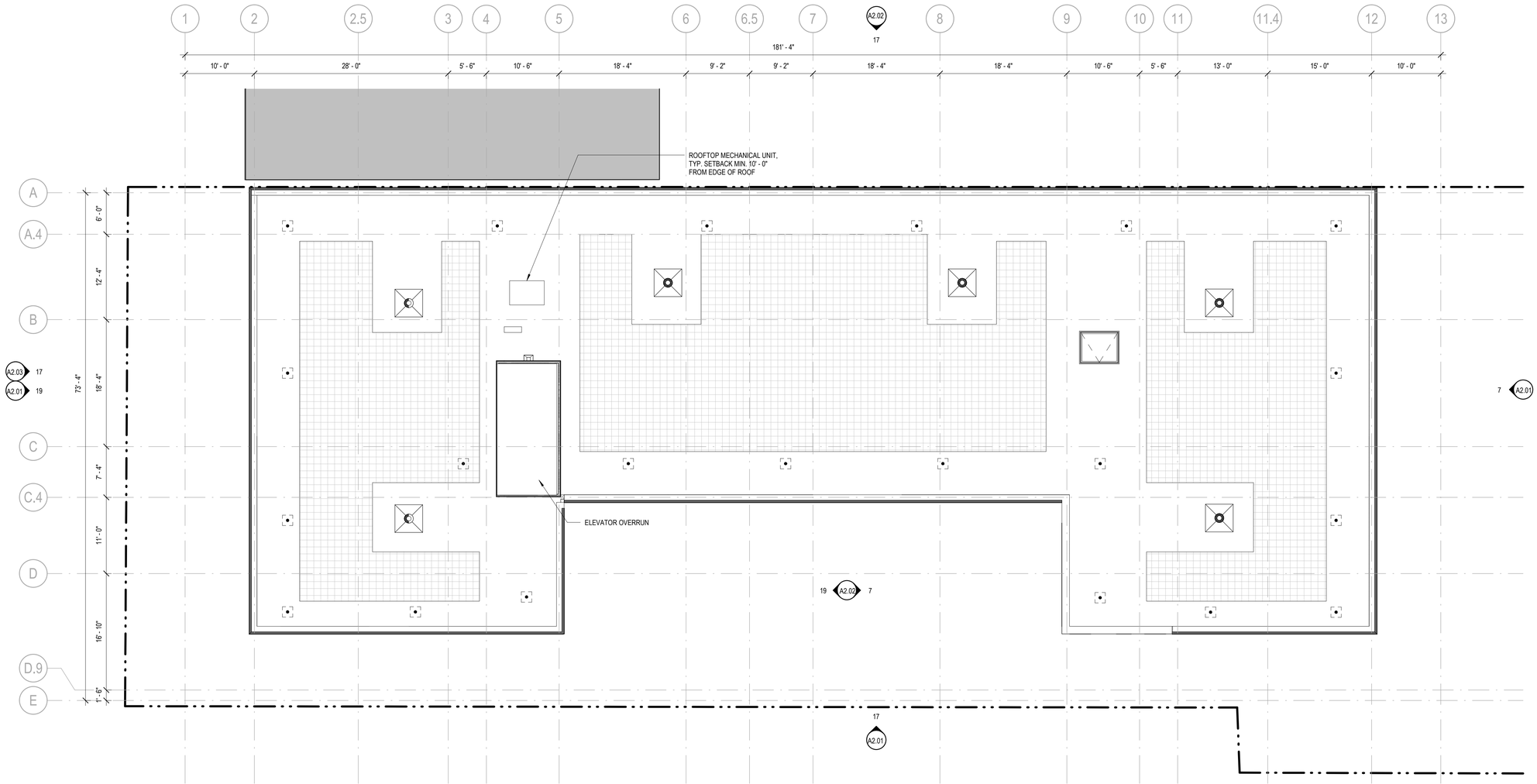
FUTURE PHOTOVOLTAIC ARRAY

ROOF DRAIN

ROOF DAVIT

ROOF ACCESS HATCH

4 ROOF PLAN LEGEND



17 ROOF PLAN
SCALE: 1/8" = 1'-0"

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79 SOUTH MAIN ST.

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KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
DRAWN	
CHECKED	Checker
SCALE	1/8" = 1'-0"
FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_CENTRAL_DD_2025_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

No.	Date	Description

SITE PLAN SUBMISSION

SHEET TITLE

ROOF PLAN

N

A1.10

19 EXTERIOR ELEVATION - WEST FACADE
SCALE: 3/32" = 1'-0"

7 EXTERIOR ELEVATION - EAST FACADE
SCALE: 3/32" = 1'-0"

17 EXTERIOR ELEVATION - SOUTH FACADE
SCALE: 3/32" = 1'-0"

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79 SOUTH MAIN ST.

NORWALK, CT 06854

CONSULTANTS

KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
DRAWN	
CHECKED	Checker
SCALE	3/32" = 1'-0"
FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_2025.2_7story_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

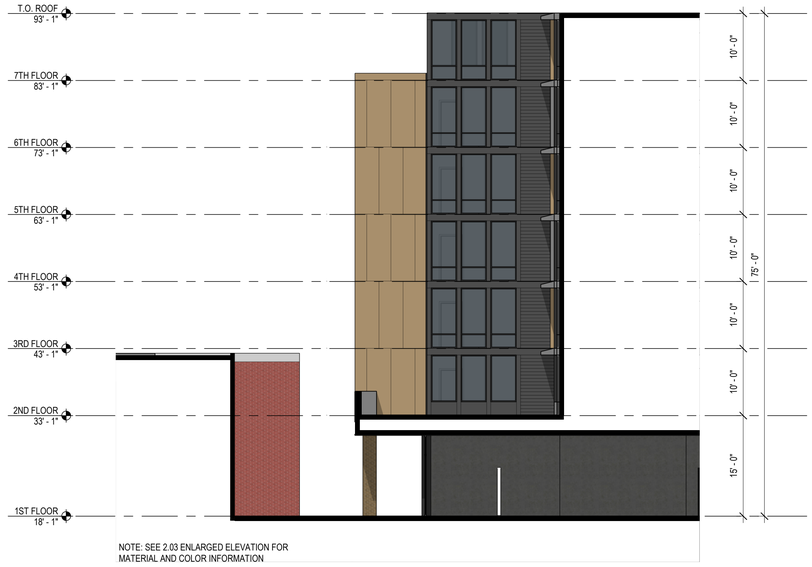
No.	Date	Description

SITE PLAN SUBMISSION

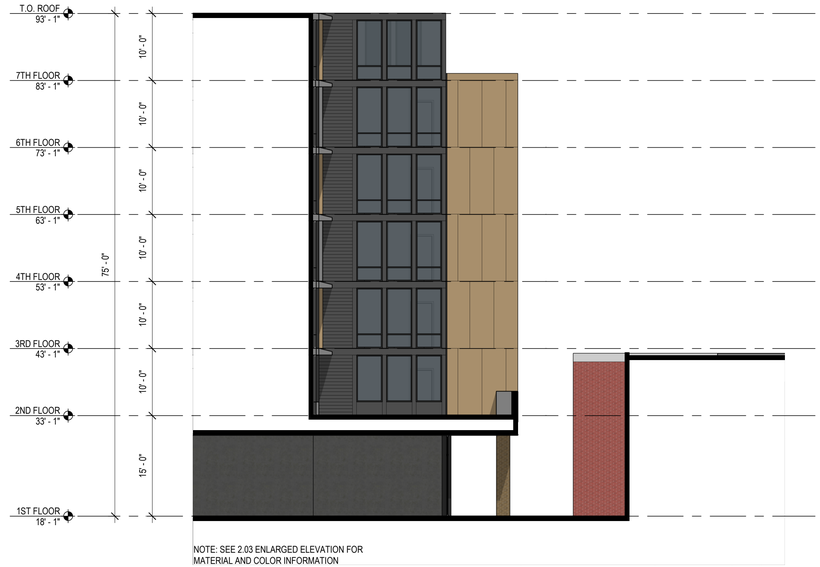
SHEET TITLE

EXTERIOR ELEVATIONS

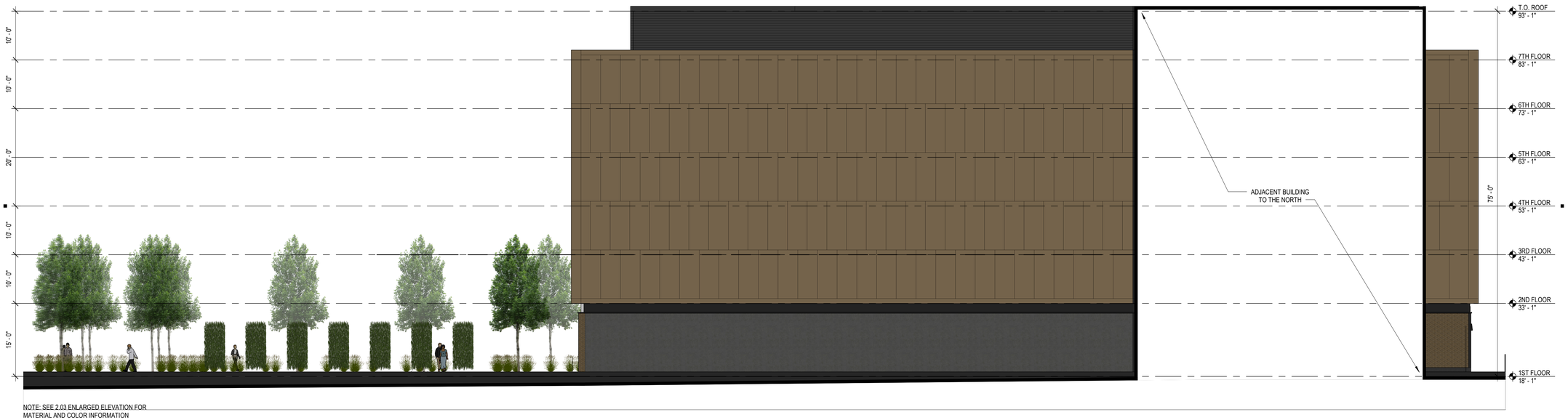
A2.01



19 EXTERIOR ELEVATION - COURTYARD WEST
SCALE: 3/32" = 1'-0"



7 EXTERIOR ELEVATION - COURTYARD EAST
SCALE: 3/32" = 1'-0"



17 EXTERIOR ELEVATION - NORTH FACADE
SCALE: 3/32" = 1'-0"

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SOUND COMMUNITIES

79 SOUTH MAIN ST.

NORWALK, CT 06854

CONSULTANTS

KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
DRAWN	
CHECKED	Checker
SCALE	3/32" = 1'-0"
FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_2025.2_7story_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

No.	Date	Description

SITE PLAN SUBMISSION

SHEET TITLE

EXTERIOR ELEVATIONS

A2.02

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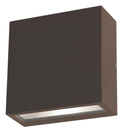
LAP SIDING - JAMES HARDIE FIBER CEMENT, RICH ESPRESSO SMOOTH

WINDOWS - INTUS uPVC, BLACK EXTERIOR FINISH

FIBER CEMENT PANEL - CERACLAD FIBER CEMENT, CUSTOM COLOR TO MATCH BRICK

FACE BRICK - KANSAS BRICK AND TILE, 500 CLASSIC MODULAR

WALL BASE - MASONRY BASE, COLOR TO MATCH CHARCOAL FIBER CEMENT



EXTERIOR SCONCE - AFX 'DEXTER' 06" LED OUTDOOR SCONCE, COLOR TO MATCH LAP SIDING

17 EXTERIOR ELEVATION - FACADE MATERIALS
SCALE: 3/16" = 1'-0"

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79 SOUTH MAIN ST.

NORWALK, CT 06854

CONSULTANTS

KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
DRAWN	
CHECKED	Checker
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FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_2025.2_7story_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

No.	Date	Description

SITE PLAN SUBMISSION

SHEET TITLE

ENLARGED ELEVATION

A2.03

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CONSULTANTS

KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
DRAWN	
CHECKED	Checker
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FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_2025.2_7story_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

No.	Date	Description

SITE PLAN SUBMISSION

SHEET TITLE

RENDERING

17 VIEW LOOKING NORTHEAST ALONG CHESTNUT STREET

A2.04

7/22/2025 8:19:56 AM
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79 SOUTH MAIN ST.

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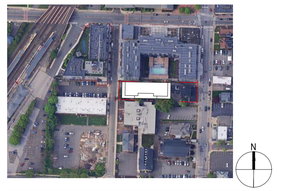
KEY PLAN



PROJECT DATA

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CHECKED	Checker
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FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_2025.2_7story_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

No.	Date	Description

SITE PLAN SUBMISSION

SHEET TITLE

RENDERING

17 VIEW LOOKING NORTHWEST ALONG SOUTH MAIN STREET

A2.05

7/22/2025 8:20:00 AM
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17 LOOKING NORTH
SCALE: 1/8" = 1'-0"

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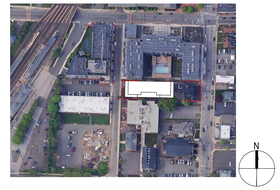
SOUND COMMUNITIES

79 SOUTH MAIN ST.

NORWALK, CT 06854

CONSULTANTS

KEY PLAN



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HISTORY OF SUBMISSIONS

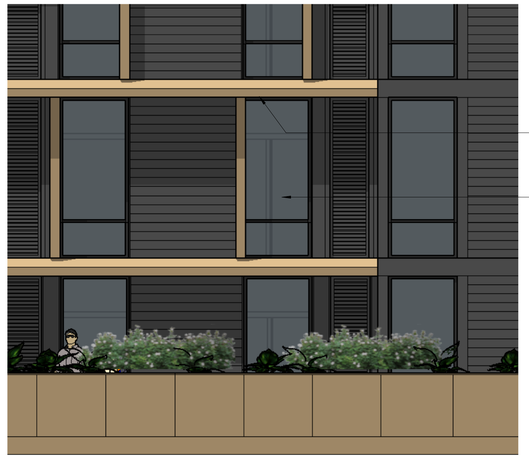
No.	Date	Description

SITE PLAN SUBMISSION

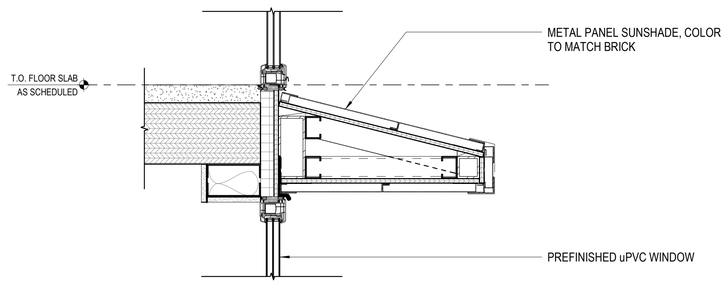
SHEET TITLE

BUILDING SECTION

A3.01

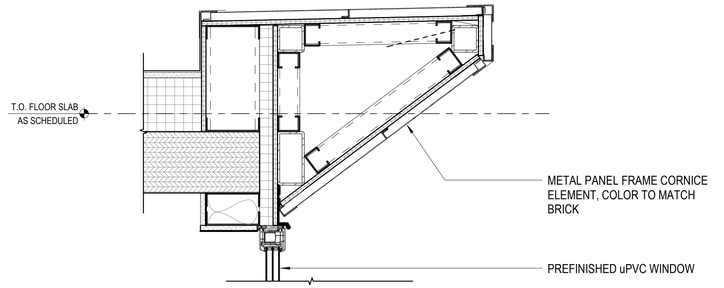


15 EXTERIOR ELEVATION - SHADING CANOPY
SCALE: 1/4" = 1'-0"

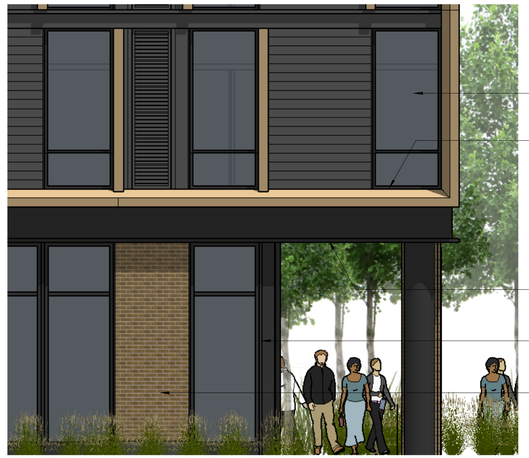


7 SECTION DETAIL - SUNSHADE
SCALE: 1 1/2" = 1'-0"

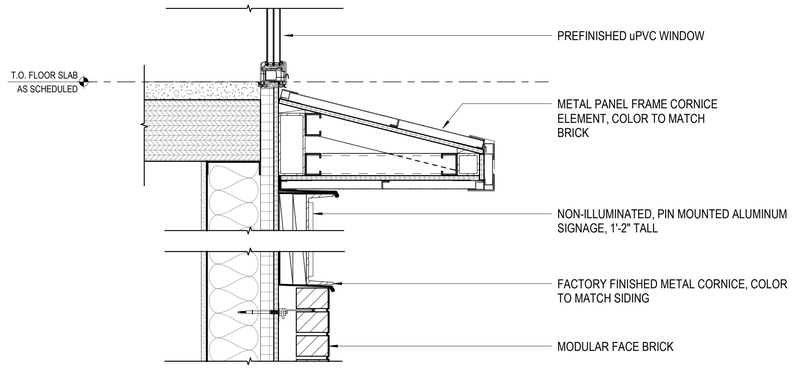
14 EXTERIOR ELEVATION - METAL FRAME PARAPET
SCALE: 1/4" = 1'-0"



6 SECTION DETAIL - METAL FRAME PARAPET
SCALE: 1 1/2" = 1'-0"



13 EXTERIOR ELEVATION - BASE CORNICE
SCALE: 1/4" = 1'-0"



5 SECTION DETAIL - BASE CORNICE
SCALE: 1 1/2" = 1'-0"

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NO. 9685
REGISTERED ARCHITECT

SOUND COMMUNITIES

79 SOUTH MAIN ST.

NORWALK, CT 06854

CONSULTANTS

KEY PLAN

PROJECT DATA

PROJECT NUMBER	25022
CURRENT SUBMISSION DATE	07.22.2025
DRAWN	
CHECKED	Checker
SCALE	As indicated
FILE REFERENCE	C:\Users\athisdale\Documents\25022_79 S. MAIN ST_2025.2_7story_athisdaleDDFJV.rvt

HISTORY OF SUBMISSIONS

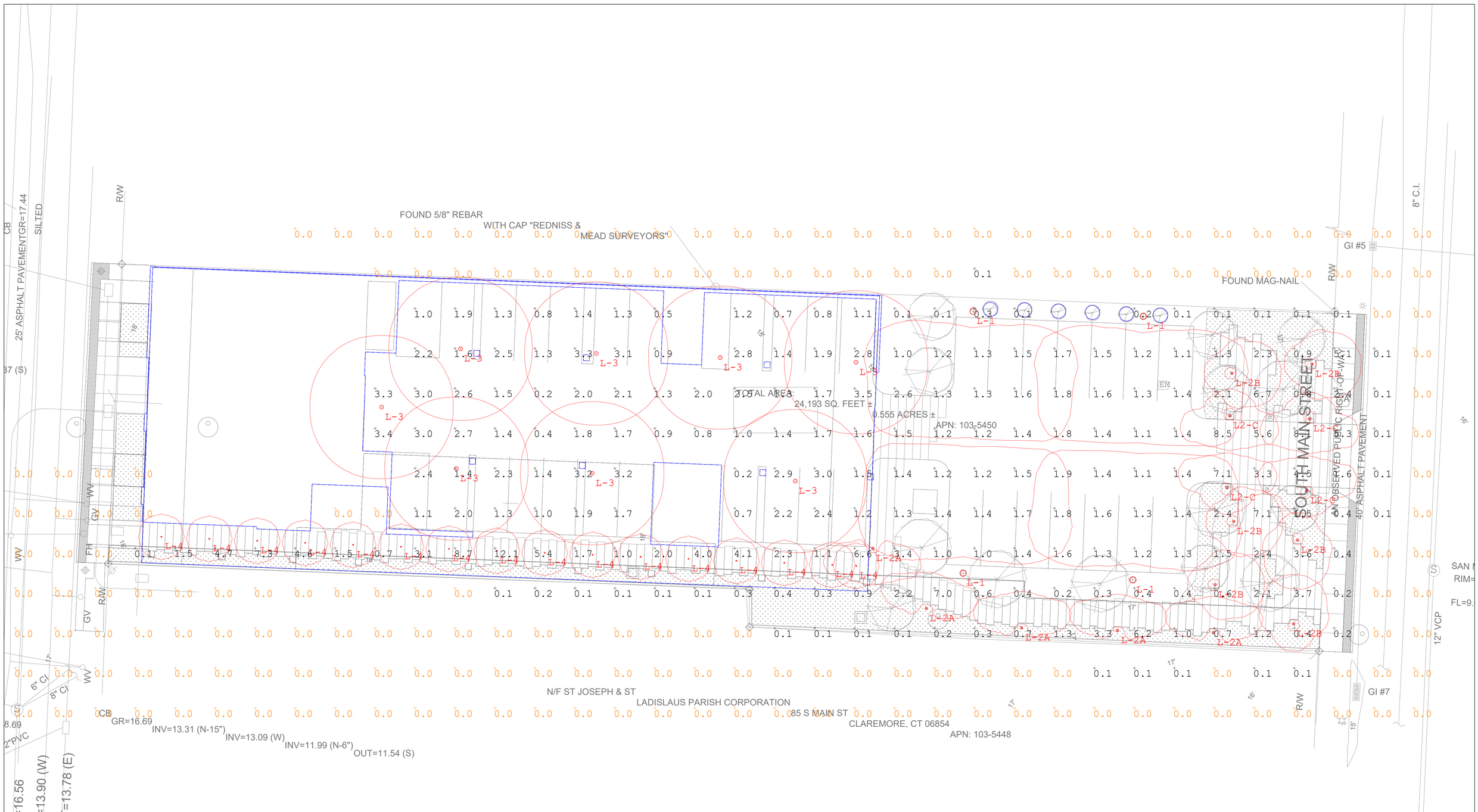
No.	Date	Description

SITE PLAN SUBMISSION

SHEET TITLE

DETAILS

A4.01



Luminaire Schedule

Qty	Label	Luminaire Watts	Total Watts	Arrangement	LLF	Description	Tag
4	L-1	25	100	Single	1.044	Kim LR20-24L-CUST-3K7-4W-UNV-TBD-TBD-BC (Prorated to 3500 Lumens)	Mounted on 14FT Pole
5	L-2A	14	70	Single	0.900	Kim PA7R-TBD-CH-3H15-12L-010-3K7-42A-TBD-UNV	
6	L-2B	14	84	Single	0.900	Kim PA7R-TBD-CH-4-12L-010-3K7-42A-TBD-UNV	
8	L-3	16.85	134.8	Single	0.900	Beacon SRT1-15-3K7-SQW-UNV-TBD	Surface Mounted @ 9FT
16	L-4	7.8	124.8	Single	0.450	Prescolite LTR-4RD-H-SL06L-DM1_LTR-4RD-T-SL35KBNRS (Prorated to 300 Lumens)	Recessed in Ceiling
4	L2-C	13.91	55.64	Single	0.900	Kim PA7R-TBD-CH-3-12L-010-3K7-TBD-TBD-UNV	

Calculation Summary

Label	Units	Avg	Max	Min	Avg/Min	Max/Min	Grid Height
Site	Fc	0.98	12.1	0.0	N.A.	N.A.	0
Canopy - Parking	Fc	1.79	3.5	0.2	8.95	17.50	
Parking Lot	Fc	2.07	8.5	1.0	2.07	8.50	

Project:
79 South Main Street

Contact:
David Mainville
Specification Sales
(860) 942-4357
dmainville@illuminatene.com

Detail: Photometric Calculation
Date: 5/15/2025
Revision:----
Scale: 3/16"=1'-0"
Drawn By: CK

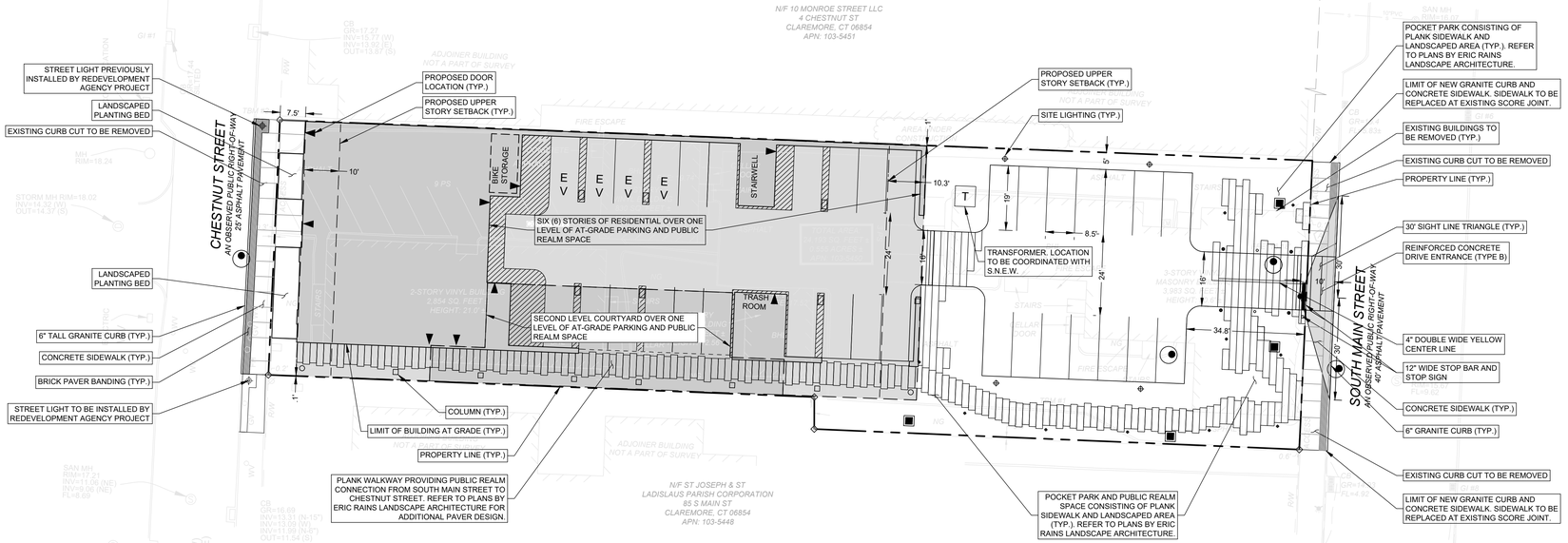
illuminate
263 Winn Street
Burlington, MA 01803
(781) 935-8500

333 Pleasant Valley Road
South Windsor, CT 06074
(860) 282-0597

Drawing Number:

SL-1

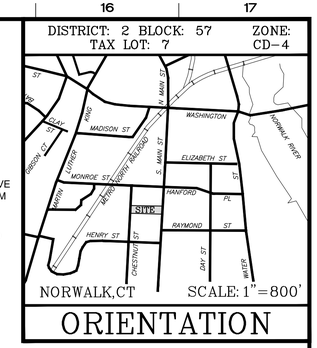
Sheet 1 of 1



BUILDING AT GRADE (6-7 STORIES)

6-STORY BUILDING ABOVE PARKING / PUBLIC REALM

2ND LEVEL COURTYARD



ORIENTATION

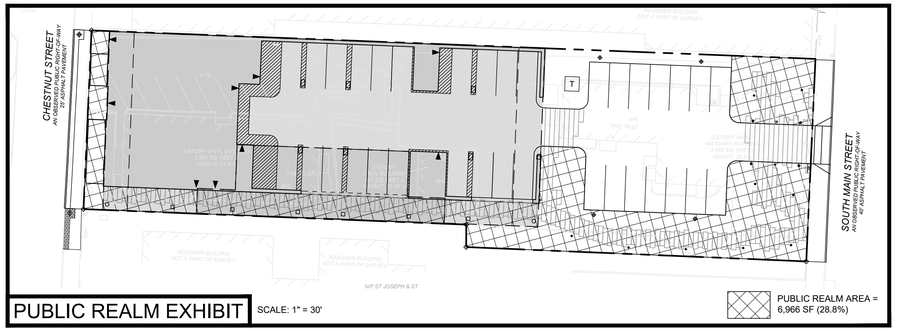
ZONING INFORMATION TABLE

79 South Main Street

7/22/2025		CD-4 Zone	Proposed Development
MINIMUM SIZE OF PLOT	AREA	Not regulated	24,193± SF (0.56± acres)
HEIGHT	MAXIMUM	6.5 stories**	7 Stories**
	MINIMUM	2 stories	2 Story Minimum
	ADDITIONAL	Height further limited via ceiling height requirements.*	Refer to Architectural Plans for additional information.
BUILDING COMPOSITION		For buildings that exceed 4 stories, the floor of the uppermost Story must be setback a minimum of ten feet from the second floor building façade.	10' minimum setback at 7th floor
MINIMUM YARDS	FRONT	None / 12' max. to the property line or from the edge of any public improvement required as part of the development	0' (to public sidewalk / pocket park)
	SIDE	None	N/A
	REAR	3 feet	N/A
BUILDING TYPE			Mid-Rise
USE DESIGNATION			Multi-family Residential Units: 68 units
RESIDENTIAL DENSITY		1 Dwelling Unit per 500 sq. ft. Multi-family developments containing a majority (> 50%) of units at or below 80% SMI or 60% AMI in perpetuity, may exceed the maximum Density of the underlying Zoning District by up to 50% (Secton 6.12.4.5)	24,193 / 500 = 48 units allowed max. 48 units + 48 units x 50% = 72 units allowed max. (with Bonus) 68 units proposed
WORKFORCE HOUSING		10% of the total number of dwelling units	100%
PARKING		0.5 spaces per unit (Section 6.12.4.5)	68 units x 0.50 = 34 spaces required (utilizing Section 6.12.4.5) 34 spaces proposed (inclusive of 4 EV spaces and 4 EV Ready Spaces)
IMPERVIOUS SURFACE COVERAGE		80% MAX. except that impervious surface may be increased to 90% for Developments 30 or more dwelling units, provided that 10% of the Lot or Building Site Area is devoted to Public Realm and 10% of the Lot or Building Site Area is Landscaping.	82.8%± (20,037 sf) Impervious Coverage 17.2%± (4,156 sf) Landscaping 29%± (6,966sf) Public Realm
STORMWATER MANAGEMENT		Section 8.4.5.N.2.g.(1)(a): 75% or more of the Development's stormwater is retained on-site	78% of Site Area treated via infiltration practice

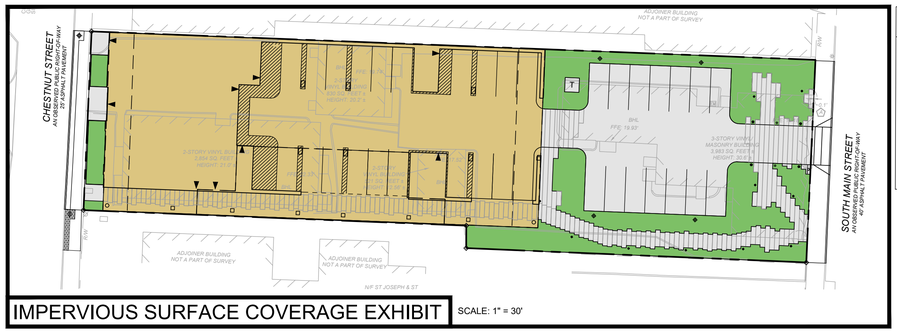
*Ceiling height may not exceed 13 ft from finished floor to finished floor, except for first floor Business/Commercial, Office, Retail/Personal Service which must be a minimum of 15 ft with max of 25 ft

**Section 6.12.4.5.b. - Multi-family developments containing a majority (> 50%) of units at or below 80% SMI or 60% AMI in perpetuity, are permitted to exceed the maximum number of stories permitted within the Zoning District in which the property is located in accordance with the following: b. within CD-3C, CD-4, CD-4W, and SD-LI: One -and-a-half additional stories.



PUBLIC REALM EXHIBIT SCALE: 1" = 30'

PUBLIC REALM AREA = 6,966 SF (28.8%)



IMPERVIOUS SURFACE COVERAGE EXHIBIT SCALE: 1" = 30'

SITE AREA (SITE AREA=24,193 SF)

SYMBOL	DESCRIPTION	AREA (sq ft.)
	STRUCTURES	13,675
	PAVEMENT & SIDEWALKS	6,362
	IMPERVIOUS TOTAL =	20,037 (82.8%)
	LANDSCAPE	4,156
	PERVIOUS TOTAL =	4,156 (17.2%)

No.	Date	Revision
1	07/22/2025	ORIGINAL ISSUE DATE

ZONING SITE PLAN
DEPICTING
79 SOUTH MAIN STREET
NORWALK, CT
PREPARED FOR
SOUND COMMUNITIES

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

SCALE: 1"=20' 0 20 40

DRAWN BY: VJH CHECKED BY: CJF

STATE OF CONNECTICUT
VINCENT J. HYNES
No. 0032100
REGISTERED
LICENSED LAND SURVEYOR
July 22, 2025
DATE

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SHEET No:

ZSP-1

Comm. No.: 11071

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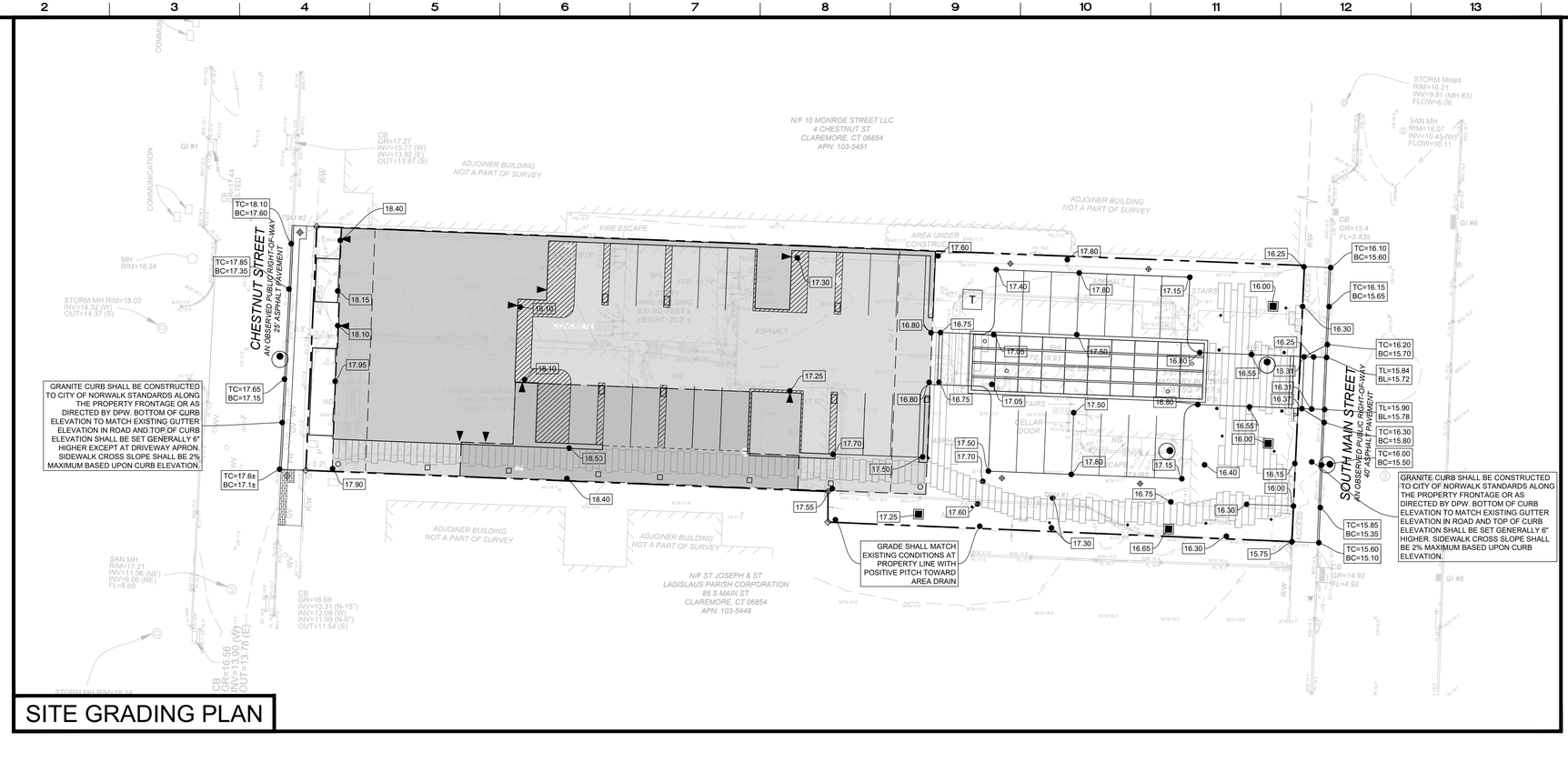

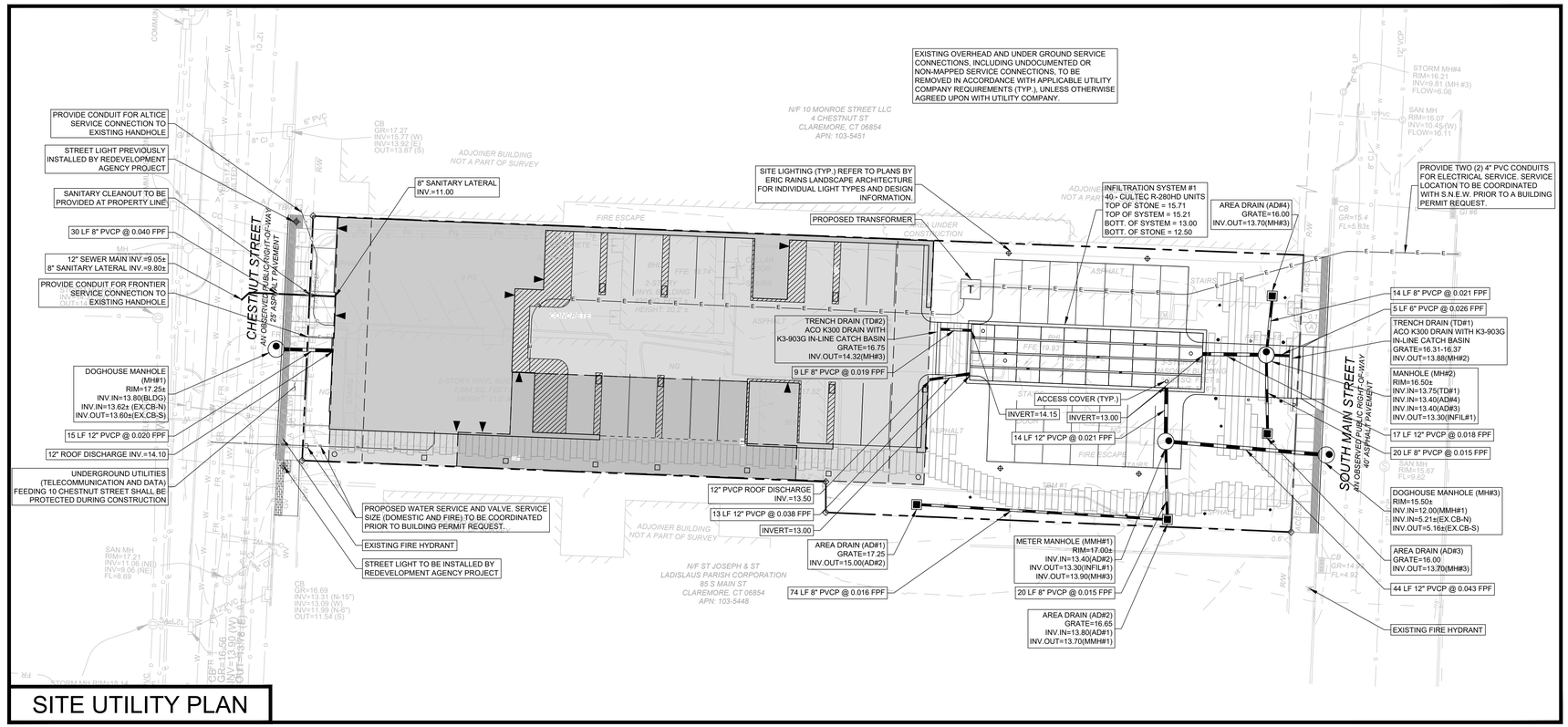

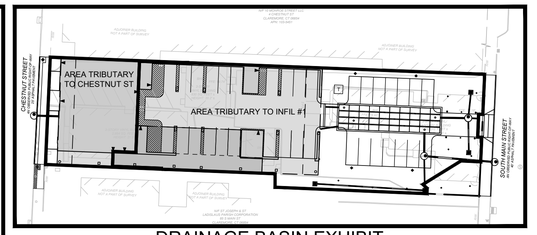

DRAINAGE BASIN EXHIBIT

SCALE: 1"=50'

No.	Date	Revision
1	07/22/2025	ORIGINAL ISSUE DATE

SITE GRADING & UTILITY PLAN

DEPICTING

79 SOUTH MAIN STREET

NORWALK, CT

PREPARED FOR

SOUND COMMUNITIES

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

SCALE: 0 20 40
1"=20'

DRAWN BY: VJH CHECKED BY: CJF

STATE OF CONNECTICUT
VINCENT J. HYNES
No. 0032100
REGISTERED LAND SURVEYOR
July 22, 2025
DATE

VINCENT J. HYNES, CT. P.L.S. #0032100

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SHEET No:

SE-1

Comm. No.: 11071

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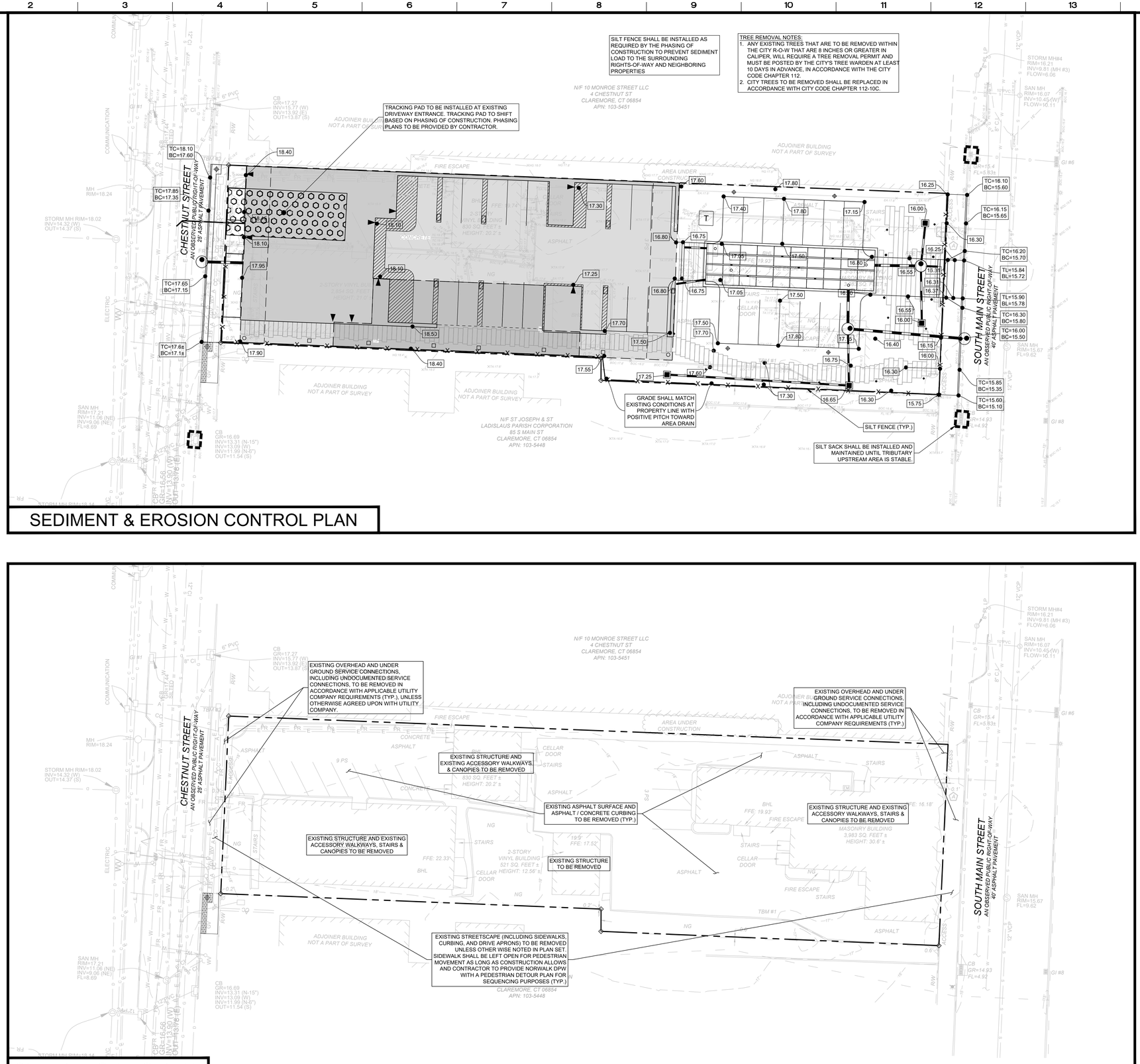

SEDIMENT & EROSION CONTROL PLAN

SITE REMOVALS PLAN

No.	Date	Revision
1	07/22/2025	ORIGINAL ISSUE DATE

SEDIMENT & EROSION CONTROL AND SITE REMOVALS PLAN

DEPICTING

79 SOUTH MAIN STREET

NORWALK, CT

PREPARED FOR

SOUND COMMUNITIES

SCALE: 1"=20' (0, 20, 40)

DRAWN BY: VJH | CONFIRMED BY: CJF

STATE OF CONNECTICUT · VINCENT J. HYNES · No. 0032100 · REGISTERED PROFESSIONAL ENGINEER

DATE: July 22, 2025

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REDNISS & MEAD

Land Surveying
Civil Engineering
Planning & Zoning Consulting
Permitting

22 First Street | Stamford, CT 06905
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SHEET No: SE-2

Comm. No.: 11071

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GENERAL NOTES:

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 BLEW & Associates P.A. titled Boundary/Topographic Survey dated June 4, 2024. Elevations depicted or labeled are based on NAVD-88 datum.
3. Refer to plans prepared by Amenta Emma Architects for information and design of the proposed building. These drawings depict site plans corresponding to the latest architectural plans received on June 24, 2025.
4. Property lies in the CD-4 zone.
5. All construction shall comply with the City of Norwalk requirements, the State of Connecticut Basic Building Code Americans with Disabilities Act (ADA), the Connecticut Guidelines for Soil and Erosion and Sediment Control, OSHA, and CT DOT Form 819 (latest edition).
6. All development activities to be undertaken within the street right-of-way and other public lands shall comply fully with City standards unless approved deviation is specifically set forth as part of this application. All work within the State right-of-way will comply with the CT DOT Form 819 with the latest special Provisions and Typical State Standard Details.
7. Contractor shall supply complete shop drawings including manufacturer's product data sheets to the Site Engineer, for all construction material used in conjunction with these drawings. Contractor shall allow a 5 day review period, prior to fabrication and installation.
8. 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.
9. The property shall be served by public water and sewers.
10. Prior to any excavation the Contractor and/or Applicant, in accordance with Public Act 77-350, shall be required to contact "Call Before You Dig" at 1-800-922-4455 for mark-out of underground utilities. Dig test pit(s) at utility crossing(s) to check actual clearances with new utilities prior to construction. 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 the conflict. Such relocation shall be done with knowledge of and in accordance with the owner of the utility.
11. It shall be the responsibility of the contractor to provide any excavation safeguards, necessary barricades, flagmen, etc., for traffic control and site safety. All work shall be done in accordance with OSHA requirements. The contractor shall be responsible for compliance with OSHA requirements.
12. When preparing the existing site for the proposed development, all materials removed shall be disposed of in conformance with all governing agencies.
13. Remove stumps and brush from site, or chip and use during landscaping. Do not bury stumps on site.
14. Building elevations are subject to change and shall be finalized prior to building permit.
15. 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.
16. Prior to issuance of a Certificate of Occupancy, the Planning and Zoning and the Department of Public Works may require a certification letter stating that the development was constructed in accordance to the approved plans, and an "as-built" drawing shall be submitted
17. The Contractor is responsible for coordinating with a licensed surveyor to prepare an "as-built" plan. The Contractor is responsible to coordinate with a site engineer 48 hours prior to any inspections.
18. The Engineering Division of the Department of Public Works and the inspecting engineer shall be notified by the contractor three (3) days prior to the commencement of each phase of construction.
19. The work shall be done in conformance with the contract documents/plans unless changes have been approved in writing by the design engineer prior to the work being done.
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. A Public Right of Passage Easement shall be granted in favor of the City of Norwalk for street facing sidewalks located on private property.
22. A detailed Construction Phasing and Logistics Plan shall be prepared by the contractor for all off-site work. The plan shall be submitted to the City Department of Public Works for review and approval before a street opening permit for such work is issued.
23. A Department of Public Works (DPW) Encroachment, Driveway, and Sewer Permit, in conformance with DPW's Permit Provisions, shall be required for work in the City's Right-of-Way (ROW) prior to the commencement of the work. Road restoration requirements shall be determined at the time of permitting.

EARTHWORK & GRADING:

1. Grade away from building walls at 2% minimum (typical).
2. Earth slopes shall be no steeper than 2:1 (horz.:vert.).
3. All excess materials shall be removed from the site and disposed of legally.
4. 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. After compacting, the fill shall be 4" below the required grade as shown on the plan.
5. Disturbed areas shall be top soiled, 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.
6. 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 ut ilities 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.
7. During the excavation, it is anticipated that existing utilities and sewers may be exposed. The contractor shall provide protection and support of these facilities and repair any damage caused by the work in a manner satisfactory to the owner. The condition of the existing facilities shall be observed by the owner's representative who shall determine if the facilities shall be replaced. Replacement of the facilities shall be done in a manner satisfactory to the owner and in compliance with applicable Codes.

PAVEMENT AND PAVEMENT MARKINGS:

8. Areas of new asphalt shall follow the details on Sheet SE-5.
9. 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%.
10. Existing features such as but not limited to walks, curbs, and pavement damaged by construction activities shall be repaired at no additional cost to the owner.
11. Bituminous curbs damaged by the project shall be replaced with the new bituminous curbing machine laid Class 3 as described in Sections 8.15 and M.04 of the CT DOT Form 819.
12. Saw cut perimeter of area to be excavated. Saw cut shall be straight and vertical.
13. Contractor shall engage a testing lab who shall verify the base course material by means of a sieve analysis and perform compaction testing of the base and each course of pavement. Site Engineer shall review with the contractor the required testing at the preconstruction meeting. Site Engineer shall approve base course prior to placement of each layer of pavement.
14. The Contractor shall engage a qualified independent testing agency to perform field inspections and tests and to prepare test reports. Testing agency will conduct and interpret tests and state in each report whether tested work complies with or deviates from specified requirements.
15. Additional testing, at Contractor's expense, will be performed to determine compliance of corrected work with specified requirements. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements as directed by the Site Engineer.
16. Contractor is responsible to place the hot-mix asphalt mix as required in the drawings, details and the applicable Section of the CT DOT Form 819 (latest edition).
17. Compaction shall be constructed as specified in the CT DOT Form 819 (latest edition), Section 4.06 specification, the drawings and the details. Testing lab shall verify compaction of each course of pavement as directed by the Site Engineer.
18. After the asphalt pavement has cured sufficiently to support the weight of a water truck without marking the newly installed pavement, it shall be water tested for low spots, areas of little or no drainage, etc. A water truck shall spray a sufficient amount of water on all pavement sections to observe the drainage of water. There shall be positive drainage on all areas of the pavement. Any visible low spots where significant water (greater than or equal to 3/16" in depth) is left standing, shall be clearly marked for the Contractor to repair prior to final acceptance. These areas must be sawcut and removed down to the base course prior to replacement with asphalt mixture as per the original approved design. The base course and edges of sawcut asphalt must be treated with tack oil prior to new section of asphalt being installed. The Owner's Representative or inspecting A/E shall be notified 48 hours in advance of water test so that he may be present during the test.
19. The inspecting engineer and contractor will review the testing requirements at the preconstruction meeting. At this meeting, samples to be tested and compaction testing protocol will be discussed. Testing and approval of the subgrade, base course and asphalt layers prior to the installation of the next layer to determine if the work complies or deviates from the specified requirements. Prior to installation of the base course, contractor shall contact inspecting engineer to determine the suitability of the subgrade material, base course and asphalt. Additional excavation or base course may be required.
20. Finished paving shall be free of ``bird baths" and be smooth at the slopes specified on the plans.
21. Finished grade shall be within 1/2 inch of that noted on the drawings.
22. The pavement shall be protected from vehicular traffic of any kind with the use of barricades, etc. for a minimum period of 24 hours after final rolling. Maintain and protect asphalt surface from scrapes, sears, spills, hydraulic leaks, and any other construction damage for the remainder of construction until Owner's Representative acceptance. Contractor is responsible for clearing, repairing, seal coating, patching, and re-striping as necessary to obtain Owner's Representative's final approval/acceptance.
23. Thicknesses of all layers shown are after compaction. Compact all layers to 95% per ASTM D 1557 (Modified Proctor Method).
24. New pavement markings shall be painted with epoxy resin paint in compliance with the CT DOT Form 819 Section 12.10 as revised.
25. New sign material and sheeting shall be made of retroreflective material in compliance with CT DOT Form 819 Section 12.08 as revised.
26. All signs and pavement markings installed along the state road must conform to the ``Manual on Uniform Traffic Control Devices," the latest State of Connecticut Catalog of Signs and standard as revised

STORM AND SANITARY SEWER SYSTEMS:

1. All pipe shall be installed straight and at the vertical and horizontal alignment shown. Pipes shall have a uniform slope as specified.
2. Minimum cover on all pipes shall be two feet (2') unless otherwise noted.
3. All storm pipe specified as Poly Vinyl Chloride Pipe (PVCP) shall be SDR 35 with rubber gasketed joints and meet the requirements of ASTM D3034 and D3212.
4. All storm pipe specified as High Density Polyethylene Pipe (HDPE) for the stormwater system shall be ADS N-12 or equivalent with O-Ring joints (Pro-series) suitable for water tight installations.
5. All sanitary sewer pipe shall be Poly Vinyl Chloride Pipe (PVCP) and shall be Schedule 40 with solvent weld joints.
6. 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.
7. All catch basins and area drains shall have a two foot (2') sump with bell traps or 90° PVC elbows.
8. 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.
9. All existing and proposed catch basins, manhole rims and utility facilities shall be raised or lowered to be flush with finished grade.
10. Locate and abandon existing sanitary laterals at the property line with the end capped and mortared. Other existing utilities shall be abandoned in accordance with the requirements of the utility owner(s).
11. 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.
12. 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.
13. Under no circumstances shall trench water be allowed to drain off through sanitary sewer lines.
14. All crushed stone shall be Gradation No. 4 as per CT DOT Form 819, Article M.01.02. Stone shall consist of sound, tough, durable particles free from soft, thin, elongated, laminated, friable, micaceous, or disintegrated pieces of mud, dirt or other deleterious material.
15. The storm and sanitary sewer shall be encased in concrete for a distance of 10 feet on either side of any intersection between the sanitary sewer and storm sewer. Where concrete encasement is required, temporarily support the pipes in place. Use sufficient concrete to encase piping not less than 6 inches at all points. The encasement shall be adequately supported with a stone base and shall be keyed into the foundation wall to prevent damage from settlement.
16. Sanitary Sewer Testing: The sanitary sewer line shall be Low Pressure Air Tested, at the expense of the contractor; Testing to be in accordance with recommended procedure in "Uni-bell's" "Recommended Practice for Low Pressure Air Testing of Installed Sewer Pipe" UNI B-6. The minimum starting pressure for the test is 3.5 P.S.I. (in excess of the groundwater pressure at the top of the pipe) and there shall be no more than 0.5 P.S.I. drop in five (5) minutes. Manholes to be visually inspected. Lateral plugs shall be airtight to allow proper testing. Inspecting Engineer and the Engineering Bureau shall be informed of testing schedule three days in advance so they can witness the testing.
17. At the end of construction, after the site has be fully stabilized, all new and previously existing storm sewer facilities including, but not limited to, catch basins, area drains, manholes, junction boxes, flow control structures, pipes, oil grit separators, permeable pavers and porous pavement shall be fully cleaned with equipment designed for that purpose to the satisfaction of the inspecting engineer.

UTILITIES:

18. 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.
19. Easements may be required in favor of the various utility companies.
20. Electric, telephone, cable, and water services shall be installed in conformance to the requirements of the governing utility companies.
21. Proposed electric, telephone, cable, 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.
22. All proposed utility facilities shall be raised or lowered to be flush with finished grade.
23. Utility connections at building face shall be coordinated with the building contractors.
24. The contractor must supply and install drag lines with all conduits.
25. Assume one 2" PVCP conduit for all site lighting. Service location to be determined.
26. In general, each utility shall have a minimum clearance of three feet to any other underground utility.
27. Any and all utilities abandoned shall be capped or removed in accordance with utility companies' requirements.
28. The electric transformer shall be located to meet all applicable Zoning setbacks.
29. Detectable Tape shall be used to mark piping listed below. The identification tape shall be buried at least 6-inches to 10-inches below final grade but no closer than 12-inches to the buried utility piping or service.

Electric	Red	Caution Electric Line Buried Below
Telephone & Control	Orange	Caution Telephone Line Buried Below
Gas	Yellow	Caution Gas Line Buried Below
Water Systems	Blue	Caution Water Line Buried Below
Sewer	Green	Caution Sewer Line Buried Below

30. Underground-Type Plastic Line Marker: Manufacturer's standard permanent, bright-colored detectable tape, continuous-printed plastic tape, intended for direct-burial service; not less than 6" wide X 4 mils thick.

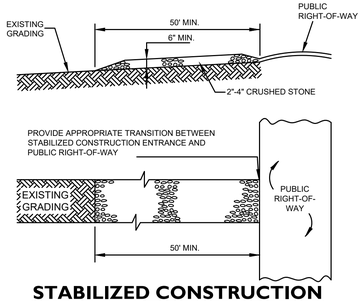
SEDIMENT AND EROSION CONTROL NARRATIVE:

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:

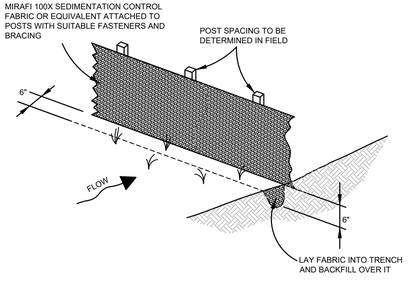
a) Trapping particles at source by promptly stabilizing disturbed areas;
b) Avoid concentration of water;
c) Avoid contamination of existing storm drains;
d) Maintenance (weekly maintenance and after storm events) of controls to ensure they are functioning properly;

SEDIMENT AND EROSION CONTROL NOTES:

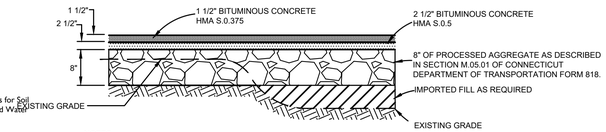
1. All sediment and erosion controls shall be done in conformance with the "Connecticut Guidelines for Soil Erosion and Sediment Control" dated May 2002 prepared by The Connecticut Council on Soil and Water Conservation.
2. The contractor is assigned the responsibility for implementing this sediment 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 that construction is to begin three (3) days prior to commencing work.
3. Temporary sediment control measures and tree protection must be installed in accordance with drawings and manufacturer recommendations prior to work in any upland areas.
4. No construction or construction equipment or storage of materials will be allowed on the downhill side of the silt fence or within fenced off areas, except during construction of the proposed facilities shown beyond the fences.
5. Anti-tracking pads shall be installed at start of construction and maintained in an effective condition throughout the duration of construction. Pads consist of 2" - 4" crushed stone, 6" minimum thickness and extend the width of the construction access. The length of the access shall be sufficient to prevent dirt from being tracked onto off site roads (minimum length of 50').
6. The location of each stockpile will vary throughout the construction period. Excavated silt and earth stockpiles shall be stored on site. Silt fence shall be placed at the base of the stockpile to prevent sediment from leaving the site and to protect storm drains, wetlands and watercourses.
7. Silt fence shall be Mirafi envirofence, Amoco siltstop or equivalent approved by Site Engineer. Filter fabric used shall be Mirafi 100x or equivalent. Install silt fence according to manufacturer's instruction, particularly, bury lower edge of fabric into ground.
8. All roof leader downspouts shall temporarily discharge onto splash pads measuring at least 8" wide by 18" long, or approved equal.
9. If disturbed areas can not be seeded immediately due to the time of year, mulch area until seeding can occur; remove mulch and seed and remulch when season permits.
10. If excavation 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.
11. Upon installation of each catch basin and area drain, immediately surround it with haybales as per sediment filter detail.
12. Haybales shall be new and are to be replaced whenever their condition deteriorates beyond reasonable usability.
13. Temporarily block pipes leading into the storm water infiltration system until upland areas are thoroughly stabilized. Under no circumstances shall sediment or silty water be allowed to enter the infiltration system.
14. Pavement and curbing should be placed as soon as possible after drainage is installed.
15. Loaded trucks shall be covered as required to keep down dust.
16. Affected portions of off site roads and sidewalks must be swept clean when required to keep down dust and prevent safety hazards or at least once a week during construction and as directed by Site Engineer.
17. Dust control to be achieved with watering down disturbed areas as required.
18. After each storm event or once bi-weekly, all sediment and erosion controls shall be inspected. Any corrective actions to mitigate environmental concerns will be ordered by the site engineer or environmental engineer. It is the Owner's responsibility to retain such consultant.
19. Additional sediment and erosion control measures may be installed during the construction period if found necessary by the inspecting engineer or any Governing Agency.
20. All permanent and temporary sediment control devices will be maintained in effective condition throughout the construction period until upland disturbed areas are thoroughly stabilized. Upon completion of work and stabilization of all upland areas, all temporary sediment control devices and tree protection should be removed from the site and any silt disposed of legally.
21. Periodically and upon completion of the job, clean silt from any effected storm sewer systems including pipes and inlets. Use silt during final landscaping or dispose off-site legally.



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



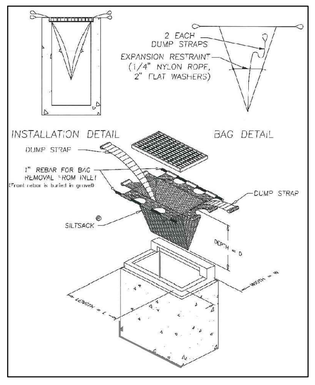
FABRIC & POST SILTATION BARRIER
(SILT FENCE)
N.T.S.



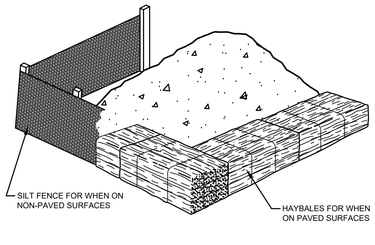
NOTES:

1. SAW CUT PERIMETER OF AREA TO BE EXCAVATED. SAW CUT SHALL BE STRAIGHT AND VERTICAL.
2. CONTRACTOR SHALL ENGAGE A TESTING LAB WHO SHALL VERIFY THE BASE COURSE MATERIAL BY MEANS OF A SIEVE ANALYSIS AND PERFORM COMPACTION TESTING OF THE BASE AND EACH COURSE OF PAVEMENT. SITE ENGINEER SHALL REVIEW WITH THE CONTRACTOR THE REQUIRED TESTING AT THE PRECONSTRUCTION MEETING. SITE ENGINEER SHALL APPROVE BASE COURSE PRIOR TO PLACEMENT OF EACH LAYER OF PAVEMENT.
3. THE CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AGENCY TO PERFORM FIELD INSPECTIONS AND TESTS AND TO PREPARE TEST REPORTS. TESTING AGENCY WILL CONDUCT AND INTERPRET TESTS AND STATE IN EACH REPORT WHETHER TESTED WORK COMPLIES WITH OR DEVIATES FROM SPECIFIED REQUIREMENTS.
4. ADDITIONAL TESTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF CORRECTED WORK WITH SPECIFIED REQUIREMENTS. REMOVE AND REPLACE OR INSTALL ADDITIONAL HOT-MIX ASPHALT WHERE TEST RESULTS OR MEASUREMENTS INDICATE THAT IT DOES NOT COMPLY WITH SPECIFIED REQUIREMENTS AS DIRECTED BY THE SITE ENGINEER.
5. CONTRACTOR IS RESPONSIBLE TO PLACE THE HOT-MIX ASPHALT MIX AS REQUIRED IN THE DRAWINGS, DETAILS AND THE APPLICABLE SECTION OF THE CT DOT FORM 818 (LATEST EDITION).
6. AFTER THE ASPHALT PAVEMENT HAS CURED SUFFICIENTLY TO SUPPORT THE WEIGHT OF A WATER TRUCK WITHOUT MARKING THE NEWLY INSTALLED PAVEMENT, IT SHALL BE WATER TESTED FOR LOW SPOTS, AREAS OF LITTLE OR NO DRAINAGE, ETC. A WATER TRUCK SHALL SPRAY A SUFFICIENT AMOUNT OF WATER ON ALL PAVEMENT SECTIONS TO OBSERVE THE DRAINAGE OF WATER. THERE SHALL BE POSITIVE DRAINAGE ON ALL AREAS OF THE PAVEMENT. ANY VISIBLE LOW SPOTS WHERE SIGNIFICANT WATER (GREATER THAN OR EQUAL TO 3/16" IN DEPTH) IS LEFT STANDING, SHALL BE CLEARLY MARKED FOR THE CONTRACTOR TO REPAIR PRIOR TO FINAL ACCEPTANCE. THESE AREAS MUST BE SAWCUT AND REMOVED DOWN TO THE BASE COURSE PRIOR TO REPLACEMENT WITH ASPHALT MIXTURE AS PER THE ORIGINAL APPROVED DESIGN. THE BASE COURSE AND EDGES OF SAWCUT ASPHALT MUST BE TREATED WITH TACK OIL PRIOR TO NEW SECTION OF ASPHALT BEING INSTALLED. THE OWNER'S REPRESENTATIVE OR INSPECTING A/E SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF WATER TEST SO THAT HE MAY BE PRESENT DURING THE TEST.
7. THE INSPECTING ENGINEER AND CONTRACTOR WILL REVIEW THE TESTING REQUIREMENTS AT THE PRECONSTRUCTION MEETING. AT THIS MEETING, SAMPLES TO BE TESTED AND COMPACTION TESTING PROTOCOL WILL BE DISCUSSED. TESTING AND APPROVAL OF THE SUBGRADE, BASE COURSE AND ASPHALT LAYERS PRIOR TO THE INSTALLATION OF THE NEXT LAYER TO DETERMINE IF THE WORK COMPLIES OR DEVIATES FROM THE SPECIFIED REQUIREMENTS. PRIOR TO INSTALLATION OF THE BASE COURSE, CONTRACTOR SHALL CONTACT INSPECTING ENGINEER TO DETERMINE THE SUITABILITY OF THE SUBGRADE MATERIAL, BASE COURSE AND ASPHALT. ADDITIONAL EXCAVATION OR BASE COURSE MAY BE REQUIRED.
8. FINISHED PAVING SHALL BE FREE OF ``BIRD BATHS" AND BE SMOOTH AT THE SLOPES SPECIFIED ON THE PLANS.
9. FINISHED GRADE SHALL BE WITHIN 1/2 INCH OF THAT NOTED ON THE DRAWINGS.
10. THE PAVEMENT SHALL BE PROTECTED FROM VEHICULAR TRAFFIC OF ANY KIND WITH THE USE OF BARRICADES, ETC. FOR A MINIMUM PERIOD OF 24 HOURS AFTER FINAL ROLLING. MAINTAIN AND PROTECT ASPHALT SURFACE FROM SCRAPES, SEARS, SPILLS, HYDRAULIC LEAKS, AND ANY OTHER CONSTRUCTION DAMAGE FOR THE REMAINDER OF CONSTRUCTION UNTIL OWNER'S REPRESENTATIVE ACCEPTANCE. CONTRACTOR IS RESPONSIBLE FOR CLEARING, REPAIRING, SEAL COATING, PATCHING, AND RE-STRIPING AS NECESSARY TO OBTAIN OWNER'S REPRESENTATIVE'S FINAL APPROVAL/ACCEPTANCE.

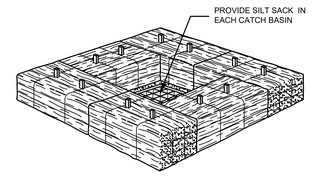
PAVEMENT DETAIL
N.T.S.



INLET SEDIMENT CONTROL DEVICE
(SILT SACK)
N.T.S.



SEDIMENT FILTER FOR STOCK PILE
N.T.S.

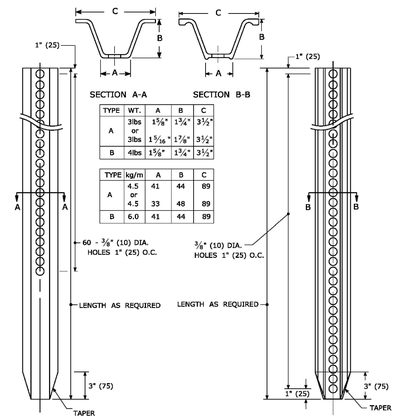


SEDIMENT FILTER FOR CATCH BASINS
N.T.S.

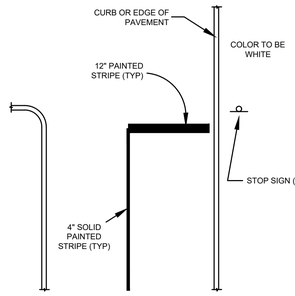
CONN. D.O.T. SERIES R1-1
31-0552

SIGNAGE TO BE COORDINATED WITH THE CITY OF NORWALK DEPARTMENT OF PUBLIC WORKS

SIGNAGE DETAILS
N.T.S.

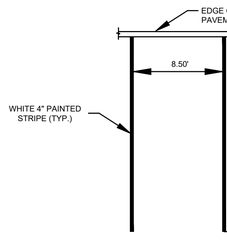


TYPICAL METAL SIGN POST
N.T.S.



NOTE:
ALL PAINT SHALL CONFORM TO CT DOT FORM 817, ARTICLE M.07.20.

STOP BAR STRIPING
N.T.S.



REGULAR PARKING SPACE
N.T.S.

No.	Date	Revision
1	07/22/2025	ORIGINAL ISSUE DATE

NOTES & DETAILS
DEPICTING
79 SOUTH MAIN STREET
NORWALK, CT
PREPARED FOR
SOUND COMMUNITIES

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

SCALE: N.T.S.
DRAWN BY: V.J.H. CHECKED BY: C.J.F

STATE OF CONNECTICUT
No. 0032100
VINCENT J. HYNES CT PE 32100
July 22, 2025

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SHEET No: SE-3
Comm. No.: 11071

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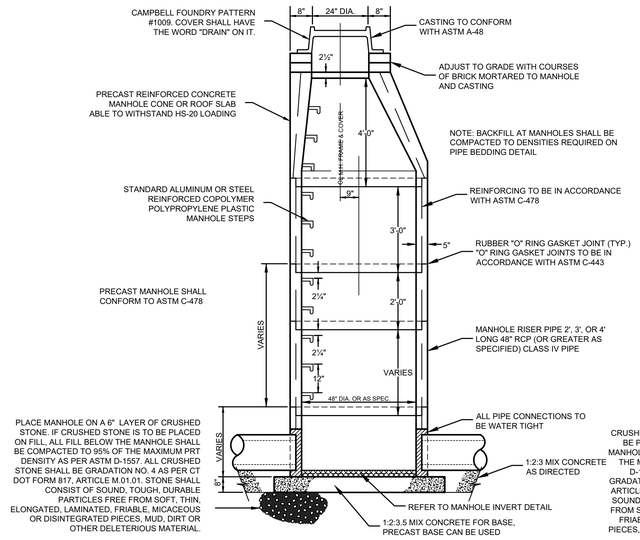
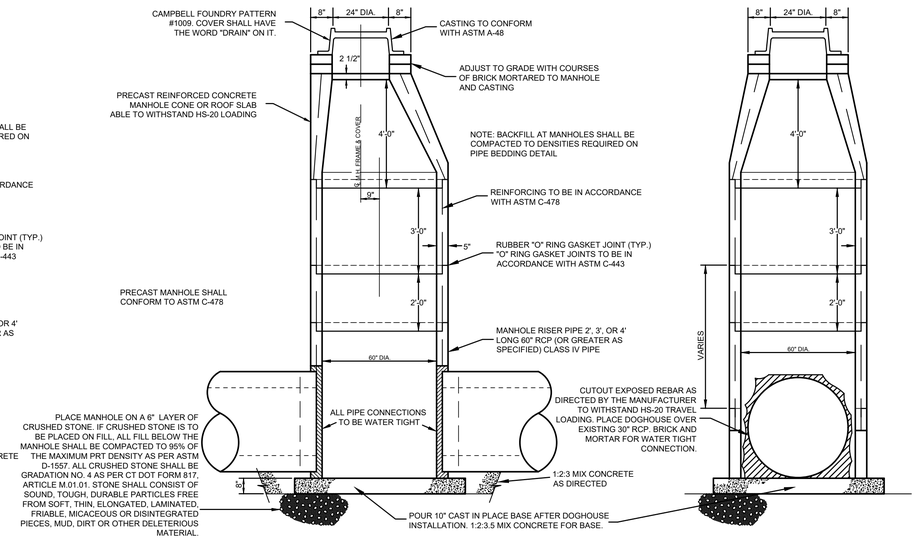


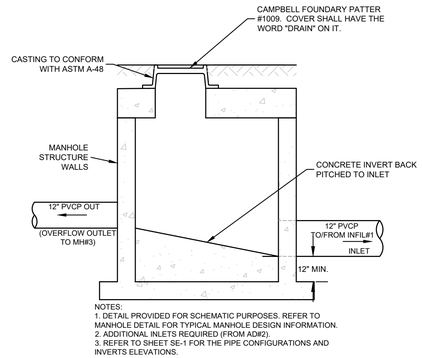
STORM MANHOLE DETAIL

N.T.S.



DOG HOUSE STORM MANHOLE DETAIL

N.T.S.

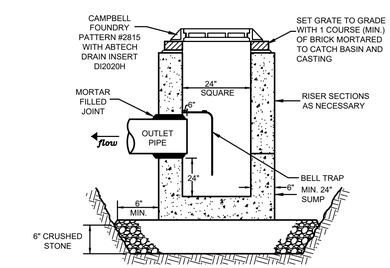


NOTES:
1. DETAIL PROVIDED FOR SCHEMATIC PURPOSES. REFER TO MANHOLE DETAIL FOR TYPICAL MANHOLE DESIGN INFORMATION.
2. ADDITIONAL INLETS REQUIRED (FROM A#2).
3. REFER TO SHEET SE-1 FOR THE PIPE CONFIGURATIONS AND INVERTS ELEVATIONS.

METER MANHOLE DETAIL

(MMH#1)

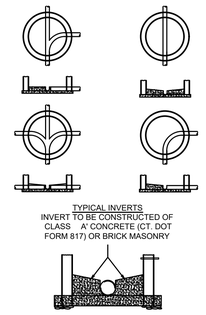
N.T.S.



NOTES:
1. ALL CATCH BASIN COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS WITH AN H-20 TRUCK LOAD.
2. ALL JOINTS TO BE MORTARED.
3. AREA DRAIN SHALL CONFORM TO ASTM C478.
4. ALL CRUSHED STONE SHALL BE GRADATION NO. 4 AS PER CT D.O.T. FORM 817, ARTICLE M.01.01. STONE SHALL CONSIST OF SOUND, TOUGH, DURABLE PARTICLES FREE FROM SOFT, THIN, ELONGATED, LAMINATED, FRIABLE, MICACEOUS OR DISINTEGRATED PIECES, MUD, DIRT OR OTHER DELETERIOUS MATERIAL.

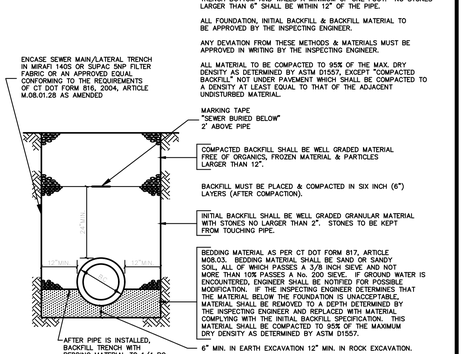
24" STORM AREA DRAIN

N.T.S.



MANHOLE INVERT

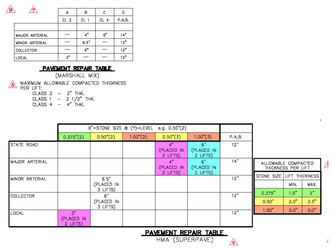
N.T.S.



STORM PIPE TRENCH BEDDING DETAIL

(48" DIA. & UNDER)

N.T.S.



	A	B	C	D
	CL 2	CL 1	CL 4	F.A.B.
MAJOR ARTERIAL	—	4"	6"	14"
MINOR ARTERIAL	—	8.5"	—	12"
COLLECTOR	—	6"	—	12"
LOCAL	3"	—	—	12"

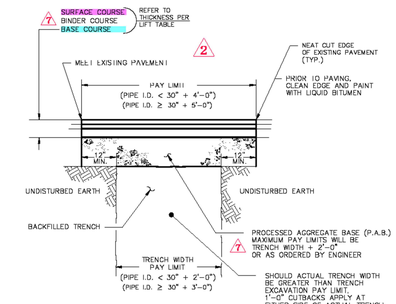
PAVEMENT REPAIR TABLE
(MARSHALL MIX)

2. MAXIMUM ALLOWABLE COMPACTED THICKNESS PER LIFT
CLASS 2 - 2" THK.
CLASS 1 - 2 1/2" THK.
CLASS 4 - 4" THK.

	X'=STONE BUT & (Y)=LEVEL e.g. 0.97'(2)				
	0.375'(3)	0.50'(2)	0.625'(2)	0.75'(1)	1.00'(1)	F.A.B.
STATE ROAD				4" (PLACED IN 2 LIFTS)	6" (PLACED IN 2 LIFTS)	12"
MAJOR ARTERIAL				4" (PLACED IN 2 LIFTS)	6" (PLACED IN 2 LIFTS)	14"
MINOR ARTERIAL			8.5" (PLACED IN 3 LIFTS)			12"
COLLECTOR				(PLACED IN 3 LIFTS)		12"
LOCAL		(PLACED IN 2 LIFTS)				12"

ALLOWABLE COMPACTED THICKNESS PER LIFT		
STONE SIZE	LIFT THICKNESS	
	MIN.	MAX.
0.375"	1.5"	3"
0.50"	2.0"	3.5"
1.00"	3.5"	5.5"

PAVEMENT REPAIR TABLE
HMA (SUPERPAVE)



NORWALK DPW TRENCH REPAIR DETAIL

(FOR CITY RIGHT-OF-WAY)

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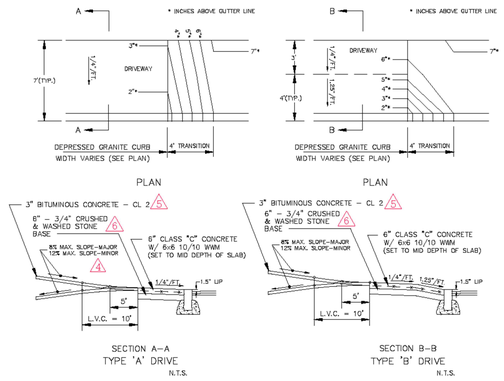

NORWALK DPW REINFORCED CONCRETE DRIVEWAY RAMP

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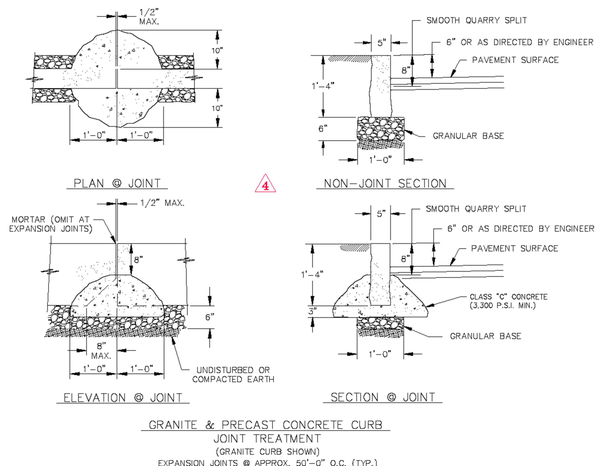

GRANITE & PRECAST CONCRETE CURB
JOINT TREATMENT
(GRANITE CURB SHOWN)
EXPANSION JOINTS @ APPROX. 50'-0" O.C. (TYP.)

NORWALK DPW GRANITE CURB DETAIL

(CITY R-O-W)

N.T.S.

No.	Date	Revision
1	07/22/2025	ORIGINAL ISSUE DATE

DETAILS
DEPICTING
79 SOUTH MAIN STREET
NORWALK, CT
PREPARED FOR
SOUND COMMUNITIES

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

SCALE: N.T.S.

DRAWN BY: VJH CHECKED BY: CJF

STATE OF CONNECTICUT — VINCENT J. HYNES — No. 0099100 — REGISTERED PROFESSIONAL ENGINEER

VINCENT J. HYNES CT. P.E. #0099100
LICENSED PROFESSIONAL ENGINEER
July 22, 2025
DATE

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SHEET No: SE-4

Comm. No.: 11071

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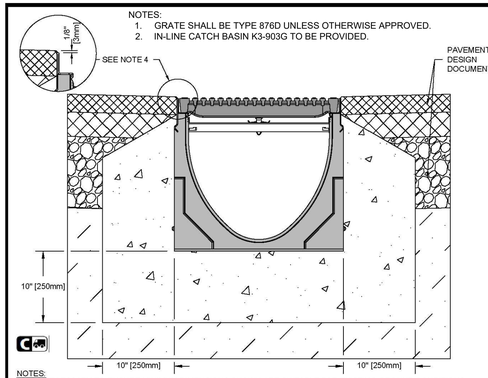


NOTES:
1. GRATE SHALL BE TYPE 876D UNLESS OTHERWISE APPROVED.
2. IN-LINE CATCH BASIN K3-903G TO BE PROVIDED.

NOTES:
1. IT IS NECESSARY TO ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. *ENGINEERING ADVICE MAY BE REQUIRED.*
2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. *ENGINEERING ADVICE MAY BE REQUIRED.*
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

SPECIFICATION CLAUSE

K300 KLASSIKDRAIN 'QUICKLOK' LOAD CLASS C

GENERAL
THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE K300 CHANNEL SYSTEM WITH GALVANIZED STEEL EDGE RAILS AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC.

MATERIALS
CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN GALVANIZED STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

COMPRESSIVE STRENGTH:	14,000 PSI
FLEXURAL STRENGTH:	4,000 PSI
TENSILE STRENGTH:	1,500 PSI
WATER ABSORPTION:	0.07%
FROST PROOF	YES
DILUTE ACID AND ALKALI RESISTANT	YES
B117 SALT SPRAY TEST COMPLIANT	YES

THE SYSTEM SHALL BE 12" (300mm) NOMINAL INTERNAL WIDTH WITH A 14.2" (390mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO POLYMER PRODUCTS, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING 'QUICKLOK' BOLTLESS LOCKING SYSTEM. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

K3-C-HAP	K300 - KLASSIKDRAIN - LOAD CLASS: C Haunched Asphalt Pavement	**ACO Polymer Products, Inc.**
DATE: 08/18/16	INSTALLATION DRAWING - ACO DRAIN	825 W. Beechcraft St, Casa Grande, AZ 85122, Tel: 520-421-9888, Fax: 520-421-9899 9470 Pinecone Dr., Mentor, OH 44060, Tel: 440-639-7230, Fax: 440-639-7235 4211 Pleasant Rd., Fort Mill, SC 29708, Tel: 440-639-7230, Fax: 803-802-1083

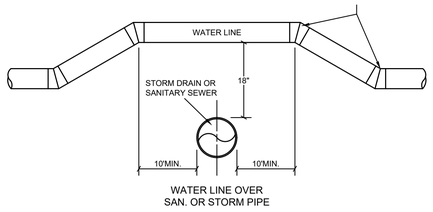
Arizona Tel: 888-490-9552 e-mail: sales@acousa.com Ohio Tel: 800-543-4764 www.acousa.com South Carolina Tel: 800-543-4764

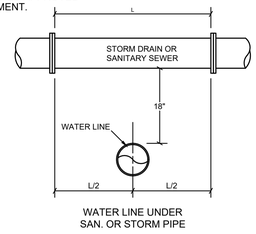
TRENCH DRAIN DETAIL
N.T.S.

NOTE: FOR ANY CONDITIONS OTHER THAN SHOWN BELOW THE FOLLOWING REQUIREMENTS SHALL BE MET. THE JOINTS OF THE SANITARY SEWER OR STORM DRAIN SHALL BE A MINIMUM OF 10' FROM THE POINT OF CROSSING. THE SANITARY SEWER SHALL BE CLASS 150 PRESSURE PIPE AND THE STORM DRAIN SHALL BE LOCK-JOINT PRESSURE PIPE.

NOTE: WHERE THE WATER LINE PASSES BENEATH THE SAN. SEWER OR STORM DRAIN, THE JOINTS OF THE PIPE SHALL BE A MINIMUM OF 10' FROM THE POINT OF CROSSING AND THE SAN. SEWER SHALL BE CLASS 150 PRESSURE PIPE AND THE STORM DRAIN SHALL BE LOCK-JOINT PRESSURE PIPE.

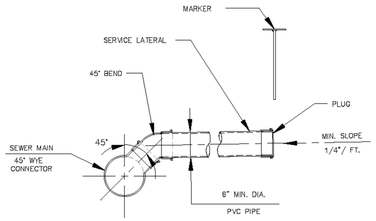
DEFLECTION OF PIPE AS PER MANUFACTURER'S RECOMMENDATION AND AS REQUIRED APPROVED BY ENGINEER OR WATER DEPARTMENT.



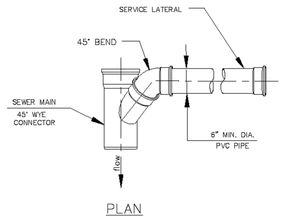


REQUIREMENTS AS STATED IN THE TWO NOTES ABOVE WILL ALSO APPLY WHEN HORIZONTAL SEPARATION BETWEEN THE SEWER & WATER LINES IS LESS THAN 10' AND VERTICAL SEPARATION IS LESS THAN 18".

CROSSINGS OF WATER LINE AND SAN. & STORM PIPES
N.T.S.

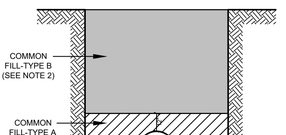


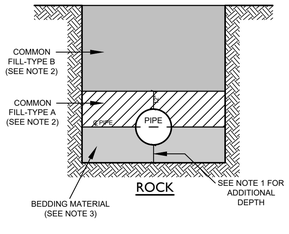
SECTION



PLAN

NORWALK DPW SANITARY LATERAL CONNECTION DETAIL
N.T.S.





NOTES:
1. 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.
2. 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.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.

a.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.

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

3. 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 D2487 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.

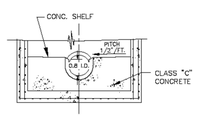
THE MATERIAL SHALL MEET A CLASS II DESIGNATION. SOIL TYPES GW, GP, SW AND SP, NON-COHESIVE, WELL GRADED AND CONTAINING SOME FINES ARE INCLUDED IN THIS CLASS. WHERE VOIDS, FINER GRAINED SOILS OR MOVEMENT MAY ALLOW MIGRATION OF THIS MATERIAL, A FILTER FABRIC AS DIRECTED BY THE ENGINEER WILL BE USED IN 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 REQUIRE- MENTS 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.

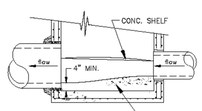
4. REFER TO S.N.E.W. WATER RULES AND REGULATIONS FOR ADDITIONAL WATER COMPANY REQUIREMENTS.

WATER TRENCH BACKFILL MATERIALS
N.T.S.

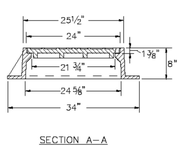
5'-0" DIAMETER MANHOLE DETAIL
1/2" = 1'-0"



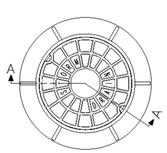
CONCRETE SHELF SECTION A–A
1/2" = 1'-0"



CONCRETE SHELF SECTION B–B



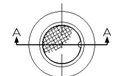
SECTION A–A



MANHOLE FRAME & COVER
1" = 1'-0"

NOTE:
MANHOLE FRAMES & COVERS SHALL BE PATTERN #1007D AS MANUFACTURED BY THE "CAMPBELL FOUNDRY COMPANY" OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.

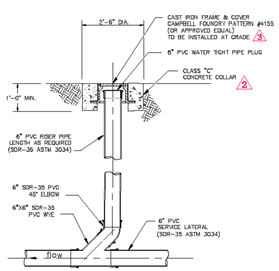
NORWALK DPW STORM MANHOLE DETAIL
(CITY RIGHT-OF-WAY)
N.T.S.



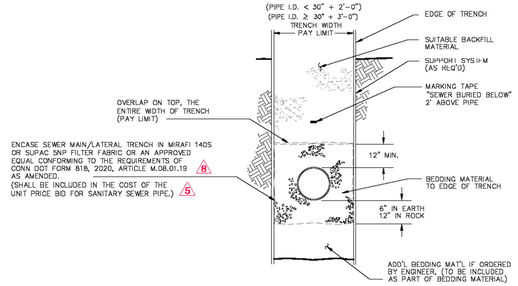
SECTION A–A

CLEAN OUT FRAME & COVER
1" = 1'-0"

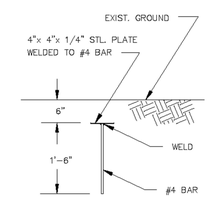
NOTE:
CLEAN OUT FRAMES & COVERS SHALL BE PATTERN #4155 AS MANUFACTURED BY THE "CAMPBELL FOUNDRY COMPANY" OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.



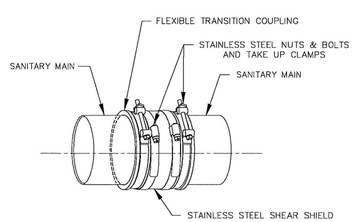
NORWALK DPW SANITARY CLEANOUT DETAIL
N.T.S.



NORWALK DPW SANITARY SEWER TRENCH DETAIL
N.T.S.



NORWALK DPW SANITARY LATERAL MARKER DETAIL
N.T.S.



REPAIR COUPLING
28.97" PIPE O.D. MAXIMUM

STRONG BACK RC SERIES
as manufactured by FERNCO INC.
(or Approved Equal)

NORWALK DPW SANITARY COUPLING DETAIL
N.T.S.

No.	Date	Revision
1	07/22/2025	ORIGINAL ISSUE DATE

DETAILS
DEPICTING
79 SOUTH MAIN STREET
NORWALK, CT
PREPARED FOR
SOUND COMMUNITIES

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

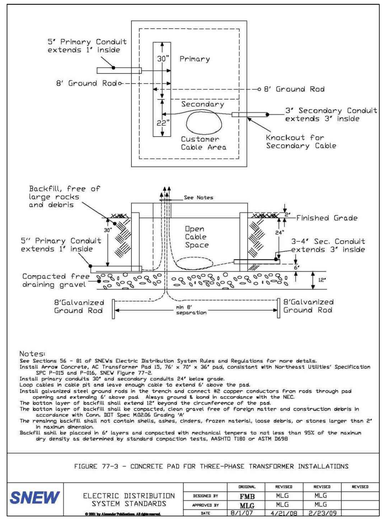
SCALE: N.T.S.
DRAWN BY: VJH CHECKED BY: CJF

STATE OF CONNECTICUT — VINCENT J. HYNES — No. 0026100 — REGISTERED PROFESSIONAL ENGINEER
July 22, 2025
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 hereon null & void.

SHEET No: **SE-5**
Comm. No.: 11071

7/18/2025 9:57 AM H:\Jobfiles\21100\11000\11071\Dwg\11071Master-2-.dwg



Notes:
See Sections 56 - 81 of SNEVs Electric Distribution System Rules and Regulations for more details.
Install Pad Mounted Secondary Transformer Pad 13, 76" x 70" x 36" pad, consistent with Northeast Utilities' Specification No. 6.7-1103 and Fig. SNEV Figure 77-2.
Install primary conduits 30" and secondary conduits 24" below grade.
Loop cables in cable pit and leave enough cable to extend 6' above the pad.
Install galvanized steel ground rods in the trench and connect #2 copper conductors from rods through pad opening and extending 6' above pad. Always ground & bond in accordance with the NEC.
The bottom layer of backfill shall extend 12" beyond the circumference of the pad.
The bottom layer of backfill shall be compacted, clean gravel free of foreign matter and construction debris in accordance with Conn. DOT Spec M.02.06, Grading 'A'.
The remaining backfill shall not contain shells, ashes, cinders, frozen material, loose debris, or stones larger than 2" in maximum dimension.
Backfill shall be placed in 6" layers and compacted with mechanical tampers to not less than 95% of the maximum dry density as determined by standard compaction tests, AASHTO T180 or ASTM D698.

FIGURE 77-3 - CONCRETE PAD FOR THREE-PHASE TRANSFORMER INSTALLATIONS

SNEW	ELECTRIC DISTRIBUTION SYSTEM STANDARDS		ORIGINAL	REVISED	REVISED	REVISED
		DESIGNED BY	FMB	MLG		
		APPROVED BY	MLG	MLG		
		DATE	8/1/07	4/21/08	2/23/09	

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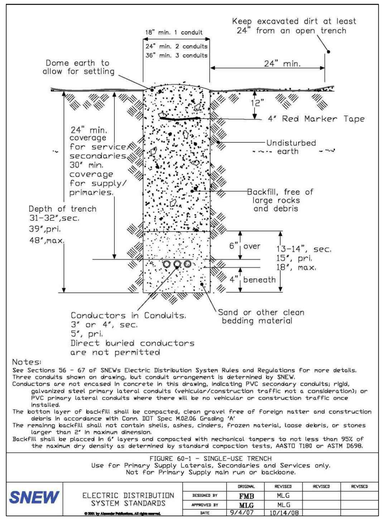

Notes:
See Sections 56 - 67 of SNEVs Electric Distribution System Rules and Regulations for more details.
Three conduits shown on drawing, but conduit arrangement is determined by SNEV.
Conductors are not encased in concrete in this drawing, indicating PVC secondary conduits; rigid, galvanized steel primary lateral conduits (vehicular/construction traffic not a consideration); or PVC primary lateral conduits where there will be no vehicular or construction traffic once installed.
The bottom layer of backfill shall be compacted, clean gravel free of foreign matter and construction debris in accordance with Conn. DOT Spec M.02.06, Grading 'A'.
The remaining backfill shall not contain shells, ashes, cinders, frozen material, loose debris, or stones larger than 2" in maximum dimension.
Backfill shall be placed in 6" layers and compacted with mechanical tampers to not less than 95% of the maximum dry density as determined by standard compaction tests, AASHTO T180 or ASTM D698.

FIGURE 60-1 – SINGLE-USE TRENCH
Use For Primary Supply Laterals, Secondaries and Services only.
Not For Primary Supply main run or backbone.

SNEV	ELECTRIC DISTRIBUTION SYSTEM STANDARDS		ORIGINAL	REVISED	REVISED	REVISED
		DESIGNED BY	FMB	MLG		
		APPROVED BY	MLG	MLG		
		DATE	9/4/07	10/14/08		

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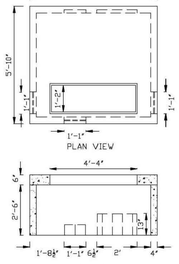
ARROW CONCRETE PRODUCTS

539 GRENNAN RD.
MILFORD, CT
PHONE: (203) 301-3091
FAX: (203) 301-3094

360 SALMON BROOK STREET
GRANBY, CT
PHONE: (860) 653-5063
FAX: (860) 653-0257

21 VERGASEN AVE.
NORWICH, CT
PHONE: (860) 889-2219
FAX: (860) 889-8480



NOTES:
1. CONCRETE-5000 PSI @ 28 DAYS
2. REINFORCEMENT-AST. A-615, GR. 60
3. 500-2500 KVA
4. CONSISTANT WITH NORTHEAST UTILITIES' SPECIFICATION SPC P-015 & P-016.
5. FOR USE WITH THREE-PHASE TRANSFORMERS ONLY.

P-015

FIGURE 77-2 ARROW CONCRETE P-015 CONCRETE PAD.

SNEV	ELECTRIC DISTRIBUTION SYSTEM STANDARDS		ORIGINAL	REVISED	REVISED	REVISED
		DESIGNED BY	FMB			
		APPROVED BY	MLG			
		DATE	8/15/07			

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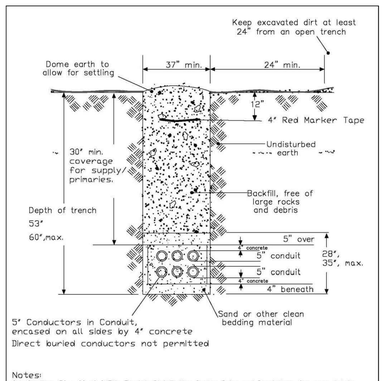

Notes:
See Sections 56 - 66 of SNEVs Electric Distribution System Rules and Regulations for more details.
The bottom layer of backfill shall be compacted, clean gravel free of foreign matter and construction debris in accordance with Conn. DOT Spec M.02.06, Grading 'A'.
The remaining backfill shall not contain shells, ashes, cinders, frozen material, loose debris, or stones larger than 2" in maximum dimension.
Backfill shall be placed in 6" layers and compacted with mechanical tampers to not less than 95% of the maximum dry density as determined by standard compaction tests, AASTO T180 or ASTM D698.
30" coverage for primary conductors is to the top of the conduit when not encased in concrete and the top of the concrete when encased in concrete.
Maintain 24" separation between concrete and other facilities in a joint-use trench.

FIGURE 61-2 – TRENCH, PRIMARY CONDUCTORS

SNEV	ELECTRIC DISTRIBUTION SYSTEM STANDARDS		ORIGINAL	REVISED	REVISED	REVISED
		DESIGNED BY	FMB			
		APPROVED BY	MLG			
		DATE	7/25/07			

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CULTEC RECHARGER® 280HD SPECIFICATIONS

GENERAL
CULTEC RECHARGER 280HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS
1. THE CHAMBERS WILL BE MANUFACTURED BY CULTEC, OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
3. THE CHAMBER WILL BE ARCHED IN SHAPE.
4. THE CHAMBER WILL BE OPEN-BOTTOMED.
5. THE CHAMBER WILL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS OR SEPARATE END WALLS.
6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER 280HD SHALL BE 26.5 INCHES (673 mm) TALL, 47 INCHES (1194 mm) WIDE AND 8 FEET (2.44 m) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER 280HD SHALL BE 7 FEET (2.13 m).
7. MAXIMUM INLET OPENING ON THE CHAMBER ENDWALLS IS 18 INCHES (450 mm) HDPE.
8. THE CHAMBER WILL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLWB FC-24 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. NOMINAL INSIDE DIMENSIONS OF THE SIDE PORTAL SHALL HAVE A WIDTH OF 11.25" [286 mm] AND HEIGHT OF 11.5" [292 mm]. THE SIDE PORTAL SHALL CAN ACCEPT A MAXIMUM OUTER DIAMETER (O.D.) PIPE SIZE OF 12.25 INCHES [311 mm].
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLWB FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 24.2 INCHES (614 mm) LONG.
10. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 280HD CHAMBER WILL BE 6.079 FT3 / FT (0.565 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER 280HD SHALL BE 42.553 FT³ / UNIT (1.205 m³ / UNIT) - WITHOUT STONE.
11. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR WILL BE 0.913 FT³/ FT (0.085 m³ / m) - WITHOUT STONE.
12. THE RECHARGER 280HD CHAMBER WILL SEVENTY-TWO DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNIT'S CORE TO PROMOTE LATERAL CONVEYANCE OF WATER.
13. THE RECHARGER 280HD CHAMBER SHALL HAVE 15 CORRUGATIONS.
14. THE ENDWALL OF THE CHAMBER, WHEN PRESENT, WILL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE END PIECES CANNOT BE USED WITH THIS UNIT.
15. THE RECHARGER 280HD STAND ALONE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO FULLY FORMED INTEGRAL ENDWALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS.
16. THE RECHARGER 280HD STARTER UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL ENDWALL AND ONE PARTIALLY FORMED INTEGRAL ENDWALL WITH A LOWER TRANSFER OPENING OF 9 INCHES (229 mm) HIGH X 30 INCHES (889 mm) WIDE.
17. THE RECHARGER 280HD INTERMEDIATE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY OPEN ENDWALL AND ONE PARTIALLY FORMED INTEGRAL ENDWALL WITH A LOWER TRANSFER OPENING OF 9 INCHES (229 mm) HIGH X 30 INCHES (889 mm) WIDE.
18. THE RECHARGER 280HD END UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL ENDWALL AND ONE FULLY OPEN END WALL AND HAVING NO SEPARATE END PLATES OR END WALLS.
19. THE HVLV FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE HVLV FC-24 MUST HAVE A SIDE PORTALS OF THE RECHARGER 280HD AND ACT AS CROSS FEED CONNECTORS.
20. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS.
21. THE CHAMBER WILL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN-OUT.
22. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION.
23. THE CHAMBER SHALL BE MANUFACTURED IN AN IN AN ISO 9001:2015 CERTIFIED FACILITY.
24. MAXIMUM ALLOWED COVER OVER TOP OF UNIT SHALL BE 12 FEET (3.65 m).
25. THE INSTALLED CHAMBER SYSTEM SHALL BE STRUCTURALLY DESIGNED TO PROVIDE RESISTANCE TO LIVE LOADS AS DEFINED BY THE AASHTO H-20/HL-93 SPECIFICATION WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.

CULTEC HVLVs FC-24 FEED CONNECTOR PRODUCT SPECIFICATIONS

GENERAL
CULTEC'S HVLV FC-24 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER 280HD INFILTRATION CHAMBERS.

CHAMBER PARAMETERS
1. THE CHAMBERS WILL BE MANUFACTURED BY CULTEC, OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
3. THE CHAMBER WILL BE ARCHED IN SHAPE.
4. THE CHAMBER WILL BE OPEN-BOTTOMED.
5. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 24.2 INCHES (614 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR WILL BE 0.913 FT³/ FT (0.085 m³ / m) - WITHOUT STONE.
7. THE CHAMBER SHALL HAVE AN INTEGRAL CAP AT THE TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN-OUT.
8. THE CHAMBER WILL BE ARCHED IN SHAPE.
9. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR WILL BE 6.913FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
10. THE HVLV FC-24 FEED CONNECTOR CHAMBER SHALL HAVE 0 CORRUGATIONS.
11. THE HVLV FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE HVLV FC-24 MUST HAVE A SIDE PORTALS OF THE RECHARGER 280HD AND ACT AS CROSS FEED CONNECTORS.
12. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
13. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2015 CERTIFIED FACILITY.

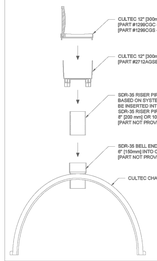
CULTEC NO. 410™ NON-WOVEN GEOTEXTILE
CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTRACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

GEOTEXTILE PARAMETERS
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (141 G/M).
4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 120 GALS/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

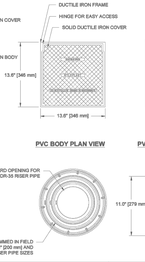
CULTEC AFAS-HPF™ WOVEN GEOTEXTILE
CULTEC AFAS-HPF WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE. THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

GEOTEXTILE PARAMETERS
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 320 X 320 LBS (1,420 X 1,420 N) PER ASTM D4632 TESTING METHOD.
4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 15 X 15% PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 3,563 X 3,563 LBS/FT (52 X 52 KN/M) PER ASTM D4595 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,500 LBS (6,670 N) PER ASTM D6241 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 120 X 120 LBS (540 X 540 N) PER ASTM D4533 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 30 US STD. SIEVE (0.60 MM) PER ASTM D4751 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.2 SEC-1 PER ASTM D4491 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 22 GPM/FT2 (900 LPM/M2) PER ASTM D4491 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 70% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

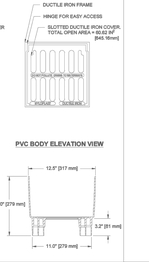
FINAL ASSEMBLY



SOLID COVER OPTION



SLOTTED COVER OPTION

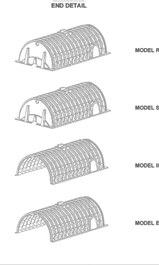


PVC BODY PLAN VIEW

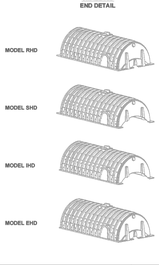
PVC BODY ELEVATION VIEW

CULTEC UNIVERSAL INSPECTION PORT KIT DETAIL

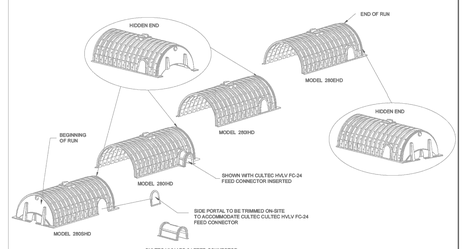
LARGE RIB END DETAIL



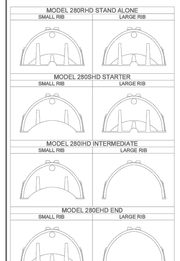
SMALL RIB END DETAIL



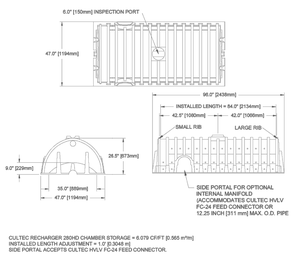
CULTEC RECHARGER 280HD HEAVY DUTY END DETAIL INFORMATION



GENERAL NOTES

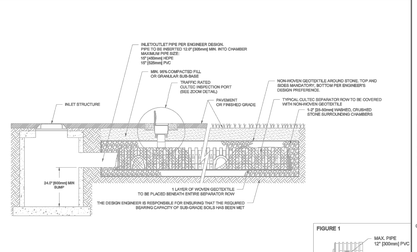


CULTEC RECHARGER 280HD CROSS SECTION



CULTEC RECHARGER 280HD CHAMBER STORAGE = 6.079 CF/FT [0.565 m³/m]
INSTALLED LENGTH ADJUSTMENT = 1.0' [0.3048 m]
SIDE PORTAL ACCEPTS CULTEC HVLV FC-24 FEED CONNECTOR.

CULTEC RECHARGER 280HD HEAVY DUTY TYPICAL INTERLOCK



CULTEC RECHARGER 280HD HEAVY DUTY TYPICAL INTERLOCK

FIGURE 1
MAX. PIPE 12" [300mm] PVC
ZOOM OF SIDE PORTAL SHOWING MAX. PIPE O.D.

CULTEC INSPECTION PORT - ZOOM DETAIL

CULTEC SEPARATOR ROW - CULTEC INSPECTION PORT DETAIL (IF APPLICABLE)

CULTEC HVLV FC-24 FEED CONNECTOR THREE VIEW

CULTEC RECHARGER 280HD HEAVY DUTY THREE VIEW

INFILTRATION #1 DETAIL
N.T.S.

CONDUIT BANK CONSTRUCTION
N.T.S.

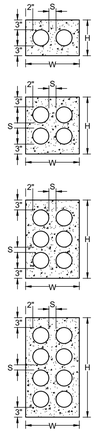
PREFERRED:

FIG. 1 2 DUCTS

FIG. 2 4 DUCTS

FIG. 3 6 DUCTS

FIG. 4 8 DUCTS



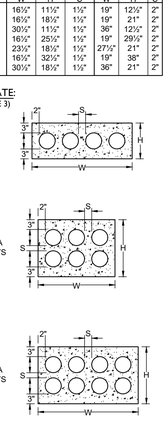
	DUCT BANK DIMENSIONS								
	4" DUCT			5" DUCT			6" DUCT		
FIG	W	H	S	W	H	S	W	H	S
1	14½"	10½"	1½"	16½"	11½"	1½"	19"	12½"	2"
2	14½"	16½"	1½"	16½"	18½"	1½"	19"	21"	2"
2A	26½"	10½"	1½"	30½"	11½"	1½"	36"	12½"	2"
3	14½"	22½"	1½"	16½"	25½"	1½"	19"	29½"	2"
3A	20½"	16½"	1½"	23½"	18½"	1½"	27½"	21"	2"
4	14½"	28½"	1½"	16½"	32½"	1½"	19"	38"	2"
4A	26½"	16½"	1½"	30½"	18½"	1½"	36"	21"	2"

ALTERNATE:
(SEE NOTE 3)

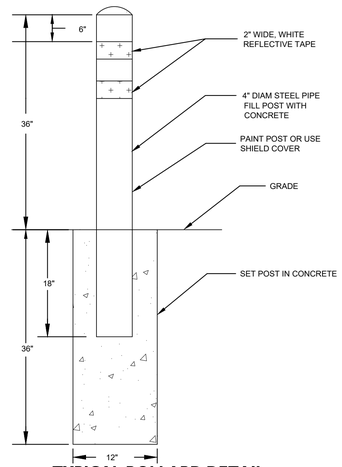
FIG. 2A 4 DUCTS

FIG. 3A 6 DUCTS

FIG. 4A 8 DUCTS



NOTES:
1. AT MANHOLES CONDUIT BANKS SHALL BE PER FIGS. 1, 2, 3 OR 4.
2. MINIMUM COVER FROM TOP OF A CONDUIT BANK TO THE PAVEMENT OR EARTH SURFACE TO BE:
   a) STATE HIGHWAYS - 36"
   b) RAILROAD TRACKS - 60"
   c) ALL OTHER AREAS - 24"
3. IN THE CONDUIT RUN BETWEEN MANHOLES IF OBSTRUCTIONS ARE ENCOUNTERED OR TO REDUCE TRENCH DEPTH, FIGS. 2A, 3A OR 4A ARE PERMISSIBLE.
4. CONCRETE SHALL BE 2500 P.S.I. 1/2" MAXIMUM STONE, 6"-8" SLUMP OF SUCH CONSISTENCY THAT SPADING WILL INSURE THE FLOW OF CONCRETE BETWEEN AND UNDER THE INDIVIDUAL DUCTS, BUT NOT SO WET AS TO FLOAT THE DUCTS. FOR TIER BUILDUP CONSTRUCTION A STIFFER CONSISTENCY SHOULD BE USED.
5. DUCTS SHALL BE SCHEDULE 40 PVC.



TYPICAL BOLLARD DETAIL
FOR USE AT TRANSFORMER/SWITCH GEAR PER S.N.E.W. REQUIREMENTS
N.T.S.

I	07/22/2025	ORIGINAL ISSUE DATE
No.	Date	Revision

DETAILS
DEPICTING
79 SOUTH MAIN STREET
NORWALK, CT
PREPARED FOR
SOUND COMMUNITIES

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

SCALE: N.T.S.
DRAWN BY: VJH CHECKED BY: CJF
STATE OF CONNECTICUT — VINCENT J. HYNES — No. 0032100 — REGISTERED PROFESSIONAL ENGINEER
DATE: July 22, 2025
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 hereon null & void.
SHEET No: SE-6
Comm. No.: 11071

CULTEC STORMWATER CHAMBER
DATE: 09/2024
CHECKED BY: DPG
SHEET NO: 1 OF 1
PROJECT NO: -
DESIGNED BY: TECH
SCALE: N.T.S.

RECHARGER 280HD
DETAIL SHEET

CULTEC
Subsidiary of Bonsmara Holdings, Inc.
P.O. Box 280 Brookfield, CT 06804
878 Federal Road Brookfield, CT 06804
800-4-CULTEC 203-775-4416
PH: 1(800) 4-CULTEC
CT-tech@cultec.com

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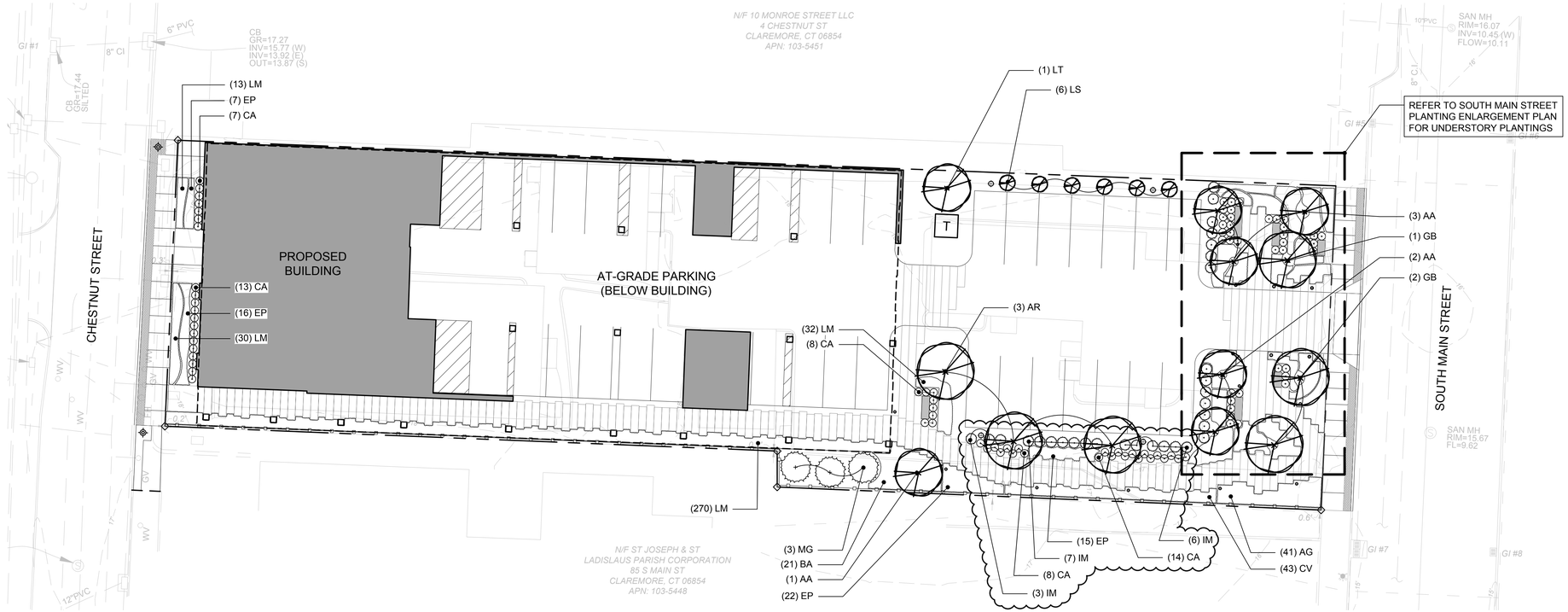
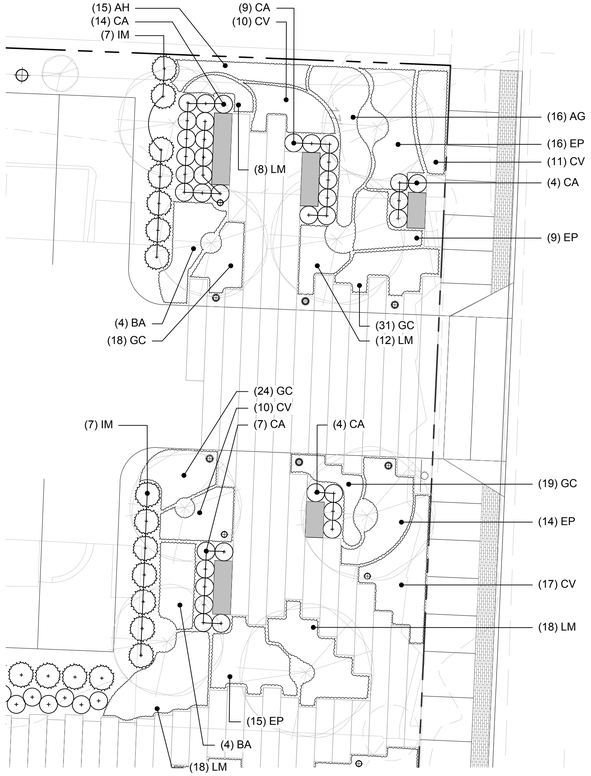


1 OVERALL SITE PLANTING PLAN

SCALE: 1"=16'-0"

0 8 16 32



2 PLANTING ENLARGEMENT PLAN: SOUTH MAIN STREET POCKET PARK

SCALE: 1"=8'-0"

0 4 8 16

eric raines landscape architecture, llc
11a N Main Street SoNo, CT 203.354.6500 www.ericraines.com

NO.	ISSUE	DATE
7		
6	SITE PLAN REVIEW SUBMISSION REVISED PER COMMENTS	25.09.09
5	SITE PLAN REVIEW SUBMISSION	25.07.22
4	60% DESIGN DEVELOPMENT	25.07.03
3	MUNICIPAL REVIEW SUBMISSION	25.06.16
2	DRAFT MUNICIPAL REVIEW SUBMISSION	25.05.14
1		

PROJECT
SOUND COMMUNITIES
79 SOUTH MAIN STREET
NORWALK, CT

DWG TITLE
SITE PLANTING PLAN

JOB NO:

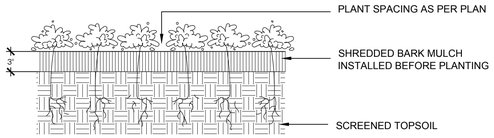
DATE
2025.05.14

SCALE
AS NOTED

SPL-2.0

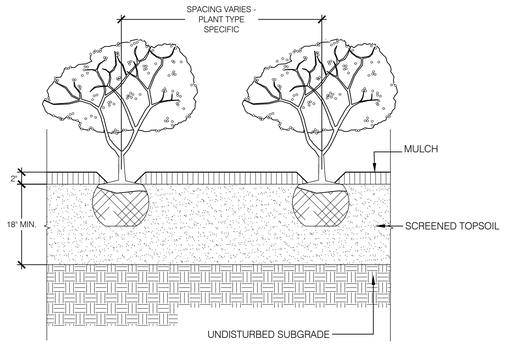
SITE PLANTING SCHEDULE

SYM	QTY	BOTANICAL NAME	COMMON NAME	ROOT	MIN. SIZE	COMMENTS
TREE						
GB	3	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginko	B&B	3.5 - 4" CAL.	Full, Nicely shaped - 7' clear trunk
LT	1	Liriodendron tulipifera 'Fastigiatum'	Columnar Tulip Tree	B&B	3.5 - 4" CAL.	Full, Nicely shaped
AR	3	Acer rubrum 'Red Sunset'	Red Sunset Maple	B&B	3.5 - 4" CAL.	Full, Nicely shaped
AA	6	Amelanchier × grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	B&B	3 - 3.5" CAL.	Full, Nicely shaped - Single trunk
MG	3	Magnolia grandiflora 'Little Gem'	Little Gem Magnolia	B&B	6' - 8' HT.	Full, Nicely shaped
LS	6	Liquidambar styraciflua 'Slender Silhouette'	Slender Silhouette Sweetgum	B&B	3 - 3.5" CAL.	Full, Nicely shaped
SHRUB						
IM	30	Ilex x meserveae	Castle Wall Blue Holly	B&B	36 - 42" HT.	Full, Nicely shaped
PERENNIALS, FERNS AND GRASSES						
GC	92	Geranium x cantabrigiense 'Karmina'	Hardy Geranium	CONT.	#1	Full, Nicely shaped, 15-20in Spacing O.C.
LM	402	Liriope muscari	Blue Lily Turf	CONT.	#1	Full, Nicely shaped, Spacing 18" O.C.
CV	88	Coreopsis verticillata	Threadleaf Coreopsis	CONT.	#1	Full, Nicely shaped, Spacing 24" O.C.
EP	114	Echinacea purpurea	Purple Coneflower	CONT.	#1	Full, Nicely shaped, Spacing 24" O.C.
AG	57	Andropogon gerardii	Big Bluestem	CONT.	#1	Full, Nicely shaped, Spacing 24" O.C.
AH	15	Agastache	Hyssop	CONT.	#1	Full, Nicely shaped, Spacing 18" O.C.
BA	29	Baptisia australis	False Indigo	CONT.	#1	Full, Nicely shaped, Spacing 36" O.C.
CA	87	Calamagrostis acutiflora 'Karl Foerster'	Feather Reed Grass	CONT.	#1	Full, Nicely shaped, Spacing 24" O.C.



1 GROUNDCOVER / PERENNIAL PLANTING (TYPICAL)

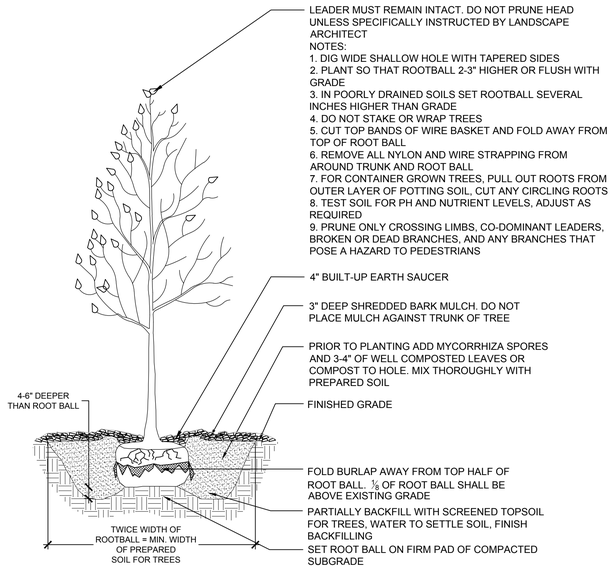
SCALE: NTS



NOTE: PLANTS ARE TO BE SPACED AS REQUIRED BY PLANTING SCHEDULE

2 SHRUB PLANTING (TYPICAL)

SCALE: NTS



3 TREE PLANTING (TYPICAL)

SCALE: NTS

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NO.	ISSUE	DATE
7		
6		25.09.09
5	SITE PLAN REVIEW SUBMISSION REVISED PER COMMENTS	25.07.22
4	SITE PLAN REVIEW SUBMISSION	25.07.03
3	50% DESIGN DEVELOPMENT	25.06.18
2	MUNICIPAL REVIEW SUBMISSION	25.05.14
1	DRAFT MUNICIPAL REVIEW SUBMISSION	

PROJECT
SOUND COMMUNITIES
79 SOUTH MAIN STREET
NORWALK, CT

DWG TITLE
SITE PLANTING DETAILS

JOB NO.

DATE
2025.05.14

SCALE
NTS

SPL-5.1

SOUND COMMUNITIES PUBLIC SPACES EXHIBIT

22 JULY 2025

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SOUND COMMUNITIES DEVELOPMENT

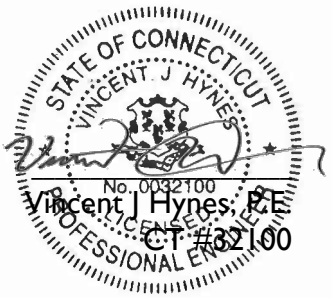
SITE ENGINEERING REPORT

Prepared For
Sound Communities
79 South Main Street and
Norwalk, CT

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

Issued on:

July 22, 2025



Vincent J Hynes, P.E.
CT #32100

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Drainage Narrative.....2

Sanitary Sewer Narrative.....6

APPENDICES

Drainage:

Appendix 1: Existing and Proposed On-Site Drainage Basin Maps

Appendix 2: Existing & Proposed On-Site Hydraulic Data

Appendix 3: Rainfall Intensity Data, Exfiltration Rate Data, Vegetated Roofs Adjusted CN Values, & NRCS Web Soil Survey

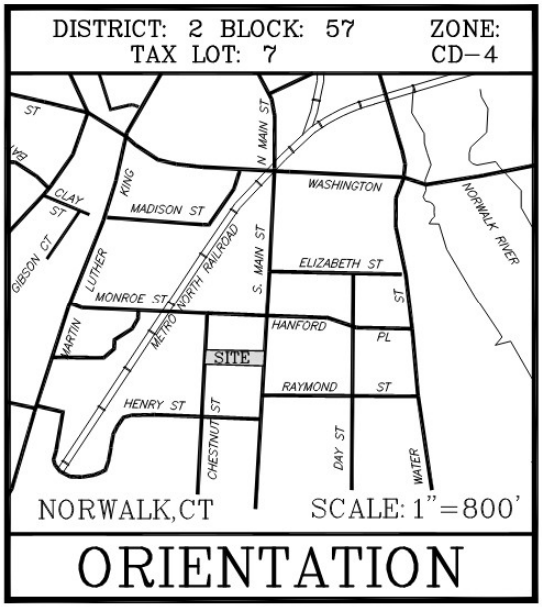
Appendix 4: USGS Quad Map

Sanitary Sewer:

Appendix 5: Sanitary Sewer Exhibit and Analysis

Appendix 6: Excerpt of Sanitary Sewer Flow Monitoring/Capacity Analysis prepared by Godfrey, Hoffman, & Hodge, LLC for 1 & 11 Chestnut Street (prepared January 16, 2019) and Flow Monitoring Report prepared by Flow Assessment Services (prepared November 29, 2018)

ORIENTATION



DRAINAGE SUMMARY NARRATIVE

Introduction

The applicant is proposing to redevelop the property at 79 South Main Street in Norwalk, CT. The redevelopment includes the demolition of the other existing structures and the construction of a new seven-story multi-family structure with covered, at-grade parking (34 spaces) and a rooftop courtyard (on the 2nd floor) and associated site improvements. The proposal will consist of 68 affordable residential units and associated amenity space.

The site is approximately 0.56 acres and is bounded by Chestnut Street to the west, a mixed-use development to the north, South Main Street to the east, and a church and school to the south. The site lies within the CD-4 District zone. The proposed development is not located within the regulatory floodplain of the Norwalk River or a flood hazard area as established by FEMA and depicted on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 09001C0531G dated July 8, 2013. This report compares existing site characteristics and proposed site development and the effect on the storm water drainage system. Reference is made to the accompanying site development plans prepared by Redniss & Mead, Inc.

Existing Conditions

The site is approximately 24,193 sf (0.56 acres) and is currently developed with four buildings (mixed-use and multi-family uses), at-grade parking, sidewalks and landscaped area. In total, the site impervious coverage is 19,922 sf (approximately 82%). The topography of the site is generally flat and the site runoff generally sheet flows into the surrounding streets where it is collected via existing City-owned stormwater infrastructure. For the purposes of this report there are two site drainage basins that are studied: East Basin (area tributary to South Main Street) and West Basin (area tributary to Chestnut Street). Refer to appendix I for the Existing Conditions Drainage Basin Map.

The east basin tributary area is 16,935 sf (of which 13,907 sf is impervious coverage). There is no formal on-site stormwater infrastructure within the basin and runoff sheet flows toward South Main Street. The stormwater infrastructure within South Main Street consists of a 30" concrete pipe and a series of catch basins and manholes. This system ultimately ties into another stormwater system at Raymond Street prior to extending to and discharging into the Norwalk River.

The west basin tributary area is 7,258 sf (of which 6,015 sf is impervious coverage). There is no formal on-site stormwater infrastructure within this basin and runoff sheet flows into the catch basins within Chestnut Street. The stormwater infrastructure within Chestnut Street consists of a 15" concrete pipe and a series of catch basins and manholes.

Proposed Conditions

The owner is seeking approval to demolish and remove existing buildings and infrastructure on site and to construct a new 7-story multi-family building with at-grade parking (covered and non-covered), a pocket park and public realm space, and associated site improvements. In total, it is proposed to increase impervious coverage by approximately 120 sf as part of the property

redevelopment. Although this increase includes landscape areas on the 2nd floor courtyard, a reduced Curve Number (CN) is used as a 6" minimum soil depth will be provided. Water Quality improvements are provided, and peak rates of runoff will be reduced to the east and west basins. Reference is made to the site and utility plans prepared by Redniss & Mead, Inc. and to the Proposed Conditions Drainage Basin Exhibit within appendix I.

The east basin is split into two sub-basins under proposed conditions: Infiltration #1 basin and east bypass basin. Each basin is ultimately tributary to the existing 30" RCP within South Main Street. The bypass basin is approximately 750 sf (of which 392 sf is impervious coverage) and runoff sheet flows directly into the South Main Street right-of-way. Tributary area will consist of a portion of the driveway entrance and walk and landscape surfaces within the pocket park.

Tributary area to Infiltration #1 basin includes a majority of the building runoff, parking and drive surfaces, and walk and landscape surfaces within the pocket park. The total tributary area is 18,870 sf (of which 15,412 sf is impervious coverage). Infiltration system #1 consists of forty (40) Cultec R-280HD units and is sized to capture and treat 100% of the tributary water quality volume (WQV). The system is metered via a high overflow culvert with the invert set at elevation 13.90, which allows 1,325 cf of runoff to be treated prior to discharge into the South Main Street stormwater infrastructure (1,186 cf required for 100% WQV). Note: Although a reduced curve number is used for the landscaped areas of the second-floor courtyard (as a minimum 6" soil depth will be provided), the entire courtyard is considered impervious coverage for water quality purposes and the calculated WQV requirement is 48 cf. As a minimum 6" soil depth is provided, the WQV requirement is achieved.

The west basin tributary area is 4,574 sf (of which 4,237 sf is impervious coverage). The tributary area consists of a portion of building area and sidewalk area fronting along Chestnut Street. Based upon a reduction in total tributary area, the peak flows and volumes have been reduced up to and including the 100-year storm event.

Calculations were prepared using the methodologies provided in Technical Release 55: Urban Hydrology for Small Watersheds, published by the United States Department of Agriculture National Resources Conservation Service and HydroCAD software. Note that the rainfall rates used are based upon the National Oceanic and Atmospheric Administration (NOAA) National Weather Service Hydrometeorological Design Studies Center Precipitation Frequency Data Server (PFDS) for the area. The following tables depict the existing and proposed peak flows leaving each sub-basin of the site and their associated runoff volumes:

Table 1: Peak Rates of Runoff

		Chesnut Basin Peak Flow (cfs)				S Main Basin Peak Flows (cfs)			
Return Period (yrs)	Rainfall Rates (in)	Ex	Pr	Change	% Change	Ex	Pr	Change	% Change
2	3.49	0.47	0.31	-0.16	-34.0%	1.09	0.57	-0.52	-47.7%
5	4.50	0.62	0.40	-0.22	-35.5%	1.44	1.21	-0.23	-16.0%
10	5.33	0.74	0.48	-0.26	-35.1%	1.73	1.65	-0.08	-4.6%
25	6.48	0.91	0.58	-0.33	-36.3%	2.12	2.11	-0.01	-0.5%
50	7.34	1.04	0.66	-0.38	-36.5%	2.42	2.42	0.00	0.0%
100	8.26	1.17	0.74	-0.43	-36.8%	2.73	2.72	-0.01	-0.4%

Table 2: Runoff Volumes

		Chesnut Basin Runoff Volume (ac-ft)				S Main Basin Runoff Volume (ac-ft)			
Return Period (yrs)	Rainfall Rates (in)	Ex	Pr	Change	% Change	Ex	Pr	Change	% Change
2	3.49	0.040	0.027	-0.013	-32.5%	0.094	0.039	-0.055	-58.5%
5	4.50	0.054	0.036	-0.018	-33.3%	0.126	0.070	-0.056	-44.4%
10	5.33	0.066	0.043	-0.023	-34.8%	0.153	0.097	-0.056	-36.6%
25	6.48	0.081	0.053	-0.028	-34.6%	0.190	0.136	-0.054	-28.4%
50	7.34	0.093	0.061	-0.032	-34.4%	0.217	0.166	-0.051	-23.5%
100	8.26	0.106	0.069	-0.037	-34.9%	0.247	0.198	-0.049	-19.8%

Water Quality:

Water quality from the proposed development will be improved as compared to existing conditions. This is accomplished as follows:

1. A portion of the proposed parking will be covered with those surfaces not exposed to rainfall and associated runoff. Should any drains be installed within the areas of covered parking, they will be tributary to an oil/grit separator prior to discharging into the sanitary sewer system.
2. Infiltration systems are proposed to collect the disturbed impervious coverage. The overflow elevation is set to provide 100% of the water quality volume. In addition, the second-floor courtyard will include planters with at least 6" of soil depth which provides water quality treatment for the tributary area.
3. Green roof trays and/or planters with 6" of soil depth minimum are proposed on the 2nd floor courtyard and will provide water quality treatment for the direct runoff.
4. A detailed Sediment and Erosion Control Plan, including a system of controls both temporary and permanent, is designed to minimize erosion, and contain and properly dispose of any accumulation of sediment during construction.

Conclusion:

Based on the above information and with proper implementation of the design drawings and proper sediment and erosion controls, the proposed development will not adversely impact adjacent or downstream properties or City owned drainage facilities. Furthermore, water quality will be significantly improved with the installation of the infiltration systems, reduction in uncovered parking, and landscaping improvements.

SANITARY SEWER SUMMARY

The applicant is proposing to redevelop the property at 79 South Main Street in Norwalk, CT. The redevelopment includes the demolition of the other existing structures and the construction of a new seven-story multi-family structure with covered and uncovered, at-grade parking (34 spaces) and a rooftop courtyard (on the 2nd floor) and associated site improvements. The proposal will consist of 68 affordable residential units and associated amenity space. Reference is made to the accompanying site & utility plans prepared by Redniss & Mead, Inc.

Under existing conditions, per the "Sanitary Sewer Flow Monitoring/Capacity Analysis" prepared by Godfrey Hoffman Hodge LLC and dated 1/16/2019, the site is assumed tributary to a 12" VCP within South Main Street. Based upon the usage assumptions provided in Appendix 5, the existing conditions total daily flow tributary to the South Main Street sewer is approximately 3,771 GPD. Ultimately, the above referenced sanitary sewer mains combine with sewer mains from Henry Street at Raymond Street (which consists of 12" pipe of varying materials). Refer to Appendix 6 for an excerpt of the analysis prepared by Godfrey, Hoffman, & Hodge, LLC for 1 & 11 Chestnut Street which includes the sanitary sewer shed of area tributary to the Raymond Street sanitary sewer main and flows to the same.

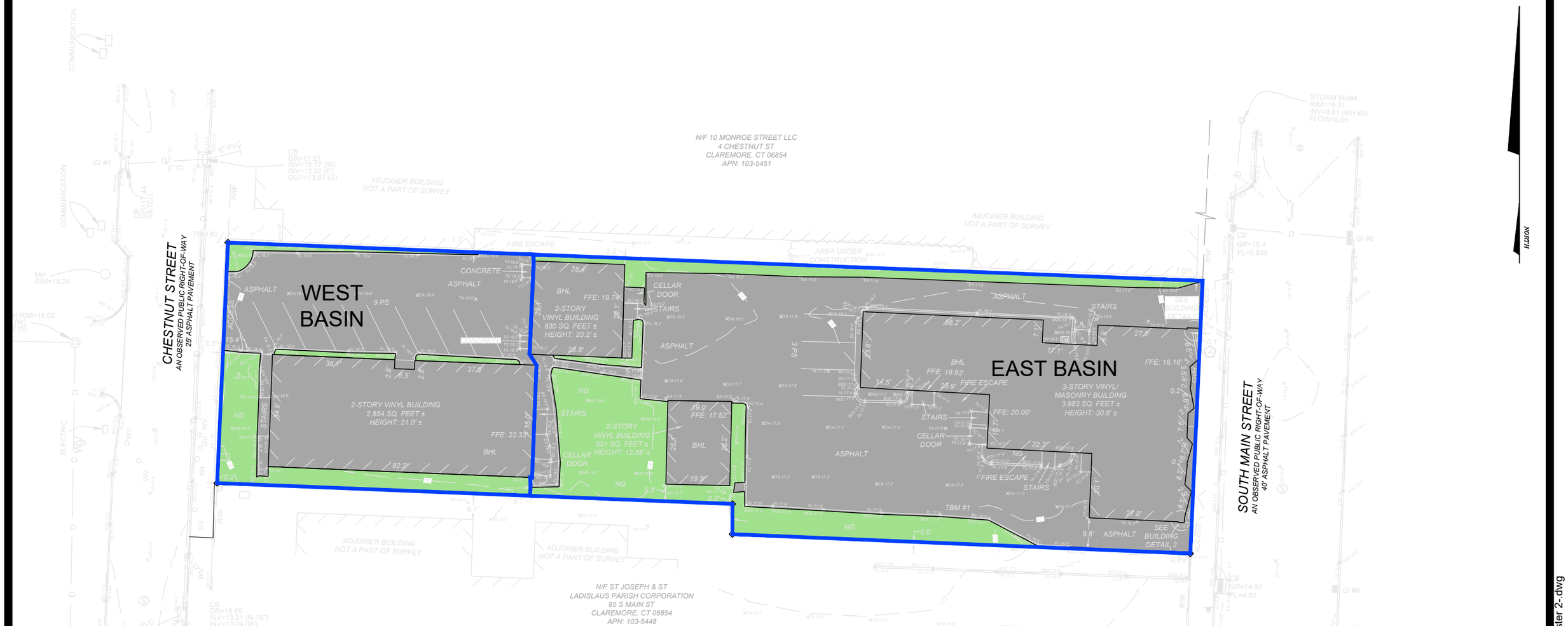
Under proposed conditions, the developer is seeking permission to construct a new seven-story building with 68 residential units (64 one-bed units and 4 two-bed units). It is proposed to connect the new building to the Chestnut Street sewer main, removing connections to the South Main sewer main. Using the CT Health Code guidelines, the proposed structure and usage of the site would result in a total average daily sewage flow of 10,800 GPD. Using a peak factor of 4, the peak sewage flow is 43,200 GPD (0.067 cfs). This represents a net increase in peak flow to the Chestnut Street system of 0.067 cfs and a net reduction in peak flows to the South Main Street system of 0.023 cfs.

In addition to the above referenced analysis prepared by Godfrey, Hoffman, & Hodge, LLC, further existing sanitary flow data on Raymond Street (in the manhole fronting 4 Raymond Street) was obtained from Norwalk WPCA via a flow monitoring report prepared by Flow Assessment Services (refer to Appendix 6 for the flow monitoring report data). The dates of the monitoring were 10/26/2018 to 11/28/2018 and the peak flow during that time period was 0.359 mgd (0.555 cfs). Using the above data, we have studied the pipe capacity of the sewer systems within Chestnut Street and Raymond Street.

Based upon the above and attached calculations, under proposed conditions the sewer system within Chestnut Street is operating between 20 and 31% of the total capacity and the sewer system within Raymond Street is operating between 34% and 61% of the total pipe capacity. Refer to Appendix 5 for a Sanitary Sewer Connection Exhibit, the proposed sanitary flow assumptions and pipe capacity calculations – note, the calculations include the flows attributed to new and approved developments at 1 and 11 Chestnut Street, 15 Chestnut Street, and 10 Monroe Street.

Based on the above information, it is our opinion that the City owned 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 1



LEGEND

SURFACE CONDITIONS	
LAWN	Drainage Basin Boundary
IMPERVIOUS (INC. PERMEABLE PAVERS)	

EXISTING DRAINAGE BASIN EXHIBIT

79 SOUTH MAIN STREET

NORWALK, 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:
11071	07/22/2025
	SCALE: 1"=30'

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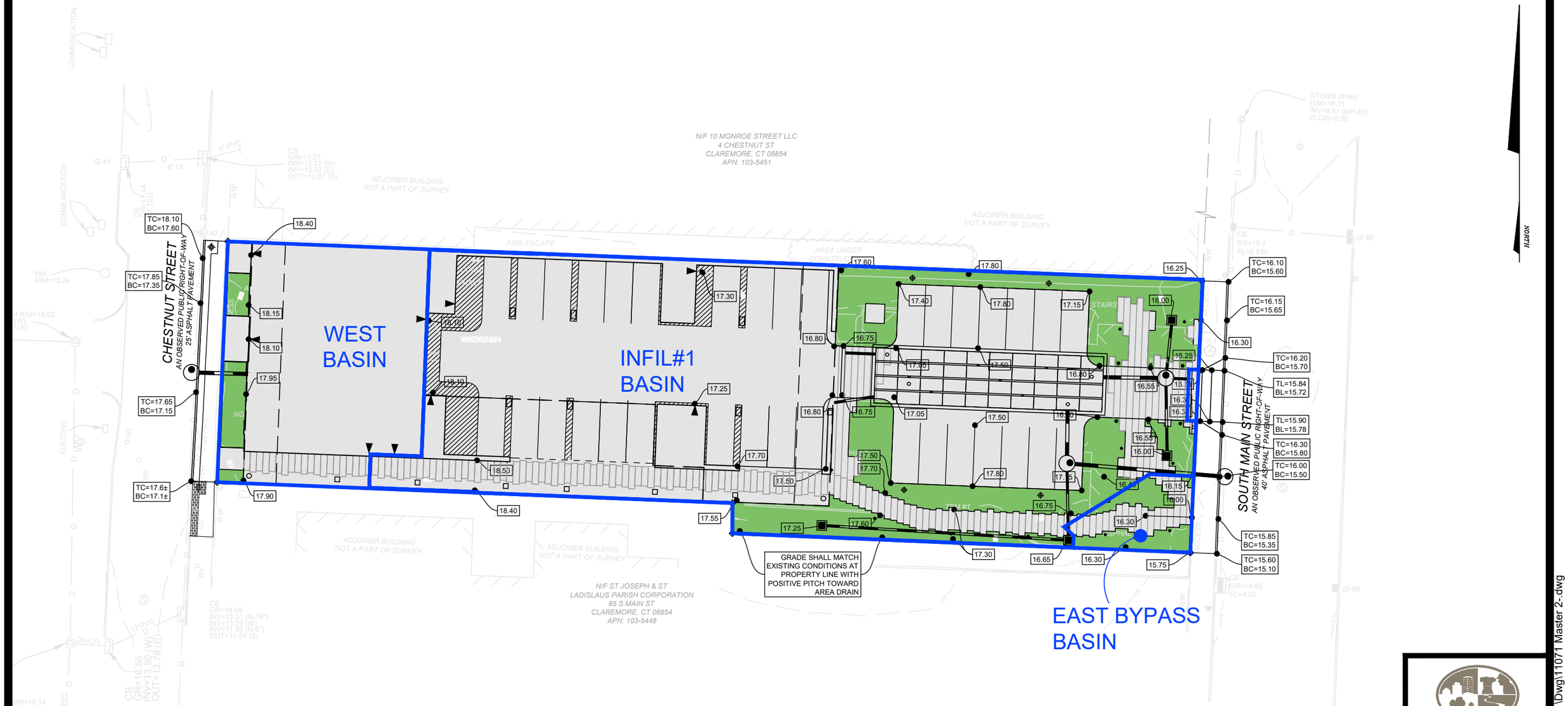

LEGEND

SURFACE CONDITIONS	
LAWN	Drainage Basin Boundary
IMPERVIOUS (INC. PERMEABLE PAVERS)	

PROPOSED DRAINAGE BASIN EXHIBIT

79 SOUTH MAIN STREET

NORWALK, CT

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COMM. NO.:	DATE:
11071	07/22/2025
	SCALE: 1"=30'

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Appendix 2

Water Quality Volume Calculations

Project: *79 South Main Street*	**Project #:** *11071*	**Date:** *7/2/2025*
Location: *Norwalk, CT*	**By:** *VJH*	**Checked:** *CJF*

Infil #1 Basin

Area=	0.419	acres
Impervious Area=	0.340	acres
I=	0.811	[a]
R=	0.780	[b]
WQV=	0.027	ac. ft. [c]

WQV=	**1,186.2 ft.^{3} [d]**

Green Roof Area

Area=	0.014	acres
Impervious Area=	0.014	acres
I=	1.000	[a]
R=	0.950	[b]
WQV=	0.001	ac. ft. [c]

WQV=	**48.3 ft.^{3} [e]**

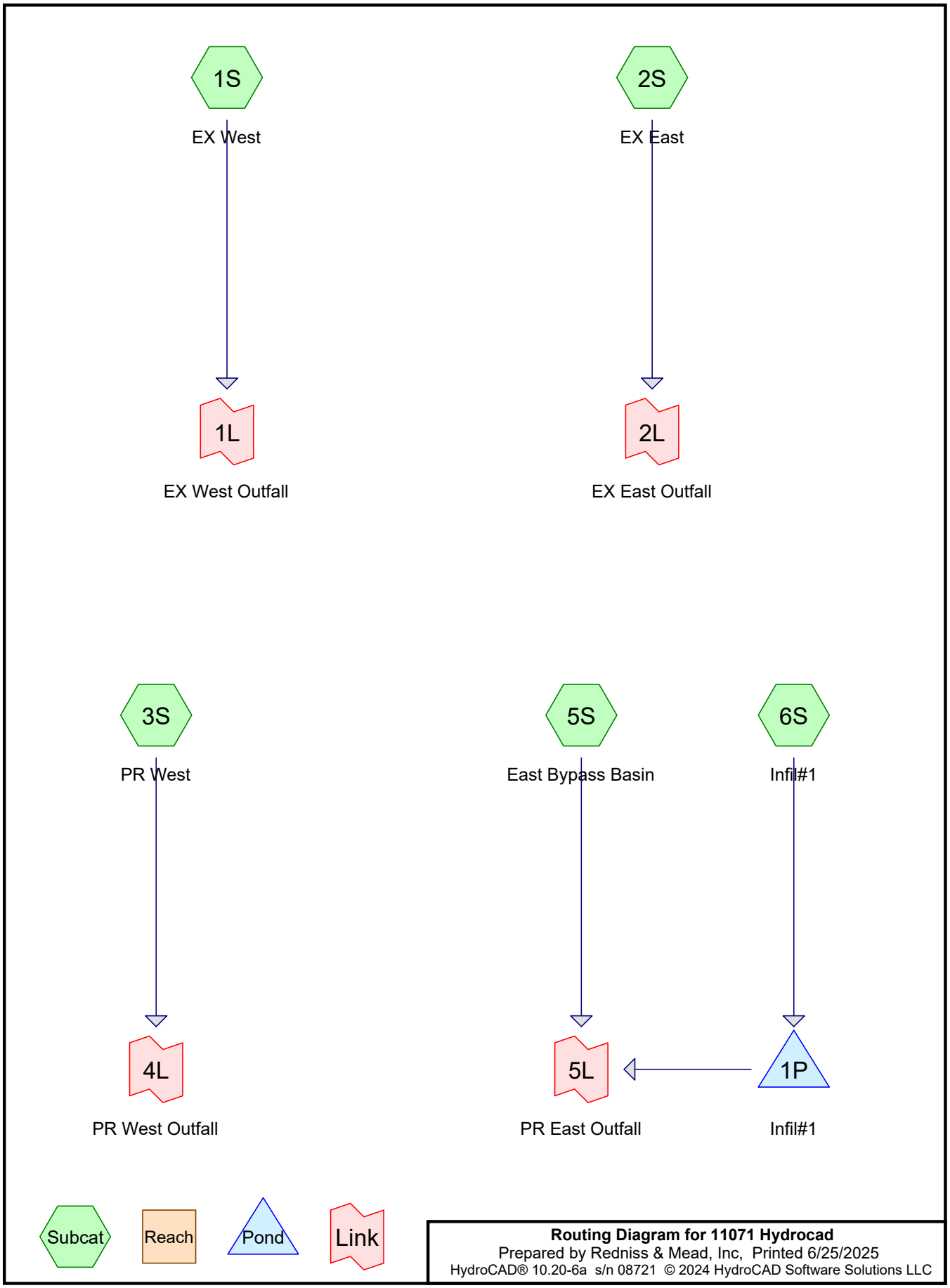
[a] I=Percent Impervious Coverage

[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"xRxA)/12; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

[d] Infil #1 provides 1,325 ft.^{3} of storage below the outlet at elevation 13.9. For the purposes of WQV, tributary area does not include green roof area which is treated via 6" minimum soil trays.

[e] 6" Min. Soil Trays provide 48.3 ft.^{3} of WQV treatment for green roof areas.


1S
EX West
2S
EX East
1L
EX West Outfall
2L
EX East Outfall
3S
PR West
5S
East Bypass Basin
6S
Infil#1
4L
PR West Outfall
5L
PR East Outfall
1P
Infil#1
Subcat
Reach
Pond
Link
Routing Diagram for 11071 Hydrocad
Prepared by Redniss & Mead, Inc, Printed 6/25/2025
HydroCAD® 10.20-6a s/n 08721 © 2024 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	Type III 24-hr		Default	24.00	1	3.49	2
2	5-yr	Type III 24-hr		Default	24.00	1	4.50	2
3	10-yr	Type III 24-hr		Default	24.00	1	5.33	2
4	25-yr	Type III 24-hr		Default	24.00	1	6.48	2
5	50-yr	Type III 24-hr		Default	24.00	1	7.34	2
6	100-yr	Type III 24-hr		Default	24.00	1	8.26	2

Time span=0.00-24.00 hrs, dt=0.02 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EX West Runoff Area=7,258 sf 82.87% Impervious Runoff Depth>2.91"
Tc=10.0 min CN=94.9 Runoff=0.47 cfs 0.040 af

Subcatchment2S: EX East Runoff Area=16,935 sf 82.12% Impervious Runoff Depth>2.90"
Tc=10.0 min CN=94.8 Runoff=1.09 cfs 0.094 af

Subcatchment3S: PR West Runoff Area=4,573 sf 92.65% Impervious Runoff Depth>3.11"
Tc=10.0 min CN=96.7 Runoff=0.31 cfs 0.027 af

Subcatchment5S: East Bypass Basin Runoff Area=750 sf 52.27% Impervious Runoff Depth>2.38"
Tc=10.0 min CN=89.4 Runoff=0.04 cfs 0.003 af

Subcatchment6S: Infil#1 Runoff Area=18,870 sf 78.44% Impervious Runoff Depth>2.86"
Tc=10.0 min CN=94.4 Runoff=1.21 cfs 0.103 af

Pond 1P: Infil#1 Peak Elev=14.27' Storage=1,726 cf Inflow=1.21 cfs 0.103 af
Discarded=0.04 cfs 0.044 af Primary=0.54 cfs 0.036 af Outflow=0.58 cfs 0.080 af

Link 1L: EX West Outfall Inflow=0.47 cfs 0.040 af
Primary=0.47 cfs 0.040 af

Link 2L: EX East Outfall Inflow=1.09 cfs 0.094 af
Primary=1.09 cfs 0.094 af

Link 4L: PR West Outfall Inflow=0.31 cfs 0.027 af
Primary=0.31 cfs 0.027 af

Link 5L: PR East Outfall Inflow=0.57 cfs 0.039 af
Primary=0.57 cfs 0.039 af

Total Runoff Area = 1.111 ac Runoff Volume = 0.268 af Average Runoff Depth = 2.90"
18.67% Pervious = 0.207 ac 81.33% Impervious = 0.903 ac

Time span=0.00-24.00 hrs, dt=0.02 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EX West Runoff Area=7,258 sf 82.87% Impervious Runoff Depth>3.91"
Tc=10.0 min CN=94.9 Runoff=0.62 cfs 0.054 af

Subcatchment2S: EX East Runoff Area=16,935 sf 82.12% Impervious Runoff Depth>3.90"
Tc=10.0 min CN=94.8 Runoff=1.44 cfs 0.126 af

Subcatchment3S: PR West Runoff Area=4,573 sf 92.65% Impervious Runoff Depth>4.11"
Tc=10.0 min CN=96.7 Runoff=0.40 cfs 0.036 af

Subcatchment5S: East Bypass Basin Runoff Area=750 sf 52.27% Impervious Runoff Depth>3.33"
Tc=10.0 min CN=89.4 Runoff=0.06 cfs 0.005 af

Subcatchment6S: Infil#1 Runoff Area=18,870 sf 78.44% Impervious Runoff Depth>3.85"
Tc=10.0 min CN=94.4 Runoff=1.60 cfs 0.139 af

Pond 1P: Infil#1 Peak Elev=14.46' Storage=1,926 cf Inflow=1.60 cfs 0.139 af
Discarded=0.04 cfs 0.047 af Primary=1.16 cfs 0.066 af Outflow=1.20 cfs 0.113 af

Link 1L: EX West Outfall Inflow=0.62 cfs 0.054 af
Primary=0.62 cfs 0.054 af

Link 2L: EX East Outfall Inflow=1.44 cfs 0.126 af
Primary=1.44 cfs 0.126 af

Link 4L: PR West Outfall Inflow=0.40 cfs 0.036 af
Primary=0.40 cfs 0.036 af

Link 5L: PR East Outfall Inflow=1.21 cfs 0.070 af
Primary=1.21 cfs 0.070 af

Total Runoff Area = 1.111 ac Runoff Volume = 0.360 af Average Runoff Depth = 3.89"
18.67% Pervious = 0.207 ac 81.33% Impervious = 0.903 ac

Time span=0.00-24.00 hrs, dt=0.02 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EX West Runoff Area=7,258 sf 82.87% Impervious Runoff Depth>4.73"
Tc=10.0 min CN=94.9 Runoff=0.74 cfs 0.066 af

Subcatchment2S: EX East Runoff Area=16,935 sf 82.12% Impervious Runoff Depth>4.72"
Tc=10.0 min CN=94.8 Runoff=1.73 cfs 0.153 af

Subcatchment3S: PR West Runoff Area=4,573 sf 92.65% Impervious Runoff Depth>4.93"
Tc=10.0 min CN=96.7 Runoff=0.48 cfs 0.043 af

Subcatchment5S: East Bypass Basin Runoff Area=750 sf 52.27% Impervious Runoff Depth>4.12"
Tc=10.0 min CN=89.4 Runoff=0.07 cfs 0.006 af

Subcatchment6S: Infil#1 Runoff Area=18,870 sf 78.44% Impervious Runoff Depth>4.67"
Tc=10.0 min CN=94.4 Runoff=1.92 cfs 0.169 af

Pond 1P: Infil#1 Peak Elev=14.58' Storage=2,039 cf Inflow=1.92 cfs 0.169 af
Discarded=0.04 cfs 0.049 af Primary=1.59 cfs 0.091 af Outflow=1.63 cfs 0.141 af

Link 1L: EX West Outfall Inflow=0.74 cfs 0.066 af
Primary=0.74 cfs 0.066 af

Link 2L: EX East Outfall Inflow=1.73 cfs 0.153 af
Primary=1.73 cfs 0.153 af

Link 4L: PR West Outfall Inflow=0.48 cfs 0.043 af
Primary=0.48 cfs 0.043 af

Link 5L: PR East Outfall Inflow=1.65 cfs 0.097 af
Primary=1.65 cfs 0.097 af

Total Runoff Area = 1.111 ac Runoff Volume = 0.436 af Average Runoff Depth = 4.71"
18.67% Pervious = 0.207 ac 81.33% Impervious = 0.903 ac

Time span=0.00-24.00 hrs, dt=0.02 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EX West Runoff Area=7,258 sf 82.87% Impervious Runoff Depth>5.87"
Tc=10.0 min CN=94.9 Runoff=0.91 cfs 0.081 af

Subcatchment2S: EX East Runoff Area=16,935 sf 82.12% Impervious Runoff Depth>5.86"
Tc=10.0 min CN=94.8 Runoff=2.12 cfs 0.190 af

Subcatchment3S: PR West Runoff Area=4,573 sf 92.65% Impervious Runoff Depth>6.08"
Tc=10.0 min CN=96.7 Runoff=0.58 cfs 0.053 af

Subcatchment5S: East Bypass Basin Runoff Area=750 sf 52.27% Impervious Runoff Depth>5.24"
Tc=10.0 min CN=89.4 Runoff=0.09 cfs 0.008 af

Subcatchment6S: Infil#1 Runoff Area=18,870 sf 78.44% Impervious Runoff Depth>5.81"
Tc=10.0 min CN=94.4 Runoff=2.36 cfs 0.210 af

Pond 1P: Infil#1 Peak Elev=14.70' Storage=2,150 cf Inflow=2.36 cfs 0.210 af
Discarded=0.04 cfs 0.052 af Primary=2.03 cfs 0.128 af Outflow=2.07 cfs 0.180 af

Link 1L: EX West Outfall Inflow=0.91 cfs 0.081 af
Primary=0.91 cfs 0.081 af

Link 2L: EX East Outfall Inflow=2.12 cfs 0.190 af
Primary=2.12 cfs 0.190 af

Link 4L: PR West Outfall Inflow=0.58 cfs 0.053 af
Primary=0.58 cfs 0.053 af

Link 5L: PR East Outfall Inflow=2.11 cfs 0.136 af
Primary=2.11 cfs 0.136 af

Total Runoff Area = 1.111 ac Runoff Volume = 0.542 af Average Runoff Depth = 5.85"
18.67% Pervious = 0.207 ac 81.33% Impervious = 0.903 ac

Summary for Subcatchment 1S: EX West

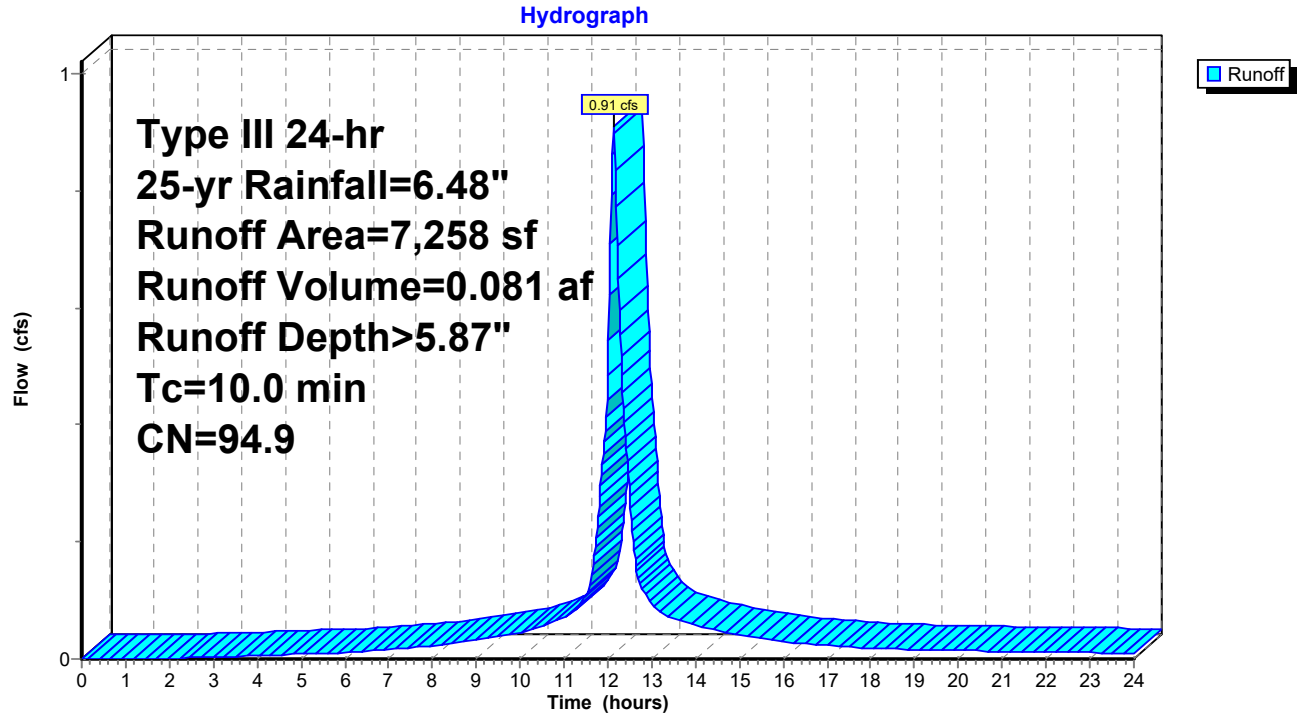
Runoff = 0.91 cfs @ 12.13 hrs, Volume= 0.081 af, Depth> 5.87"
Routed to Link 1L : EX West Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs
Type III 24-hr 25-yr Rainfall=6.48"

	Area (sf)	CN	Description
	1,243	80.0	>75% Grass cover, Good, HSG D
*	6,015	98.0	Paved parking, HSG D
	7,258	94.9	Weighted Average
	1,243		17.13% Pervious Area
	6,015		82.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, TC**
5.0	0	Total, Increased to minimum Tc = 10.0 min			

Subcatchment 1S: EX West



Summary for Subcatchment 2S: EX East

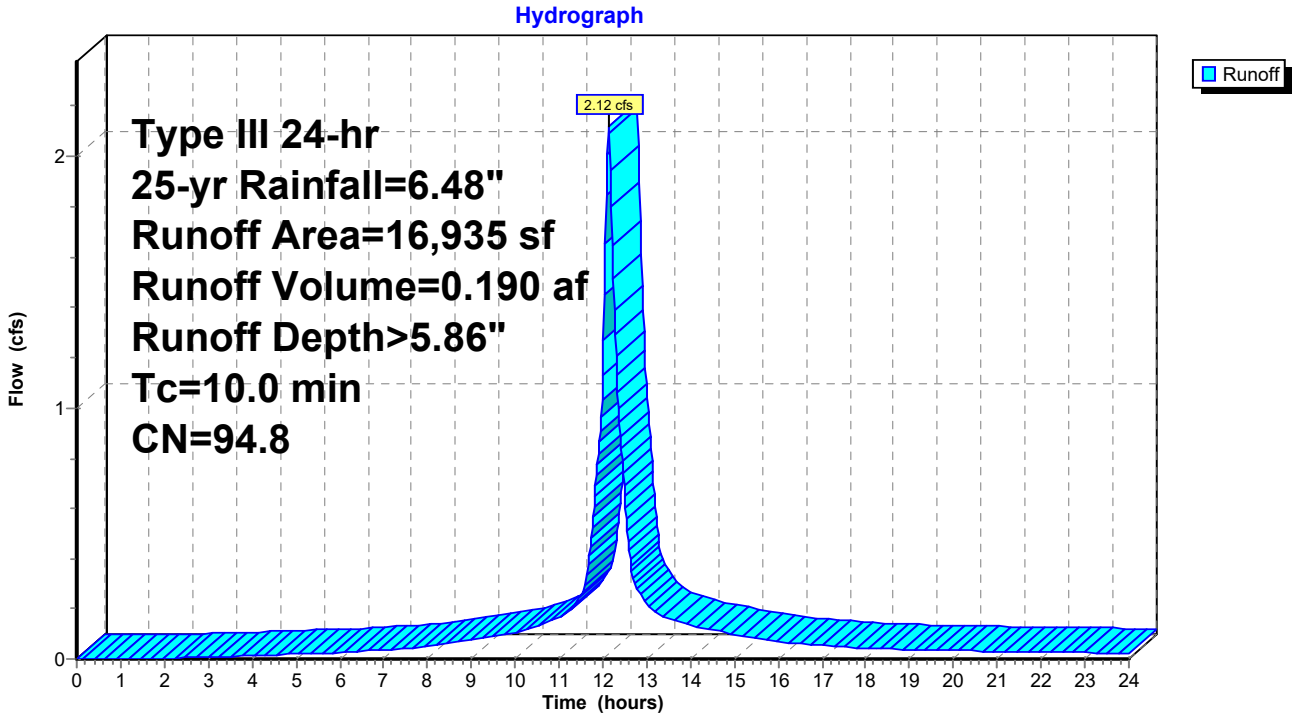
Runoff = 2.12 cfs @ 12.13 hrs, Volume= 0.190 af, Depth> 5.86"
Routed to Link 2L : EX East Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs
Type III 24-hr 25-yr Rainfall=6.48"

	Area (sf)	CN	Description
*	3,028	80.0	>75% Grass cover, Good, HSG D
*	13,907	98.0	Paved parking, HSG D
	16,935	94.8	Weighted Average
	3,028		17.88% Pervious Area
	13,907		82.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, TC**
5.0	0	Total, Increased to minimum Tc = 10.0 min			

Subcatchment 2S: EX East



Summary for Subcatchment 3S: PR West

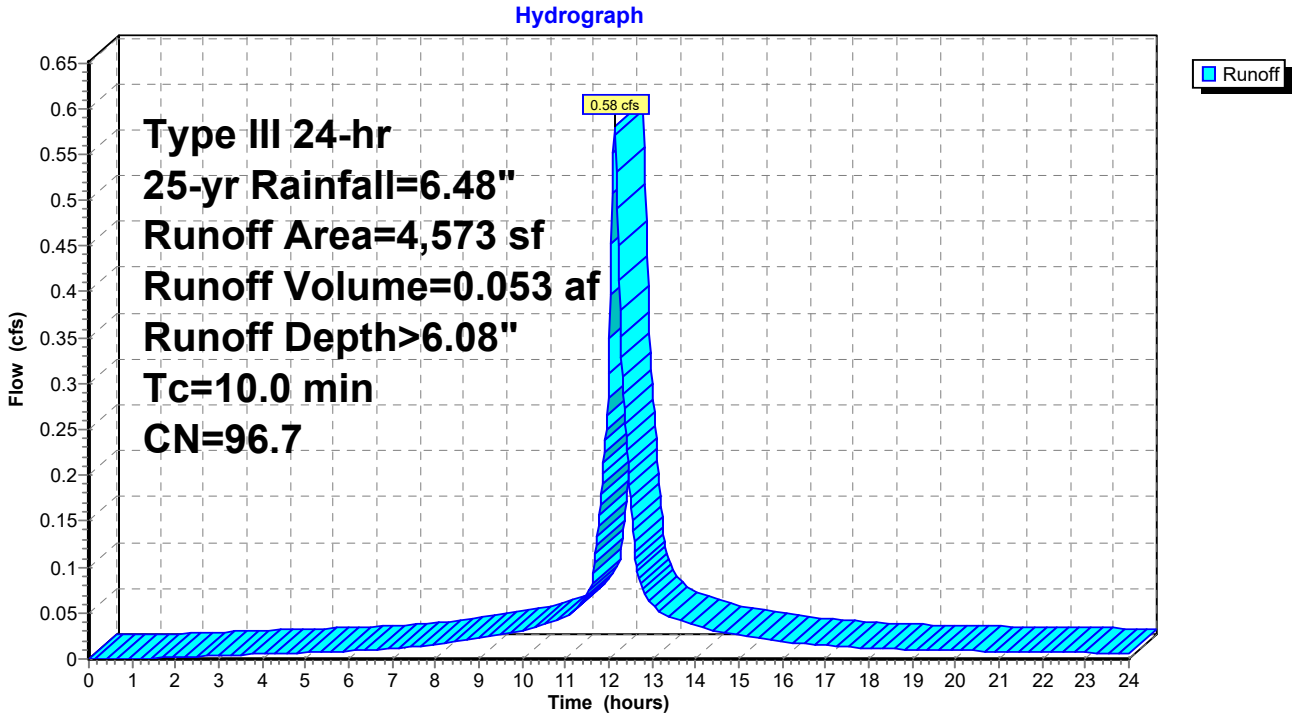
Runoff = 0.58 cfs @ 12.13 hrs, Volume= 0.053 af, Depth> 6.08"
Routed to Link 4L : PR West Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs
Type III 24-hr 25-yr Rainfall=6.48"

	Area (sf)	CN	Description
*	4,237	98.0	Paved parking, HSG D, onsite
	336	80.0	>75% Grass cover, Good, HSG D
	4,573	96.7	Weighted Average
	336		7.35% Pervious Area
	4,237		92.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, TC**
5.0	0	Total, Increased to minimum Tc = 10.0 min			

Subcatchment 3S: PR West



Summary for Subcatchment 5S: East Bypass Basin

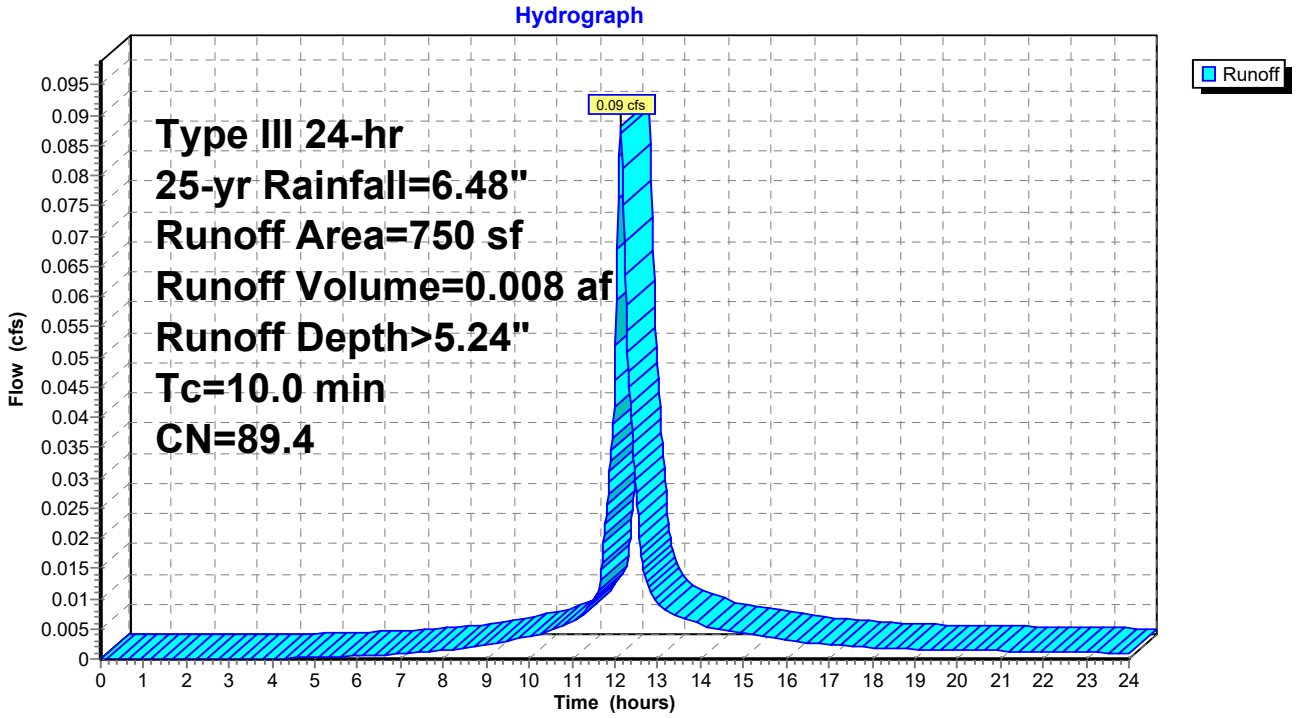
Runoff = 0.09 cfs @ 12.14 hrs, Volume= 0.008 af, Depth> 5.24"
Routed to Link 5L : PR East Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs
Type III 24-hr 25-yr Rainfall=6.48"

	Area (sf)	CN	Description
*	392	98.0	Paved parking, HSG D, onsite
	358	80.0	>75% Grass cover, Good, HSG D
	750	89.4	Weighted Average
	358		47.73% Pervious Area
	392		52.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, TC**
5.0	0	Total, Increased to minimum Tc = 10.0 min			

Subcatchment 5S: East Bypass Basin



Summary for Subcatchment 6S: Infil#1

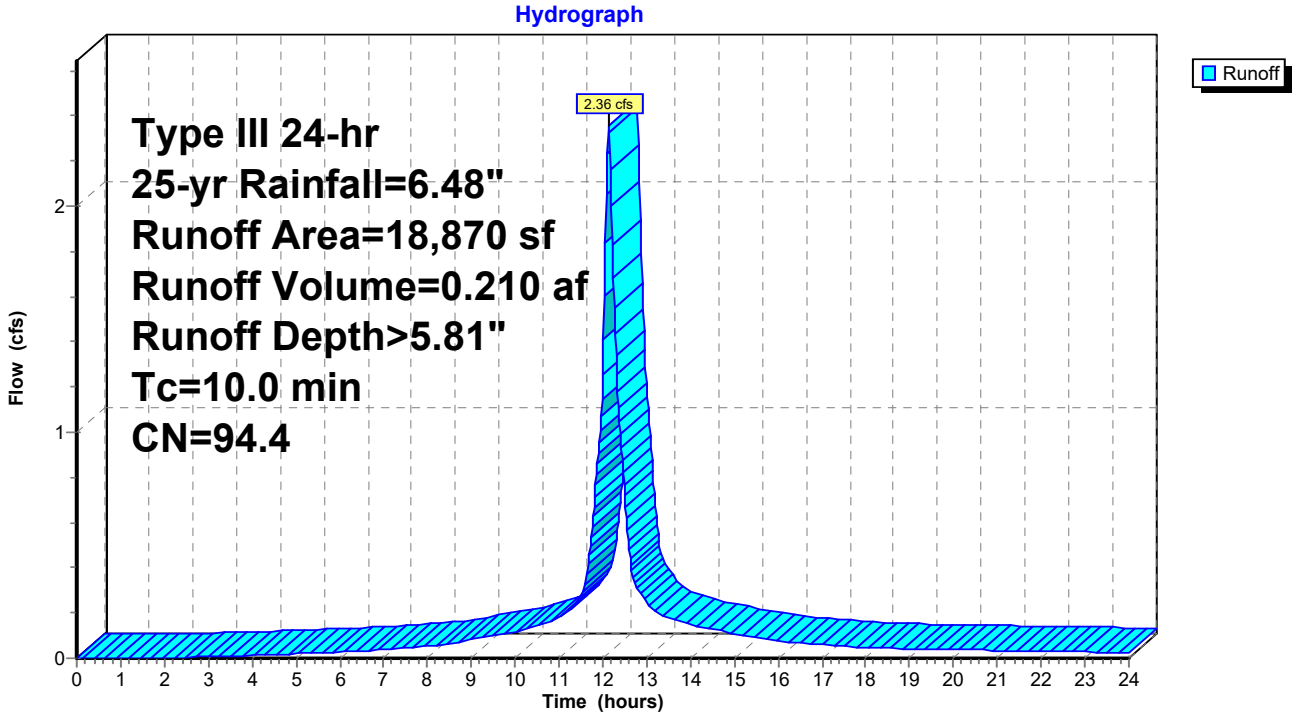
Runoff = 2.36 cfs @ 12.13 hrs, Volume= 0.210 af, Depth> 5.81"
Routed to Pond 1P : Infil#1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs
Type III 24-hr 25-yr Rainfall=6.48"

	Area (sf)	CN	Description
	14,802	98.0	Paved parking, HSG D
	3,458	80.0	>75% Grass cover, Good, HSG D
*	610	88.0	6" Green Roof Tray, HSG D
	18,870	94.4	Weighted Average
	4,068		21.56% Pervious Area
	14,802		78.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, TC**
5.0	0	Total, Increased to minimum Tc = 10.0 min			

Subcatchment 6S: Infil#1



Summary for Pond 1P: Infil#1

Inflow Area = 0.433 ac, 78.44% Impervious, Inflow Depth > 5.81" for 25-yr event
Inflow = 2.36 cfs @ 12.13 hrs, Volume= 0.210 af
Outflow = 2.07 cfs @ 12.19 hrs, Volume= 0.180 af, Atten= 12%, Lag= 3.4 min
Discarded = 0.04 cfs @ 12.19 hrs, Volume= 0.052 af
Primary = 2.03 cfs @ 12.19 hrs, Volume= 0.128 af
Routed to Link 5L : PR East Outfall

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs / 2
Peak Elev= 14.70' @ 12.19 hrs Surf.Area= 1,381 sf Storage= 2,150 cf

Plug-Flow detention time= 103.7 min calculated for 0.180 af (86% of inflow)
Center-of-Mass det. time= 42.3 min (809.8 - 767.4)

Volume	Invert	Avail.Storage	Storage Description
#1B	12.50'	1,082 cf	**18.92'W x 73.00'L x 3.21'H Field B** 4,430 cf Overall - 1,724 cf Embedded = 2,706 cf x 40.0% Voids
#2B	13.00'	1,724 cf	**Cultec R-280HD** x 40 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 4 rows
		2,807 cf	Total Available Storage

Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	13.90'	**12.0" Round Culvert** L= 44.0' Ke= 0.500 Inlet / Outlet Invert= 13.90' / 12.00' S= 0.0432 '/' Cc= 0.900 n= 0.010, Flow Area= 0.79 sf
#2	Discarded	12.50'	**0.750 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 9.00'

Discarded OutFlow Max=0.04 cfs @ 12.19 hrs HW=14.69' (Free Discharge)
↑**2=Exfiltration** (Controls 0.04 cfs)

Primary OutFlow Max=2.03 cfs @ 12.19 hrs HW=14.69' (Free Discharge)
↑**1=Culvert** (Inlet Controls 2.03 cfs @ 3.03 fps)

Pond 1P: Infil#1 - Chamber Wizard Field B

Chamber Model = Cultec R-280HD (Cultec Recharger® 280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 4 rows

47.0" Wide + 5.0" Spacing = 52.0" C-C Row Spacing

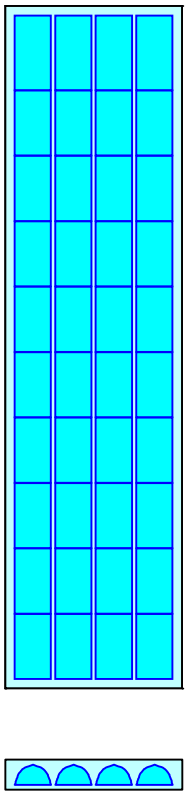
10 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 71.00' Row Length +12.0" End Stone x 2 = 73.00' Base Length
4 Rows x 47.0" Wide + 5.0" Spacing x 3 + 12.0" Side Stone x 2 = 18.92' Base Width
6.0" Stone Base + 26.5" Chamber Height + 6.0" Stone Cover = 3.21' Field Height

40 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 4 Rows = 1,724.4 cf Chamber Storage

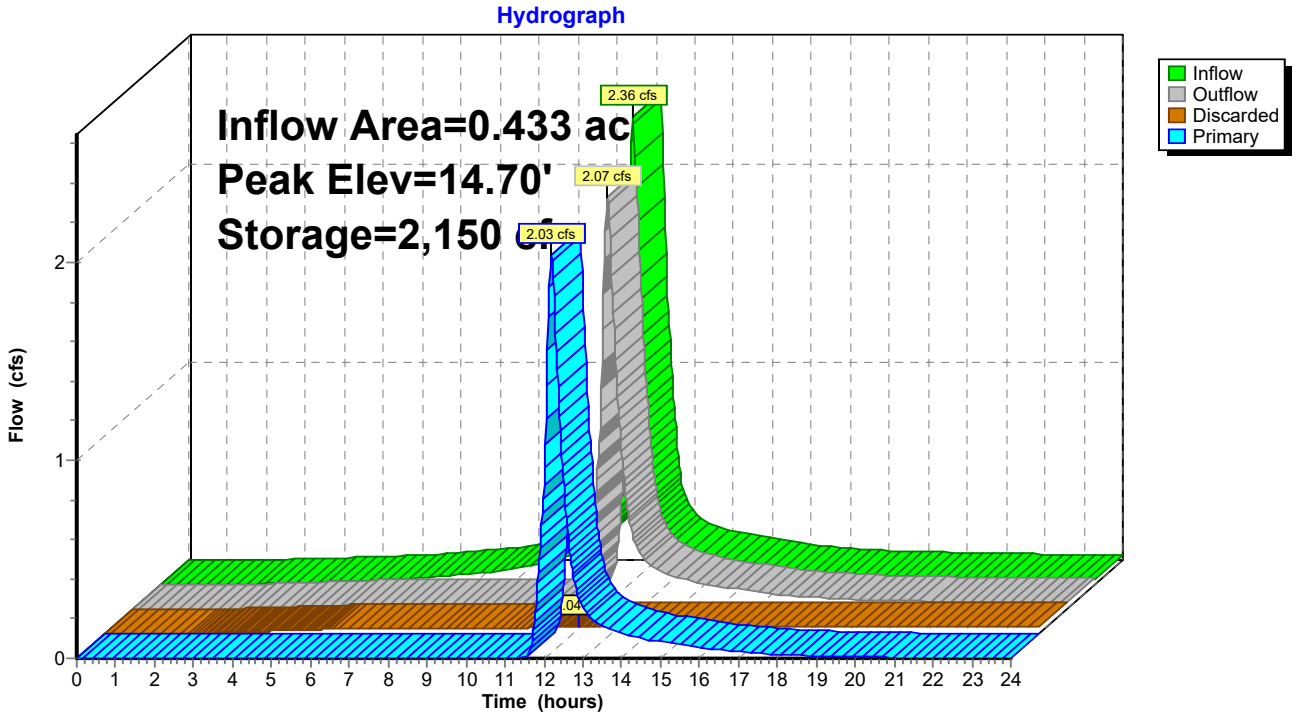
4,430.4 cf Field - 1,724.4 cf Chambers = 2,706.1 cf Stone x 40.0% Voids = 1,082.4 cf Stone Storage

Chamber Storage + Stone Storage = 2,806.8 cf = 0.064 af
Overall Storage Efficiency = 63.4%
Overall System Size = 73.00' x 18.92' x 3.21'

40 Chambers
164.1 cy Field
100.2 cy Stone



Pond 1P: Infil#1



Stage-Area-Storage for Pond 1P: Infil#1

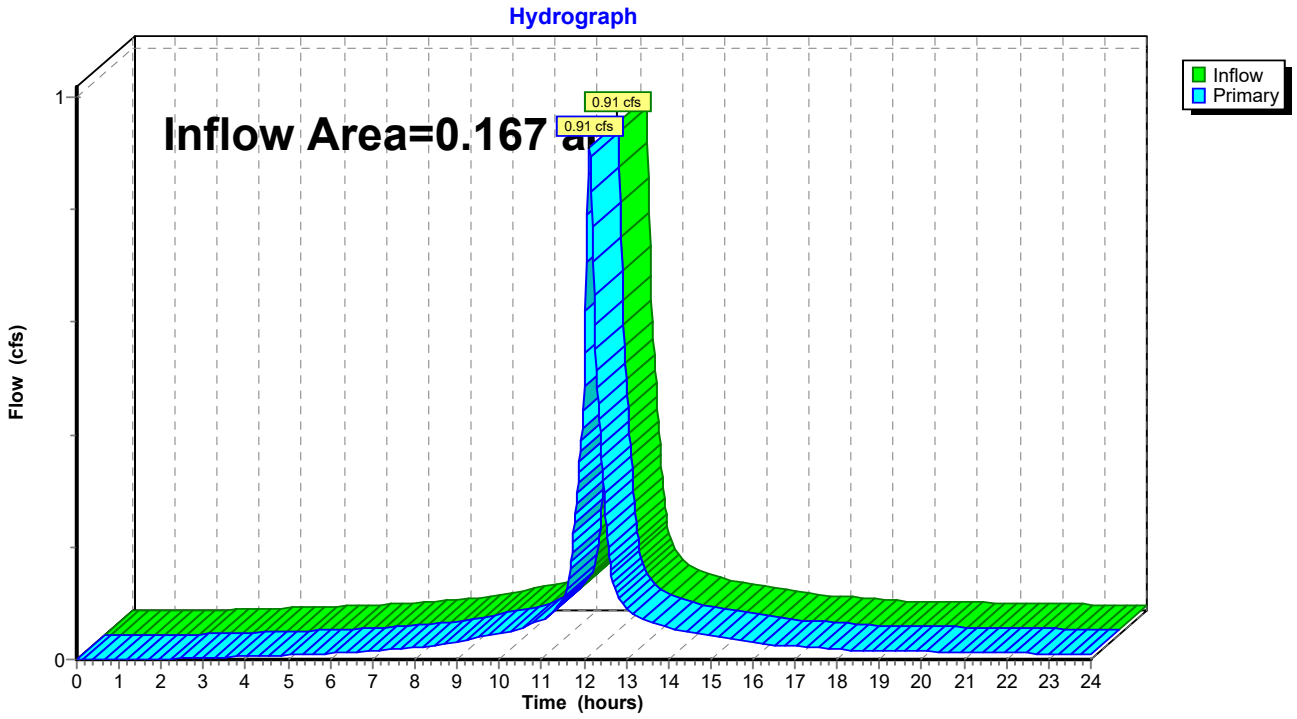
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
12.50	**1,381**	0
12.55	1,381	28
12.60	1,381	55
12.65	1,381	83
12.70	1,381	110
12.75	1,381	138
12.80	1,381	166
12.85	1,381	193
12.90	1,381	221
12.95	1,381	249
13.00	1,381	276
13.05	1,381	337
13.10	1,381	397
13.15	1,381	457
13.20	1,381	516
13.25	1,381	576
13.30	1,381	635
13.35	1,381	694
13.40	1,381	753
13.45	1,381	812
13.50	1,381	870
13.55	1,381	928
13.60	1,381	986
13.65	1,381	1,043
13.70	1,381	1,100
13.75	1,381	1,157
13.80	1,381	1,213
13.85	1,381	1,269
13.90	1,381	1,325
13.95	1,381	1,381
14.00	1,381	1,436
14.05	1,381	1,491
14.10	1,381	1,546
14.15	1,381	1,600
14.20	1,381	1,654
14.25	1,381	1,707
14.30	1,381	1,759
14.35	1,381	1,811
14.40	1,381	1,862
14.45	1,381	1,913
14.50	1,381	1,963
14.55	1,381	2,012
14.60	1,381	2,060
14.65	1,381	2,108
14.70	1,381	2,154
14.75	1,381	2,200
14.80	1,381	2,244
14.85	1,381	2,287
14.90	1,381	2,328
14.95	1,381	2,367
15.00	1,381	2,403
15.05	1,381	2,437
15.10	1,381	2,469
15.15	1,381	2,498
15.20	1,381	2,526
15.25	1,381	2,554
15.30	1,381	2,581
15.35	1,381	2,609
15.40	1,381	2,636
15.45	1,381	2,664
15.50	1,381	2,692
15.55	1,381	2,719
15.60	1,381	2,747
15.65	1,381	2,775
15.70	1,381	**2,802**

Summary for Link 1L: EX West Outfall

Inflow Area = 0.167 ac, 82.87% Impervious, Inflow Depth > 5.87" for 25-yr event
Inflow = 0.91 cfs @ 12.13 hrs, Volume= 0.081 af
Primary = 0.91 cfs @ 12.13 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 7L

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs

Link 1L: EX West Outfall

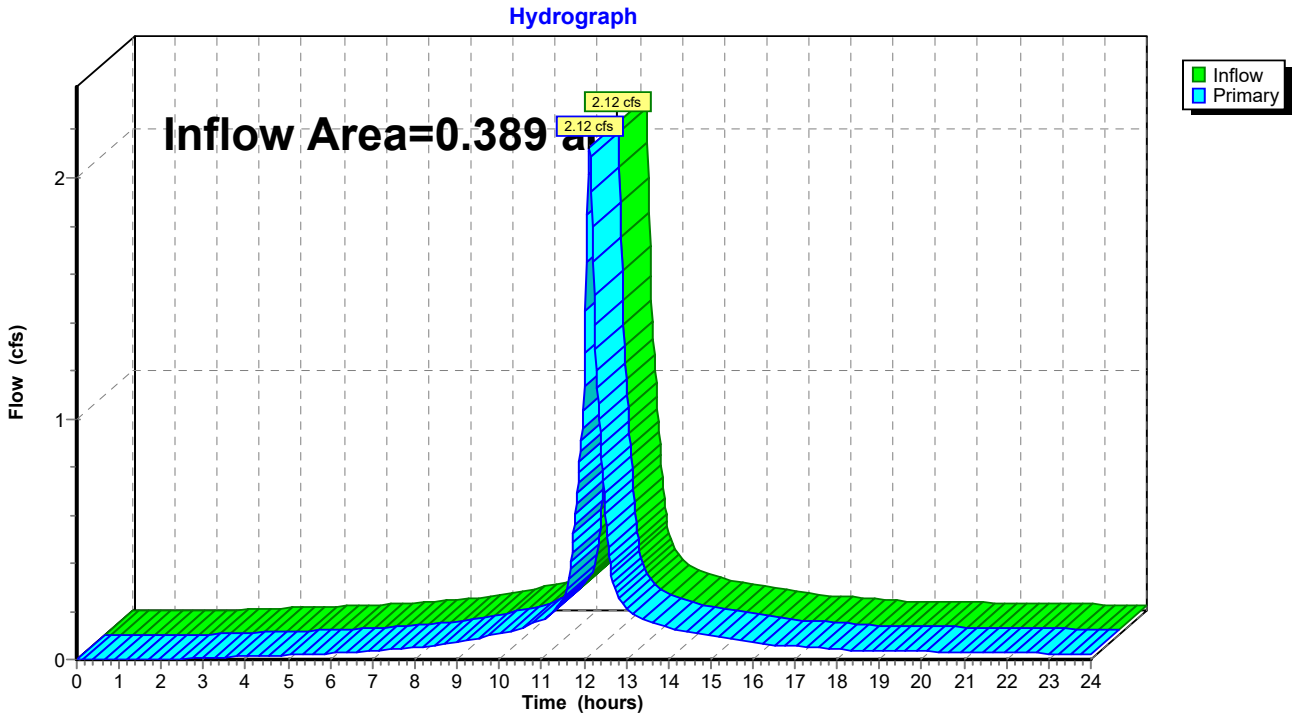


Summary for Link 2L: EX East Outfall

Inflow Area = 0.389 ac, 82.12% Impervious, Inflow Depth > 5.86" for 25-yr event
Inflow = 2.12 cfs @ 12.13 hrs, Volume= 0.190 af
Primary = 2.12 cfs @ 12.13 hrs, Volume= 0.190 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 7L

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs

Link 2L: EX East Outfall

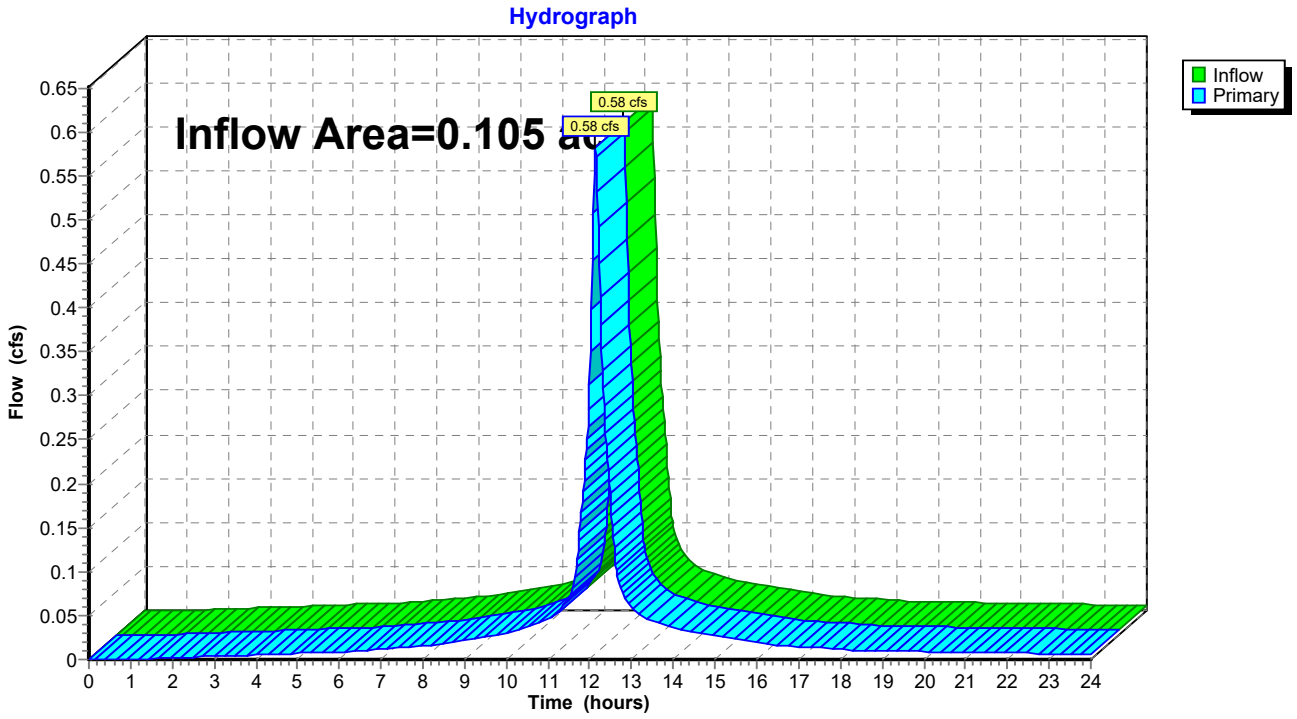


Summary for Link 4L: PR West Outfall

Inflow Area = 0.105 ac, 92.65% Impervious, Inflow Depth > 6.08" for 25-yr event
Inflow = 0.58 cfs @ 12.13 hrs, Volume= 0.053 af
Primary = 0.58 cfs @ 12.13 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 8L

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs

Link 4L: PR West Outfall

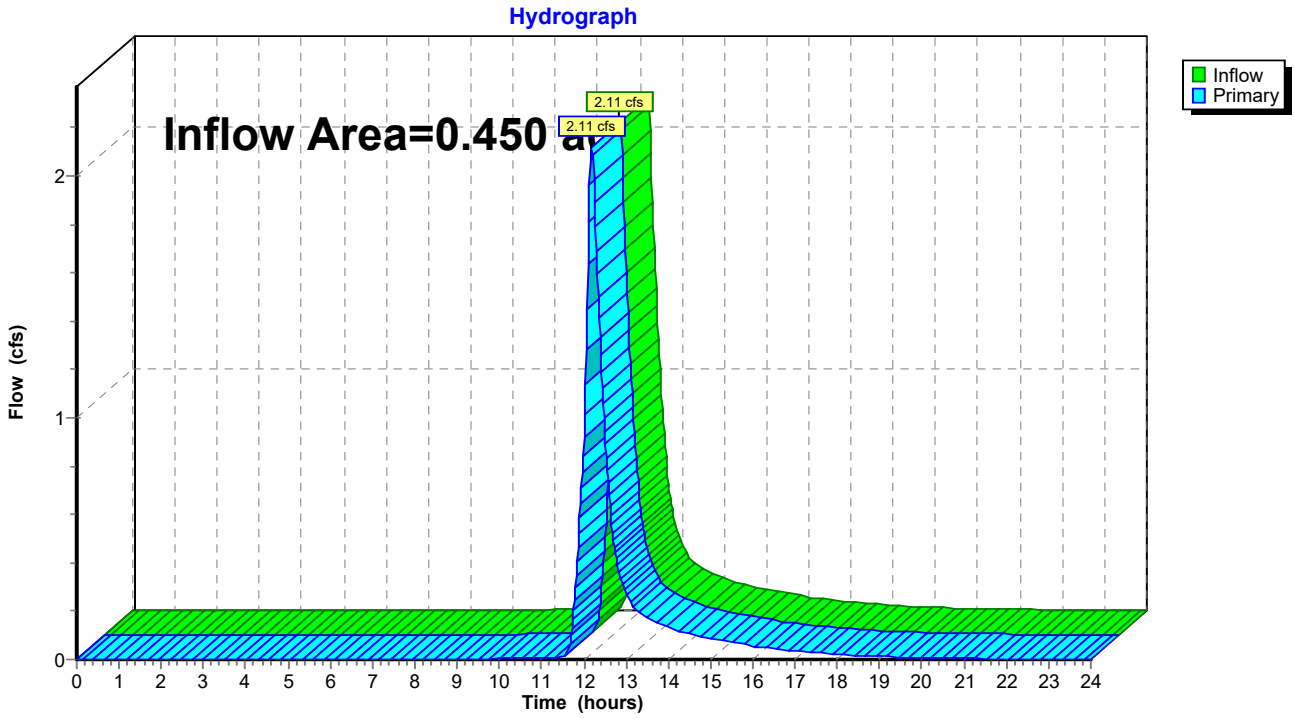


Summary for Link 5L: PR East Outfall

Inflow Area = 0.450 ac, 77.44% Impervious, Inflow Depth > 3.62" for 25-yr event
Inflow = 2.11 cfs @ 12.19 hrs, Volume= 0.136 af
Primary = 2.11 cfs @ 12.19 hrs, Volume= 0.136 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 8L

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs

Link 5L: PR East Outfall



Time span=0.00-24.00 hrs, dt=0.02 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EX West Runoff Area=7,258 sf 82.87% Impervious Runoff Depth>6.72"
Tc=10.0 min CN=94.9 Runoff=1.04 cfs 0.093 af

Subcatchment2S: EX East Runoff Area=16,935 sf 82.12% Impervious Runoff Depth>6.71"
Tc=10.0 min CN=94.8 Runoff=2.42 cfs 0.217 af

Subcatchment3S: PR West Runoff Area=4,573 sf 92.65% Impervious Runoff Depth>6.94"
Tc=10.0 min CN=96.7 Runoff=0.66 cfs 0.061 af

Subcatchment5S: East Bypass Basin Runoff Area=750 sf 52.27% Impervious Runoff Depth>6.08"
Tc=10.0 min CN=89.4 Runoff=0.10 cfs 0.009 af

Subcatchment6S: Infil#1 Runoff Area=18,870 sf 78.44% Impervious Runoff Depth>6.66"
Tc=10.0 min CN=94.4 Runoff=2.69 cfs 0.241 af

Pond 1P: Infil#1 Peak Elev=14.78' Storage=2,225 cf Inflow=2.69 cfs 0.241 af
Discarded=0.04 cfs 0.053 af Primary=2.33 cfs 0.157 af Outflow=2.37 cfs 0.210 af

Link 1L: EX West Outfall Inflow=1.04 cfs 0.093 af
Primary=1.04 cfs 0.093 af

Link 2L: EX East Outfall Inflow=2.42 cfs 0.217 af
Primary=2.42 cfs 0.217 af

Link 4L: PR West Outfall Inflow=0.66 cfs 0.061 af
Primary=0.66 cfs 0.061 af

Link 5L: PR East Outfall Inflow=2.42 cfs 0.166 af
Primary=2.42 cfs 0.166 af

Total Runoff Area = 1.111 ac Runoff Volume = 0.621 af Average Runoff Depth = 6.71"
18.67% Pervious = 0.207 ac 81.33% Impervious = 0.903 ac

Time span=0.00-24.00 hrs, dt=0.02 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EX West Runoff Area=7,258 sf 82.87% Impervious Runoff Depth>7.64"
Tc=10.0 min CN=94.9 Runoff=1.17 cfs 0.106 af

Subcatchment2S: EX East Runoff Area=16,935 sf 82.12% Impervious Runoff Depth>7.63"
Tc=10.0 min CN=94.8 Runoff=2.73 cfs 0.247 af

Subcatchment3S: PR West Runoff Area=4,573 sf 92.65% Impervious Runoff Depth>7.85"
Tc=10.0 min CN=96.7 Runoff=0.74 cfs 0.069 af

Subcatchment5S: East Bypass Basin Runoff Area=750 sf 52.27% Impervious Runoff Depth>6.98"
Tc=10.0 min CN=89.4 Runoff=0.12 cfs 0.010 af

Subcatchment6S: Infil#1 Runoff Area=18,870 sf 78.44% Impervious Runoff Depth>7.58"
Tc=10.0 min CN=94.4 Runoff=3.03 cfs 0.274 af

Pond 1P: Infil#1 Peak Elev=14.87' Storage=2,306 cf Inflow=3.03 cfs 0.274 af
Discarded=0.04 cfs 0.055 af Primary=2.62 cfs 0.188 af Outflow=2.66 cfs 0.243 af

Link 1L: EX West Outfall Inflow=1.17 cfs 0.106 af
Primary=1.17 cfs 0.106 af

Link 2L: EX East Outfall Inflow=2.73 cfs 0.247 af
Primary=2.73 cfs 0.247 af

Link 4L: PR West Outfall Inflow=0.74 cfs 0.069 af
Primary=0.74 cfs 0.069 af

Link 5L: PR East Outfall Inflow=2.72 cfs 0.198 af
Primary=2.72 cfs 0.198 af

Total Runoff Area = 1.111 ac Runoff Volume = 0.705 af Average Runoff Depth = 7.62"
18.67% Pervious = 0.207 ac 81.33% Impervious = 0.903 ac

Appendix 3

NOAA Atlas 14, Volume 10, Version 3
Location name: Norwalk, Connecticut, USA*
Latitude: 41.0958°, Longitude: -73.4193°
Elevation: 18 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	**0.366** (0.294-0.454)	**0.426** (0.342-0.529)	**0.524** (0.419-0.653)	**0.605** (0.481-0.759)	**0.717** (0.548-0.939)	**0.802** (0.599-1.07)	**0.890** (0.639-1.23)	**0.984** (0.670-1.41)	**1.11** (0.724-1.65)	**1.21** (0.769-1.85)
10-min	**0.518** (0.417-0.643)	**0.603** (0.484-0.749)	**0.742** (0.594-0.925)	**0.857** (0.681-1.08)	**1.02** (0.776-1.33)	**1.14** (0.847-1.52)	**1.26** (0.905-1.75)	**1.39** (0.948-1.99)	**1.58** (1.03-2.34)	**1.72** (1.09-2.62)
15-min	**0.610** (0.490-0.756)	**0.710** (0.570-0.881)	**0.873** (0.698-1.09)	**1.01** (0.802-1.27)	**1.20** (0.914-1.56)	**1.34** (0.997-1.79)	**1.48** (1.06-2.06)	**1.64** (1.12-2.35)	**1.85** (1.21-2.76)	**2.02** (1.28-3.08)
30-min	**0.847** (0.681-1.05)	**0.987** (0.793-1.23)	**1.22** (0.973-1.52)	**1.41** (1.12-1.76)	**1.67** (1.27-2.18)	**1.87** (1.39-2.49)	**2.07** (1.48-2.86)	**2.28** (1.55-3.26)	**2.56** (1.67-3.81)	**2.78** (1.76-4.23)
60-min	**1.08** (0.873-1.35)	**1.26** (1.02-1.57)	**1.56** (1.25-1.94)	**1.80** (1.43-2.26)	**2.14** (1.63-2.80)	**2.40** (1.78-3.20)	**2.66** (1.90-3.67)	**2.92** (1.99-4.18)	**3.28** (2.13-4.87)	**3.54** (2.24-5.39)
2-hr	**1.38** (1.12-1.70)	**1.64** (1.32-2.02)	**2.06** (1.66-2.55)	**2.40** (1.92-3.00)	**2.88** (2.22-3.76)	**3.25** (2.44-4.33)	**3.62** (2.62-5.01)	**4.03** (2.75-5.74)	**4.61** (3.01-6.82)	**5.08** (3.22-7.67)
3-hr	**1.58** (1.29-1.95)	**1.89** (1.54-2.33)	**2.40** (1.94-2.96)	**2.81** (2.26-3.49)	**3.39** (2.62-4.41)	**3.82** (2.88-5.08)	**4.28** (3.11-5.92)	**4.79** (3.28-6.79)	**5.52** (3.61-8.13)	**6.12** (3.89-9.21)
6-hr	**2.00** (1.63-2.43)	**2.40** (1.96-2.93)	**3.06** (2.49-3.74)	**3.60** (2.91-4.44)	**4.35** (3.38-5.63)	**4.91** (3.73-6.51)	**5.51** (4.04-7.60)	**6.19** (4.25-8.73)	**7.20** (4.72-10.5)	**8.03** (5.12-12.0)
12-hr	**2.47** (2.04-2.99)	**2.97** (2.44-3.60)	**3.79** (3.10-4.61)	**4.47** (3.64-5.47)	**5.40** (4.23-6.95)	**6.10** (4.66-8.04)	**6.84** (5.05-9.39)	**7.71** (5.31-10.8)	**8.98** (5.91-13.0)	**10.0** (6.42-14.9)
24-hr	**2.87** (2.38-3.46)	**3.49** (2.89-4.20)	**4.50** (3.71-5.44)	**5.33** (4.37-6.49)	**6.48** (5.11-8.29)	**7.34** (5.64-9.62)	**8.26** (6.13-11.3)	**9.34** (6.46-13.0)	**11.0** (7.23-15.8)	**12.3** (7.90-18.2)
2-day	**3.13** (2.62-3.74)	**3.88** (3.24-4.65)	**5.12** (4.25-6.14)	**6.14** (5.06-7.41)	**7.54** (5.98-9.60)	**8.58** (6.64-11.2)	**9.71** (7.27-13.2)	**11.1** (7.68-15.3)	**13.1** (8.70-18.8)	**14.9** (9.59-21.8)
3-day	**3.34** (2.80-3.97)	**4.16** (3.48-4.96)	**5.51** (4.59-6.59)	**6.63** (5.48-7.98)	**8.17** (6.50-10.4)	**9.31** (7.23-12.1)	**10.5** (7.92-14.3)	**12.0** (8.37-16.6)	**14.3** (9.50-20.5)	**16.3** (10.5-23.7)
4-day	**3.55** (2.98-4.21)	**4.42** (3.70-5.24)	**5.84** (4.88-6.96)	**7.01** (5.82-8.41)	**8.64** (6.89-10.9)	**9.84** (7.66-12.8)	**11.1** (8.38-15.1)	**12.7** (8.85-17.4)	**15.1** (10.0-21.5)	**17.1** (11.1-24.9)
7-day	**4.19** (3.54-4.94)	**5.12** (4.32-6.05)	**6.66** (5.59-7.89)	**7.93** (6.61-9.46)	**9.68** (7.75-12.1)	**11.0** (8.57-14.1)	**12.4** (9.32-16.6)	**14.0** (9.81-19.1)	**16.5** (11.0-23.3)	**18.5** (12.0-26.8)
10-day	**4.83** (4.09-5.68)	**5.81** (4.92-6.84)	**7.42** (6.25-8.76)	**8.75** (7.32-10.4)	**10.6** (8.49-13.2)	**12.0** (9.34-15.3)	**13.4** (10.1-17.8)	**15.1** (10.6-20.5)	**17.5** (11.7-24.7)	**19.5** (12.7-28.2)
20-day	**6.78** (5.79-7.92)	**7.88** (6.72-9.21)	**9.68** (8.21-11.4)	**11.2** (9.41-13.2)	**13.2** (10.6-16.3)	**14.8** (11.6-18.6)	**16.4** (12.3-21.4)	**18.1** (12.8-24.4)	**20.4** (13.7-28.6)	**22.3** (14.5-31.9)
30-day	**8.43** (7.22-9.80)	**9.61** (8.23-11.2)	**11.5** (9.84-13.5)	**13.2** (11.1-15.5)	**15.4** (12.4-18.8)	**17.1** (13.4-21.3)	**18.8** (14.1-24.3)	**20.5** (14.5-27.5)	**22.8** (15.4-31.8)	**24.6** (16.0-35.0)
45-day	**10.5** (9.03-12.1)	**11.8** (10.1-13.6)	**13.9** (11.9-16.1)	**15.6** (13.3-18.3)	**18.0** (14.6-21.9)	**19.9** (15.6-24.6)	**21.7** (16.3-27.8)	**23.5** (16.7-31.3)	**25.8** (17.4-35.7)	**27.4** (17.9-38.9)
60-day	**12.2** (10.5-14.1)	**13.6** (11.7-15.7)	**15.8** (13.6-18.3)	**17.7** (15.0-20.6)	**20.2** (16.4-24.4)	**22.2** (17.5-27.4)	**24.1** (18.1-30.7)	**25.9** (18.5-34.5)	**28.2** (19.1-39.0)	**29.8** (19.5-42.2)

[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

Table B-1. Requirements for Determining Field Infiltration Rates

Infiltration Design Method	NRCS Hydrologic Soil Groups			
	A	B	C	D
Static Method	Soil Textural Analysis	Soil Textural Analysis	Saturated Hydraulic Conductivity Testing	Infiltration Not Allowed
Simple Dynamic Method	Soil Textural Analysis	Soil Textural Analysis	Saturated Hydraulic Conductivity Testing	Infiltration Not Allowed
Dynamic Field Method	Saturated Hydraulic Conductivity Testing	Saturated Hydraulic Conductivity Testing	Saturated Hydraulic Conductivity Testing	Infiltration Not Allowed

Table B-2. Default (Rawls) Infiltration Rates

Texture Class	NRCS Hydrologic Soil Group (HSG)	Infiltration Rate Inches/Hour
Sand	A	8.27
Loamy Sand	A	2.41
Sandy Loam	B	1.02
Loam	B	0.52
Silt Loam	C	0.27
Sandy Clay Loam	C	0.17
Clay Loam	D	0.09
Silty Clay Loam	D	0.06
Sandy Clay	D	0.05
Silty Clay	D	0.04
Clay	D	0.02

Source: Rawls, Brakensiek and Saxton, 1982.

- The slowest of the Hydrologic Soil Groups determined to exist at the point where infiltration is proposed shall be used.
    - *Example:* Two samples are taken at a proposed infiltration bioretention system in the actual soil layer where recharge is proposed. One sample indicates sandy soils. The second sample indicates a sandy loam soil. The default infiltration rate used for the design analysis must use the sandy loam rate and not the sandy soil rate. Soils must not be composited for purposes of the soil textural analysis.

- When the "Dynamic Field" method is used to size the infiltration system (regardless of Hydrologic Soil Group) or infiltration is proposed within Hydrologic Soil Group C soils

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

VEGETATED ROOFS
ADJUSTED CN VALUES

DRAFT

Soil Depth (inches)	Storage Volume[1] (inches)	Storm Event ----->	WQV	1-YR	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR
		24-Hour Rainfall Depth (inches)[2]	1.0	2.9	3.4	4.3	5.1	6.4	7.6	9.1
		Runoff Depth (inches)[3]	0.79	2.67	3.17	4.06	4.86	6.16	7.36	8.86
		Unadjusted CN Value[3]	98	98	98	98	98	98	98	98
2	0.4	Reduced Runoff Depth (inches)[4]	0.39	2.27	2.77	3.66	4.46	5.76	6.96	8.46
		Adjusted CN Value[4]	91	94	94	94	94	95	95	95
3	0.6	Reduced Runoff Depth (inches)[4]	0.19	2.07	2.57	3.46	4.26	5.56	6.76	8.26
		Adjusted CN Value[4]	86	92	92	92	93	93	93	93
4	0.8	Reduced Runoff Depth (inches)[4]	0.00	1.87	2.37	3.26	4.06	5.36	6.56	8.06
		Adjusted CN Value[4]	61	90	90	90	91	91	91	91
5	1.0	Reduced Runoff Depth (inches)[4]	0.00	1.67	2.17	3.06	3.86	5.16	6.36	7.86
		Adjusted CN Value[4]	61	87	88	88	89	89	90	90
6	1.2	Reduced Runoff Depth (inches)[4]	0.00	1.47	1.97	2.86	3.66	4.96	6.16	7.66
		Adjusted CN Value[4]	61	84	85	86	87	88	88	88
7	1.4	Reduced Runoff Depth (inches)[4]	0.00	1.27	1.77	2.66	3.46	4.76	5.96	7.46
		Adjusted CN Value[4]	61	81	83	84	85	86	86	86
8	1.6	Reduced Runoff Depth (inches)[4]	0.00	1.07	1.57	2.46	3.26	4.56	5.76	7.26
		Adjusted CN Value[4]	61	78	80	82	83	84	84	85
9	1.8	Reduced Runoff Depth (inches)[4]	0.00	0.87	1.37	2.26	3.06	4.36	5.56	7.06
		Adjusted CN Value[4]	61	74	77	80	81	82	83	83
10	2.0	Reduced Runoff Depth (inches)[4]	0.00	0.67	1.17	2.06	2.86	4.16	5.36	6.86
		Adjusted CN Value[4]	61	70	74	77	79	80	81	82
12	2.4	Reduced Runoff Depth (inches)[4]	0.00	0.27	0.77	1.66	2.46	3.76	4.96	6.46
		Adjusted CN Value[4]	61	61	66	72	74	76	77	78
15	3.0	Reduced Runoff Depth (inches)[4]	0.00	0.00	0.17	1.06	1.86	3.16	4.36	5.86
		Adjusted CN Value[4]	61	61	61	62	67	70	72	74
18	3.6	Reduced Runoff Depth (inches)[4]	0.00	0.00	0.00	0.46	1.26	2.56	3.76	5.26
		Adjusted CN Value[4]	61	61	61	61	61	64	67	69
24	4.8	Reduced Runoff Depth (inches)[4]	0.00	0.00	0.00	0.00	0.06	1.36	2.56	4.06
		Adjusted CN Value[4]	61	61	61	61	61	61	61	61
30	6.0	Reduced Runoff Depth (inches)[4]	0.00	0.00	0.00	0.00	0.00	0.16	1.36	2.86
		Adjusted CN Value[4]	61	61	61	61	61	61	61	61
36	7.2	Reduced Runoff Depth (inches)[4]	0.00	0.00	0.00	0.00	0.00	0.00	0.16	1.66
		Adjusted CN Value[4]	61	61	61	61	61	61	61	61
42	8.4	Reduced Runoff Depth (inches)[4]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
		Adjusted CN Value[4]	61	61	61	61	61	61	61	61
48	9.6	Reduced Runoff Depth (inches)[4]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Adjusted CN Value[4]	61	61	61	61	61	61	61	61

[1] It has been reported (Hunt, 2007) that green roofs can provide 0.20 inches of storage volume per inch of soil depth (E5DM, 2007).

[2] Town of Greenwich Drainange Manual February 2012 - Addendum 1 February 2014, Appendix L - 24-Hour Design Storm Rainfall Amounts.

[3] Interpolated from Table 2.1 of TR-55 - Urban Hydrology for Small Watersheds (NRCS, 1986).

[4] The adjusted CN values are computed by subtracting the storage volume from the TR-55 runoff depth provided at the top of this table and interpolating a new CN value using Table 2.1 of TR-55 based on 24-Hour Rainfall Depth and Reduced Runoff Depth (E5DM, 2007).

[5] Please note that minimum CN value used is 61 for all Reduced Runoff Depths equal to 0 and in the range where the calculated CN would be less than 61. CN value of 61 from Table 2-2a of TR-55 is for open space in good condition within hydrologic soil group B.

Map Scale: 1:536 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 5 10 20 30

Feet
0 25 50 100 150

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

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

Soil Rating Lines

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

Soil Rating Points

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

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut, Western Part
Survey Area Data: Version 2, Aug 30, 2024

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

Date(s) aerial images were photographed: Oct 21, 2022—Oct 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
307	Urban land	D	0.7	100.0%
Totals for Area of Interest			**0.7**	**100.0%**

Description

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

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

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

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

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

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

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

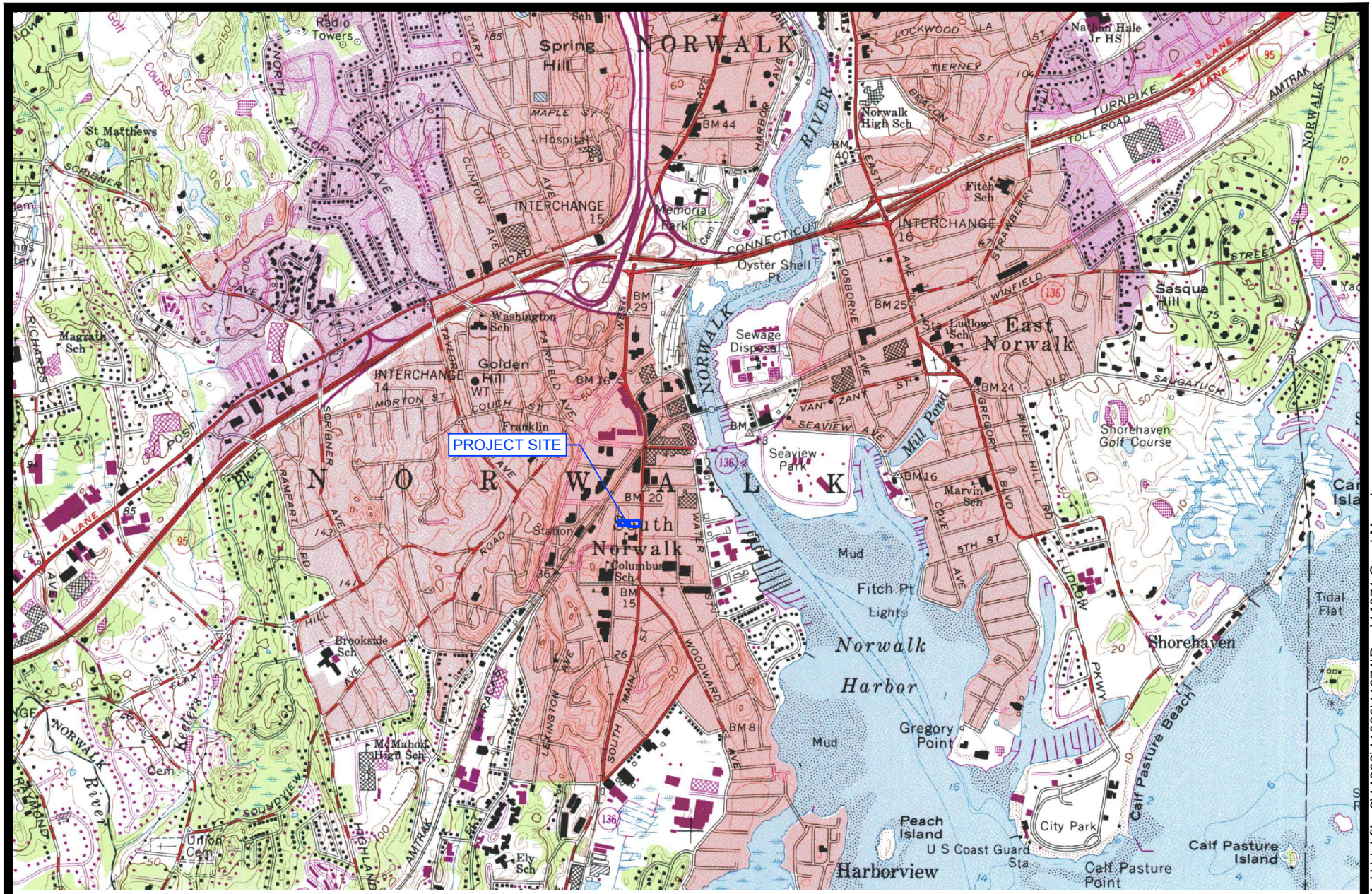
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix 4



MAP NAME: NORWALK SOUTH
MAP NUMBER: 114

USGS TOPOGRAPHIC QUAD MAP

79 SOUTH MAIN STREET
NORWALK, CT

REDNISS & MEAD

COMM. NO.: 11071 DATE: 07/22/2025 SCALE: 1"=2000'

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Appendix 5

Existing Sanitary Sewer Flow Estimates

Project: *79 South Main Street*	**Project #:** *11071*	**Date:** *5/14/2025*
Location: *Norwalk CT*	**By:** *VJH*	**Checked:** *CJF*

Pre-construction Flow Generated By Site				
Location	Building Use	Number of Bedrooms[2]	Design Flow (GPD/BED)[1]	Total Flow (GPD)
79 S Main St Bldg#2	Residential	11	150	1,650
79 S Main St Bldg#3	Residential	10	150	1,500
79 S Main St Bldg#4	Residential	3	150	450
Location	Building Use	Building Size (SF)[2]	Design Flow (GPD/Units)[1]	Total Flow (GPD)
79 S Main St Bldg#1	Commercial	1,709	0.10	170.90

South Main Street Sanitary Sewer		
Onsite Existing Sanitary Flow Tributary to South Main Street Sewer (GPD)	3,771	
Total Existing Sanitary Flow Tributary to South Main Street Sewer (GPD)	53,458	[3]
Peak Rate (CFS)	0.083	
Peaking Factor	4	
Total Existing Peak Flow Tributary to South Main Street Sewer (CFS)	**0.331**	

Raymond Street Sanitary Sewer		
Onsite Existing Sanitary Flow Tributary to Raymond Street Sewer (GPD)	3,771	
Total Existing Sanitary Flow Tributary to Raymond Street Sewer (GPD)	172,734	[4]
Peak Rate (CFS)	0.267	
Peaking Factor	4	
Total Existing Peak Flow Tributary to Raymond Sewer (CFS)	**1.069**	

[1] Per CT Health Code

[2] Per Godfrey Hoffman Hodge, LLC Capacity Analysis dated 1/16/2019

[3] Base existing flow as assumed in Godfrey Hoffman Hodge, LLC report (Flow tributary to MH#4 minus MH#3) + approved conditions at 10 Monroe Street (Site Engineering Report prepared by Redniss & Mead and date 3/18/2021)

[4] Base existing flow as assumed in Godfrey Hoffman Hodge, LLC report (Flow tributary to MH#5) + approved conditions at 10 Monroe Street and approved conditions at 15-17 Chestnut Street (Site Engineering Reports prepared by Redniss & Mead and dated 3/18/2021 and 8/30/2024)

Proposed Sanitary Sewer Flow Estimates

Project: *79 South Main Street*	**Project #:** *11071*	**Date:** *5/14/2025*
Location: *Norwalk CT*	**By:** *VJH*	**Checked:** *CJF*

Proposed Post-construction Flow Generated By Site				
Location	Building Use	Number of Bedrooms	Design Flow (GPD/BED)[1]	Total Flow (GPD)
79 S Main St New Bldg	Residential	72	150	10,800

South Main Street Sanitary Sewer		
Onsite Proposed Sanitary Flow Tributary to South Main Street Sewer (GPD)		
Total Proposed Sanitary Flow Tributary to South Main Street Sewer (GPD)	49,687	2
Peak Rate (CFS)	0.077	
Peaking Factor	4	
Total Proposed Peak Flow Tributary to South Main Street Sewer (CFS)	**0.308**	
Chestnut Street Sanitary Sewer		
Onsite Proposed Sanitary Flow Tributary to Chestnut Street Sewer (GPD)	10,800	
Total Proposed Sanitary Flow Tributary to Chestnut Street Sewer (GPD)	83,261	3
Peak Rate (CFS)	0.129	
Peaking Factor	4	
Total Proposed Peak Flow Tributary to Chestnut Street Sewer (CFS)	**0.515**	
Increase in Chestnut Street Sanitary Sewer (GPD)	10,800	
Peak Rate (CFS)	0.017	
Peaking Factor	4	
Increase in Chestnut Street Peak Flow (CFS)	**0.067**	

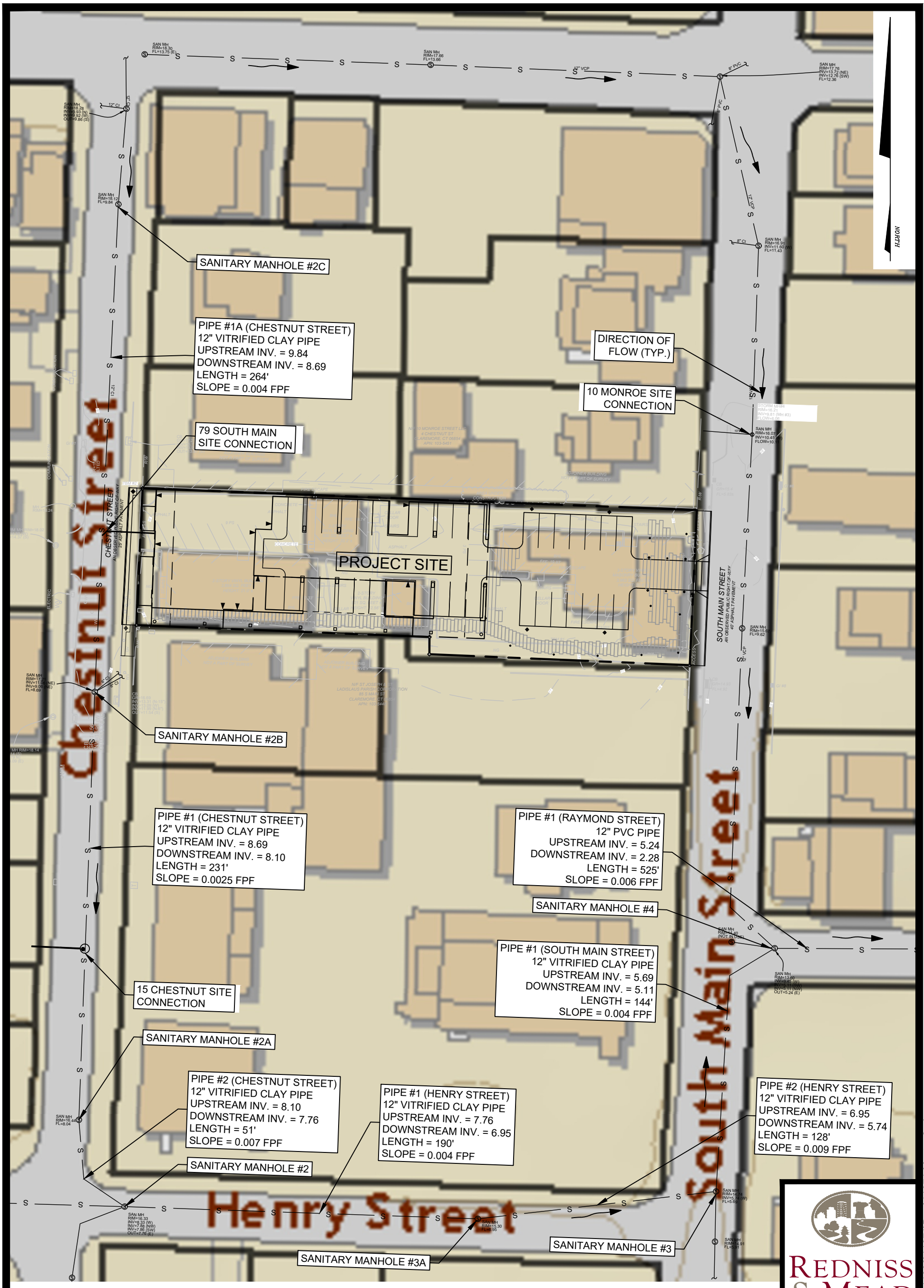
Raymond Street Sanitary Sewer		
Onsite Proposed Sanitary Flow Tributary to Raymond Street Sewer (GPD)	10,800	
Total Proposed Sanitary Flow Tributary to Raymond Street Sewer (GPD)	179,763	4
Peak Rate (CFS)	0.278	
Peaking Factor	4	
Total Proposed Peak Flow Tributary to South Main Street Sewer (CFS)	**1.113**	
Increase in Raymond Street Sanitary Sewer	7,029	
Peak Rate (CFS)	0.011	
Peaking Factor	4	
Increase in Raymond Street Peak Flow (CFS)	**0.044**	

[1] Per CT Health Code

[2] Ex. South Main Street Flow - Ex. Site Flow (Pr. Flow tributary to Chestnut S

[3] Ex. Chestnut Street Flow + Pr. Site Flow. (Existing flow = Proposed flow as described in Site Engineering Report prepared for 17 Chestnut Street development = 72,461 GPD)

[4] Ex. Raymond Street Flow - Ex. Site Flow + Pr. Site Flow



NOTE: SANITARY MANHOLES #2, 3, 4, 5, AND 6 AS INDICATED ON PLAN TITLED "SANITARY SEWER ANALYSIS PLAN" PREPARED BY GODFREY HOFFMAN & HODGES, LLC

SANITARY SEWER ANALYSIS EXHIBIT

(SHEET 1 OF 2)

79 SOUTH MAIN STREET DEVELOPMENT

NORWALK, 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:
11071	07/22/2025
	SCALE: 1" = 50'

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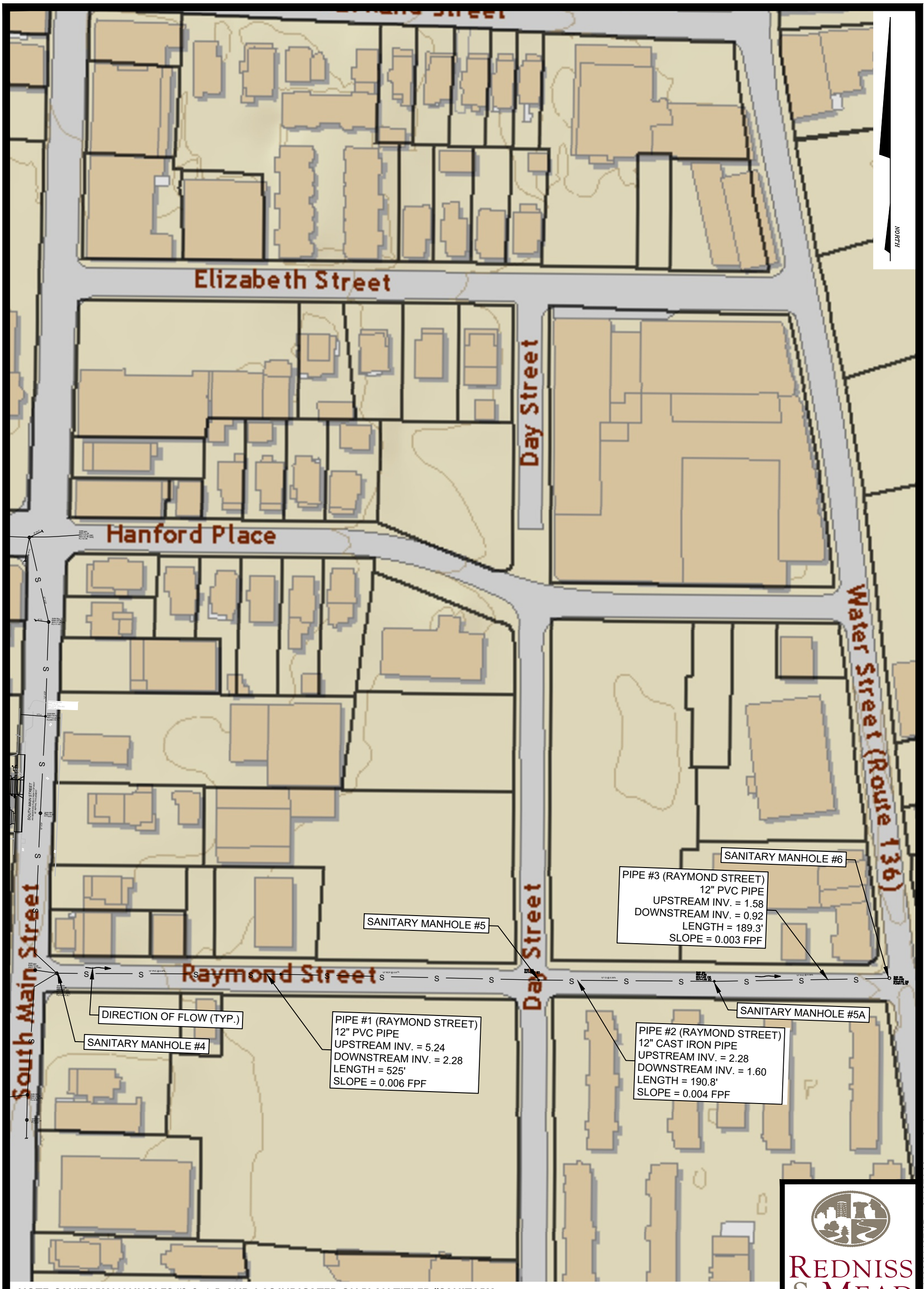

NOTE: SANITARY MANHOLES #2, 3, 4, 5, AND 6 AS INDICATED ON PLAN TITLED "SANITARY SEWER ANALYSIS PLAN" PREPARED BY GODFREY HOFFMAN & HODGES, LLC

SANITARY SEWER ANALYSIS EXHIBIT

(SHEET 2 OF 2)

79 SOUTH MAIN STREET DEVELOPMENT

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11071	07/22/2025
	SCALE: 1" = 100'

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Mannings Equation - Circular Pipe

Project:	*79 South Main Street*	**Project #:**	*11071*	**Date:**	*5/14/25*
Location:	*Norwalk, CT*	**By:**	*VJH*	**Checked:**	*CJF*

12" Sanitary Pipe - Pipe #1A (Chestnut St)

Calculate the maximum flow capacity using Manning's equation.

Pipe material	Vitrified sewer pipe		
Manning's n	0.014		
Pipe diameter, D	1 ft		
Area, A	0.79 ft^2	$A = \frac{\pi}{4} D^2$	
Wetted perimeter, P	3.14 ft	$P = \pi D$	
Hydraulic radius, R_h	0.25 ft	$R_h = \frac{A}{P}$	
Slope, S	0.0040 ft/ft		
Flow, Q_{full}	**2.09 cfs**	$Q = \frac{1.486}{n} A R_h^{2/3} S^{1/2}$	

Existing Conditions Flow

Flow, Q	0.449 cfs[1]	
Flow to Flow Full, Q/Q_{fu}	**0.215**	**21.5%**

Proposed Conditions Flow Conditions Flow

Flow, Q	0.515 cfs[2]		
Flow to Flow Full, Q/Q_{fu}	**0.246**	**24.6%**	75.4% Reserve Capacity

[1] Flow as described in Site Engineering Report prepared by Redniss & Mead, dated August 30, 2024 for 17 Chestnut Street. Flow includes proposed development at 17 Chestnut St.

[2] Existing Flow + Pr. Net Site Flow tributary to Chestnut Street (Refer to Proposed Sanitary Sewer Flow Estimates for further information)

Mannings Equation - Circular Pipe

Project:	*79 South Main Street*	**Project #:**	*11071*	**Date:**	*5/14/25*
Location:	*Norwalk, CT*	**By:**	*VJH*	**Checked:**	*CJF*

12" Sanitary Pipe - Pipe #1 (Chestnut St)

Calculate the maximum flow capacity using Manning's equation.

Pipe material	Vitrified sewer pipe		
Manning's n	0.014		
Pipe diameter, D	1 ft		
Area, A	0.79 ft^2	$A = \frac{\pi}{4} D^2$	
Wetted perimeter, P	3.14 ft	$P = \pi D$	
Hydraulic radius, R_h	0.25 ft	$R_h = \frac{A}{P}$	
Slope, S	0.0025 ft/ft		
Flow, Q_{full}	**1.65 cfs**	$Q = \frac{1.486}{n} A R_h^{2/3} S^{1/2}$	

Existing Conditions Flow

Flow, Q	0.449 cfs[1]	
Flow to Flow Full, Q/Q_{fu}	**0.271**	**27.1%**

Proposed Conditions Flow Conditions Flow

Flow, Q	0.515 cfs[2]		
Flow to Flow Full, Q/Q_{fu}	**0.311**	**31.1%**	68.9% Reserve Capacity

[1] Flow as described in Site Engineering Report prepared by Redniss & Mead, dated August 30, 2024 for 17 Chestnut Street. Flow includes proposed development at 17 Chestnut St.

[2] Existing Flow + Pr. Net Site Flow tributary to Chestnut Street (Refer to Proposed Sanitary Sewer Flow Estimates for further information)

Mannings Equation - Circular Pipe

Project:	*79 South Main Street*	**Project #:**	*11071*	**Date:**	*5/14/25*
Location:	*Norwalk, CT*	**By:**	*VJH*	**Checked:**	*CJF*

12" Sanitary Pipe - Pipe #2 (South Main Street)

Calculate the maximum flow capacity using Manning's equation.

Pipe material	Vitrified sewer pipe		
Manning's n	0.014		
Pipe diameter, D	1 ft		
Area, A	0.79 ft^2	$A = \frac{\pi}{4} D^2$	
Wetted perimeter, P	3.14 ft	$P = \pi D$	
Hydraulic radius, R_h	0.25 ft	$R_h = \frac{A}{P}$	
Slope, S	0.007 ft/ft		
Flow, Q_{full}	**2.77 cfs**	$Q = \frac{1.486}{n} A R_h^{2/3} S^{1/2}$	

Calculate the percent of flow from Development.

Flow, Q	0.449 cfs[1]		
Flow to Flow Full, Q/Q_{fu}	**0.162**	**16.2%**	

Proposed Conditions Flow Conditions Flow

Flow, Q	0.515 cfs[2]		
Flow to Flow Full, Q/Q_{fu}	**0.186**	**18.6%**	81.4% Reserve Capacity

[1] Flow within Pipe #1 (Chestnut Street)

[2] Existing Flow + Pr. Net Site Flow tributary to Chestnut Street (Refer to Proposed Sanitary Sewer Flow Estimates for further information)

Mannings Equation - Circular Pipe

Project:	*79 South Main Street*	**Project #:**	*11071*	**Date:**	*5/14/25*
Location:	*Norwalk, CT*	**By:**	*VJH*	**Checked:**	*CJF*

12" Sanitary Pipe - Pipe #1 (Henry St)

Calculate the maximum flow capacity using Manning's equation.

Pipe material	Vitrified sewer pipe		
Manning's n	0.014		
Pipe diameter, D	1 ft		
Area, A	0.79 ft^2	$A = \frac{\pi}{4} D^2$	
Wetted perimeter, P	3.14 ft	$P = \pi D$	
Hydraulic radius, R_h	0.25 ft	$R_h = \frac{A}{P}$	
Slope, S	0.004 ft/ft		
Flow, Q_{full}	**2.09 cfs**	$Q = \frac{1.486}{n} A R_h^{2/3} S^{1/2}$	

Existing Conditions Flow

Flow, Q	0.584 cfs[1]	
Flow to Flow Full, Q/Q_{fu}	**0.279**	**27.9%**

Proposed Conditions Flow Conditions Flow

Flow, Q	0.651 cfs[2]		
Flow to Flow Full, Q/Q_{fu}	**0.311**	**31.1%**	68.9% Reserve Capacity

[1] Flow as described in Site Engineering Report prepared by Redniss & Mead, dated August 30, 2024 for 17 Chestnut Street. Flow includes proposed development at 17 Chestnut St.

[2] Existing Flow + Pr. Net Site Flow tributary to Chestnut Street (Refer to Proposed Sanitary Sewer Flow Estimates for further information)

Mannings Equation - Circular Pipe

Project:	*79 South Main Street*	**Project #:**	*11071*	**Date:**	*5/14/25*
Location:	*Norwalk, CT*	**By:**	*VJH*	**Checked:**	*CJF*

12" Sanitary Pipe - Pipe #2 (Henry St)

Calculate the maximum flow capacity using Manning's equation.

Pipe material	Vitrified sewer pipe		
Manning's n	0.014		
Pipe diameter, D	1 ft		
Area, A	0.79 ft^2	$A = \frac{\pi}{4} D^2$	
Wetted perimeter, P	3.14 ft	$P = \pi D$	
Hydraulic radius, R_h	0.25 ft	$R_h = \frac{A}{P}$	
Slope, S	0.009 ft/ft		
Flow, Q_{full}	**3.14 cfs**	$Q = \frac{1.486}{n} A R_h^{2/3} S^{1/2}$	

Existing Conditions Flow

Flow, Q	0.584 cfs[1]		
Flow to Flow Full, Q/Q_{fu}	**0.186**	**18.6%**	

Proposed Conditions Flow Conditions Flow

Flow, Q	0.651 cfs[2]		
Flow to Flow Full, Q/Q_{fu}	**0.207**	**20.7%**	79.3% Reserve Capacity

[1] Flow within Pipe #1 (Henry Street)

[2] Existing Flow + Pr. Net Site Flow tributary to Chestnut Street (Refer to Proposed Sanitary Sewer Flow Estimates for further information)

Mannings Equation - Circular Pipe

Project:	*79 South Main Street*	**Project #:**	*11071*	**Date:**	*5/14/25*
Location:	*Norwalk, CT*	**By:**	*VJH*	**Checked:**	*CJF*

12" Sanitary Pipe - Pipe #1 (South Main Street)

Calculate the maximum flow capacity using Manning's equation.

Pipe material	Vitrified sewer pipe		
Manning's n	0.014		
Pipe diameter, D	1 ft		
Area, A	0.79 ft^2	$A = \frac{\pi}{4} D^2$	
Wetted perimeter, P	3.14 ft	$P = \pi D$	
Hydraulic radius, R_h	0.25 ft	$R_h = \frac{A}{P}$	
Slope, S	0.004 ft/ft		
Flow, Q_{full}	**2.09 cfs**	$Q = \frac{1.486}{n} A R_h^{2/3} S^{1/2}$	

Calculate the percent of flow from Development.

Flow, Q	0.686 cfs[1]		
Flow to Flow Full, Q/Q_{fu}	**0.328**	**32.8%**	

Proposed Conditions Flow Conditions Flow

Flow, Q	0.753 cfs[2]		
Flow to Flow Full, Q/Q_{fu}	**0.360**	**36.0%**	64.0% Reserve Capacity

[1] Flow as described in Site Engineering Report prepared by Redniss & Mead, dated August 30, 2024 for 17 Chestnut Street. Flow includes proposed development at 17 Chestnut St.

[2] Existing Flow + Pr. Net Site Flow tributary to Chestnut Street (Refer to Proposed Sanitary Sewer Flow Estimates for further information)

Mannings Equation - Circular Pipe

Project:	*79 South Main Street*	**Project #:**	*11071*	**Date:**	*5/14/25*
Location:	*Norwalk, CT*	**By:**	*VJH*	**Checked:**	*CJF*

12" Sanitary Pipe - Pipe #1 (Raymond Street)

Calculate the maximum flow capacity using Manning's equation.

Pipe material	PVC		
Manning's n	0.011		
Pipe diameter, D	1 ft		
Area, A	0.79 ft^2	$A = \frac{\pi}{4} D^2$	
Wetted perimeter, P	3.14 ft	$P = \pi D$	
Hydraulic radius, R_h	0.25 ft	$R_h = \frac{A}{P}$	
Slope, S	0.006 ft/ft		
Flow, Q_{full}	**3.26 cfs**	$Q = \frac{1.486}{n} A R_h^{2/3} S^{1/2}$	

Calculate the percent of flow from Development.

Flow, Q	1.069 cfs[1]	
Flow to Flow Full, Q/Q_{fu}	**0.328**	**32.8%**

Proposed Conditions Flow Conditions Flow

Flow, Q	1.113 cfs[2]		
Flow to Flow Full, Q/Q_{fu}	**0.341**	**34.1%**	65.9% Reserve Capacity

[1] Flow as described in Site Engineering Report prepared by Redniss & Mead, dated August 30, 2024 for 17 Chestnut Street. Flow includes proposed developments at 17 Chestnut St and 10 Monroe St.

[2] Existing Flow + Pr. Net Site Flow tributary to Raymond Street (Refer to Proposed Sanitary Sewer Flow Estimates for further information)

Mannings Equation - Circular Pipe

Project:	*79 South Main Street*	**Project #:**	*11071*	**Date:**	*5/14/25*
Location:	*Norwalk, CT*	**By:**	*VJH*	**Checked:**	*CJF*

12" Sanitary Pipe - Pipe #2 (Raymond Street)

Calculate the maximum flow capacity using Manning's equation.

Pipe material	Cast Iron Pipe (CIP)		
Manning's n	0.013		
Pipe diameter, D	1 ft		
Area, A	0.79 ft^2	$A = \frac{\pi}{4} D^2$	
Wetted perimeter, P	3.14 ft	$P = \pi D$	
Hydraulic radius, R_h	0.25 ft	$R_h = \frac{A}{P}$	
Slope, S	0.004 ft/ft		
Flow, Q_{full}	**2.25 cfs**	$Q = \frac{1.486}{n} A R_h^{2/3} S^{1/2}$	

Calculate the percent of flow from Development.

Flow, Q	1.325 cfs[1]	
Flow to Flow Full, Q/Q_{fu}	**0.59**	**58.8%**

Proposed Conditions Flow Conditions Flow

Flow, Q	1.369 cfs[2]		
Flow to Flow Full, Q/Q_{fu}	**0.608**	**60.8%**	39.2% Reserve Capacity

[1] Flow as described in Site Engineering Report prepared by Redniss & Mead, dated August 30, 2024 for 17 Chestnut Street. Flow includes proposed developments at 17 Chestnut St and 10 Monroe St.

[2] Existing Flow + Pr. Net Site Flow tributary to Raymond Street (Refer to Proposed Sanitary Sewer Flow Estimates for further information)

Mannings Equation - Circular Pipe

Project:	*79 South Main Street*	**Project #:**	*11071*	**Date:**	*5/14/25*
Location:	*Norwalk, CT*	**By:**	*VJH*	**Checked:**	*CJF*

12" Sanitary Pipe - Pipe #3 (Raymond Street)

Calculate the maximum flow capacity using Manning's equation.

Pipe material	PVC		
Manning's n	0.011		
Pipe diameter, D	1 ft		
Area, A	0.79 ft^2	$A = \frac{\pi}{4} D^2$	
Wetted perimeter, P	3.14 ft	$P = \pi D$	
Hydraulic radius, R_h	0.25 ft	$R_h = \frac{A}{P}$	
Slope, S	0.003 ft/ft		
Flow, Q_{full}	**2.31 cfs**	$Q = \frac{1.486}{n} A R_h^{2/3} S^{1/2}$	

Calculate the percent of flow from Development.

Flow, Q	1.325 cfs[1]	
Flow to Flow Full, Q/Q_{fu}	**0.575**	**57.5%**

Proposed Conditions Flow Conditions Flow

Flow, Q	1.369 cfs[2]		
Flow to Flow Full, Q/Q_{fu}	**0.594**	**59.4%**	40.6% Reserve Capacity

[1] Flow as described in Site Engineering Report prepared by Redniss & Mead, dated August 30, 2024 for 17 Chestnut Street. Flow includes proposed developments at 17 Chestnut St and 10 Monroe St.

[2] Existing Flow + Pr. Net Site Flow tributary to Raymond Street (Refer to Proposed Sanitary Sewer Flow Estimates for further information)

Appendix 6

NORWALK, CT
FLOW MONITORING REPORT
OCTOBER – NOVEMBER 2018

FLOW
ASSESSMENT SERVICES

72 Priscilla Lane
Auburn, NH 03032
Ph:603.656.9799 Fx:603.656.0330
www.flowassessment.com

Godfrey, Hoffman & Hodge Associates, LLC
26 Broadway
North Haven, CT 06473
Attn: James Rotondo, P.E.

November 29, 2018

Re: Norwalk, CT
Flow Monitoring
October – November 2018

Dear Mr. Rotondo,

This letter is written to present the flow monitoring data collected in Norwalk, CT. The meter was installed on 10/26/18. This letter presents the data from 10/26/18 to 11/28/18. The meter was removed 10/28/18.

Site configuration information:

Site	Location	Meter
1	4 Raymond Street	Area Velocity Flow Meter installed in an existing 12" diameter line.

The Area Velocity Flow Meter senses both depth and velocity. This depth and velocity information is stored in the meter's memory. The recorded data is uploaded from the flow meters with a laptop computer. During the installation, maintenance visits and removal, the depth and velocity information is confirmed and calibration measurements are noted.

Appendix 1 contains a summary flow report and flow analysis graph for the meter site. The summary flow report presents minimum, peak and total daily flow based on the recorded 5-minute interval readings. The flow analysis graph data is presented averaged hourly to make it easier to visualize the overall flow pattern during the monitoring period. A PDF copy of the summary flow report and the flow analysis graph can be found on the data disk which accompanies this report.

Appendix 2 contains a daily flow report summarized in 15-minute intervals in PDF format. The final data is also included in Excel format in its recorded 5-minute intervals on the data disk.

Appendix 3 contains a meter site investigation sketches for the meter site. These are also included in PDF format on the included data disk.

No rainfall data was collected during this project.

If you have any questions or require anything additional, please feel free to contact me via email or phone.

Sincerely,

Lucas Chapman
Data Analyst/Project Manager

Appendix 1

Summary Flow Report

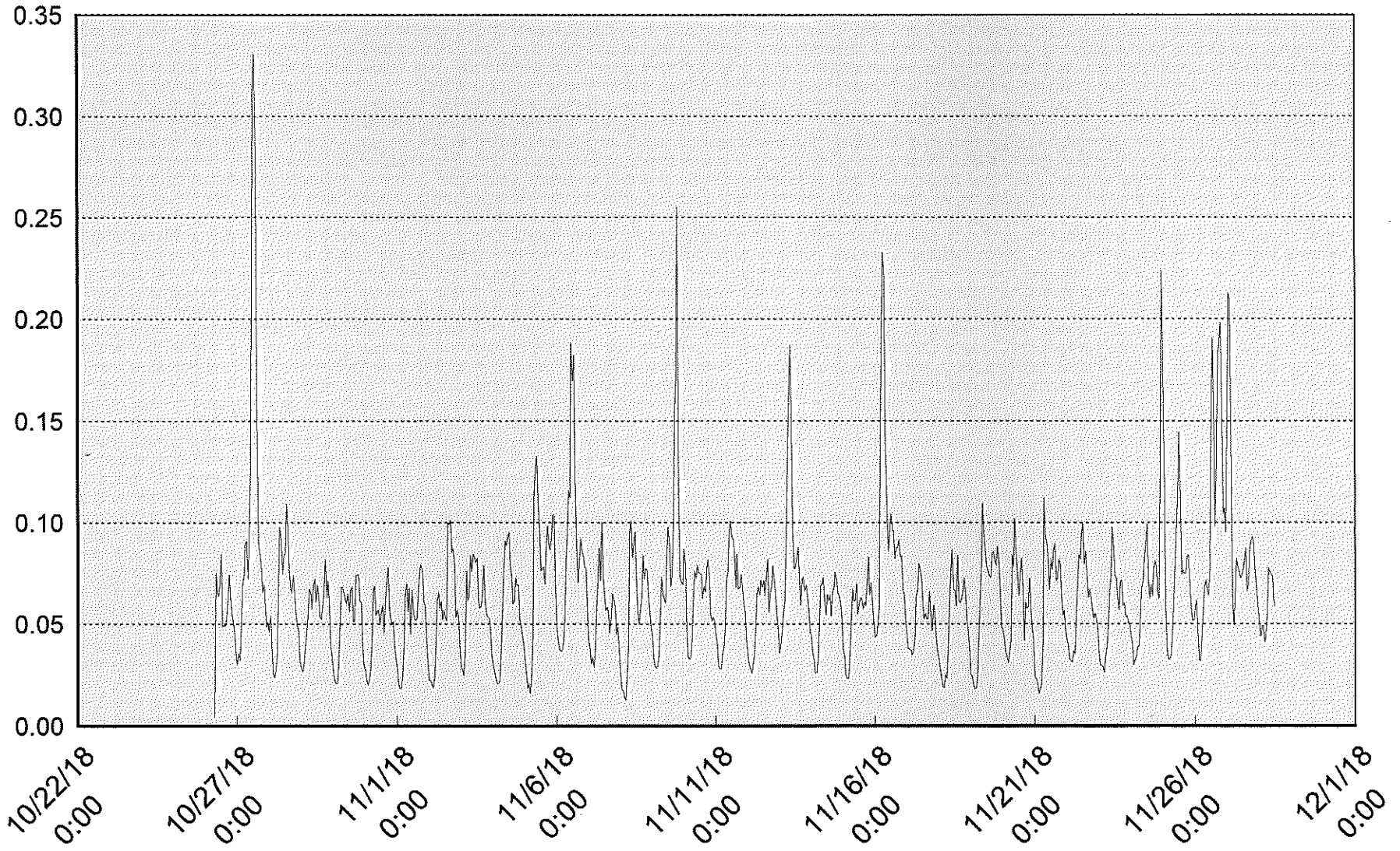
Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

Date	Minimum Flow (mgd)	Peak Flow (mgd)	Total Daily Flow (mg)	Total Rain (in)	Peak Hourly Rain (in)	Peak Interval Rain (in)
10/26/2018 (Fri)	0.028	0.105	0.040			
10/27/2018 (Sat)	0.027	**0.359**	**0.108**			
10/28/2018 (Sun)	0.020	0.127	0.062			
10/29/2018 (Mon)	0.020	0.118	0.055			
10/30/2018 (Tue)	0.018	0.104	0.053			
10/31/2018 (Wed)	0.018	0.102	0.049			
11/1/2018 (Thu)	0.014	0.093	0.051			
11/2/2018 (Fri)	0.015	0.117	0.057			
11/3/2018 (Sat)	0.021	0.103	0.060			
11/4/2018 (Sun)	0.017	0.122	0.056			
11/5/2018 (Mon)	0.014	0.147	0.075			
11/6/2018 (Tue)	0.032	0.271	0.086			
11/7/2018 (Wed)	0.023	0.130	0.055			
11/8/2018 (Thu)	**0.009**	0.138	0.058			
11/9/2018 (Fri)	0.025	0.315	0.080			
11/10/2018 (Sat)	0.028	0.103	0.063			
11/11/2018 (Sun)	0.026	0.121	0.062			
11/12/2018 (Mon)	0.024	0.115	0.057			
11/13/2018 (Tue)	0.031	0.228	0.082			
11/14/2018 (Wed)	0.023	0.100	0.056			
11/15/2018 (Thu)	0.018	0.092	0.054			
11/16/2018 (Fri)	0.038	0.256	0.100			
11/17/2018 (Sat)	0.027	0.092	0.053			
11/18/2018 (Sun)	0.016	0.107	0.051			
11/19/2018 (Mon)	0.014	0.145	0.063			
11/20/2018 (Tue)	0.028	0.125	0.059			
11/21/2018 (Wed)	0.011	0.147	0.061			
11/22/2018 (Thu)	0.028	0.135	0.060			
11/23/2018 (Fri)	0.024	0.110	0.056			
11/24/2018 (Sat)	0.025	0.269	0.071			
11/25/2018 (Sun)	0.022	0.240	0.077			
11/26/2018 (Mon)	0.028	0.218	0.101			
11/27/2018 (Tue)	0.047	0.226	0.092			
11/28/2018 (Wed)	0.039	0.094	0.058			
		Total for period	2.220			
		Min:	0.009			
		Avg:	0.065			
		Max:	0.359			

Flow Graph

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

Flow (mgd) **Printed on:** 11/29/2018 **Period Covered:** 10/26/2018 - 11/29/2018 **Every** 1 Hour



Appendix 2

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
10/26/2018					
0:00					
0:15					
0:30					
0:45					
1:00					
1:15					
1:30					
1:45					
2:00					
2:15					
2:30					
2:45					
3:00					
3:15					
3:30					
3:45					
4:00					
4:15					
4:30					
4:45					
5:00					
5:15					
5:30					
5:45					
6:00					
6:15					
6:30					
6:45					
7:00					
7:15					
7:30					
7:45	0.96	0.20	0.018	0.000	
8:00	3.03	0.74	0.074	0.001	
8:15	3.18	0.81	0.088	0.002	
8:30	3.07	0.67	0.069	0.003	
8:45	3.06	0.68	0.070	0.003	
9:00	3.16	0.66	0.070	0.004	
9:15	3.20	0.73	0.079	0.005	
9:30	3.02	0.54	0.054	0.005	
9:45	3.07	0.59	0.060	0.006	
10:00	3.13	0.58	0.061	0.007	
10:15	3.10	0.61	0.063	0.007	
10:30	3.15	0.61	0.065	0.008	
10:45	3.10	0.64	0.067	0.009	
11:00	3.28	0.70	0.078	0.010	
11:15	3.20	0.63	0.069	0.010	
11:30	3.17	0.63	0.067	0.011	
11:45	3.20	0.64	0.070	0.012	
12:00	3.27	0.65	0.074	0.012	
12:15	3.08	0.82	0.083	0.013	
12:30	3.05	0.93	0.094	0.014	
12:45	2.94	0.89	0.087	0.015	
13:00	2.49	0.73	0.055	0.016	
13:15	2.40	0.60	0.043	0.016	
13:30	2.38	0.59	0.042	0.017	
13:45	2.53	0.68	0.053	0.017	
14:00	2.53	0.67	0.052	0.018	
14:15	2.56	0.69	0.055	0.018	
14:30	2.42	0.60	0.044	0.019	
14:45	2.43	0.64	0.047	0.019	
15:00	2.41	0.63	0.046	0.020	
15:15	2.40	0.66	0.048	0.020	
15:30	2.52	0.65	0.051	0.021	
15:45	2.53	0.65	0.051	0.021	
16:00	2.46	0.65	0.049	0.022	
16:15	2.47	0.62	0.046	0.022	
16:30	2.57	0.67	0.054	0.023	
16:45	2.65	0.74	0.061	0.024	
17:00	2.69	0.75	0.064	0.024	
17:15	2.60	0.72	0.058	0.025	
17:30	2.75	0.78	0.069	0.026	
17:45	2.67	0.72	0.061	0.026	
18:00	2.94	0.93	0.090	0.027	
18:15	2.83	0.82	0.075	0.028	
18:30	2.73	0.78	0.068	0.029	
18:45	2.65	0.76	0.064	0.029	
19:00	2.58	0.67	0.053	0.030	
19:15	2.67	0.71	0.060	0.030	
19:30	2.75	0.78	0.068	0.031	
19:45	2.75	0.78	0.069	0.032	
20:00	2.79	0.79	0.071	0.033	
20:15	2.48	0.61	0.046	0.033	
20:30	2.44	0.58	0.043	0.034	
20:45	2.59	0.71	0.058	0.034	
21:00	2.56	0.63	0.050	0.035	
21:15	2.50	0.63	0.048	0.035	
21:30	2.64	0.63	0.052	0.036	
21:45	2.59	0.64	0.052	0.036	
22:00	2.64	0.70	0.058	0.037	
22:15	2.52	0.63	0.049	0.037	
22:30	2.36	0.55	0.038	0.038	
22:45	2.33	0.54	0.037	0.038	
23:00	2.31	0.53	0.036	0.038	
23:15	2.23	0.51	0.033	0.039	
23:30	2.21	0.48	0.031	0.039	
23:45	2.29	0.54	0.036	0.040	
Daily Totals:				**0.040**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
10/27/2018					
0:00	2.20	0.46	0.030	0.000	
0:15	2.24	0.47	0.031	0.001	
0:30	2.22	0.48	0.031	0.001	
0:45	2.19	0.45	0.029	0.001	
1:00	2.24	0.50	0.033	0.002	
1:15	2.33	0.56	0.039	0.002	
1:30	2.33	0.51	0.035	0.002	
1:45	2.32	0.52	0.036	0.003	
2:00	2.32	0.49	0.034	0.003	
2:15	2.49	0.44	0.033	0.003	
2:30	2.43	0.42	0.031	0.004	
2:45	2.46	0.41	0.031	0.004	
3:00	2.46	0.43	0.032	0.004	
3:15	2.50	0.59	0.045	0.005	
3:30	2.53	0.69	0.054	0.005	
3:45	2.56	0.68	0.054	0.006	
4:00	2.56	0.71	0.056	0.007	
4:15	2.48	0.67	0.051	0.007	
4:30	2.62	0.76	0.063	0.008	
4:45	3.14	1.02	0.108	0.009	
5:00	3.06	0.98	0.100	0.010	
5:15	2.90	0.89	0.085	0.011	
5:30	2.59	0.75	0.061	0.011	
5:45	2.46	0.67	0.050	0.012	
6:00	2.37	0.61	0.044	0.012	
6:15	2.99	0.98	0.098	0.013	
6:30	3.20	1.01	0.110	0.015	
6:45	3.07	1.03	0.106	0.016	
7:00	3.12	1.02	0.107	0.017	
7:15	2.97	0.94	0.092	0.018	
7:30	2.92	0.93	0.088	0.019	
7:45	2.83	0.84	0.077	0.020	
8:00	2.66	0.78	0.065	0.020	
8:15	2.73	0.80	0.069	0.021	
8:30	2.77	0.82	0.073	0.022	
8:45	2.87	0.89	0.083	0.023	
9:00	3.12	1.02	0.107	0.024	
9:15	2.95	0.93	0.090	0.025	
9:30	2.89	0.88	0.083	0.025	
9:45	2.93	0.92	0.088	0.026	
10:00	3.02	1.02	0.102	0.027	
10:15	3.18	1.00	0.108	0.029	
10:30	3.43	1.09	0.130	0.030	
10:45	3.70	1.16	0.154	0.031	
11:00	3.88	1.20	0.170	0.033	
11:15	4.11	1.31	0.202	0.035	
11:30	4.73	1.28	0.238	0.038	
11:45	5.19	1.20	0.252	0.040	
12:00	5.65	1.18	0.277	0.043	
12:15	5.82	1.26	0.307	0.047	
12:30	6.02	1.31	0.333	0.050	
12:45	5.96	1.33	0.335	0.054	
13:00	5.95	1.33	0.334	0.057	
13:15	5.87	1.38	0.340	0.061	
13:30	5.75	1.34	0.324	0.064	
13:45	5.65	1.39	0.326	0.067	
14:00	5.40	1.38	0.307	0.071	
14:15	5.29	1.34	0.289	0.074	
14:30	5.05	1.39	0.282	0.076	
14:45	4.54	1.31	0.230	0.079	
15:00	4.24	1.22	0.196	0.081	
15:15	3.92	1.20	0.173	0.083	
15:30	3.63	1.14	0.148	0.084	
15:45	3.28	0.96	0.108	0.085	
16:00	3.13	0.91	0.096	0.086	
16:15	3.17	0.92	0.098	0.087	
16:30	3.03	0.87	0.087	0.088	
16:45	2.91	0.81	0.077	0.089	
17:00	3.01	0.84	0.084	0.090	
17:15	2.95	0.81	0.078	0.091	
17:30	3.12	0.87	0.091	0.092	
17:45	3.01	0.82	0.082	0.093	
18:00	2.91	0.80	0.076	0.093	
18:15	2.95	0.80	0.077	0.094	
18:30	3.01	0.81	0.081	0.095	
18:45	3.01	0.85	0.085	0.096	
19:00	2.87	0.75	0.070	0.097	
19:15	2.75	0.72	0.063	0.097	
19:30	2.86	0.73	0.068	0.098	
19:45	2.74	0.70	0.061	0.099	
20:00	2.77	0.76	0.067	0.099	
20:15	2.87	0.78	0.073	0.100	
20:30	2.87	0.79	0.073	0.101	
20:45	2.78	0.73	0.065	0.102	
21:00	2.75	0.68	0.060	0.102	
21:15	2.88	0.74	0.069	0.103	
21:30	2.87	0.63	0.059	0.103	
21:45	2.77	0.58	0.051	0.104	
22:00	2.77	0.58	0.051	0.105	
22:15	2.74	0.60	0.053	0.105	
22:30	2.65	0.51	0.042	0.106	
22:45	2.72	0.55	0.048	0.106	
23:00	2.78	0.63	0.056	0.107	
23:15	2.78	0.59	0.053	0.107	
23:30	2.75	0.56	0.049	0.108	
23:45	2.67	0.54	0.046	0.108	
Daily Totals:				**0.108**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
10/28/2018					
0:00	2.67	0.54	0.046	0.000	
0:15	2.62	0.51	0.042	0.001	
0:30	2.73	0.56	0.049	0.001	
0:45	2.82	0.54	0.049	0.002	
1:00	2.94	0.60	0.058	0.003	
1:15	2.92	0.57	0.055	0.003	
1:30	2.93	0.56	0.054	0.004	
1:45	2.81	0.54	0.049	0.004	
2:00	2.69	0.51	0.043	0.005	
2:15	2.66	0.51	0.043	0.005	
2:30	2.49	0.45	0.034	0.005	
2:45	2.41	0.42	0.030	0.006	
3:00	2.35	0.38	0.026	0.006	
3:15	2.31	0.39	0.027	0.006	
3:30	2.31	0.37	0.025	0.007	
3:45	2.27	0.36	0.024	0.007	
4:00	2.26	0.35	0.023	0.007	
4:15	2.23	0.35	0.023	0.007	
4:30	2.19	0.32	0.020	0.008	
4:45	2.34	0.40	0.028	0.008	
5:00	2.36	0.39	0.028	0.008	
5:15	2.28	0.37	0.025	0.008	
5:30	2.28	0.38	0.025	0.009	
5:45	2.37	0.44	0.031	0.009	
6:00	2.31	0.39	0.027	0.009	
6:15	2.34	0.41	0.029	0.010	
6:30	2.46	0.43	0.032	0.010	
6:45	3.08	0.50	0.052	0.010	
7:00	3.43	0.61	0.072	0.011	
7:15	3.49	0.58	0.071	0.012	
7:30	3.46	0.59	0.072	0.013	
7:45	3.66	0.69	0.090	0.014	
8:00	3.75	0.69	0.094	0.015	
8:15	3.33	1.03	0.118	0.016	
8:30	3.13	0.97	0.102	0.017	
8:45	2.90	0.82	0.077	0.018	
9:00	2.94	0.83	0.080	0.018	
9:15	3.12	0.86	0.090	0.019	
9:30	3.17	0.87	0.093	0.020	
9:45	3.17	0.95	0.102	0.021	
10:00	2.72	0.78	0.068	0.022	
10:15	2.70	0.81	0.069	0.023	
10:30	2.72	0.80	0.069	0.024	
10:45	2.96	0.93	0.091	0.025	
11:00	3.16	0.99	0.105	0.026	
11:15	2.96	0.90	0.087	0.027	
11:30	2.83	0.83	0.076	0.027	
11:45	2.76	0.80	0.070	0.028	
12:00	2.84	0.86	0.080	0.029	
12:15	2.91	0.89	0.085	0.030	
12:30	3.02	0.94	0.094	0.031	
12:45	2.86	0.86	0.079	0.032	
13:00	3.20	0.98	0.106	0.033	
13:15	3.34	1.03	0.119	0.034	
13:30	3.18	0.97	0.104	0.035	
13:45	3.20	0.99	0.108	0.036	
14:00	3.31	1.01	0.115	0.037	
14:15	3.14	0.96	0.102	0.038	
14:30	2.96	0.89	0.087	0.039	
14:45	2.91	0.85	0.081	0.040	
15:00	2.84	0.85	0.079	0.041	
15:15	2.89	0.88	0.083	0.042	
15:30	2.84	0.84	0.077	0.043	
15:45	2.66	0.76	0.064	0.043	
16:00	2.75	0.81	0.071	0.044	
16:15	2.74	0.77	0.067	0.045	
16:30	2.64	0.74	0.061	0.045	
16:45	2.71	0.81	0.069	0.046	
17:00	2.74	0.79	0.069	0.047	
17:15	2.82	0.81	0.074	0.048	
17:30	2.63	0.73	0.060	0.048	
17:45	2.58	0.74	0.059	0.049	
18:00	2.76	0.79	0.070	0.050	
18:15	2.93	0.91	0.087	0.050	
18:30	2.72	0.77	0.067	0.051	
18:45	2.77	0.82	0.073	0.052	
19:00	2.57	0.66	0.053	0.052	
19:15	2.68	0.77	0.065	0.053	
19:30	2.79	0.78	0.069	0.054	
19:45	2.75	0.76	0.067	0.055	
20:00	2.67	0.72	0.061	0.055	
20:15	2.63	0.71	0.058	0.056	
20:30	2.58	0.67	0.054	0.056	
20:45	2.52	0.64	0.050	0.057	
21:00	2.44	0.61	0.045	0.057	
21:15	2.56	0.65	0.052	0.058	
21:30	2.55	0.69	0.055	0.058	
21:45	2.46	0.60	0.045	0.059	
22:00	2.53	0.68	0.053	0.059	
22:15	2.43	0.64	0.047	0.060	
22:30	2.54	0.62	0.049	0.060	
22:45	2.39	0.53	0.038	0.061	
23:00	2.36	0.51	0.036	0.061	
23:15	2.32	0.54	0.037	0.062	
23:30	2.20	0.46	0.030	0.062	
23:45	2.13	0.42	0.025	0.062	
Daily Totals:				**0.062**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
10/29/2018					
0:00	2.10	0.43	0.026	0.000	
0:15	2.14	0.44	0.027	0.001	
0:30	2.19	0.47	0.030	0.001	
0:45	2.21	0.48	0.031	0.001	
1:00	2.20	0.49	0.032	0.002	
1:15	2.13	0.43	0.026	0.002	
1:30	2.11	0.41	0.025	0.002	
1:45	2.11	0.41	0.024	0.002	
2:00	2.20	0.48	0.031	0.003	
2:15	2.21	0.46	0.029	0.003	
2:30	2.19	0.49	0.031	0.003	
2:45	2.12	0.44	0.026	0.004	
3:00	2.11	0.53	0.032	0.004	
3:15	2.12	0.49	0.030	0.004	
3:30	2.51	0.59	0.046	0.005	
3:45	2.56	0.55	0.044	0.005	
4:00	2.67	0.57	0.048	0.006	
4:15	2.73	0.56	0.049	0.006	
4:30	2.77	0.56	0.050	0.007	
4:45	2.62	0.49	0.040	0.007	
5:00	2.62	0.50	0.041	0.007	
5:15	2.66	0.52	0.044	0.008	
5:30	3.04	0.64	0.065	0.009	
5:45	2.96	0.61	0.059	0.009	
6:00	2.93	0.64	0.061	0.010	
6:15	3.07	0.65	0.067	0.011	
6:30	3.12	0.64	0.067	0.011	
6:45	3.44	0.62	0.074	0.012	
7:00	3.59	0.65	0.083	0.013	
7:15	2.71	0.82	0.070	0.014	
7:30	2.50	0.67	0.051	0.014	
7:45	2.54	0.73	0.057	0.015	
8:00	2.43	0.66	0.048	0.015	
8:15	2.41	0.66	0.048	0.016	
8:30	2.55	0.72	0.057	0.016	
8:45	2.79	0.86	0.077	0.017	
9:00	2.76	0.78	0.069	0.018	
9:15	2.52	0.66	0.051	0.018	
9:30	2.75	0.82	0.072	0.019	
9:45	2.90	0.89	0.084	0.020	
10:00	2.86	0.85	0.079	0.021	
10:15	2.83	0.83	0.076	0.022	
10:30	2.65	0.73	0.061	0.022	
10:45	2.76	0.80	0.072	0.023	
11:00	2.70	0.75	0.064	0.024	
11:15	2.59	0.74	0.060	0.024	
11:30	2.62	0.71	0.058	0.025	
11:45	2.68	0.72	0.061	0.026	
12:00	2.81	0.85	0.077	0.026	
12:15	2.87	0.88	0.083	0.027	
12:30	2.68	0.76	0.064	0.028	
12:45	2.52	0.67	0.052	0.028	
13:00	2.91	0.87	0.083	0.029	
13:15	2.71	0.73	0.063	0.030	
13:30	2.60	0.69	0.056	0.031	
13:45	2.48	0.64	0.049	0.031	
14:00	2.42	0.61	0.045	0.032	
14:15	2.64	0.72	0.061	0.032	
14:30	2.63	0.69	0.057	0.033	
14:45	2.57	0.66	0.053	0.033	
15:00	2.63	0.70	0.058	0.034	
15:15	2.61	0.67	0.055	0.034	
15:30	2.47	0.63	0.047	0.035	
15:45	2.53	0.64	0.050	0.035	
16:00	2.61	0.70	0.057	0.036	
16:15	2.62	0.66	0.054	0.037	
16:30	2.74	0.73	0.063	0.037	
16:45	2.72	0.73	0.063	0.038	
17:00	2.69	0.80	0.068	0.039	
17:15	2.64	0.76	0.063	0.039	
17:30	2.66	0.76	0.063	0.040	
17:45	2.66	0.78	0.065	0.041	
18:00	3.02	0.99	0.099	0.042	
18:15	2.88	0.86	0.081	0.043	
18:30	2.89	0.83	0.078	0.043	
18:45	2.70	0.81	0.069	0.044	
19:00	2.68	0.82	0.069	0.045	
19:15	2.48	0.71	0.054	0.045	
19:30	2.65	0.77	0.064	0.046	
19:45	2.68	0.77	0.066	0.047	
20:00	2.86	0.84	0.078	0.048	
20:15	2.80	0.89	0.080	0.048	
20:30	2.69	0.78	0.066	0.049	
20:45	2.63	0.74	0.061	0.050	
21:00	2.68	0.79	0.067	0.050	
21:15	2.63	0.77	0.064	0.051	
21:30	2.50	0.72	0.055	0.052	
21:45	2.39	0.66	0.048	0.052	
22:00	2.38	0.64	0.046	0.053	
22:15	2.34	0.61	0.043	0.053	
22:30	2.20	0.54	0.034	0.053	
22:45	2.16	0.53	0.033	0.054	
23:00	2.10	0.50	0.030	0.054	
23:15	2.12	0.52	0.031	0.054	
23:30	2.33	0.64	0.045	0.055	
23:45	2.14	0.52	0.032	0.055	
Daily Totals:				**0.055**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
10/30/2018					
0:00	2.07	0.50	0.029	0.000	
0:15	2.02	0.46	0.026	0.001	
0:30	2.02	0.44	0.025	0.001	
0:45	1.98	0.42	0.023	0.001	
1:00	1.96	0.43	0.023	0.001	
1:15	1.95	0.40	0.022	0.002	
1:30	1.97	0.44	0.024	0.002	
1:45	1.91	0.40	0.021	0.002	
2:00	1.91	0.38	0.020	0.002	
2:15	1.93	0.44	0.023	0.002	
2:30	1.92	0.40	0.021	0.003	
2:45	1.89	0.37	0.019	0.003	
3:00	1.92	0.39	0.020	0.003	
3:15	1.94	0.39	0.021	0.003	
3:30	1.95	0.42	0.023	0.004	
3:45	1.91	0.37	0.019	0.004	
4:00	1.99	0.45	0.025	0.004	
4:15	2.07	0.42	0.025	0.004	
4:30	2.13	0.49	0.030	0.005	
4:45	2.17	0.50	0.032	0.005	
5:00	2.21	0.49	0.032	0.005	
5:15	2.36	0.64	0.045	0.006	
5:30	2.40	0.63	0.046	0.006	
5:45	2.66	0.78	0.066	0.007	
6:00	2.56	0.72	0.058	0.007	
6:15	2.66	0.78	0.065	0.008	
6:30	2.73	0.79	0.069	0.009	
6:45	2.84	0.87	0.080	0.010	
7:00	2.73	0.73	0.063	0.010	
7:15	2.75	0.76	0.066	0.011	
7:30	2.81	0.83	0.075	0.012	
7:45	2.75	0.78	0.069	0.013	
8:00	2.64	0.71	0.059	0.013	
8:15	2.54	0.68	0.054	0.014	
8:30	2.67	0.75	0.063	0.014	
8:45	2.98	0.87	0.086	0.015	
9:00	2.82	0.80	0.074	0.016	
9:15	2.62	0.68	0.055	0.017	
9:30	2.61	0.78	0.064	0.017	
9:45	2.60	0.69	0.056	0.018	
10:00	2.56	0.66	0.053	0.018	
10:15	2.56	0.64	0.051	0.019	
10:30	2.72	0.76	0.066	0.020	
10:45	2.69	0.84	0.071	0.020	
11:00	2.66	0.74	0.062	0.021	
11:15	2.65	0.75	0.063	0.022	
11:30	2.64	0.71	0.059	0.022	
11:45	2.82	0.83	0.076	0.023	
12:00	2.67	0.76	0.065	0.024	
12:15	2.57	0.72	0.058	0.024	
12:30	2.41	0.62	0.045	0.025	
12:45	2.57	0.71	0.057	0.025	
13:00	2.61	0.72	0.059	0.026	
13:15	2.67	0.77	0.065	0.027	
13:30	2.76	0.79	0.070	0.027	
13:45	2.77	0.83	0.073	0.028	
14:00	2.86	0.85	0.080	0.029	
14:15	2.98	0.91	0.090	0.030	
14:30	2.61	0.71	0.059	0.031	
14:45	2.39	0.63	0.045	0.031	
15:00	2.35	0.63	0.044	0.032	
15:15	2.52	0.67	0.052	0.032	
15:30	2.52	0.69	0.054	0.033	
15:45	2.52	0.70	0.054	0.033	
16:00	2.40	0.62	0.045	0.034	
16:15	2.45	0.65	0.048	0.034	
16:30	2.49	0.68	0.052	0.035	
16:45	2.69	0.71	0.061	0.035	
17:00	2.86	0.85	0.079	0.036	
17:15	2.78	0.80	0.071	0.037	
17:30	2.75	0.83	0.073	0.038	
17:45	2.79	0.81	0.073	0.038	
18:00	2.83	0.86	0.078	0.039	
18:15	2.90	0.88	0.084	0.040	
18:30	2.72	0.83	0.072	0.041	
18:45	2.57	0.79	0.063	0.041	
19:00	2.75	0.83	0.073	0.042	
19:15	2.91	0.87	0.082	0.043	
19:30	2.83	0.86	0.079	0.044	
19:45	2.69	0.75	0.064	0.045	
20:00	2.54	0.70	0.055	0.045	
20:15	2.66	0.73	0.061	0.046	
20:30	2.68	0.85	0.072	0.047	
20:45	2.58	0.73	0.058	0.047	
21:00	2.74	0.79	0.069	0.048	
21:15	2.52	0.73	0.057	0.048	
21:30	2.61	0.75	0.061	0.049	
21:45	2.58	0.69	0.055	0.050	
22:00	2.40	0.60	0.044	0.050	
22:15	2.27	0.57	0.038	0.051	
22:30	2.39	0.62	0.044	0.051	
22:45	2.24	0.57	0.037	0.051	
23:00	2.13	0.50	0.030	0.052	
23:15	2.13	0.50	0.031	0.052	
23:30	2.11	0.52	0.031	0.052	
23:45	2.07	0.46	0.027	0.053	
Daily Totals:				**0.053**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
10/31/2018					
0:00	2.02	0.44	0.025	0.000	
0:15	2.08	0.49	0.029	0.001	
0:30	2.09	0.48	0.028	0.001	
0:45	2.05	0.45	0.026	0.001	
1:00	1.97	0.42	0.023	0.001	
1:15	2.02	0.46	0.026	0.002	
1:30	1.89	0.39	0.020	0.002	
1:45	1.92	0.40	0.021	0.002	
2:00	1.93	0.41	0.021	0.002	
2:15	1.89	0.38	0.020	0.003	
2:30	1.92	0.37	0.019	0.003	
2:45	1.88	0.39	0.020	0.003	
3:00	1.96	0.40	0.022	0.003	
3:15	2.00	0.41	0.023	0.003	
3:30	1.93	0.39	0.021	0.004	
3:45	1.95	0.43	0.023	0.004	
4:00	2.11	0.51	0.031	0.004	
4:15	2.04	0.42	0.024	0.004	
4:30	2.10	0.47	0.028	0.005	
4:45	2.11	0.45	0.027	0.005	
5:00	2.17	0.53	0.033	0.005	
5:15	2.16	0.56	0.035	0.006	
5:30	2.31	0.60	0.041	0.006	
5:45	2.49	0.69	0.053	0.007	
6:00	2.56	0.73	0.058	0.007	
6:15	2.55	0.67	0.052	0.008	
6:30	2.63	0.78	0.064	0.008	
6:45	2.98	0.90	0.089	0.009	
7:00	2.81	0.87	0.079	0.010	
7:15	2.67	0.78	0.066	0.011	
7:30	2.54	0.76	0.060	0.012	
7:45	2.69	0.83	0.071	0.012	
8:00	2.58	0.70	0.056	0.013	
8:15	2.52	0.67	0.052	0.013	
8:30	2.58	0.70	0.056	0.014	
8:45	2.50	0.69	0.053	0.015	
9:00	2.55	0.69	0.054	0.015	
9:15	2.56	0.72	0.057	0.016	
9:30	2.44	0.69	0.051	0.016	
9:45	2.60	0.76	0.062	0.017	
10:00	2.40	0.71	0.051	0.017	
10:15	2.29	0.60	0.040	0.018	
10:30	2.63	0.77	0.064	0.019	
10:45	2.79	0.81	0.072	0.019	
11:00	2.47	0.68	0.052	0.020	
11:15	2.46	0.68	0.051	0.020	
11:30	2.41	0.71	0.052	0.021	
11:45	2.37	0.64	0.046	0.021	
12:00	2.51	0.73	0.057	0.022	
12:15	2.66	0.74	0.062	0.023	
12:30	2.54	0.71	0.055	0.023	
12:45	2.45	0.64	0.048	0.024	
13:00	2.62	0.78	0.064	0.024	
13:15	2.57	0.85	0.068	0.025	
13:30	2.46	0.73	0.054	0.026	
13:45	2.43	0.68	0.050	0.026	
14:00	2.39	0.71	0.051	0.027	
14:15	2.22	0.55	0.036	0.027	
14:30	2.37	0.70	0.050	0.028	
14:45	2.43	0.63	0.046	0.028	
15:00	2.53	0.71	0.055	0.029	
15:15	2.76	0.80	0.071	0.029	
15:30	2.73	0.79	0.069	0.030	
15:45	2.46	0.64	0.048	0.031	
16:00	2.54	0.69	0.054	0.031	
16:15	2.55	0.76	0.060	0.032	
16:30	2.93	0.85	0.083	0.033	
16:45	2.91	0.86	0.081	0.033	
17:00	2.83	0.83	0.076	0.034	
17:15	2.94	0.91	0.088	0.035	
17:30	2.93	0.89	0.086	0.036	
17:45	2.61	0.75	0.062	0.037	
18:00	2.52	0.68	0.053	0.037	
18:15	2.57	0.72	0.057	0.038	
18:30	2.65	0.79	0.066	0.039	
18:45	2.58	0.72	0.058	0.039	
19:00	2.60	0.74	0.060	0.040	
19:15	2.56	0.66	0.053	0.040	
19:30	2.49	0.70	0.053	0.041	
19:45	2.40	0.63	0.046	0.041	
20:00	2.42	0.70	0.051	0.042	
20:15	2.47	0.68	0.051	0.042	
20:30	2.41	0.60	0.044	0.043	
20:45	2.52	0.69	0.054	0.043	
21:00	2.52	0.72	0.055	0.044	
21:15	2.59	0.69	0.056	0.045	
21:30	2.46	0.64	0.048	0.045	
21:45	2.38	0.64	0.045	0.046	
22:00	2.33	0.61	0.042	0.046	
22:15	2.33	0.58	0.040	0.046	
22:30	2.30	0.58	0.039	0.047	
22:45	2.22	0.54	0.035	0.047	
23:00	2.19	0.56	0.036	0.048	
23:15	2.07	0.52	0.030	0.048	
23:30	2.04	0.52	0.030	0.048	
23:45	2.07	0.60	0.035	0.049	
Daily Totals:				**0.049**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/1/2018					
0:00	2.04	0.48	0.027	0.000	
0:15	2.13	0.59	0.036	0.001	
0:30	1.99	0.44	0.024	0.001	
0:45	2.00	0.46	0.025	0.001	
1:00	2.02	0.46	0.026	0.001	
1:15	1.92	0.40	0.021	0.002	
1:30	1.84	0.37	0.018	0.002	
1:45	1.81	0.33	0.016	0.002	
2:00	1.84	0.39	0.019	0.002	
2:15	1.82	0.39	0.019	0.002	
2:30	1.81	0.35	0.017	0.003	
2:45	1.79	0.37	0.017	0.003	
3:00	1.87	0.40	0.020	0.003	
3:15	1.82	0.35	0.017	0.003	
3:30	1.84	0.40	0.020	0.003	
3:45	1.80	0.36	0.017	0.004	
4:00	1.92	0.40	0.021	0.004	
4:15	1.86	0.40	0.020	0.004	
4:30	2.03	0.47	0.026	0.004	
4:45	2.11	0.51	0.031	0.005	
5:00	2.14	0.51	0.031	0.005	
5:15	2.16	0.52	0.032	0.005	
5:30	2.32	0.60	0.041	0.006	
5:45	2.52	0.75	0.058	0.006	
6:00	2.43	0.68	0.050	0.007	
6:15	2.54	0.71	0.056	0.007	
6:30	2.73	0.83	0.073	0.008	
6:45	2.82	0.84	0.077	0.009	
7:00	2.66	0.77	0.064	0.010	
7:15	2.81	0.81	0.074	0.010	
7:30	2.74	0.82	0.072	0.011	
7:45	2.70	0.81	0.069	0.012	
8:00	2.52	0.72	0.056	0.012	
8:15	2.35	0.64	0.045	0.013	
8:30	2.66	0.77	0.064	0.014	
8:45	2.60	0.74	0.060	0.014	
9:00	2.50	0.72	0.055	0.015	
9:15	2.75	0.80	0.071	0.015	
9:30	2.82	0.86	0.078	0.016	
9:45	2.68	0.80	0.067	0.017	
10:00	2.39	0.65	0.047	0.017	
10:15	2.31	0.64	0.044	0.018	
10:30	2.40	0.65	0.047	0.018	
10:45	2.36	0.61	0.043	0.019	
11:00	2.70	0.85	0.073	0.020	
11:15	2.84	0.84	0.077	0.020	
11:30	2.52	0.70	0.054	0.021	
11:45	2.64	0.76	0.063	0.022	
12:00	2.52	0.68	0.053	0.022	
12:15	2.63	0.77	0.064	0.023	
12:30	2.55	0.72	0.057	0.023	
12:45	2.59	0.73	0.059	0.024	
13:00	2.69	0.78	0.066	0.025	
13:15	2.52	0.70	0.055	0.025	
13:30	2.37	0.58	0.041	0.026	
13:45	2.39	0.66	0.047	0.026	
14:00	2.33	0.58	0.041	0.027	
14:15	2.49	0.70	0.053	0.027	
14:30	2.61	0.76	0.062	0.028	
14:45	2.42	0.71	0.052	0.028	
15:00	2.40	0.65	0.047	0.029	
15:15	2.54	0.74	0.058	0.030	
15:30	2.43	0.75	0.056	0.030	
15:45	2.47	0.69	0.052	0.031	
16:00	2.60	0.75	0.061	0.031	
16:15	2.76	0.83	0.074	0.032	
16:30	2.72	0.80	0.069	0.033	
16:45	2.73	0.80	0.070	0.034	
17:00	2.72	0.79	0.068	0.034	
17:15	2.85	0.85	0.079	0.035	
17:30	2.89	0.89	0.084	0.036	
17:45	2.86	0.85	0.079	0.037	
18:00	2.85	0.84	0.078	0.038	
18:15	2.89	0.89	0.084	0.038	
18:30	2.81	0.83	0.075	0.039	
18:45	2.84	0.87	0.080	0.040	
19:00	2.85	0.87	0.080	0.041	
19:15	2.90	0.86	0.081	0.042	
19:30	2.83	0.87	0.080	0.043	
19:45	2.57	0.74	0.059	0.043	
20:00	2.67	0.79	0.066	0.044	
20:15	2.58	0.76	0.061	0.044	
20:30	2.60	0.77	0.062	0.045	
20:45	2.48	0.72	0.055	0.046	
21:00	2.49	0.73	0.056	0.046	
21:15	2.59	0.80	0.064	0.047	
21:30	2.56	0.72	0.057	0.048	
21:45	2.56	0.73	0.058	0.048	
22:00	2.41	0.69	0.050	0.049	
22:15	2.28	0.58	0.039	0.049	
22:30	2.26	0.58	0.038	0.049	
22:45	2.34	0.64	0.044	0.050	
23:00	2.25	0.56	0.037	0.050	
23:15	2.15	0.54	0.033	0.051	
23:30	2.06	0.49	0.028	0.051	
23:45	1.94	0.44	0.024	0.051	
Daily Totals:				**0.051**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/2/2018					
0:00	1.96	0.45	0.025	0.000	
0:15	1.85	0.42	0.021	0.000	
0:30	1.92	0.42	0.022	0.001	
0:45	1.90	0.41	0.021	0.001	
1:00	1.89	0.42	0.022	0.001	
1:15	1.92	0.41	0.021	0.001	
1:30	1.89	0.42	0.021	0.002	
1:45	2.00	0.44	0.025	0.002	
2:00	1.95	0.42	0.023	0.002	
2:15	1.88	0.43	0.022	0.002	
2:30	1.83	0.37	0.018	0.003	
2:45	1.81	0.35	0.017	0.003	
3:00	1.78	0.34	0.016	0.003	
3:15	1.84	0.35	0.017	0.003	
3:30	1.85	0.47	0.023	0.003	
3:45	1.83	0.37	0.018	0.003	
4:00	1.93	0.41	0.021	0.004	
4:15	1.93	0.42	0.022	0.004	
4:30	2.01	0.46	0.026	0.004	
4:45	2.04	0.46	0.026	0.004	
5:00	2.07	0.47	0.027	0.005	
5:15	2.09	0.47	0.028	0.005	
5:30	2.38	0.63	0.045	0.006	
5:45	2.50	0.68	0.053	0.006	
6:00	2.36	0.61	0.043	0.006	
6:15	2.54	0.72	0.057	0.007	
6:30	2.66	0.78	0.065	0.008	
6:45	2.87	0.86	0.081	0.009	
7:00	2.71	0.78	0.067	0.009	
7:15	2.60	0.74	0.060	0.010	
7:30	2.62	0.76	0.062	0.011	
7:45	2.76	0.82	0.072	0.011	
8:00	2.64	0.76	0.063	0.012	
8:15	2.50	0.76	0.058	0.013	
8:30	2.47	0.66	0.049	0.013	
8:45	2.60	0.74	0.060	0.014	
9:00	2.77	0.82	0.073	0.014	
9:15	2.52	0.71	0.055	0.015	
9:30	2.54	0.72	0.056	0.016	
9:45	2.59	0.74	0.060	0.016	
10:00	2.55	0.73	0.058	0.017	
10:15	2.42	0.61	0.044	0.017	
10:30	2.43	0.70	0.052	0.018	
10:45	2.49	0.72	0.055	0.018	
11:00	2.68	0.79	0.066	0.019	
11:15	2.58	0.75	0.060	0.020	
11:30	2.54	0.71	0.056	0.020	
11:45	2.39	0.62	0.045	0.021	
12:00	2.53	0.73	0.057	0.021	
12:15	2.55	0.76	0.061	0.022	
12:30	2.44	0.68	0.050	0.023	
12:45	2.40	0.64	0.046	0.023	
13:00	2.55	0.74	0.059	0.024	
13:15	2.51	0.73	0.057	0.024	
13:30	2.33	0.68	0.047	0.025	
13:45	2.34	0.64	0.044	0.025	
14:00	3.02	0.89	0.089	0.026	
14:15	3.11	0.99	0.103	0.027	
14:30	3.15	0.98	0.104	0.028	
14:45	3.14	0.99	0.105	0.029	
15:00	3.04	0.94	0.095	0.030	
15:15	3.08	0.98	0.101	0.031	
15:30	3.09	1.00	0.103	0.033	
15:45	3.02	0.97	0.097	0.034	
16:00	3.10	0.99	0.103	0.035	
16:15	3.03	0.93	0.093	0.036	
16:30	3.07	0.96	0.098	0.037	
16:45	3.16	1.03	0.110	0.038	
17:00	3.16	1.01	0.108	0.039	
17:15	3.03	0.94	0.095	0.040	
17:30	2.67	0.80	0.068	0.041	
17:45	2.74	0.81	0.070	0.041	
18:00	2.89	0.87	0.082	0.042	
18:15	3.01	0.92	0.092	0.043	
18:30	2.92	0.93	0.089	0.044	
18:45	2.88	0.91	0.085	0.045	
19:00	2.81	0.87	0.079	0.046	
19:15	2.69	0.81	0.069	0.046	
19:30	2.90	0.89	0.085	0.047	
19:45	2.91	0.88	0.084	0.048	
20:00	2.57	0.75	0.059	0.049	
20:15	2.54	0.75	0.058	0.049	
20:30	2.49	0.71	0.054	0.050	
20:45	2.30	0.60	0.041	0.050	
21:00	2.42	0.66	0.049	0.051	
21:15	2.44	0.67	0.050	0.051	
21:30	2.66	0.75	0.063	0.052	
21:45	2.67	0.77	0.065	0.053	
22:00	2.49	0.68	0.052	0.053	
22:15	2.45	0.68	0.051	0.054	
22:30	2.56	0.73	0.058	0.054	
22:45	2.44	0.70	0.052	0.055	
23:00	2.40	0.64	0.046	0.055	
23:15	2.27	0.60	0.040	0.056	
23:30	2.19	0.56	0.036	0.056	
23:45	2.14	0.52	0.032	0.057	
Daily Totals:				**0.057**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/3/2018					
0:00	2.07	0.48	0.028	0.000	
0:15	2.10	0.53	0.032	0.001	
0:30	2.01	0.46	0.026	0.001	
0:45	2.07	0.49	0.029	0.001	
1:00	2.08	0.48	0.028	0.001	
1:15	2.07	0.50	0.029	0.002	
1:30	2.03	0.47	0.027	0.002	
1:45	1.97	0.45	0.025	0.002	
2:00	1.99	0.55	0.031	0.003	
2:15	1.94	0.41	0.022	0.003	
2:30	1.95	0.44	0.024	0.003	
2:45	1.92	0.42	0.022	0.003	
3:00	2.04	0.45	0.026	0.004	
3:15	2.06	0.48	0.028	0.004	
3:30	2.13	0.52	0.031	0.004	
3:45	2.53	0.73	0.057	0.005	
4:00	2.85	0.89	0.082	0.006	
4:15	2.79	0.84	0.075	0.006	
4:30	2.77	0.85	0.075	0.007	
4:45	2.72	0.83	0.071	0.008	
5:00	2.58	0.75	0.060	0.009	
5:15	2.45	0.69	0.052	0.009	
5:30	2.60	0.76	0.062	0.010	
5:45	2.77	0.83	0.073	0.011	
6:00	2.68	0.83	0.070	0.011	
6:15	2.66	0.77	0.065	0.012	
6:30	2.56	0.74	0.059	0.013	
6:45	2.61	0.76	0.062	0.013	
7:00	2.96	0.87	0.085	0.014	
7:15	3.08	0.92	0.095	0.015	
7:30	2.81	0.89	0.080	0.016	
7:45	2.82	0.82	0.074	0.017	
8:00	2.93	0.85	0.082	0.018	
8:15	2.78	0.81	0.072	0.018	
8:30	2.77	0.82	0.073	0.019	
8:45	2.84	0.83	0.077	0.020	
9:00	2.96	0.89	0.087	0.021	
9:15	3.00	0.93	0.093	0.022	
9:30	2.86	0.85	0.079	0.023	
9:45	2.85	0.85	0.079	0.023	
10:00	2.75	0.81	0.072	0.024	
10:15	2.95	0.92	0.089	0.025	
10:30	2.83	0.90	0.082	0.026	
10:45	2.99	0.90	0.089	0.027	
11:00	2.95	0.86	0.083	0.028	
11:15	2.64	0.76	0.062	0.028	
11:30	2.85	0.87	0.081	0.029	
11:45	3.07	0.93	0.095	0.030	
12:00	3.09	0.96	0.100	0.031	
12:15	2.76	0.88	0.077	0.032	
12:30	2.77	0.87	0.077	0.033	
12:45	2.72	0.87	0.075	0.034	
13:00	2.66	0.85	0.071	0.034	
13:15	2.58	0.80	0.064	0.035	
13:30	2.51	0.76	0.058	0.036	
13:45	2.52	0.71	0.055	0.036	
14:00	2.48	0.71	0.053	0.037	
14:15	2.49	0.67	0.051	0.037	
14:30	2.63	0.77	0.063	0.038	
14:45	2.61	0.78	0.063	0.039	
15:00	2.59	0.75	0.060	0.039	
15:15	2.58	0.74	0.059	0.040	
15:30	2.59	0.75	0.061	0.041	
15:45	2.54	0.71	0.056	0.041	
16:00	2.49	0.72	0.055	0.042	
16:15	2.69	0.81	0.070	0.042	
16:30	2.81	0.86	0.078	0.043	
16:45	2.53	0.74	0.058	0.044	
17:00	2.82	0.87	0.079	0.045	
17:15	2.93	0.90	0.086	0.046	
17:30	2.94	0.91	0.087	0.046	
17:45	2.64	0.76	0.063	0.047	
18:00	2.45	0.65	0.048	0.048	
18:15	2.53	0.72	0.056	0.048	
18:30	2.71	0.80	0.068	0.049	
18:45	2.71	0.81	0.069	0.050	
19:00	2.74	0.83	0.073	0.050	
19:15	2.49	0.70	0.053	0.051	
19:30	2.40	0.65	0.047	0.051	
19:45	2.41	0.66	0.048	0.052	
20:00	2.37	0.68	0.049	0.052	
20:15	2.43	0.70	0.052	0.053	
20:30	2.50	0.70	0.053	0.054	
20:45	2.61	0.74	0.061	0.054	
21:00	2.44	0.63	0.046	0.055	
21:15	2.45	0.69	0.051	0.055	
21:30	2.56	0.83	0.066	0.056	
21:45	2.40	0.67	0.049	0.056	
22:00	2.36	0.64	0.045	0.057	
22:15	2.38	0.69	0.049	0.057	
22:30	2.40	0.65	0.047	0.058	
22:45	2.38	0.68	0.048	0.058	
23:00	2.27	0.58	0.039	0.059	
23:15	2.23	0.58	0.037	0.059	
23:30	2.14	0.58	0.036	0.060	
23:45	2.06	0.48	0.028	0.060	
Daily Totals:				**0.060**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/4/2018					
0:00	2.10	0.52	0.031	0.000	
0:15	2.09	0.52	0.031	0.001	
0:30	2.08	0.49	0.029	0.001	
0:45	2.04	0.49	0.028	0.001	
1:00	1.99	0.45	0.025	0.002	
1:15	2.03	0.48	0.027	0.002	
1:30	2.07	0.48	0.028	0.002	
1:45	2.03	0.45	0.026	0.002	
2:00	1.99	0.45	0.025	0.003	
2:15	2.01	0.48	0.027	0.003	
2:30	1.95	0.38	0.020	0.003	
2:45	1.95	0.43	0.023	0.003	
3:00	1.94	0.42	0.023	0.004	
3:15	1.92	0.40	0.021	0.004	
3:30	1.90	0.40	0.021	0.004	
3:45	1.86	0.38	0.019	0.004	
4:00	1.91	0.41	0.021	0.004	
4:15	1.92	0.43	0.022	0.005	
4:30	1.85	0.37	0.018	0.005	
4:45	1.88	0.39	0.020	0.005	
5:00	1.88	0.41	0.021	0.005	
5:15	1.88	0.38	0.019	0.005	
5:30	1.95	0.46	0.025	0.006	
5:45	1.96	0.43	0.024	0.006	
6:00	2.02	0.47	0.027	0.006	
6:15	2.18	0.55	0.034	0.007	
6:30	2.16	0.55	0.034	0.007	
6:45	2.51	0.71	0.055	0.008	
7:00	2.60	0.75	0.061	0.008	
7:15	2.62	0.79	0.065	0.009	
7:30	2.41	0.68	0.049	0.009	
7:45	2.41	0.68	0.049	0.010	
8:00	2.48	0.70	0.053	0.010	
8:15	2.66	0.80	0.067	0.011	
8:30	2.94	0.95	0.091	0.012	
8:45	2.98	0.91	0.090	0.013	
9:00	2.81	0.87	0.079	0.014	
9:15	2.84	0.86	0.079	0.015	
9:30	2.95	0.93	0.090	0.016	
9:45	3.24	1.05	0.116	0.017	
10:00	3.12	1.09	0.115	0.018	
10:15	2.85	1.00	0.092	0.019	
10:30	2.70	0.86	0.074	0.020	
10:45	2.69	0.88	0.075	0.021	
11:00	2.78	0.91	0.081	0.021	
11:15	2.76	0.92	0.082	0.022	
11:30	2.85	0.97	0.090	0.023	
11:45	3.11	1.12	0.117	0.024	
12:00	2.91	1.03	0.099	0.025	
12:15	2.73	0.92	0.080	0.026	
12:30	3.00	1.05	0.105	0.027	
12:45	2.96	1.00	0.097	0.028	
13:00	2.90	0.99	0.094	0.029	
13:15	2.72	0.90	0.078	0.030	
13:30	2.60	0.78	0.063	0.031	
13:45	2.66	0.91	0.077	0.032	
14:00	2.80	0.91	0.082	0.032	
14:15	2.60	0.76	0.062	0.033	
14:30	2.71	0.85	0.074	0.034	
14:45	2.80	0.87	0.079	0.035	
15:00	2.62	0.84	0.069	0.035	
15:15	2.43	0.71	0.052	0.036	
15:30	2.56	0.80	0.063	0.037	
15:45	2.45	0.74	0.056	0.037	
16:00	2.41	0.74	0.054	0.038	
16:15	2.43	0.70	0.052	0.038	
16:30	2.64	0.88	0.073	0.039	
16:45	2.63	0.82	0.067	0.040	
17:00	2.78	0.91	0.082	0.041	
17:15	2.77	0.91	0.081	0.041	
17:30	2.60	0.82	0.067	0.042	
17:45	2.54	0.78	0.061	0.043	
18:00	2.38	0.68	0.049	0.043	
18:15	2.67	0.85	0.072	0.044	
18:30	2.86	0.92	0.086	0.045	
18:45	2.68	0.83	0.071	0.046	
19:00	2.60	0.78	0.064	0.046	
19:15	2.64	0.82	0.068	0.047	
19:30	2.70	0.89	0.076	0.048	
19:45	2.65	0.84	0.070	0.049	
20:00	2.50	0.80	0.062	0.049	
20:15	2.44	0.74	0.055	0.050	
20:30	2.34	0.66	0.046	0.050	
20:45	2.35	0.65	0.045	0.051	
21:00	2.40	0.67	0.049	0.051	
21:15	2.43	0.71	0.052	0.052	
21:30	2.39	0.70	0.050	0.052	
21:45	2.33	0.65	0.046	0.053	
22:00	2.26	0.62	0.041	0.053	
22:15	2.32	0.65	0.045	0.054	
22:30	2.34	0.65	0.045	0.054	
22:45	2.33	0.64	0.044	0.055	
23:00	2.22	0.60	0.039	0.055	
23:15	2.27	0.62	0.041	0.055	
23:30	2.24	0.71	0.046	0.056	
23:45	2.15	0.55	0.034	0.056	
Daily Totals:				**0.056**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/5/2018					
0:00	2.13	0.53	0.032	0.000	
0:15	2.10	0.54	0.032	0.001	
0:30	2.06	0.54	0.032	0.001	
0:45	2.05	0.51	0.029	0.001	
1:00	2.05	0.51	0.029	0.002	
1:15	1.95	0.41	0.022	0.002	
1:30	1.95	0.45	0.024	0.002	
1:45	1.97	0.55	0.030	0.002	
2:00	1.83	0.35	0.017	0.003	
2:15	1.83	0.39	0.019	0.003	
2:30	1.84	0.38	0.019	0.003	
2:45	1.82	0.37	0.018	0.003	
3:00	1.83	0.40	0.019	0.003	
3:15	1.88	0.40	0.020	0.004	
3:30	1.92	0.47	0.024	0.004	
3:45	1.84	0.38	0.019	0.004	
4:00	1.76	0.32	0.015	0.004	
4:15	1.74	0.34	0.015	0.004	
4:30	1.73	0.33	0.015	0.005	
4:45	1.82	0.37	0.018	0.005	
5:00	1.83	0.37	0.018	0.005	
5:15	2.04	0.47	0.027	0.005	
5:30	2.12	0.52	0.032	0.005	
5:45	1.96	0.42	0.023	0.006	
6:00	2.00	0.47	0.026	0.006	
6:15	2.23	0.60	0.039	0.006	
6:30	2.39	0.68	0.049	0.007	
6:45	2.48	0.73	0.056	0.007	
7:00	2.95	0.95	0.094	0.008	
7:15	3.26	1.12	0.125	0.010	
7:30	3.14	1.09	0.115	0.011	
7:45	3.21	1.09	0.119	0.012	
8:00	3.31	1.13	0.129	0.014	
8:15	3.32	1.14	0.130	0.015	
8:30	3.21	1.15	0.125	0.016	
8:45	3.26	1.11	0.124	0.018	
9:00	3.32	1.16	0.133	0.019	
9:15	3.32	1.13	0.129	0.020	
9:30	3.39	1.13	0.134	0.022	
9:45	3.38	1.15	0.135	0.023	
10:00	3.21	1.06	0.116	0.024	
10:15	3.19	1.07	0.116	0.025	
10:30	2.99	0.99	0.098	0.026	
10:45	3.09	1.07	0.110	0.028	
11:00	3.02	1.04	0.104	0.029	
11:15	3.04	1.04	0.105	0.030	
11:30	2.88	1.02	0.096	0.031	
11:45	2.80	0.92	0.083	0.032	
12:00	2.72	0.87	0.075	0.032	
12:15	2.68	0.84	0.071	0.033	
12:30	2.72	0.87	0.075	0.034	
12:45	2.80	0.93	0.084	0.035	
13:00	2.87	0.94	0.088	0.036	
13:15	2.63	0.82	0.067	0.036	
13:30	2.70	0.87	0.074	0.037	
13:45	2.75	0.92	0.081	0.038	
14:00	2.80	0.92	0.083	0.039	
14:15	2.75	0.91	0.080	0.040	
14:30	2.80	0.93	0.084	0.041	
14:45	2.60	0.80	0.065	0.041	
15:00	2.54	0.77	0.061	0.042	
15:15	2.61	0.81	0.066	0.043	
15:30	2.80	0.91	0.082	0.044	
15:45	2.65	0.84	0.070	0.044	
16:00	2.71	0.88	0.076	0.045	
16:15	2.85	0.95	0.088	0.046	
16:30	2.78	0.89	0.080	0.047	
16:45	2.91	1.06	0.101	0.048	
17:00	2.94	1.01	0.097	0.049	
17:15	2.96	1.01	0.099	0.050	
17:30	2.96	0.99	0.097	0.051	
17:45	2.96	1.03	0.100	0.052	
18:00	3.08	1.06	0.110	0.053	
18:15	2.83	0.93	0.085	0.054	
18:30	2.79	0.88	0.079	0.055	
18:45	2.82	0.94	0.085	0.056	
19:00	2.89	0.93	0.088	0.057	
19:15	2.83	0.94	0.086	0.057	
19:30	2.98	0.98	0.096	0.058	
19:45	2.78	0.86	0.077	0.059	
20:00	2.77	0.87	0.077	0.060	
20:15	2.86	0.92	0.085	0.061	
20:30	2.92	0.96	0.092	0.062	
20:45	3.19	1.08	0.116	0.063	
21:00	3.13	1.02	0.107	0.064	
21:15	3.06	0.96	0.098	0.065	
21:30	3.16	0.99	0.106	0.066	
21:45	3.15	0.97	0.103	0.067	
22:00	3.14	1.01	0.107	0.069	
22:15	3.12	1.04	0.109	0.070	
22:30	3.13	1.03	0.108	0.071	
22:45	2.92	0.95	0.091	0.072	
23:00	2.83	0.90	0.083	0.073	
23:15	2.71	0.82	0.071	0.073	
23:30	2.63	0.77	0.064	0.074	
23:45	2.56	0.75	0.060	0.075	
Daily Totals:				**0.075**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/6/2018					
0:00	2.49	0.73	0.056	0.001	
0:15	2.39	0.65	0.046	0.001	
0:30	2.38	0.67	0.048	0.002	
0:45	2.31	0.62	0.042	0.002	
1:00	2.31	0.63	0.043	0.002	
1:15	2.32	0.62	0.043	0.003	
1:30	2.24	0.60	0.039	0.003	
1:45	2.26	0.62	0.041	0.004	
2:00	2.22	0.56	0.037	0.004	
2:15	2.25	0.59	0.039	0.005	
2:30	2.23	0.58	0.038	0.005	
2:45	2.25	0.58	0.038	0.005	
3:00	2.23	0.63	0.041	0.006	
3:15	2.23	0.57	0.037	0.006	
3:30	2.19	0.55	0.035	0.006	
3:45	2.17	0.55	0.034	0.007	
4:00	2.15	0.55	0.034	0.007	
4:15	2.19	0.59	0.037	0.008	
4:30	2.20	0.56	0.035	0.008	
4:45	2.23	0.61	0.040	0.008	
5:00	2.20	0.58	0.037	0.009	
5:15	2.26	0.60	0.040	0.009	
5:30	2.36	0.64	0.045	0.010	
5:45	2.33	0.65	0.045	0.010	
6:00	2.38	0.66	0.047	0.011	
6:15	2.45	0.68	0.051	0.011	
6:30	2.60	0.77	0.062	0.012	
6:45	2.48	0.69	0.052	0.012	
7:00	2.76	0.87	0.077	0.013	
7:15	2.93	0.87	0.084	0.014	
7:30	2.79	0.88	0.079	0.015	
7:45	2.82	0.93	0.085	0.016	
8:00	2.72	0.89	0.077	0.017	
8:15	2.91	0.95	0.091	0.017	
8:30	2.98	1.00	0.099	0.018	
8:45	3.09	1.06	0.109	0.020	
9:00	3.10	1.02	0.106	0.021	
9:15	3.13	0.98	0.103	0.022	
9:30	3.23	1.03	0.113	0.023	
9:45	3.52	1.14	0.141	0.024	
10:00	3.40	1.11	0.132	0.026	
10:15	3.30	1.07	0.121	0.027	
10:30	3.19	1.02	0.111	0.028	
10:45	2.91	0.91	0.087	0.029	
11:00	3.11	1.00	0.105	0.030	
11:15	3.80	1.34	0.184	0.032	
11:30	4.21	1.55	0.246	0.035	
11:45	4.03	1.45	0.217	0.037	
12:00	3.64	1.28	0.168	0.039	
12:15	3.90	1.47	0.210	0.041	
12:30	3.61	1.31	0.169	0.043	
12:45	3.31	1.16	0.132	0.044	
13:00	3.23	1.12	0.123	0.045	
13:15	3.98	1.42	0.211	0.048	
13:30	3.99	1.48	0.220	0.050	
13:45	3.65	1.33	0.175	0.052	
14:00	3.70	1.36	0.183	0.054	
14:15	3.22	1.09	0.120	0.055	
14:30	2.95	1.00	0.097	0.056	
14:45	2.72	0.88	0.076	0.057	
15:00	2.98	0.98	0.096	0.058	
15:15	2.84	0.91	0.084	0.058	
15:30	2.92	0.92	0.089	0.059	
15:45	2.83	0.84	0.077	0.060	
16:00	2.85	0.85	0.078	0.061	
16:15	2.87	0.84	0.078	0.062	
16:30	2.67	0.72	0.061	0.062	
16:45	2.70	0.75	0.065	0.063	
17:00	2.86	0.84	0.078	0.064	
17:15	2.94	0.81	0.078	0.065	
17:30	2.91	0.86	0.082	0.066	
17:45	2.96	0.90	0.087	0.067	
18:00	2.91	0.96	0.092	0.067	
18:15	3.02	1.01	0.101	0.069	
18:30	2.84	0.96	0.088	0.069	
18:45	2.85	0.94	0.087	0.070	
19:00	2.90	0.96	0.091	0.071	
19:15	2.94	0.96	0.093	0.072	
19:30	2.81	0.88	0.080	0.073	
19:45	2.80	0.90	0.081	0.074	
20:00	2.84	0.91	0.083	0.075	
20:15	2.80	0.90	0.081	0.076	
20:30	2.83	0.90	0.082	0.077	
20:45	2.88	0.94	0.088	0.077	
21:00	2.67	0.81	0.068	0.078	
21:15	2.75	0.84	0.075	0.079	
21:30	2.87	0.94	0.088	0.080	
21:45	2.84	0.89	0.082	0.081	
22:00	2.81	0.87	0.079	0.081	
22:15	2.84	0.85	0.078	0.082	
22:30	2.84	0.88	0.081	0.083	
22:45	2.74	0.84	0.073	0.084	
23:00	2.66	0.80	0.067	0.085	
23:15	2.59	0.76	0.061	0.085	
23:30	2.47	0.68	0.051	0.086	
23:45	2.55	0.72	0.057	0.086	
Daily Totals:				**0.086**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/7/2018					
0:00	2.38	0.66	0.047	0.000	
0:15	2.34	0.58	0.040	0.001	
0:30	2.36	0.60	0.042	0.001	
0:45	2.32	0.61	0.042	0.002	
1:00	2.27	0.56	0.037	0.002	
1:15	2.22	0.60	0.038	0.003	
1:30	2.25	0.62	0.041	0.003	
1:45	2.17	0.55	0.034	0.003	
2:00	2.14	0.53	0.032	0.004	
2:15	2.10	0.50	0.030	0.004	
2:30	2.08	0.52	0.031	0.004	
2:45	2.07	0.49	0.029	0.005	
3:00	2.08	0.51	0.030	0.005	
3:15	2.30	0.66	0.045	0.005	
3:30	2.08	0.51	0.030	0.006	
3:45	2.06	0.49	0.028	0.006	
4:00	2.05	0.47	0.027	0.006	
4:15	2.03	0.47	0.027	0.007	
4:30	2.09	0.59	0.035	0.007	
4:45	2.06	0.45	0.026	0.007	
5:00	2.18	0.58	0.037	0.008	
5:15	2.18	0.56	0.035	0.008	
5:30	2.26	0.59	0.040	0.008	
5:45	2.25	0.60	0.040	0.009	
6:00	2.32	0.65	0.045	0.009	
6:15	2.45	0.69	0.052	0.010	
6:30	2.54	0.76	0.059	0.010	
6:45	2.70	0.81	0.069	0.011	
7:00	2.70	0.83	0.071	0.012	
7:15	2.66	0.84	0.070	0.013	
7:30	2.67	0.81	0.068	0.013	
7:45	2.82	0.90	0.082	0.014	
8:00	2.96	0.97	0.095	0.015	
8:15	2.88	0.96	0.090	0.016	
8:30	2.85	0.91	0.085	0.017	
8:45	2.82	0.88	0.080	0.018	
9:00	2.68	0.83	0.070	0.019	
9:15	2.65	0.84	0.070	0.019	
9:30	2.67	0.82	0.069	0.020	
9:45	2.77	0.86	0.077	0.021	
10:00	3.02	1.01	0.102	0.022	
10:15	3.19	1.10	0.119	0.023	
10:30	2.95	0.96	0.093	0.024	
10:45	2.88	0.93	0.087	0.025	
11:00	2.82	0.89	0.081	0.026	
11:15	2.77	0.87	0.077	0.027	
11:30	2.63	0.80	0.066	0.027	
11:45	2.68	0.83	0.070	0.028	
12:00	2.75	0.86	0.075	0.029	
12:15	2.64	0.77	0.064	0.029	
12:30	2.56	0.78	0.062	0.030	
12:45	2.51	0.74	0.057	0.031	
13:00	2.48	0.71	0.054	0.031	
13:15	2.67	0.83	0.070	0.032	
13:30	2.46	0.71	0.053	0.033	
13:45	2.41	0.70	0.051	0.033	
14:00	2.45	0.73	0.054	0.034	
14:15	2.58	0.80	0.065	0.034	
14:30	2.45	0.72	0.054	0.035	
14:45	2.57	0.76	0.061	0.036	
15:00	2.46	0.70	0.053	0.036	
15:15	2.53	0.75	0.058	0.037	
15:30	2.49	0.71	0.054	0.037	
15:45	2.43	0.78	0.057	0.038	
16:00	2.33	0.65	0.045	0.038	
16:15	2.29	0.61	0.041	0.039	
16:30	2.22	0.61	0.039	0.039	
16:45	2.50	0.76	0.058	0.040	
17:00	2.38	0.67	0.048	0.040	
17:15	2.33	0.66	0.046	0.041	
17:30	2.55	0.78	0.061	0.041	
17:45	2.54	0.76	0.060	0.042	
18:00	2.49	0.71	0.054	0.043	
18:15	2.54	0.76	0.060	0.043	
18:30	2.84	0.88	0.081	0.044	
18:45	2.65	0.79	0.065	0.045	
19:00	2.54	0.76	0.059	0.045	
19:15	2.43	0.71	0.052	0.046	
19:30	2.65	0.79	0.066	0.047	
19:45	2.65	0.86	0.072	0.047	
20:00	2.64	0.79	0.065	0.048	
20:15	2.46	0.72	0.054	0.049	
20:30	2.45	0.75	0.056	0.049	
20:45	2.44	0.75	0.055	0.050	
21:00	2.35	0.67	0.047	0.050	
21:15	2.35	0.64	0.045	0.051	
21:30	2.32	0.62	0.042	0.051	
21:45	2.32	0.66	0.045	0.052	
22:00	2.27	0.66	0.044	0.052	
22:15	2.44	0.65	0.049	0.053	
22:30	2.50	0.71	0.055	0.053	
22:45	2.39	0.64	0.046	0.054	
23:00	2.31	0.60	0.041	0.054	
23:15	2.20	0.56	0.036	0.054	
23:30	2.17	0.56	0.035	0.055	
23:45	2.11	0.51	0.031	0.055	
Daily Totals:				**0.055**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/8/2018					
0:00	2.04	0.46	0.026	0.000	
0:15	1.95	0.45	0.024	0.001	
0:30	2.02	0.51	0.029	0.001	
0:45	1.94	0.44	0.023	0.001	
1:00	1.85	0.38	0.019	0.001	
1:15	1.76	0.34	0.016	0.001	
1:30	1.83	0.40	0.019	0.002	
1:45	1.80	0.36	0.017	0.002	
2:00	1.75	0.39	0.018	0.002	
2:15	1.76	0.41	0.019	0.002	
2:30	1.76	0.40	0.018	0.002	
2:45	1.70	0.32	0.014	0.003	
3:00	1.65	0.31	0.013	0.003	
3:15	1.70	0.31	0.013	0.003	
3:30	1.66	0.31	0.013	0.003	
3:45	1.72	0.35	0.015	0.003	
4:00	1.60	0.28	0.011	0.003	
4:15	1.68	0.32	0.014	0.003	
4:30	1.67	0.29	0.012	0.003	
4:45	1.71	0.31	0.014	0.004	
5:00	1.81	0.36	0.017	0.004	
5:15	1.90	0.47	0.024	0.004	
5:30	2.03	0.52	0.030	0.004	
5:45	2.09	0.56	0.033	0.005	
6:00	2.09	0.49	0.029	0.005	
6:15	2.11	0.52	0.031	0.005	
6:30	2.29	0.65	0.045	0.006	
6:45	2.37	0.69	0.049	0.006	
7:00	2.41	0.70	0.051	0.007	
7:15	2.65	0.82	0.069	0.008	
7:30	3.28	1.14	0.128	0.009	
7:45	3.22	1.19	0.131	0.010	
8:00	3.15	1.06	0.112	0.011	
8:15	3.10	1.06	0.110	0.013	
8:30	2.92	1.00	0.095	0.014	
8:45	2.89	0.92	0.087	0.014	
9:00	2.90	0.96	0.091	0.015	
9:15	2.78	0.88	0.079	0.016	
9:30	2.74	0.86	0.075	0.017	
9:45	2.91	0.91	0.087	0.018	
10:00	2.82	0.86	0.078	0.019	
10:15	2.86	0.95	0.088	0.020	
10:30	3.02	0.99	0.099	0.021	
10:45	2.93	0.95	0.091	0.022	
11:00	2.86	0.90	0.084	0.023	
11:15	3.02	0.98	0.098	0.024	
11:30	3.07	1.00	0.102	0.025	
11:45	3.04	0.97	0.098	0.026	
12:00	2.84	0.89	0.082	0.026	
12:15	2.70	0.80	0.069	0.027	
12:30	2.64	0.79	0.065	0.028	
12:45	2.69	0.83	0.071	0.029	
13:00	2.64	0.79	0.065	0.029	
13:15	2.67	0.79	0.067	0.030	
13:30	2.38	0.63	0.045	0.030	
13:45	2.41	0.66	0.048	0.031	
14:00	2.35	0.65	0.046	0.031	
14:15	2.38	0.70	0.050	0.032	
14:30	2.58	0.71	0.057	0.033	
14:45	2.40	0.64	0.046	0.033	
15:00	2.24	0.61	0.040	0.033	
15:15	2.30	0.61	0.042	0.034	
15:30	2.58	0.75	0.063	0.035	
15:45	2.88	0.91	0.086	0.035	
16:00	2.67	0.81	0.068	0.036	
16:15	2.56	0.74	0.059	0.037	
16:30	2.54	0.71	0.056	0.037	
16:45	2.62	0.81	0.066	0.038	
17:00	2.74	0.86	0.075	0.039	
17:15	3.02	0.99	0.099	0.040	
17:30	2.82	0.93	0.085	0.041	
17:45	2.83	0.83	0.076	0.042	
18:00	2.79	0.90	0.080	0.042	
18:15	2.66	0.78	0.065	0.043	
18:30	2.70	0.86	0.073	0.044	
18:45	2.68	0.84	0.071	0.045	
19:00	2.73	0.85	0.074	0.045	
19:15	2.73	0.88	0.076	0.046	
19:30	2.81	0.90	0.082	0.047	
19:45	2.76	0.88	0.078	0.048	
20:00	2.68	0.86	0.073	0.049	
20:15	2.77	0.91	0.081	0.049	
20:30	2.76	0.92	0.081	0.050	
20:45	2.70	0.84	0.072	0.051	
21:00	2.66	0.82	0.068	0.052	
21:15	2.67	0.83	0.070	0.052	
21:30	2.58	0.79	0.063	0.053	
21:45	2.46	0.73	0.055	0.054	
22:00	2.39	0.68	0.049	0.054	
22:15	2.57	0.75	0.060	0.055	
22:30	2.57	0.80	0.064	0.055	
22:45	2.51	0.72	0.056	0.056	
23:00	2.41	0.68	0.049	0.057	
23:15	2.47	0.72	0.054	0.057	
23:30	2.38	0.66	0.047	0.058	
23:45	2.35	0.64	0.045	0.058	
Daily Totals:				**0.058**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/9/2018					
0:00	2.38	0.65	0.046	0.000	
0:15	2.33	0.64	0.044	0.001	
0:30	2.33	0.66	0.046	0.001	
0:45	2.29	0.61	0.042	0.002	
1:00	2.19	0.56	0.036	0.002	
1:15	2.14	0.56	0.035	0.003	
1:30	2.13	0.52	0.032	0.003	
1:45	2.08	0.52	0.030	0.003	
2:00	2.08	0.51	0.030	0.004	
2:15	2.09	0.52	0.031	0.004	
2:30	2.03	0.48	0.027	0.004	
2:45	2.05	0.52	0.030	0.004	
3:00	2.02	0.49	0.027	0.005	
3:15	2.04	0.48	0.027	0.005	
3:30	2.03	0.48	0.027	0.005	
3:45	2.05	0.54	0.031	0.006	
4:00	2.07	0.50	0.029	0.006	
4:15	2.09	0.53	0.031	0.006	
4:30	2.03	0.49	0.028	0.007	
4:45	2.05	0.52	0.030	0.007	
5:00	2.09	0.58	0.035	0.007	
5:15	2.08	0.52	0.031	0.008	
5:30	2.11	0.53	0.032	0.008	
5:45	2.21	0.59	0.038	0.008	
6:00	2.23	0.62	0.040	0.009	
6:15	2.24	0.61	0.040	0.009	
6:30	2.38	0.75	0.054	0.010	
6:45	2.64	0.80	0.066	0.010	
7:00	2.79	0.87	0.078	0.011	
7:15	2.69	0.86	0.073	0.012	
7:30	2.65	0.91	0.076	0.013	
7:45	2.62	0.81	0.066	0.013	
8:00	2.61	0.79	0.064	0.014	
8:15	2.62	0.79	0.065	0.015	
8:30	2.63	0.80	0.067	0.015	
8:45	2.57	0.78	0.062	0.016	
9:00	2.47	0.74	0.056	0.017	
9:15	2.68	0.83	0.070	0.017	
9:30	2.58	0.77	0.062	0.018	
9:45	2.58	0.80	0.064	0.019	
10:00	2.58	0.81	0.065	0.019	
10:15	2.48	0.75	0.057	0.020	
10:30	2.49	0.75	0.057	0.021	
10:45	2.57	0.77	0.062	0.021	
11:00	2.79	0.92	0.083	0.022	
11:15	2.59	0.79	0.064	0.023	
11:30	2.95	0.97	0.094	0.024	
11:45	2.96	0.94	0.092	0.025	
12:00	2.83	0.86	0.078	0.026	
12:15	3.03	0.95	0.096	0.027	
12:30	3.11	1.04	0.109	0.028	
12:45	3.09	1.03	0.107	0.029	
13:00	3.09	1.02	0.106	0.030	
13:15	2.78	0.91	0.081	0.031	
13:30	2.78	0.91	0.081	0.032	
13:45	2.87	0.94	0.088	0.032	
14:00	2.78	0.79	0.070	0.033	
14:15	2.70	0.80	0.068	0.034	
14:30	2.65	0.74	0.062	0.035	
14:45	2.80	0.83	0.075	0.035	
15:00	2.74	0.85	0.074	0.036	
15:15	2.71	0.81	0.070	0.037	
15:30	2.74	0.78	0.068	0.038	
15:45	2.89	0.90	0.085	0.038	
16:00	3.18	1.06	0.114	0.040	
16:15	3.14	0.98	0.104	0.041	
16:30	2.87	0.92	0.086	0.042	
16:45	2.98	0.96	0.095	0.043	
17:00	3.11	1.07	0.112	0.044	
17:15	3.11	1.07	0.112	0.045	
17:30	3.55	1.32	0.167	0.047	
17:45	4.08	1.51	0.230	0.049	
18:00	3.68	1.37	0.182	0.051	
18:15	3.36	1.24	0.144	0.052	
18:30	3.49	1.26	0.155	0.054	
18:45	3.83	1.41	0.198	0.056	
19:00	4.21	1.61	0.257	0.059	
19:15	4.22	1.57	0.251	0.061	
19:30	4.02	1.46	0.218	0.064	
19:45	4.47	1.70	0.294	0.067	
20:00	3.61	1.32	0.171	0.069	
20:15	3.08	1.10	0.114	0.070	
20:30	2.82	0.96	0.088	0.071	
20:45	2.73	0.88	0.077	0.071	
21:00	2.69	0.85	0.073	0.072	
21:15	2.71	0.87	0.075	0.073	
21:30	2.64	0.84	0.070	0.074	
21:45	2.64	0.87	0.073	0.074	
22:00	2.73	0.89	0.077	0.075	
22:15	2.65	0.84	0.070	0.076	
22:30	2.63	0.86	0.071	0.077	
22:45	2.60	0.80	0.065	0.077	
23:00	2.63	0.80	0.066	0.078	
23:15	2.61	0.80	0.065	0.079	
23:30	2.71	0.84	0.072	0.080	
23:45	2.82	0.83	0.075	0.080	
Daily Totals:				**0.080**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/10/2018					
0:00	2.82	0.84	0.077	0.001	
0:15	2.91	0.87	0.083	0.002	
0:30	3.04	0.90	0.091	0.003	
0:45	3.09	0.93	0.097	0.004	
1:00	2.96	0.89	0.087	0.005	
1:15	2.95	0.88	0.085	0.005	
1:30	2.84	0.87	0.080	0.006	
1:45	2.62	0.78	0.064	0.007	
2:00	2.52	0.74	0.058	0.008	
2:15	2.37	0.69	0.049	0.008	
2:30	2.25	0.60	0.040	0.008	
2:45	2.19	0.57	0.036	0.009	
3:00	2.15	0.60	0.037	0.009	
3:15	2.12	0.54	0.032	0.010	
3:30	2.11	0.59	0.036	0.010	
3:45	2.09	0.53	0.031	0.010	
4:00	2.09	0.55	0.032	0.011	
4:15	2.12	0.54	0.033	0.011	
4:30	2.10	0.52	0.031	0.011	
4:45	2.12	0.57	0.034	0.012	
5:00	2.09	0.52	0.031	0.012	
5:15	2.12	0.54	0.033	0.012	
5:30	2.18	0.57	0.036	0.013	
5:45	2.16	0.58	0.036	0.013	
6:00	2.14	0.58	0.036	0.013	
6:15	2.20	0.60	0.038	0.014	
6:30	2.26	0.61	0.040	0.014	
6:45	2.43	0.75	0.056	0.015	
7:00	2.44	0.69	0.051	0.015	
7:15	2.53	0.75	0.059	0.016	
7:30	2.61	0.81	0.066	0.017	
7:45	2.84	0.95	0.087	0.018	
8:00	2.87	0.93	0.087	0.018	
8:15	2.66	0.82	0.068	0.019	
8:30	2.67	0.81	0.068	0.020	
8:45	2.76	0.91	0.080	0.021	
9:00	2.78	0.88	0.078	0.021	
9:15	2.65	0.82	0.069	0.022	
9:30	2.63	0.81	0.067	0.023	
9:45	2.70	0.89	0.077	0.024	
10:00	2.86	0.93	0.086	0.025	
10:15	2.59	0.78	0.063	0.025	
10:30	2.68	0.87	0.073	0.026	
10:45	2.92	0.98	0.094	0.027	
11:00	2.74	0.88	0.077	0.028	
11:15	2.69	0.88	0.075	0.029	
11:30	2.75	0.89	0.079	0.029	
11:45	2.70	0.83	0.071	0.030	
12:00	2.66	0.86	0.072	0.031	
12:15	2.78	0.91	0.081	0.032	
12:30	2.80	0.91	0.082	0.033	
12:45	2.59	0.80	0.065	0.033	
13:00	2.61	0.83	0.068	0.034	
13:15	2.73	0.89	0.078	0.035	
13:30	2.71	0.85	0.073	0.036	
13:45	2.76	0.90	0.080	0.036	
14:00	2.71	0.83	0.071	0.037	
14:15	2.54	0.78	0.061	0.038	
14:30	2.55	0.74	0.058	0.038	
14:45	2.52	0.78	0.061	0.039	
15:00	2.62	0.83	0.068	0.040	
15:15	2.75	0.90	0.079	0.041	
15:30	2.58	0.76	0.061	0.041	
15:45	2.59	0.81	0.065	0.042	
16:00	2.73	0.85	0.074	0.043	
16:15	2.49	0.67	0.051	0.043	
16:30	2.61	0.82	0.067	0.044	
16:45	2.70	0.83	0.071	0.045	
17:00	2.78	0.90	0.081	0.045	
17:15	2.63	0.79	0.065	0.046	
17:30	2.68	0.86	0.073	0.047	
17:45	2.91	0.96	0.091	0.048	
18:00	2.87	0.93	0.087	0.049	
18:15	2.78	0.89	0.080	0.050	
18:30	2.78	0.88	0.078	0.050	
18:45	2.81	0.91	0.082	0.051	
19:00	2.75	0.95	0.083	0.052	
19:15	2.63	0.81	0.067	0.053	
19:30	2.63	0.84	0.069	0.054	
19:45	2.67	0.81	0.068	0.054	
20:00	2.47	0.71	0.053	0.055	
20:15	2.51	0.72	0.055	0.055	
20:30	2.56	0.74	0.059	0.056	
20:45	2.45	0.69	0.051	0.056	
21:00	2.49	0.73	0.056	0.057	
21:15	2.46	0.69	0.052	0.058	
21:30	2.42	0.69	0.050	0.058	
21:45	2.39	0.68	0.049	0.059	
22:00	2.51	0.72	0.055	0.059	
22:15	2.54	0.75	0.059	0.060	
22:30	2.49	0.70	0.053	0.060	
22:45	2.39	0.65	0.047	0.061	
23:00	2.46	0.69	0.052	0.061	
23:15	2.52	0.73	0.057	0.062	
23:30	2.43	0.74	0.054	0.063	
23:45	2.31	0.61	0.042	0.063	
Daily Totals:				**0.063**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/11/2018					
0:00	2.27	0.61	0.041	0.000	
0:15	2.31	0.63	0.043	0.001	
0:30	2.33	0.66	0.046	0.001	
0:45	2.39	0.67	0.048	0.002	
1:00	2.34	0.63	0.044	0.002	
1:15	2.27	0.63	0.042	0.003	
1:30	2.23	0.60	0.039	0.003	
1:45	2.20	0.57	0.037	0.004	
2:00	2.10	0.53	0.032	0.004	
2:15	2.08	0.50	0.030	0.004	
2:30	2.06	0.47	0.027	0.004	
2:45	2.11	0.48	0.029	0.005	
3:00	2.07	0.46	0.027	0.005	
3:15	2.07	0.47	0.027	0.005	
3:30	2.10	0.49	0.029	0.006	
3:45	2.12	0.47	0.028	0.006	
4:00	2.11	0.46	0.027	0.006	
4:15	2.10	0.45	0.027	0.006	
4:30	2.09	0.49	0.029	0.007	
4:45	2.10	0.48	0.029	0.007	
5:00	2.11	0.47	0.028	0.007	
5:15	2.18	0.48	0.030	0.008	
5:30	2.26	0.57	0.038	0.008	
5:45	2.38	0.60	0.043	0.009	
6:00	2.23	0.57	0.037	0.009	
6:15	2.19	0.53	0.034	0.009	
6:30	2.39	0.63	0.045	0.010	
6:45	2.29	0.55	0.038	0.010	
7:00	2.33	0.61	0.042	0.011	
7:15	2.47	0.69	0.052	0.011	
7:30	2.39	0.67	0.048	0.012	
7:45	2.39	0.67	0.048	0.012	
8:00	2.50	0.72	0.055	0.013	
8:15	2.68	0.85	0.072	0.013	
8:30	2.84	0.93	0.086	0.014	
8:45	2.69	0.82	0.070	0.015	
9:00	2.66	0.85	0.071	0.016	
9:15	2.64	0.82	0.068	0.017	
9:30	2.80	0.87	0.079	0.017	
9:45	2.88	0.93	0.087	0.018	
10:00	2.78	0.91	0.081	0.019	
10:15	2.82	0.95	0.087	0.020	
10:30	3.11	1.05	0.110	0.021	
10:45	3.00	1.00	0.099	0.022	
11:00	2.92	1.03	0.099	0.023	
11:15	2.93	0.99	0.096	0.024	
11:30	2.97	1.00	0.098	0.025	
11:45	3.09	1.07	0.111	0.026	
12:00	2.89	0.95	0.090	0.027	
12:15	2.98	1.03	0.101	0.028	
12:30	2.96	0.98	0.096	0.029	
12:45	2.84	0.93	0.085	0.030	
13:00	2.84	0.91	0.084	0.031	
13:15	2.90	0.95	0.090	0.032	
13:30	2.97	0.98	0.096	0.033	
13:45	3.01	1.00	0.100	0.034	
14:00	2.97	0.97	0.095	0.035	
14:15	3.04	1.01	0.102	0.036	
14:30	2.83	0.93	0.086	0.037	
14:45	2.57	0.75	0.060	0.038	
15:00	2.57	0.76	0.061	0.038	
15:15	2.68	0.83	0.071	0.039	
15:30	2.68	0.76	0.064	0.040	
15:45	2.74	0.88	0.077	0.040	
16:00	2.99	0.96	0.095	0.041	
16:15	2.97	1.01	0.099	0.042	
16:30	2.77	0.95	0.084	0.043	
16:45	2.53	0.77	0.060	0.044	
17:00	2.71	0.85	0.073	0.045	
17:15	2.65	0.84	0.070	0.045	
17:30	2.55	0.76	0.060	0.046	
17:45	2.60	0.81	0.066	0.047	
18:00	2.70	0.85	0.073	0.048	
18:15	2.68	0.86	0.073	0.048	
18:30	2.58	0.80	0.064	0.049	
18:45	2.55	0.79	0.062	0.050	
19:00	2.57	0.77	0.061	0.050	
19:15	2.82	0.93	0.084	0.051	
19:30	2.76	0.90	0.079	0.052	
19:45	2.70	0.85	0.073	0.053	
20:00	2.70	0.86	0.074	0.054	
20:15	2.67	0.86	0.072	0.054	
20:30	2.62	0.84	0.069	0.055	
20:45	2.49	0.76	0.058	0.056	
21:00	2.52	0.83	0.065	0.056	
21:15	2.56	0.81	0.065	0.057	
21:30	2.45	0.77	0.057	0.058	
21:45	2.43	0.75	0.055	0.058	
22:00	2.43	0.78	0.057	0.059	
22:15	2.55	0.81	0.064	0.059	
22:30	2.37	0.71	0.050	0.060	
22:45	2.40	0.73	0.053	0.060	
23:00	2.24	0.62	0.040	0.061	
23:15	2.32	0.68	0.047	0.061	
23:30	2.24	0.64	0.042	0.062	
23:45	2.26	0.64	0.042	0.062	
Daily Totals:				**0.062**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/12/2018					
0:00	2.17	0.57	0.036	0.000	
0:15	2.17	0.59	0.037	0.001	
0:30	2.08	0.57	0.034	0.001	
0:45	2.09	0.55	0.032	0.001	
1:00	2.04	0.52	0.030	0.002	
1:15	2.00	0.49	0.027	0.002	
1:30	2.05	0.54	0.031	0.002	
1:45	2.08	0.55	0.032	0.003	
2:00	2.00	0.50	0.028	0.003	
2:15	1.99	0.53	0.029	0.003	
2:30	2.00	0.50	0.028	0.004	
2:45	1.98	0.49	0.027	0.004	
3:00	1.98	0.48	0.026	0.004	
3:15	1.97	0.48	0.026	0.004	
3:30	1.95	0.46	0.025	0.005	
3:45	1.97	0.48	0.026	0.005	
4:00	1.98	0.48	0.026	0.005	
4:15	2.00	0.49	0.027	0.005	
4:30	2.03	0.51	0.029	0.006	
4:45	2.08	0.56	0.033	0.006	
5:00	2.15	0.59	0.037	0.007	
5:15	2.07	0.55	0.032	0.007	
5:30	2.11	0.58	0.035	0.007	
5:45	2.13	0.59	0.036	0.008	
6:00	2.14	0.57	0.035	0.008	
6:15	2.25	0.61	0.041	0.008	
6:30	2.45	0.76	0.057	0.009	
6:45	2.54	0.77	0.060	0.010	
7:00	2.46	0.69	0.052	0.010	
7:15	2.58	0.80	0.064	0.011	
7:30	2.67	0.86	0.073	0.012	
7:45	2.61	0.82	0.067	0.012	
8:00	2.84	0.89	0.082	0.013	
8:15	2.83	0.88	0.080	0.014	
8:30	2.50	0.71	0.055	0.015	
8:45	2.49	0.73	0.056	0.015	
9:00	2.53	0.74	0.058	0.016	
9:15	2.54	0.77	0.060	0.016	
9:30	2.68	0.82	0.070	0.017	
9:45	2.67	0.82	0.069	0.018	
10:00	2.53	0.77	0.060	0.018	
10:15	2.55	0.74	0.058	0.019	
10:30	2.86	0.89	0.083	0.020	
10:45	2.89	0.90	0.085	0.021	
11:00	2.74	0.81	0.071	0.022	
11:15	2.68	0.78	0.066	0.022	
11:30	2.61	0.76	0.062	0.023	
11:45	2.73	0.84	0.074	0.024	
12:00	2.74	0.82	0.072	0.024	
12:15	2.76	0.83	0.073	0.025	
12:30	2.70	0.83	0.071	0.026	
12:45	2.71	0.80	0.069	0.027	
13:00	2.72	0.84	0.072	0.027	
13:15	2.57	0.72	0.058	0.028	
13:30	2.52	0.74	0.058	0.029	
13:45	2.66	0.81	0.068	0.029	
14:00	2.89	0.92	0.087	0.030	
14:15	2.81	0.88	0.080	0.031	
14:30	2.53	0.78	0.061	0.032	
14:45	2.61	0.78	0.063	0.032	
15:00	2.76	0.85	0.075	0.033	
15:15	2.95	0.98	0.096	0.034	
15:30	2.87	0.92	0.086	0.035	
15:45	2.68	0.83	0.071	0.036	
16:00	2.70	0.82	0.070	0.036	
16:15	2.52	0.73	0.057	0.037	
16:30	2.31	0.65	0.045	0.037	
16:45	2.47	0.68	0.051	0.038	
17:00	2.56	0.76	0.060	0.039	
17:15	2.59	0.81	0.066	0.039	
17:30	2.69	0.84	0.071	0.040	
17:45	2.60	0.80	0.065	0.041	
18:00	2.59	0.81	0.066	0.041	
18:15	2.48	0.73	0.055	0.042	
18:30	2.64	0.83	0.070	0.043	
18:45	2.87	0.92	0.086	0.044	
19:00	2.77	0.86	0.076	0.044	
19:15	2.79	0.87	0.078	0.045	
19:30	2.89	0.92	0.087	0.046	
19:45	2.71	0.86	0.074	0.047	
20:00	2.65	0.79	0.066	0.048	
20:15	2.80	0.87	0.079	0.048	
20:30	2.77	0.86	0.077	0.049	
20:45	2.65	0.79	0.066	0.050	
21:00	2.48	0.79	0.060	0.051	
21:15	2.64	0.82	0.068	0.051	
21:30	2.60	0.80	0.065	0.052	
21:45	2.55	0.78	0.062	0.053	
22:00	2.60	0.79	0.064	0.053	
22:15	2.45	0.71	0.053	0.054	
22:30	2.44	0.71	0.053	0.054	
22:45	2.42	0.71	0.052	0.055	
23:00	2.52	0.70	0.055	0.055	
23:15	2.43	0.64	0.047	0.056	
23:30	2.37	0.62	0.044	0.056	
23:45	2.32	0.62	0.043	0.057	
Daily Totals:				**0.057**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/13/2018					
0:00	2.24	0.59	0.038	0.000	
0:15	2.22	0.54	0.035	0.001	
0:30	2.18	0.53	0.034	0.001	
0:45	2.21	0.56	0.036	0.001	
1:00	2.26	0.59	0.039	0.002	
1:15	2.30	0.62	0.042	0.002	
1:30	2.26	0.58	0.039	0.003	
1:45	2.23	0.58	0.038	0.003	
2:00	2.32	0.62	0.043	0.004	
2:15	2.45	0.67	0.050	0.004	
2:30	2.43	0.68	0.050	0.005	
2:45	2.37	0.64	0.046	0.005	
3:00	2.42	0.67	0.049	0.006	
3:15	2.51	0.72	0.056	0.006	
3:30	2.56	0.74	0.059	0.007	
3:45	2.61	0.74	0.060	0.007	
4:00	2.63	0.80	0.066	0.008	
4:15	2.56	0.72	0.057	0.009	
4:30	2.56	0.73	0.058	0.009	
4:45	2.65	0.78	0.065	0.010	
5:00	2.80	0.89	0.081	0.011	
5:15	2.84	0.93	0.085	0.012	
5:30	2.97	0.97	0.095	0.013	
5:45	3.15	1.02	0.108	0.014	
6:00	3.28	1.13	0.127	0.015	
6:15	3.35	1.18	0.137	0.017	
6:30	3.24	1.18	0.130	0.018	
6:45	3.27	1.18	0.132	0.019	
7:00	3.28	1.16	0.131	0.021	
7:15	3.61	1.31	0.168	0.022	
7:30	3.81	1.33	0.184	0.024	
7:45	3.47	1.21	0.148	0.026	
8:00	3.49	1.21	0.149	0.027	
8:15	3.83	1.41	0.198	0.030	
8:30	4.08	1.41	0.215	0.032	
8:45	3.74	1.38	0.186	0.034	
9:00	3.61	1.35	0.174	0.036	
9:15	3.51	1.31	0.161	0.037	
9:30	3.62	1.32	0.171	0.039	
9:45	3.36	1.15	0.134	0.040	
10:00	3.16	1.10	0.117	0.042	
10:15	2.99	1.02	0.100	0.043	
10:30	2.90	0.97	0.092	0.044	
10:45	2.77	0.88	0.078	0.044	
11:00	2.73	0.90	0.079	0.045	
11:15	2.74	0.88	0.077	0.046	
11:30	2.78	0.94	0.084	0.047	
11:45	2.69	0.82	0.070	0.048	
12:00	2.64	0.82	0.067	0.048	
12:15	2.69	0.86	0.074	0.049	
12:30	2.79	0.92	0.082	0.050	
12:45	2.86	0.95	0.088	0.051	
13:00	2.75	0.92	0.081	0.052	
13:15	2.79	0.88	0.079	0.053	
13:30	2.80	0.96	0.087	0.053	
13:45	2.79	0.91	0.082	0.054	
14:00	3.10	1.02	0.106	0.055	
14:15	2.78	0.89	0.080	0.056	
14:30	2.76	0.88	0.078	0.057	
14:45	2.87	0.94	0.087	0.058	
15:00	2.77	0.88	0.078	0.059	
15:15	2.61	0.80	0.065	0.059	
15:30	2.71	0.89	0.077	0.060	
15:45	2.56	0.83	0.066	0.061	
16:00	2.46	0.72	0.054	0.061	
16:15	2.49	0.76	0.058	0.062	
16:30	2.44	0.77	0.057	0.063	
16:45	2.57	0.85	0.068	0.063	
17:00	2.66	0.83	0.069	0.064	
17:15	2.68	0.82	0.069	0.065	
17:30	2.63	0.85	0.070	0.066	
17:45	2.78	0.91	0.081	0.066	
18:00	2.80	0.89	0.081	0.067	
18:15	2.62	0.75	0.062	0.068	
18:30	2.71	0.83	0.072	0.069	
18:45	2.78	0.88	0.078	0.069	
19:00	2.48	0.84	0.064	0.070	
19:15	2.60	0.79	0.064	0.071	
19:30	2.57	0.77	0.061	0.071	
19:45	2.75	0.87	0.077	0.072	
20:00	2.78	0.84	0.075	0.073	
20:15	2.62	0.81	0.066	0.074	
20:30	2.59	0.76	0.061	0.074	
20:45	2.73	0.85	0.074	0.075	
21:00	2.70	0.80	0.068	0.076	
21:15	2.59	0.73	0.059	0.076	
21:30	2.57	0.80	0.063	0.077	
21:45	2.71	0.80	0.069	0.078	
22:00	2.64	0.75	0.062	0.078	
22:15	2.58	0.77	0.062	0.079	
22:30	2.47	0.69	0.052	0.080	
22:45	2.49	0.71	0.054	0.080	
23:00	2.43	0.70	0.052	0.081	
23:15	2.33	0.65	0.045	0.081	
23:30	2.33	0.60	0.041	0.082	
23:45	2.29	0.66	0.045	0.082	
Daily Totals:				**0.082**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/14/2018					
0:00	2.33	0.64	0.044	0.000	
0:15	2.37	0.63	0.045	0.001	
0:30	2.38	0.66	0.047	0.001	
0:45	2.37	0.62	0.044	0.002	
1:00	2.26	0.58	0.039	0.002	
1:15	2.20	0.57	0.036	0.003	
1:30	2.21	0.54	0.035	0.003	
1:45	2.18	0.55	0.034	0.003	
2:00	2.21	0.56	0.036	0.004	
2:15	2.19	0.54	0.034	0.004	
2:30	2.14	0.52	0.032	0.004	
2:45	2.03	0.47	0.027	0.005	
3:00	1.99	0.46	0.025	0.005	
3:15	2.00	0.48	0.027	0.005	
3:30	2.01	0.46	0.026	0.006	
3:45	1.98	0.48	0.026	0.006	
4:00	2.01	0.46	0.026	0.006	
4:15	2.00	0.46	0.026	0.006	
4:30	1.99	0.47	0.026	0.007	
4:45	2.03	0.46	0.026	0.007	
5:00	2.13	0.53	0.033	0.007	
5:15	2.11	0.53	0.032	0.008	
5:30	2.15	0.52	0.032	0.008	
5:45	2.18	0.56	0.036	0.008	
6:00	2.17	0.54	0.034	0.009	
6:15	2.26	0.54	0.036	0.009	
6:30	2.58	0.75	0.060	0.010	
6:45	2.54	0.72	0.056	0.010	
7:00	2.60	0.78	0.063	0.011	
7:15	2.62	0.79	0.065	0.012	
7:30	2.74	0.81	0.071	0.012	
7:45	2.82	0.84	0.077	0.013	
8:00	2.68	0.78	0.066	0.014	
8:15	2.59	0.75	0.061	0.014	
8:30	2.75	0.87	0.076	0.015	
8:45	2.78	0.88	0.078	0.016	
9:00	2.59	0.78	0.063	0.017	
9:15	2.58	0.77	0.062	0.017	
9:30	2.80	0.87	0.078	0.018	
9:45	2.85	0.95	0.088	0.019	
10:00	2.84	0.85	0.078	0.020	
10:15	2.60	0.75	0.061	0.020	
10:30	2.44	0.74	0.055	0.021	
10:45	2.41	0.70	0.051	0.022	
11:00	2.41	0.63	0.046	0.022	
11:15	2.56	0.79	0.063	0.023	
11:30	2.51	0.69	0.053	0.023	
11:45	2.56	0.72	0.057	0.024	
12:00	2.63	0.78	0.064	0.025	
12:15	2.55	0.73	0.058	0.025	
12:30	2.57	0.78	0.062	0.026	
12:45	2.72	0.85	0.074	0.027	
13:00	2.60	0.76	0.062	0.027	
13:15	2.64	0.81	0.067	0.028	
13:30	2.55	0.74	0.058	0.028	
13:45	2.54	0.75	0.059	0.029	
14:00	2.48	0.73	0.056	0.030	
14:15	2.75	0.89	0.078	0.030	
14:30	2.70	0.83	0.071	0.031	
14:45	2.46	0.70	0.052	0.032	
15:00	2.55	0.78	0.062	0.032	
15:15	2.49	0.71	0.054	0.033	
15:30	2.45	0.64	0.048	0.033	
15:45	2.41	0.73	0.053	0.034	
16:00	2.67	0.86	0.073	0.035	
16:15	2.62	0.77	0.063	0.035	
16:30	2.62	0.78	0.064	0.036	
16:45	2.59	0.78	0.063	0.037	
17:00	2.59	0.78	0.063	0.037	
17:15	2.69	0.84	0.071	0.038	
17:30	2.62	0.80	0.065	0.039	
17:45	2.73	0.86	0.075	0.040	
18:00	2.86	0.93	0.087	0.041	
18:15	2.80	0.86	0.077	0.041	
18:30	2.70	0.81	0.070	0.042	
18:45	2.66	0.81	0.068	0.043	
19:00	2.75	0.83	0.073	0.044	
19:15	2.78	0.80	0.072	0.044	
19:30	2.80	0.81	0.073	0.045	
19:45	2.72	0.80	0.070	0.046	
20:00	2.75	0.82	0.072	0.046	
20:15	2.83	0.81	0.075	0.047	
20:30	2.61	0.74	0.060	0.048	
20:45	2.52	0.70	0.054	0.048	
21:00	2.57	0.72	0.058	0.049	
21:15	2.67	0.76	0.064	0.050	
21:30	2.72	0.80	0.069	0.050	
21:45	2.67	0.76	0.064	0.051	
22:00	2.64	0.77	0.064	0.052	
22:15	2.58	0.77	0.062	0.052	
22:30	2.51	0.72	0.055	0.053	
22:45	2.56	0.73	0.058	0.054	
23:00	2.58	0.81	0.065	0.054	
23:15	2.46	0.74	0.055	0.055	
23:30	2.41	0.68	0.049	0.055	
23:45	2.26	0.62	0.041	0.056	
Daily Totals:				**0.056**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/15/2018					
0:00	2.20	0.59	0.038	0.000	
0:15	2.21	0.60	0.039	0.001	
0:30	2.19	0.61	0.039	0.001	
0:45	2.19	0.56	0.035	0.002	
1:00	2.23	0.58	0.038	0.002	
1:15	2.18	0.63	0.040	0.002	
1:30	2.09	0.53	0.032	0.003	
1:45	1.99	0.48	0.027	0.003	
2:00	2.00	0.45	0.025	0.003	
2:15	2.02	0.49	0.028	0.004	
2:30	1.94	0.42	0.022	0.004	
2:45	1.95	0.46	0.024	0.004	
3:00	1.94	0.46	0.025	0.004	
3:15	1.92	0.41	0.021	0.004	
3:30	1.91	0.47	0.025	0.005	
3:45	1.92	0.42	0.022	0.005	
4:00	1.92	0.44	0.023	0.005	
4:15	1.93	0.43	0.023	0.005	
4:30	1.93	0.42	0.022	0.006	
4:45	2.00	0.45	0.025	0.006	
5:00	2.03	0.47	0.027	0.006	
5:15	2.15	0.61	0.038	0.007	
5:30	2.16	0.54	0.034	0.007	
5:45	2.08	0.48	0.028	0.007	
6:00	2.20	0.53	0.034	0.008	
6:15	2.27	0.54	0.036	0.008	
6:30	2.59	0.76	0.062	0.009	
6:45	2.58	0.79	0.063	0.009	
7:00	2.53	0.73	0.057	0.010	
7:15	2.79	0.88	0.079	0.011	
7:30	2.73	0.79	0.069	0.011	
7:45	2.64	0.77	0.064	0.012	
8:00	2.57	0.72	0.057	0.013	
8:15	2.63	0.74	0.061	0.013	
8:30	2.58	0.73	0.058	0.014	
8:45	2.72	0.81	0.070	0.015	
9:00	2.70	0.81	0.069	0.015	
9:15	2.68	0.77	0.065	0.016	
9:30	2.52	0.68	0.052	0.017	
9:45	2.51	0.76	0.059	0.017	
10:00	2.76	0.80	0.071	0.018	
10:15	2.79	0.83	0.075	0.019	
10:30	2.66	0.79	0.066	0.019	
10:45	2.67	0.78	0.066	0.020	
11:00	2.53	0.73	0.057	0.021	
11:15	2.39	0.66	0.047	0.021	
11:30	2.56	0.72	0.057	0.022	
11:45	2.56	0.73	0.058	0.022	
12:00	2.73	0.81	0.071	0.023	
12:15	2.56	0.69	0.055	0.024	
12:30	2.56	0.67	0.053	0.024	
12:45	2.64	0.74	0.061	0.025	
13:00	2.54	0.67	0.053	0.025	
13:15	2.85	0.81	0.075	0.026	
13:30	2.70	0.76	0.065	0.027	
13:45	2.64	0.72	0.060	0.028	
14:00	2.77	0.79	0.070	0.028	
14:15	2.61	0.70	0.057	0.029	
14:30	2.63	0.71	0.059	0.029	
14:45	2.69	0.76	0.065	0.030	
15:00	2.56	0.74	0.059	0.031	
15:15	2.47	0.69	0.052	0.031	
15:30	2.52	0.75	0.058	0.032	
15:45	2.60	0.76	0.061	0.033	
16:00	2.72	0.85	0.073	0.033	
16:15	2.51	0.71	0.055	0.034	
16:30	2.49	0.73	0.056	0.034	
16:45	2.56	0.75	0.059	0.035	
17:00	2.53	0.72	0.057	0.036	
17:15	2.57	0.73	0.058	0.036	
17:30	2.54	0.76	0.059	0.037	
17:45	2.63	0.76	0.063	0.038	
18:00	2.61	0.76	0.062	0.038	
18:15	2.60	0.79	0.064	0.039	
18:30	2.77	0.87	0.077	0.040	
18:45	2.80	0.86	0.077	0.040	
19:00	2.84	0.89	0.082	0.041	
19:15	2.88	0.90	0.085	0.042	
19:30	2.82	0.88	0.081	0.043	
19:45	2.88	0.91	0.085	0.044	
20:00	2.69	0.81	0.069	0.045	
20:15	2.58	0.73	0.059	0.045	
20:30	2.68	0.81	0.069	0.046	
20:45	2.59	0.76	0.061	0.047	
21:00	2.72	0.80	0.070	0.047	
21:15	2.66	0.78	0.065	0.048	
21:30	2.73	0.88	0.077	0.049	
21:45	2.66	0.83	0.069	0.050	
22:00	2.73	0.83	0.072	0.050	
22:15	2.54	0.74	0.058	0.051	
22:30	2.53	0.73	0.057	0.051	
22:45	2.41	0.68	0.049	0.052	
23:00	2.39	0.61	0.044	0.052	
23:15	2.45	0.68	0.051	0.053	
23:30	2.56	0.75	0.059	0.054	
23:45	2.49	0.72	0.055	0.054	
Daily Totals:				**0.054**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/16/2018					
0:00	2.41	0.70	0.051	0.001	
0:15	2.28	0.63	0.043	0.001	
0:30	2.27	0.61	0.040	0.001	
0:45	2.25	0.61	0.040	0.002	
1:00	2.27	0.62	0.042	0.002	
1:15	2.27	0.65	0.043	0.003	
1:30	2.30	0.66	0.045	0.003	
1:45	2.37	0.66	0.047	0.004	
2:00	2.41	0.70	0.051	0.004	
2:15	2.36	0.66	0.047	0.005	
2:30	2.36	0.66	0.047	0.005	
2:45	2.38	0.68	0.048	0.006	
3:00	2.45	0.70	0.052	0.006	
3:15	2.51	0.71	0.055	0.007	
3:30	2.55	0.72	0.057	0.007	
3:45	2.76	0.75	0.066	0.008	
4:00	3.44	1.06	0.129	0.009	
4:15	3.31	1.00	0.114	0.011	
4:30	3.54	1.11	0.139	0.012	
4:45	3.59	1.16	0.148	0.014	
5:00	3.75	1.23	0.166	0.015	
5:15	3.91	1.27	0.182	0.017	
5:30	4.06	1.29	0.195	0.019	
5:45	4.26	1.30	0.211	0.021	
6:00	4.36	1.30	0.216	0.024	
6:15	4.41	1.37	0.232	0.026	
6:30	4.49	1.35	0.235	0.029	
6:45	4.48	1.44	0.248	0.031	
7:00	4.44	1.44	0.246	0.034	
7:15	4.33	1.40	0.231	0.036	
7:30	4.22	1.38	0.220	0.038	
7:45	3.99	1.30	0.192	0.040	
8:00	3.80	1.26	0.174	0.042	
8:15	3.48	1.21	0.147	0.044	
8:30	3.29	1.11	0.126	0.045	
8:45	3.07	1.04	0.106	0.046	
9:00	3.01	1.00	0.099	0.047	
9:15	3.18	1.09	0.118	0.048	
9:30	3.05	0.99	0.101	0.049	
9:45	3.13	1.07	0.113	0.051	
10:00	2.95	0.96	0.093	0.052	
10:15	2.84	0.92	0.085	0.053	
10:30	2.87	0.94	0.088	0.053	
10:45	2.74	0.90	0.078	0.054	
11:00	2.86	0.93	0.087	0.055	
11:15	2.96	1.02	0.099	0.056	
11:30	2.98	1.00	0.098	0.057	
11:45	2.90	0.96	0.091	0.058	
12:00	3.00	0.99	0.098	0.059	
12:15	3.13	1.08	0.114	0.060	
12:30	3.11	1.04	0.109	0.061	
12:45	2.99	0.98	0.097	0.063	
13:00	2.93	0.96	0.093	0.063	
13:15	2.99	0.98	0.097	0.064	
13:30	3.00	0.99	0.098	0.065	
13:45	2.97	0.99	0.097	0.067	
14:00	2.98	0.96	0.094	0.067	
14:15	2.98	0.96	0.095	0.068	
14:30	3.10	1.05	0.109	0.070	
14:45	2.87	0.93	0.087	0.071	
15:00	2.86	0.93	0.086	0.071	
15:15	2.93	0.92	0.088	0.072	
15:30	2.79	0.90	0.080	0.073	
15:45	2.70	0.87	0.075	0.074	
16:00	2.73	0.86	0.075	0.075	
16:15	2.86	0.95	0.088	0.076	
16:30	2.94	0.95	0.092	0.077	
16:45	3.01	0.97	0.096	0.078	
17:00	2.91	0.97	0.093	0.079	
17:15	3.05	0.99	0.101	0.080	
17:30	2.84	0.90	0.083	0.080	
17:45	2.70	0.85	0.073	0.081	
18:00	2.72	0.87	0.075	0.082	
18:15	2.80	1.00	0.090	0.083	
18:30	2.97	0.99	0.097	0.084	
18:45	3.07	1.02	0.104	0.085	
19:00	2.97	0.98	0.096	0.086	
19:15	2.85	0.91	0.085	0.087	
19:30	2.74	0.83	0.073	0.088	
19:45	2.76	0.89	0.079	0.089	
20:00	2.76	0.85	0.075	0.089	
20:15	2.84	0.88	0.081	0.090	
20:30	2.91	0.92	0.088	0.091	
20:45	2.97	0.93	0.091	0.092	
21:00	2.62	0.79	0.065	0.093	
21:15	2.62	0.90	0.075	0.093	
21:30	2.62	0.76	0.062	0.094	
21:45	2.63	0.78	0.064	0.095	
22:00	2.74	0.82	0.072	0.096	
22:15	2.62	0.83	0.068	0.096	
22:30	2.58	0.75	0.060	0.097	
22:45	2.54	0.73	0.057	0.097	
23:00	2.46	0.73	0.055	0.098	
23:15	2.50	0.71	0.055	0.099	
23:30	2.44	0.70	0.052	0.099	
23:45	2.41	0.67	0.049	0.100	
Daily Totals:				**0.100**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/17/2018					
0:00	2.44	0.63	0.047	0.000	
0:15	2.34	0.59	0.041	0.001	
0:30	2.38	0.65	0.047	0.001	
0:45	2.37	0.60	0.042	0.002	
1:00	2.32	0.58	0.040	0.002	
1:15	2.24	0.56	0.037	0.003	
1:30	2.21	0.60	0.039	0.003	
1:45	2.18	0.58	0.036	0.003	
2:00	2.18	0.60	0.038	0.004	
2:15	2.23	0.58	0.038	0.004	
2:30	2.22	0.59	0.038	0.005	
2:45	2.18	0.59	0.037	0.005	
3:00	2.14	0.57	0.035	0.005	
3:15	2.20	0.62	0.040	0.006	
3:30	2.19	0.60	0.038	0.006	
3:45	2.15	0.59	0.036	0.007	
4:00	2.14	0.54	0.033	0.007	
4:15	2.13	0.57	0.035	0.007	
4:30	2.17	0.58	0.036	0.008	
4:45	2.14	0.56	0.034	0.008	
5:00	2.14	0.57	0.035	0.008	
5:15	2.18	0.58	0.036	0.009	
5:30	2.17	0.58	0.036	0.009	
5:45	2.20	0.62	0.039	0.010	
6:00	2.22	0.63	0.041	0.010	
6:15	2.32	0.64	0.044	0.010	
6:30	2.31	0.65	0.044	0.011	
6:45	2.39	0.66	0.047	0.011	
7:00	2.53	0.75	0.059	0.012	
7:15	2.69	0.85	0.073	0.013	
7:30	2.58	0.78	0.063	0.013	
7:45	2.54	0.76	0.060	0.014	
8:00	2.45	0.78	0.058	0.015	
8:15	2.52	0.78	0.061	0.015	
8:30	2.70	0.86	0.074	0.016	
8:45	2.72	0.85	0.073	0.017	
9:00	2.69	0.92	0.078	0.018	
9:15	2.73	0.87	0.075	0.018	
9:30	2.83	0.91	0.083	0.019	
9:45	2.85	0.90	0.083	0.020	
10:00	2.80	0.87	0.078	0.021	
10:15	2.71	0.85	0.073	0.022	
10:30	2.84	0.93	0.085	0.023	
10:45	2.70	0.86	0.073	0.023	
11:00	2.75	0.86	0.076	0.024	
11:15	2.78	0.86	0.076	0.025	
11:30	2.72	0.84	0.073	0.026	
11:45	2.60	0.81	0.066	0.026	
12:00	2.55	0.77	0.061	0.027	
12:15	2.55	0.76	0.060	0.028	
12:30	2.52	0.74	0.057	0.028	
12:45	2.45	0.73	0.055	0.029	
13:00	2.35	0.63	0.044	0.029	
13:15	2.39	0.69	0.050	0.030	
13:30	2.55	0.78	0.062	0.030	
13:45	2.49	0.71	0.055	0.031	
14:00	2.44	0.76	0.056	0.032	
14:15	2.37	0.68	0.048	0.032	
14:30	2.53	0.78	0.061	0.033	
14:45	2.45	0.73	0.055	0.033	
15:00	2.33	0.64	0.044	0.034	
15:15	2.46	0.72	0.054	0.034	
15:30	2.56	0.75	0.059	0.035	
15:45	2.46	0.68	0.051	0.035	
16:00	2.34	0.66	0.046	0.036	
16:15	2.63	0.78	0.064	0.037	
16:30	2.51	0.74	0.058	0.037	
16:45	2.32	0.62	0.043	0.038	
17:00	2.58	0.81	0.065	0.038	
17:15	2.82	0.90	0.082	0.039	
17:30	2.66	0.82	0.069	0.040	
17:45	2.37	0.67	0.048	0.040	
18:00	2.45	0.71	0.053	0.041	
18:15	2.45	0.69	0.051	0.041	
18:30	2.34	0.62	0.044	0.042	
18:45	2.56	0.76	0.060	0.043	
19:00	2.47	0.69	0.052	0.043	
19:15	2.35	0.60	0.042	0.044	
19:30	2.28	0.61	0.041	0.044	
19:45	2.44	0.69	0.051	0.044	
20:00	2.48	0.70	0.053	0.045	
20:15	2.58	0.78	0.063	0.046	
20:30	2.47	0.69	0.052	0.046	
20:45	2.69	0.81	0.069	0.047	
21:00	2.32	0.63	0.043	0.047	
21:15	2.47	0.71	0.054	0.048	
21:30	2.67	0.85	0.072	0.049	
21:45	2.37	0.73	0.053	0.049	
22:00	2.32	0.64	0.044	0.050	
22:15	2.27	0.59	0.040	0.050	
22:30	2.38	0.66	0.047	0.051	
22:45	2.31	0.65	0.044	0.051	
23:00	2.30	0.63	0.043	0.052	
23:15	2.22	0.56	0.036	0.052	
23:30	2.20	0.59	0.038	0.052	
23:45	2.10	0.46	0.027	0.053	
Daily Totals:				**0.053**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/18/2018					
0:00	2.17	0.57	0.036	0.000	
0:15	2.15	0.55	0.034	0.001	
0:30	2.09	0.51	0.030	0.001	
0:45	2.02	0.56	0.032	0.001	
1:00	2.03	0.47	0.026	0.002	
1:15	2.03	0.49	0.028	0.002	
1:30	2.08	0.50	0.029	0.002	
1:45	2.01	0.48	0.027	0.003	
2:00	2.05	0.47	0.027	0.003	
2:15	1.94	0.44	0.023	0.003	
2:30	1.91	0.42	0.022	0.003	
2:45	1.83	0.40	0.020	0.003	
3:00	1.86	0.41	0.020	0.004	
3:15	1.86	0.40	0.020	0.004	
3:30	1.83	0.40	0.019	0.004	
3:45	1.82	0.37	0.018	0.004	
4:00	1.81	0.35	0.017	0.004	
4:15	1.82	0.37	0.018	0.005	
4:30	1.86	0.38	0.019	0.005	
4:45	1.85	0.38	0.019	0.005	
5:00	1.95	0.44	0.024	0.005	
5:15	1.96	0.44	0.024	0.006	
5:30	2.00	0.46	0.026	0.006	
5:45	2.07	0.47	0.027	0.006	
6:00	1.93	0.42	0.022	0.006	
6:15	1.86	0.41	0.021	0.007	
6:30	1.94	0.49	0.026	0.007	
6:45	2.00	0.44	0.024	0.007	
7:00	2.08	0.49	0.029	0.007	
7:15	2.08	0.51	0.030	0.008	
7:30	2.25	0.62	0.041	0.008	
7:45	2.36	0.68	0.048	0.009	
8:00	2.22	0.63	0.040	0.009	
8:15	2.44	0.68	0.050	0.010	
8:30	2.56	0.79	0.063	0.010	
8:45	2.96	0.95	0.092	0.011	
9:00	2.97	0.97	0.095	0.012	
9:15	2.75	0.86	0.075	0.013	
9:30	2.63	0.83	0.068	0.014	
9:45	2.67	0.76	0.064	0.014	
10:00	2.88	0.95	0.089	0.015	
10:15	3.02	1.00	0.100	0.016	
10:30	2.90	0.93	0.089	0.017	
10:45	2.66	0.82	0.069	0.018	
11:00	2.63	0.83	0.068	0.019	
11:15	2.48	0.70	0.053	0.019	
11:30	2.77	0.88	0.078	0.020	
11:45	2.70	0.81	0.069	0.021	
12:00	2.74	0.87	0.076	0.021	
12:15	2.64	0.81	0.067	0.022	
12:30	2.71	0.86	0.074	0.023	
12:45	2.43	0.69	0.051	0.023	
13:00	2.41	0.67	0.050	0.024	
13:15	2.47	0.74	0.056	0.025	
13:30	2.59	0.78	0.063	0.025	
13:45	2.63	0.82	0.068	0.026	
14:00	2.79	0.87	0.078	0.027	
14:15	2.83	0.90	0.082	0.028	
14:30	2.92	0.98	0.094	0.029	
14:45	2.79	0.92	0.082	0.029	
15:00	2.56	0.77	0.061	0.030	
15:15	2.52	0.77	0.059	0.031	
15:30	2.71	0.84	0.072	0.031	
15:45	2.44	0.72	0.053	0.032	
16:00	2.55	0.75	0.059	0.033	
16:15	2.60	0.78	0.063	0.033	
16:30	2.60	0.78	0.064	0.034	
16:45	2.46	0.74	0.056	0.035	
17:00	2.57	0.73	0.058	0.035	
17:15	2.56	0.74	0.059	0.036	
17:30	2.52	0.73	0.057	0.036	
17:45	2.72	0.88	0.076	0.037	
18:00	2.66	0.82	0.069	0.038	
18:15	2.54	0.75	0.058	0.038	
18:30	2.60	0.80	0.064	0.039	
18:45	2.70	0.83	0.072	0.040	
19:00	2.86	0.92	0.086	0.041	
19:15	2.81	0.90	0.082	0.042	
19:30	2.56	0.77	0.061	0.042	
19:45	2.55	0.78	0.061	0.043	
20:00	2.58	0.81	0.065	0.044	
20:15	2.58	0.75	0.060	0.044	
20:30	2.63	0.77	0.064	0.045	
20:45	2.72	0.79	0.068	0.046	
21:00	2.54	0.69	0.054	0.046	
21:15	2.46	0.70	0.052	0.047	
21:30	2.42	0.65	0.048	0.047	
21:45	2.44	0.71	0.053	0.048	
22:00	2.31	0.62	0.042	0.048	
22:15	2.31	0.60	0.041	0.049	
22:30	2.48	0.69	0.053	0.049	
22:45	2.49	0.68	0.052	0.050	
23:00	2.32	0.58	0.040	0.050	
23:15	2.26	0.60	0.040	0.051	
23:30	2.26	0.60	0.040	0.051	
23:45	2.07	0.47	0.028	0.051	
Daily Totals:				**0.051**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/19/2018					
0:00	1.99	0.48	0.026	0.000	
0:15	2.01	0.42	0.024	0.001	
0:30	1.96	0.43	0.024	0.001	
0:45	2.02	0.49	0.028	0.001	
1:00	2.06	0.46	0.027	0.001	
1:15	2.07	0.44	0.026	0.002	
1:30	1.94	0.40	0.021	0.002	
1:45	1.99	0.41	0.023	0.002	
2:00	1.97	0.42	0.023	0.002	
2:15	1.96	0.40	0.021	0.003	
2:30	1.91	0.40	0.021	0.003	
2:45	1.80	0.35	0.017	0.003	
3:00	1.81	0.41	0.020	0.003	
3:15	1.79	0.34	0.016	0.003	
3:30	1.84	0.39	0.019	0.003	
3:45	1.81	0.35	0.017	0.004	
4:00	1.84	0.36	0.018	0.004	
4:15	1.87	0.37	0.019	0.004	
4:30	1.87	0.37	0.019	0.004	
4:45	1.91	0.38	0.020	0.004	
5:00	1.91	0.37	0.019	0.005	
5:15	1.89	0.36	0.019	0.005	
5:30	1.97	0.42	0.023	0.005	
5:45	2.17	0.51	0.033	0.005	
6:00	2.17	0.50	0.031	0.006	
6:15	2.22	0.50	0.033	0.006	
6:30	2.48	0.70	0.053	0.007	
6:45	2.54	0.67	0.053	0.007	
7:00	2.52	0.69	0.053	0.008	
7:15	2.63	0.71	0.059	0.008	
7:30	2.67	0.73	0.062	0.009	
7:45	2.82	0.84	0.077	0.010	
8:00	2.69	0.74	0.063	0.010	
8:15	2.75	0.80	0.070	0.011	
8:30	2.68	0.77	0.066	0.012	
8:45	3.35	1.08	0.125	0.013	
9:00	3.45	1.17	0.141	0.015	
9:15	3.20	1.05	0.115	0.016	
9:30	2.80	0.89	0.081	0.017	
9:45	3.01	1.00	0.100	0.018	
10:00	2.83	0.91	0.083	0.019	
10:15	2.95	0.99	0.096	0.020	
10:30	3.06	1.01	0.103	0.021	
10:45	2.92	0.94	0.090	0.022	
11:00	2.86	0.96	0.089	0.023	
11:15	2.84	0.90	0.083	0.023	
11:30	2.88	0.97	0.091	0.024	
11:45	2.83	0.90	0.082	0.025	
12:00	2.76	0.87	0.077	0.026	
12:15	2.78	0.86	0.077	0.027	
12:30	2.73	0.87	0.075	0.028	
12:45	2.86	0.91	0.084	0.028	
13:00	2.84	0.93	0.085	0.029	
13:15	2.77	0.89	0.079	0.030	
13:30	2.76	0.89	0.078	0.031	
13:45	2.60	0.78	0.063	0.032	
14:00	2.62	0.81	0.066	0.032	
14:15	2.72	0.90	0.078	0.033	
14:30	2.69	0.86	0.073	0.034	
14:45	2.78	0.88	0.078	0.035	
15:00	2.80	0.90	0.081	0.036	
15:15	2.78	0.88	0.079	0.036	
15:30	2.69	0.85	0.073	0.037	
15:45	2.53	0.76	0.060	0.038	
16:00	2.86	0.93	0.086	0.039	
16:15	2.85	0.94	0.087	0.040	
16:30	2.76	0.89	0.078	0.040	
16:45	2.84	0.96	0.088	0.041	
17:00	2.87	0.92	0.086	0.042	
17:15	2.78	0.89	0.079	0.043	
17:30	2.83	0.92	0.084	0.044	
17:45	2.95	0.96	0.093	0.045	
18:00	2.77	0.88	0.079	0.046	
18:15	2.77	0.86	0.077	0.046	
18:30	2.85	0.92	0.085	0.047	
18:45	2.89	0.92	0.087	0.048	
19:00	2.76	0.87	0.077	0.049	
19:15	2.81	0.87	0.079	0.050	
19:30	2.87	0.89	0.083	0.051	
19:45	2.81	0.86	0.078	0.052	
20:00	2.94	0.92	0.089	0.052	
20:15	3.03	0.95	0.096	0.053	
20:30	2.89	0.90	0.084	0.054	
20:45	2.89	0.89	0.084	0.055	
21:00	2.88	0.92	0.086	0.056	
21:15	2.98	0.99	0.097	0.057	
21:30	2.76	0.86	0.075	0.058	
21:45	2.72	0.85	0.073	0.059	
22:00	2.69	0.83	0.071	0.059	
22:15	2.65	0.79	0.066	0.060	
22:30	2.61	0.81	0.066	0.061	
22:45	2.52	0.81	0.062	0.061	
23:00	2.43	0.68	0.050	0.062	
23:15	2.44	0.66	0.049	0.062	
23:30	2.42	0.69	0.050	0.063	
23:45	2.36	0.62	0.044	0.063	
Daily Totals:				**0.063**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/20/2018					
0:00	2.41	0.69	0.050	0.001	
0:15	2.37	0.65	0.046	0.001	
0:30	2.36	0.65	0.046	0.001	
0:45	2.40	0.67	0.048	0.002	
1:00	2.33	0.64	0.044	0.002	
1:15	2.31	0.64	0.044	0.003	
1:30	2.33	0.62	0.043	0.003	
1:45	2.32	0.59	0.040	0.004	
2:00	2.26	0.58	0.038	0.004	
2:15	2.18	0.56	0.035	0.005	
2:30	2.18	0.59	0.037	0.005	
2:45	2.17	0.56	0.035	0.005	
3:00	2.15	0.60	0.037	0.006	
3:15	2.14	0.55	0.033	0.006	
3:30	2.19	0.55	0.035	0.006	
3:45	2.13	0.52	0.032	0.007	
4:00	2.11	0.49	0.029	0.007	
4:15	2.11	0.51	0.031	0.007	
4:30	2.09	0.52	0.031	0.008	
4:45	2.13	0.53	0.032	0.008	
5:00	2.14	0.54	0.033	0.008	
5:15	2.17	0.56	0.035	0.009	
5:30	2.25	0.59	0.039	0.009	
5:45	2.22	0.57	0.037	0.009	
6:00	2.25	0.59	0.039	0.010	
6:15	2.26	0.58	0.039	0.010	
6:30	2.23	0.54	0.035	0.011	
6:45	2.51	0.67	0.053	0.011	
7:00	2.74	0.80	0.070	0.012	
7:15	2.84	0.89	0.082	0.013	
7:30	2.99	0.99	0.098	0.014	
7:45	2.93	0.90	0.086	0.015	
8:00	2.83	0.90	0.082	0.016	
8:15	2.78	0.89	0.080	0.016	
8:30	2.74	0.84	0.073	0.017	
8:45	2.80	0.87	0.078	0.018	
9:00	3.20	1.00	0.109	0.019	
9:15	3.10	0.96	0.100	0.020	
9:30	2.92	0.92	0.089	0.021	
9:45	3.16	1.04	0.111	0.022	
10:00	3.12	1.00	0.105	0.023	
10:15	2.69	0.85	0.072	0.024	
10:30	2.72	0.82	0.071	0.025	
10:45	2.92	0.93	0.089	0.026	
11:00	3.01	0.97	0.097	0.027	
11:15	2.71	0.79	0.069	0.027	
11:30	2.63	0.83	0.069	0.028	
11:45	2.57	0.72	0.057	0.029	
12:00	2.49	0.72	0.055	0.029	
12:15	2.55	0.76	0.060	0.030	
12:30	2.68	0.81	0.068	0.031	
12:45	2.74	0.84	0.073	0.031	
13:00	2.71	0.80	0.069	0.032	
13:15	2.75	0.89	0.078	0.033	
13:30	2.74	0.84	0.074	0.034	
13:45	2.80	0.87	0.078	0.035	
14:00	2.82	0.88	0.080	0.035	
14:15	2.92	0.93	0.089	0.036	
14:30	2.86	0.88	0.081	0.037	
14:45	2.83	0.86	0.079	0.038	
15:00	2.82	0.89	0.081	0.039	
15:15	2.87	0.89	0.083	0.040	
15:30	2.46	0.68	0.052	0.040	
15:45	2.53	0.78	0.062	0.041	
16:00	2.40	0.66	0.048	0.041	
16:15	2.23	0.58	0.038	0.042	
16:30	2.17	0.57	0.036	0.042	
16:45	2.31	0.66	0.045	0.043	
17:00	2.54	0.80	0.063	0.043	
17:15	2.54	0.73	0.057	0.044	
17:30	2.58	0.75	0.060	0.044	
17:45	2.55	0.78	0.062	0.045	
18:00	2.50	0.72	0.055	0.046	
18:15	2.61	0.79	0.065	0.046	
18:30	2.55	0.73	0.058	0.047	
18:45	2.46	0.69	0.052	0.048	
19:00	2.41	0.63	0.046	0.048	
19:15	2.55	0.71	0.057	0.049	
19:30	2.63	0.72	0.059	0.049	
19:45	2.68	0.85	0.072	0.050	
20:00	2.55	0.74	0.058	0.051	
20:15	2.63	0.80	0.066	0.051	
20:30	2.78	0.84	0.075	0.052	
20:45	2.95	0.92	0.090	0.053	
21:00	2.56	0.74	0.059	0.054	
21:15	2.51	0.70	0.054	0.054	
21:30	2.53	0.74	0.058	0.055	
21:45	2.55	0.71	0.056	0.055	
22:00	2.46	0.72	0.054	0.056	
22:15	2.41	0.66	0.048	0.056	
22:30	2.39	0.59	0.043	0.057	
22:45	2.40	0.63	0.045	0.057	
23:00	2.37	0.62	0.044	0.058	
23:15	2.37	0.71	0.051	0.058	
23:30	2.30	0.56	0.039	0.059	
23:45	2.22	0.55	0.036	0.059	
Daily Totals:				**0.059**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/21/2018					
0:00	2.11	0.45	0.027	0.000	
0:15	2.04	0.43	0.025	0.001	
0:30	1.99	0.37	0.020	0.001	
0:45	2.01	0.41	0.023	0.001	
1:00	2.02	0.41	0.023	0.001	
1:15	1.94	0.42	0.022	0.001	
1:30	2.01	0.42	0.024	0.002	
1:45	2.05	0.40	0.023	0.002	
2:00	2.04	0.39	0.023	0.002	
2:15	1.92	0.33	0.018	0.002	
2:30	1.96	0.37	0.020	0.003	
2:45	1.94	0.46	0.024	0.003	
3:00	1.85	0.34	0.017	0.003	
3:15	1.79	0.29	0.014	0.003	
3:30	1.80	0.32	0.015	0.003	
3:45	1.85	0.34	0.017	0.003	
4:00	1.95	0.39	0.021	0.004	
4:15	1.92	0.33	0.017	0.004	
4:30	1.86	0.32	0.016	0.004	
4:45	1.87	0.34	0.017	0.004	
5:00	1.87	0.33	0.017	0.004	
5:15	1.94	0.37	0.019	0.005	
5:30	1.92	0.37	0.019	0.005	
5:45	2.06	0.42	0.024	0.005	
6:00	2.23	0.50	0.033	0.005	
6:15	2.17	0.49	0.031	0.006	
6:30	2.36	0.60	0.043	0.006	
6:45	2.53	0.66	0.051	0.007	
7:00	3.35	1.13	0.131	0.008	
7:15	3.19	1.05	0.114	0.009	
7:30	3.02	1.01	0.102	0.010	
7:45	3.05	1.01	0.103	0.011	
8:00	3.05	0.96	0.098	0.012	
8:15	2.97	0.95	0.093	0.013	
8:30	3.04	0.94	0.096	0.014	
8:45	2.92	0.92	0.088	0.015	
9:00	2.94	0.92	0.089	0.016	
9:15	2.96	0.96	0.094	0.017	
9:30	2.89	0.91	0.085	0.018	
9:45	2.97	0.95	0.093	0.019	
10:00	3.01	0.96	0.096	0.020	
10:15	3.04	0.94	0.096	0.021	
10:30	2.74	0.84	0.073	0.022	
10:45	2.57	0.80	0.064	0.022	
11:00	2.51	0.73	0.056	0.023	
11:15	2.71	0.86	0.075	0.024	
11:30	2.66	0.79	0.066	0.025	
11:45	2.70	0.84	0.072	0.025	
12:00	2.82	0.89	0.081	0.026	
12:15	2.85	0.89	0.082	0.027	
12:30	2.82	0.89	0.081	0.028	
12:45	2.83	0.90	0.082	0.029	
13:00	2.69	0.83	0.071	0.029	
13:15	2.73	0.86	0.074	0.030	
13:30	2.88	0.90	0.085	0.031	
13:45	2.78	0.87	0.077	0.032	
14:00	2.70	0.85	0.073	0.033	
14:15	2.93	0.94	0.090	0.034	
14:30	2.97	0.98	0.096	0.035	
14:45	2.89	0.90	0.085	0.035	
15:00	2.87	0.92	0.086	0.036	
15:15	2.96	0.92	0.089	0.037	
15:30	3.05	0.95	0.100	0.038	
15:45	2.85	0.91	0.084	0.039	
16:00	2.75	0.87	0.076	0.040	
16:15	2.71	0.83	0.072	0.041	
16:30	2.68	0.83	0.070	0.041	
16:45	2.66	0.82	0.068	0.042	
17:00	2.63	0.79	0.065	0.043	
17:15	2.72	0.86	0.074	0.044	
17:30	2.82	0.89	0.081	0.044	
17:45	2.67	0.84	0.071	0.045	
18:00	2.70	0.84	0.072	0.046	
18:15	2.79	0.90	0.081	0.047	
18:30	2.84	0.92	0.085	0.048	
18:45	2.89	0.95	0.090	0.049	
19:00	2.87	0.90	0.084	0.049	
19:15	2.90	0.94	0.089	0.050	
19:30	2.86	0.89	0.083	0.051	
19:45	2.61	0.78	0.064	0.052	
20:00	2.75	0.85	0.075	0.053	
20:15	2.60	0.78	0.063	0.053	
20:30	2.53	0.76	0.059	0.054	
20:45	2.54	0.76	0.060	0.055	
21:00	2.51	0.78	0.060	0.055	
21:15	2.47	0.70	0.053	0.056	
21:30	2.50	0.72	0.055	0.056	
21:45	2.43	0.66	0.049	0.057	
22:00	2.48	0.72	0.054	0.057	
22:15	2.54	0.76	0.060	0.058	
22:30	2.49	0.71	0.054	0.059	
22:45	2.49	0.75	0.057	0.059	
23:00	2.39	0.69	0.049	0.060	
23:15	2.36	0.64	0.045	0.060	
23:30	2.41	0.65	0.047	0.061	
23:45	2.41	0.64	0.047	0.061	
Daily Totals:				**0.061**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/22/2018					
0:00	2.39	0.66	0.047	0.000	
0:15	2.38	0.64	0.045	0.001	
0:30	2.26	0.60	0.040	0.001	
0:45	2.26	0.59	0.039	0.002	
1:00	2.22	0.66	0.043	0.002	
1:15	2.20	0.58	0.037	0.003	
1:30	2.20	0.58	0.037	0.003	
1:45	2.20	0.60	0.038	0.003	
2:00	2.14	0.54	0.033	0.004	
2:15	2.13	0.51	0.031	0.004	
2:30	2.15	0.53	0.033	0.004	
2:45	2.16	0.55	0.034	0.005	
3:00	2.14	0.53	0.032	0.005	
3:15	2.14	0.53	0.033	0.005	
3:30	2.16	0.52	0.032	0.006	
3:45	2.09	0.50	0.030	0.006	
4:00	2.12	0.51	0.031	0.006	
4:15	2.15	0.54	0.033	0.007	
4:30	2.09	0.49	0.029	0.007	
4:45	2.10	0.53	0.032	0.007	
5:00	2.11	0.50	0.030	0.008	
5:15	2.16	0.55	0.034	0.008	
5:30	2.33	0.65	0.045	0.009	
5:45	2.24	0.57	0.037	0.009	
6:00	2.16	0.50	0.031	0.009	
6:15	2.17	0.53	0.033	0.010	
6:30	2.24	0.60	0.039	0.010	
6:45	2.32	0.56	0.038	0.010	
7:00	2.42	0.63	0.046	0.011	
7:15	2.67	0.68	0.057	0.011	
7:30	2.82	0.74	0.068	0.012	
7:45	2.80	0.60	0.054	0.013	
8:00	2.90	0.66	0.062	0.013	
8:15	2.89	0.66	0.062	0.014	
8:30	3.00	0.76	0.075	0.015	
8:45	3.01	0.73	0.073	0.016	
9:00	3.05	0.76	0.077	0.016	
9:15	3.05	0.77	0.078	0.017	
9:30	3.16	0.81	0.087	0.018	
9:45	3.22	0.86	0.094	0.019	
10:00	3.10	0.75	0.079	0.020	
10:15	2.99	0.74	0.073	0.021	
10:30	3.16	0.83	0.089	0.022	
10:45	3.20	0.81	0.088	0.022	
11:00	3.20	0.82	0.089	0.023	
11:15	3.30	0.86	0.097	0.024	
11:30	3.22	0.81	0.089	0.025	
11:45	3.29	0.89	0.101	0.026	
12:00	3.46	1.00	0.121	0.028	
12:15	3.12	0.80	0.084	0.029	
12:30	3.21	0.87	0.095	0.030	
12:45	3.22	0.90	0.098	0.031	
13:00	2.93	0.72	0.069	0.031	
13:15	3.04	0.84	0.085	0.032	
13:30	3.07	0.84	0.086	0.033	
13:45	3.02	0.78	0.078	0.034	
14:00	3.13	0.88	0.093	0.035	
14:15	3.17	0.84	0.090	0.036	
14:30	3.02	0.75	0.075	0.037	
14:45	3.10	0.81	0.084	0.037	
15:00	3.12	0.81	0.085	0.038	
15:15	3.07	0.78	0.080	0.039	
15:30	2.98	0.73	0.072	0.040	
15:45	2.91	0.68	0.064	0.041	
16:00	2.97	0.72	0.070	0.041	
16:15	2.91	0.69	0.066	0.042	
16:30	2.81	0.63	0.057	0.043	
16:45	2.84	0.66	0.060	0.043	
17:00	2.84	0.68	0.062	0.044	
17:15	2.94	0.71	0.069	0.045	
17:30	3.10	0.74	0.075	0.045	
17:45	3.20	0.57	0.063	0.046	
18:00	2.94	0.68	0.065	0.047	
18:15	2.58	0.71	0.057	0.047	
18:30	2.71	0.76	0.066	0.048	
18:45	2.79	0.74	0.066	0.049	
19:00	2.71	0.66	0.056	0.049	
19:15	2.67	0.66	0.055	0.050	
19:30	2.77	0.74	0.065	0.050	
19:45	2.63	0.61	0.051	0.051	
20:00	2.64	0.64	0.053	0.052	
20:15	2.62	0.61	0.050	0.052	
20:30	2.65	0.62	0.052	0.053	
20:45	2.71	0.65	0.056	0.053	
21:00	2.66	0.64	0.054	0.054	
21:15	2.70	0.63	0.054	0.054	
21:30	2.74	0.68	0.060	0.055	
21:45	2.65	0.65	0.054	0.056	
22:00	2.61	0.59	0.048	0.056	
22:15	2.71	0.62	0.053	0.057	
22:30	2.75	0.61	0.054	0.057	
22:45	2.81	0.63	0.057	0.058	
23:00	2.65	0.59	0.049	0.058	
23:15	2.55	0.57	0.045	0.059	
23:30	2.58	0.56	0.045	0.059	
23:45	2.69	0.59	0.051	0.060	
Daily Totals:				**0.060**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/23/2018					
0:00	2.56	0.58	0.046	0.000	
0:15	2.40	0.48	0.035	0.001	
0:30	2.31	0.50	0.034	0.001	
0:45	2.28	0.45	0.030	0.002	
1:00	2.31	0.47	0.032	0.002	
1:15	2.24	0.44	0.029	0.002	
1:30	2.26	0.42	0.028	0.002	
1:45	2.28	0.45	0.030	0.003	
2:00	2.27	0.45	0.030	0.003	
2:15	2.28	0.45	0.030	0.003	
2:30	2.26	0.43	0.029	0.004	
2:45	2.24	0.46	0.030	0.004	
3:00	2.21	0.45	0.029	0.004	
3:15	2.20	0.47	0.030	0.005	
3:30	2.25	0.46	0.030	0.005	
3:45	2.16	0.43	0.027	0.005	
4:00	2.16	0.41	0.026	0.005	
4:15	2.16	0.41	0.025	0.006	
4:30	2.18	0.43	0.027	0.006	
4:45	2.15	0.43	0.027	0.006	
5:00	2.21	0.44	0.028	0.007	
5:15	2.42	0.51	0.037	0.007	
5:30	2.35	0.54	0.038	0.007	
5:45	2.40	0.51	0.037	0.008	
6:00	2.44	0.52	0.039	0.008	
6:15	2.44	0.52	0.038	0.009	
6:30	2.45	0.54	0.040	0.009	
6:45	2.42	0.53	0.039	0.009	
7:00	2.58	0.55	0.044	0.010	
7:15	2.62	0.55	0.045	0.010	
7:30	2.79	0.67	0.060	0.011	
7:45	2.68	0.59	0.050	0.011	
8:00	2.87	0.68	0.064	0.012	
8:15	2.89	0.69	0.065	0.013	
8:30	2.98	0.70	0.069	0.014	
8:45	2.99	0.71	0.070	0.014	
9:00	3.01	0.72	0.072	0.015	
9:15	3.09	0.72	0.075	0.016	
9:30	3.01	0.72	0.072	0.017	
9:45	3.09	0.72	0.074	0.017	
10:00	3.27	0.82	0.092	0.018	
10:15	3.46	0.86	0.104	0.019	
10:30	3.47	0.83	0.101	0.020	
10:45	3.34	0.82	0.095	0.021	
11:00	3.27	0.75	0.084	0.022	
11:15	3.43	0.79	0.094	0.023	
11:30	3.18	0.77	0.083	0.024	
11:45	3.22	0.78	0.085	0.025	
12:00	3.10	0.82	0.085	0.026	
12:15	3.03	0.78	0.079	0.027	
12:30	2.91	0.72	0.068	0.027	
12:45	2.80	0.69	0.062	0.028	
13:00	3.02	0.78	0.078	0.029	
13:15	3.04	0.76	0.077	0.030	
13:30	2.81	0.72	0.065	0.030	
13:45	2.93	0.76	0.073	0.031	
14:00	2.93	0.76	0.073	0.032	
14:15	2.75	0.71	0.062	0.033	
14:30	2.62	0.68	0.055	0.033	
14:45	2.81	0.73	0.066	0.034	
15:00	2.69	0.66	0.056	0.034	
15:15	2.66	0.66	0.056	0.035	
15:30	2.74	0.68	0.059	0.036	
15:45	2.68	0.67	0.057	0.036	
16:00	2.59	0.64	0.052	0.037	
16:15	2.91	0.76	0.073	0.037	
16:30	3.21	0.82	0.089	0.038	
16:45	2.94	0.71	0.069	0.039	
17:00	2.77	0.69	0.062	0.040	
17:15	2.73	0.77	0.067	0.040	
17:30	3.02	0.87	0.088	0.041	
17:45	2.72	0.80	0.070	0.042	
18:00	2.45	0.63	0.047	0.043	
18:15	2.54	0.73	0.058	0.043	
18:30	2.79	0.85	0.077	0.044	
18:45	2.55	0.69	0.055	0.045	
19:00	2.66	0.70	0.059	0.045	
19:15	2.67	0.75	0.063	0.046	
19:30	2.69	0.76	0.064	0.046	
19:45	2.54	0.69	0.054	0.047	
20:00	2.62	0.72	0.059	0.048	
20:15	2.51	0.67	0.052	0.048	
20:30	2.54	0.65	0.051	0.049	
20:45	2.57	0.65	0.052	0.049	
21:00	2.53	0.69	0.054	0.050	
21:15	2.57	0.71	0.057	0.050	
21:30	2.58	0.68	0.054	0.051	
21:45	2.52	0.66	0.051	0.052	
22:00	2.55	0.67	0.053	0.052	
22:15	2.51	0.63	0.048	0.053	
22:30	2.49	0.64	0.048	0.053	
22:45	2.53	0.67	0.052	0.054	
23:00	2.54	0.61	0.048	0.054	
23:15	2.57	0.66	0.053	0.055	
23:30	2.50	0.64	0.049	0.055	
23:45	2.45	0.62	0.046	0.056	
Daily Totals:				**0.056**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/24/2018					
0:00	2.40	0.59	0.043	0.000	
0:15	2.41	0.59	0.043	0.001	
0:30	2.34	0.57	0.040	0.001	
0:45	2.52	0.62	0.048	0.002	
1:00	2.38	0.56	0.040	0.002	
1:15	2.30	0.63	0.043	0.003	
1:30	2.35	0.59	0.041	0.003	
1:45	2.33	0.54	0.037	0.003	
2:00	2.23	0.53	0.035	0.004	
2:15	2.17	0.47	0.030	0.004	
2:30	2.13	0.45	0.028	0.004	
2:45	2.14	0.45	0.027	0.005	
3:00	2.17	0.48	0.030	0.005	
3:15	2.13	0.47	0.029	0.005	
3:30	2.25	0.51	0.034	0.006	
3:45	2.32	0.54	0.037	0.006	
4:00	2.25	0.50	0.033	0.006	
4:15	2.26	0.52	0.035	0.007	
4:30	2.23	0.51	0.033	0.007	
4:45	2.26	0.53	0.035	0.008	
5:00	2.26	0.53	0.035	0.008	
5:15	2.27	0.54	0.036	0.008	
5:30	2.38	0.57	0.041	0.009	
5:45	2.42	0.59	0.043	0.009	
6:00	2.33	0.54	0.037	0.010	
6:15	2.30	0.53	0.036	0.010	
6:30	2.40	0.58	0.042	0.010	
6:45	2.43	0.56	0.041	0.011	
7:00	2.52	0.60	0.047	0.011	
7:15	2.73	0.70	0.061	0.012	
7:30	2.70	0.72	0.061	0.013	
7:45	2.57	0.65	0.052	0.013	
8:00	2.62	0.70	0.058	0.014	
8:15	2.88	0.77	0.072	0.014	
8:30	2.86	0.87	0.081	0.015	
8:45	2.63	0.72	0.060	0.016	
9:00	2.59	0.76	0.062	0.017	
9:15	2.66	0.77	0.064	0.017	
9:30	2.75	0.82	0.072	0.018	
9:45	2.88	0.94	0.089	0.019	
10:00	2.84	0.85	0.079	0.020	
10:15	2.76	0.84	0.074	0.020	
10:30	2.88	0.88	0.083	0.021	
10:45	3.01	0.96	0.096	0.022	
11:00	3.08	0.94	0.097	0.023	
11:15	2.90	0.87	0.083	0.024	
11:30	2.98	0.92	0.090	0.025	
11:45	2.90	0.89	0.084	0.026	
12:00	3.32	1.06	0.121	0.027	
12:15	3.24	1.04	0.115	0.028	
12:30	2.88	0.90	0.084	0.029	
12:45	2.81	0.85	0.077	0.030	
13:00	2.91	0.89	0.085	0.031	
13:15	2.72	0.79	0.068	0.032	
13:30	2.67	0.74	0.063	0.032	
13:45	2.74	0.79	0.069	0.033	
14:00	2.75	0.80	0.070	0.034	
14:15	2.65	0.74	0.062	0.034	
14:30	2.47	0.63	0.048	0.035	
14:45	2.76	0.80	0.071	0.036	
15:00	2.75	0.84	0.074	0.036	
15:15	2.66	0.78	0.065	0.037	
15:30	2.75	0.82	0.072	0.038	
15:45	2.69	0.79	0.067	0.039	
16:00	2.55	0.73	0.057	0.039	
16:15	2.56	0.74	0.058	0.040	
16:30	2.69	0.78	0.066	0.041	
16:45	2.81	0.82	0.074	0.041	
17:00	2.73	0.85	0.074	0.042	
17:15	2.83	0.86	0.079	0.043	
17:30	2.84	0.84	0.077	0.044	
17:45	2.83	0.88	0.081	0.045	
18:00	2.69	0.75	0.064	0.045	
18:15	2.75	0.81	0.072	0.046	
18:30	2.99	0.94	0.093	0.047	
18:45	3.05	0.95	0.097	0.048	
19:00	2.81	0.91	0.082	0.049	
19:15	2.69	0.79	0.067	0.049	
19:30	2.76	0.84	0.075	0.050	
19:45	2.96	0.91	0.089	0.051	
20:00	2.65	0.78	0.065	0.052	
20:15	2.76	0.85	0.075	0.053	
20:30	2.63	0.77	0.064	0.053	
20:45	2.61	0.74	0.060	0.054	
21:00	2.67	0.74	0.062	0.055	
21:15	2.55	0.69	0.055	0.055	
21:30	2.60	0.74	0.060	0.056	
21:45	2.75	0.83	0.073	0.057	
22:00	2.90	0.92	0.087	0.057	
22:15	3.07	1.01	0.104	0.059	
22:30	3.40	1.10	0.130	0.060	
22:45	3.68	1.21	0.161	0.062	
23:00	3.86	1.35	0.190	0.064	
23:15	3.87	1.40	0.197	0.066	
23:30	4.28	1.53	0.248	0.068	
23:45	4.32	1.57	0.258	0.071	
Daily Totals:				**0.071**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/25/2018					
0:00	4.25	1.46	0.234	0.002	
0:15	3.79	1.29	0.177	0.004	
0:30	3.64	1.30	0.170	0.006	
0:45	3.23	1.08	0.119	0.007	
1:00	3.21	1.07	0.116	0.009	
1:15	3.51	1.21	0.150	0.010	
1:30	3.30	1.13	0.129	0.011	
1:45	2.91	0.99	0.094	0.012	
2:00	2.71	0.85	0.073	0.013	
2:15	2.55	0.76	0.060	0.014	
2:30	2.36	0.65	0.046	0.014	
2:45	2.35	0.63	0.044	0.015	
3:00	2.29	0.59	0.040	0.015	
3:15	2.25	0.58	0.038	0.016	
3:30	2.24	0.56	0.037	0.016	
3:45	2.21	0.55	0.036	0.016	
4:00	2.16	0.51	0.031	0.017	
4:15	2.15	0.53	0.033	0.017	
4:30	2.15	0.53	0.033	0.017	
4:45	2.15	0.54	0.033	0.018	
5:00	2.12	0.50	0.031	0.018	
5:15	2.13	0.58	0.035	0.018	
5:30	2.18	0.52	0.033	0.019	
5:45	2.13	0.53	0.032	0.019	
6:00	2.17	0.48	0.030	0.019	
6:15	2.17	0.54	0.034	0.020	
6:30	2.24	0.59	0.039	0.020	
6:45	2.21	0.56	0.036	0.020	
7:00	2.16	0.54	0.034	0.021	
7:15	2.26	0.61	0.041	0.021	
7:30	2.35	0.66	0.046	0.022	
7:45	2.53	0.74	0.057	0.022	
8:00	2.53	0.71	0.055	0.023	
8:15	2.51	0.73	0.057	0.023	
8:30	2.67	0.80	0.068	0.024	
8:45	2.65	0.81	0.068	0.025	
9:00	2.75	0.88	0.078	0.026	
9:15	2.69	0.83	0.071	0.026	
9:30	2.79	0.83	0.075	0.027	
9:45	2.93	0.94	0.090	0.028	
10:00	2.92	0.92	0.088	0.029	
10:15	3.08	0.97	0.100	0.030	
10:30	3.03	0.99	0.100	0.031	
10:45	2.95	0.93	0.091	0.032	
11:00	2.96	0.93	0.091	0.033	
11:15	3.01	0.94	0.094	0.034	
11:30	3.47	1.06	0.130	0.035	
11:45	3.59	1.12	0.143	0.037	
12:00	3.67	1.17	0.154	0.038	
12:15	3.68	1.16	0.154	0.040	
12:30	3.58	1.14	0.145	0.042	
12:45	3.41	1.06	0.126	0.043	
13:00	3.52	1.09	0.136	0.044	
13:15	3.40	1.13	0.133	0.046	
13:30	3.08	1.02	0.105	0.047	
13:45	2.91	0.94	0.089	0.048	
14:00	2.82	0.92	0.084	0.049	
14:15	2.78	0.85	0.076	0.049	
14:30	2.58	0.77	0.062	0.050	
14:45	2.74	0.87	0.077	0.051	
15:00	2.82	0.88	0.080	0.052	
15:15	2.76	0.86	0.076	0.052	
15:30	2.69	0.84	0.072	0.053	
15:45	2.78	0.88	0.079	0.054	
16:00	2.88	0.93	0.087	0.055	
16:15	2.68	0.81	0.068	0.056	
16:30	2.62	0.83	0.068	0.056	
16:45	2.78	0.84	0.075	0.057	
17:00	2.79	0.86	0.077	0.058	
17:15	2.72	0.83	0.072	0.059	
17:30	2.72	0.80	0.069	0.059	
17:45	2.84	0.92	0.084	0.060	
18:00	2.89	0.90	0.085	0.061	
18:15	2.91	0.91	0.086	0.062	
18:30	2.89	0.90	0.084	0.063	
18:45	2.80	0.86	0.077	0.064	
19:00	2.95	0.93	0.091	0.065	
19:15	2.92	0.94	0.090	0.066	
19:30	2.88	0.91	0.085	0.066	
19:45	2.67	0.84	0.071	0.067	
20:00	2.69	0.84	0.072	0.068	
20:15	2.73	0.84	0.073	0.069	
20:30	2.76	0.85	0.075	0.069	
20:45	2.56	0.76	0.061	0.070	
21:00	2.54	0.74	0.058	0.071	
21:15	2.52	0.72	0.056	0.071	
21:30	2.52	0.73	0.057	0.072	
21:45	2.61	0.78	0.064	0.073	
22:00	2.51	0.72	0.056	0.073	
22:15	2.44	0.69	0.051	0.074	
22:30	2.43	0.68	0.050	0.074	
22:45	2.49	0.66	0.050	0.075	
23:00	2.42	0.70	0.051	0.075	
23:15	2.51	0.73	0.056	0.076	
23:30	2.44	0.71	0.052	0.076	
23:45	2.40	0.66	0.048	0.077	
Daily Totals:				**0.077**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/26/2018					
0:00	2.45	0.70	0.052	0.001	
0:15	2.49	0.73	0.056	0.001	
0:30	2.57	0.75	0.060	0.002	
0:45	2.62	0.76	0.063	0.002	
1:00	2.62	0.75	0.062	0.003	
1:15	2.64	0.80	0.066	0.004	
1:30	2.61	0.74	0.060	0.004	
1:45	2.53	0.74	0.058	0.005	
2:00	2.44	0.69	0.051	0.005	
2:15	2.40	0.68	0.049	0.006	
2:30	2.28	0.61	0.041	0.006	
2:45	2.21	0.58	0.037	0.007	
3:00	2.16	0.55	0.034	0.007	
3:15	2.13	0.54	0.033	0.008	
3:30	2.11	0.53	0.032	0.008	
3:45	2.11	0.51	0.031	0.008	
4:00	2.09	0.50	0.030	0.008	
4:15	2.08	0.52	0.031	0.009	
4:30	2.16	0.54	0.034	0.009	
4:45	2.16	0.52	0.032	0.009	
5:00	2.21	0.57	0.036	0.010	
5:15	2.34	0.66	0.046	0.010	
5:30	2.46	0.73	0.054	0.011	
5:45	2.38	0.66	0.047	0.011	
6:00	2.45	0.73	0.054	0.012	
6:15	2.48	0.74	0.056	0.013	
6:30	2.52	0.74	0.057	0.013	
6:45	2.50	0.73	0.056	0.014	
7:00	2.66	0.83	0.069	0.014	
7:15	2.55	0.74	0.058	0.015	
7:30	2.65	0.79	0.066	0.016	
7:45	2.77	0.87	0.077	0.017	
8:00	2.72	0.82	0.071	0.017	
8:15	2.54	0.75	0.059	0.018	
8:30	2.87	0.88	0.083	0.019	
8:45	2.71	0.85	0.073	0.020	
9:00	2.63	0.77	0.064	0.020	
9:15	2.64	0.75	0.063	0.021	
9:30	2.66	0.79	0.066	0.022	
9:45	2.78	0.86	0.077	0.022	
10:00	2.63	0.79	0.065	0.023	
10:15	2.57	0.75	0.060	0.024	
10:30	2.66	0.79	0.066	0.024	
10:45	2.70	0.77	0.066	0.025	
11:00	2.81	0.86	0.079	0.026	
11:15	2.69	0.78	0.066	0.026	
11:30	2.73	0.82	0.072	0.027	
11:45	2.97	0.88	0.087	0.028	
12:00	3.07	0.93	0.096	0.029	
12:15	3.36	1.03	0.122	0.030	
12:30	3.74	1.15	0.156	0.032	
12:45	3.84	1.26	0.176	0.034	
13:00	3.83	1.24	0.173	0.036	
13:15	4.05	1.34	0.202	0.038	
13:30	4.08	1.32	0.200	0.040	
13:45	3.99	1.27	0.188	0.042	
14:00	3.86	1.24	0.175	0.044	
14:15	3.70	1.21	0.162	0.045	
14:30	3.56	1.17	0.147	0.047	
14:45	3.32	1.07	0.123	0.048	
15:00	3.08	0.95	0.098	0.049	
15:15	3.05	0.99	0.101	0.050	
15:30	3.04	0.96	0.097	0.051	
15:45	3.06	0.94	0.097	0.052	
16:00	3.32	1.10	0.126	0.054	
16:15	3.40	1.10	0.130	0.055	
16:30	3.42	1.16	0.138	0.056	
16:45	3.34	1.15	0.132	0.058	
17:00	3.62	1.30	0.167	0.059	
17:15	3.83	1.36	0.190	0.061	
17:30	3.64	1.32	0.171	0.063	
17:45	4.03	1.39	0.208	0.065	
18:00	3.88	1.39	0.197	0.067	
18:15	3.76	1.34	0.182	0.069	
18:30	3.74	1.33	0.180	0.071	
18:45	3.83	1.35	0.188	0.073	
19:00	3.99	1.44	0.212	0.075	
19:15	3.77	1.33	0.182	0.077	
19:30	3.87	1.37	0.193	0.079	
19:45	3.90	1.43	0.205	0.081	
20:00	3.83	1.38	0.192	0.083	
20:15	3.80	1.36	0.188	0.085	
20:30	3.37	1.18	0.138	0.087	
20:45	3.24	1.14	0.127	0.088	
21:00	3.11	1.04	0.109	0.089	
21:15	3.03	1.01	0.101	0.090	
21:30	3.04	1.02	0.103	0.091	
21:45	3.08	1.02	0.105	0.092	
22:00	3.21	1.10	0.120	0.094	
22:15	3.13	1.03	0.108	0.095	
22:30	2.97	0.99	0.097	0.096	
22:45	3.09	1.01	0.105	0.097	
23:00	3.02	0.98	0.098	0.098	
23:15	2.98	0.97	0.096	0.099	
23:30	2.97	0.94	0.092	0.100	
23:45	3.07	0.94	0.096	0.101	
Daily Totals:				**0.101**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/27/2018					
0:00	3.26	0.99	0.111	0.001	
0:15	3.55	1.10	0.138	0.003	
0:30	3.68	1.21	0.160	0.004	
0:45	3.89	1.26	0.179	0.006	
1:00	4.08	1.31	0.199	0.008	
1:15	4.13	1.34	0.207	0.010	
1:30	4.29	1.35	0.220	0.013	
1:45	4.28	1.38	0.224	0.015	
2:00	4.24	1.37	0.219	0.017	
2:15	4.25	1.34	0.215	0.019	
2:30	4.18	1.32	0.207	0.022	
2:45	4.09	1.29	0.198	0.024	
3:00	4.01	1.31	0.195	0.026	
3:15	3.74	1.22	0.165	0.027	
3:30	3.37	1.09	0.128	0.029	
3:45	3.07	0.97	0.099	0.030	
4:00	2.76	0.90	0.080	0.031	
4:15	2.57	0.81	0.064	0.031	
4:30	2.48	0.75	0.057	0.032	
4:45	2.42	0.71	0.052	0.032	
5:00	2.37	0.68	0.048	0.033	
5:15	2.38	0.70	0.050	0.033	
5:30	2.39	0.70	0.050	0.034	
5:45	2.41	0.68	0.050	0.035	
6:00	2.39	0.71	0.051	0.035	
6:15	2.53	0.74	0.058	0.036	
6:30	2.68	0.83	0.070	0.036	
6:45	2.72	0.84	0.073	0.037	
7:00	2.79	0.89	0.080	0.038	
7:15	2.89	0.93	0.088	0.039	
7:30	2.83	0.90	0.082	0.040	
7:45	2.80	0.88	0.079	0.041	
8:00	2.79	0.85	0.076	0.041	
8:15	2.88	0.92	0.086	0.042	
8:30	2.81	0.87	0.079	0.043	
8:45	2.67	0.84	0.071	0.044	
9:00	2.59	0.74	0.060	0.044	
9:15	2.74	0.89	0.077	0.045	
9:30	2.84	0.88	0.081	0.046	
9:45	2.84	0.93	0.086	0.047	
10:00	2.91	0.96	0.091	0.048	
10:15	2.64	0.79	0.066	0.049	
10:30	2.60	0.82	0.066	0.049	
10:45	2.64	0.80	0.067	0.050	
11:00	2.73	0.86	0.075	0.051	
11:15	2.65	0.84	0.070	0.052	
11:30	2.71	0.84	0.073	0.052	
11:45	2.86	0.85	0.079	0.053	
12:00	2.99	0.93	0.092	0.054	
12:15	2.86	0.89	0.083	0.055	
12:30	2.65	0.78	0.066	0.056	
12:45	2.68	0.78	0.066	0.056	
13:00	2.66	0.78	0.065	0.057	
13:15	2.97	0.97	0.095	0.058	
13:30	2.82	0.88	0.081	0.059	
13:45	2.91	0.91	0.087	0.060	
14:00	3.05	0.97	0.099	0.061	
14:15	2.91	0.95	0.090	0.062	
14:30	2.92	0.92	0.088	0.063	
14:45	2.77	0.81	0.072	0.063	
15:00	2.65	0.78	0.065	0.064	
15:15	2.63	0.78	0.065	0.065	
15:30	2.71	0.83	0.071	0.065	
15:45	2.64	0.78	0.065	0.066	
16:00	2.73	0.82	0.072	0.067	
16:15	2.77	0.81	0.072	0.068	
16:30	2.64	0.82	0.067	0.068	
16:45	2.68	0.81	0.069	0.069	
17:00	2.78	0.86	0.077	0.070	
17:15	2.96	0.93	0.091	0.071	
17:30	2.96	0.96	0.094	0.072	
17:45	2.83	0.89	0.081	0.073	
18:00	2.99	0.99	0.097	0.074	
18:15	3.03	0.94	0.095	0.075	
18:30	3.03	0.95	0.095	0.076	
18:45	2.78	0.85	0.076	0.076	
19:00	2.86	0.95	0.088	0.077	
19:15	3.08	0.99	0.102	0.078	
19:30	3.02	0.96	0.096	0.079	
19:45	2.84	0.95	0.087	0.080	
20:00	2.97	0.95	0.093	0.081	
20:15	3.11	1.00	0.105	0.082	
20:30	2.96	0.90	0.088	0.083	
20:45	2.69	0.79	0.067	0.084	
21:00	2.79	0.88	0.078	0.085	
21:15	2.72	0.81	0.070	0.085	
21:30	2.93	0.90	0.087	0.086	
21:45	2.71	0.81	0.069	0.087	
22:00	2.81	0.86	0.077	0.088	
22:15	2.63	0.77	0.064	0.089	
22:30	2.62	0.78	0.064	0.089	
22:45	2.62	0.75	0.061	0.090	
23:00	2.60	0.72	0.058	0.090	
23:15	2.59	0.72	0.058	0.091	
23:30	2.57	0.71	0.057	0.092	
23:45	2.56	0.76	0.060	0.092	
Daily Totals:				**0.092**	

Data reported every: 15 Minutes

Daily Flow Report

Site:
1
4 Raymond Street Norwalk, CT 12" Circular Line

FLOW ASSESSMENT SERVICES

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
11/28/2018					
0:00	2.52	0.71	0.055	0.001	
0:15	2.53	0.71	0.056	0.001	
0:30	2.42	0.65	0.047	0.002	
0:45	2.38	0.65	0.046	0.002	
1:00	2.33	0.63	0.044	0.003	
1:15	2.30	0.60	0.041	0.003	
1:30	2.34	0.64	0.044	0.003	
1:45	2.36	0.64	0.045	0.004	
2:00	2.37	0.67	0.047	0.004	
2:15	2.40	0.66	0.048	0.005	
2:30	2.42	0.67	0.049	0.005	
2:45	2.47	0.68	0.051	0.006	
3:00	2.49	0.70	0.053	0.007	
3:15	2.46	0.70	0.052	0.007	
3:30	2.41	0.65	0.047	0.008	
3:45	2.35	0.62	0.044	0.008	
4:00	2.33	0.61	0.042	0.008	
4:15	2.29	0.61	0.041	0.009	
4:30	2.28	0.59	0.040	0.009	
4:45	2.31	0.60	0.041	0.010	
5:00	2.31	0.62	0.042	0.010	
5:15	2.31	0.62	0.043	0.011	
5:30	2.32	0.64	0.044	0.011	
5:45	2.34	0.64	0.045	0.012	
6:00	2.39	0.68	0.049	0.012	
6:15	2.42	0.64	0.047	0.013	
6:30	2.54	0.73	0.058	0.013	
6:45	2.62	0.81	0.066	0.014	
7:00	2.75	0.81	0.072	0.015	
7:15	2.83	0.85	0.078	0.015	
7:30	2.84	0.88	0.080	0.016	
7:45	2.87	0.87	0.081	0.017	
8:00	2.84	0.89	0.082	0.018	
8:15	2.86	0.87	0.081	0.019	
8:30	2.77	0.83	0.073	0.020	
8:45	2.69	0.80	0.068	0.020	
9:00	2.72	0.84	0.072	0.021	
9:15	2.88	0.86	0.081	0.022	
9:30	2.78	0.81	0.073	0.023	
9:45	2.79	0.82	0.073	0.023	
10:00	2.80	0.80	0.072	0.024	
10:15	2.85	0.87	0.080	0.025	
10:30	2.69	0.80	0.068	0.026	
10:45	2.71	0.86	0.074	0.026	
11:00	2.69	0.79	0.067	0.027	
11:15	2.64	0.77	0.064	0.028	
11:30	2.64	0.75	0.062	0.028	
11:45	2.49	0.70	0.053	0.029	
12:00	2.59	0.80	0.064	0.030	
12:15	2.44	0.68	0.050	0.030	

Time	Depth (in)	Velocity (fps)	Flow (mgd)	Cumm Flow (mg)	Rain (in)
Daily Totals:				**0.030**	

Data reported every: 15 Minutes

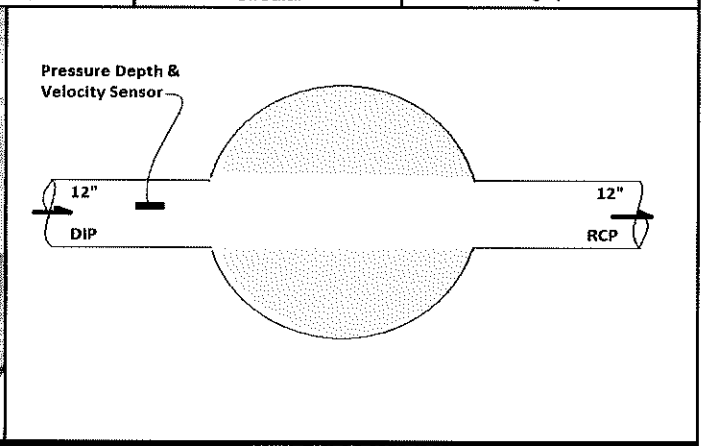
Appendix 3

FLOW
ASSESSMENT SERVICES

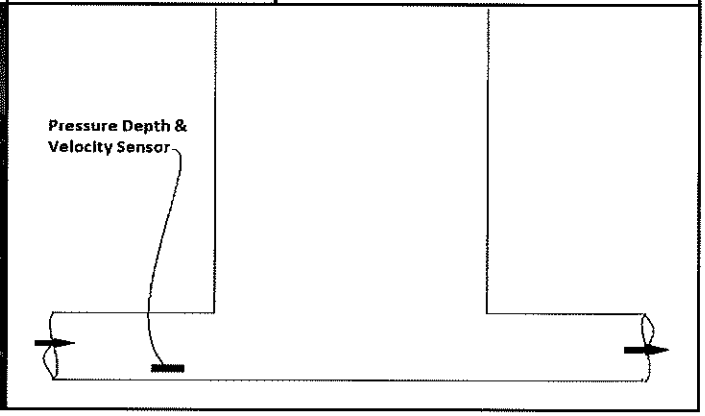
METER SITE INFORMATION FIELD LOG

PROJECT: Norwalk, CT	**DATE:** October 26, 2018	**JOB#:** 18110
LOCATION: 4 Raymond Street	**MH#:** ~	**METER SITE:** 1
GPS/COMMENTS: 41.095272, -73.416280		

	Size (")	Material	Flow Depth (")	Debris	Shape	MH Depth
Incoming	12	DIP	2.8	0	Circular	5' 0"
Incoming						
Incoming						
Outgoing	12	RCP	3	1	Circular	5' 1"



SURCHARGE INFORMATION	WEIR INFORMATION	
SURCHARGE NONE EVIDENT: X	**LENGTH:**	**HEIGHT ABOVE WEIR:**
SURCHARGED MARKS TO:	**BREADTH:**	**OVERFLOW OCCURS AT:**
SURCHARGE CURRENTLY TO:	**LEVEL:**	



GODFREY HOFFMAN HODGE, LLC

PROFESSIONAL LAND SURVEYORS & CIVIL ENGINEERS

January 16, 2019

Mr. Ralph Kolb
Sr. Environmental Engineer
Norwalk WPCA
15 South Smith Street
Norwalk, CT 06855

Re: Sanitary Sewer Flow Monitoring/Capacity Analysis
SONO TOD
1 & 11 Chestnut Street

Dear Mr. Kolb:

Attached for your review are the flow monitoring results as well as the sanitary sewer capacity analysis of portions of Chestnut Street, Henry Street, South Main Street and Raymond Street. Flow monitoring occurred for a three (3) week period and a rainfall of greater than 0.25" was recorded during that time. Requests were made to DPW to provide as-built plans of the sewer analysis area. Plans that were available and provided did not cover the entire analysis area and were dated from 1977 with the system shown as combined sanitary and storm. To complete the analysis, we utilized the City of Norwalk GIS mapping showing the pipe locations and sizes. Slopes were not available so an assumption of the minimum allowable slope for a 12" pipe 0f 0.0022 ft/ft was used to determine pipe capacity. Based on the calculations, greater than 15% reserve capacity remains in the system throughout the analysis area.

Please call with any questions or if you would like to meet to discuss.

Sincerely yours,

James P. Rotondo, PE
Godfrey Hoffman Hodge, LLC

MAIN OFFICE: 26 Broadway North Haven, CT 06473 Phone: 203.239.4217
FARMINGTON OFFICE: 1783 Farmington Ave, Unionville, CT 06085 Phone 860.673.0444
www.godfreyhoffman.com

GODFREY HOFFMAN HODGE, LLC

PROFESSIONAL LAND SURVEYORS & CIVIL ENGINEERS

JOB SONO TOD – 1 & 11 Chestnut Street
SHEET NO. 1 OF 2
CALCULATED BY JR DATE 1/16/2019
CHECKED BY JR DATE 1/16/2019
TITLE Sewer Capacity Analysis

Existing Peak Flow From Flow Monitoring Report

Peak Flow = 0.359 mgd x 1.54723 = 0.555 cfs

Existing Peak Flow + Estimated Peak Flow From Development

Estimated Peak Flow From Development = 0.094 mgd

0.359 mgd + 0.094 mgd = 0.453 mgd = 0.70 cfs

Sanitary Sewer Pipe Capacity calculated using Mannings Equation based on 12" pipe with "n" = 0.017 and a slope of 0.0022 ft/ft (min allowable) Q = 1.28 cfs

Estimated Peak Flow based on Peaking Factor of 4.0

Sewer Analysis Manhole #1

Estimated Peak Flow = 0.06 cfs ✓

Capacity 12" VCP = 1.28 cfs

Reserve Capacity = 95%

Sewer Analysis Manhole #2

Estimated Peak Flow = 0.32 cfs ✓

Capacity 12" VCP = 1.28 cfs

Reserve Capacity = 75%

Sewer Analysis Manhole #3

Estimated Peak Flow = 0.43 cfs ✓

Capacity 12" VCP = 1.28 cfs

Reserve Capacity = 66%

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Sewer Analysis Manhole #4

Estimated Peak Flow = 0.58 cfs ✓

Capacity 12" VCP = 1.28 cfs

Reserve Capacity = 55%

Sewer Analysis Manhole #5

Estimated Peak Flow = 0.64 cfs ✓

Capacity 12" VCP = 1.28 cfs

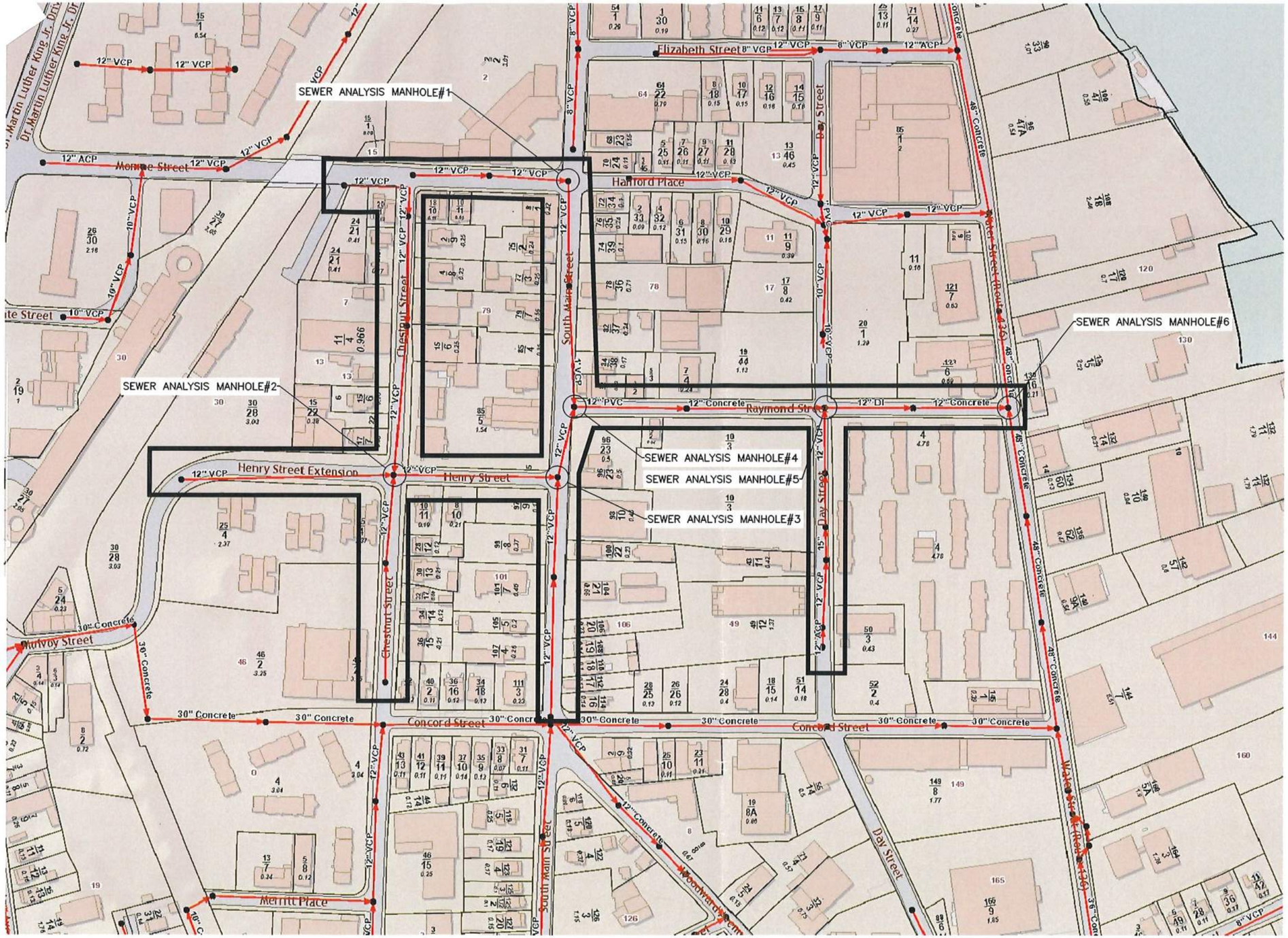
Reserve Capacity = 50%

Sewer Analysis Manhole #6

Estimated Peak Flow = 0.0.92 cfs ✓

Capacity 12" VCP = 1.28 cfs

Reserve Capacity = 28%



No.	Note	Date

Revision Schedule

GODFREY HOFFMAN ASSOCIATES, LLC
PROFESSIONAL LAND SURVEYORS & CIVIL ENGINEERS
25 BROADWAY NORTHWEST CT 06473
TEL 203.239.4217 FAX 203.234.2058 WWW.GODFREYHOFFMAN.COM

SEAL

PROJECT
Chestnut Street
TOD Building-A

Chestnut & Monroe, Norwalk, CT

DWG TITLE
SANITARY SEWER ANALYSIS PLAN

JOB NO.	18-048
DATE	10-05-2018
SCALE	NOT TO SCALE
DRAWN BY	MP

SSA

Tax Map ID	Location	Number of Bldgs	Stories	CNS_AREA_GROSS	LIVING_AREA	Bldg. Description	Total Rooms	Bedrooms	Bathrooms	Flow to MH Number	Office/Retail Design Flow	Design Flow	Estimated Flow
2-45-2-0	2 MONROE ST	1	3	119674	64675	Police Dept	0	0	0	1	323.38	20	6467.5
2-57-11-0	10 MONROE ST	1	2	6130	4378	Commercial - Office/Retail/Residential	6	2	2	1	212.80	150	512.8
2-57-10-0	18 MONROE ST	1	3	9491	6784	Commercial - Office/Retail/Residential	20	16	4	1	270.70	150	2670.7
ESTIMATED FLOW TO MANHOLE #1													9651
	1 CHESTNUT ST					Mixed-Use							20138
	11 CHESTNUT ST					Mixed-Use							3500
2-55-22-0	15 CHESTNUT ST	1	2	16353	15879	Industrial/Warehouse	0	0	0	2		0.1	1587.9
2-55-6-0	16 CHESTNUT ST	1	2.5	4977	2536	2 Family	13	9	3	2		150	1350
2-55-7-0	17 CHESTNUT ST	1	2.75	5618	3452	4 Family	11	7	3	2		150	1050
2-64-4-2G	25 CHESTNUT ST # 2G	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-1A	25 CHESTNUT ST #1A	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1B	25 CHESTNUT ST #1B	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1C	25 CHESTNUT ST #1C	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1D	25 CHESTNUT ST #1D	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1E	25 CHESTNUT ST #1E	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1F	25 CHESTNUT ST #1F	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1G	25 CHESTNUT ST #1G	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1H	25 CHESTNUT ST #1H	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1I	25 CHESTNUT ST #1I	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1J	25 CHESTNUT ST #1J	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1K	25 CHESTNUT ST #1K	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-1L	25 CHESTNUT ST #1L	1	1	1044	1044	Condominium/Residential	6	3	1	2		150	450
2-64-4-2A	25 CHESTNUT ST #2A	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-2B	25 CHESTNUT ST #2B	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-2C	25 CHESTNUT ST #2C	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-2D	25 CHESTNUT ST #2D	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-2E	25 CHESTNUT ST #2E	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-2F	25 CHESTNUT ST #2F	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-2H	25 CHESTNUT ST #2H	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-2I	25 CHESTNUT ST #2I	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-2J	25 CHESTNUT ST #2J	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-2K	25 CHESTNUT ST #2K	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-2L	25 CHESTNUT ST #2L	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3A	25 CHESTNUT ST #3A	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3B	25 CHESTNUT ST #3B	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3C	25 CHESTNUT ST #3C	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3D	25 CHESTNUT ST #3D	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3E	25 CHESTNUT ST #3E	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3F	25 CHESTNUT ST #3F	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3G	25 CHESTNUT ST #3G	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3H	25 CHESTNUT ST #3H	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3I	25 CHESTNUT ST #3I	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3J	25 CHESTNUT ST #3J	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3K	25 CHESTNUT ST #3K	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-3L	25 CHESTNUT ST #3L	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4A	25 CHESTNUT ST #4A	1	1	960	960	Condominium/Residential	5	2	1	2		150	300

Tax Map ID	Location	Number of Bldgs	Stories	CNS_AREA_GROSS	LIVING_AREA	Bldg. Description	Total Rooms	Bedrooms	Bathrooms	Flow to MH Number	Office/Retail Design Flow	Design Flow	Estimated Flow
2-64-4-4B	25 CHESTNUT ST #4B	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4C	25 CHESTNUT ST #4C	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4D	25 CHESTNUT ST #4D	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4E	25 CHESTNUT ST #4E	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4F	25 CHESTNUT ST #4F	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4G	25 CHESTNUT ST #4G	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4H	25 CHESTNUT ST #4H	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4I	25 CHESTNUT ST #4I	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4J	25 CHESTNUT ST #4J	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4K	25 CHESTNUT ST #4K	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-64-4-4L	25 CHESTNUT ST #4L	1	1	960	960	Condominium/Residential	5	2	1	2		150	300
2-63-12-0	28 CHESTNUT ST	2	2.5	3845	2219	Apartments/Residential	13	6	4	2		150	900
2-63-13-0	30 CHESTNUT ST	2	2.75	6943	4178	Apartments/Residential	17	7	6	2		150	1050
2-63-17-0	32 CHESTNUT ST	1	2	2897	1764	2 Family	8	4	2	2		150	600
2-63-14-0	34 CHESTNUT ST	1	2.5	4061	2411	2 Family	10	3	2	2		150	450
2-63-15-0	36 CHESTNUT ST	1	2	6827	4130	4 Family	18	10	4	2		150	1500
2-55-28-0	30 MONROE ST	1	1	6573	5565	Municipal Bldg / Railroad Parking	0	0	0	2		0.1	556.5
2-57-5-0	85 SOUTH MAIN ST	5	2.75		6844	Bldg.#3 - Church	4	0	0	2		0.1	684.4
2-57-5-0	85 SOUTH MAIN ST	5	2.75		235	Bldg.#4 - School	17	0	0	2		9	2115
2-57-5-0	85 SOUTH MAIN ST	5	2.75			Bldg.#5 - School	12	0	0	2			0
ESTIMATED FLOW TO MANHOLE #2													51681.8
2-63-10-0	8 HENRY ST	1	2.25	3391	1692	Single Family	6	3	2	3		150	450
2-63-11-0	10 HENRY ST	1	2.5	6258	3610	3 Family	13	5	3	3		150	750
2-62-23-0	96 SOUTH MAIN ST	2	2.5	4323	2634	Bldg.#1 - Church/Residential	8	3	2	3		150	450
2-62-23-0	96 SOUTH MAIN ST	2	2.5		2464	Bldg.#2 - Church	3	0	0	3		0.1	246.4
2-63-9-0	97 SOUTH MAIN ST	null	0	0	0	Vacant Land	0	0	0	3			Vacant
2-62-10-0	98 SOUTH MAIN ST	1	2	21876	21456	Municipal Bldg / Community Center	23	18	0	3		0.1	2145.6
2-63-8-0	99 SOUTH MAIN ST	1	2	5393	2957	4 Family	14	5	4	3		150	750
2-62-22-0	100 SOUTH MAIN ST	2	2	5427	3448	Bldg.#1 - Residential	11	9	4	3		250	2250
2-62-22-0	100 SOUTH MAIN ST	2	2		6915	Bldg.#2 - Rooming House/Hospital	27	0	1	3		0.1	691.5
2-63-7-0	101 SOUTH MAIN ST	1	2	13930	9176	Church	5	0	0	3		0.1	917.6
2-62-21-0	104 SOUTH MAIN ST	3	3	11138	8323	Bldg.#1 - Residential Multi-family	38	20	7	3		15	300
2-62-21-0	104 SOUTH MAIN ST	3	3		3456	Bldg.#2 - Residential Multi-family	16	8	4	3		15	120
2-62-21-0	104 SOUTH MAIN ST	3	3		5376	Bldg.#3 - Residential Multi-family	24	12	6	3		15	180
2-63-5-0	105 SOUTH MAIN ST	2	2.75	4293	2813	Bldg.#1 - 4 Family Residential	16	7	4	3		150	1050
2-63-5-0	105 SOUTH MAIN ST	2	2.75		850	Bldg.#2 - Residential	6	3	3	3		150	450
2-62-20-0	106 SOUTH MAIN ST	1	2.5	5219	2587	4 Family Residential	11	3	4	3		150	450
2-63-4-0	107 SOUTH MAIN ST	1	2	9442	8464	Residential Multi-Family	36	16	16	3		150	2400
2-62-19-0	108 SOUTH MAIN ST	2	2.5	4565	2649	Bldg.#1 - Residential	10	6	2	3		150	900
2-62-19-0	108 SOUTH MAIN ST	2	2.5		1120	Bldg.#2 - Residential	3	1	1	3		150	150
2-62-18-0	110 SOUTH MAIN ST	1	2.5	4752	2688	3 Family - Residential	12	5	3	3		150	750
2-63-3-0	111 SOUTH MAIN ST	1	2	9829	6128	Commercial Residential 5 Units	0	0	5	3	30.64	20	612.8
2-62-17-0	112 SOUTH MAIN ST	1	2	3394	2416	Commercial - Residential & Retail	10	4	3	3	59.20	150	659.2
2-62-16-0	114 SOUTH MAIN ST	1	2.5	5152	2613	3 Family - Residential	12	6	3	3		150	900
ESTIMATED FLOW TO MANHOLE #3													69254.9

Tax Map ID	Location	Number of Bldgs	Stories	CNS_AREA_GROSS	LIVING_AREA	Bldg. Description	Total Rooms	Bedrooms	Bathrooms	Flow to MH Number	Office/Retail Design Flow	Design Flow	Estimated Flow
2-57-1-0	8 MONROE ST	1	1	9768	4728	Commercial - Retail/Office Strip	0	0	0	4	23.64	20	472.8
2-58-34-0	72 SOUTH MAIN ST	1	2	4217	2977	4 Family	16	8	4	4		150	1200
2-58-39-0	74 SOUTH MAIN ST	1	2.5	4890	3117	Apartments	20	10	5	4		150	1500
2-57-2-0	75 SOUTH MAIN ST	1	2	5080	3904	Apartments	21	9	6	4		150	1350
2-58-35-0	76 SOUTH MAIN ST	1	1	4784	4592	Commercial - Office/Warehouse	0	0	0	4	22.96	20	459.2
2-57-3-0	77 SOUTH MAIN ST	3	2.5	3690	2250	Bldg.#1 - 4 Family - Residential	12	4	4	4		150	600
2-57-3-0	77 SOUTH MAIN ST	3	2.5		748	Bldg.#2 - Residential	4	2	1	4		150	300
2-57-3-0	77 SOUTH MAIN ST	3	2.5		1664	Bldg.#3 - Commercial	0	0	0	4	8.32	20	166.4
2-58-36-0	78 SOUTH MAIN ST	2	1	2020	2020	Bldg.#1 - Commercial	0	0	0	4		0.1	202
2-58-36-0	78 SOUTH MAIN ST	2	1		9600	Bldg.#2 - Commercial - Warehouse	0	0	0	4	48.00	20	960
2-57-7-0	79 SOUTH MAIN ST	4	1	1709	1709	Bldg.#1 Commercial - Retail	0	0	0	4		0.1	170.9
2-57-7-0	79 SOUTH MAIN ST	4	1		4980	Bldg.#2 Residential	20	11	8	4		150	1650
2-57-7-0	79 SOUTH MAIN ST	4	1		5740	Bldg.#3 Residential	26	10		4		150	1500
2-57-7-0	79 SOUTH MAIN ST	4	1		1344	Bldg.#4 Residential	6	3	3	4		150	450
2-58-37-0	82 SOUTH MAIN ST	2	2	7038	4329	Bldg.#1 - 4 Family - Residential	13	6	3	4		150	900
2-58-37-0	82 SOUTH MAIN ST	2	2		4329	Bldg.#2 - Residential	4	2	1	4		150	300
2-58-38-0	84 SOUTH MAIN ST	1	2	5134	3164	Com / Res	4	2	1	4	192.00	150	492
2-57-4-0	85 SOUTH MAIN ST	null	0	0	0	Vacant Land	0	0	0	4			Vacant
2-57-5-0	85 SOUTH MAIN ST	5	2.75	11168	6640	Bldg.#1 - Dormitory/Church	20	3	3	4		150	450
2-57-5-0	85 SOUTH MAIN ST	5	2.75		5777	Bldg.#2 - Residential	17	5	5	4		150	750
2-58-1-0	86 SOUTH MAIN ST	2	2	8036	7484	Bldg.#1 - Residential	16	8	5	4		150	1200
2-58-1-0	86 SOUTH MAIN ST	2	2		620	Bldg.#2 - Commercial Conv. Store	1	0	1	4		0.1	62
ESTIMATED FLOW TO MANHOLE #4													94041.2
2-62-11-0	43 DAY ST	2	2	5620	5520	Church	3	1	1	5		0.1	552
2-62-12-201	49 DAY ST # 201	1	1	864	864	Condominium/Residential	3	2	1	5		150	300
2-62-12-202	49 DAY ST # 202	1	1	864	864	Condominium/Residential	4	2	1	5		150	300
2-62-12-205	49 DAY ST # 205	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-302	49 DAY ST # 302	1	1	832	700	Condominium/Residential	3	1	1	5		150	150
2-62-12-411	49 DAY ST # 411	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-111	49 DAY ST #111	1	1	1736	1736	Commercial Condo	0	0	0	5	8.68	20	173.6
2-62-12-112	49 DAY ST #112	1	1	1736	1736	Commercial Condo	0	0	0	5	8.68	20	173.6
2-62-12-113	49 DAY ST #113	1	1	1736	1736	Commercial Condo	0	0	0	5	8.68	20	173.6
2-62-12-114	49 DAY ST #114	1	1	1736	1736	Commercial Condo	0	0	0	5	8.68	20	173.6
2-62-12-115	49 DAY ST #115	1	1	1736	1736	Commercial Condo	0	0	0	5	8.68	20	173.6
2-62-12-116	49 DAY ST #116	1	1	1736	1736	Commercial Condo	0	0	0	5	8.68	20	173.6
2-62-12-203	49 DAY ST #203	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-204	49 DAY ST #204	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-206	49 DAY ST #206	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-207	49 DAY ST #207	1	1	400	400	Condominium/Residential	3	1	1	5		150	150
2-62-12-208	49 DAY ST #208	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-209	49 DAY ST #209	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-210	49 DAY ST #210	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-211	49 DAY ST #211	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-212	49 DAY ST #212	1	1	864	864	Condominium/Residential	4	2	1	5		150	300
2-62-12-213	49 DAY ST #213	1	1	864	864	Condominium/Residential	4	2	1	5		150	300
2-62-12-301	49 DAY ST #301	1	1	832	700	Condominium/Residential	3	1	1	5		150	150
2-62-12-303	49 DAY ST #303	1	1	528	528	Condominium/Residential	3	1	1	5		150	150

Tax Map ID	Location	Number of Bldgs	Stories	CNS_AREA_GROSS	LIVING_AREA	Bldg. Description	Total Rooms	Bedrooms	Bathrooms	Flow to MH Number	Office/Retail Design Flow	Design Flow	Estimated Flow
2-62-12-304	49 DAY ST #304	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-305	49 DAY ST #305	1	1	528	528	Condominium/Residential	2	1	1	5		150	150
2-62-12-306	49 DAY ST #306	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-307	49 DAY ST #307	1	1	400	400	Condominium/Residential	2	1	1	5		150	150
2-62-12-308	49 DAY ST #308	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-309	49 DAY ST #309	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-310	49 DAY ST #310	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-311	49 DAY ST #311	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-312	49 DAY ST #312	1	1	832	700	Condominium/Residential	3	1	1	5		150	150
2-62-12-313	49 DAY ST #313	1	1	832	700	Condominium/Residential	3	1	1	5		150	150
2-62-12-401	49 DAY ST #401	1	1	759	517	Condominium/Residential	2	1	1	5		150	150
2-62-12-402	49 DAY ST #402	1	1	759	517	Condominium/Residential	3	1	1	5		150	150
2-62-12-403	49 DAY ST #403	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-404	49 DAY ST #404	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-405	49 DAY ST #405	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-406	49 DAY ST #406	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-407	49 DAY ST #407	1	1	400	400	Condominium/Residential	2	1	1	5		150	150
2-62-12-408	49 DAY ST #408	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-409	49 DAY ST #409	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-410	49 DAY ST #410	1	1	528	528	Condominium/Residential	3	1	1	5		150	150
2-62-12-412	49 DAY ST #412	1	1	759	517	Condominium/Residential	3	1	1	5		150	150
2-62-12-413	49 DAY ST #413	1	1	759	517	Condominium/Residential	3	1	1	5		150	150
2-61-3-0	50 DAY ST	1	5	21824	21824	Commercial Office Bldg.	0	0	0	5	109.12	20	2182.4
2-58-2-0	3 RAYMOND ST	1	2	3648	3648	Commercial - Office/Warehouse	0	0	0	5	18.24	20	364.8
2-58-3-0	5 RAYMOND ST	null	0	0	0	Vacant Land	0	0	0	5			Vacant
2-58-4-0	7 RAYMOND ST	1	1	2738	2684	Church	1	0	0	5		0.1	268.4
2-62-2-0	8 RAYMOND ST	1	2	2752	1838	Church - Office Bldg	0	0	0	5	9.19	20	183.8
2-62-3-0	10 RAYMOND ST	null	0	0	0	Ryan Park	0	0	0	5			Parking
ESTIMATED FLOW TO MANHOLE #5													105084.2
2-61-4-0	RAYMOND ST	12	2	8014	7954	Housing Authority - Residential	47	23	12	6	276.00	150	41400
ESTIMATED FLOW TO MANHOLE #5													146484.2

20 N. Main Street, Suite 218
Norwalk, CT 06854
T: 203.286.7814
www.hardestyhanover.com

July 23, 2025

Ms. Lisa Endo
VP of Development
Norwalk Housing Authority
24½ Monroe Street
Norwalk, Connecticut 06856

Subject **Traffic and Parking Evaluation – Senior Affordable Housing Development – 79 South Main Street, Norwalk, Connecticut (F7015.00)**

Dear Ms. Endo:

As requested, we have conducted a Traffic and Parking Evaluation related to the proposed Senior Affordable Housing Development at 79 South Main Street. Currently on the site there are 3 retail storefronts totaling 1,709 square feet and 16 residential units. The proposal is to demolish the retail and residential and replace it with 68 dwelling units of senior affordable housing and 34 on-site parking spaces. Site access is proposed via a full-movement driveway to South Main Street. It is understood that 49 tenants currently at Leroy Downs on Monroe Street will be moving to the proposed development.

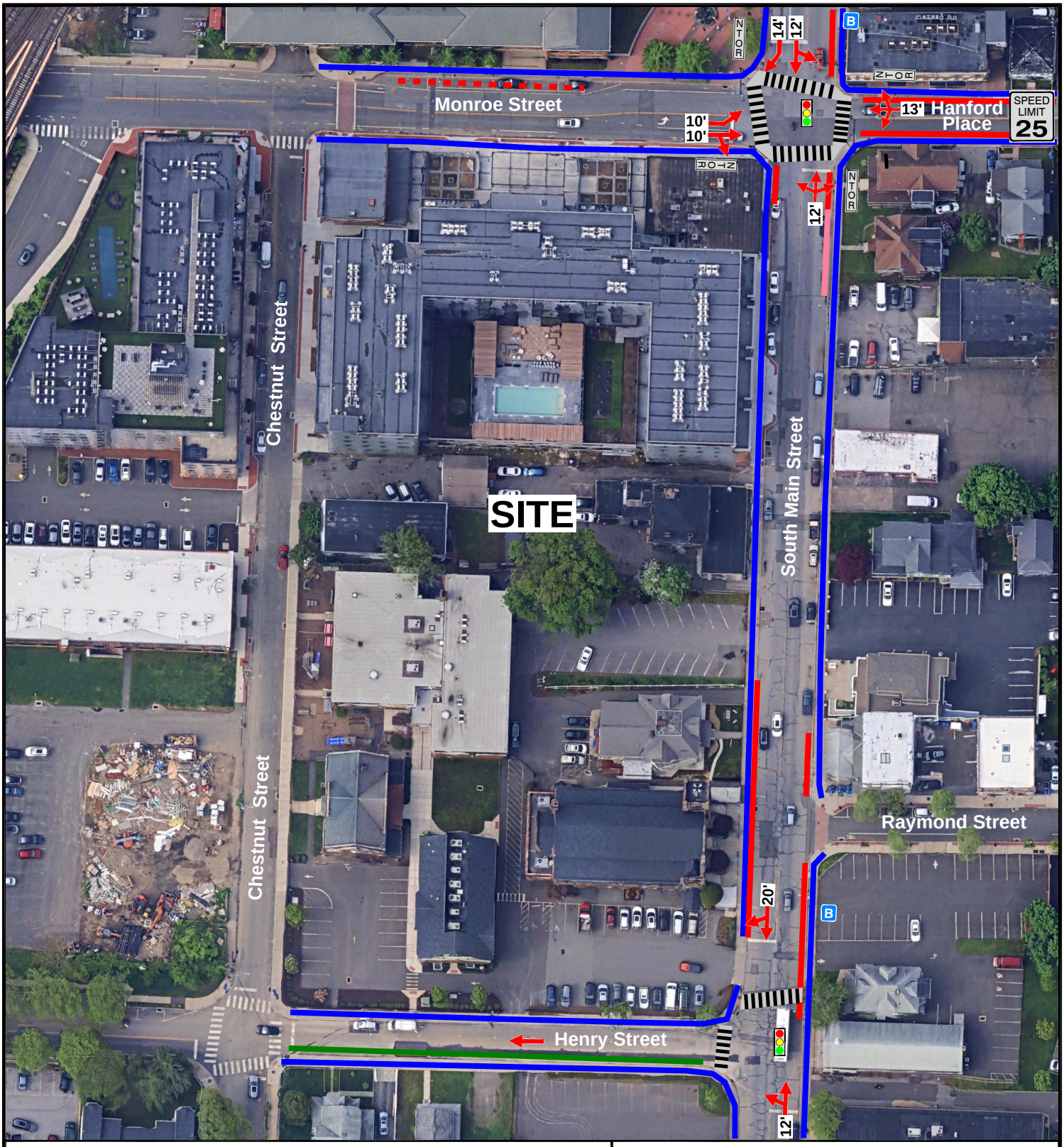
This Traffic and Parking Evaluation is suitable for submission to the City and provides a description and better understanding of potential traffic-related impacts to adjacent roadways, if any, with the proposed residential development on the Subject Property.

Roadways

The site is located on the west side of South Main Street, between the intersections of Monroe Street/Hanford Place and Raymond Street. South Main Street is a north-south, two-lane, two-way, City-maintained roadway. It begins at the signalized intersection with Washington Street as a continuation of North Main Street and continues south terminating at the intersection of Meadow Street. This road provides a double yellow centerline, curbing and sidewalks along both sides of the road. To the south of Monroe Street/Hanford Place, there is meter parking provided for a short distance on the easterly side of the road, otherwise parking is permitted with no restrictions along both sides of the road, with the exception of in front of St. Joseph's Church and in the vicinity of Raymond Street. Bus Stops are present on the easterly side of the road. The posted speed limit is 25 miles per hour. Land use is generally commercial and St. Joseph's Church. Figure 1 illustrates the current street system characteristics.

Crash Experience

The latest available crash data was obtained from the Connecticut Crash Data Repository (CCDR) for a period beginning January 1, 2022 through December 31, 2024 for South Main Street. For the section of South Main Street, between Monroe Street/Hanford Place and Raymond Street, there were a total of 11 crashes recorded during this three-year period. Data indicates that 82 percent of the crashes were limited to property damage and 18 percent involved injuries. The collision types were 28 percent involving a rear end collision, 18 percent involving an angle collision and head-on collision and 9 percent involving a sideswipe in



Legend

- Traffic Lane
- Traffic Signal
- Bus Stop
- Sidewalks
- No Parking
- No Parking - Police Vehicles Only
- Meter Parking
- No Parking During School Hours - 8 AM to 4 PM Mon Through Fri

Note: There is a Bike Lane provided in both directions on Monroe Street.

CURRENT STREET SYSTEM CHARACTERISTICS

Senior Affordable Housing Development
79 South Main Street
Norwalk, Connecticut

N

H&H

Not to Scale

1

7/23/25

the same direction, a rear to side collision, other collision and a bicyclist. The contributing factors were 28 percent for improper backing, 27 percent for failing to keep proper lane, 18 percent for failure to yield right-of-way and 9 percent for following too closely, improper turning and no contributing action. It was found that 73 percent of the crashes occurred during daylight hours and 64 percent occurred on dry road conditions. Table 1 provides a more detailed summary of the crash data. Data from the CCDR is included in the Appendix of this evaluation.

Site Traffic Generation

The proposal is to demolish the 1,709 square feet of retail and 16 residential units and replace it with 68 dwelling units of senior affordable housing. Site traffic for the existing land uses are provided for comparative purposes only. Based on trip rates provided in "Trip Generation Manual," 11th Edition, published by the Institute of Transportation Engineers (ITE) in 2021, the existing retail is estimated to have generated a total of 4 and 11 total trip ends, of which 1 and 2 is transit/rideshare trip ends and 3 and 9 are external vehicle trip ends during both the weekday morning and weekday afternoon peak hours.

It is estimated that the existing residential would have generated a total of 6 and 8 total trip ends, of which 1 and 2 is transit/rideshare trip ends and 5 and 6 are external vehicle trip ends during both the weekday morning and weekday afternoon peak hours. The total existing site would have generated a total of 10 and 19 total trip ends, of which 2 and 4 is transit/rideshare trip ends and 8 and 15 are external vehicle trip ends during both the weekday morning and weekday afternoon peak hours.

Review of ITE land uses indicated that Affordable Housing (Senior) (LUC #223) trip rates were lower, especially in the weekday afternoon peak hour, when compared to Senior Adult Housing – Multifamily (LUC #252). Therefore, to be conservative Senior Adult Housing – Multifamily trip rates were used. The proposed Senior Affordable Housing is estimated to generate a total of 14 and 17 total trip ends, of which 3 and 3 is transit/rideshare trip ends and 11 and 14 are external vehicle trip ends during both the weekday morning and weekday afternoon peak hours.

When compared to the existing land uses, the proposed Senior Affordable Housing will generate a total net difference of 4 and -2 total trip ends, of which 1 and -1 is transit/rideshare trip ends and 3 and -1 are external vehicle trip ends during both the weekday morning and weekday afternoon peak hours. Transit and Rideshare trips are applied due to the close proximity to the South Norwalk Train Station, as well as nearby bus stop on South Main Street. Table 2 illustrates the details of the site traffic generation and adjustments in more detail.

Parking Needs Analysis

The proposal is to provide a total of 34 on-site parking spaces. Based on the City of Norwalk Zoning Regulations Section 6.12.4.16, 0.5 spaces per unit are required (34 parking spaces). In addition, a parking needs analysis was conducted using the latest "Parking Generation" Manual 6th Edition published by Institute of Transportation Engineers (ITE). Parking rates for Affordable Housing (Senior), LUC #223, for general urban/suburban were utilized. No credits were taken for the close proximity to the Train Station and Bus Stop, to be conservative. The parking rate for this type of development is 0.44 spaces per unit (30 parking spaces).

Table 1
CRASH EXPERIENCE SUMMARY – SOUTH MAIN STREET
Senior Affordable Housing Development
79 South Main Street
Norwalk, Connecticut

ACCIDENT CHARACTERISTICS	SOUTH MAIN STREET Between Monroe Street/Hanford Place and Raymond Street	
	Total	%
Year		
▪ 2022	2	18
▪ 2023	2	18
▪ 2024	7	64
▪ Total	11	100
Accident Severity		
▪ Property Damage	9	82
▪ Injury	2	18
Collision Type		
▪ Rear End	3	28
▪ Angle	2	18
▪ Sideswipe-Same Dir.	1	9
▪ Rear to Side	1	9
▪ Head-On	2	18
▪ Other	1	9
▪ Bicyclist	1	9
Contributing Factor		
▪ Following Too Closely	1	9
▪ Failure to Yield R.O.W.	2	18
▪ Improper Backing	3	28
▪ Failed to Keep Proper Lane	3	27
▪ Improper Turning	1	9
▪ No Contributing Action	1	9
Light Condition		
▪ Daylight	8	73
▪ Dark-Lit	3	27
Surface Condition		
▪ Dry	7	64
▪ Wet	4	36
Weather Conditions		
▪ Clear	7	64
▪ Rain	3	27
▪ Blowing Snow	1	9

Source: Connecticut Crash Data Repository.

Notes: The latest available crash data is from January 1, 2022 to December 31, 2024.

Table 2
SITE TRAFFIC GENERATION AND ADJUSTMENT COMPARISON – PEAK HOURS
Senior Affordable Housing Development
79 South Main Street
Norwalk, Connecticut

LAND USE	SIZE	TRAFFIC DIRECTION	SITE TRAFFIC GENERATION AND ADJUSTMENTS					
			Total Trip Ends		Transit and Ride Sharing Trip Ends (20%)		External Vehicle Trip Ends	
			Weekday Morning	Weekday Afternoon	Weekday Morning	Weekday Afternoon	Weekday Morning	Weekday Afternoon
1) Existing Retail	1,709 S.F.	Enter	2	6	1	1	1	5
		Exit	2	5	0	1	2	4
		Total	4	11	1	2	3	9
2) Existing Residential	16 Dwelling Units	Enter	2	5	0	1	2	4
		Exit	4	3	1	1	3	2
		Total	6	8	1	2	5	6
3) Total Existing Site Traffic		Enter	4	11	1	2	3	9
		Exit	6	8	1	2	5	6
		Total	10	19	2	4	8	15
4) Proposed Senior Adult Housing - Multifamily	68 Dwelling Units	Enter	5	10	1	2	4	8
		Exit	9	7	2	1	7	6
		Total	14	17	3	3	11	14
Net Difference Site Traffic (4-3)		Enter	1	-1	0	0	1	-1
		Exit	3	-1	1	-1	2	0
		Total	4	-2	1	-1	3	-1

Source: "Trip Generation," 11th Edition, published by the Institute of Transportation Engineers (ITE) in 2021 using Strip Retail Plaza, Land Use Code #822 Average Rates, Multifamily Housing (Low-Rise), Land Use Code #220 Average Rates and Senior Adult Housing - Multifamily, Land Use Code #252 Average Rates.

Note: **Transit and Ride Sharing Trip Ends:** A 20 percent credit was employed to the total trip ends as per Connecticut Department of Transportation Guidelines.

As noted above, it is understood that 49 tenants currently at Leroy Downs on Monroe Street will be moving to the proposed development. Currently these 49 tenants have a total of 21 vehicles parked, which equates to a parking rate of 0.43 spaces per unit. This rate is similar to the ITE parking rate, which requires a total of 30 parking spaces. Table 3 provides the parking needs analysis in more detail.

Findings

The proposed development change is estimated to generate a total of 3 more vehicle trips during the weekday morning peak hour and 1 less vehicle trip during the weekday afternoon peak hour compared to the existing retail and residential. The 68 new senior affordable housing units alone will generate a total of 8 and 15 vehicle trips during the weekday morning and weekday afternoon peak hours, respectively. Both with and without the reduction for the existing land uses, the surrounding roadways and intersections are anticipated to operate similarly to existing conditions, with no anticipated significant impacts during the weekday morning and weekday afternoon, respectively.

The proposed development is to provide 34 parking spaces, which is sufficient parking based on the City of Norwalk Zoning Regulations. In addition, a review of the latest ITE "Parking Generation" parking rates indicated that a total of 30 parking spaces is needed (4 less than proposed). Lastly, review of the existing parking demand at a similar site (Leroy Downs, Monroe Street) indicated a parking rate of 0.43 spaces per unit (30 parking spaces required). The proposed development will provide sufficient parking based on the Zoning Regulations, ITE parking rates, and a similar site's parking rates.

Respectfully submitted,

Steven T. Cipolla

Steven T. Cipolla, PE, PTOE
Principal Traffic Engineer
Hardesty & Hanover, LLC

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Table 3
PARKING NEEDS ANALYSIS
Senior Affordable Housing Development
79 South Main Street
Norwalk, Connecticut

		CITY CODE PARKING REQUIREMENTS		PARKING SUPPLY PROVIDED BY APPLICANT	ITE PARKING GENERATION MANUAL REQUIREMENTS				SIMILAR EXISTING DEVELOPMENT PARKING DEMAND		
LAND USES	INTENSITY	Ratio	Spaces		ITE Land Use Code	Peak Period	Weighted Average	Spaces	Intensity	Parking Demand	Parking Rate (Spaces per Unit)
Affordable Housing (Senior)	68 Dwelling Units	0.5 space per unit (Section 6.12.4.16)	34	34	223 (Senior, General Urban/ Suburban)	Weekday	0.44	30	49 Dwelling Units	21 Vehicles	0.43

Sources:

- City of Norwalk Zoning Regulations.
- "Parking Generation" Manual 6th Edition published by Institute of Transportation Engineers (ITE).
- Existing Parking Demand from similar site at Leroy Downs, Monroe Street.

Hardesty & Hanover, LLC
Y:\Shared\Projects\07015-79 S Main St Norwalk CT\000-Pursuits\04-Technical\Word\25-003.stc.docx
7/23/2025

APPENDIX

CRASH HISTORY

Dataset: mmucc
Date From:01/01/2022
Date To:12/31/2024
Towns:Norwalk

CrashId	Date Of Crash	Day of the Week	Time of Crash	Crash Severity Text Format	Roadway Name	Landmark Description	Distance	First Harmful Event	Manner of Crash	Weather Condition	Light Condition	Road Surface
936000	5/4/2022	Wednesday	9:19:00	Property Damage Only	SOUTH MAIN ST	Monroe St	100 Feet S	Other Non-Fixed Object	Front to rear	Rain	Daylight	Wet
1015609	11/29/2022	Tuesday	13:42:00	Property Damage Only	SOUTH MAIN ST	Hanford Pl	100 Feet S	Other Non-Fixed Object	Rear to side	Clear	Daylight	Dry
1020435	2/2/2023	Thursday	18:57:00	Property Damage Only	SOUTH MAIN ST	Monroe Street	50 Feet S	Motor Vehicle in Operation	Front to rear	Clear	Dark-Lighted	Dry
1074518	7/31/2023	Monday	10:30:00	Property Damage Only	SOUTH MAIN ST	Monroe St	223 Feet S	Motor Vehicle in Operation	Angle	Clear	Daylight	Dry
1130900	1/19/2024	Friday	14:03:00	Property Damage Only	SOUTH MAIN ST	Monroe St	52 Feet S	Motor Vehicle in Operation	Front to rear	Blowing Snow	Daylight	Wet
1137110	2/26/2024	Monday	20:51:00	Property Damage Only	SOUTH MAIN ST	Monroe St.	75 Feet S	Motor Vehicle in Operation	Front to front	Clear	Dark-Lighted	Dry
1152797	4/24/2024	Wednesday	9:54:00	Property Damage Only	SOUTH MAIN ST	RAYMOND STREET	73 Feet N	Motor Vehicle in Operation	Other	Clear	Daylight	Dry
1156160	5/5/2024	Sunday	15:08:00	Property Damage Only	SOUTH MAIN ST	Monroe Street	45 Feet S	Motor Vehicle in Operation	Sideswipe, same direction	Rain	Daylight	Wet
1158451	5/9/2024	Thursday	13:57:00	Injury of any type (Serious, Minor, Possible)	SOUTH MAIN ST	Monroe Street	110 Feet S	Motor Vehicle in Operation	Angle	Clear	Daylight	Dry
1161006	5/15/2024	Wednesday	22:00:00	Injury of any type (Serious, Minor, Possible)	SOUTH MAIN ST	Monroe St	84 Feet S	Motor Vehicle in Operation	Front to front	Rain	Dark-Lighted	Wet
1201962	9/2/2024	Monday	12:46:00	Property Damage Only	SOUTH MAIN ST	Monroe St	150 Feet S	Pedalcycle/Pedalcyclist	Not Applicable	Clear	Daylight	Dry

Dataset: mmucc
Date From:01/01/2022
Date To:12/31/2024
Towns:Norwalk

CrashId	Driver Actions
936000	Unknown
936000	Improper Backing
1015609	No Contributing Action
1015609	Improper Backing
1020435	Improper Backing
1020435	Not Applicable
1020435	Not Applicable
1020435	Not Applicable
1020435	No Contributing Action
1020435	Not Applicable
1074518	Failed to Yield Right-of-Way
1074518	No Contributing Action
1130900	No Contributing Action
1130900	Not Applicable
1130900	Followed Too Closely
1137110	Failed to Keep in Proper Lane
1137110	No Contributing Action
1152797	Improper Turn
1152797	No Contributing Action
1156160	Failed to Keep in Proper Lane
1158451	Failed to Yield Right-of-Way
1158451	No Contributing Action
1161006	
1161006	No Contributing Action
1161006	Failed to Keep in Proper Lane
1201962	
1201962	No Contributing Action

BOUNDARY/TOPOGRAPHIC SURVEY

79 SOUTH MAIN STREET

6 & 8 CHESTNUT STREET

NORWALK, FAIRFIELD COUNTY, CONNECTICUT 06850

SITE INFORMATION

N/F: 79 SOUTH MAIN LP
79 SOUTH MAIN STREET
6 & 8 CHESTNUT STREET
NORWALK, CONNECTICUT 06850
APN: 103-5450
TOTAL AREA: 24,193 ± SQUARE FEET, OR 0.555 ± ACRES

REFERENCE DOCUMENTS

1. WARRANTY DEED, RECORDED IN NORWALK COUNTY, PER VOLUME 3795 PAGE 302.
2. MAP NO. 12153.

PARKING INFORMATION

REGULAR= 12
HANDICAP= 0
TOTAL= 12

FLOOD ZONE INFORMATION

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 09001C0531G, WHICH BEARS AN EFFECTIVE DATE OF 7/8/2013 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

ZONE "X" - AREA OF MINIMAL FLOOD HAZARD, USUALLY DEPICTED ON FIRMS AS ABOVE THE 500-YEAR FLOOD LEVEL. ZONE "X" IS THE AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD AND PROTECTED BY LEVEE FROM 100-YEAR FLOOD.

BASIS OF BEARING

THE BASIS OF BEARING OF THIS SURVEY IS GRID NORTH BASED ON CONNECTICUT SYSTEM, NAD83-2011; AS MEASURED ALONG THE NORTH LINE OF THE SUBJECT PROPERTY. THE BEARING IS DENOTED AS S87°44'42"E.
LATITUDE = 41°05'44.6241"
LONGITUDE = -73°25'09.7190"
CONVERGENCE ANGLE = -00°26'37.7870"

SIGNIFICANT OBSERVATIONS

A — BUILDING APPEARS TO CROSS EAST BOUNDARY LINE BY AS MUCH AS 0.1'.

INVERT INFORMATION

GI #1
RIM: 17.69'
UNABLE TO ACCESS
DUE TO PARKED CAR

GI #2
RIM: 17.50'
INVERT'S - 15" RCP - 14.2'

GI #3
RIM: 16.62'
UNABLE TO ACCESS
DUE TO PARKED CAR

GI #4
RIM: 16.76'
UNABLE TO ACCESS
DUE TO PARKED CAR

GI #5
RIM: 15.43'
UNABLE TO ACCESS
DUE TO PARKED CAR

GI #6
RIM: 15.45'
UNABLE TO OPEN

GI #7
RIM: 14.93'
UNABLE TO OPEN

GI #8
RIM: 14.84'
UNABLE TO ACCESS
DUE TO PARKED CAR

SMH #1
RIM: 17.12'
UNABLE TO ACCESS
DUE TO HEAVY TRAFFIC

SMH #2
RIM: 15.77'
UNABLE TO ACCESS
DUE TO HEAVY TRAFFIC

SMH #3
RIM: 16.21'
UNABLE TO ACCESS
DUE TO HEAVY TRAFFIC

TEMPORARY BENCHMARK INFORMAION

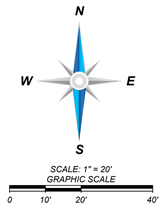
TBM #1
SET MAG-NAIL
ELEVATION: 17.16'
NORTHING: 596320.83
EASTING: 815499.62

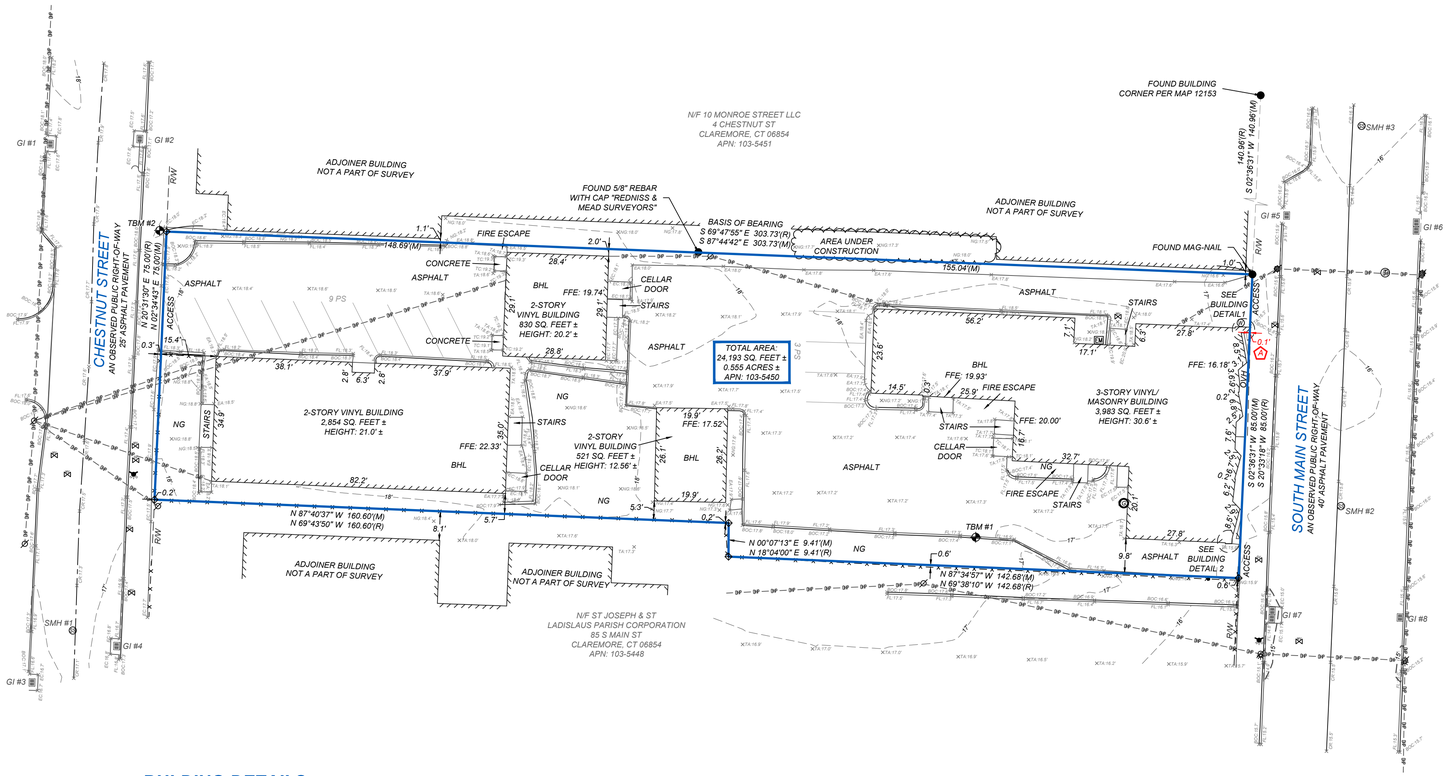
TBM #2
SET MAG-NAIL
ELEVATION: 17.83'
NORTHING: 596406.56
EASTING: 815271.53

UTILITY INFORMATION

THE UTILITIES SHOWN ON THIS DRAWING HEREON HAVE BEEN LOCATED BY FIELD MEASUREMENTS, UTILITY MAP DRAWINGS, AND CONNECTICUT 811 DIG UTILITY LOCATE REQUEST. BLEW AND ASSOCIATES MAKES NO WARRANTY TO THE EXACT LOCATION OF ANY UNDERGROUND UTILITIES SHOWN OR NOT SHOWN ON THIS DRAWING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ANY AND ALL UTILITIES PRIOR TO CONSTRUCTION. TICKET NUMBER: DS-20242100015

COMPANY:	CONTACT:
CABLEVISION OF CONNECTICUT	800-778-9140
CROWN CASTLE	800-654-3110
EVERSOURCE GAS	860-665-5820
FRONTIER COMMUNICATIONS	203-694-4183
MCI	800-624-9675
SOUTH NORWALK ELECTRIC	203-866-3366 EXT 290
SOUTH NORWALK ELECTRIC & WATER	203-866-3366 EXT 251





BULDING DETAILS

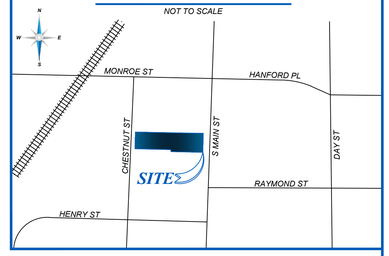
NOT TO SCALE

LEGEND & SYMBOLS

●	FOUND MONUMENT AS NOTED
⊕	COMPUTED POINT
⊕	TEMPORARY BENCHMARK
☼	LIGHT
Ø	POWER POLE
EM	ELECTRIC METER
T	TELEPHONE MANHOLE
S	SANITARY MANHOLE
	FIRE HYDRANT
W	WATER METER
	WATER VALVE
	DRAIN GRATE
	GAS VALVE
G	GAS METER
OVH	OVERHANG
(M)	MEASURED/CALCULATED DIMENSION
(R)	RECORD DIMENSION PER MAP 12153
N/F	NOW OR FORMERLY
BHL	BUILDING HEIGHT LOCATION
FFE	FINISH FLOOR ELEVATION
EC	EDGE OF CONCRETE
EA	EDGE OF ASPHALT
TA	TOP OF ASPHALT
NG	NATURAL GROUND
FL	FLOW LINE
BOC	BACK OF CURB
RCP	REINFORCED CONCRETE PIPE
	BOUNDARY LINE
	TIE LINE
R/W	RIGHT-OF-WAY LINE
C/R	CROWN OF ROAD
— X — X —	FENCE LINE
— OHP — OHP —	OVERHEAD POWER LINE
	MAJOR CONTOUR
	MINOR CONTOUR

VICINITY MAP

NOT TO SCALE



GENERAL NOTES

1. SOME FEATURES SHOWN ON THIS PLAT MAY BE SHOWN OUT OF SCALE FOR CLARITY.
2. DIMENSIONS ON THIS PLAT ARE EXPRESSED IN FEET AND DECIMAL PARTS THEREOF UNLESS OTHERWISE NOTED. MONUMENTS WERE FOUND AT POINTS WHERE INDICATED.
3. THE DISTANCES SHOWN HEREON ARE UNITS OF GROUND MEASUREMENT.
4. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT PROPERTY: EASEMENTS, OTHER THAN POSSIBLE EASEMENTS WHICH WERE VISIBLE AT THE TIME OF SURVEY; RESTRICTIVE COVENANTS; SUBDIVISION RESTRICTIONS OR OTHER LAND USE REGULATIONS; AND ANY OTHER FACTS WHICH AN ACCURATE TITLE SEARCH MAY DISCLOSE.
5. NAMES AND ADDRESSES OF ADJOINING PROPERTY OWNERS WERE TAKEN FROM FAIRFIELD COUNTY GIS.
6. THE SUBJECT PROPERTY SHOWN HEREON FORMS A MATHEMATICALLY CLOSED FIGURE AND IS CONTIGUOUS WITH THE ADJOINING PUBLIC RIGHT-OF-WAY AND/OR ADJOINING PARCELS WITH NO GAPS OR OVERLAPS.
7. THIS MAP AND SURVEY HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300B-1 THRU 20-300B-20, THE MINIMUM STANDARDS FOR SURVEYS AND MAPS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC.
8. THE HORIZONTAL ACCURACY IS CLASS A-2.
9. THE TOPOGRAPHIC ACCURACY IS CLASS T-2.
10. THE BOUNDARY DETERMINATION CATEGORY IS A RESURVEY OF THE FOLLOWING DEED(S) AND/OR MAP(S): VOLUME 3795, PAGE 302 & MAP NO. 12153.
11. ELEVATIONS ESTABLISHED WITH GPS STATIC OBSERVATIONS UTILIZING ONLINE POSITIONING USER SERVICE (OPUS) FOR POST PROCESSING, VERTICAL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM (NAVD88) IN US SURVEY FEET. CONTOURS SHOWN ARE AT ONE FOOT INTERVALS.
12. THE TYPE OF SURVEY IS A BOUNDARY/TOPOGRAPHIC SURVEY.
13. THIS SURVEY WAS PREFORMED WITHOUT THE BENEFIT OF CERTIFIED TITLE RESEARCH AND OR A TITLE COMMITMENT.

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS MAP WAS PREPARED FROM NOTES OF AN INSTRUMENT SURVEY, MADE ON THE GROUND, UNDER MY DIRECT SUPERVISION. THE FIELD WORK WAS COMPLETED ON MAY 30, 2024. THE CERTIFICATIONS ARE LIMITED TO THE PERSONS FOR WHOM THE MAP WAS PREPARED, THE TITLE COMPANY, GOVERNMENTAL AGENCY AND/OR LENDING INSTITUTION LISTED HEREIN, AND ARE NOT TRANSFERABLE.

DATE OF PLAT OR MAP: 06/04/2024

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

STATE OF CONNECTICUT
SCOTT A. PHETTEPLACE
No. 70440
LICENSED
LAND SURVEYOR

SCOTT A. PHETTEPLACE
LAND SURVEYOR NO. 70440
STATE OF CONNECTICUT
CONNECTICUT C.O.A.: LSC.0000112

DATE	REVISION HISTORY	BY

BLEW
Surveying | Engineering | Environmental
3825 N. SHILOH DRIVE - FAYETTEVILLE, AR 72703
EMAIL: SURVEY@BLEWINC.COM
OFFICE: 479.443.4506 FAX: 479.582.1883
WWW.BLEWINC.COM

SURVEYOR JOB NUMBER: 24-2889	SURVEY DRAWN BY: TL - 06/04/2024
SURVEY REVIEWED BY: JMC	SHEET: 1 OF 1

STORMWATER OPERATIONS AND MAINTENANCE PLAN
79 South Main Street, Norwalk CT
July 22, 2025

The purpose of this Operations and Maintenance plan is to ensure that the drainage facilities proposed on site at 79 South Main Street (the "Property") shall be maintained in operational condition. While some normal wear is expected over time, the facilities must be properly maintained in order to function as designed. Please refer to the Site Utility Plan for the location of proposed drainage facilities.

Sound Communities and its successors or assigns agree to maintain the drainage facilities in a functioning condition by following the maintenance plan described below.

Storm Drainage Maintenance and Inspection Requirements: The storm drainage system shall be inspected on a semi-annual basis for the first year to ensure that the system is functioning properly. If these inspections show that debris and sediment have accumulated, then more frequent inspections will be scheduled. Inspections should be scheduled following major storm events. If after one year there is little sediment accumulation, then inspections shall be performed on an annual basis.

Catch Basins and Area Drains: Structures with an open grate top intended to collect rain water and direct it into the underground drainage pipes. Note that if sediment is allowed to build up it can greatly reduce the performance of the structure.

- Inspect yearly and remove accumulated debris, trash, and sediment with a vacuum truck as needed to insure proper working order.

Storm Drainage Piping and Junction Boxes/Manholes: Pipes are located beneath the surface and are used for piping stormwater out of the site. Junction boxes are square structures that are used as junctions for pipe intersections. There are two junction boxes located on site.

- All piping shall be completely cleaned of debris and accumulated sediment at the completion of constriction.
- Junction Boxes shall be inspected on an annual basis. Accumulated debris shall be removed and repairs shall be conducted as necessary.
- Video inspection of the storm drainage piping shall occur once every 10 years, unless the system performance indicates an issue.

Infiltration Systems: The infiltration systems are designed to store water and let it infiltrate back into the ground. There is one infiltration system proposed on site.

- The infiltration system shall be completely cleaned of accumulated debris at the completion of construction.
- Infiltration systems shall be inspected annually.
- Accumulated debris, trash and sediment shall be removed and repairs made as necessary.

DRAFT

Disposal of Debris and Sediment: All debris and sediment removed from the storm water structures shall be disposed of legally. There shall be no dumping of silt or debris into or in proximity to any inland or tidal wetlands or the abutting river.

Maintenance Arrangements: The names of the person or party responsible for completing routine inspection and maintenance activities, pet waste management, and proper management of de-icing chemicals and snow shall be filed with the Norwalk Department of Public Works annually.

Good Housekeeping:

1. Most domestic waste will be stored inside the trash room
2. No fertilizers, pesticides, or herbicides will be stored on site
3. No vehicle washing will be permitted on site
4. Lawn and garden areas will be kept in satisfactory condition maintaining ground stabilization and the pervious nature of landscaped areas.
5. In accordance with Sec. 2a-450 of CT General Statues spills of petroleum or chemicals will be reported to the CT DEEP's Oil & Chemical Response Division at (860) 424-3338, be contained as quickly as practical, and cleaned by a licensed contractor.

DRAFT

Declaration: The Owner(s) listed below agrees to the following statements. The statements are intended to ensure that the owner agrees to install and maintain stormwater management practices on the subject property in accordance with approved plans and conditions, and to further ensure that the management practices serve the intended function in perpetuity.

1. The Owner(s) shall be solely responsible for the inspection, maintenance, and repair of the postconstruction storm water management system identified in the above sections.

2. The Owner(s) agrees in the event that the Property is sold, transferred, or leased to provide information to the new owner, operator, or lessee regarding proper inspection, maintenance and repair of the storm water management practice(s). The information shall accompany the first deed transfer and include this "Drainage Facilities Operations and Maintenance Plan" and "Operations & Maintenance Exhibit A". The transfer of this information shall also be required with any subsequent sale, transfer or lease of the Property.

3. The City of Norwalk or its designee is authorized to access the property as necessary to conduct inspections of the storm water management practices to ascertain compliance with the intent of this Operations and Maintenance Plan. Upon written notification by the City of Norwalk or their designee of required maintenance or repairs, the Owner(s) shall complete the specified maintenance or repairs within a reasonable time frame determined by the City of Norwalk. The Owner(s) shall be liable for the failure to undertake any maintenance or repairs so that the public health, safety, general welfare or the environment shall not be endangered.

By: _____ _____
[Owner(s)] [Date]

By: _____ _____
[Owner(s)] [Date]

DRAFT

ZONE CD-3

DR MARTIN LUTHER KING JR DRIVE

#15 Madison Street
6.77 AC

#2 Monroe Street
3.10 AC

ZONE CV

MONROE STREET

MONROE STREET

ELIZABETH STREET

#64 South Main Street
1.45 AC

#76 & #68 South Main Street
0.26 AC

#3 Hanford Place
0.04 AC

#5 Hanford Place
0.11 AC

#7 Hanford Place
0.11 AC

#9 Hanford Place
0.11 AC

#11 Hanford Place
0.13 AC

HANFORD PLACE

#13 Day Street
0.44 AC

ZONE CD-4

ZONE SD-MC

WATER STREET

METRO NORTH

#10 Monroe Street
1.46 AC

#72 South Main Street
0.10 AC

#74 South Main Street
0.10 AC

#2 Hanford Place
0.09 AC

#4 Hanford Place
0.12 AC

#6 Hanford Place
0.15 AC

#8 Hanford Place
0.16 AC

#10 Hanford Place
0.16 AC

#11 Day Street
0.39 AC

#76 South Main Street
0.24 AC

#78 & #80 South Main Street
0.71 AC

#17 Day Street
0.42 AC

DAY STREET

SOUTH MAIN STREET

SUBJECT PROPERTY

#79 South Main Street
0.34 AC

#1-11 Chestnut Street
1.52 AC

#82 South Main Street
0.34 AC

#19 Day Street
1.15 AC

#84 South Main Street
0.17 AC

#7 Raymond Street
0.24 AC

#86 South Main Street
0.12 AC

#85 South Main Street
2.05 AC

CHESTNUT STREET

#15 Chestnut Street
0.77 AC

RAYMOND STREET

#8 Raymond Street
0.04 AC

#96 South Main Street
0.5 AC

#10 Raymond Street
2.19 AC

HENRY STREET

#25 Chestnut Street
2.26 AC

#8 Henry Street
0.21 AC

#10 Henry Street
0.19 AC

#97 South Main Street
0.27 AC

ZONE CV

DAY STREET

#98 South Main Street
0.46 AC

#28 Chestnut Street
0.12 AC

#99 South Main Street
0.36 AC

#100 & #102 South Main Street
0.23 AC

500' OFFSET

#30 Chestnut Street
0.21 AC

#101 South Main Street
0.45 AC

#104 South Main Street
0.66 AC

ZONE CD-3

ZONE CV

ZONE CD-3

ELY AVENUE

CONCORD STREET

ZONE CD-3

ZONE SD-LI

MAGNETIC

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

500' SITE VICINITY EXHIBIT

DEPICTING

79 SOUTH MAIN STREET

NORWALK, CT

PREPARED FOR

SOUND COMMUNITIES

SCALE: 1"=80' 0 80 160

SHEET No: EX-1

Comm. No.: 11071

7/18/2025 12:32 PM H:\Jobfiles\11000\11000\11071\Dwg\11071 Vicinity.dwg

August 4, 2025

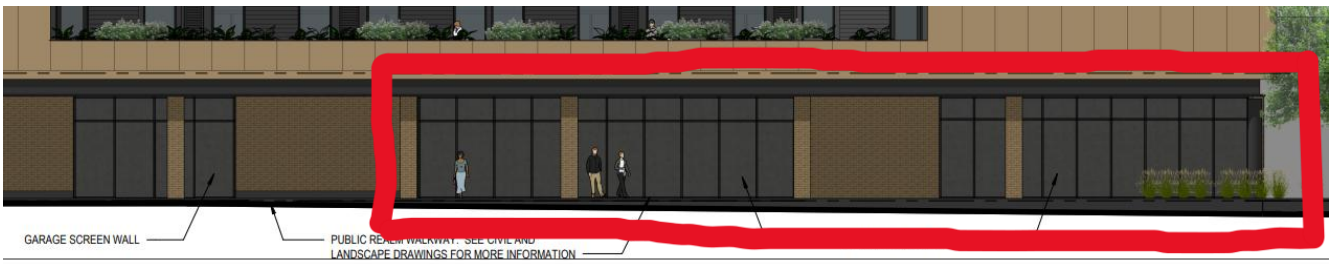
Memorandum
To: Elizabeth A.B. Suchy
From: Bryan Baker, AICP, Principal Planner
Re: #2025-60 R/SPR – Sound Communities, Inc. – 79 South Main Street (District 2, Block 57, Lot 7) – Construction of a seven-story, 68-dwelling unit, mixed-use development

Dear Attorney Suchy,

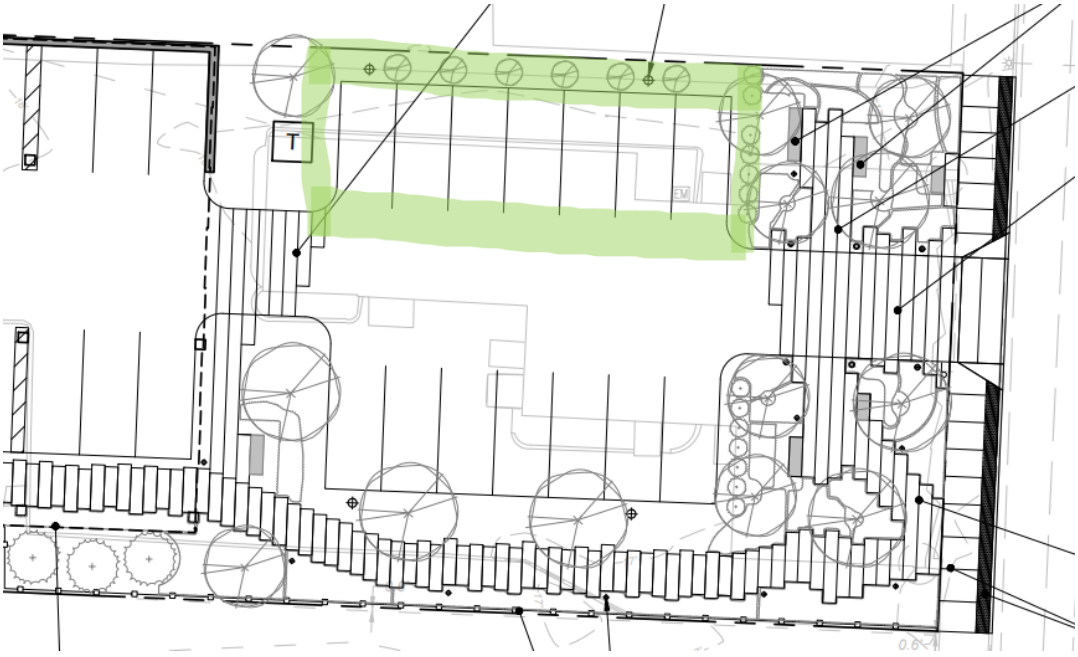
Please accept this letter as a preliminary review of the above referenced site plan review application.

1. Please provide a clarification on proposed color palette for the building, particularly from the Chestnut Street façade. The drawings on sheet A2.03 of the architectural plans show the building appearing much darker than the rendering on page A2.04.

2. Please provide documentation on the intent to comply with Section 8.4.5.N.2.g.
3. Please provide clarification on if the garage screen wall that is predominantly located along the southern façade of the building will be opaque or transparent. Staff would prefer the material to be transparent, or some other visually interesting alternatives be provided, to make the public realm walkway more inviting. Additionally, if the material is transparent, Staff recommends reviewing the possibility of including that material along a portion of the eastern façade as well.



4. Staff notes that the parking area located behind the pocket park includes different materials such as the concrete plank pavers to aesthetically improve the park and parking area. Staff recommends that the applicant consider some additional options to screen the parking such as a pergola over a row of parking spaces.



5. Staff recommends discussing the streetscape improvements with Transportation, Mobility & Parking (TMP) and the Department of Public Works (DPW) to ensure coordination and compliance with the Complete Streets Manual.

Additional comments may be forthcoming based on additional Staff review of the application and any changes and responses provided by the applicant.

Sincerely,

Bryan Baker

Bryan Baker, AICP
Principal Planner
City of Norwalk
203-854-7705
bbaker@norwalkct.gov

I ♥ NORWALK
PLANNING & ZONING

August 5, 2025

Memorandum
To: Elizabeth A.B. Suchy
From: Bryan Baker, AICP, Principal Planner
Re: #2025-60 R/SPR – Sound Communities, Inc. – 79 South Main Street (District 2, Block 57, Lot 7) – Zoning Regulation Text Amendment Application regarding Pocket Park Private Frontage types

Dear Attorney Suchy,

Please accept this letter as a preliminary review of the above referenced text amendment application. Staff is recommending that the following changes be made to the proposed language for your consideration.

1. Revise Sec. 4.3.3.E to the following:

For Through lots or Building Sites, the Frontage and Front Setback regulations shall apply to both Frontages. **When Permitted by Table 4.3.7.A, a Pocket Park may be used as Private Frontage for one of the Lot or Building Site(s) Frontages and the Front Setback shall be measured from the Front Lot or Building Site Line to the front of the Pocket Park.**

2. If the change to Sec. 4.3.3.E as written above is acceptable, the front setback portion of Table 4.3.1-H would no longer need to be amended:

Front Setback, Principal Frontage	a. 0 ft. min., 12 ft. max from the property line or from the edge of any public improvements required as part of the Development, 50 ft. max. where the Principal Frontage is a Watercourse (once the min. Frontage buildout requirement is met, the max. Front Yard Setback shall not apply to additional Principal Structure(s)

3. Revise Table 4.3.1-H for Private Frontage Types to include Pocket Parks as follows:

Private Frontage Types			
Common Yard	NP	Gallery	P
Porch	NP	Arcade	P
Fence	NP	Commercialfront	P
Terrace/Lightwell	P	Dining Yard	P
Forecourt	P	Commercial Porch	NP
Stoop	P	Boardwalk	NP
Stepfront	P	Loading Dockfront	NP
Shopfront	P	**Pocket Park**	**P**
See Table 4.3.7.A (Private Frontage Types)			

4. Revise Table 4.3.1-H Vehicular Parking Requirements – no comments on the proposed language.
5. Revise the Private Frontage Types in Table 4.3.7.A as follows:

POCKET PARK	TABLE 4.3.7.A PRIVATE FRONTAGE TYPES

Permitted Districts
CD-4

A Private Frontage type wherein the Façade is set back from the Frontage Line with a small (no smaller than 500sf, no larger than 0.5 acres) predominantly green open area for unstructured passive recreation. A Pocket Park shall only be permitted as a Private Frontage type for Through Lot or Building Site(s) and may only be used as Private Frontage for one of the Lot or Building Site(s) Frontages.

6. Lastly, Staff recommends including one additional amendment to Table 4.3.8.B Mid-Rise Principal Building Types to further distinguish types of development that may utilize the proposed changes, as follows:

Allowed Private Frontages			
Stoop	P	Terrace	P
Forecourt	P	Commercialfront	P
Terrace/Lightwell	P	Gallery[1]	P
Shopfront	P	Arcade[1]	P
Pocket Park	**P[2]**		
[1]May only be used in conjunction with a Shopfront or Commercialfront Frontage Type			
[2]May only be used in accordance with Table 4.3.7.A and Section 4.3.3.E			

More comments may be forthcoming based on Staff continuing to review the application, other city departments comments, and/or the applicant's response(s).

Sincerely,

Bryan Baker

Bryan Baker, AICP
Principal Planner
City of Norwalk
203-854-7705
bbaker@norwalkct.gov

CITY OF NORWALK
Transportation Mobility & Parking
P: 203-854-7335
Norwalk City Hall
125 East Avenue, PO Box 5125
Norwalk, CT 06856-5125

Sent via email to: ESuchy@carmlodylaw.com

To: Elizabeth A.B. Suchy, Esq. – Carmody Torrance Sandak & Hennessey LLP

From: Benjamin Yeung, P.E. – Senior Traffic Engineer, TMP
James Travers – Director, TMP

Date: August 26, 2025

Subject: 79 South Main Street – Multi-Family Residential for Low-Income Seniors

The City of Norwalk Transportation, Mobility, and Parking (TMP) Department has completed a substantive review of the following documents related to the proposed residential development at 79 South Main Street:

- Site/Civil Plan Set titled "Depicting 79 South Main Street, Norwalk, CT, Prepared for Sound Communities", prepared by Redniss & Mead, Inc., dated July 22, 2025;
- Boundary/Topographic Survey titled "79 South Main Street, 6 & 8 Chestnut Street, Norwalk, Fairfield County, Connecticut 06850", prepared by BLEW & Associates, P.C., dated June 4, 2024;
- Architectural Plan Set titled "79 South Main St., Norwalk, CT 06854", prepared by Amenta|Emma Architects, P.C., dated July 22, 2025;
- Landscape Plan Set titled "Sound Communities, 79 South Main Street, Norwalk, CT", prepared by Eric Rains Landscape Architecture, LLC, dated May 14, 2025, revised July 22, 2025; and,
- "Traffic and Parking Evaluation – Senior Affordable Housing Development – 79 South Main Street, Norwalk, Connecticut (F7015.00)", prepared by Hardesty & Hanover, dated July 23, 2025.

TMP maintains the stance that the driveway access would preferably be from Chestnut Street instead of South Main Street. The Norwalk Complete Streets Design Guide does not recommend curb cuts on "Main Streets", the street typology for South Main Street.

Excerpt from the Design Guidance for "Main Streets": "*…the design of these streets should start with the pedestrian experience…Curb cuts should be avoided unless no other option exists.*"

Furthermore, the risk of crashes (especially more intense or damaging crashes) for drivers turning into or out of the site driveway is higher on South Main Street than on Chestnut Street due to higher volumes and speeds (see **Table 1**).

Table 1: Vehicle Speed & Volume Comparison – S. Main St and Chestnut St

Street Segment	Average Speed (mph)	85th Percentile Speed (mph)	Average Annual Daily Traffic (vehicles per day)
South Main Street, btwn Monroe St and Raymond Pl	18	25	7551
Chestnut Street, btwn Monroe St and Henry St	14	18	1021

Note: Speed and volume data collected by City of Norwalk in 2024.

But TMP recognizes the Applicant's desire and reasons for locating the site access driveway on South Main Street and the primary building frontage and lobby on Chestnut Street. In the Applicant's plans, the walking path alongside the building is slightly wider and has a buffer that it would not have if the driveway and outdoor lot were on Chestnut Street. Furthermore, access from Chestnut Street would put the driveway close to the Side by Side Charter School and its playground on that side of the property; we have heard that the school administration strongly prefers that the driveway not be located so close to their curbside drop-off/pickup area along Chestnut Street. **For these reasons, TMP accepts the proposed parking lot and driveway configuration.**

Comment 1: When vehicles are parked on-street too close to the driveway, turns into or out of the driveway become more hazardous due to sightline limitations and/or being forced to maneuver into the opposing travel lane to complete turns. **TMP recommends discouraging on-street parking too close to the driveway by marking out 15' x 8' triangles on each side of the driveway as demonstrated in *Figure 1* below. Please indicate this on the plan set.**

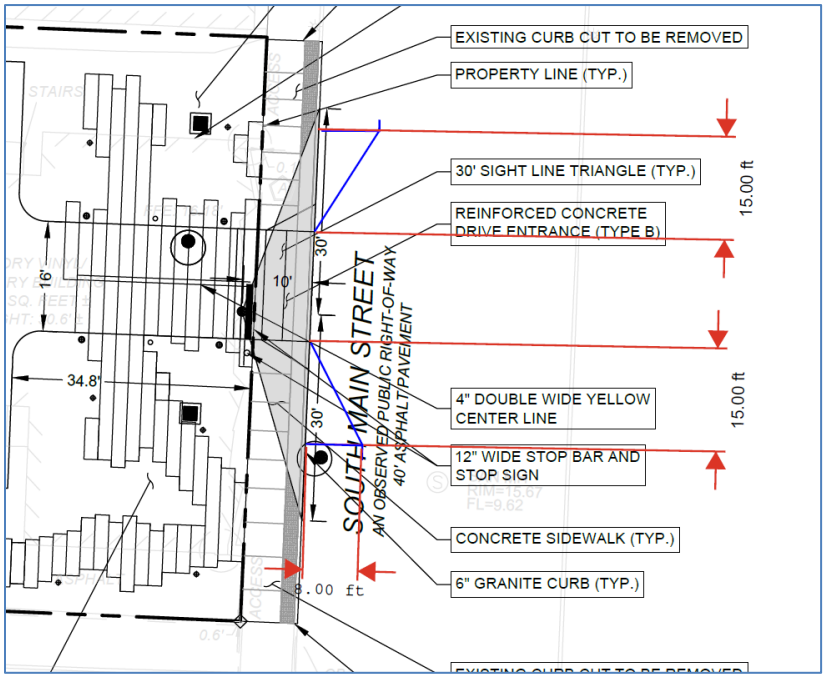


Figure 1: Sketch of on-street parking restriction markings at driveway (not to scale)

SUMMARY:

Please note this review is based on all documents submitted to date. TMP has no comments on the traffic and parking study at this time. TMP reserves the right to comment on forthcoming revised/updated site plans or traffic studies.

Sincerely,

Benjamin Yeung

Benjamin Yeung, P.E., Senior Traffic Engineer – TMP

James Travers, Director – TMP

Cc: DPW Permits
Jay Habansky - Chief of Economic and Community Development
Garrett Bolella, P.E., PTOE, RSP1, Assistant Director – TMP
Nathan Fankhanel, E.I.T., Junior Engineer – TMP
Vanessa Valadares, P.E., Chief of Department of Public Works
Wilber Giron, P.E., Permit Engineer – Department of Public Works
Christine Cardascia, P.E., Assistant Engineer – Department of Public Works
Steven Kleppin, Director – Planning and Zoning
Bryan Baker, Principal Planner – Planning and Zoning
Michelle Andrzejewski, Land Use Planner – Planning and Zoning
Amelia Williams, Land Use Planner – Planning and Zoning
William Ireland, Chief Building Official – Building and Code Enforcement
Leo Guerrero, Assistant Building Official – Building and Code Enforcement
Peter Kelly, Assistant Building Official – Building and Code Enforcement
Ralph Kolb, P.E., Sr. Environmental Engineer – WPCA
Christopher Cavaliere, Junior Engineer – WPCA
Alexis Cherichetti, Senior Environmental Officer – Conservation Office
William Mooney, Assistant Director of Health – Health Department
Troy Donohue, Deputy Fire Marshal – Fire Department

Outlook

FW: 79 South Main Street - Proposed Development

From Williams, Amelia <Amelia.Williams@norwalkct.gov>
Date Fri 8/29/2025 8:44 AM
To Baker, Bryan <bbaker@norwalkct.gov>

2 attachments (11 MB)
79 S Main Site Civil Plan Set 2025-08-27.pdf; 2025.08.27 - 79 South Main - Fire Marshal Responses.pdf;

Amelia Williams | Land Use Planner
City of Norwalk Conservation and Planning & Zoning Room 129
125 East Ave Norwalk CT 06851
(203) 854-7259 | amelia.williams@norwalkct.gov

From: Donohue, Troy <TDonohue@norwalkct.gov>
Sent: Thursday, August 28, 2025 4:22 PM
To: Elizabeth A.B. Suchy <ESuchy@carmodylaw.com>; Williams, Amelia <Amelia.Williams@norwalkct.gov>
Cc: McDonald, Kirk <KMcDonald@norwalkct.gov>
Subject: FW: 79 South Main Street - Proposed Development

Good afternoon,

At this time, the Fire Marshal's Office has no further questions or comments regarding the 79 South Main St proposed for development. Please see the attachments and email below from the Senior Engineer Vincent satisfying the EV Parking spaces in question. Please feel free to contact me with any questions.

Respectfully,

Troy J. Donohue
Fire Marshal
City of Norwalk Fire Department
121 Connecticut Avenue
Norwalk, CT 06854
Office 203-854-0226
Mobile 203-807-3166
Email TDonohue@norwalkct.gov

From: Donohue, Troy
Sent: Thursday, August 28, 2025 3:10 PM
To: Vincent Hynes <v.hynes@rednissmead.com>
Subject: RE: 79 South Main Street - Proposed Development

Good afternoon, Vince

I appreciate the time you took to review the EV parking spaces that were proposed for this development and think about the possible impact which could have taken place in the event of an incident. Please feel free to contact me at any time. Thank you

Respectfully,

Troy J. Donohue
Fire Marshal
City of Norwalk Fire Department
121 Connecticut Avenue
Norwalk, CT 06854
Office 203-854-0226
Mobile 203-807-3166
Email TDonohue@norwalkct.gov

From: Vincent Hynes <v.hynes@rednissmead.com>
Sent: Thursday, August 28, 2025 7:32 AM
To: Donohue, Troy <TDonohue@norwalkct.gov>
Subject: RE: 79 South Main Street - Proposed Development

You don't often get email from v.hynes@rednissmead.com. Learn why this is important
CAUTION: EXTERNAL Email: Don't open links or attachments from untrusted senders

Good morning, Fire Marshal Donohue,

We have reviewed the comments related to shifting the EV parking spaces from below the building to the exterior parking lot and adjusted the site plan accordingly. Please find attached our revised site plan set and short response memo.

Please let us know should you have any questions or comments.

Thanks,

Vince

VINCENT HYNES, P.E.
SENIOR ENGINEER
REDNISS & MEAD

(203) 327-0500 x15162

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DEPARTMENT OF ENGINEERING

CITY OF NORWALK
Christine Cardascia, P.E.
Assistant Engineer /
Department of Engineering
125 East Avenue
Norwalk, CT 06851
Office: (203) 854-7873
Permits: (203) 854-4161
www.norwalkct.gov
ccardascia@norwalkct.gov
dpwpermits@norwalkct.gov

August 18, 2025

Sent via email to: esuchy@carmodylaw.com

Elizabeth A.B. Suchy
Carmody Torrance Sandak & Hennessey LLP

RE: 79 South Main Street (District 02, Block 57, Lot 07)
Proposed Multi-Family Residence (68 Units)
Department of Engineering's Plan Review Comments

Dear Ms. Suchy:

The Department of Engineering has reviewed the supportive documents associated with the proposed development at the above-referenced property. The focus of our review has been to confirm the documents provided are in in conformance with the standards set forth in the City of Norwalk (City) Department of Public Works (DPW) Roadway Standards, and Standard Specifications, as amended and supplemented, Drainage Manual, as amended and supplemented, Standard Detailed Drawings, as amended and supplemented, and other applicable design standards.

The following documents were provided and included in our review:

- Site Plan titled "Zoning Site Plan Depicting 79 South Main Street Norwalk, CT Prepared for Sound Communities," prepared by Redniss and Mead, Inc., dated 07/22/2025
- Engineering Report titled "Sound Communities Development Site Engineering Report," prepared by Redniss and Mead, Inc., dated 07/22/2025

The following are the Department of Engineering's review comments highlighting sections that will require revision or additional information prior to our departmental sign-off:

1. Please confirm the lot numbering, there are a different reference to 79 South Main Street, 6 & 8 Chestnut Street as the lot address.
2. Please ensure any sediment and erosion control as well as construction activities stay within the confines of the property limits, or proper easements and agreements shall be established.
3. The plans shall be revised to show the proposed roof discharge locations and any associated roof leaders. Please ensure all work stay within the confines of the property limits, or proper easements and agreements shall be established.
4. Storm drain systems within covered parking areas must be designed, inspected, and final acceptance signed and sealed by a professional engineer licensed in the State of Connecticut. The storm drain systems shall have pretreatment (i.e. oil/water separator) and discharge into the

sanitary sewer system in accordance with the State of Connecticut Department of Energy and Environmental Protection (CTDEEP) and City of Norwalk requirements. Please note, no floor drains that are proposed in covered parking areas shall be below the 100-year flood elevation, as to not overburden the City Sewer system. Storm drain system within uncovered parking areas shall be pretreated and discharge into the storm drain system. Please revise the plans accordingly.

5. Flow monitoring data appears to be from 2018–2019. Please verify that the analysis accounts for the proposed Chestnut Street development as well as any other projects constructed or approved since 2019 along Chestnut Street, Monroe Street, and surrounding areas.
6. DPW and WPCA recommend installing either an enlarged cleanout or a small manhole on the 8-inch sewer lateral within the property to facilitate future maintenance activities.
7. The Plan shall clarify the intend of the existing sanitary sewer lateral. Should the existing lateral be abandoned, then the plan shall include the proposed abandonment detail, in conformance with the City's Standard Detail Drawings.
8. Construction details, including but not limited to, sanitary sewer saddle connection, etc., in accordance with the City's Standard Detail Drawings.
9. Any existing trees that are to be removed within the City's right-of-way that are 8 inches or greater in caliper, will require a tree removal permit and must be posted by the City's Tree Warden at least 10 days in advance, in accordance with the City Code Chapter 112.
    a. City trees to be removed shall be replaced in accordance with City Code Chapter 112-10C.

Please note this is a preliminary review of the submitted documents. Additional comments may be forthcoming once the requested information is received.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Christine Cardascia

Christine Cardascia, P.E.
Assistant Engineer

Cc: DPW Permits
James Meehan, P.E., Principal Engineer – Department of Engineering
Wilber Giron, P.E., Permit Engineer – Department of Engineering
Ralph Kolb, P.E., Sr. Environmental Engineer – Water Pollution Control Authority
Mario Pizighelli, P.E., Stormwater Systems Manager – Water Pollution Control Authority
Garrett Bolella, P.E., Assistant Director – Transportation, Mobility and Parking
Benjamin Yeung, P.E., Senior Traffic Engineer – Transportation, Mobility and Parking
Nathan Fankhanel, Junior Engineer – Transportation, Mobility and Parking
Steven Kleppin, Director – Planning and Zoning
Bryan Baker, Principal Planner – Planning and Zoning
Michelle Andrzejewski, Senior Planner – Planning and Zoning
Amelia Williams, Land Use Planner – Planning and Zoning
Tammy Maldonado, Zoning Enforcement Officer – Planning and Zoning

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AMENTA | EMMA
ARCHITECTS

September 9, 2025

Design. Precisely.

Bryan Baker, AICP
Principal Planner
City of Norwalk, Planning and Zoning
125 East Drive, Room 129
Norwalk, CT 06856

RE: Sound Communities – 79 South Main Street Development
Site Plan Application Review

Dear Mr. Baker,

Thank you for your comments dated August 4, 2025. Our responses to your comments are as follows:

1. Please provide a clarification on proposed color palette for the building, particularly from the Chestnut Street façade. The drawings on sheet A2.03 of the architectural plans show the building appearing much darker than the rendering on page A2.04.
    a. Colors shown on drawing A2.03 represent physical samples. The renderings shown on A2.04 represent the materials as rendered with direct sunlight on the south facing exposures.
2. Please provide documentation on the intent to comply with Section 8.4.5.N.2.g.
    a. The building is being designed to comply with DOE Zero Energy Ready Homes Multifamily Version 2 guidelines. The building will be all-electric with no connection to fossil fuels. HVAC systems for the residential units will be provided by VTAC units. All appliances and light fixtures will be designed to meet current ENERGY STAR criteria. Infrastructure is planned for a roof mounted photovoltaic system. Parking spaces are designated for electric vehicle charging and additional infrastructure is provided for additional future electric vehicle charging. All plumbing fixtures will be WaterSense labeled. High efficiency heat pump water heaters are specified.
3. Please provide clarification on if the garage screen wall that is predominantly located along the southern façade of the building will be opaque or transparent. Staff would prefer the material to be transparent, or some other visually interesting alternatives be provided, to make the public realm walkway more inviting. Additionally, if the material is transparent, Staff recommends reviewing the possibility of including that material along a portion of the eastern façade as well.
    a. The garage screening will be transparent. The east facing garage walls, along column line 13, are required to be solid by the structural engineer to act as shear walls for the podium structure.
4. Staff notes that the parking area located behind the pocket park includes different materials such as the concrete plank pavers to aesthetically improve the park and parking area. Staff recommends that the applicant consider some additional options to screen the parking such as a pergola over a row of parking spaces.
    a. Additional plantings have been provided between the parking area and the pedestrian walkway along the southern portion of the site. Updated drawing SPL-2.0 has been provided via email and a physical copy sent to your office.
5. Staff recommends discussing the streetscape improvements with Transportation, Mobility & Parking (TMP) and the Department of Public Works (DPW) to ensure coordination and compliance with the Complete Streets Manual.
    a. DPW comments were received on August 18, 2025, and will be responded to separately. TMP review received on August 26, 2025, and will be responded to separately.

Sincerely,

Adam N. Palmer, AIA, CPHC
Senior Associate
Amenta Emma Architects PC

242 Trumbull Street, Suite 201
Hartford, CT 06103
860.549.4725
apalmer@amentemma.com

September 12, 2025

Memorandum

To: Planning & Zoning Commission – Galen Wells, Chair

From: Bryan Baker, AICP, Principal Planner

Re: #2025-60 R/SPR – Sound Communities, Inc. – 79 South Main Street (District 2, Block 57, Lot 7) – Zoning Regulation Text Amendment Application regarding Pocket Park Private Frontage types and a site plan review application for the construction of a seven-story, 68-dwelling unit, mixed-use development

Commissioners,

The applicant has submitted a zoning regulation text amendment application as well as a site plan review application for the construction of a seven-story, 68-unit, mid-rise building at the property located at 79 South Main Street.

79 South Main Street is a through lot of about 24,193 square feet within the CD-4 zone. To the east of the property is South Main Street, to the west of the property is Chestnut Street, to the north of the property is the recently completed six-story Spinnaker development, and to the south of the property is Side by Side Charter School.

Generally, developments in the CD-4 zone are limited to 6 ½ stories in height and a density of one unit per 500 square feet of lot area. However, the Commission recently passed a regulation change that allows for developments that provide at least 50% of the units at 60% area median income (AMI) or less the ability to increase the maximum height of the structure by 1 ½ stories (8 stories maximum) and to increase the maximum allowed density by 50%. The applicant, Sound Communities Inc., is a non-profit developer associated with the Norwalk Housing Authority and will be designating all 68-units within the development as deed-restricted affordable to families earning no more than 50% AMI.

As mentioned earlier, the applicant is requesting a zoning regulation amendment to permit the site plan as proposed. The change can be summarized as permitting a "pocket park" as an allowable frontage type for developments on through lots within the CD-4 zone. As part of this amendment request, Staff has proposed modifications to the language offered by the applicant which does not effectively change the outcome of the project, should the Commission decide to approve the development.

If the text amendment were not included as part of the application, the site plan review application would need to be modified to comply with the zoning regulations. This is because the regulations require that building(s) be located close to the street and occupy a minimum percentage of the frontage. It is Staff's opinion that the text amendment language proposed and as further modified by Staff is reasonable and limits the number of properties that can utilize the language to the few properties that may run into similar situations in the future.

The project did have an architectural peer review done by the Redevelopment Agency and BFJ Planning. At the time of writing this memorandum a decision has not been made by the Redevelopment Agency. Staff has included the revisions recommended by BFJ within the conditions of approval, subject to the Commission agreeing with those recommendations as well as the Redevelopment Agency's findings.

Staff offers the following resolutions for consideration by the Commission:

Draft resolution to approve with Staff's recommended changes:

THEREFORE, BE IT RESOLVED by the Norwalk Planning & Zoning Commission that application #2025-60 R/SPR – Sound Communities, Inc. – 79 South Main Street (District 2, Block 57, Lot 7) – Zoning Regulation Text Amendment Application regarding Pocket Park Private Frontage types be **APPROVED** with the following revisions:

1. That Section 4.3.3.E shall be amended to the following:

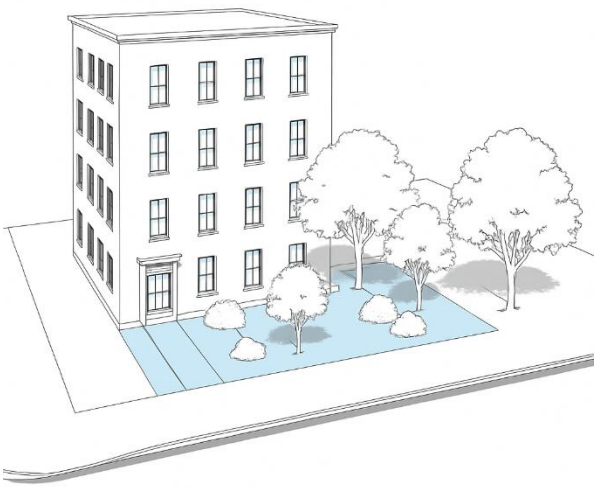
For Through Lots or Building Sites, the Frontage and Front Setback regulations shall apply to both Frontages. **When Permitted by Table 4.3.7.A, a Pocket Park may be used as Private Frontage for one of the Lot or Building Site(s) Frontages and the Front Setback shall be measured from the Front Lot or Building Site Line to the front of the Pocket Park.**

2. That the applicant's proposed amendment to the portion of Table 4.3.1-H shall not be included in this approval.
3. That Table 4.3.1-H shall be amended to the following:

Private Frontage Types			
Common Yard	NP	Gallery	P
Porch	NP	Arcade	P
Fence	NP	Commercialfront	P
Terrace/Lightwell	P	Dining Yard	P
Forecourt	P	Commercial Porch	NP
Stoop	P	Boardwalk	NP
Stepfront	P	Loading Dockfront	NP
Shopfront	P	**Pocket Park**	**P**
See Table 4.3.7.A (Private Frontage Types)			

4. That the applicant's proposed revision to Table 4.3.1-H Vehicular Parking Requirements shall be included in this approval.
5. That Table 4.3.7.A shall be amended to include the following:

POCKET PARK	**TABLE 4.3.7.A PRIVATE FRONTAGE TYPES**



Permitted Districts
CD-4

A Private Frontage type wherein the Façade is set back from the Frontage Line with a small (no smaller than 500sf, no larger than 0.5 acres) predominantly green open area for unstructured passive recreation. A Pocket Park shall only be permitted as a Private Frontage type for Through Lot or Building Site(s) and may only be used as Private Frontage for one of the Lot or Building Site(s) Frontages.

6. That Table 4.3.8.B Mid-Rise Principal Building Types shall be amended to include the following:

Allowed Private Frontages			
Stoop	P	Terrace	P
Forecourt	P	Commercialfront	P
Terrace/Lightwell	P	Gallery[1]	P
Shopfront	P	Arcade[1]	P
Pocket Park	**P[2]**		
[1]May only be used in conjunction with a Shopfront or Commercialfront Frontage Type			
[2]May only be used in accordance with Table 4.3.7.A and Section 4.3.3.E			

BE IT FURTHER RESOLVED that the reasons for approving the zoning regulation text amendment is to achieve the following goals, policies, and objectives of the Plan of Conservation and Development:

1. *"Include place-making and functional design standards in the requirements for non-residential and mixed-use development."*
2. *"As part of the zoning code rewrite, create zoning with design standards to achieve the desired outcomes for commercial and mixed-use projects as redevelopment occurs."*
3. *"Neighborhood and corridor activity centers have urban design standards that promote walkability."*
4. *"Continue implementation of transit-oriented development (TOD) and concentrate a range of mixed-use opportunities for sustainable live/work/play communities in the City."*

BE IT FURTHER RESOLVED that the effective date of this action shall be September 26, 2025.

Draft resolution to approve the applicant's proposed language:

THEREFORE, BE IT RESOLVED by the Norwalk Planning & Zoning Commission that application #2025-60 R/SPR – Sound Communities, Inc. – 79 South Main Street (District 2, Block 57, Lot 7) – Zoning Regulation Text Amendment Application regarding Pocket Park Private Frontage types be **APPROVED** to achieve the following goals, policies, and objectives of the Plan of Conservation and Development:

1. *"Include place-making and functional design standards in the requirements for non-residential and mixed-use development."*
2. *"As part of the zoning code rewrite, create zoning with design standards to achieve the desired outcomes for commercial and mixed-use projects as redevelopment occurs."*
3. *"Neighborhood and corridor activity centers have urban design standards that promote walkability."*
4. *"Continue implementation of transit-oriented development (TOD) and concentrate a range of mixed-use opportunities for sustainable live/work/play communities in the City."*

BE IT FURTHER RESOLVED that the effective date of this action shall be September 26, 2025.

THEREFORE, BE IT RESOLVED by the Norwalk Planning & Zoning Commission that application #2025-60 R/SPR – Sound Communities, Inc. – 79 South Main Street (District 2, Block 57, Lot 7) – Zoning Regulation Text Amendment Application regarding Pocket Park Private Frontage types and a site plan review application for the construction of a seven-story, 68-dwelling unit, mixed-use development be **APPROVED** subject to the following:

1. That the buildings and site will be developed in accordance with the following plans:
    a. Per site plan package entitled "Zoning Site Plan Depicting 79 South Main Street," prepared by Redniss & Mead, dated 7/22/2025; and
    b. Per architectural drawings entitled "79 South Main St.," prepared by Amenta Emma Architects, dated 7/22/2025; and
    c. Per landscape site plans entitled "Site Planting Plan," prepared by Eric Rains Landscape Architecture, LLC, dated 9/9/2025; and
2. That the overhead service wires and all other utilities shall be installed underground; and
3. That prior to the issuance of a zoning permit the applicant shall provide documentation that the application complies with Section 8.4.5.N.2.g of the zoning regulations; and
4. That prior to the issuance of a zoning permit and per the architectural peer review report provided by BFJ Planning Inc., dated September 10, 2025, the applicant shall revise the architectural drawings to include the following changes in coordination with Planning & Zoning and Redevelopment Agency Staff:
    a. The color material palette of the lap siding and brick shall be reconsidered and made more compatible with the surround context of red brick; and
    b. That the end columns, as highlighted in Figure 3 of the report, shall be revised to be rectangular and brick to match the entire row of columns; and
    c. That the glass entrance, shown as Item 1 in Figure 4 of the report, shall be recessed at least one foot, and the applicant shall consider adding canopy over the main entrance; and
    d. That a more identifiable and readable address be added to the Chestnut Street façade; and
    e. That there should be two lights near the façade entrance and not three as shown on the plans; and

f. That, if possible, the fire exit door on the façade should be removed to simplify the façade; and
g. That signage shall be added to the South Main Street side of the property for wayfinding purposes; and
h. That additional landscaping shall be added to the Chestnut Street frontage between the building and the sidewalk; and
i. That fencing shall be added to the southern property line as well as the northern property line adjacent to the parking area for screening; and
j. That the applicant shall provide clarification on how pick up/drop off and deliveries shall function; and
k. That the plank pavers shall continue all the way through from South Main Street to Chestnut Street, as depicted in Figure 9 of the report; and
l. That the applicant shall provide lighting and specify the type of lighting for the area as shown as Item 2 in Figure 10 of the report; and

5. That prior to the issuance of a zoning permit and per the Transportation, Mobility and Parking (TMP) Department's August 26, 2025, memorandum, the applicant shall:
    a. Mark 15' x 8' triangles on each side of the driveway to prevent on-street parking from being too close to the driveway; and
6. That a final Workforce Housing Plan shall be submitted to Staff for review and approval and shall include deed restriction documents, architectural floor plans and a breakdown of the number of bedrooms for each workforce housing unit provided. All such workforce housing units shall be deed restricted in perpetuity and meet all requirements of the Workforce Housing Regulations; and
7. That a surety bond be submitted, in an amount to be determined by the Staff, to guarantee the installation of the required erosion and sediment controls prior to the issuance of a zoning permit; and
8. That all erosion and sediment controls be installed and maintained prior to the start of any construction or site work and that additional controls be installed at the direction of the Staff, as needed; and
9. That a Connecticut licensed engineer shall certify that all required improvements, including any required off-site improvements, were installed to City standards prior to the issuance of a Certificate of Zoning Compliance (COZC); and
10. That a surety bond be submitted to guarantee the completion and maintenance of the site plan and any modifications to the plan and all work required as a condition of approval under this special permit/coastal site plan review prior to the issuance of a COZC; and

BE IT FURTHER RESOLVED that this application complies with all applicable sections of the Norwalk Zoning Regulations; and

BE IT FUTHER RESOLVED that the effective date of this approval is September 27, 2025.

Sincerely,

Bryan Baker

Bryan Baker, AICP
Principal Planner
City of Norwalk
203-854-7705
bbaker@norwalkct.gov

CITY OF NORWALK
PLANNING & ZONING COMMISSION
SPECIAL MEETING MINUTES
SITE VISIT
SEPTEMBER 10, 2025

PRESENT: Chapin Bryce Acting Chair; Diana Lenkowsky; Louis Schulman; Jacquen Jordan-Byron; Ana Tabachneck; Richard Roina; Darius Williams

STAFF: Steve Kleppin; Amelia Williams

OTHERS: Attorney Rick Costantini

I. CALL TO ORDER

Mr. Bryce called the meeting to order at 6:12 p.m.

II. ROLL CALL

Mr. Kleppin called the roll.

III. SITE VISIT

A. #2025-48 SP – Enrico R. Costantini, Esq. – 284 New Canaan Avenue – After-the-fact clearing of 15,000 square feet to be restored with plantings - SITE VISIT (284 New Canan Avenue)

B. #2025-49 SP – Enrico R. Costantini, Esq. – 284 New Canaan Avenue – Request to modify Special Permit #12-16 to expand the area of the previously approved contractor's yard and change the stormwater management - SITE VISIT (284 New Canan Avenue)

Ms. Williams reviewed the purpose of meeting, which was to:

- Orient the Commissioners regarding the location of the proposed restoration and yard expansion, and which areas were related to each application
- Indicate where neighboring properties are, including the neighbors who have expressed opposition, to date
- Observe existing conditions, including yard layout and vegetation

Ms. Williams walked the Commissioner’s through the items outlined above. The Commission walked around the perimeter of the yard area.

Ms. Williams noted that there are wetlands and watercourses on the property, and that two associated wetland permits had been approved for the proposed work.

IX. ADJOURNMENT

Mr. Williams made a Motion to Adjourn.
Ms. Tabachneck seconded.
Chapin Bryce; Diana Lenkowsky; Louis Schulman; Jacquen Jordan-Byron; Richard Roina approved.
No one opposed.
No one abstained.

The meeting was adjourned at 6:22 p.m.

Respectfully submitted,

Amelia Williams
Land Use Planner

CITY OF NORWALK
PLANNING & ZONING COMMISSION
SPECIAL MEETING MINUTES
SITE VISIT
SEPTEMBER 10, 2025

PRESENT: Chapin Bryce Acting Chair; Diana Lenkowsky; Louis Schulman; Jacquen Jordan-Byron; Ana Tabachneck; Richard Roina; Darius Williams

STAFF: Steve Kleppin; Amelia Williams

OTHERS: Attorney Rick Costantini

I. CALL TO ORDER

Mr. Bryce called the meeting to order at 6:12 p.m.

II. ROLL CALL

Mr. Kleppin called the roll.

III. SITE VISIT

A. #2025-48 SP – Enrico R. Costantini, Esq. – 284 New Canaan Avenue – After-the-fact clearing of 15,000 square feet to be restored with plantings - SITE VISIT (284 New Canan Avenue)

B. #2025-49 SP – Enrico R. Costantini, Esq. – 284 New Canaan Avenue – Request to modify Special Permit #12-16 to expand the area of the previously approved contractor's yard and change the stormwater management - SITE VISIT (284 New Canan Avenue)

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