

## GREGORY AND ADAMS, P.C.

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DANIEL L. CONANT\*  
TREVOR S. CONLOW§  
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FAX: (203) 834-1628

JULIAN A. GREGORY  
(1912 - 2002)

THOMAS T. ADAMS  
(1929 - 2015)

ESTABLISHED 1964

NEW YORK OFFICE:  
399 KNOLLWOOD ROAD - SUITE 201  
WHITE PLAINS, NY 10603  
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PLEASE REPLY TO SENDER:  
JAMES D'ALTON MURPHY  
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\* ALSO ADMITTED IN NEW YORK  
\* ALSO ADMITTED IN VERMONT  
§ ADMITTED IN NY AND NJ ONLY

WWW.GREGORYANDADAMS.COM

February 7, 2023

### **By E-mail and Hand Delivery**

Planning and Zoning Commission

Town Hall Annex

238 Danbury Road

Wilton, CT 06897

Attn: Mr. Michael E. Wrinn – Director of Planning and Land Use Management

Re: The Grossman Companies, Inc. – Application to Planning and Zoning Commission  
Premises: 372, 378 and 380 Danbury Road, Wilton, Connecticut

Dear Mr. Chairman and Members of the Commission:

This firm represents The Grossman Companies Inc. (“TGCI”). TGCI is the Managing Member of Wilton GSE, LLC, Wilton 378, LLC and Wilton 380, LLC which in turn hold record title to the parcels at 372, 378 and 380 Danbury Road, respectively. On behalf of our client, we are seeking Significant Regulated Activity approval for the parcels at 372, 378 and 380 Danbury Road as described below.

### **Overview:**

Wilton GSE, LLC, owner of 372 Danbury Road is seeking to expand medical office use within the existing office building. Under current Wilton Zoning Regulations (“Regulations”), the desired conversion of general office to medical office is prevented by existing parking metrics within the Regulations and the finite parking available on the 372 Danbury Road site (see, 29-8.B.5.a and b for parking metrics regarding private school, general office, and medical office). The 378 and 380 Danbury Road parcels will be scraped and a new interconnected paved parking lot will be developed with a bioswale and increased vegetative buffer along the Norwalk River.

**Wilton Zoning Regulation Review:**

Pursuant to Section 29-8.B.9.b of the Regulations, “At the time of Site Plan approval, the Commission may allow all of a portion of the required parking spaces to be located either on a separate lot under the same ownership as the use being served or on a separate lot under a different ownership than that use being served, provided that arrangements satisfactory to the Commission shall have been made to guarantee long-term access to and use of such spaces. All spaces approved under this provision shall be located within 500 feet of the main building entrance of the use being served.”

In light of Section 29-8.B.9.b, affiliated entities of Wilton GSE, LLC. purchased 378 Danbury Road and 380 Danbury Road with the intention of redeveloping those two parcels into one integrated parking lot which will connect with 372 Danbury Road via an interior driveway connection between 372 Danbury Road and 378 Danbury Road and a pedestrian walkway between 372 Danbury Road and 380 Danbury Road. Given residual environmental concerns based on prior uses of the 378 and 380 Danbury Road parcels, the entities that own the 3 parcels desire to keep the parcels under separate ownership (the different ownership noted in Section 29-8.B.9.b above) although the Overall Site Plan (C-100) prepared by Tighe & Bond, dated January 05, 2023, attached, shows the 3 parcels reconfigured into one connected parking lot.

Regulations Section 29-6.D.7, which states: “No setback shall be required for parking and loading areas if they abut adjacent nonresidential parking and loading areas, with physical and legal provisions for access between the parking and loading areas.”, provides authorization for the Site Plan’s minimal parking setbacks for the interior property lines as it waives the need for the 3 parcels to conform to the General Business District parking and loading setbacks set forth in Section 29-6.E.5.

Wilton GSE, LLC will enter into 25 year lease agreements with 378 Wilton, LLC and 380 Wilton, LLC for the parking spaces to conform with the obligation set out in Section 29-8.B.9.b. A sample template is attached so you can see how the parties intend to contract for the parking spaces.

In addition to the above provisions, the Site Plan shows that the redevelopment of the 378 and 380 parcels will reduce the curb cuts into Danbury Road by one (see, Section 29-8.B.8).

Finally, the Landscape & Lighting Plan (LP-1) prepared by Environmental Land Solutions, dated January 16, 2023, complies with Section 29-8.C regarding parking lot screening.

**Benefits of the Proposal:**

The 378 Danbury Road and 380 Danbury Road parcels, as they exist today, do not contain means to mitigate the sheet flow of stormwater from the parcels into the Norwalk River and the existing buildings decrease the effectiveness of the floodplain. The proposed razing of the existing buildings and creation of a new paved parking lot with both a bioswale and level spreader will mitigate the sheet flow of stormwater into the River. By increasing the green space (pervious surface) on the parcels by 10,585±, through interior and property line landscaping buffers and increasing the existing vegetative buffer with the River by 8’ to 22’ along the 378 parcel, the anticipated redevelopment of the parcels will minimize any existing adverse impacts on the River.

In addition to the above environmental benefits, locating medical services within the Town of Wilton is a benefit to the citizens of the Town as it decreases the need to travel for such services and also brings in non-residents of the Town who may avail themselves of other business offerings while within Wilton. In addition, the Town is faced with a sizable number of vacant office buildings and office space so the conversion will also serve to mitigate such vacancy at the 372 Danbury Road property.

All proposed redevelopment of the parcels will be conducted in a timely manner once a medical use tenant contracts for space within the existing 372 Danbury Road building.

**Submissions:**

As attorneys for TGCI, we hereby submit for review under Wilton Zoning Regulations materials prepared in support of the application for Special Permit and Site Plan approval to allow the conversion of office space to medical space and to provide additional parking to serve that use.

1. Authorization letter signed by The Grossman Companies, Inc. as applicant authorizing Gregory and Adams to act as its Agent in connection with this matter.
2. Authorization letters signed by Wilton GSE LLC, Wilton 378 LLC, and Wilton 380 LLC, as record owners authorizing Gregory and Adams to act as their Agent in connection with this matter.
3. Location Map
4. Application for Special Permit with Form B – Zoning Data and Statement of Compliance with Town Plan attached.
5. Cover Sheet prepared by Tighe & Bond, Inc. (“T&B”) dated January 25, 2023.
6. Topography Survey prepared by Brautigam Land Surveyors, P.C. dated January 10, 2023.
7. General Notes, Legend and Abbreviations (C-001) prepared by T&B dated January 25, 2023.
8. Overall Site Plan (C-100) prepared by T&B dated January 25, 2023.
9. Site Plan (C-101) prepared by T&B dated January 25, 2023.
10. Grading and Drainage Plan (C-200) prepared by T&B dated January 25, 2023.
11. Soil Erosion and Sediment Control Plan (C-300) prepared by T&B dated January 25, 2023.
12. Soil Erosion and Sediment Control Notes and Details (C-301) prepared by T&B dated January 25, 2023.
13. Soil Erosion and Sediment Control Details (C-302) prepared by T&B dated January 25, 2023.

14. Details (C-400) prepared by T&B dated January 25, 2023.
15. Details (C-401) prepared by T&B dated January 25, 2023.
16. Details (C-402) prepared by T&B dated January 25, 2023.
17. Landscaping & Lighting Plan (LP-1) prepared by Environmental Land Solutions LLC (“ELS”) dated January 25, 2023.
18. Footcandle Plans – SL-1 (1.0 and 2.5) prepared by Illuminate dated January 12, 2023 and January 23, 2023.
19. Engineering Report prepared by T&B dated January 25, 2023.
20. Wetland and Watercourse Survey Memorandum prepared by T&B dated December 29, 2022.
21. Traffic Engineering and Parking Statement prepared by T&B dated January 18, 2023.
22. Letter regarding Environmental Assessment and Planting Plan prepared by ELS dated January 25, 2023.
23. Phase I Environmental Site Assessment Executive Summary for 372 Danbury Road prepared by GZA Geoenvironmental, Inc. (“GZA”) dated October 1, 2018.
24. Phase I Environmental Site Assessment Executive Summary for 378 Danbury Road prepared by GZA Geoenvironmental, Inc. dated September 13, 2022.
25. Supplemental Environmental Site Investigation Report Conclusions and Recommendations for 378 Danbury Road prepared by GZA dated April 7, 2022
26. Phase I Environmental Site Assessment Executive Summary for 380 Danbury Road prepared by GZA dated September 13, 2022.
27. Supplemental Environmental Site Investigation Report Conclusions and Recommendations for 380 Danbury Road prepared by GZA dated September 13, 2022.
28. Environmental Impact Statement prepared by Gregory and Adams dated January 31, 2023.
29. Eleven photographs of the current conditions at 378 and 380 Danbury Road.
30. Title Certification Letter confirming ownership of the three parcels is vested in 372 Wilton GSE, Wilton 378 LLC and Wilton 380 LLC.
31. List of Owners of Property located within 500’ of the Premises.
32. List of Project Professionals

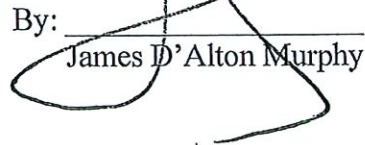
Planning and Zoning Commission  
February 7, 2023  
Page 5 of 5

Leases between 372 and the other parcels regarding long-term parking will be put in place. The leases may be summarized as follows: parties, term, rent and lease termination.

Also enclosed is Gregory and Adams' check in the amount of \$460.00 payable to the Town of Wilton in payment of the application fee.

We look forward to presenting the application to the Commission.

Respectfully submitted,  
Gregory and Adams, P.C.

By:   
James D'Alton Murphy

JD'AM/ko  
Enclosures

cc: Messrs. Jacob Grossman, Felix Charney, Jesse Faneuil and David Walsh – The Grossman Companies, Inc.  
John W. Block, P.E., L.S., Erik W. Lindquist, P.E., LEED AP and  
Craig D. Yannes, PE, PTOE, RSP1 – Tighe & Bond, Inc.  
Kate Throckmorton, L.A. - Environmental Land Solutions, LLC  
Adam Henry, LEP, GZA Geoenvironmental, Inc.  
Kathleen L. Royle, Esq.

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jmurphy@gregoryandadams.com

January 23, 2023

### By E-Mail Only

Mr. Jacob Grossman  
The Grossman Companies, Inc.  
One Adams Place  
859 Willard Street, Suite 501  
Quincy, MA 02169

Re: The Grossman Companies Inc. – Land Use Applications to the Town of Wilton  
Premises: 372, 378 and 380 Danbury Road, Wilton, Connecticut

Dear Mr. Grossman:

The Land Use agencies of the Town of Wilton require a letter signed by The Grossman Companies Inc. as applicant authorizing Gregory and Adams, P.C to act as its agent in connection with the referenced applications. Please sign a copy of this letter and return it to me via email.

Very truly yours,

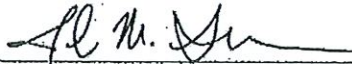
  
James D'Alton Murphy

JD'AM:ko

The undersigned hereby authorizes Gregory and Adams, P.C. to act as its agent in connection with Land Use applications filed with the Town of Wilton.

Planning and Zoning Commission  
January 23, 2023  
Page 2 of 2

The Grossman Companies, Inc.,

By:   
\_\_\_\_\_  
Jacob Grossman, President  
Duly Authorized

JD'AM/ko  
LandUse/Clients/WiltonGSE/2023ParkingExpansion/InformaltoPZC/Athorizationltr.Applicant(1)

PAUL H. BURNHAM  
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January 23, 2023

**By E-Mail Only**

Mr. Jacob Grossman  
Wilton GSE LLC  
372 Danbury Road  
Wilton, CT 06897

Re: The Grossman Companies Inc. – Land Use Applications to the Town of Wilton  
Premises: 372, 378 and 380 Danbury Road, Wilton, Connecticut

Dear Mr. Grossman:

The Land Use agencies of the Town of Wilton require a letter signed by Wilton GSE LLC as owner of 372 Danbury Road, Wilton, Connecticut authorizing Gregory and Adams, P.C to act as its agent in connection with the referenced applications. Please sign a copy of this letter and return it to me via email.

Very truly yours,

James D'Alton Murphy

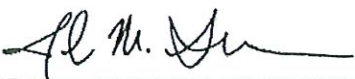
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Wilton GSE LLC

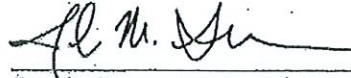
By: TGCI Wilton, LLC, its Managing Member

  
\_\_\_\_\_  
Jacob Grossman, Managing Member  
Duly Authorized



Planning and Zoning Commission  
January 23, 2023  
Page 2 of 2

By: The Grossman Companies, Inc.,  
its Managing Member



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Jacob Grossman, President  
Duly Authorized

JD'AM/ko

LandUse/Clients/WiltonGSE/2023ParkingExpansion/InformaltoPZC/Authorizationtr,WiltonGSE(1)

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jmurphy@gregoryandadams.com

January 23, 2023

### By E-Mail Only

Mr. Jacob Grossman  
Wilton 378 LLC  
378 Danbury Road  
Wilton, CT 06897

Re: The Grossman Companies Inc. -- Land Use Applications to the Town of Wilton  
Premises: 372, 378 and 380 Danbury Road, Wilton, Connecticut

Dear Mr. Grossman:

The Land Use agencies of the Town of Wilton require a letter signed by Wilton 378 LLC as owner of 378 Danbury Road, Wilton, Connecticut authorizing Gregory and Adams, P.C to act as its agent in connection with the referenced applications. Please sign a copy of this letter and return it to me via email.

Very truly yours,

James D'Alton Murphy

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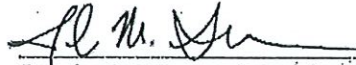
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Planning and Zoning Commission  
January 23, 2023  
Page 2 of 2

Wilton 378 LLC

By: The Grossman Companies, Inc.  
Its Managing Member



---

Jacob Grossman, President  
Duly Authorized

JD'AM/ko

LandUse/Clients/WiltonGSE/2023ParkingExpansion/InformaltoPZC/Athorizationltr378,WiltonGSE(1)

PAUL H. BURNHAM  
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January 23, 2023

### By E-Mail Only

Mr. Jacob Grossman  
Wilton 380 LLC  
380 Danbury Road  
Wilton, CT 06897

Re: The Grossman Companies Inc. – Land Use Applications to the Town of Wilton  
Premises: 372, 378 and 380 Danbury Road, Wilton, Connecticut

Dear Mr. Grossman:

The Land Use agencies of the Town of Wilton require a letter signed by Wilton 380 LLC as owner of 380 Danbury Road, Wilton, Connecticut authorizing Gregory and Adams, P.C to act as its agent in connection with the referenced applications. Please sign a copy of this letter and return it to me via email.

Very truly yours,

James D'Alton Murphy

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The undersigned hereby authorizes Gregory and Adams, P.C. to act as its agent in connection with Land Use applications filed with the Town of Wilton.

Planning and Zoning Commission  
January 23, 2023  
Page 2 of 2

Wilton 380 LLC

By: The Grossman Companies, Inc.  
Its Managing Member



---

Jacob Grossman, President  
Duly Authorized

JD'AM/ko

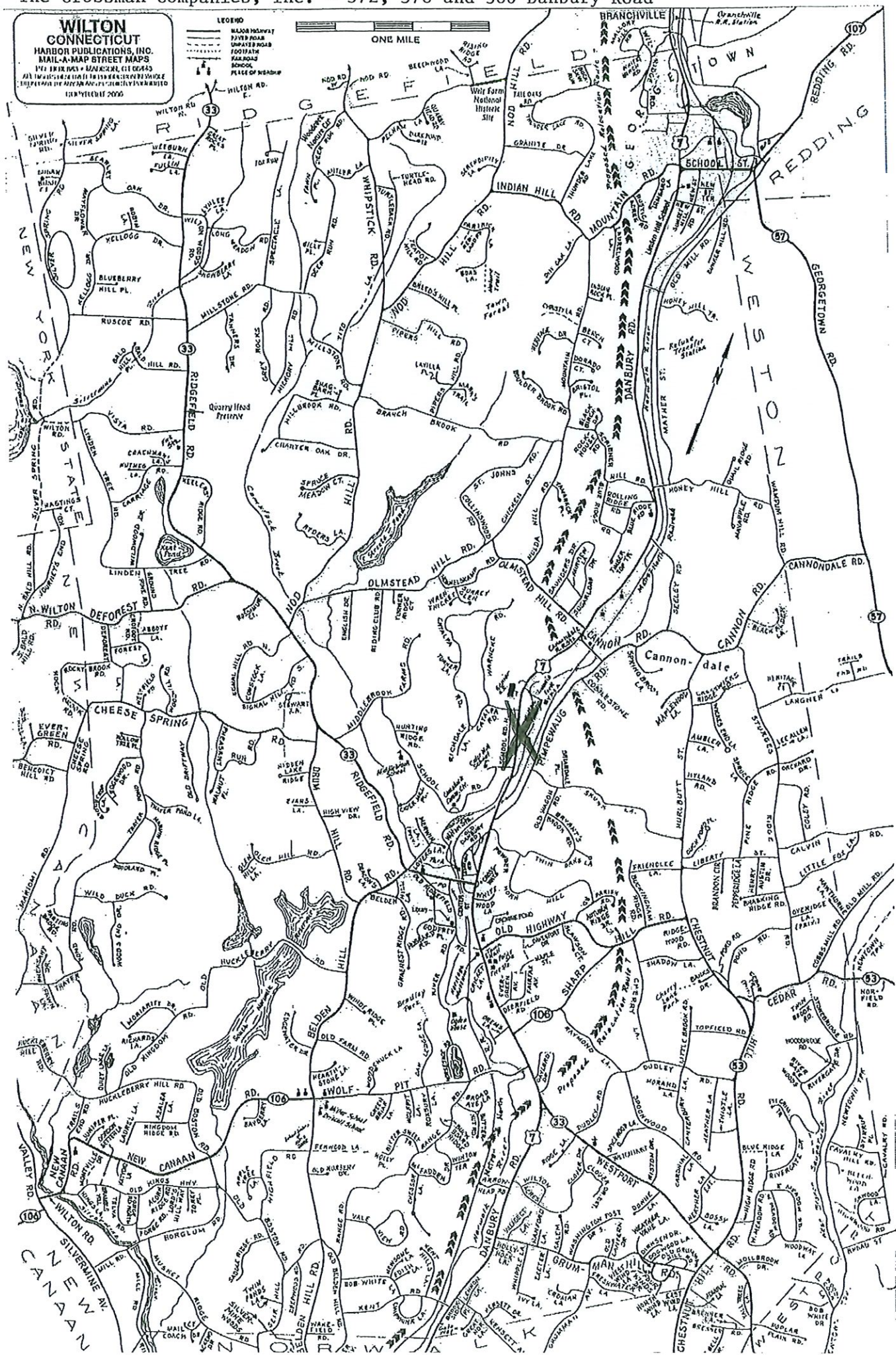
LandUse/Clients/WiltonGSE/2023ParkingExpansion/InformaltoPZC/Athorizationltr380,WiltonGSE(1)

WILTON CONNECTICUT

HARBOR PUBLICATIONS, INC. MAIL-A-MAP STREET MAPS 1/4" = 1 MILE (1:25,000) 1954 EDITION - MANHATTAN, N.Y. 10044 ALL INFORMATION IS TO THE BEST OF OUR KNOWLEDGE AND BELIEF. THE MAP IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS DESIGNED. COPYRIGHT 1954

LEGEND  
ROADS: MAIN HIGHWAY, PAVED ROAD, UNPAVED ROAD, FOOTPATH, RAILROAD, BRIDGE, PLACE OF INTEREST

ONE MILE



**SPECIAL PERMIT DESCRIPTION:** Cite specific section(s) of the Zoning Regulations and provide a detailed description of the proposed development. Attach additional sheets as required.

Section 29-

Please see attached Project Narrative

The Grossman Companies, Inc.		c/o Gregory and Adams, P.C. 190 Old Ridgefield Road, Wilton, CT					
<b>APPLICANT'S NAME</b>		<b>ADDRESS</b>					
Wilton GSE LLC, Wilton 378 LLC and Wilton 380 LLC		c/o Gregory and Adams, P/C. 190 Old Ridgefield Road, Wilton, CT					
<b>OWNER'S NAME</b>		<b>ADDRESS</b>					
372, 378 and 380 Danbury Road		GB					
<b>PROPERTY LOCATION</b>			<b>ZONING DISTRICT</b>				
372)	3767	2362	54	46	10	5.870 acres	Total 7.08 acr
378)	4141	2550	883	46	11	0.692 acres	
<b>WLR</b>	<b>VOLUME</b>	<b>PAGE</b>	<b>TAX MAP #</b>	<b>LOT #</b>	<b>ACREAGE</b>		
380)	5383	2558	489	46	12	0.518 acres	

**THE FOLLOWING MATERIALS ARE REQUIRED:**

\* Please see **SPECIAL INSTRUCTIONS FOR SUBMISSION DURING COVID** at:  
**Application Forms / Materials | Wilton CT**  
 \* All submitted plans and documents shall bear an **original signature, seal, and license number** of the professional responsible for preparing each item. Maps should be **folded, not rolled**.

- VICINITY SKETCH** at a scale of 1"=100' or 1"=200'. Said map shall show all existing zone boundaries, existing buildings and parcels, labeled by their corresponding Tax Map and Lot Number, within 500' of the subject property.
- CLASS A-2 SURVEY MAP** of the subject property
- SITE DEVELOPMENT PLAN** pursuant to Section 29-11 of the Zoning Regulations
- FORM B – ZONING DATA**
- LIST OF PROJECT PROFESSIONALS** including name, firm, address and telephone
- LETTER OF TITLE** certifying owner of record as of date of the application
- PROOF OF APPLICANT'S LEGAL INTEREST** in property
- LIST OF OWNERS WITHIN 500'** of any portion of subject property, sorted by Tax Map and Lot #  
 [See online GIS instructions at: [owner list 500 ft gis directions.pdf \(wiltonct.org\)](http://ownerlist500ftgisdirections.pdf(wiltonct.org))]
- ANY OTHER PLAN OR DOCUMENT** as required by Zoning Regulations
- ONE COPY OF THE DEED**
- ELECTRONIC SUBMISSION** of all materials, **consolidated into 1 or 2 PDFs maximum**, emailed to [michael.wrinn@wiltonct.org](mailto:michael.wrinn@wiltonct.org) and [daphne.white@wiltonct.org](mailto:daphne.white@wiltonct.org)
- \$460 FILING FEE + \$50/Unit or \$50/2000 sq. ft. (Accessory Apartment - \$260)** payable to: Town of Wilton
- ENVELOPES**, addressed to each property owner within 500' of any portion of subject property.  
 [See "Envelopes Instructions" at: [envelopes instructions 0.pdf \(wiltonct.org\)](http://envelopesinstructions0.pdf(wiltonct.org))]

IS THE SUBJECT PROPERTY LOCATED WITHIN THE WATERSHED BOUNDARY?  NO

IS THE SUBJECT PROPERTY WITHIN THE FLOOD ZONE?  YES

**THE APPLICANT** understands that this application is to be considered complete only when all information and documents required by the Commission have been submitted and is responsible for the payment of all legal notices incurred.

**THE UNDERSIGNED WARRANTS** the truth of all statements contained herein and in all supporting documents according to the best of his or her knowledge and belief; and hereby grants visitation and inspection of the subject property as described herein.

The Grossman Companies Inc. by its Agent, Gregory and Adams, P.C.

By: James D. Alton Murphy 2/7/23 jmurphy@gregoryandadams.com 203-762-9000  
 APPLICANT'S SIGNATURE DATE EMAIL ADDRESS TELEPHONE

Wilton GSE LLC, Wilton 378 LLC and Wilton 380 LLC by their Agent, Gregory and Adams, P.C.

By: James D. Alton Murphy 2/7/23 jmurphy@gregoryandadams.com 203-762-9000  
 OWNER'S SIGNATURE DATE EMAIL ADDRESS TELEPHONE

**For Planning and Zoning Department Use Only:**

Mandatory Referrals - Jurisdiction/Agency		
	Yes	No
Village District Design Advisory Committee (VDDAC):	<input type="checkbox"/>	<input type="checkbox"/>
Architectural Review Board (ARB):	<input type="checkbox"/>	<input type="checkbox"/>
Western Connecticut Council of Governments (WestCOG):	<input type="checkbox"/>	<input type="checkbox"/>
South Norwalk Electric and Water Company (SNEW) Designated Public Watershed:	<input type="checkbox"/>	<input type="checkbox"/>
First Taxing District Water Department Designated Public Watershed:	<input type="checkbox"/>	<input type="checkbox"/>
State-Designated Aquifer Protection Area:	<input type="checkbox"/>	<input type="checkbox"/>
Adjoining Community Notification:	<input type="checkbox"/>	<input type="checkbox"/>



The Grossman Companies, Inc.  
Land Use Applications

Project Narrative:

In order to support the conversion of portions of the existing building at 372 Danbury Road from office use to medical use and in order for that conversion to be in compliance with Wilton's current Zoning Regulations ("Regulations") regarding parking spaces per use, additional parking is required. In accordance with Section 29-8.B.9.b which permits the satisfaction of the Regulations parking space requirements on abutting properties, the applicant is looking to scrape the 378 and 380 Danbury Road parcels and develop an interconnected paved parking lot with the 372 Danbury Road parcel. The 378 and 380 Danbury Road parcels will be screened and landscaped in compliance with Section 29-8.C.4. Pursuant to Section 29-6.D.7 the applicant does not need to comply with the standard setbacks on any of the internal property lines between the three (3) parcels. In addition, during the redevelopment of the 378 and 380 Danbury Road parcels, storm water management will be enhanced, pervious surface will increase by 10,454+/- square feet as well as increasing the vegetative buffer from the 378 Danbury Road parcel to the Norwalk River.

Include the following data on the required Site Development Plan, as well.

372, 378 and 80 Danbury Road  
**PROPERTY ADDRESS**

5.87, 0.692, and 0.518 acres  
**LOT ACREAGE Total - 7.08 acres**

GB  
**ZONING DISTRICT**

902 ft and 150 ft Total 1,052 sf  
**LOT FRONTAGE**

	PER ZONING REGS (MAX OR MIN ALLOWED)	EXISTING	PROPOSED	TOTAL
GROSS FLOOR AREA [SF]				
BUILDING FOOTPRINT [SF]				
BUILDING COVERAGE [SF/%] (round up)				
BUILDING HEIGHT [FT - Story]		Please refer to Schedule A attached		
FLOOR AREA RATIO (F.A.R.)				
PARKING SPACES (round up)				
LOADING SPACES				
SITE COVERAGE [SF/%]				

**OFF-STREET PARKING AND LOADING CALCULATIONS**


Please provide the specific calculation used to determine the minimum required off-street parking and loading spaces pursuant to the Zoning Regulations.

**PARKING CALCULATION** (Use separate page, if necessary)  
 25 private school per Resolution #0915-16P  
 1/300 - general office; 1/200 - medical use      Total 365 once parking lots are complete

**LOADING CALCULATION** (Use separate page, if necessary)  
 1 loading space required

**PLAN OF CONSERVATION AND DEVELOPMENT**  
 Please indicate on separate page how this proposal complies with the Plan of Conservation and Development.

**THE UNDERSIGNED WARRANTS** the truth of all statements contained herein:  
 The Grossman Companies, Inc. by its Agent, Gregory and Adams, P.C.

      2/8/23  
 \_\_\_\_\_      DATE

The Grossman Companies, Inc.  
 372, 378 and 380 Danbury Road  
 Application to Planning and Zoning Commission

February 8, 2023

Form B – Schedule A

	<u>Per Regs</u>	<u>Existing</u>	<u>Proposed</u>	<u>Total</u>
Gross Floor Area	N/A	-----	-----	-----
Building Footprint	N/A			
372		43,730 sq. ft±	0	43,730 sq. ft±
378		5,727 sq. ft±	-5,727 sq. ft±	0
380		2,860 sq. ft±	-2,860 sq. ft±	0
Building Coverage	25%			
372		17%	17%	17%
378		19%	0%	0%
380		16%	0%	0%
Building Height	2 stories /35'			
372		2/35	2/35	2/35
378		2/?	0	0
380		1.25/?	0	0
Floor Area Ratio	0.35			
372		0.32	0.32	0.32
378		0.19	0	0
380		0.13	0	0
Parking Spaces	25 private school 1/300 general office unknown 1/200 medical office unknown			
372		273	-5	268
378 and 380		unknown	97	<u>97</u>
Total				365
Loading Spaces	1 unless waived			
372		1	1	1
378 and 380		Unknown	0	0
Site Coverage	80%			
372		55%	55%	55%
378		75%	54%	54%
380		92%	72%	72%

**The Grossman Companies, Inc. ("TGCI")**

**Application for Special Permit**

**Premises: 372, 378 and 380 Danbury Road, Wilton Connecticut**

**Statement of Compliance with Plan of Conservation and Development**

The above-referenced Premises consist of a cumulative 7.1± acres of land located in the General Business zone. TGCI plans to convert the parcels at 378 Danbury Road and 380 Danbury Road to paved parking to support the intended conversion of portions of the existing building at 372 Danbury Road from office space to medical use. As noted in the attached plans, there will be an increase of 92 parking spaces across the Premises which will permit an additional 40,800 square feet of the 372 Danbury Road building to be converted to medical use.

This conversion from office to medical use is compatible with the Town's Plan of Conservation and Development adopted on September 23, 2019, and effective October 1, 2019 (the "Town Plan") for the following reasons:

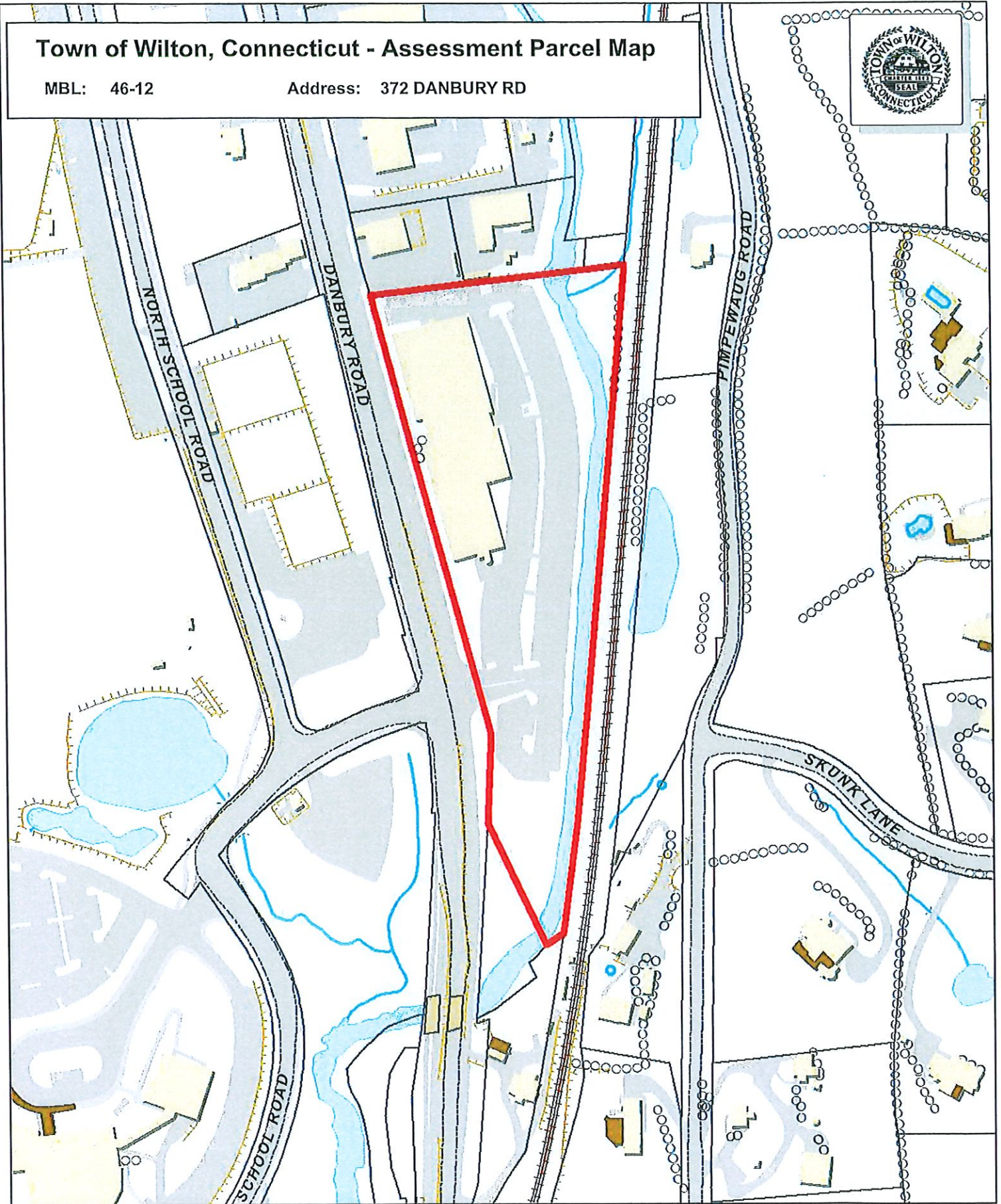
- 1) The Town Plan states on page 23 that one of the Town Plan's goals is supporting context-sensitive economic development on Danbury Road and on page 55 that an objective is to "support the redevelopment of underperforming properties". As evidenced by the "For Lease" sign in front of the 372 Danbury Road property and as noted in the Traffic Report by Tighe & Bond, there is currently a sizable vacancy of office space within the 372 Danbury Road building.
- 2) Locating medical services within the Town of Wilton is a benefit to the residents of Wilton as it both decreases the need to travel for such services and brings non-residents into Town as they procure those medical services. Any such conversion from office space to medical use of the 372 Danbury Road building supports Wilton's Economic Development Council's goal, set forth on page 55 of the Town Plan, that states: "Support EDC efforts to market to business clusters that already have a presence in, or are appropriate for Wilton's existing workforce, development scale and business mix. Target clusters identified in the EDC's 2014 Strategic Plan include: *healthcare...*"
- 3) The enhancements to the 378 and 380 parcels will meet the objective set forth on page 33 of the Town Plan which states: "Improve stormwater drainage systems and reduce stormwater runoff and non-point-source pollution to mitigate stormwater drainage effects and preserve and improve water quality."
- 4) The enhancements to the 378 and 380 parcels will also improve the Norwalk River aquifer area by increasing the vegetative buffer to the River by adding 8' to 22' of additional green space and plantings to the River's edge as well as an overall increase of pervious surface by 10,585± consistent the with the goals set forth on page 13 of the Town Plan.
- 5) The consolidation of the three parcels on one site plan, with an integrated drive aisle and parking lot flow, and the conversion of two parcels to paved parking will result in the

removal of one (1) curb cut along Danbury Road and result in all vehicular traffic to the Premises entering and exiting the Premises via one (1) signalized intersection. This reconfiguration supports the Town Plan objective on page 69 which states: “Promote better parking utilization, access management, and curb cut consolidation...”

# Town of Wilton, Connecticut - Assessment Parcel Map

MBL: 46-12

Address: 372 DANBURY RD



Approximate Scale:

1 inch = 200 feet

### Disclaimer:

This map is for informational purposes only.  
All information is subject to verification by any user.  
The Town of Wilton and its mapping contractors  
assume no legal responsibility for the information contained herein.

Map Grand List Date: Oct 2017



## **Wetland and Watercourse Survey Memorandum: 372 and 378 Danbury Road, Wilton, Connecticut**

**To:** Erik Lindquist, PE; Tighe & Bond  
**FROM:** Raina Volovski, PWS, CPSS; Tighe & Bond  
**DATE:** December 29, 2022

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On October 17 and 19, 2022, Tighe & Bond conducted a field investigation for the presence of wetlands and watercourses at 372 and 378 Danbury Road (Parcel IDs 46-12 and 46-10), located in Wilton, Connecticut. During the investigation one regulated wetland and one regulated watercourse were identified within the parcel boundaries.

### **1 Regulatory Information**

Wetlands and watercourses are regulated by municipal, state, and federal laws and regulations, each with different definitions and regulatory requirements. Accordingly, the state and municipalities may regulate wetlands and waters that fall outside of federal jurisdiction; however, where federal jurisdiction exists, concurrent state and municipal jurisdiction is almost always present.

Connecticut wetland determinations and municipal regulations are prepared and adopted in accordance with the Connecticut Inland Wetlands and Watercourse Act, §22a-36 to 22a-45.

#### **1.1 State Regulations**

State wetland boundaries are based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils and submerged land. Watercourses are defined as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." Intermittent watercourse determinations are made based on the presence of a defined permanent channel and bank, and two of the following characteristics: (1) evidence of scour or deposits of recent alluvium or detritus, (2) the presence of standing or flowing water for a duration longer than a particular storm event, and (3) the presence of hydrophytic vegetation.

#### **1.2 Municipal Regulations**

The Town of Wilton Inland Wetlands and Watercourses Regulations (effective date June 1, 2007) apply to activities within the boundaries of wetlands and watercourses, and within 100-feet of the of wetland and watercourse boundaries. However, activities in other non-wetland or non-watercourse areas likely to impact or effect wetlands or watercourses may be considered a regulated activity and can be reviewed by the Inland Wetlands and Watercourses Commission.

## 2 Wetlands and Watercourse Delineation Methodology

The field investigation was conducted on October 17 and 19, 2022, by Raina Volovski, a Certified Professional Soil Scientist and Professional Wetland Scientist. The investigation was conducted in accordance with the Connecticut Inland Wetlands and Watercourses Act (§22a-38 CGS) and the U. S. Army Corps of Engineers Wetlands Delineation Manual (1987) *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Northcentral and Northeast Region* (Version 2.0) (January 2012). The Army Corps of Engineers uses a three-parameter approach for wetland delineation, which includes the presence of hydric soil, wetland hydrology, and dominance of hydrophytic vegetation.

## 3 Existing Environment

The site consists of 5.95 acres of developed and forested upland, perennial watercourse, and forested wetland. The site is bound to the west by Danbury Road, to the north by commercially developed properties, and to the east and south by the Norwalk River.

### 3.1 Summary soil descriptions

Digitally available updated soil survey information was obtained from the Natural Resources Conservation Service (NRCS) as depicted on the attached soil map and detailed below. The western and southern two-thirds of the site is classified as hydric soil.

The field investigation determined the site consists of Udorthens-Urban Land complex (Map Unit 306) from the northern site boundary, west to the bank of the Norwalk River, and south to the edge of the parking lot. The soil reclassification is due to the presence of fill material and bituminous pavement.

#### 3.1.1 Hydric Soils

##### **Pootatuck fine sandy loam (Map Unit 102)**

Pootatuck fine sandy loam is typically found on flood plains with parent material consisting of coarse-loamy alluvium. The natural drainage class is moderately well drained; however, this soil is frequently flooded. The frequency, duration, and timing of floods is the primary natural disturbance affecting species composition. This soil meets the Connecticut Inland Wetland hydric criteria.

##### **Rippowam fine sandy loam (Map Unit 103)**

Rippowam fine sandy loam consists of very deep, poorly drained loamy soils formed in alluvial sediments. They are nearly level soils on floodplains subject to frequent flooding. Typical slopes range between 0 to 3 percent and are located in brushy woodlands. The parent material consists of coarse-loamy alluvium with a poorly drained natural drainage class. Organic matter content in the surface horizon is about 6 percent. This soil meets hydric criteria.

#### 3.1.2 Non-Hydric Soils

##### **Udorthents- Urban Land (Map Unit 306)**

Udorthents is a miscellaneous land type used to denote moderately well to excessively drained earthen material which has been so disturbed by cutting, filling, or grading that the original soil profile can no longer be discerned. Udorthents consist of very deep,



moderately well drained to excessively drained soils on uplands, terraces and plains. They are highly disturbed soils commonly associated with construction and building or surface mining. Typically, more than two feet of the original soil has been removed or it has been covered with more than two feet of earthy fill. Texture to a depth of 60 inches, varies from silt loam to extremely gravelly sand. Slopes range from 0 to 35 percent.

Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. Slopes range from 0 to 45 percent.

### **Ninigret fine sandy loam (Map Unit 701B)**

Ninigret fine sandy loams are typically located on slopes between 3 to 8 percent and commonly found on outwash terraces on valleys. The parent material consists of course-loamy eolian deposits over sandy and gravelly glaciofluvial deposits derived from gneiss, granite, schist, and/or phyllite. The natural drainage class is moderately well drained and does not meet hydric criteria.

## **3.2 Wetlands and Watercourses Descriptions**

The one on-site wetland is described below.

### **3.2.1 Wetland 1**

Wetland 1 is located within the southeast portion of the site, and south of the parking lot, and is an approximately 2,150 square foot man-made stormwater basin. The wetland is classified as palustrine forested, scrub-shrub broad-leaved deciduous wetland with seasonal saturation. The wetland has been historically disturbed. In addition to being man-made, two culvert outlets are located along the northern boundary, with the eastern boundary consisting of fill material. Landscaping debris was observed within the northern wetland boundary and obscuring the culvert outlets.

The southern most area of Wetland 1 consists of a sparsely vegetated concave surface, with the northern portion dominated by shrubs, and the wetland is lined with mature trees within the boundary. Vegetation observed within the wetland included red maple (*Acer rubrum*; FAC), green ash (*Fraxinus pennsylvanica*; FACW), spicebush (*Lindera benzoin*; FACW), hop-hornbeam (*Ostrya virginiana*; FACU), silky dogwood (*Cornus amomum*; FACW), arrow-wood (*Viburnum dentatum*; FAC), common reed (*Phragmites australis*; FACW) and multiflora rose (*Rosa multiflora*; FACU). The vegetation data plots meet the dominance and prevalence tests for a wetland plant community.

The soil observed included two inches of black (10YR 2/1) muck over 13-inches of black (5YR 2.5/1) mucky fine sandy loam with ten percent dark reddish brown (5YR 3/4) concentrations within the matrix. Rock restriction was encountered at 15-inches below the soil surface. The soil observed is consistent with the mapped Pootatuck fine sandy loam soils and meets hydric criteria.

Hydrologic indicators included water-stained leaves, stressed plants, pits and mounds, saturation and inundation are visible on aerial imagery, and sparsely vegetated concave surfaces.

### **3.2.2 Watercourse 1**

Watercourse 1, the Norwalk River, is a 40 to 50 foot wide perennial watercourse. The river flows in a southern direction and was between six to ten inches deep at the time of the

Investigation. Riffles, pools, and runs with a cobble and sand substrate characterize the channel.

The watercourse is historically disturbed due to channelization, and development. There are stormwater culvert outlets embedded in the bank.

### 3.3 Functions and Values

Functions and values of the wetland system, which includes both wetlands and watercourses, were evaluated and conducted during the field investigation generally in accordance with *The Highway Methodology Workbook Supplement, Wetland Functions and Values: A descriptive Approach* issued by the U.S. Army Corps of Engineers New England District (ACOE NED), September 1999. The *Highway Methodology* recognizes 13 separate wetland functions and values.

The principal functions and values for the Norwalk River and Wetland 1 include groundwater recharge and discharge, floodflow alteration, and wildlife habitat. Additional functions and values are lacking as the property is privately owned with no public access, the wetland is minimally visible from the road, does not contain an abundance of flowering vegetation, and is not located within a known habitat for endangered species. Rational for these designations includes the following:

#### Groundwater recharge/ discharge

- Wells occur downstream of wetland
- Gravel or sandy soils are present adjacent to the wetland
- Poorly drained soils occur in the wetland
- Signs of groundwater recharge are present - wetland shows signs of variable water levels

#### Floodflow Alteration

- Effective flood storage is small above the wetland
- Wetland contains hydric soils which are able to absorb and detain water
- Wetland is relatively flat and slightly concave and can retain flood waters
- The wetland is associated with a watercourse and doesn't have an inlet or outlet

#### Wildlife Habitat

- The wetland is contiguous with other wetland systems
- Overland access between wetlands is present
- Wildlife food sources are within the wetland or nearby
- The wetland exhibits a high degree of interspersion of vegetation, classes, and water and include marsh and wooded swamp

- Wetland contains potential of a high insect population and avian utilization

## **4 Summary**

One municipal, state, and federally regulated wetland and watercourse were delineated on October 17 and 19, 2022.

Proposed activities directly impacting wetlands and watercourses would require federal permitting under Section 404 of the Clean Water Act, and work impacting or within 100-feet of the wetland and watercourse boundaries would require permitting with the Town of Wilton Inland Wetlands and Watercourses Commission.


J:\G\G5081 The Grossman Companies, Inc\001 - 372 Danbury Road\Reports\Wetlnd Tech Memo\Tech\_Memo\_Wetland.docx


# Photographic Log

**Client:** The Grossman Companies

**Job Number:** G5081-001

**Site:** 372 Danbury Road, Wilton, Connecticut

<b>Photograph No.:</b> 1	<b>Date:</b> 10/19/2022	<b>Direction Taken:</b> South
<b>Description:</b> The parking lot abuts the Norwalk River, shown in the photograph.		
		

<b>Photograph No.:</b> 2	<b>Date:</b> 10/19/2022	<b>Direction Taken:</b> North
<b>Description:</b> Wetland 1 is characterized by a sparsely vegetated concave area to the south, scrub-shrub dominated area to the north, and mature trees within the boundary of the wetland.		
		



## Environmental Land Solutions, LLC

### Environmental Analysis, Landscape Architecture & Planning

January 25, 2023

Inlands Wetlands and Watercourses Commission  
Town of Wilton  
238 Danbury Road  
Wilton, CT 06897

Re: 372, 378 & 380 Danbury Road ("Project Area")  
Wilton, CT

Dear Commission Members:

Environmental Land Solutions, LLC (ELS) has been retained to provide an environmental assessment and a planting plan associated with the redevelopment and change in use of the 378 and 380 Danbury Road parcels ("Redevelopment Area") for vehicular parking. The parking will support the expanded medical use in the office building at 372 Danbury Road. The Redevelopment Area is located on the eastern side of Danbury Road with the Norwalk River and its riparian wetlands found along the eastern boundary of 378 Danbury Road. To complete this evaluation site visits were made by ELS staff on September 28 and October 4, 2022, and a review of the plans prepared by Tighe & Bond, dated January 5, 2023.

#### **EXISTING CONDITIONS**

The Project Area includes three adjoining parcels totaling  $7.1 \pm$  acres. All three parcels are developed with paved parking edges within 5 to 15' of the Norwalk River. Each parcel currently supports a building, and all are within the General Business (GB) zone, and partially within the Norwalk River floodplain. The wetlands on the Redevelopment Area were flagged by Tighe & Bond ("T&B"), Raina Volovski, Soil Scientist.

#### 378 Danbury Road

This  $0.69 \pm$  acre parcel is a rear parcel with a shared driveway access to Danbury Road. This parcel abuts the Norwalk River to the east, Servco Oil depot to the north, 380 Danbury to the west and 372 Danbury to the south. The parcel contains a vacant building and surrounding parking area that is a mix of paved and gravel surfaces. No formal stormwater system is found within this parcel, which appears to sheet flow toward the River. Roof drains discharge at grade around the building. The perimeter of the parcel to the north and east has a 5-8' landscape planting strip, with a  $20' \pm$  vegetated strip between the River and the edge of the parking area. Miscellaneous manmade debris piles (wood and garbage) are noted along the River. Monitoring wells are located throughout the site. This parcel is served by public water and sewer. The previous uses of light industrial have contributed to soil contamination on the

parcel and it is an Establishment pursuant to the Connecticut Transfer Act (Connecticut General Statute Sec. 22a-134 *et. seq.*).

The vegetation along the River includes a canopy of Norway Maples, Ash, Sycamore, Sugar Maples, Oak and Willow, and shrubs that include Multiflora Rose, Bittersweet vines, Japanese Honeysuckle, Tartarian Honeysuckle and several Spicebush. Red-Twig Dogwood are found along the River's edge. The floodplain of the Norwalk River crosses the eastern portion of the parcel.

#### 380 Danbury Road

The 0.51 ± acre parcel fronts on Danbury Road. The parcel is presently developed with a building and impervious surfaces covering most of the property. One catch basin is located in a low point at the southeast corner of the parking area that appears to flow into a dry well without an outlet. The existing masonry building is centrally located with paved parking extending around the building. Splash Car Wash is located to the north, 372 Danbury Road is located to the south and 378 Danbury Road is located to the east. A small strip of landscape area is found along the perimeter of the south and east edges of the paved parking areas. The planting plan includes a mix of ornamental plants. This parcel is served by public water and sewer.

#### 372 Danbury Road

This 5.95 ± acre property contains an existing office building, associated parking and landscape areas, all previously reviewed and approved by Wilton's Planning and Zoning Commission and Inland Wetlands Commission. The building is located adjacent to Danbury Road, with parking to the east and south of the building. The existing paved parking extends to nearly (2'-10' ±) the top of the riverbank. The parcel slopes toward the river. A narrow naturalized woody buffer occurs between the river and the parking lot. The naturalized wooded area includes Red Maple, Norway Maple, American Elm, and Black Locust. The understory is predominately Euonymus, but also includes Tartarian Honeysuckle, Multiflora Rose and Oriental Bittersweet.

The parcel contains a storm drainage system that allows sheet flows to the eastern edge of the parking lot, providing infiltration at a gravel edge for small storm events. In larger events stormwater appears to sheet flow directly to the River. The stormwater in the southern portion of the parking area is collected in two catch basins and discharged to the detention basin at the south end of the site. The detention basin also receives storm flows from Danbury Road. The roof drains discharge near the building walls. This parcel is served by public water and sewer.

#### Wetlands and Watercourses

The Norwalk River is the predominate wetland resource for the Redevelopment Area and defines the edge of development to the east of the Project Area. A narrow riparian wetland corridor occurs between the River bank and the paved parking lots. The wetland adjacent to

the River is a seasonally flooded palustrine wetland. Flagged wetland soils were identified as Rippowam fine sandy loam, please refer to the soil report for additional information. The Norwalk River is a perennial watercourse that has been channelized but includes riffle-pool morphology within the channel.

The River's shoreline provides a narrow woody buffer between the existing parking lots and the River channel. Existing naturalized vegetation growing along the shoreline includes, Red Maples, White Oaks, and Sycamore. The understory woody shrubs is predominantly Euonymus, but also includes Red-Twig Dogwood, Asiatic Bittersweet, Tartarian Honeysuckle, Japanese Honeysuckle, Ash saplings, Poison Ivy, Garlic Mustard, and Multiflora Rose.

The surface water quality by the DEEP of the Norwalk River is "B."

### Wetland and Watercourse Functions

The functional evaluation of the wetlands is based on professional experience and the suggested criteria cited in the publication entitled "The Highway Methodology Workbook Supplement, Wetland Functions and Values, A Descriptive Approach," prepared by the US Army Corps of Engineers, NEDEP-360-1-30a, September 1999.

Using this publication, the primary functions provided by the wetlands include groundwater recharge and stormwater storage, visual quality, and limited recreational usage such as nature photography and wildlife observations. However, due to the proximity of the existing development and narrow buffer all the functions are limited. The Norwalk River corridor functions as a habitat for finfish, aquatic waterfowl and other aquatic-dependent species, a wildlife corridor (together with its fringe wetlands), a groundwater discharge point, and offers a recreational area for fishing and small craft boating.

***Groundwater Recharge/Discharge:** This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. Recharge should relate to the potential for the wetland to contribute water to an aquifer. Discharge should relate to the potential for the wetland to serve as an area where groundwater can be discharged.*

Based on the location of the Redevelopment Area in the lower section of the watershed, within a gently topographic flood plain, the Redevelopment Area's wetland and watercourse systems lend themselves to being a source of groundwater recharge / discharge.

***Floodflow Alteration (Storage & Desynchronization):** This function considers the effectiveness of the wetland in reducing flood damage by attenuating of flood waters for a prolonged period following precipitation.*

Based on the larger area of nearly level floodplain the Redevelopment Area lends itself to allowing a slowing and spreading of flood waters from the River providing the capacity of this function.

*Recreation: This value considers the effectiveness of the wetland and associate watercourse to provide recreational opportunities such as canoeing, boating, fishing, hunting, and other active or passive reaction activities. Consumptive activities consume or diminish the plants, animals or other recreational activities that are intrinsic to the wetland, whereas non-consumptive activities do not.*

The wetland does not lend itself to open water recreation or access, beyond passive recreation and observation.

*Visual Quality / Aesthetics: This value relates to the visual and aesthetic values to the area.*

The open watercourse is aesthetically pleasing. Wildlife observation and photography are expected to be a value as open views over the wetland are available.

**ARMY CORE OF ENGINEERS (ACOE) SUMMARY TABLE  
EXISTING WETLAND FUNCTION AND VALUES**

FUNCTIONS	Primary Function	Secondary Function	Limited or Not applicable
GROUNDWATER RECHARGE/DISCHARGE	X		
FLOODFLOW ALTERATION	X		
FISH AND SHELLFISH HABITAT		X*	
SEDIMENT/TOXICANT/ PATHOGEN RETENTION NUTRIENT			X*
REMOVAL/RETENTION/ TRANSFORMATION PRODUCTION EXPORT			X*
SEDIMENT/SHORELINE STABILIZATION			X*
WILDLIFE HABITAT			X*
RECREATION		X	
EDUCATIONAL/SCIENTIFIC VALUE			X
UNIQUENESS/HERITAGE			X
VISUAL QUALITY AESTHETICS		X	



ENDANGERED SPECIES HABITAT			X
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\* These functions are expected to be enhanced at the completion of the site work.

### Wildlife

The existing parcels provide little to no wildlife habitat due to existing improvement adjoining the River. None of the parcels are located within a highlighted DEEP Natural Diversity Data Base (NDDDB) map for Wilton (December 2022).

### **PROPOSED CONDITIONS**

The proposed redevelopment will remove the existing buildings on 378 and 380 Danbury Road to construct a new parking area to support expanded medical use of the office building at 372 Danbury Road. No significant site work is proposed at 372 Danbury Road. The proposed site work in the Redevelopment Area will expand green space (pervious surface) in that area by 10,585± sf.

The stormwater treatment and buffer enhancements will create improvements to the River buffer and water quality leaving the Redevelopment Area. The proposed storm drainage management for the Redevelopment Area has been developed by T&B to provide collection and removal of suspended solids, some infiltration of storm events, and reduce peak discharged from the storm events for the 2 to 100 year storm events.

The following list reflects the proposed activities within the 100' upland review area of the sites.

#### **378 Danbury Road**

This parcel will be redeveloped as paved parking. The redevelopment includes removing the existing building; providing a stormwater infiltration system to treat stormwater runoff, and increasing the vegetated buffer to the River. The stormwater system will capture and treat the new parking surface, an improvement over the current condition of allowing untreated sheet flow directly into the River. The proposal will result in a decrease of impervious coverage by 3,915±sf. The following site work is proposed within the upland review area.

1. The existing building will be razed.
2. The existing parking lot will be removed.
3. A new asphalt parking lot will be constructed.
4. Increasing the existing 20' ± River's vegetative buffer by adding 8' to 22' to its width, planting 7 trees, over 130 shrubs, and 100 perennials within the upland review area. The buffer will also be managed to remove nonnative invasive plan species for three years.

5. The new parking lot will include treatment of stormwater runoff, not presently provided on the site.
6. The upland review area on 378 Danbury Road encompasses 16,875 ± sf. This area is now encumbered by 13,415 sf ± (80% of the upland review area) of surface parking.
7. Removal of the existing buildings and proposed grading modifications will result in improved flood conveyance along the Norwalk River.

### **380 Danbury Road**

This parcel is not within the 100' upland review area of the Norwalk River. However, this parcel will be redeveloped for parking west of 378 Danbury Road. The existing building will be razed and the parcel redeveloped as paved parking with new planting and new stormwater treatments. The overall result will reduce impervious coverage and increase native plants.

### **372 Danbury Road**

There is minor site work on this parcel, consisting of minor perimeter work as it relates to connecting vehicular access to 378 Danbury Road and pedestrian access to 380 Danbury Road. The intended expansion of medial use within the existing building results in a need for additional parking for the building in order to comply with Wilton's Zoning Regulations.

### **Best Management Practices (BMP's)**

The following Best Management Practices (BMPs) have been incorporated into the site plans for the purposes of avoiding and/or minimizing potential adverse environmental impacts disturbances and site improvements over the site.

- a. *erosion and sedimentation controls* - the site plans indicate that erosion and sedimentation will be controlled by the use of silt fencing to trap sediments within stormwater runoff, anti-tracking pads to remove sediments from tires of construction vehicles, and watering of the site's soils as needed to prevent dust.
- b. *catch basins fitted with sumps and traps* - designed to improve water quality by trapping sediments from roadway stormwater runoff. Accumulated sediments will be periodically removed as needed to maintain the basins in proper working order.
- c. *planted buffers* - native shade trees, understory trees, shrubs, and herbaceous plants are proposed within the wetland upland review area for wildlife habitat and aesthetic purposes. Planted buffers will also help to maintain water quality aiding to remove pollutants within stormwater runoff by plant uptake of nutrients. The expanded riparian buffer along the River will increase by 8' at the southern section and up to 22' along the northern section. The expanded planting in the upland review area will include planting of 7 shade and understory trees, over 130 shrubs and over 100 perennials.

- d. *bio-filtration swale* - Infiltration serves as a primary treatment practice for stormwater. The swale provides biological treatment and pollutant renovation.
- e. *level spreader* - a linear level area of stone is proposed at the end of the drainage pipe from the storm drainage system to serve as a secondary stormwater treatment practice to slow the velocity of the discharged stormwater runoff and prevent erosion.
- f. *control of invasive nonnative plant species* - the Landscape Plan indicates the control of Japanese Knotweed, Multiflora Rose, and Asiatic Bittersweet for a minimum three year period. Removal and management of invasive species along the River's edge for a 155' ± distance.

#### Wetlands/ Watercourse Potential Impacts and Mitigation Measures

The site work proposed within the 100' upland review area is intended to reduce existing impacts, improve water quality, control existing contamination, and enhance the River buffer. This will be accomplished by removing existing pavement and buildings, providing treatment of stormwater runoff to diminish direct discharge to the River, and increase planting along the River with native plants.

The project does not anticipate any additional long term impacts to the wetland resources. There are no direct disturbances to the wetlands with this development. Short term disturbances will be significantly managed to prevent exposed soil surfaces from entering the wetland and the River.

#### **ALTERNATIVES**

As part of the application for a Significant Regulated Activity, the applicant has included an earlier version of the site plan as required by Section 7.5-c of the Inland Wetlands and Watercourses Regulations for the Town of Wilton (the "Regulations"). This "Preliminary Site Plan," dated 11/10/22, prepared by T&B, is included as an alternative layout plan that was explored, discussed and ultimately discarded during the design process. The alternative plan was eliminated after further discussion with the design team. This alternative is closer to the River, resulting in a slightly smaller vegetated buffer for the River, and an inferior parking layout.

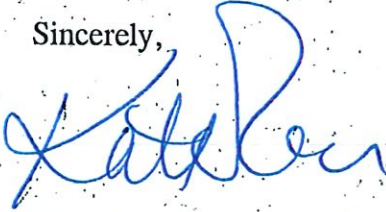
Another alternative is to do nothing and leave the buildings and parcels as is. This is not a good alternative as it will not address untreated sheet flows and soil contamination as noted in the Existing Conditions section above.

#### **SUMMARY**

This redevelopment proposal has incorporated techniques to reduce existing impacts to the Norwalk River and wetland resources within the site. The proposed site redevelopment will reduce existing manmade intrusions into the 100' upland review area, improve water quality and increase planting area and plant diversity on the site. These site improvements are

expected to enhance the wetland's function by reducing site coverage, providing treatment for stormwater runoff, expanding the vegetative buffer, and reducing existing soil contamination. These improvements will support the following wetland function on these sites that are currently only present in a limited capacity, sediment retention, nutrient removal and transformation, stormwater storage, and wildlife habitat.

Sincerely,



Kate Throckmorton, ASLA  
Registered Landscape Architect, RLA  
Certification in Erosion and Sedimentation Control  
NOFA Certified Professional

Danbury Road 378-wilton-ea.wpd



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October 1, 2018  
File No. 05.0045055.11

Jake Grossman  
The Grossman Companies  
One Adams Place  
859 Willard Street – Suite 501  
Quincy, MA 02169

Re: Phase I Environmental Site Assessment  
372 Danbury Road  
Wilton, CT

Dear Mr. Grossman:

Pursuant to our proposal dated September 13, 2018, GZA is pleased to submit this Phase I Environmental Site Assessment Report for the above-referenced target property ("Site"). GZA completed this Phase I Environmental Site Assessment in general conformance with the guidelines described in ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process - E1527-13.

We hope this satisfies your present needs. If you need additional information, please contact Adam Henry at 860-858-3166.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Shannon H. Spezzano  
Environmental Scientist

Kathleen A. Cyr, P.E., P.G., LEP  
Consultant Reviewer

Adam T. Henry, LEP  
Principal/Environmental Professional

Attachment: Phase I ESA Report



## EXECUTIVE SUMMARY

The Grossman Companies (also referred to herein as “Client” or “User”) retained GZA GeoEnvironmental, Inc. (GZA) to perform a Phase I Environmental Site Assessment (ESA) for the property located at 372 Danbury Road in Wilton, Connecticut (hereafter referred to as the “Site”). GZA performed this Phase I ESA in connection with the Client’s refinancing of the Site.

This Phase I ESA was performed in general conformance with the scope and limitations of ASTM International’s Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process – E1527-13 (ASTM E1527-13). The Assessment included our visual observation of the Site; a review of historical information, environmental databases, and information provided by the User; and interviews with current Site representative(s). Limiting conditions and/or deviations from ASTM E1527-13 are described in Sections 1.4 and 6.0 of this Phase I ESA Report. GZA prepared this Phase I ESA Report in conformance with the limitations presented in Section 14.0 and with the terms and conditions of our proposal dated September 13, 2018, which are included in Appendix A.

The Site historically consisted of residential properties. Two small buildings appear to have been located at the Site from approximately 1960 to 1975 and may have been occupied by a well driller and an antique store. The Site was redeveloped in 1980 and has been occupied by a commercial office building since that time. At the time of GZA’s site reconnaissance, the Site was occupied by fifteen (15) commercial tenants including: True North Chartering; The Westport Day School; Wilton GSE, LLC; Mountainside; ReloTax, an Ineo LLC Company; Diray Media; The Lamb Cooperative, Inc.; Cannondale Investments, LLC; Aon; Vein Clinics of America; Havas Worldwide Digital; Northwestern Mutual; Power Home Remodeling Group; The Big Willow, Inc.; and Stamford Health.

The Site vicinity has historically been mixed commercial and residential.

Based on the findings of our Phase I ESA and on our professional judgment, GZA has identified the following:

### RECOGNIZED ENVIRONMENTAL CONDITIONS (RECS)

This Phase I ESA revealed the following evidence of RECs in connection with the Site:

- Neighboring properties including 378, 380, and 384 Danbury Road, located north (upgradient/cross-gradient) of the Site and 180 School Road, located west (upgradient) of the Site, have documented evidence of leaking underground storage tanks (USTs), various spills, and contamination.

GZA notes that potential risk from offsite sources is reduced as the Site is serviced by municipal water supply and current CTDEEP policy does not require remediation of groundwater contamination resulting from an off-site source. In addition, according to information reviewed at the CTDEEP, groundwater sampling at the 380 Danbury Road property in 2006 did not identify groundwater contaminants at concentrations above the CTDEEP Residential Volatilization Criteria. Therefore, GZA recommends no further investigation of the Site at this time.

### CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS (CRECS)

- This Phase I ESA revealed no evidence of CRECs in connection with the Site.



## **HISTORIC RECOGNIZED ENVIRONMENTAL CONDITIONS (HRECS)**

- This Phase I ESA revealed no evidence of HRECs in connection with the Site.

## **DE MINIMIS CONDITIONS**

- This Phase I ESA revealed no de minimis conditions in connection with the Site.

## **DATA GAPS AND THEIR SIGNIFICANCE**

This Phase I ESA identified the following data gaps in connection with the Site:

- GZA was not provided access to, and therefore did not make observations in, numerous offices because tenants were unavailable to provide access. GZA notes that Mr. Drone, Facilities Manager for the Site, indicated no chemicals are stored and no hazardous wastes are generated in the inaccessible tenant areas. Mr. Drone also indicated medical wastes are likely generated by Stamford Health and Vein Clinics of America. GZA does not consider this a significant data gap.

## **Connecticut Transfer Act Applicability**

Connecticut General Statutes (CGS) Section 22a-134 as amended, commonly known as the Connecticut Transfer Act, requires the disclosure of environmental conditions when certain real properties and/or businesses, referred to in the Act as "establishments," are "transferred." An "establishment" is defined as follows:

"Establishment" means any real property at which or any business operation from which (A) on or after November 19, 1980, there was generated, except as the result of remediation of polluted soil, groundwater or sediment, more than one hundred kilograms of hazardous waste in any one month, (B) hazardous waste generated at a different location was recycled, reclaimed, reused, stored, handled, treated, transported or disposed of, (C) the process of dry cleaning was conducted on or after May 1, 1967, (D) furniture stripping was conducted on or after May 1, 1967, or (E) a vehicle body repair facility was located on or after May 1, 1967."

The terms "transfer of establishment" and "hazardous waste," among others, are also defined in the Act.

Based on GZA's review of information previously discussed in this report, the real property and/or business operation which is the subject of this report does not appear to be an "establishment" under the Connecticut Transfer Act because the activities in subsections (A) through (E) of the definition of "establishment" do not appear to have occurred.

GZA notes that the CTDEEP Content Navigator Hazardous Waste Manifest records which track manifests for the years 2012 to 2015 is closed until further notice and hazardous waste manifests dated 2009, 2010, part of 2011, and 2012 through 2015 are not available for review in the CTDEEP public files at this time; therefore, it is unknown whether hazardous waste was generated at the Site during these years. However, given the occupant history of the Site, it is unlikely that manifests would exist for these years.

Any final opinion or determination as to whether a transaction is subject to the Connecticut Transfer Act is a legal one and advice of counsel should be obtained.



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September 13, 2022  
File No. 05.0045055.27

Wilton GSE, LLC  
c/o The Grossman Companies  
One Adams Place  
Quincy, MA 02169

Attn: Jake Grossman

Re: Phase I Environmental Site Assessment  
378 Danbury Road  
Wilton, CT

Dear Mr. Grossman:

Pursuant to your request, GZA is pleased to submit the appended Phase I Environmental Site Assessment Report for the above-referenced Subject Property. GZA completed this Phase I Environmental Site Assessment in general conformance with the guidelines described in ASTM International's *Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process* (ASTM E1527-13) and with the Connecticut Department of Energy and Environmental Protection (CTDEEP) Site Characterization Guidance Document (SCGD, rev 12/2010). GZA also considers this report to be generally consistent with the requirements of ASTM standard E1527-21, which has been published but not yet formally approved by EPA as meeting the "All Appropriate Inquiry" requirement under CERCLA.

We hope this satisfies your present needs. If you need additional information, please contact Adam Henry at (860) 858-3166.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Lauren Bunce  
Scientist I

Ruth E. Kennedy  
Project Manager

Adam T. Henry, P.G., LEP  
Associate Principal/Environmental Professional

Jason A. Krechko, LEP  
Consultant Reviewer

Attachment: Phase I ESA Report





## EXECUTIVE SUMMARY

Wilton GSE, LLC (also referred to herein as “Client” or “User”) retained GZA GeoEnvironmental, Inc. (GZA) to perform a Phase I Environmental Site Assessment (ESA) of the target property located at 378 Danbury Road, Wilton, Connecticut (Subject Property). GZA performed this Phase I ESA in connection with the Client’s planned financing of the Subject Property.

This Phase I ESA was performed in general conformance with the scope and limitations of ASTM International’s *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13) and with the Connecticut Department of Energy and Environmental Protection (CTDEEP) Site Characterization Guidance Document (SCGD, rev 12/2010). This Phase I ESA included our visual observation of the Subject Property; a review of historical information, environmental databases, and information provided by the User; and one or more interviews with a current representative of the Subject Property. GZA also considers this report to be generally consistent with the requirements of ASTM standard E1527-21, which has been published but not yet formally approved by EPA as meeting the “All Appropriate Inquiry” requirement under CERCLA. GZA prepared this Phase I ESA Report in conformance with the limitations presented in **Section 14.0** and included in **Appendix A**. Limiting conditions and/or deviations from ASTM E1527-13 are described in **Section 1.4** of this Phase I ESA Report.

The Subject Property consists of a 0.69-acre parcel of land located on the eastern side of Danbury Road in a commercial use section of Wilton, Connecticut. The Subject Property is improved with a 2-story service shop constructed in 1956 and approximately 4,300 square feet of pavement. Historically, the Subject Property was occupied from circa 1971 to 1993 by Arthur Sias, Inc., a manufacture of decals for the decoration of ceramicware, and from 1994 to May 2022 by Taylor Rental, a party and event supply and contractor/do-it-yourself equipment rental company. The Subject Property is connected to municipal water and sewer systems but was previously served by a septic system and onsite well, the locations of which are unknown. At the time of GZA’s 2022 Site reconnaissance, the Subject Property building was unoccupied.

Based on the findings of our Phase I ESA and on our professional judgment, GZA has identified the following in connection with the Subject Property:

### **Recognized Environmental Conditions (RECs)/ Areas of Concern (AOCs)**

This Phase I ESA identified the following AOCs, some of which are RECs, in connection with the Subject Property:

- **AOC-1: Historical Building Operations** - The Site was occupied by Sias, a manufacturer of decals, from 1971 through 1993. Reportedly, Sias used a variety of chemicals, including pigments and solvents. Records indicate that Sias generated waste paint, lacquers and inks.
- **AOC-2: Former Drum Storage Area** - According to previous reports, outside storage drums and trailer storage of 5-gallon cans of virgin solvents were located off the southeastern corner of the Site building.
- **AOC-3: Former Septic System** - Prior to 1979, the Site was reportedly served by a septic system; however, the location of the septic system is not documented in previous environmental reports and investigators were unable to identify the location of the former septic system.



- AOC-4: Former Excavation Area (1987) - In November 1987, approximately 250 cubic yards of fuel oil-impacted soil were excavated and removed from the northeastern portion of the Site. HRP determined that the source of the impacts was likely from the off-Site fuel terminal property to the north. The excavation reportedly proceeded based on the presence of visual staining and field tests.
- AOC-5: Former Heating Fuel UST and Current Heating Fuel AST - According to the 2020 Phase I ESA, a heating fuel UST was removed from the Site in 1998 along with approximately 180 tons of contaminated soil and approximately 7,000 gallons of dewatering wastewater. No information was provided regarding post-excavation conditions. The UST was replaced with a 275-gallon AST in the same area, south of the Site building.
- AOC-6: Former Transformer Oil Spill - According to the 2020 Phase I ESA, in 2015, 72 gallons of dielectric oil were reportedly spilled at the Site when a plow hit a utility pole on an adjacent property, and the pole fell onto the Site, causing damage to three pole-mounted transformers. Connecticut Light & Power (now Eversource) reportedly cleaned the spill up and submitted test results to the CTDEEP indicating that the oil did not contain polychlorinated biphenyls.
- AOC-7A/7B: Loading Docks - Two loading docks are located on the east (AOC-7A) and west (AOC-7B) of the Site building. The loading docks would have been used for transportation of hazardous materials and potential spills or releases may have occurred in the vicinity of the loading docks and impacted soil and groundwater.

Subsurface investigations conducted at the Subject Property by GZA and others have identified petroleum, volatile organic compound (VOC), polycyclic aromatic hydrocarbon (PAH), arsenic and lead impacts to soils and/or groundwater at the Subject Property related to former activities at the property. Remediation of impacted soils was conducted in 2021 and additional remediation followed by groundwater monitoring is planned for the Subject Property but has not yet been completed.

#### **Controlled Recognized Environmental Conditions (CRECs)**

- In GZA's opinion, this Phase I ESA revealed no evidence of CRECs in connection with the Subject Property.

#### **Historical Recognized Environmental Conditions (HRECs)**

- In GZA's opinion, this Phase I ESA revealed no evidence of HRECs in connection with the Subject Property.

#### ***De Minimis* Conditions**

This Phase I ESA revealed the following *de minimis* conditions in connection with the Subject Property:

- GZA observed *de minimis* staining on the floor inside the Subject Property building and on the ground surface in a gravel parking area on the Subject Property exterior.

#### **Significant Data Gaps**

In GZA's opinion, based on the information made available during this assessment, we did not encounter significant data gaps that affected our ability to identify RECs, CRECs, or HRECs at the Subject Property.



### **Connecticut Transfer Act Applicability**

Based on GZA's review of information discussed in this report, the real property and/or business operation which is the subject of this report appears to be an "establishment" under the Connecticut Transfer Act because the activities in subsection (A) of the definition of "establishment" appear to have occurred. Sias, Inc., a former occupant of the Site, generated more than 100 kg of hazardous waste in any one month. The Subject Property was transferred under a Property Transfer Program (PTP) Form III in May 2022. The Form III indicated remediation of several AOCs at the Subject Property had not yet been completed.

Any final opinion or determination as to whether a transaction is subject to the Connecticut Transfer Act is a legal one and advice of counsel should be obtained.

### **Other Business Environmental Risks**

This Phase I ESA revealed the following Business Environmental Risks (BERs):

- Future redevelopment activities at the Subject Property might encounter residual contamination in soil or groundwater related to past operations. Impacted material must be managed either on or off the Subject Property in conformance with applicable federal, state, and local regulations.
- If dewatering is required for construction, groundwater sampling and testing in conformance with federal, state, and/or local sewer discharge permit/approval requirements may be required.

### **Recommendations**

GZA recommends completing the actions required to achieve compliance with the Connecticut Transfer Act which include limited soil remediation, groundwater monitoring and submittal of a Licensed Environmental Professional (LEP) Verification Report to CTDEEP for the Subject Property.



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April 7, 2022  
File No. 05.0045055.24

Wilton GSE, LLC  
c/o The Grossman Companies  
One Adams Place  
Quincy, MA 02169

Attn: Jake Grossman

Re: Supplemental Environmental Site Investigation Report  
378 Danbury Road, Shelton, CT

Dear Mr. Grossman:

GZA GeoEnvironmental, Inc. (GZA) is pleased to provide the attached Supplemental Environmental Site Investigation Report to Wilton GSE, LLC (Client) for the 378 Danbury Road property in Wilton, Connecticut (the Site). This investigation was conducted in accordance with our contract dated February 21, 2022 and presents the results of soil and groundwater sampling and analysis conducted at the Site. As described herein, the objective of this assessment was to assess the extent and degree of impacts to subsurface soils and groundwater that were previously identified by others. This report is subject to the limitations included in Appendix A.

We trust this report satisfies your present requirements; should you require additional information, please call Adam Henry at (860) 858-3166.

Very truly yours,

**GZA GEOENVIRONMENTAL, INC.**

Morgan A. Nivison  
Environmental Scientist

Shannon H. Spezzano  
Assistant Project Manager

Adam T. Henry, LEP  
Associate Principal

Kathleen A. Cyr, LEP  
Consultant/Reviewer



## 5.9 DATA QUALITY ASSURANCE/QUALITY CONTROL ANALYSIS

The CTDEEP Quality Assurance/Quality Control (QA/QC) Work Group finalized Reasonable Confidence Protocols (RCPs) in November 2007. These RCPs are guidelines for enhanced QA/QC procedures for analytical methods and reporting. The CTDEEP currently recommends that environmental professionals request that the laboratory follow the RCPs when producing data that is used as the basis of decisions regarding compliance with the RSRs.

To demonstrate data quality, the CET Laboratory provided full QA/QC packages that accompanied the laboratory results for all soil and groundwater samples collected during this project. Data packages contained appropriate QA/QC documentation including Lab Method Blanks, LCS, and surrogate recoveries as well as lab recordkeeping and documentation paperwork. Additionally, field QA/QC samples were collected and analyzed according to RCP protocols, including site-specific matrix spike/matrix spike duplicate (MS/MSD) sets.

GZA's QA/QC data evaluation consisted of a review of laboratory data reports and narratives for assurance that the laboratory-maintained compliance with their internal QA/QC procedures on which the DPH Certification was based, and confirmation of attainment of data quality objectives (DQOs). The data quality objectives (DQOs) for the laboratory analytical data were to achieve analytical detection limits that were consistently below the lowest regulatory criteria applicable. Data quality was also reviewed with respect to project goals to determine the usability of each sample result. A summary of our review is provided in Appendix E.

The results of the QA/QC evaluation indicate that the data collected is suitable for the objectives of this Supplemental Investigation.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

GZA, on behalf of Wilton GSE, LLC, completed a Supplemental Environmental Site Investigation for the property located at 378 Danbury Road in Wilton, CT (Site). The primary purpose of this investigation was to assess the extent and degree of impacts at areas of concern (AOCs) where releases were identified during previous investigations and further assess the identified AOCs. GZA's supplemental investigation included the advancement of 21 soil borings and the installation of two monitoring wells, and the collection and laboratory analysis of 19 soil samples and 6 groundwater samples.

Subsurface soils encountered during the explorations performed as part of this investigation program generally consisted of sand and gravel. These materials were fairly consistent throughout the Site and are considered to be relatively permeable. Groundwater beneath the Site is inferred to generally flow in an easterly direction toward the Norwalk River. Depth to groundwater ranges from approximately 3 to 5 fbg.

Based on the results of the previous investigations, GZA identified and investigated seven areas of concern and based on the results, significant impacts to soil were identified at AOC-2, AOC-3, and AOC-5. PAHs and leachable lead were detected in one sample above RSR criteria at AOC-2. Arsenic and SPLP lead were detected in samples above RSR criteria from AOC-3. Arsenic was detected at a concentration above RSR criteria in one sample from AOC-5. The following table summarizes the identified AOCs, the constituents that were detected and whether additional investigation and/or remediation is required to achieve compliance with the RSRs.



AOC	Constituents Detected (Soil unless noted otherwise)	Constituents > RSRs	Additional Investigation Necessary	Remediation Required
AOC-1: Historical Building Operations	ETPH, metals	None	No	No
AOC-2: Former Drum Storage Areas	ETPH, PAHs, metals, SPLP metals	PAHs > R-DEC, I/C-DEC SPLP lead > GA-PMC	Yes	Yes PAHs > DEC and SPLP lead > the GA-PMC
AOC-3: Former Septic System	ETPH, petroleum related VOCs, metals, SPLP metals	Arsenic > R-DEC & I/C-DEC	Yes	Yes Arsenic > DEC
AOC-4: Former Excavation Area (1987)	No release identified	N/A	No	No
AOC-5: Former Heating Fuel UST/Current Heating Fuel AST	ETPH, metals, SPLP metals	Arsenic > R-DEC & I/C-DEC	Yes	Yes Arsenic > DEC
AOC-6: Former Transformer Oil Spill	No release identified	N/A	No	No
AOC-7A/7B: Loading Docks	No release identified	N/A	No	No
Sitewide Groundwater	ETPH, PAHs, petroleum related VOCs, metals	Arsenic > SWPC	Yes	Complete additional groundwater monitoring.

6.1 RECOMMENDATIONS

Based on our findings, GZA recommends the following:

**AOC-2: Former Drum Storage Areas**

The results of GZA’s investigations indicate that a release of ETPH, PAHs and lead occurred to shallow soil potentially related to the former drum and trailer storage area. PAHs detected in sample GZ-8 (1-3) were above the R-DEC (and above the I/C-DEC for benzo(a)pyrene) but compliant with the GA-PMC based on SPLP testing. The concentration of leachable lead in sample GZ-8 (1-3) was above the GA-PMC. Further investigation is required to complete characterization. It is GZA’s opinion that compliance with the DEC for PAHs and GA-PMC for lead in soils in this area could be achieved through the excavation and offsite disposal of the polluted soil.

**AOC-3: Former Septic System**

The results of GZA’s investigations indicate that a release of ETPH, acetone, MEK, lead, and arsenic were detected in the area of the former septic system and further investigation is required to complete



characterization. The concentration of arsenic in sample GZ-10 (0-2) exceeds the R-DEC and I/C-DEC. It is GZA's opinion that compliance with the DEC for arsenic in soils in this area could be achieved through excavation and offsite disposal of the polluted soil or use of an EUR to prohibit disturbance of the polluted soil beneath pavement.

#### **AOC-5: Former Heating Fuel UST/Current Heating Fuel AST**

The results of GZA's investigations indicate that that no significant impacts to soil related to the former UST/current AST areas were identified. However, arsenic was detected at a concentration above the R-DEC and I/C-DEC in sample GZ-11 (8-10). It is GZA's opinion that compliance with the DEC for arsenic in soils in this area could be achieved through excavation and offsite disposal of the polluted soil or use of an EUR to prohibit disturbance of the polluted soil beneath pavement.

#### **Site Groundwater**

No significant impacts to groundwater were identified, with the exception of arsenic which was detected at concentrations above the SWPC in samples from monitoring well ATC-3 (March 2021) and monitoring well MW-2 (March 2022). Additional groundwater monitoring is recommended to assess seasonal variations in groundwater flow and quality and to demonstrate compliance with the RSRs.



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September 13, 2022  
File No. 05.0045055.27

Wilton GSE, LLC  
c/o The Grossman Companies  
One Adams Place  
Quincy, MA 02169

Attn: Jake Grossman

Re: Phase I Environmental Site Assessment  
380 Danbury Road  
Wilton, CT

Dear Mr. Grossman:

Pursuant to your request, GZA is pleased to submit the appended Phase I Environmental Site Assessment Report for the above-referenced Subject Property. GZA completed this Phase I Environmental Site Assessment in general conformance with the guidelines described in ASTM International's *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13). GZA also considers this report to be generally consistent with the requirements of ASTM standard E1527-21, which has been published but not yet formally approved by EPA as meeting the "All Appropriate Inquiry" requirement under CERCLA.

We hope this satisfies your present needs. If you need additional information, please contact Adam Henry at (860) 858-3166.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Lauren Bunce  
Scientist I

Adam T. Henry, P.G., LEP  
Associate Principal/Environmental Professional

Ruth E. Kennedy  
Project Manager

Jason A. Krechko, LEP  
Consultant Reviewer

Attachment: Phase I ESA Report

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## EXECUTIVE SUMMARY

The Grossman Companies (also referred to herein as “Client” or “User”) retained GZA GeoEnvironmental, Inc. (GZA) to perform a Phase I Environmental Site Assessment (ESA) of the target property located at 380 Danbury Road in Wilton, Connecticut (Subject Property). GZA performed this Phase I ESA in connection with the Client’s planned purchase of the Subject Property.

This Phase I ESA was performed in general conformance with the scope and limitations of ASTM International’s *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13). This Phase I ESA included our visual observation of the Subject Property; a review of historical information, environmental databases, and information provided by the User; and one or more interviews with a current representative of the Subject Property. GZA also considers this report to be generally consistent with the requirements of ASTM standard E1527-21, which has been published but not yet formally approved by EPA as meeting the “All Appropriate Inquiry” requirement under CERCLA. GZA prepared this Phase I ESA Report in conformance with the limitations presented in **Section 14.0** and included in **Appendix A**. Limiting conditions and/or deviations from ASTM E1527-13 are described in **Section 1.4** of this Phase I ESA Report.

The Subject Property consists of an approximately 0.48-acre parcel of land located on the eastern side of Danbury Road in a commercial use section of Wilton, Connecticut. The Subject Property is improved with a 1.25-story, approximately 5,000-square foot service shop, constructed in 1930, and a paved, 1,000-square foot, parking lot. Historically, the Subject Property was occupied by Wilton Motors, an automobile dealership and gasoline station, Clark Tractor Co., a tractor dealership, and J & B Sales and Service, an outdoor power equipment dealership. Wilton Auto Park (vehicle sales and service) has occupied the Subject Property since 2011. The Subject Property is connected to municipal water and sewer systems but, prior to 1978, was served by a septic system and onsite well, the locations of which are unknown.

Based on the findings of our Phase I ESA and on our professional judgment, GZA has identified the following in connection with the Subject Property:

### Recognized Environmental Conditions (RECs)

In GZA’s opinion, this Phase I ESA revealed the following RECs in connection with the Subject Property:

- The Subject Property was historically occupied by vehicle and equipment dealerships and a gasoline station and, prior to 1978, was served by an onsite septic system. In addition, two floor drains (now sealed) were formerly present in the service shop area. Hazardous substances or petroleum products from vehicle maintenance or gasoline dispensing activities may have been released to the onsite septic system.
- Two former gasoline underground storage tanks (USTs) and a waste oil UST were removed from the Subject Property in October 2006. Impacted soils and groundwater were encountered during the tank removals and a subsurface investigation was conducted in November 2006 to determine the extent and degree of contamination. Analytical results of the subsurface investigation indicated petroleum, volatile organic compounds (VOC) and lead impacts to soils in an approximately 25-foot by 50-foot area in the former gasoline UST area and an approximately 20-foot by 20-foot area in the former waste oil UST area. Groundwater at the Subject Property was encountered at approximately 5 feet below grade and was



impacted by petroleum and VOCs, most notably methyl tert-butyl ether (MTBE) and tetrachloroethylene (PCE). A remedial action plan was prepared to remove approximately 860 tons of impacted soils from the tank graves, remove remnant gasoline product lines from the western side of the Subject Property that had been left in place at the time of the UST removals, and dewater the tank grave excavations. However, GZA did not find documentation that such remedial actions had been conducted at the Subject Property.

- In June 1994, the dumping of hazardous chemicals (approximately 10 gallons of thinners/urethane and cleaners) into a dumpster on the Subject Property was reported to Connecticut Department of Energy and Environmental Protection (CTDEEP). A subsequent investigation found leaking containers of chemicals in the dumpster. The containers were removed, and the status of the spill case is "closed;" however, the practice of improper disposal of hazardous chemicals to the onsite dumpster may have resulted in a release to shallow soils at the Subject Property.
- Previous reports reviewed for the Subject Property indicate that a heating oil UST was present on the northern side of the Subject Property building.

#### **Controlled Recognized Environmental Conditions (CRECs)**

In GZA's opinion, this Phase I ESA revealed no evidence CRECs in connection with the Subject Property.

#### **Historical Recognized Environmental Conditions (HRECs)**

- This Phase I ESA revealed evidence of no HRECs in connection with the Subject Property.

#### ***De Minimis* Conditions**

This Phase I ESA revealed the following *de minimis* condition in connection with the Subject Property.

- Evidence of *de minimis* staining was observed on the cement floor in the service area of the Subject Property building.

#### **Significant Data Gaps**

In GZA's opinion, based on the information made available during this assessment, we did not encounter significant data gaps that affected our ability to identify RECs, CRECs, or HRECs at the Subject Property.

#### **Connecticut Transfer Act Applicability**

Based on GZA's review of information discussed in this report, the real property and/or business operation which is the subject of this report does not appear to be an "establishment" under the Connecticut Transfer Act because the activities in subsections (A) through (E) of the definition of "establishment" do not appear to have occurred.

Any final opinion or determination as to whether a transaction is subject to the Connecticut Transfer Act is a legal one and advice of counsel should be obtained.

#### **Other Business Environmental Risks**

This Phase I ESA revealed the following Business Environmental Risks (BERs):



- Future redevelopment activities at the Subject Property might encounter residual contamination in soil or groundwater related to past operations. Impacted material must be managed either on or off the Subject Property in conformance with applicable federal, state, and local regulations.
- If dewatering is required for construction, groundwater sampling and testing in conformance with federal, state, and/or local sewer discharge permit/approval requirements may be required.

#### **Recommendations**

To evaluate whether a release of petroleum products or hazardous substances has occurred at the RECs identified above, GZA recommends conducting soil and groundwater sampling at the Subject Property.



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www.gza.com

September 13, 2022  
File No. 05.0045055.27

Wilton GSE, LLC  
c/o The Grossman Companies  
One Adams Place  
Quincy, MA 02169

Attn: Jake Grossman

Re: Supplemental Environmental Site Investigation Report  
380 Danbury Road, Wilton, CT

Dear Mr. Grossman:

GZA GeoEnvironmental, Inc. (GZA) is pleased to provide the attached Supplemental Environmental Site Investigation Report to Wilton GSE, LLC (Client) for the 380 Danbury Road property in Wilton, Connecticut (the Site). This investigation was conducted in accordance with our contract dated April 25, 2022 and presents the results of soil and groundwater sampling and analysis conducted at the Site. As described herein, the objective of the investigation was to assess whether a release of hazardous substances or petroleum products has occurred at the Site due to current or historical operations and supplement the results of investigations that were conducted at the Site in 2006.

This report summarizes our findings and provides recommendations based on the observed conditions and results of the subsurface investigations performed in August 2022. This report is subject to the limitations included in Appendix A.

We trust this report satisfies your present requirements; should you require additional information, please call Adam Henry at (860) 858-3166.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Ruth E. Kennedy, CHMM  
Project Manager

Adam T. Henry, LEP  
Associate Principal

Jason A. Krechko, LEP  
Consultant

Attachment: Report



6). The concentration of 2-methylnaphthalene in sample GZ-8 (4-6) was above the default PMC but was collected from below the water table; therefore, PMC is not applicable. Concentrations of other detected PAHs in the sample were below RSR criteria.

Certain metals, including arsenic, barium, cadmium, chromium, lead, and/or mercury were detected in the soil samples analyzed for these compounds. The total arsenic concentration (10.2 ppm) in sample GZ-8 (4-6) was above the R-DEC and I/C-DEC of 10 ppm. Concentrations of the metals detected in Site soils were consistent with naturally occurring conditions and not indicative of a release of metals. As noted below, the concentration of SPLP arsenic was below the GA-PMC.

Soil samples GZ-2 (5-7), GZ-8 (4-6) and GZ-13 (2-4) were analyzed for PCBs. No PCBs were detected in the GZ-2 or GZ-13 samples; one PCB arochlor (PCB-1260) was detected in GZ-8 at a concentration (1 mg/kg) equal to the R-DEC. No PCBs were detected in the other samples analyzed. Soil sample GZ-8 (4-6) was additionally analyzed for SPLP PAHs and SPLP metals. SPLP PAHs 2-methylnaphthalene, naphthalene and phenanthrene were detected in sample GZ-8 (4-6) but at concentrations below RSR criteria. SPLP arsenic, barium and lead were also detected in sample G-8 (4-6). Concentrations of leachable arsenic and barium were below the GA-PMC; however, leachable lead concentrations in the sample were above the GA-PMC.

## 5.2 GROUNDWATER ANALYTICAL RESULTS

The results of the groundwater laboratory analyses are summarized on Table 2 and indicate that ETPH, VOCs and lead were not detected in the groundwater samples at concentrations above the laboratory's MRLs from wells MW-1, MW-2, or MW-3.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

A Supplemental Environmental Site Investigation was completed by GZA in August 2022 at 380 Danbury Road in Wilton, Connecticut to determine whether a release of petroleum products or hazardous substances has occurred at the RECs identified in connection with the Site operations and supplement the results of investigations that were conducted at the Site in 2006.

The supplemental investigation included the advancement of fifteen (15) soil borings, the installation of three (3) groundwater monitoring wells, the collection and laboratory analysis of 15 soil samples and 3 groundwater samples, a ground-penetrating radar (GPR) survey to identify underground anomalies indicative of USTs, and a groundwater elevation survey.

Based on the scope of work conducted, GZA concludes the following:

- The GPR survey conducted at the Site did not identify subsurface anomalies on the northern side of the Site building, or in any of the other surveyed areas, indicative of a potential UST.



- The analytical results of the soil sampling identified ETPH in soil samples from five borings (GZ-1 (5-7), GZ-5 (5-7), GZ-8 (4-6), GZ-9 (0-2) and GZ-11 (5-7)) at concentrations ranging from 520 ppm (GZ-11 (5-7)) to 12,000 ppm (GZ-8 (4-6)). ETPH concentrations in samples from four of the borings (GZ-1, GZ-5, GZ-9 and GZ-11) were above the R-DEC but below the I/C-DEC and while the concentrations were above the default numeric GA-PMC, the samples from borings GZ-1, GZ-5, GZ-8 and GZ-11 were collected below the water table where the GA-PMC is not applicable. The concentration of ETPH in sample GZ-8 (4-6) was above the I/C-DEC. Certain VOCs and PAHs were also detected in sample GZ-8 (4-6) at concentrations above the default numeric GA-PMC, but the sample was collected below the water table where the GA-PMC is not applicable. Arsenic was detected in one sample (GZ-8 (4-6)) at a concentration slightly above the DEC and SPLP lead was detected in the same sample at a concentration above the GA-PMC but was collected below the water table where the PMC is not applicable.
- Results of the groundwater laboratory analyses indicate that ETPH, VOCs and lead were not detected in the groundwater samples at concentrations above the laboratory's MRLs.

GZA recommends that if the polluted soil at the Site is disturbed by construction activities, a soil management plan be developed. If compliance with the RSRs is required, additional limited investigation and potentially limited soil remediation at locations GZ-8 and GZ-9 would be necessary.

# GREGORY AND ADAMS, P.C.

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FAX: (203) 834-1628

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(1912 - 2002)

THOMAS T. ADAMS  
(1929 - 2015)

ESTABLISHED 1964

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DANIEL L. CONANT\*  
TREVOR CONLOW§  
SUSAN L. GOLDMAN  
J. VANCE HANCOCK  
J. CASEY HEALY  
MICHAEL LAMAGNA\*  
DERREL M. MASON\*  
MATTHEW C. MASON\*  
JAMES D'ALTON MURPHY\*  
KATHLEEN L. ROYLE \*  
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\* ALSO ADMITTED IN NEW YORK  
\* ALSO ADMITTED IN VERMONT  
§ ADMITTED IN NY AND NJ ONLY

February 3, 2023

## Via Email and Hand Delivery

Planning and Zoning Commission

Town Hall Annex

238 Danbury Road

Wilton, CT 06897

Attn: Mr. Michael E. Wrinn – Director of Planning and Land Use Management

Re: The Grossman Companies Inc. – Application for Special Permit/Site Development Plan  
Premises: 372, 378 and 380 Danbury Road, Wilton, CT

Dear Mr. Chairman and Members of the Commission:

Set forth below is The Grossman Companies Inc.'s ("TGCI") Environmental Impact Statement in satisfaction of the requirements of Section 29-10.A.5 of the Zoning Regulations of the Town of Wilton (the "**Regulations**"):

a. Compatibility with Town's Plan of Development

The above-referenced Premises consist of a cumulative 7.1+ acres of land located in the General Business zone. TGCI plans to convert the parcels at 378 Danbury Road and 380 Danbury Road to paved parking to support the intended conversion of portions of the existing building at 372 Danbury Road from office space to medical use. As noted in the attached plans, there will be an increase of 92 parking spaces across the Premises which will permit an additional 40,800 square feet of the 372 Danbury Road building to be converted to medical use.

This conversion from office to medical use is compatible with the Town's Plan of Conservation and Development adopted on September 23, 2019, and effective October 1, 2019 (the "Town Plan") for the following reasons:

- 1) The Town Plan states on page 23 that one of the Town Plan's goals is supporting context-sensitive economic development on Danbury Road and on page 55 that an objective is to "support the

redevelopment of underperforming properties”. As evidenced by the “For Lease” sign in front of the 372 Danbury Road property and as noted in the Traffic Report by Tighe & Bond, there is currently a sizable vacancy of office space within the 372 Danbury Road building.

- 2) Locating medical services within the Town of Wilton is a benefit to the residents of Wilton as it both decreases the need to travel for such services and brings non-residents into Town as they procure those medical services. Any such conversion from office space to medical use of the 372 Danbury Road building supports Wilton’s Economic Development Council’s goal, set forth on page 55 of the Town Plan, that states: “Support EDC efforts to market to business clusters that already have a presence in, or are appropriate for Wilton’s existing workforce, development scale and business mix. Target clusters identified in the EDC’s 2014 Strategic Plan include: *healthcare...*”
- 3) The enhancements to the 378 and 380 parcels will meet the objective set forth on page 33 of the Town Plan which states: “Improve stormwater drainage systems and reduce stormwater runoff and non-point-source pollution to mitigate stormwater drainage effects and preserve and improve water quality.”
- 4) The enhancements to the 378 and 380 parcels will also improve the Norwalk River aquifer area by increasing the vegetative buffer to the River by adding 8’ to 22’ of additional green space and plantings to the River’s edge as well as an overall increase of pervious surface by 10,585± consistent the with the goals set forth on page 13 of the Town Plan.
- 5) The consolidation of the three parcels on one site plan, with an integrated drive aisle and parking lot flow, and the conversion of two parcels to paved parking will result in the removal of one (1) curb cut along Danbury Road and result in all vehicular traffic to the Premises entering and exiting the Premises via one (1) signalized intersection. This reconfiguration supports the Town Plan objective on page 69 which states: “Promote better parking utilization, access management, and curb cut consolidation...”

b. Sensitive Environmental Features

The eastern side of 378 Danbury Road abuts the Norwalk River. 378 Danbury Road is also in the floodplain of the Norwalk River. The 378 Danbury Road and 380 Danbury Road parcels, as they exist today, do not contain means to mitigate the sheet flow of stormwater from the parcels into the Norwalk River and the existing buildings decrease the effectiveness of the floodplain. The proposed razing of the existing buildings and creation of a new paved parking lot with both a bioswale and level spreader will mitigate the sheet flow of stormwater into the River. By increasing the green space (pervious surface) on the parcels by 10,585±, through interior and property line landscaping buffers and increasing the existing vegetative buffer with the River by 8’ to 22’ along the 378 parcel, the anticipated redevelopment of the parcels will improve the impact of the parcels on the sensitive environmental features.



- c. Impact on Water, Sewer and Storm Drainage Systems of the Town  
The Premises are served by public water and sewer infrastructure. The razing of the existing buildings at 378 and 380 Danbury Road will decrease the use of Town Water and Sewer as there will no longer be occupants within those buildings to use the services. The intended change within the 372 Danbury Road building from office use to medical use will not have an impact on the water and sewer services as those uses are fairly consistent. The changes proposed to 378 Danbury and 380 Danbury will not alter the existing Storm Drainage Systems that currently exist between the parcels and the Town drainage systems.
  
- d. Traffic Impact  
The proposed project is anticipated to have no adverse impact to traffic along this stretch of Danbury Road since all traffic will end up entering and exiting the integrated parcels at an existing signalized intersection. One (1) curb cut will be eliminated by the redevelopment of the 378 and 380 Danbury Road parcels.
  
- e. Impact on Town Services  
The proposed project will decrease the use of Town services as there will no longer be buildings and human occupants on the 378 and 380 Danbury Road parcels.
  
- f. Alternatives to mitigate adverse impacts  
  
There are no adverse impacts to mitigate.

If you have any questions, please contact me.

Respectfully submitted,  
Gregory and Adams, P.C.

By: \_\_\_\_\_

James D'Alton Murphy

JD'AM/klr



TAYLOR HENTAL

378



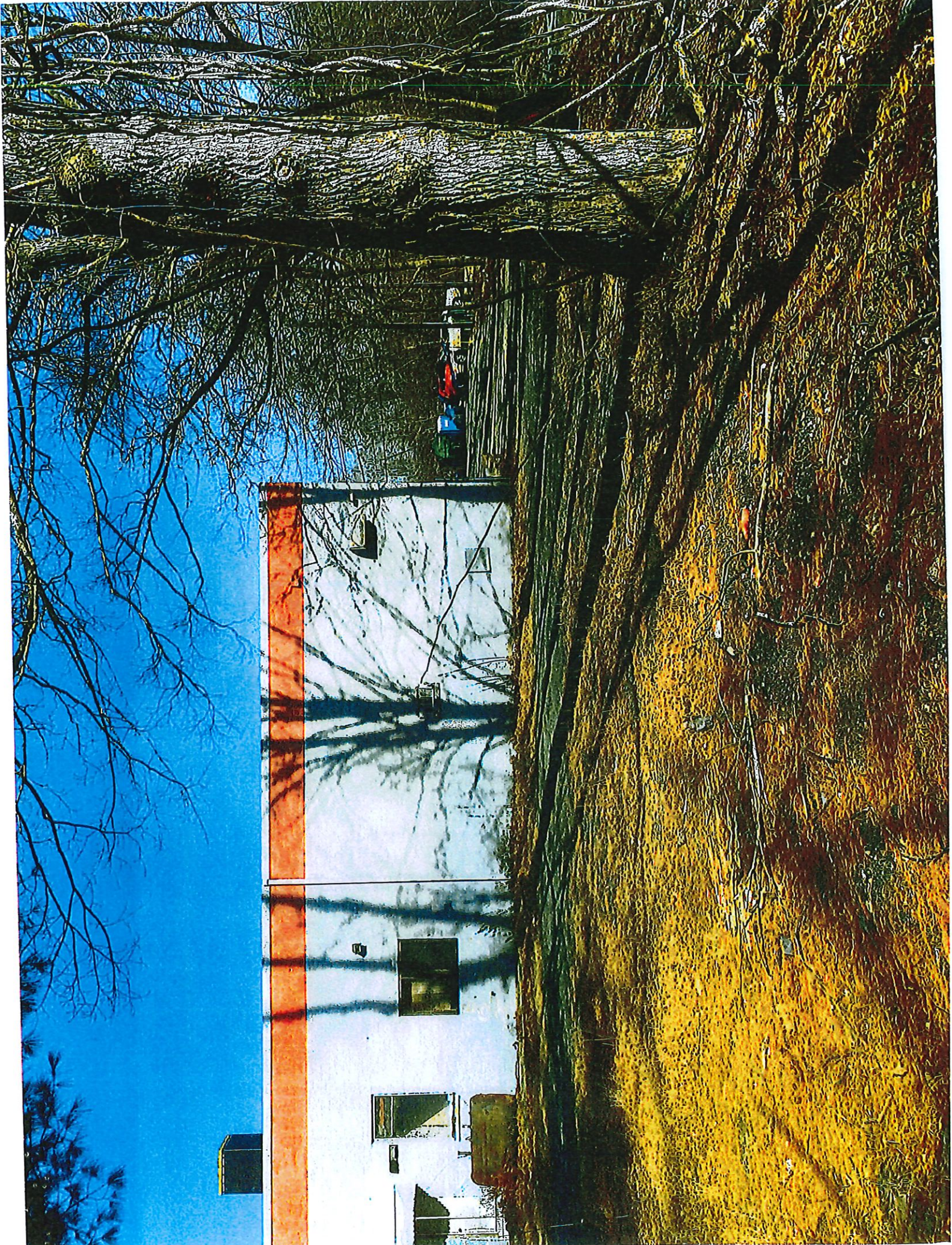
TAYLOR RENTAL

378



3













8

9







M

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January 25, 2023

### **By E-mail and Hand Delivery**

Planning and Zoning Commission

Town Hall Annex

238 Danbury Road

Wilton, CT 06897

Attn: Mr. Michael E. Wrinn – Director of Planning and Land Use Management

Re: The Grossman Companies, Inc. – Application for Special Permit and Site Plan Review  
Premises: 372, 378 and 380 Danbury Road, Wilton, Connecticut

Dear Mr. Chairman and Members of the Commission:

As attorneys for The Grossman Companies, Inc., we hereby certify that title to the above-referenced parcels is vested in:

1. 372 Danbury Road – Wilton GSE LLC by virtue of a Limited Warranty Deed from Wilton 372 Associates LLC, which Deed was recorded on January 7, 2014 in Volume 2362 of the Wilton Land Records at page 54.
2. 378 Danbury Road – Wilton 378 LLC by virtue of a Corporate Deed from Snowbird, LLC, which Deed was recorded on May 10, 2022 in Volume 2550 of the Wilton Land Records at page 883.
3. 380 Danbury Road – Wilton 380 LLC by virtue of a Special Warranty Deed from Wilton Auto Park, LLC, which Deed was recorded on January 17, 2023 in Volume 2558 of the Wilton Land Records at page 489.

Copies of the Deeds are enclosed for the Commission's file.

Respectfully submitted,  
Gregory and Adams, P.C.

*/s/ James D'Alton Murphy*  
By: \_\_\_\_\_  
James D'Alton Murphy

JD'AM/ko  
Enclosures

00132788

VOL# 2362 PG# 54

Record and return to:  
Donald R. Gustafson, Esq.  
Shipman & Goodwin LLP  
300 Atlantic Street  
Stamford, Connecticut 06901-3522

### LIMITED WARRANTY DEED

KNOW ALL PERSONS BY THESE PRESENTS THAT:

**WILTON 372 ASSOCIATES LLC**, a Delaware limited liability company with an address in care of Luzern Associates, LLC, 372 Danbury Road, Wilton, CT 06897 (the "Grantor"), for a good and valuable consideration received to its full satisfaction of **WILTON GSE LLC**, a Delaware limited liability company with an address in care of The Grossman Companies, Inc., One Adams Place, 859 Willard Street, Suite 501, Quincy, Massachusetts 02169 (the "Grantee"), does hereby give, grant, bargain, sell and convey unto the said Grantee, its successors and assigns forever, all that certain piece or parcel of land with the improvements thereon and appurtenances thereto and more particularly set forth and described in Schedule A attached hereto and made a part hereof.

TO HAVE AND TO HOLD the premises hereby conveyed, with the appurtenances thereof, to the Grantee and unto the Grantee's successors and assigns forever, to its and their own proper use and behoof;

AND ALSO, the Grantor does, for itself and its successors and assigns, covenant with the Grantee, its successors and assigns, that said premises are free from all encumbrances made or suffered by the Grantor, except as is set forth in Schedule A attached hereto and made a part hereof.

AND FURTHERMORE, the Grantor does by these presents bind itself and its successors and assigns forever, to warrant and defend the premises hereby conveyed to the Grantee, its successors and assigns against the claims and demands made or suffered by the Grantor, except as aforesaid, but against none other.

IN WITNESS WHEREOF, the Grantor has hereunto set its hand this 7<sup>th</sup> day of January, 2014.

Conveyance Tax Received  
TOWN \$ 48000.00  
STATE \$ 240000.00

Bettye Joan Rasognetti  
Town Clerk of Wilton





00132788

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SCHEDULE A

ALL that certain piece or parcel of land, together with the buildings and improvements thereon, situated on the Danbury Road, Route U.S. 7, in the Town of Wilton, County of Fairfield and State of Connecticut, shown and designated as "6.036 +/- Acres" on a certain map entitled "Map of Property Prepared for Invest-Wilton, Conn., Scale 1" = 40', April 26, 1979", certified substantially correct by Roland H. Gardner, Land Surveyor, and filed December 18, 1979 in the Office of the Town Clerk of the Town of Wilton as Map No. 3767, which parcel is more particularly described as follows:

BEGINNING at a point on the Easterly side of Danbury Road, Route U.S. 7, which point marks the Northwest corner of the premises, hereinafter described and the Southwest corner of land now or formerly of Emile DeBenigno;

THENCE North 82° 22' 30" East 433.01 feet along land now or formerly of Emile DeBenigno, land now or formerly of Martha Sias, and land now or formerly of Emile DeBenigno to a point on land now or formerly of Consolidated Rail Corp., as shown on said map;

THENCE South 5° 06' 00" West 757.57 feet, and along a curve having a radius of 5793.76 feet for an arc distance of 217.35 feet along land now or formerly of Consolidated Rail Corp. to a point on land whose ownership is in question, as shown on said map;

THENCE North 82° 45' 02" West 9.71 feet, South 11° 57' 55" West 26.35 feet, South 14° 27' 00" West 64.65 feet, South 39° 40' 10" West 9.72 feet, South 21° 42' 55" East 46.88 feet along land whose ownership is in question to a C.H.D. monument of land now or formerly of Charles E. Jr. & Louise W. Remlin, as shown on said map;

THENCE South 67° 02' 05" West 34.58 feet and North 26° 06' 55" West 211.52 feet along land now or formerly of Charles E. Jr. and Louise W. Remlin and land now or formerly of the Town of Wilton to a C.H.D. monument on Danbury Road, Route U.S. 7, as shown on said map.

THENCE along a curve having a radius of 433.30 feet for an arc distance of 31.48 feet, North 3° 34' 20" East 51.43 feet along a curve having a radius of 906.47 feet for an arc distance of 207.90 feet, North 15° 00' 50" West 47.89 feet, South 74° 59' 10" West 14.73 feet, North 13° 47' 20" West 61.07 feet and North 14° 46' 00" West 501.93 feet along Danbury Road, Route U.S. 7, to the point or place of beginning as shown on said map.

LESS: (Quit Claim Deed from Mony Mortgage Investors to the State of Connecticut in Vol. 412 at Pg. 274 WLR)

ALL that certain parcel of land, situated in the Town of Wilton, County of Fairfield and State of Connecticut, on the easterly side of Danbury Road, U.S. Route 7, containing 0.067 of an acre, and described as follows:

BEGINNING at a C.H.D. monument set at the northerly terminus of a 51.43 foot segment of the easterly highway line of Danbury Road, U.S. Route 7; thence along said easterly highway line, northwesterly along the arc of a circle having a radius of 906.47 feet and deflecting to the left, 207.90 feet to a C.H.D. monument; N 15° 00' 50" West 47.89 feet to a C.H.D. monument; South 74° 59' 10" West 14.73 feet to a C.H.D. monument; North 13° 47' 20" West 61.07 feet to a C.H.D. monument; North 14° 46' 00" West 263.00 feet to a C.H.D. monument; thence along land now or formerly of Mony Mortgage Investors, being along a line designated "Taking Line" on the map hereinafter referred to, S 16° 05' 08" East 213.92 feet to a C.H.D. monument; S 23° 09' 40" East 94.44 feet to a C.H.D. monument; thence southwesterly

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along the arc of a circle having a radius of 880.00 feet and deflecting to the right, 273.28 feet to the point of beginning.

FOR a more particular description of the above-described premises, reference is made to a map to be filed in the Wilton Town Clerk's Office entitled "Town of Wilton, Map Showing Land and Easement Acquired from Many Mortgage Investors by The State of Connecticut, Danbury Road – Route U.S. 7, Scale 1" = 80', September 1982, Robert W. Gubala, Transportation Chief Engineer – Bureau of Highways, Town No. 161, Project No. Misc., Serial No. 98, Sheet 1 of 1 Sheet." (Map Not Recorded.)

LESS: (Condemnation in favor of the State of Connecticut and against 372 Wilton Associates, LLC in Vol. 1577 at Pg. 136 WLR)

ALL THAT CERTAIN parcel of land, situated in the Town of Wilton, County of Fairfield and State of Connecticut, on the easterly side of Present U.S. Route 7, Danbury Road, containing 3,985 square feet, more or less, as more particularly shown on a certain map entitled "TOWN OF WILTON MAP SHOWING LAND ACQUIRED FROM 372 WILTON ASSOCIATES, LLC BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION RECONSTRUCTION OF EXISTING ROUTE U.S. 7 SCALE 1" = 40' MARCH, 2001 JAMES F. BYRNES, JR. – TRANSPORTATION CHIEF ENGINEER BUREAU OF ENGINEERING AND HIGHWAY OPERATIONS" Last Revised June 16, 2003, Sheet 1 of 1 (161-124-13), which map is on file in the Office of the Town Clerk of the Town of Wilton as Map No. 5397, and bounded and described as follows:

WESTERLY: by Present U.S. Route 7, Danbury Road, a total distance of 510 feet, more or less;

NORTHERLY: by land now or formerly of Mary Constance DeBenigno, 10 feet, more or less;

EASTERLY: by Owner's remaining land, 508 feet, more or less, by a line designated "TAKING LINE", as shown on said map; and

SOUTHEASTERLY: running to a point.

The above property is conveyed subject to:

1. Real Estate taxes payable to the Town of Wilton, Connecticut hereafter due and payable.
2. Sewer Use charges to the Town of Wilton, Connecticut hereafter due and payable.
3. Notice of Lease by and between Wilton 372 Associates, LLC and Diray TV, Inc. dated August 12, 2010 and recorded in Volume 2137 at Page 227 of the Wilton Land Records.

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4. Easement and rights as contained in a Notice of Condemnation in favor of the State of Connecticut and against 372 Wilton Associates, LLC dated July 7, 2003 and recorded in Volume 1577 at Page 136 of the Wilton Land Records.
5. Variance from the Wilton Zoning Board of Appeals dated November 15, 2004 and recorded January 14, 2005 in Volume 1757 at Page 268 of the Wilton Land Records.
6. Variance from the Wilton Zoning Board of Appeals dated June 16, 2008 and recorded July 11, 2008 in Volume 2013 at Page 218 of the Wilton Land Records.
7. Riparian rights of others in and to the Norwalk River, so-called.
8. 20-foot wide storm sewer easement as set forth in a Quit Claim Deed dated March 7, 1983 and recorded in Volume 412 at Page 274 of the Wilton Land Records, as shown on a certain map entitled "Town of Wilton, Map Showing Land and Easement Acquired from Momy Mortgage Investors by The State of Connecticut, Danbury Road - Route U.S. 7, Scale 1" = 80', September 1982, Robert W. Gubala, Transportation Chief Engineer - Bureau of Highways, Town No. 161, Project No. Misc., Serial No. 98, Sheet 1 of 1 Sheet." (Map not recorded)
9. Notes and notations as shown on Map No. 3767 on file in the Wilton Town Clerk's Office.
10. Easement from Alfred Lenoci, Michael Schinella, Donald Sherman and Matthew Vetro dba Invest to The Wilton Conservation Commission dated August 13, 1980 and recorded in Volume 351 at Page 109 of the Wilton Land Records.

Received For Record  
Jan 07, 2014 AT 03:23P  
ATTEST: Bettye J. Ragoanetti  
Wilton Town Clerk

Record and Return to:  
Michael F. Dowley, Esq.,  
Seyfarth Shaw LLP  
Two Seaport Lane, Suite 1200  
Boston, Ma, 02210-2028



## CORPORATE DEED

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

Know Ye That, **Snowbird, LLC** acting herein by **Fredrik J. Testor, Member and duly authorized**, of 378 Danbury Road, Wilton, Connecticut, for the consideration of One Million Seventy-Five Thousand Dollars (\$1,075,000.00) received to my full satisfaction of **Wilton 378 LLC, a Delaware limited liability company**, of 859 Willard Street, Suite 501, Quincy, Massachusetts, do give, grant, bargain, sell and confirm unto the said **Wilton 378 LLC, a Delaware limited liability company**, its successors and assigns forever, all that certain piece or parcel of land with all improvements thereon described as follows:

**SEE SCHEDULE A ATTACHED HERETO AND MADE A PART HEREOF**

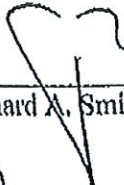
**To Have and to Hold**, the above granted and bargained premises, with the appurtenances thereof, unto the said grantee, its, successors and assigns forever, to its own proper use and behoof.


**And Also**, the said grantor does for its administrators, successors and assigns, covenant with the said grantee, its successors and assigns, that at and until the ensealing of these presents, it is well seized of the premises, as a good indefeasible estate in FEE SIMPLE and has good right to bargain and sell the same in manner and form as is above written; and that the same is free from all encumbrances whatsoever, except as hereinbefore mentioned.

**And Furthermore**, the said grantor does by these presents bind itself and its heirs, successors and assigns forever to WARRANT and DEFEND the above granted and bargained premises to the said grantee, its successors and assigns, against all claims and demands whatsoever, except as hereinbefore mentioned.

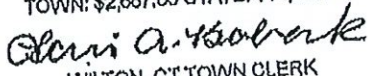
In Witness Whereof, I have hereunto set my hand and seal this 29<sup>th</sup> day of April in the year of our Lord two thousand twenty-two.

Snowbird, LLC

  
Richard A. Smith

  
By: Fredrik J. Testor, Member  
Duly Authorized

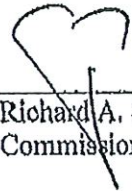
  
Shannon Richmond

CONVEYANCE TAX RECEIVED  
TOWN: \$2,687.60 STATE: \$13,437.60  
  
WILTON, CT TOWN CLERK

State of Connecticut                    )  
  ) ss:   New Fairfield  
County of Fairfield                    )

On this the 29<sup>th</sup> day of April 2022, before me, Richard A. Smith, the undersigned officer, personally appeared Fredrik J. Testor, duly authorized Member of Snowbird, LLC and known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed same for the purposes therein contained, as his free act and deed.

In Witness Whereof, I hereunto set my hand and official seal

  
Richard A. Smith  
Commissioner of the Superior Court

SCHEDULE A

All that certain piece or parcel of land with the buildings and improvements thereon located in the State of Connecticut, County of Fairfield and Town of Wilton shown and designated on a certain map entitled "Map Of Property Prepared for Arthur C. Sias, Inc., Wilton, Conn.", certified substantially correct by Roland H. Gardner, Land Surveyor, dated December 29, 1981 and revised June 25, 1981 and filed July 27, 1984 as Map No. 4141.

Together, with a right of way over a 10-foot strip of land running westerly to Danbury Road as originally reserved in Warranty Deed dated August 16, 1934 and recorded in Volume 40 at page 318 of the Wilton Land Records.

Said premises are known as 378 Danbury Road.

Subject to:

1. Any and all provisions of any municipal ordinance or regulation or public or private law with special reference to the provisions of any zoning regulations and regulations governing the said premises.
2. Any assessment or pending assessments for which a lien or liens have not yet been filed or recorded in the town clerk's office
3. Taxes on the Grand List of October 1, 2021, and thereafter, as become due and payable.
4. Sewer use charges next becoming due and payable.
5. Present effect of Agreement with the State of Connecticut concerning fishing in the Norwalk River dated March 10, 1964 and recorded in Volume 146, Page 700 of the Wilton Land Records.
6. Easement in favor of Town of Wilton Parks, Recreation and Conservation Commission over the area shown on Map No. 4141 as "Richard B. Allen River Walk" as set forth in instrument dated March 10, 1972 and recorded in Volume 170, Page 155 of the Wilton Land Records.
7. Certificate of Variance issued by Town of Wilton Zoning Board of Appeals dated September 19, 1987 and recorded in Volume 620, Page 128 of the Wilton Land Records.
8. Effect of Norwalk River Channel Encroachment Lines established by State of Connecticut Water Resources Commission shown on filed Map No. 2812.
9. Riparian rights of others in and to the waters of the Norwalk River flowing through and adjoining the premises.
10. Notations, delineations and utility structures shown on Map No. 4141.

Received for Record at Wilton, CT  
On 05/10/2022 At 9:37:00 am

*Chris A. Sobczak*

Record and Return to:  
Cramer & Anderson LLP  
51 Main Street  
New Milford, CT 06776

  
Doc ID: 003046410004 Type: LAN  
BK **2558** PG **489-492**

**SPECIAL WARRANTY DEED**

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

**Know Ye**, That the **Wilton Auto Park LLC**, a limited liability company organized and existing under the laws of the State of Connecticut with its principal office at 380 Danbury Road, Wilton, CT 06897 (hereinafter GRANTOR), for the consideration of **ONE MILLION SIX HUNDRED THOUSAND DOLLARS** (\$1,600,000.00) received to its satisfaction of **Wilton 380 LLC** a Delaware limited liability company, does give, grant, bargain, sell and confirm unto **Wilton 380 LLC** (hereinafter GRANTEE), the real property described as follows:

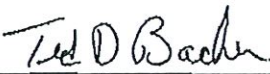
*THAT PIECE OR PARCEL OF LAND WITH BUILDINGS THEREON  
SET FORTH ON SCHEDULE A, ATTACHED HERETO AND MADE A PART  
HEREOF.*

To Have and to Hold the above granted and bargained premises, with the appurtenances thereof, unto it the said GRANTEE, and unto its successors and assigns forever, to its own proper use and behoof.

And Furthermore, the said GRANTOR does by these presents bind itself and its successors and assigns forever to **WARRANT AND DEFEND** the above granted and bargained premises to the said GRANTEE, its successors and assigns forever, against all claims and demands for any acts done by it during its term of ownership.

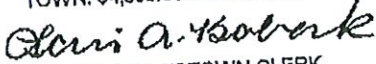
IN WITNESS WHEREOF, **Wilton Auto Park LLC** has caused this to be signed this 11<sup>th</sup> day of January, 2023.

**WILTON AUTO PARK LLC**

  
\_\_\_\_\_  
WITNESS-Ted D. Backer

By:   
\_\_\_\_\_  
Peter Canale  
Its Duly Authorized Member

  
\_\_\_\_\_  
WITNESS-Kathleen Pierce

CONVEYANCE TAX RECEIVED  
TOWN: \$4,000.00 STATE: \$20,000.00  
  
WILTON, CT TOWN CLERK

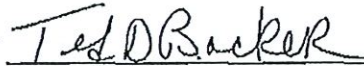
STATE OF CONNECTICUT

.ss: Town of New Milford

COUNTY OF LITCHFIELD

On this the 11<sup>th</sup> day of January, 2023, before me, the undersigned officer, personally appeared Peter Canale, duly authorized member of the Wilton Auto Park LLC, and known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he executed same for the purposes therein contained on behalf of the Wilton Auto Park LLC as such authorized agent/director.

In witness whereof, I hereunto set my hand and seal.



Ted D. Backer

Grantee's Post Closing Address:

One Adams Place  
859 Willard Street  
Suite 501  
Quincy, MA 02169



**SCHEDULE A**  
**380 Danbury Road, Wilton, CT 06897**

**FIRST PARCEL:**

All that certain tract or parcel of land together with the buildings thereon situated in the Town of Wilton, County of Fairfield and State of Connecticut, and being bounded and described as follows:

Northerly – 160 feet by land of John P. Richdale, now or formerly;

Easterly – 100 feet by land of John F. Goetjen and Sarah T. Goetjen, now or formerly;

Southerly – 160 feet by land of Lois F. Lucas, now or formerly; and

Westerly – 100 feet by the Danbury and Norwalk State Highway.

**SECOND PARCEL:**

All that certain parcel of land, situated in the Town of Wilton, County of Fairfield and State of Connecticut, containing 0.180 +/- AC. designated Parcel B on "Map of Property Prepared for Emile DeBenigno Wilton, Conn. Scale 1" = 20' March 14, 1977 by Roland H. Gardner Land Surveyor Wilton, CT Certified Substantially Correct by Roland H. Gardner Conn. Reg. No. 5179" which map is on file in the Wilton Town Clerk's Office as Map No. 3495.

**LESS AND EXCEPTING THEREFROM** the premises conveyed by instrument dated May 21, 2003 and recorded in Volume 1552 at Page 10 of the Wilton Land Records.

The above described premises are conveyed subject to:

1. Any and all provisions of any ordinance, municipal regulation, public or private law, including but not limited to planning, zoning and wetland regulations of the Town of Wilton.
2. Taxes, assessments and municipal charges hereafter due and payable to the Town of Wilton.
3. Such facts as shown on a map entitled "Town of Wilton Showing Land Acquired from Mary Constance DeBenigno by the State of Connecticut Department of Transportation Reconstruction of Existing Route U.S. 7 dated March, 2001."
4. An easement from Virginia DeBenigno in favor of Snowbird, LLC dated April 21, 1999 and recorded April 22, 1999 in Volume 1165 at Page 243 of the Wilton Land Records.
5. Restriction set forth in Warranty Deed from Lois Ford Lucas to Emile DeBenigno dated April 20, 1936 and recorded April 23, 1936 in Volume 45 at Page 528 of the Land Records of the Town of Wilton.

**SCHEDULE A (continued)**  
**380 Danbury Road, Wilton, CT 06897**

6. Variance granted by the Town of Wilton Zoning Board of Appeals dated September 5, 2002 and recorded in Volume 1421 at Page 104 of the Wilton Land Records.
  7. Variance granted by the Town of Wilton Zoning Board of Appeals dated February 19, 2008 and recorded in Volume 1992 at Page 129 of the Wilton Land Records.
  8. Rights in favor of the State of Connecticut as set forth in a Certificate of Taking dated May 21, 2003 and recorded in Volume 1552 at Page 10 of the Wilton Land Records.
  9. Rights of others in and to any watercourse situated upon or crossing the premises.
  10. Special Permit Issued by Wilton Planning and Zoning dated July 11, 2011 and recorded August 18, 2011 in Volume 2198 at Page 271; refer to Declaration of Intent dated January 13, 2011 and recorded January 24, 2012 in Volume 2229 at Page 107 of the Wilton Land Records.
- 
11. Easement Deed by Court Order in favor of Caitflo, LLC and Calabash, LLC dated June 24, 2013 and recorded in Volume 2344 at Page 308 of the Wilton Land Records.
  12. Notes, notations, easements, and conditions shown on Maps Nos. 1757, 3495, 4141, and 5383, on file in the Wilton Town Clerk's Office.

Received for Record at Wilton, CT  
On 01/17/2023 At 11:00:00 am

*Terri A. Sobolik*

59-12-1 KLANCKO WILLIAM R & ANDREA R 53 PIMPEWAUG RD WILTON CT 06897	46-6 388 LLC 388 DANBURY RD WILTON CT 06897	46-7 S & J COMMERCIAL PROPERTIES LLC 15 NORTHEAST INDUSTRIAL RD BRANFORD CT 06405
46-8 RUTTKAMP STEPHEN M TRUSTEE 472 WHEELERS FARM RD MILFORD CT 06461	46-9 TERMINAL HOLDINGS LLC 1275 TURKEY ROOST KNOLL TALLAHASSEE FL 32317	46-10 SNOWBIRD LLC 378 DANBURY RD WILTON CT 06897
46-11 WILTON AUTO PARK LLC 22 COBBLERS LA RIDGEFIELD CT 06877	46-12 WILTON GSE LLC ONE ADAMS PL QUINCY MA 02169	46-15 ATHANASIOU MARYELLEN & 51 PIMPEWAUG RD WILTON CT 06897
46-16 BUSCH WILLIAM M 101 PIMPEWAUG RD WILTON CT 06897	46-28-4 XIE YUKAI 25 BRIARDALE PL WILTON CT 06897	46-28-9 CUFF STEVEN & LORA 41 BRIARDALE PL WILTON CT 06897
46-28-10 NOBUMOTO PAMELA C 43 BRIARDALE PL WILTON CT 06897	47-7 CONNECTICUT STATE OF 2800 BERLIN TPKE NEWINGTON CT 06131	59-2 CONNECTICUT STATE OF 2800 BERLIN TPKE NEWINGTON CT 06131
59-2-1 CONNECTICUT STATE OF 2800 BERLIN TPKE NEWINGTON CT 06131	59-2-2 CONNECTICUT STATE OF 2800 BERLIN TPKE NEWINGTON CT 06131	59-3 WILTON TOWN OF 238 DANBURY RD WILTON CT 06897
59-4 JNM LLC 2 TULIP TREE LA NORWALK CT 06851	59-5 385-UDD LLC 459 ROMANOCK RD FAIRFIELD CT 06825	59-8 WILTON TOWN OF 238 DANBURY RD WILTON CT 06897
59-9 ROBINSON CHARLES J & ROSEMARIE 354 DANBURY RD WILTON CT 06897	59-12 ATHANASIOU KONSTANTINOS & 51 PIMPEWAUG RD WILTON CT 06897	59-13 VIZCARRONADO JOSEPH & 7 SKUNK LA WILTON CT 06897
59-14 FROEHLICH MARK R & BRENDA C 44 PIMPEWAUG RD WILTON CT 06897	59-15 LEVINE JOSHUA M & SARAH L 23 OLD WAGON RD WILTON CT 06897	60-1 THREE EIGHTY SEVEN LLC 1275 TURKEY ROOST KNOLL TALLAHASSEE FL 32317
46-11A DEBENIGNO MARY CONSTANCE 65 CHERRY LA WILTON CT 06897		

46-4  
390-392 DANBURY ROAD ASSOC LLC  
PO BOX 610  
WILTON CT 06897

46-8  
RUTTKAMP STEPHEN M TRUSTEE  
472 WHEELERS FARM RD  
MILFORD CT 06461

46-11  
WILTON AUTO PARK LLC  
22 COBBLERS LA  
RIDGEFIELD CT 06877

46-16  
BUSCH WILLIAM M  
101 PIMPEWAUG RD  
WILTON CT 06897

59-3  
WILTON TOWN OF  
238 DANBURY RD  
WILTON CT 06897

60-1  
THREE EIGHTY SEVEN LLC  
1275 TURKEY ROOST KNOLL  
TALLAHASSEE FL 32317

46-6  
388 LLC  
388 DANBURY RD  
WILTON CT 06897

46-9  
TERMINAL HOLDINGS LLC  
1275 TURKEY ROOST KNOLL  
TALLAHASSEE FL 32317

46-12  
WILTON GSE LLC  
ONE ADAMS PL  
QUINCY MA 02169

46-28-10  
NOBUMOTO PAMELA C  
43 BRIARDALE PL  
WILTON CT 06897

59-4  
JNM LLC  
2 TULIP TREE LA  
NORWALK CT 06851

46-11A  
DEBENIGNO MARY CONSTANCE  
65 CHERRY LA  
WILTON CT 06897

46-7  
S & J COMMERCIAL PROPERTIES LLC  
15 NORTHEAST INDUSTRIAL RD  
BRANFORD CT 06405

46-10  
SNOWBIRD LLC  
378 DANBURY RD  
WILTON CT 06897

46-15  
ATHANASIOU MARYELLEN &  
51 PIMPEWAUG RD  
WILTON CT 06897

47-7  
CONNECTICUT STATE OF  
2800 BERLIN TPKE  
NEWINGTON CT 06131

59-5  
385-UDD LLC  
459 ROMANOCK RD  
FAIRFIELD CT 06825

46-4  
390-392 DANBURY ROAD ASSOC LLC  
PO BOX 610  
WILTON CT 06897

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WILTON CT 06897

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TERMINAL HOLDINGS LLC  
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TALLAHASSEE FL 32317

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WILTON GSE LLC  
ONE ADAMS PL  
QUINCY MA 02169

47-7  
CONNECTICUT STATE OF  
2800 BERLIN TPKE  
NEWINGTON CT 06131

59-5  
385-UDD LLC  
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FAIRFIELD CT 06825

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S & J COMMERCIAL PROPERTIES LLC  
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BRANFORD CT 06405

46-10  
SNOWBIRD LLC  
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WILTON CT 06897

46-15  
ATHANASIOU MARYELLEN &  
51 PIMPEWAUG RD  
WILTON CT 06897

59-3  
WILTON TOWN OF  
238 DANBURY RD  
WILTON CT 06897

60-1  
THREE EIGHTY SEVEN LLC  
1275 TURKEY ROOST KNOLL  
TALLAHASSEE FL 32317

**The Grossman Companies, Inc.**

**Land Use Applications to Town of Wilton**

**Premises: 372, 378 and 380 Danbury Road, Wilton, CT**

**List of Project Professionals**

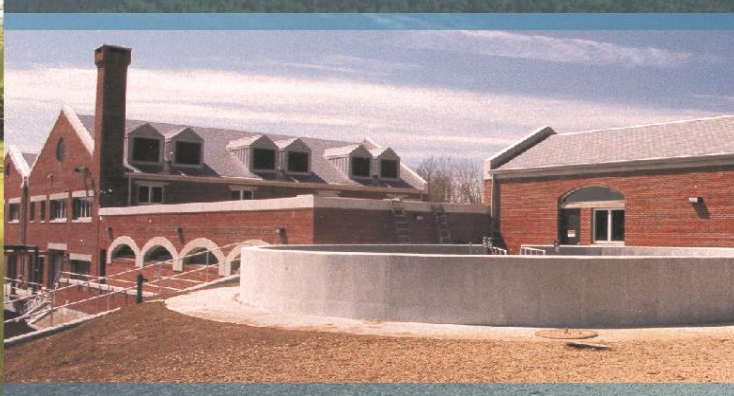
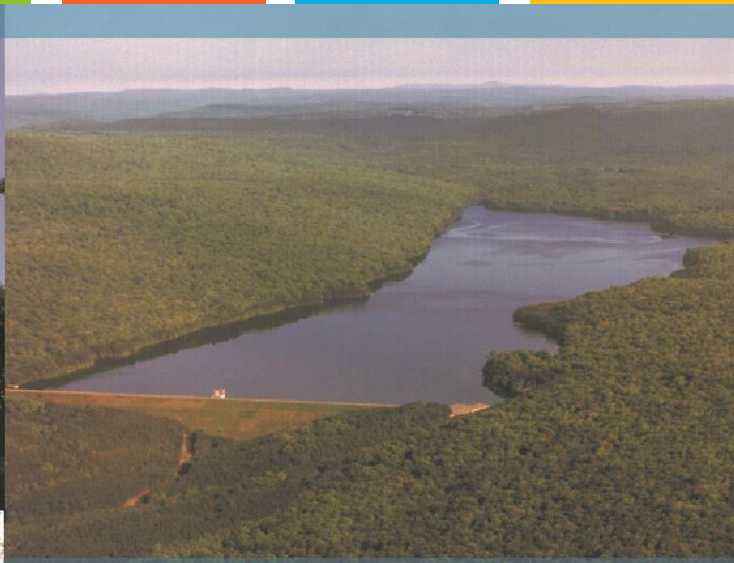
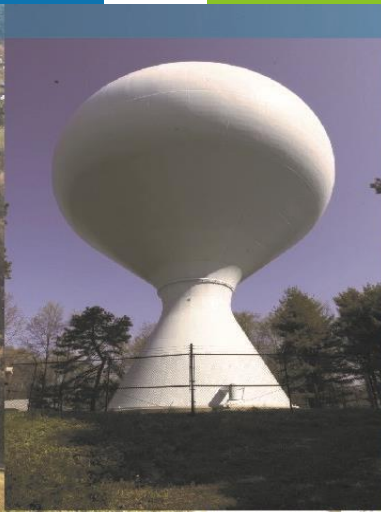
1. Applicant  
The Grossman Companies, Inc.  
c/o Gregory and Adams, P.C.  
190 Old Ridgefield Road  
Wilton, CT 06897
2. Owners  
Wilton GSE LLC  
Wilton 378 LLC  
Wilton 380 LLC  
c/o Gregory and Adams, P.C.  
190 Old Ridgefield Road  
Wilton, CT 06897
3. Surveyor  
Paul A. Brautigam, LLS  
Brautigam Land Surveyors, P.C.  
90 South Main Street  
Newtown, CT 06470  
203-270-7810  
[Surveyint@BrautigamLand.com](mailto:Surveyint@BrautigamLand.com)
4. Civil Engineer  
John W. Block, PE, LS  
Erik W. Lindquist, PE, LEED AP  
Tighe & Bond, Inc  
1000 Bridgeport Avenue  
Shelton, CT 06484  
203-712-1100  
[jwblock@tighebond.com](mailto:jwblock@tighebond.com)  
[elindquist@tighebond.com](mailto:elindquist@tighebond.com)
5. Traffic Engineer  
Craig D Yannes, PE, PTOE, RSP1  
Tighe & Bond, Inc,  
1000 Bridgeport Avenue  
Shelton, CT 06484  
203-712-1100  
[cdyannes@tighebond.com](mailto:cdyannes@tighebond.com)
6. Landscape Architect  
Kate Throckmorton, L.A.  
Environmental Land Solutions, LLC  
8 Knight Street  
Norwalk, CT 06851  
203-855-7879  
[kate@elsllc.com](mailto:kate@elsllc.com)

7. Environmental Consultants

Adam T. Henry, LEP  
GZA Geoenvironmental, Inc.  
655 Winding Brook Drive, Ste. 402  
Glastonbury, CT 06033  
860-286-8900

8. Attorneys

James D'Alton Murphy, Esq.  
Kathleen L. Royle, Esq.  
Gregory and Adams, P.C.  
190 Old Ridgefield Road  
Wilton, CT 06897  
[jmurphy@gregoryandadams.com](mailto:jmurphy@gregoryandadams.com)  
[kroyle@gregoryandadams.com](mailto:kroyle@gregoryandadams.com)  
(203) 762-9000



372, 378, and 380 Danbury Road  
Wilton, Connecticut

## ENGINEERING REPORT

Prepared For:

The Grossman Companies, Inc.  
One Adams Place  
859 Willard Street, Suite 501  
Quincy, MA 02169



January 25, 2023

# Tighe & Bond



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1.3 Site Soils.....1-2  
1.4 Wetlands.....1-2

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**Appendix A** Figure 1 – Site Location Map

Figure 2 – FEMA FIRM Map

Figure 3 – Cross Section Location Map

**Appendix B** Site Soils and Precipitation Information

**Appendix C** Existing Hydrologic Calculations

**Appendix D** Proposed Hydrologic Calculations

**Appendix E** Proposed Hydraulic Calculations and Riprap Apron / Level Spreader Sizing Worksheet

**Appendix F** NCAT Datum Conversion  
FIS Discharge Table  
HEC-RAS River Modeling Output Tables

**Appendix G** Maintenance & Inspection Forms

# **Section 1**

## **Introduction and Site Conditions**

Tighe & Bond has prepared this report at the request of The Grossman Companies, Inc. ("Applicant"), to support their applications to the Town of Wilton Planning & Zoning Commission and Inlands Wetlands Commission to construct a new parking lot with a net gain of 92 vehicular spaces on 378 and 380 Danbury Road ("Redevelopment Area"), to support expanded medical office use at 372 Danbury Road.

The project area is located on three parcels of land totaling 7.07-acres +/- (5.86-Acres for 372 Danbury Road, 0.69-Acres for 378 Danbury Road, and 0.52-Acres for 380 Danbury Road) ("Project Area") and is bounded by Danbury Road to the west, the Norwalk River to the south and east, and commercial properties to the north. The proposed development will include the demolition of the existing buildings located at 378 and 380 Danbury Road, and construction of at-grade parking, stormwater management, lighting, and associated landscaping. Refer to **Figure 1**, Site Location Map, in **Appendix A**.

Tighe & Bond has inspected the property and analyzed available soils, drainage, utility, wetland, and topographic information. Drainage calculations and stormwater management design have been prepared in accordance with the 2000 Connecticut Department of Transportation (CTDOT) Drainage Manual, and the Connecticut Department of Energy and Environmental (DEEP) Protection 2004 Stormwater Quality Manual. The drainage calculations include a hydrologic and hydraulic analysis of the existing conditions and the proposed development. Specifically, the calculations include an analysis of the on-site stormwater management measures and their performance in handling peak flow attenuation and the water quality improvement. The report also includes a summary of the site floodplain management, and the proposed soil erosion and sedimentation control measures incorporated during construction.

### **1.1 Existing Conditions**

The project area currently consists of an 82,535 square-foot office building at 372 Danbury Road, a vacant 5,700 square-foot commercial building at 378 Danbury Road, and a 2,661 square-foot commercial building at 380 Danbury Road. The three parcels are located within Wilton's General Business (GB) Zone. A significant portion of each site is currently impervious with paved parking areas, sidewalks, and drive aisles, with landscaping and lawns generally around the perimeter of the sites.

The Project Area is located on Danbury Road (Route 7) which is a north-south four lane State maintained major arterial roadway. The roadway is generally 52-feet wide along the frontage of the site with two lanes northbound and two lanes southbound.

The topography of the Redevelopment Area generally slopes from west to east towards the Norwalk River. Due to the lack of drainage structures on 378 and 380 Danbury Road, stormwater runoff flows overland across the paved and landscaped surfaces directly into the Norwalk River. The Norwalk River runs adjacent to the eastern edge of the property, flowing from north to south. All of the 378 Danbury Road and the eastern edge of the 380 Danbury Road parcels lies within the Special Flood Hazard Zone AE of the Norwalk River (**See Figure 2**).

## 1.2 Project Proposal

The proposed development will include the demolition of the existing buildings and surface features at 378 and 380 Danbury Road in order to construct a new surface parking lot. The eastern end of the property adjacent to the Norwalk River will be enhanced to provide additional green space by pulling back existing impervious surfaces and providing a larger landscaped buffer along the Norwalk River.

Stormwater management for the Redeveloped Area will be accommodated on-site. Surface runoff will be collected in a centrally located bio-filtration swale that infiltrates surface runoff through vegetated filter media and an underdrain prior to being discharged to the Norwalk River via a newly constructed level spreader to mitigate scour and erosive velocities from runoff. Due to the high seasonal groundwater elevation being adjacent to the river, the use of subsurface retention to promote additional infiltration is not possible on the parcels. The storm drainage system has been designed to reduce peak flows and volumes while providing stormwater treatment prior to discharging into the Norwalk River.

## 1.3 Site Soils

The U.S. Department of Agriculture's National Resource Conservation Service (NRCS) Web Soil Survey indicates the following soil types are present on the site:

**Urban Land (306):** Urban land is mostly covered by streets, parking lots, buildings, and other structures of urban areas. Slopes range from 0 to 45 percent. No drainage class is assigned, and the complex does not meet hydric criteria.

**Rippowam Fine Sandy Loam (103):** This series consist of very deep, poorly drained loamy soils formed in alluvial sediments. They are nearly level soils on flood plains subject to frequent flooding. Slope ranges from 0 to 3 percent.

A copy of the NRCS Soil Resource Report is included in **Appendix B** of this report.

## 1.4 Wetlands

Wetlands soils were delineated and flagged by Tighe & Bond, Raina Volovski, soil scientist on October 24, 2022, and located in the field by Brautigam Land Surveyors. Wetland flags and limits are depicted on the project drawing sheets.

## Section 2 Stormwater Management

### 2.1 Existing Site Hydrologic Analysis

To review the impact of the proposed development on the Redevelopment Area, an existing conditions hydrologic analysis was performed. Under existing conditions, stormwater runoff from the Redevelopment Area generally flows from west to east towards the Norwalk River. Since there are no catch basins or inlet structures on the existing 378 and 380 Danbury Road sites that discharge to the Norwalk River, runoff flows overland and toward the river at the eastern edge of the 378 Danbury Road parcel. The edge of the river along the property has been designated as the design point for this analysis. The drainage area of the existing parcels has been delineated into sub-watershed areas. The Existing Conditions Watershed Map (Figure EX-WS) is included in **Appendix C** of this report.

Impervious and pervious areas, weighted curve number, and time of concentration were calculated for each watershed area and developed into hydrologic model to determine the project's peak flow and volume, as part of the comparative hydrology analysis. Precipitation data for the hydrologic modeling were developed from NOAA's Atlas 14 Point Precipitation Frequency Estimates online utility. The site-specific precipitation depths for a 24-hour durations storm are shown in **Table 2-1**.

**Table 2-1**  
**24-hour Duration Precipitation Depth**

	<b>2-Year</b>	<b>10-Year</b>	<b>25-Year</b>	<b>50-Year</b>	<b>100-Year</b>
Depth (in)	3.56	5.44	6.61	7.48	8.42

A breakdown of existing watershed areas, existing volumetric hydrographs, and existing watershed map are included in **Appendix C** of this report.

#### 2.1.1 Floodplain Management

The Federal Emergency Management Agency's Flood Insurance Rate Map (FIRM) for Fairfield County, effective June 18, 2010 shows the 378 Danbury Road and the eastern edge of the 380 Danbury Road parcels lies within the Special Flood Hazard Zone AE of the Norwalk River. The floodway bisects through the middle of the 378 Danbury Road building, as shown in **Figure 2** in **Appendix A**. Refer to **Section 3 Floodplain Management & Hydraulics** of this report for additional information.

### 2.2 Proposed Site Hydrologic and Hydraulic Analysis

A stormwater management system has been designed for the Redevelopment Area to reduce peak flows and improve water quality overall. The proposed drainage system consists of catch basins, a bio-filtration swale, underdrains, and outlet protection. The stormwater management system will maintain existing drainage patterns and utilize Best Management Practices for stormwater treatment.

Under proposed conditions, drainage patterns will generally remain the same, flowing in an easterly direction and ultimately discharging to the Norwalk River. Drainage structures and the bio-filtration swale have been centrally located to maximize the collection of stormwater runoff from paved and landscaped surfaces, and to promote infiltration and enhance water quality. A riprap apron and level spreader have been designed to reduce outlet velocities and provide erosion control prior to discharge to the Norwalk River.

### 2.2.1 Proposed Site Hydrology

The proposed conditions hydrologic analysis consists of sub-watershed areas at each inlet structure of the development property. For each proposed watershed area, weighted curve numbers and times of concentration were calculated and utilized in the proposed conditions hydrologic model. The bio-filtration swale was also modeled to determine its effectiveness in reducing peak discharges from the site.

**Table 2-2** provides a summary of the peak discharges under existing and proposed conditions for the 2, 10, 25, 50, and 100 year storm events.

**Table 2-2  
Summary of Stormwater Peak Discharge (cfs)**

Discharge Location	Condition	Storm Frequency (Years)				
		2	10	25	50	100
Danbury Road (Design Point A)	Existing	0.101	0.177	0.223	0.258	0.295
	Proposed	0.055	0.136	0.192	0.236	0.284
Norwalk River (Design Point B)	Existing	3.913	6.456	8.022	9.179	10.420
	Proposed	3.312	5.627	7.071	8.029	8.777

The proposed conditions watershed map, curve number and time of concentration worksheets, and volumetric hydrographs are included in **Appendix D**.

**Table 2-3** provides a summary of the peak volumetric runoff under existing and proposed conditions for the 2, 10, 25, 50, and 100 year storm events.

**Table 2-3  
Summary of Stormwater Volumetric Runoff (cu ft)**

Discharge Location	Condition	Storm Frequency (Years)				
		2	10	25	50	100
Danbury Road (Design Point A)	Existing	304	542	695	809	934
	Proposed	179	412	577	705	849
Norwalk River (Design Point B)	Existing	12,006	20,381	25,674	29,630	33,919
	Proposed	11,141	19,584	24,971	29,014	33,407

The proposed conditions watershed map, curve number and time of concentration worksheets, and volumetric hydrographs are included in **Appendix D**.

### 2.2.2 Water Quality

The water quality volume (WQV) for a site is roughly equivalent to the first inch of runoff. This volume is typically captured and treated through infiltration in order to remove a majority of stormwater pollutants on an average annual basis. While the use of infiltration is typically the primary method to provide this treatment, it is not always possible for sites with ledge, high ground water, or contamination. Due to both high ground water and existing environmental concerns on site we are not able to provide a subsurface retention system to promote infiltration. In lieu of this we have proposed an at-grade bio-filtration swale as a means to capture and treat runoff through a vegetative surface layer and subsurface filter media instead. Runoff from this swale will either be infiltrated to the ground or be collected by a perforated underdrain beneath the filter media and discharged to the Norwalk River through a vegetated level spreader. Currently runoff on site goes untreated directly to the Norwalk River. The proposed application of the bio-filtration swale, catch basin hoods and sumps, underdrains, a level spreader, reduced impervious surfaces from the existing condition, and an increased vegetated buffer along the Norwalk River, will all help provide a significant improvement for water quality than is currently provided on-site.

### 2.2.3 Hydraulic Capacity and Outlet Velocity

The stormwater collection system has been designed to convey the 25-year storm event. The system was designed by analyzing sub-areas corresponding to each inlet structure and calculating weighted runoff coefficients and times of concentration. These values were entered into a storm sewers model using Hydraflow Storm Sewers Extension for AutoCAD Civil 3D 2018, Version 2018.3. Based upon this analysis, the proposed storm system has the capacity to convey the 25-year storm event. At the outlet of the system, a riprap apron and level spreader have been designed to reduce outlet velocities and prevent scour along slopes. Hydraulic calculation worksheets and storm sewers output results are included in **Appendix E**.

## 2.3 Method of Hydrology and Hydraulic Analysis

The following storm drainage design criteria were used for all drainage pipe systems:

1. Design storm rainfall data from NOAA Atlas 14 Point Precipitation Frequency Estimates
2. Piped storm drainage system and the outlets are designed for a 25-year storm event.
3. Minimum time of concentration = 5 minutes
4. For SCS peak flow calculations, Curve Number were as follows:
  - a. Impervious (Pavement/Roof Areas) = 98
  - b. Landscaped and Lawn Areas = 69

5. For rational peak flow calculations, runoff coefficients were as follows:
  - a. Impervious (Pavement/Roof) areas = 0.95
  - b. Landscaped and Lawn Areas = 0.30
6. Minimum diameter of pipes = 12 inches, excluding underdrains.
7. Minimum pipe slope = 0.5 percent
8. Watershed areas delineated using polylines in AutoCAD Civil 3D 2018.
9. Comparative hydrology analyzed using Hydraflow Hydrographs Extension for AutoCAD Civil 3D 2018, Version 2018.3
10. Storm drainage system analyzed using Hydraflow Storm Sewers Extension for AutoCAD Civil 3D 2018, Version 2018.3

## 2.4 Best Management Practices

The stormwater management plan for the proposed site uses "Best Management Practices" (BMPs) to remove a high percentage of sediments in accordance with the Connecticut Department of Energy and Environmental Protection "Stormwater General Permit Criteria".

The BMPs include:

Catch Basins with Sumps and Traps: Catch basins with sumps and traps collect sediment and prevent discharge of oil and other pollutants into the storm drainage system. All new catch basins on-site will have 24-inch sumps.

Bio-Filtration Swale: Infiltration serves as a primary treatment practice by treating runoff through vegetative surface measures and subsurface filter media. The proposed stormwater management system utilizes a bio-swale to provide for this biological treatment and pollutant renovation.

Level Spreader: Level Spreaders serve as a secondary treatment practice that are utilized to reduce stormwater discharge velocities to non-erosive levels.

## 2.5 Stormwater Maintenance and Inspection Schedule

Stormwater management systems require periodic maintenance to ensure they function as designed. The initial inspection will be made during an intense rainfall to check the adequacy of the catch basins, piping, underground infiltration systems, and system outlet.

The following is a checklist of items that will be checked and maintained during scheduled maintenance operations.



Drainage Structures: The Owner will be responsible for cleaning the catch basins, piping, and outlet protection on their property. A Connecticut licensed hauler shall clean the sumps, and legally dispose of removed sand at an off-site location. The road sand may not be reused or stored on-site. As part of the hauling contract, the hauler shall notify the Owner in writing where the material is being disposed.

Each catch basin shall be inspected every four months, with one inspection occurring during the month of April. Any debris occurring within one foot from the bottom of each sump shall be removed by Vacuum "Vactor" type of maintenance equipment. Maintain a log of inspections. Remove organic matter, sand, and debris from catch basins as necessary and dispose of legally.

Bio-Filtration Swale: The swale will be cleaned of all silt, debris and sediment, including the CB inlet structures and the underdrains. The outlet catch basin will be inspected and cleaned to make sure nothing is clogging the discharge pipe.

Level Spreader: The level spreader shall be inspected two times annually. Regular maintenance includes removing accumulated debris and sediment, checking for erosion, vegetative bare spots, and removing invasive plant species or tree saplings.

Pavement: Paved areas shall be swept periodically by the Owner to clean trash and other debris. The Owner will sweep paved areas on its property in the spring to remove winter accumulations of road sand.

Perform a visual inspection of paved areas four times per year with one inspection after the last snowfall, but no later than April 1. Sweep accumulated sediment and debris from the paved areas. Clean paved areas as necessary during the remainder of the year.

Maintenance & Inspection Forms are included in **Appendix G**.

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## Section 3 Floodplain Management & Hydraulics

### 3.0 Background

The Norwalk River was studied by FEMA as a part of the Flood Insurance Study (FIS) for Fairfield County, dated June 18, 2010, revised October 16, 2013. The 2010 FIS updated the modeling of the Norwalk River that was originally done for the 1982 Town of Wilton Flood Insurance Study by incorporating Letters of Map Revision (LOMR) issued between 1982 and 2010. The river system itself was not restudied.

It is important to note that the vertical datum of the two studies was changed from the National Geodetic Vertical Datum of 1929 (NGVD29, prior to 1973 also known as the Sea Level Datum of 1929) to the North American Vertical Datum of 1988 (NAVD88). The modeling data provided by FEMA is in the NGVD29 datum and the reported water surface elevations in the 2010 FIS are in the NAVD88 datum.

The National Oceanic and Atmospheric Administration (NOAA) offers an NGS Coordinate Conversion and Transformation Tool (NCAT) to calculate the difference between the two datums at a given latitude and longitude coordinate. In the area of the project, the NGVD29 datum is 1.07 feet higher than the NAVD88 datum. Refer to the NCAT conversion output in **Appendix F**.

### 3.1 Basis of Modeling

Tighe & Bond obtained a copy of the hydraulic model from FEMA for the Norwalk River. This model was used for the hydraulic analysis of the project since it is the effective FEMA model for the project area. The model was developed using the CivilGEO GeoHECRAS software which utilizes the U.S. Army Corps of Engineers HEC-RAS hydraulic analysis modeling environment for computations.

#### 3.1.1 Calibrated Model

To verify the accuracy of the modeling provided by FEMA, a model was created to replicate the data in the FIS. This is the calibrated model, also known as the duplicate effective model. The calibrated model encompasses the Norwalk River, generally between Seeley Road and Ridgefield Road in Wilton, corresponding with FIS cross sections AH and V, respectively. The Redevelopment Area falls between cross sections AB and AA of the model. FIS Cross Section AB is included in LOMR 14-01-0210P, effective 9/12/2014. The comparison of the 100-year (1% chance) calibrated model water surface elevations with the elevations reported in the FIS Floodway Table are summarized in **Table 3-1**. The output table of the calibrated model is included in **Appendix F**.

**Table 3-1**  
**Calibrated Model Output**

FIS Cross Section Identifier	Calibrated Model Cross Section Number	Water Surface Elevation (NAVD88)	
		Floodway Data Table	Calibrated Model (converted to NAVD88)
AB	44330	210.20*	210.22
AA	43420	208.00	207.98

\*Revised Floodway Data Table, LOMR 14-01-0210P effective 9/12/2014

As shown in the table, the water surface elevations of the Calibrated Model closely mirror the values reported in the FIS Floodway Table. Slight variations in water surface elevations can be attributed to the differences between the HEC-2 and HEC-RAS modeling environments. The effective modeling and data provided by FEMA of the Norwalk River is in or has been developed from HEC-2 modeling. The HEC-RAS modeling environment is the successor to HEC-2 and is FEMA's current standard for flood studies. Based on the results shown, the Calibrated Model is suitable for modeling the proposed conditions of the project.

### 3.2 Flow Rates

The established flow rates for the Norwalk River are documented in Volume 1 of the FIS. Tighe & Bond is not challenging the flow rates established by the FIS and will be using the rates for modeling existing and proposed conditions. The flow rates for the river at the location of the site based on the FIS are summarized in **Table 3-2**. See **Appendix F** for a copy of the Norwalk River discharges included in the FIS.

**Table 3-2**  
**FIS Norwalk River Flow Rates at the Site**

Return Frequency (years)	Annual Chance Probability	Flow Rate (cfs)
10	10%	1,845
50	2%	3,660
100	1%	4,675
500	0.2%	7,840

### 3.3 Existing Conditions Model

In order to best evaluate the impact of the proposed project, we inserted cross sections into the effective model to create an existing conditions model, also known as the corrected effective model. A total of two cross sections were added to the model through the Redevelopment Area. Refer to **Figure 3** in **Appendix A** for the Cross Section Location Map. The geometry of the new cross sections were developed from the site survey entitled "Topographic Survey Prepared for Seyfarth Shaw LLP, 372, 278, 380 Danbury Road, Wilton, Connecticut" as prepared by Brautigam Land Surveyors, P.C. dated 11/30/2022, as well as available Lidar data. Since the topographic survey and Lidar data are in the NAVD88 datum, the elevations of the geometry points were converted to the NGVD29

datum. To reflect the current existing conditions within the study area, the geometries of cross sections AB and AA (located upstream and downstream of the Project Area) were modified with available mapping and contour data. **Table 3-3** summarizes the resulting water surface elevations of the added and modified sections in the existing conditions model, elevations reported in NGVD29.

**Table 3-3  
Existing Conditions 100-Year Water Surface Elevations**

Existing Conditions Model Cross Sections	100-year Water Surface Elevation (NGVD29)
44330 (AB)	211.61
43742 (Added)	209.00
43644 (Added)	208.72
43420 (AA)	208.29

Refer to **Appendix F** for the model output table of the existing conditions model.

### 3.4 Proposed Conditions Model

The proposed conditions model was developed based on the proposed grading, improvements, and ground cover at the Redevelopment Area. In general, the two existing buildings and surface features are proposed to be demolished and replaced with an at-grade parking lot. To reflect these changes, the cross sections through the project site were modified to remove the existing buildings and follow the proposed topography. **Table 3-4** compares the proposed conditions results to the existing conditions for the 100-year event, base flood.

**Table 3-4  
100-Year Water Surface Elevation Comparison**

Section	100-year Water Surface Elevation (NGVD29)		
	Existing	Proposed	Difference
44330 (AB)	211.61	211.38	-0.23
43742	209.00	208.99	-0.01
43644	208.72	208.56	-0.16
43420 (AA)	208.29	208.29	0.00

Based upon the hydraulic analysis, the proposed construction will not adversely impact 100-year flood elevations along the Norwalk River.

## **3.5 Compliance with Local Floodplain Regulations**

Section 29-9.F.7 of the Wilton Zoning Regulations requires the following:

**Equal Conveyance:** Within the floodplain, except those areas which are tidally influenced, as designated on the Flood Insurance Rate Map (FIRM) for the community, encroachments resulting from filling, new construction or substantial improvements involving an increase in footprint of the structure, are prohibited unless the applicant provides certification by a registered professional engineer demonstrating, with supporting hydrologic and hydraulic analyses performed in accordance with standard engineering practice, that such encroachments shall not result in any (0.00 feet) increase in flood levels (base flood elevation). Work within the floodplain and the land adjacent to the floodplain, including work to provide compensatory storage shall not be constructed in such a way so as to cause an increase in flood stage or flood velocity.

**Compensatory Storage:** The water holding capacity of the floodplain, except those areas which are tidally influenced, shall not be reduced. Any reduction caused by filling, new construction or substantial improvements involving an increase in footprint to the structure, shall be compensated for by deepening and/or widening of the floodplain, storage shall be provided on-site, unless easements have been gained from adjacent property owners; it shall be provided within the same hydraulic reach and a volume not previously used for flood storage; it shall be hydraulically comparable and incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Compensatory storage can be provided off-site if approved by the municipality.

### **3.5.1 Equal Conveyance**

As shown in **Table 3-4**, there are no increases in the base flood elevation as a result of the project, so the equal conveyance requirement has been met.

### **3.5.2 Compensatory Storage**

The project proposes to demolish the two existing buildings and surface features on the Redevelopment Area and construct an at-grade parking lot. The proposed grading of the site has been designed to result in a net cut. No new structures and significant fills are proposed on-site within the regulatory floodplain and floodway. The removal of the existing buildings and proposed grading will not decrease the floodplain storage on-site.

## **Section 4**

# **Soil Erosion and Sedimentation Control**

### **4.1 SESC Narrative**

#### General

The proposed development is entitled "372, 378, and 380 Danbury Road" in Wilton, Connecticut.

Estimated:

Project Start: Spring 2023

Project Completion: Fall 2023

Erosion Control Narrative refers to drawings C-300 through C-302.

The proposed site development will consist of building demolition, clearing and grubbing the existing site, excavation, construction of bio-filtration swale, and rough grading of site, parking areas, sidewalks and curbing.

The development is located in Wilton, Connecticut and is located on Danbury Road.

The stormwater management measures will address the stormwater quality once the site has been constructed and stabilized. Sedimentation and erosion control measures will be installed during construction which will minimize adverse impacts from construction activities.

All sedimentation and erosion control measures proposed for this development have been designed in accordance with the "2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control" as published by the Connecticut Council on Soil Erosion and Water Conservation. Additional guidelines have also been followed that are available from the Connecticut Department of Environmental Protection as recommended for sedimentation control during construction activities.

#### Construction Sequence

1. Conduct a pre-construction meeting with the Owner or Owner's Representative, Town Engineer, Design Engineer, Site Engineer, Contractor and Site Superintendent to establish the limits of construction, construction procedures and material stockpile areas.
2. Field stake the limits of construction.
3. Install all applicable soil and erosion control measures around the perimeter of the site to the extent possible. This will include siltation fence around the project as shown on the plans.
4. Install construction access road and anti-tracking pavement in the areas as shown on the plans. All construction access shall be into the site through the anti-tracking pads.

5. Establish temporary staging area.
6. Begin building demolition and pavement removal.
7. Construct the level spreader and initial storm drainage as shown on the plans.
8. Provide silt fence/haybale barrier around soil stockpile areas as shown on the plans. All Construction access shall be into the site through the anti-tracking pads.
9. Begin rough grading parking area.
10. Pave binder course on parking area and driveways.
11. Install bio-filtration swale with liner and remaining drainage per the plans.
12. Establish temporary vegetative cover.
13. Fine grade the site.
14. Complete construction of sidewalks.
15. Establish final vegetative cover and landscaping.
16. Pave surface course on parking area.
17. Remove erosion controls when site is stabilized.

## **4.2 Soil Erosion and Sedimentation Control Notes**

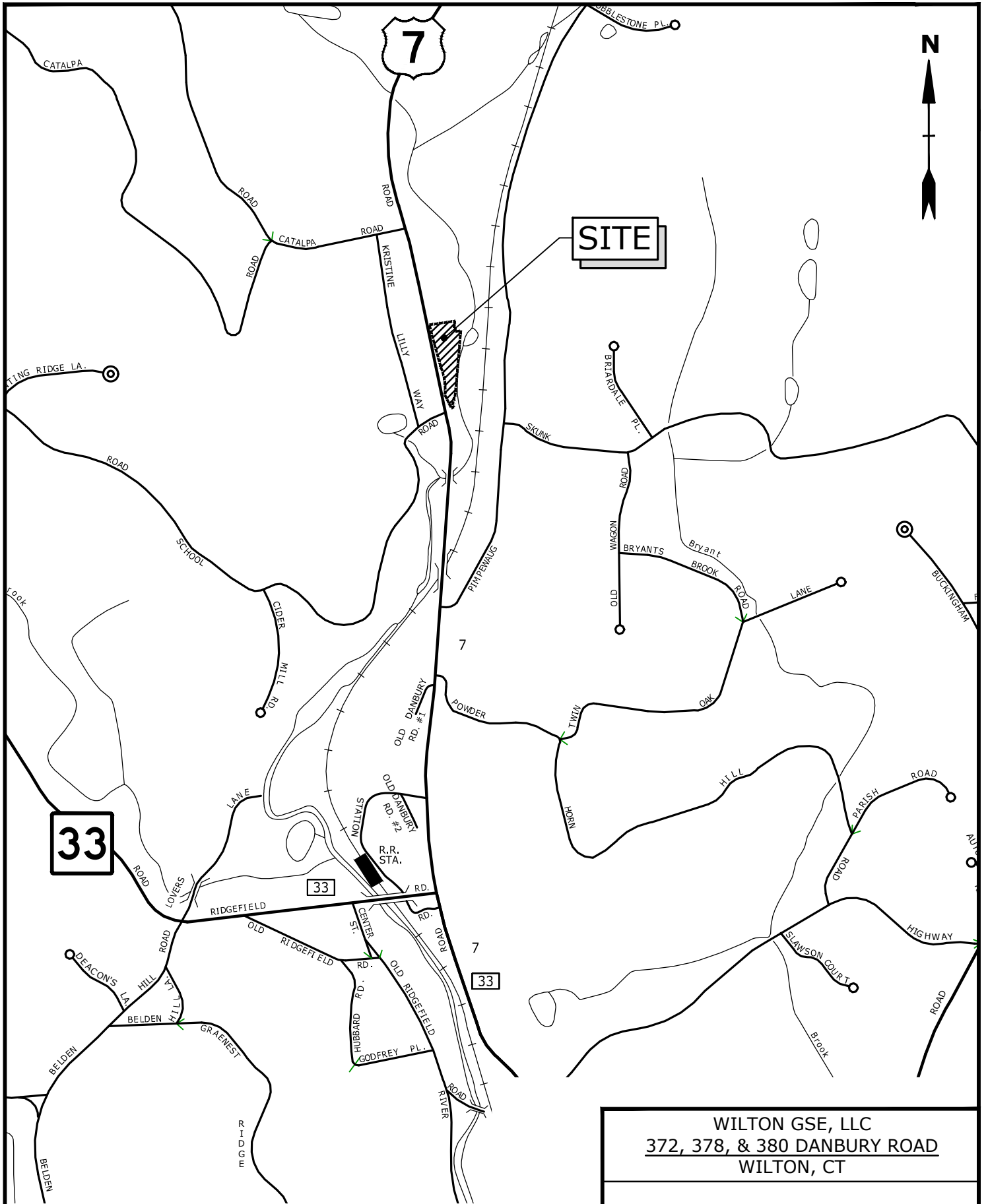
1. All sedimentation and erosion control measures shall be constructed in accordance with the standards and specifications of the "2002 Connecticut Guidelines for Soil Erosion and Sediment Control", DEP Bulletin No. 34, and all amendments and addenda thereto as published by the Connecticut Department of Environmental Protection.
2. Land disturbance shall be kept to the minimum necessary for construction operations.
3. All erosion control measures shall be installed as shown on the plan and elsewhere as ordered by the engineer.
4. All catch basins shall be protected with a silt sacks, haybale ring, silt fence or block and stone inlet protection throughout the construction period and until all disturbed areas are thoroughly stabilized.
5. Whenever possible, erosion and sediment control measures shall be installed prior to construction. See "Erosion Control Narrative".
6. Additional control measures shall be installed during the construction period as ordered by the engineer.

7. All sedimentation and erosion control measures shall be maintained in effective condition throughout the construction period.
8. Sediment removed shall be disposed of offsite or in a manner as required by the Engineer.
9. The construction contractor shall be responsible for construction and maintenance of all control measures throughout the construction period.
10. All disturbed areas to be left exposed for more than 30 days shall be protected with a temporary vegetative cover. Seed these areas with perennial ryegrass at the rate of 40 lbs. per acre (1 lb. per 1,000 sq. ft). Apply soil amendments and mulch as required to establish a uniform stand of vegetation over all disturbed areas.
11. The construction contractor shall utilize approved methods/materials for preventing the blowing and movement of dust from exposed soil surfaces onto adjacent properties and site areas.
12. The construction contractor shall maintain a supply of silt fence/haybales and anti-tracking crushed stone on site for emergency repairs.
13. All drainage structures shall be periodically inspected weekly by the construction contractor and cleaned to prevent the build-up of silt.
14. The construction contractor shall carefully coordinate the placement of erosion control measures with the phasing of construction.
15. Keep all paved surfaces clean. Sweep and scrape before forecasted storms.
16. Treat all unpaved surface with 4" minimum of topsoil prior to final stabilization.
17. Haybale barriers and silt fencing shall be installed along the toe of critical cut and fill slopes.
18. The contractor shall notify the Town officials prior to the installation of erosion controls, cutting of trees, or any excavation.
19. Some control measures are permanent. These structures shall be cleaned and replenished at the end of construction. Locations of the permanent control structures are shown on the drainage plans.
20. All sedimentation and erosion controls shall be checked weekly and/or after each rain fall event. Necessary repairs shall be made without delay.
21. Prior to any forecasted rainfall, erosion and sediment controls shall be inspected and repaired as necessary.
22. After all disturbed areas have been stabilized, erosion controls may be removed once authorization to do so has been secured from the Town. Disturbed areas shall be seeded and mulched.



**Tighe&Bond**

**APPENDIX A**

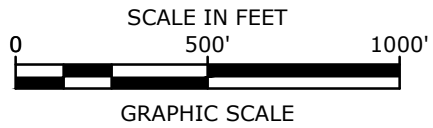


**33**

**33**

**33**

**SITE**

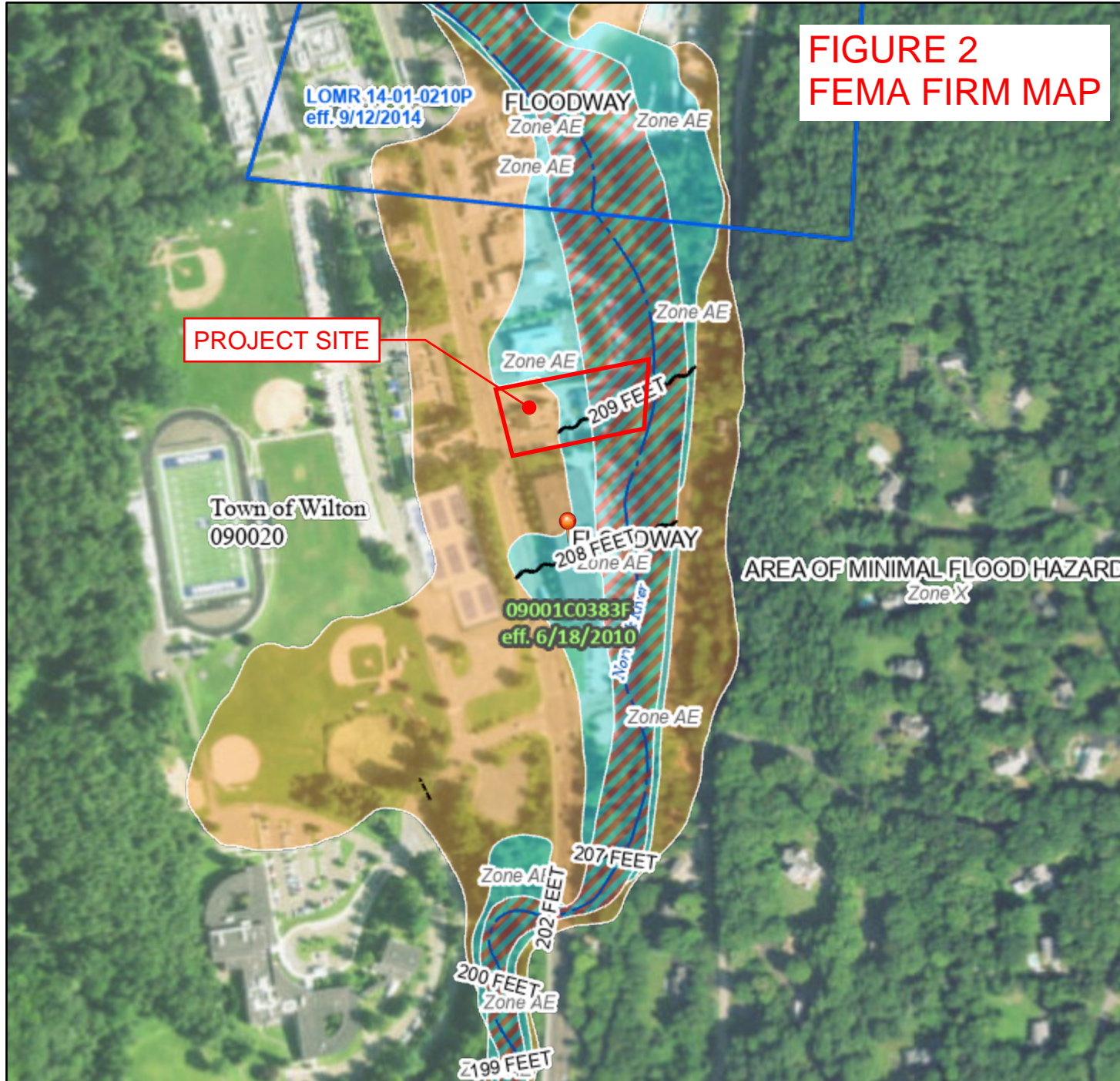


WILTON GSE, LLC <u>372, 378, &amp; 380 DANBURY ROAD</u> WILTON, CT	
SITE LOCATION MAP	
DATE: 12/08/2022	
SCALE: 1"=1000'	
FIGURE: 1	

# National Flood Hazard Layer FIRMMette



73°26'8"W 41°12'40"N



**FIGURE 2  
FEMA FIRM MAP**

## Legend

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

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

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

OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard Zone X	Effective LOMRs	Area of Undetermined Flood Hazard Zone D

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

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

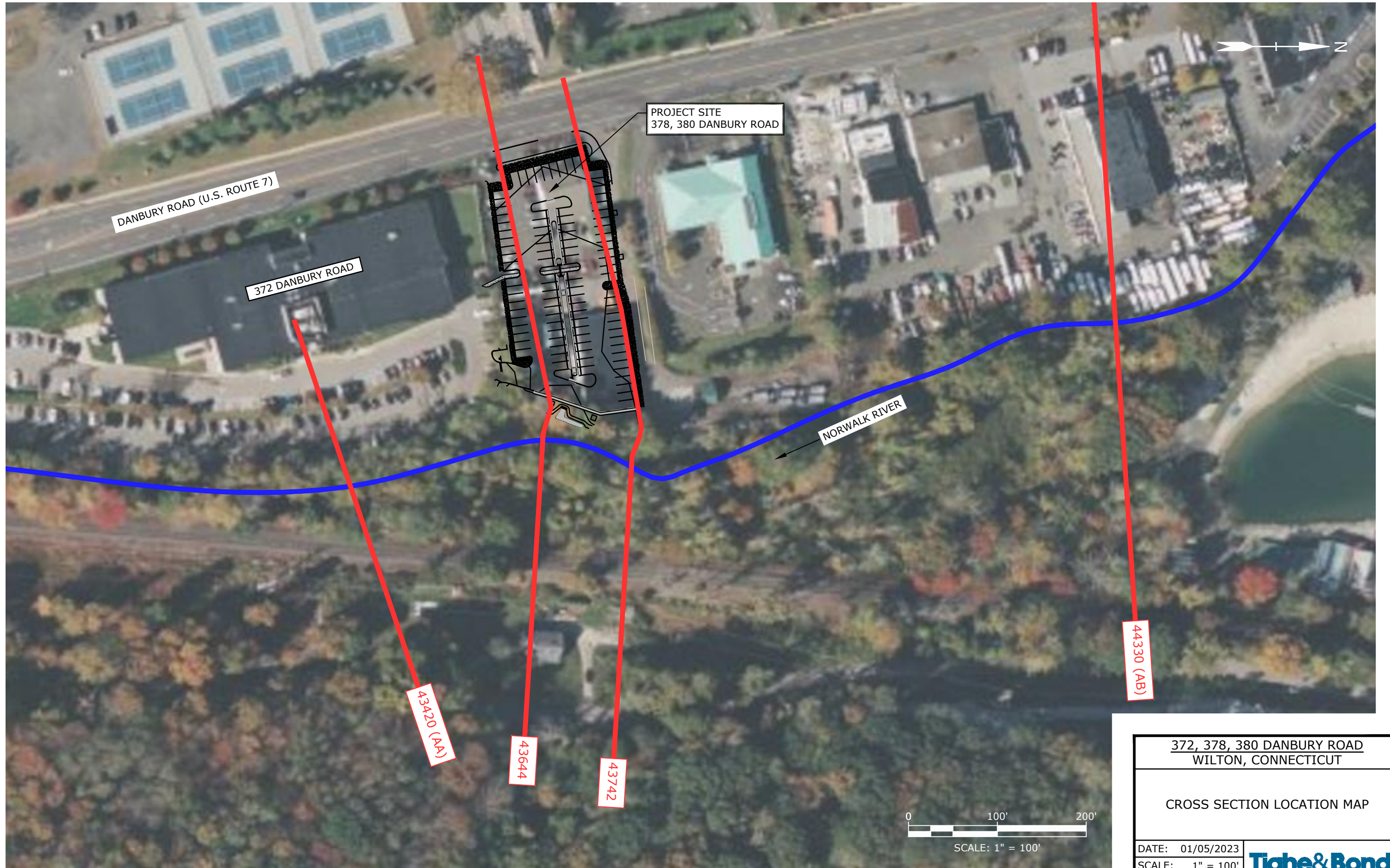
MAP PANELS	Digital Data Available	No Digital Data Available	Unmapped

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


This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/13/2022 at 11:04 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Plotted On: Jan 05, 2023 10:09am By: TAS  
Tighe & Bond; J:\G5081 The Grossman Companies, Inc\001 - 372 Danbury Road\Drawings\AutoCAD\Figures\Figure 3 - XS Loc Map.dwg



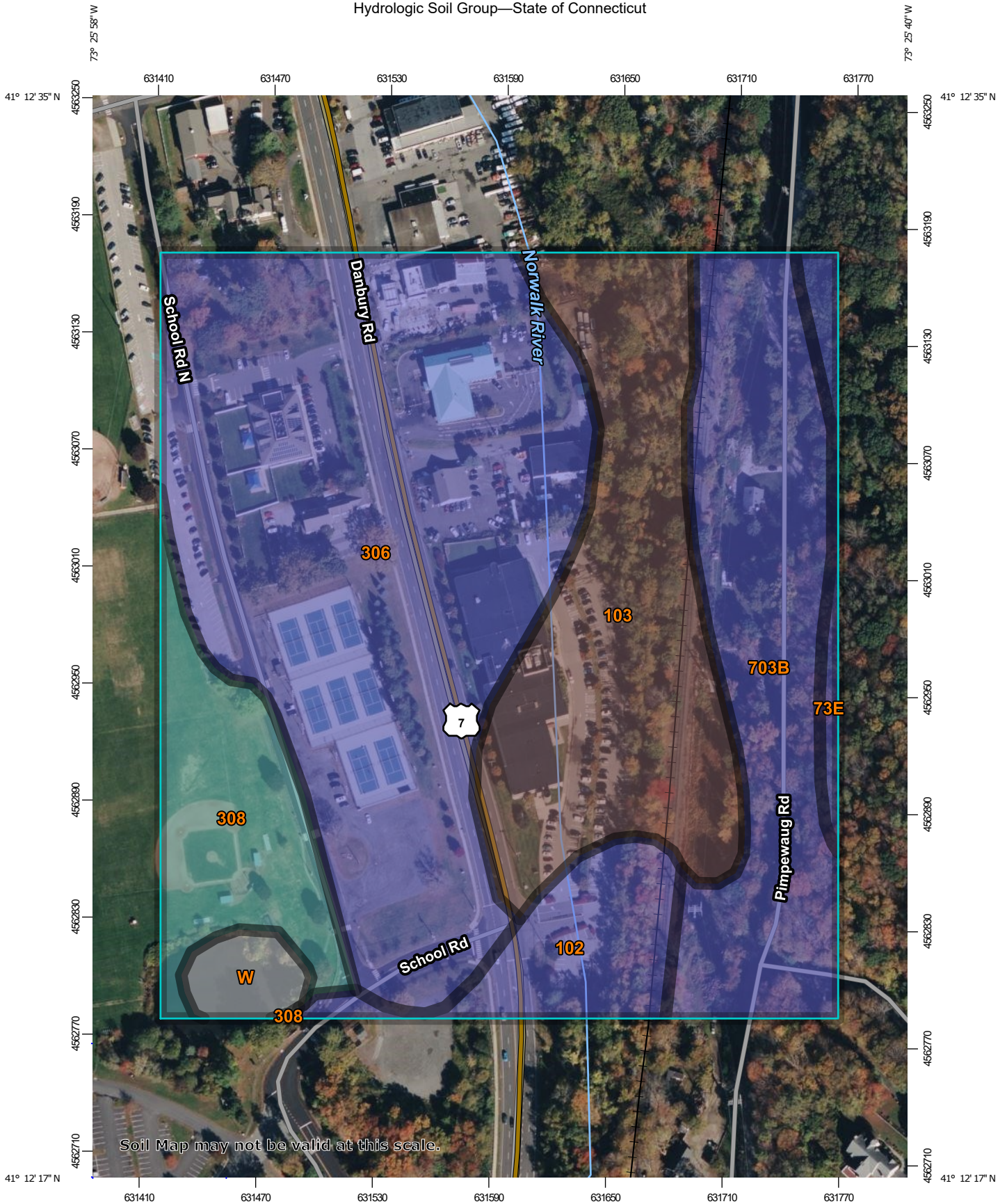
372, 378, 380 DANBURY ROAD WILTON, CONNECTICUT	
CROSS SECTION LOCATION MAP	
DATE:	01/05/2023
SCALE:	1" = 100'
FIGURE:	3



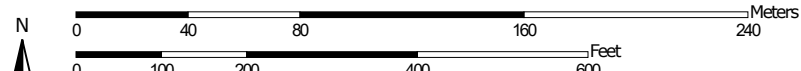
**Tighe&Bond**

**APPENDIX B**

Hydrologic Soil Group—State of Connecticut



Map Scale: 1:2,700 if printed on A portrait (8.5" x 11") sheet.



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



## MAP LEGEND

### Area of Interest (AOI)









 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons





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

#### Soil Rating Lines


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

#### Soil Rating Points






 A  
 A/D  
 B  
 B/D

 C  
 C/D  
 D  
 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: State of Connecticut  
 Survey Area Data: Version 22, Sep 12, 2022

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

Date(s) aerial images were photographed: Oct 8, 2020—Oct 14, 2020

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
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	B	0.6	1.8%
102	Pootatuck fine sandy loam	B	2.0	6.0%
103	Rippowam fine sandy loam	B/D	6.8	20.1%
306	Udorthents-Urban land complex	B	14.7	43.2%
308	Udorthents, smoothed	C	3.0	8.9%
703B	Haven silt loam, 3 to 8 percent slopes	B	6.2	18.2%
W	Water		0.6	1.8%
<b>Totals for Area of Interest</b>			<b>34.0</b>	<b>100.0%</b>



## 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



**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**

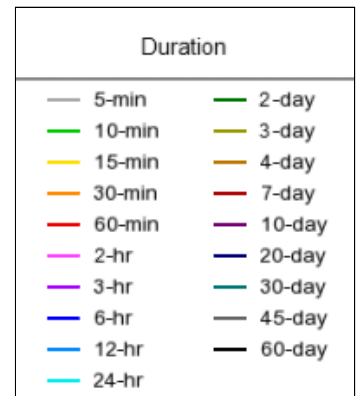
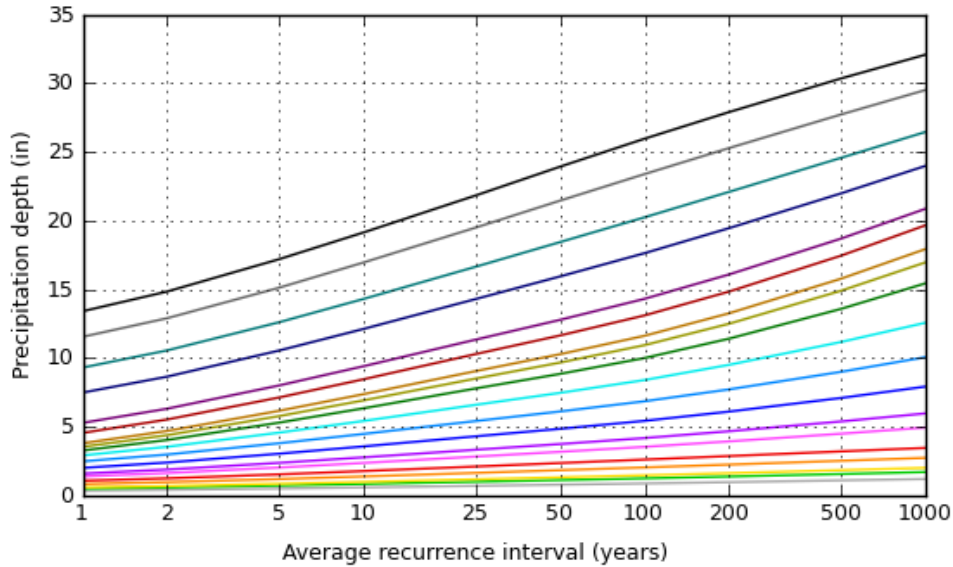
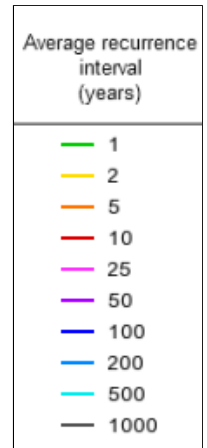
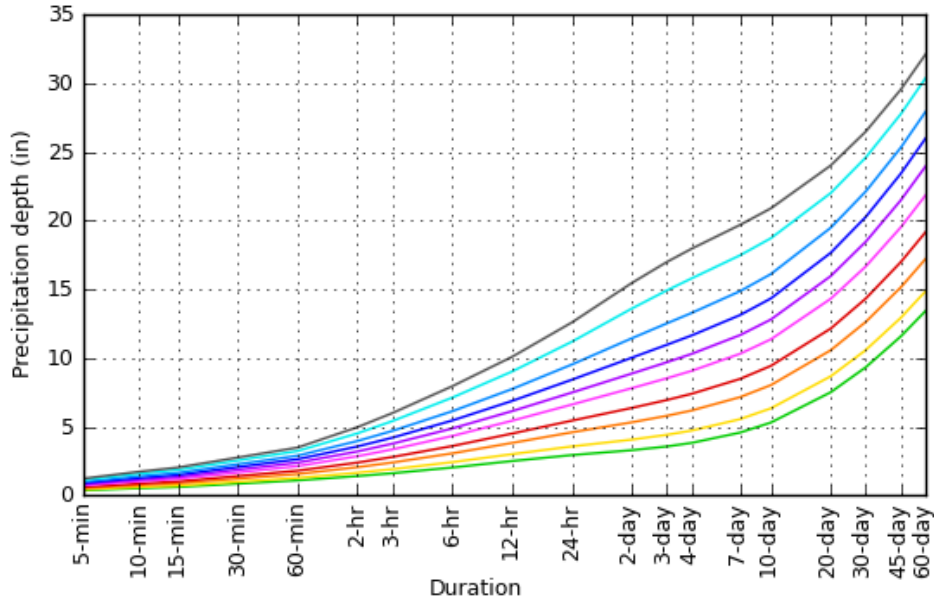
<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
<b>5-min</b>	<b>0.363</b> (0.280-0.463)	<b>0.423</b> (0.326-0.541)	<b>0.521</b> (0.401-0.668)	<b>0.603</b> (0.460-0.776)	<b>0.716</b> (0.530-0.953)	<b>0.802</b> (0.581-1.09)	<b>0.890</b> (0.626-1.24)	<b>0.984</b> (0.661-1.40)	<b>1.11</b> (0.721-1.63)	<b>1.22</b> (0.770-1.82)
<b>10-min</b>	<b>0.514</b> (0.396-0.656)	<b>0.600</b> (0.462-0.766)	<b>0.740</b> (0.569-0.948)	<b>0.856</b> (0.654-1.10)	<b>1.01</b> (0.751-1.35)	<b>1.14</b> (0.824-1.54)	<b>1.26</b> (0.887-1.76)	<b>1.39</b> (0.937-1.99)	<b>1.58</b> (1.02-2.31)	<b>1.72</b> (1.09-2.57)
<b>15-min</b>	<b>0.605</b> (0.466-0.772)	<b>0.706</b> (0.543-0.901)	<b>0.870</b> (0.668-1.12)	<b>1.01</b> (0.768-1.30)	<b>1.19</b> (0.883-1.59)	<b>1.34</b> (0.969-1.81)	<b>1.48</b> (1.04-2.07)	<b>1.64</b> (1.10-2.34)	<b>1.86</b> (1.20-2.72)	<b>2.03</b> (1.28-3.03)
<b>30-min</b>	<b>0.847</b> (0.653-1.08)	<b>0.985</b> (0.759-1.26)	<b>1.21</b> (0.929-1.55)	<b>1.40</b> (1.07-1.80)	<b>1.66</b> (1.23-2.20)	<b>1.86</b> (1.34-2.51)	<b>2.06</b> (1.44-2.85)	<b>2.26</b> (1.52-3.22)	<b>2.54</b> (1.65-3.72)	<b>2.75</b> (1.74-4.11)
<b>60-min</b>	<b>1.09</b> (0.839-1.39)	<b>1.26</b> (0.974-1.62)	<b>1.55</b> (1.19-1.99)	<b>1.79</b> (1.37-2.31)	<b>2.12</b> (1.57-2.82)	<b>2.38</b> (1.72-3.20)	<b>2.63</b> (1.84-3.64)	<b>2.89</b> (1.94-4.11)	<b>3.22</b> (2.09-4.73)	<b>3.48</b> (2.20-5.19)
<b>2-hr</b>	<b>1.40</b> (1.08-1.77)	<b>1.65</b> (1.27-2.09)	<b>2.05</b> (1.58-2.61)	<b>2.38</b> (1.83-3.05)	<b>2.84</b> (2.12-3.77)	<b>3.19</b> (2.33-4.30)	<b>3.56</b> (2.52-4.93)	<b>3.95</b> (2.67-5.60)	<b>4.51</b> (2.93-6.58)	<b>4.96</b> (3.15-7.36)
<b>3-hr</b>	<b>1.61</b> (1.25-2.03)	<b>1.90</b> (1.48-2.41)	<b>2.39</b> (1.85-3.03)	<b>2.79</b> (2.15-3.55)	<b>3.34</b> (2.50-4.42)	<b>3.76</b> (2.75-5.06)	<b>4.20</b> (2.99-5.83)	<b>4.69</b> (3.17-6.62)	<b>5.40</b> (3.52-7.85)	<b>5.99</b> (3.81-8.85)
<b>6-hr</b>	<b>2.02</b> (1.58-2.54)	<b>2.41</b> (1.89-3.03)	<b>3.05</b> (2.38-3.85)	<b>3.59</b> (2.78-4.54)	<b>4.32</b> (3.25-5.68)	<b>4.87</b> (3.59-6.52)	<b>5.45</b> (3.91-7.54)	<b>6.12</b> (4.15-8.58)	<b>7.11</b> (4.64-10.3)	<b>7.94</b> (5.06-11.7)
<b>12-hr</b>	<b>2.50</b> (1.97-3.11)	<b>3.00</b> (2.36-3.74)	<b>3.82</b> (2.99-4.77)	<b>4.50</b> (3.50-5.65)	<b>5.43</b> (4.10-7.09)	<b>6.13</b> (4.54-8.16)	<b>6.87</b> (4.96-9.46)	<b>7.74</b> (5.26-10.8)	<b>9.01</b> (5.90-12.9)	<b>10.1</b> (6.45-14.7)
<b>24-hr</b>	<b>2.93</b> (2.32-3.63)	<b>3.56</b> (2.82-4.41)	<b>4.59</b> (3.62-5.70)	<b>5.44</b> (4.26-6.79)	<b>6.61</b> (5.03-8.59)	<b>7.48</b> (5.58-9.91)	<b>8.42</b> (6.12-11.5)	<b>9.52</b> (6.50-13.2)	<b>11.2</b> (7.35-15.9)	<b>12.6</b> (8.08-18.2)
<b>2-day</b>	<b>3.29</b> (2.62-4.04)	<b>4.06</b> (3.23-4.99)	<b>5.32</b> (4.22-6.56)	<b>6.36</b> (5.01-7.89)	<b>7.80</b> (5.97-10.1)	<b>8.86</b> (6.66-11.7)	<b>10.0</b> (7.34-13.7)	<b>11.4</b> (7.83-15.7)	<b>13.6</b> (8.95-19.2)	<b>15.5</b> (9.95-22.2)
<b>3-day</b>	<b>3.56</b> (2.84-4.36)	<b>4.40</b> (3.52-5.40)	<b>5.79</b> (4.61-7.11)	<b>6.94</b> (5.49-8.56)	<b>8.52</b> (6.54-11.0)	<b>9.68</b> (7.30-12.7)	<b>11.0</b> (8.06-15.0)	<b>12.5</b> (8.59-17.1)	<b>14.9</b> (9.84-21.0)	<b>17.0</b> (11.0-24.3)
<b>4-day</b>	<b>3.82</b> (3.06-4.66)	<b>4.71</b> (3.77-5.76)	<b>6.18</b> (4.93-7.57)	<b>7.39</b> (5.86-9.10)	<b>9.06</b> (6.97-11.6)	<b>10.3</b> (7.77-13.5)	<b>11.6</b> (8.57-15.8)	<b>13.3</b> (9.13-18.1)	<b>15.8</b> (10.4-22.2)	<b>17.9</b> (11.6-25.6)
<b>7-day</b>	<b>4.57</b> (3.68-5.54)	<b>5.54</b> (4.46-6.74)	<b>7.15</b> (5.73-8.71)	<b>8.47</b> (6.75-10.4)	<b>10.3</b> (7.95-13.1)	<b>11.7</b> (8.82-15.2)	<b>13.1</b> (9.66-17.7)	<b>14.9</b> (10.3-20.2)	<b>17.5</b> (11.6-24.4)	<b>19.7</b> (12.7-28.0)
<b>10-day</b>	<b>5.30</b> (4.28-6.41)	<b>6.33</b> (5.11-7.67)	<b>8.02</b> (6.45-9.74)	<b>9.42</b> (7.53-11.5)	<b>11.4</b> (8.78-14.4)	<b>12.8</b> (9.69-16.5)	<b>14.3</b> (10.5-19.1)	<b>16.1</b> (11.1-21.8)	<b>18.7</b> (12.4-26.0)	<b>20.9</b> (13.5-29.6)
<b>20-day</b>	<b>7.50</b> (6.10-9.01)	<b>8.66</b> (7.03-10.4)	<b>10.6</b> (8.54-12.7)	<b>12.1</b> (9.76-14.7)	<b>14.3</b> (11.1-17.9)	<b>16.0</b> (12.1-20.3)	<b>17.6</b> (12.9-23.1)	<b>19.5</b> (13.6-26.1)	<b>22.0</b> (14.7-30.4)	<b>24.0</b> (15.6-33.7)
<b>30-day</b>	<b>9.32</b> (7.60-11.2)	<b>10.6</b> (8.62-12.7)	<b>12.6</b> (10.2-15.2)	<b>14.3</b> (11.6-17.3)	<b>16.7</b> (12.9-20.7)	<b>18.5</b> (14.0-23.3)	<b>20.3</b> (14.8-26.3)	<b>22.1</b> (15.4-29.5)	<b>24.6</b> (16.5-33.8)	<b>26.5</b> (17.2-37.1)
<b>45-day</b>	<b>11.6</b> (9.47-13.8)	<b>12.9</b> (10.6-15.4)	<b>15.1</b> (12.3-18.1)	<b>17.0</b> (13.7-20.4)	<b>19.5</b> (15.2-24.1)	<b>21.5</b> (16.3-27.0)	<b>23.4</b> (17.1-30.1)	<b>25.3</b> (17.7-33.6)	<b>27.7</b> (18.6-38.0)	<b>29.5</b> (19.3-41.2)
<b>60-day</b>	<b>13.4</b> (11.0-15.9)	<b>14.9</b> (12.2-17.7)	<b>17.2</b> (14.1-20.5)	<b>19.2</b> (15.6-23.0)	<b>21.8</b> (17.1-26.9)	<b>23.9</b> (18.2-29.9)	<b>26.0</b> (19.0-33.2)	<b>27.9</b> (19.6-37.0)	<b>30.4</b> (20.4-41.4)	<b>32.1</b> (21.0-44.6)

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

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**PF graphical**

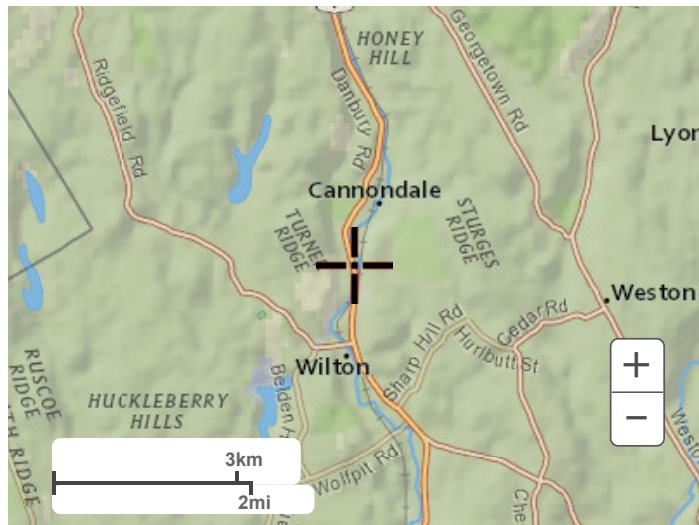
PDS-based depth-duration-frequency (DDF) curves  
 Latitude: 41.2073°, Longitude: -73.4303°



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**Maps & aerials**

**Small scale terrain**



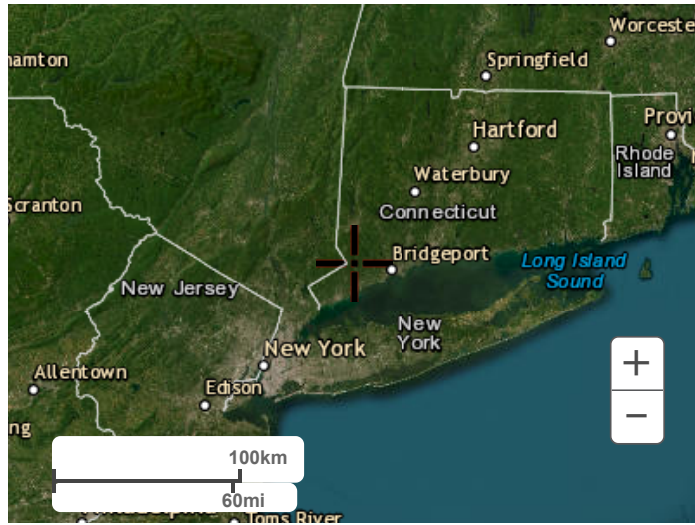
Large scale terrain



Large scale map



Large scale aerial



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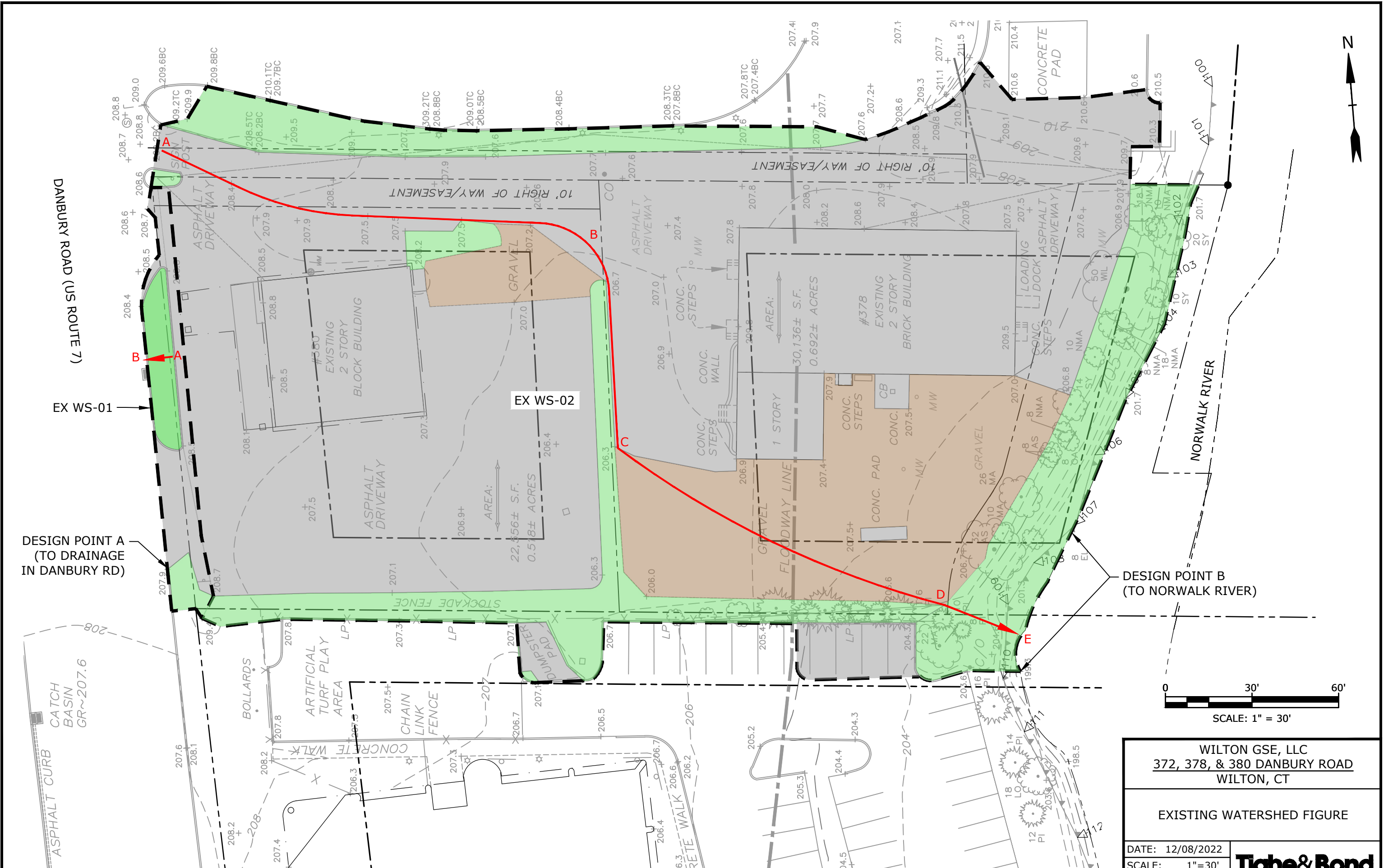
[US Department of Commerce](#)  
[National Oceanic and Atmospheric Administration](#)  
[National Weather Service](#)  
[National Water Center](#)  
1325 East West Highway  
Silver Spring, MD 20910  
Questions?: [HDSC.Questions@noaa.gov](mailto:HDSC.Questions@noaa.gov)

[Disclaimer](#)

**Tighe&Bond**

**APPENDIX C**

Dec 15, 2022-10:01am Plotted By: AClark



DANBURY ROAD (US ROUTE 7)

NORWALK RIVER



EX WS-01

EX WS-02

DESIGN POINT A  
(TO DRAINAGE  
IN DANBURY RD)

DESIGN POINT B  
(TO NORWALK RIVER)



SCALE: 1" = 30'

WILTON GSE, LLC 372, 378, & 380 DANBURY ROAD WILTON, CT	
EXISTING WATERSHED FIGURE	
DATE:	12/08/2022
SCALE:	1"=30'
FIGURE	EX-WS





Consulting Engineers  
Environmental Specialists

Project Name: **372, 378 & 280 Danbury Road**  
 Project Number: **G5081-001**  
 Project Location: **Wilton, CT**  
 Description: **Existing CN & Tc Calculations**  
 Prepared By: **AVC** Date: **December 8, 2022**

Designation: **EX WS-01**

Location:

Cover Type	Area, ac	CN	A x CN
Pavement/Roof	0.024	98	2.3735
Landscaped and Lawns	0.016	69	1.0930
	0.040		3.466

**Weighted CN: 87**

### Time of Concentration

(computed in accordance with ConnDOT Drainage Manual, Sec. 6C)

Overland				
Segment	Surface "n"	Flow Length (ft.)	Slope (ft/ft)	Time (min.)
Segment A - B	0.24	8	0.033	1.52

**Total Tc = 1.5 Min.  
5.0 Min. (MIN)**

Note: Overland time of concentration computed using "Kinematic Wave" equation  
 Gutter and pipe time of concentration computed using Manning's equation

Designation: **EX WS-02**

Location:

Cover Type	Area, ac	CN	A x CN
Pavement/Roof	0.902	98	88.4160
Gravel	0.217	85	18.4479
Landscaped and Lawns	0.239	69	16.4675
	1.358		123.3314

**Weighted CN: 91**

### Time of Concentration

(computed in accordance with ConnDOT Drainage Manual, Sec. 6C)

Overland				
Segment	Surface "n"	Flow Length (ft.)	Slope (ft/ft)	Time (min.)
Segment A - B	0.015	150	0.013	2.51

Shallow Concentrated Flow					
Segment	Slope (ft/ft)	V (ft/s)	Length (ft)	Time (min.)	
Segment B - C	paved	0.013	2.32	76	0.55
Segment C - D	unpaved	0.005	1.14	125	1.83
Segment D - E	unpaved	0.185	6.94	26	0.06

**Total Tc = 4.9 Min.  
5.0 Min. (MIN)**

Note: Overland time of concentration computed using "Kinematic Wave" equation  
 Gutter and pipe time of concentration computed using Manning's equation



# Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	SCS Runoff	EX WS-01
2	SCS Runoff	EX WS-02

# Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	-----	-----	0.101	-----	-----	0.177	0.223	0.258	0.295	EX WS-01
2	SCS Runoff	-----	-----	3.913	-----	-----	6.456	8.022	9.179	10.42	EX WS-02
Proj. file: Existing-Hydraflow.gpw										Thursday, 12 / 8 / 2022	

# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

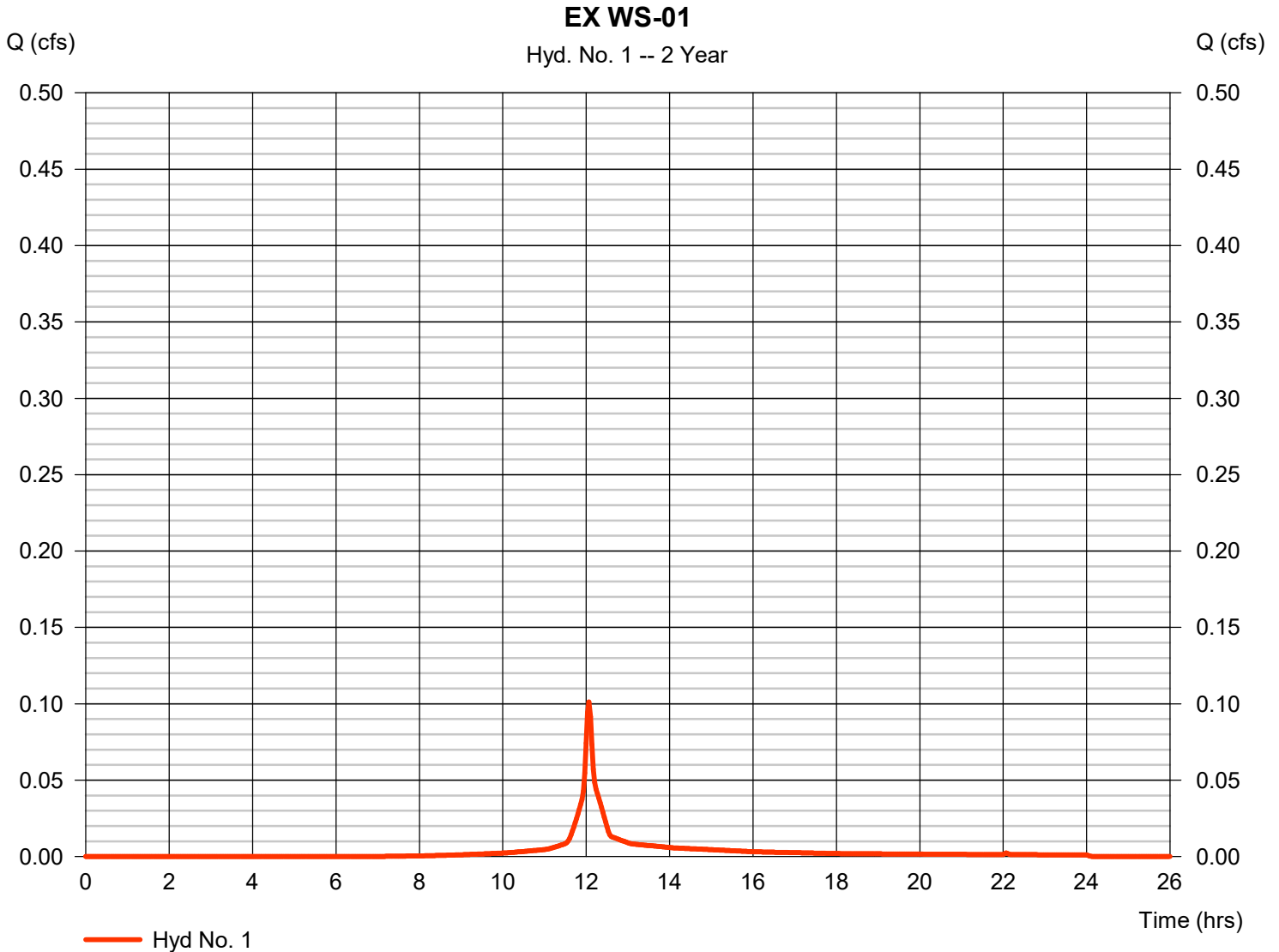
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.101	2	724	304	-----	-----	-----	EX WS-01
2	SCS Runoff	3.913	2	724	12,006	-----	-----	-----	EX WS-02
Existing-Hydraflow.gpw					Return Period: 2 Year			Thursday, 12 / 8 / 2022	

# Hydrograph Report

## Hyd. No. 1

EX WS-01

Hydrograph type	= SCS Runoff	Peak discharge	= 0.101 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 304 cuft
Drainage area	= 0.040 ac	Curve number	= 87
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.56 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

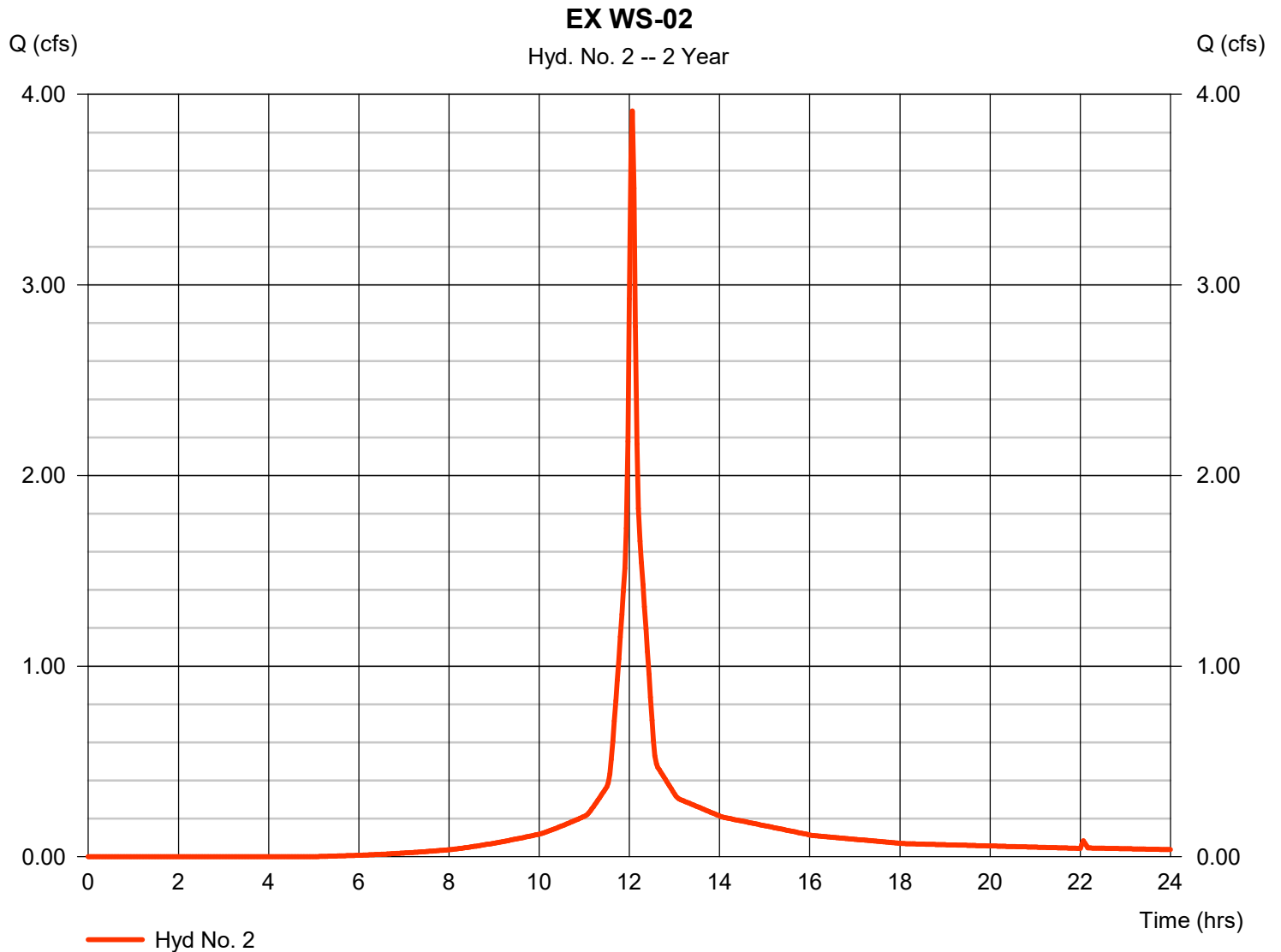
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 8 / 2022

## Hyd. No. 2

EX WS-02

Hydrograph type	= SCS Runoff	Peak discharge	= 3.913 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 12,006 cuft
Drainage area	= 1.358 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.56 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.177	2	724	542	-----	-----	-----	EX WS-01
2	SCS Runoff	6.456	2	724	20,381	-----	-----	-----	EX WS-02
Existing-Hydraflow.gpw					Return Period: 10 Year			Thursday, 12 / 8 / 2022	

# Hydrograph Report

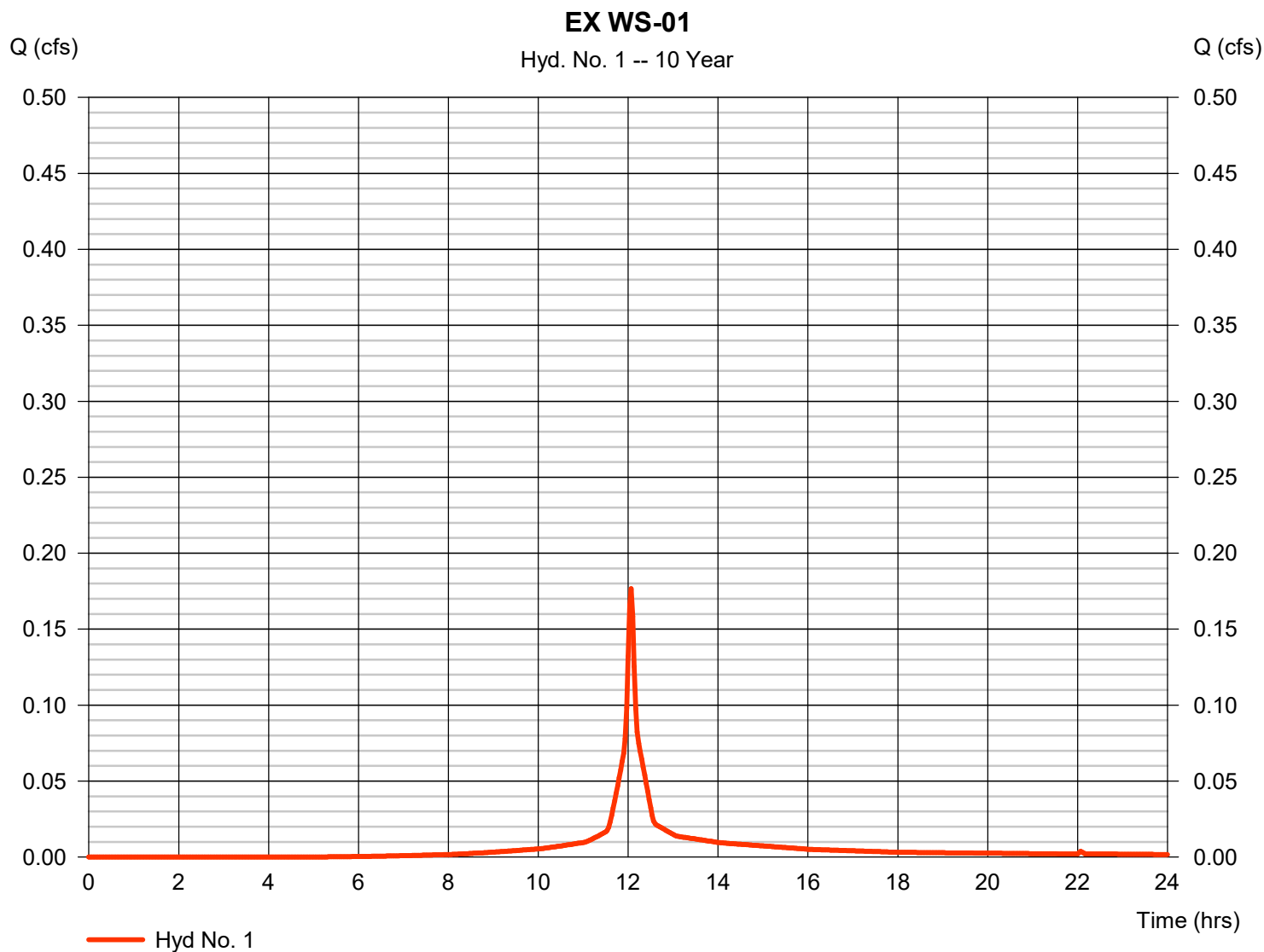
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 8 / 2022

## Hyd. No. 1

EX WS-01

Hydrograph type	= SCS Runoff	Peak discharge	= 0.177 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 542 cuft
Drainage area	= 0.040 ac	Curve number	= 87
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.44 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

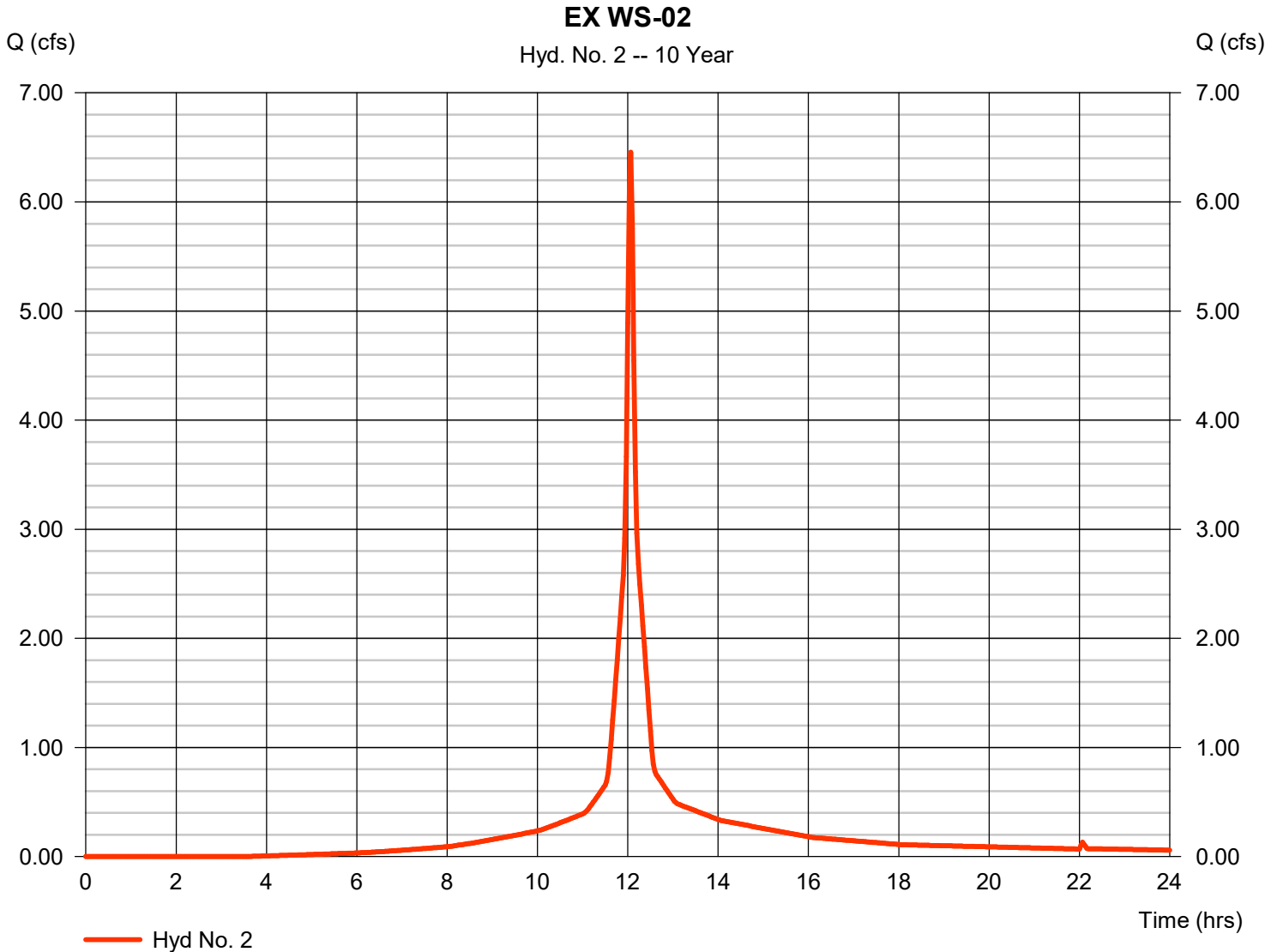


# Hydrograph Report

## Hyd. No. 2

EX WS-02

Hydrograph type	= SCS Runoff	Peak discharge	= 6.456 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 20,381 cuft
Drainage area	= 1.358 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.44 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484





# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.223	2	724	695	-----	-----	-----	EX WS-01
2	SCS Runoff	8.022	2	724	25,674	-----	-----	-----	EX WS-02

# Hydrograph Report

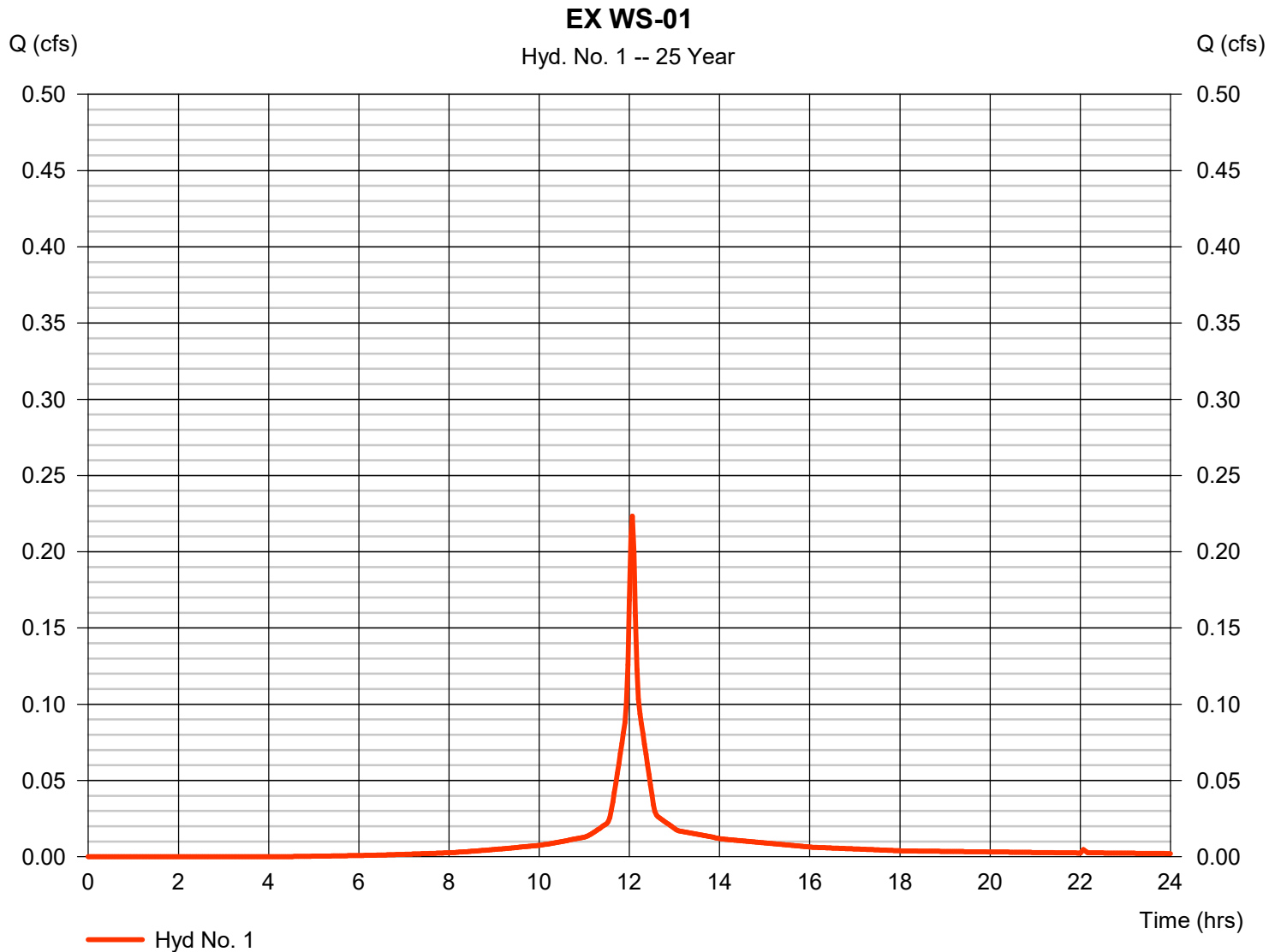
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 8 / 2022

## Hyd. No. 1

EX WS-01

Hydrograph type	= SCS Runoff	Peak discharge	= 0.223 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 695 cuft
Drainage area	= 0.040 ac	Curve number	= 87
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.61 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

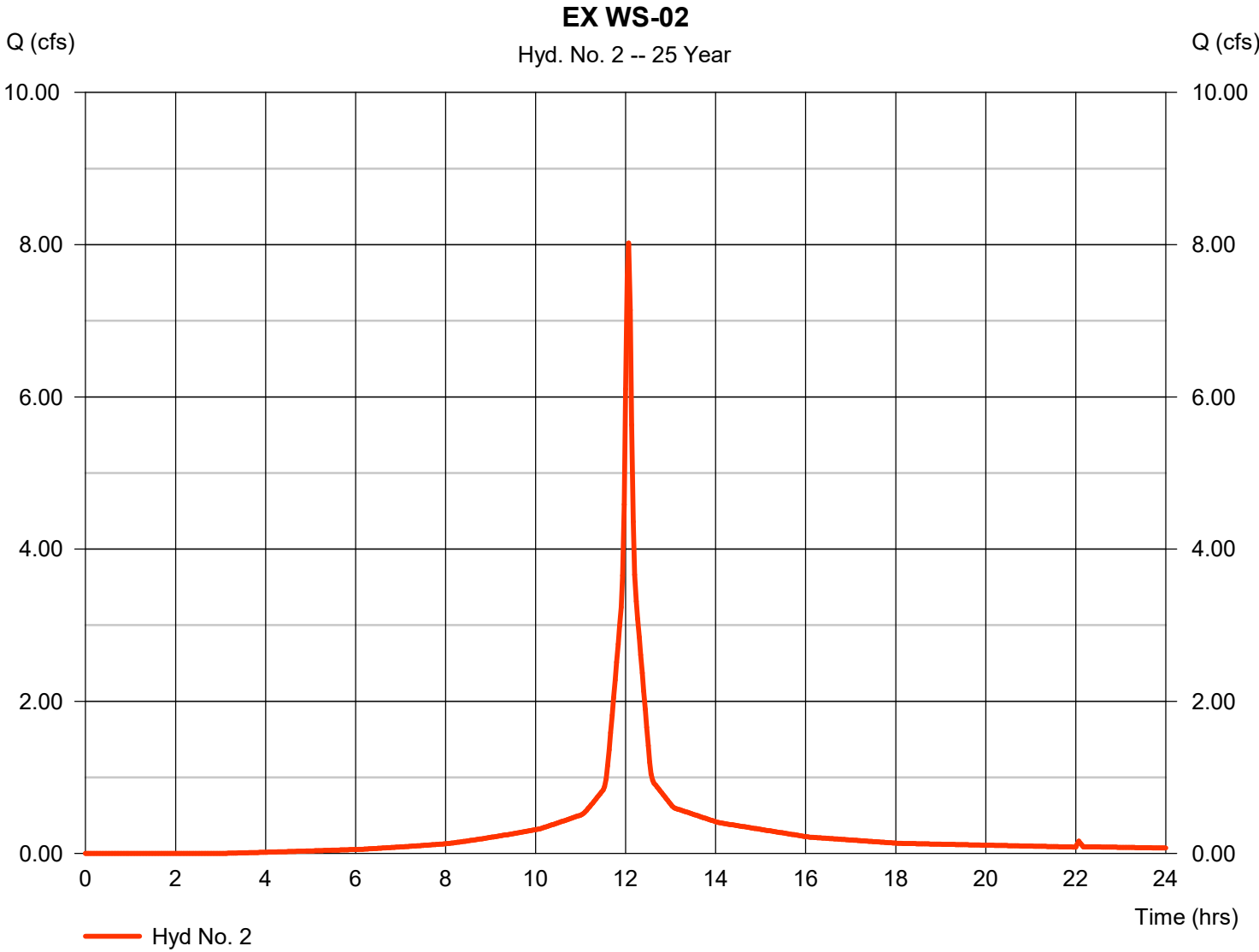
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 8 / 2022

## Hyd. No. 2

EX WS-02

Hydrograph type	= SCS Runoff	Peak discharge	= 8.022 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 25,674 cuft
Drainage area	= 1.358 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.61 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.258	2	724	809	-----	-----	-----	EX WS-01
2	SCS Runoff	9.179	2	724	29,630	-----	-----	-----	EX WS-02
Existing-Hydraflow.gpw					Return Period: 50 Year			Thursday, 12 / 8 / 2022	

# Hydrograph Report

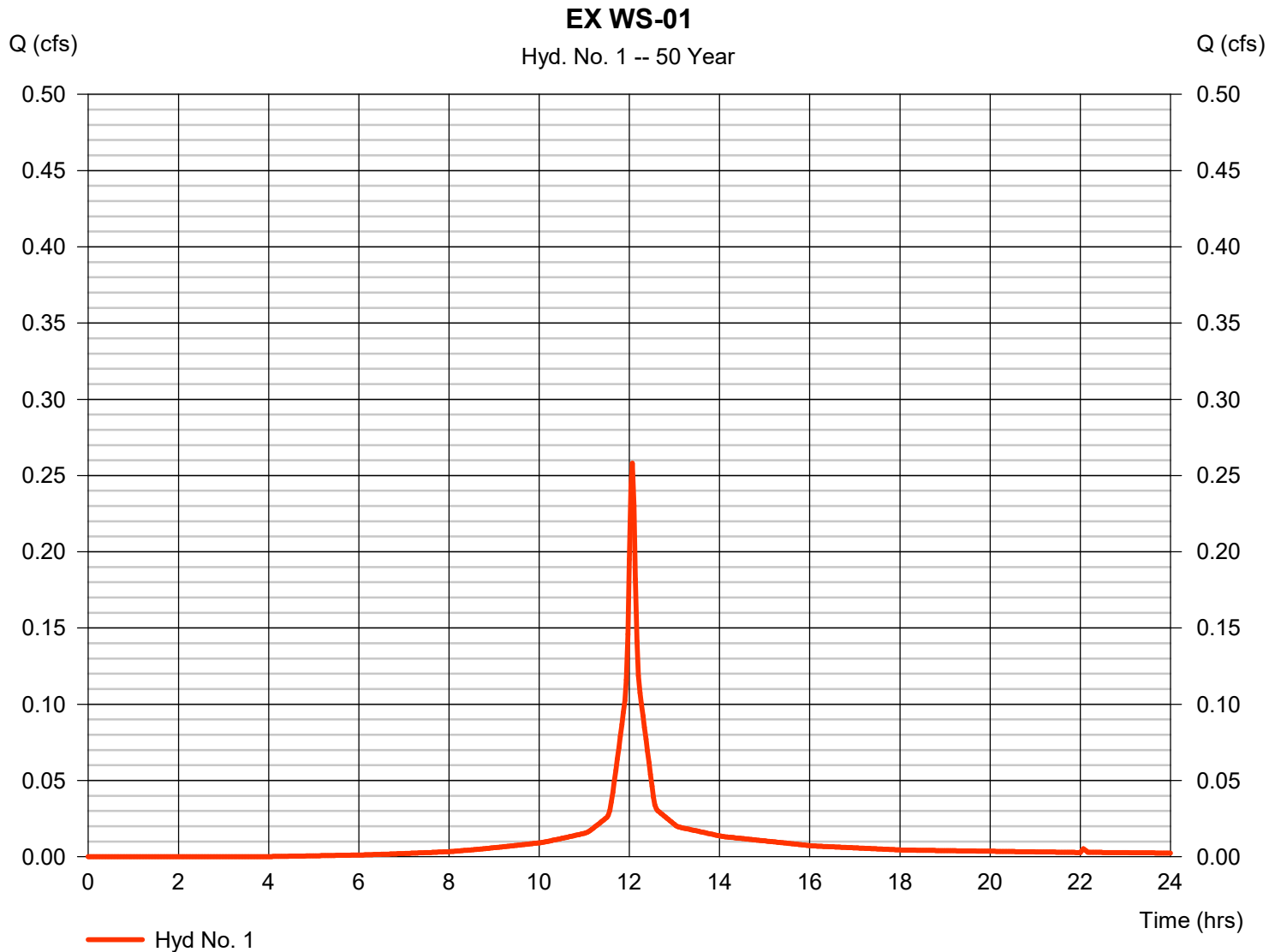
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 8 / 2022

## Hyd. No. 1

EX WS-01

Hydrograph type	= SCS Runoff	Peak discharge	= 0.258 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 809 cuft
Drainage area	= 0.040 ac	Curve number	= 87
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 7.48 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

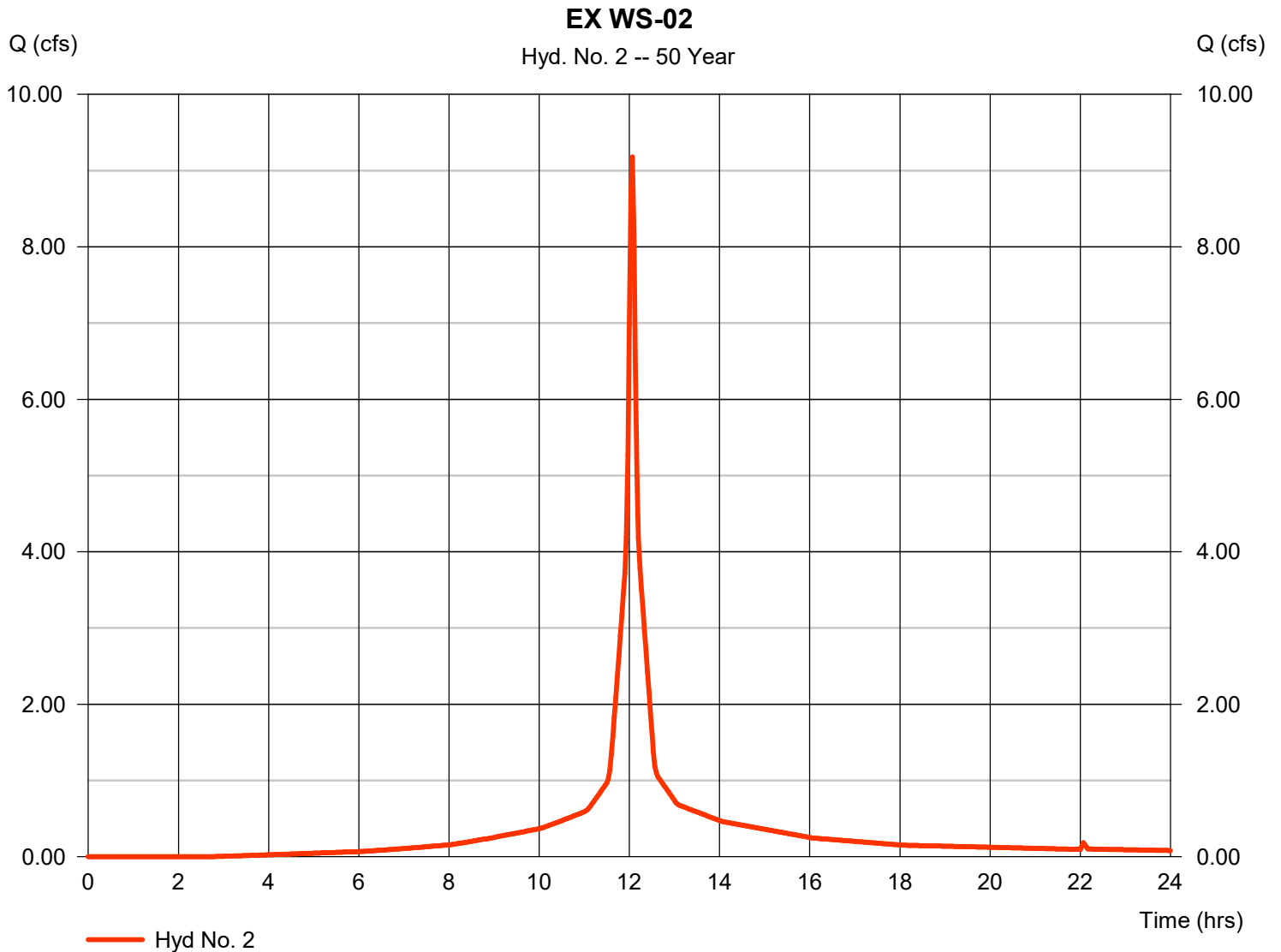
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 8 / 2022

## Hyd. No. 2

EX WS-02

Hydrograph type	= SCS Runoff	Peak discharge	= 9.179 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 29,630 cuft
Drainage area	= 1.358 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 7.48 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.295	2	724	934	-----	-----	-----	EX WS-01
2	SCS Runoff	10.42	2	724	33,919	-----	-----	-----	EX WS-02
Existing-Hydraflow.gpw					Return Period: 100 Year			Thursday, 12 / 8 / 2022	

# Hydrograph Report

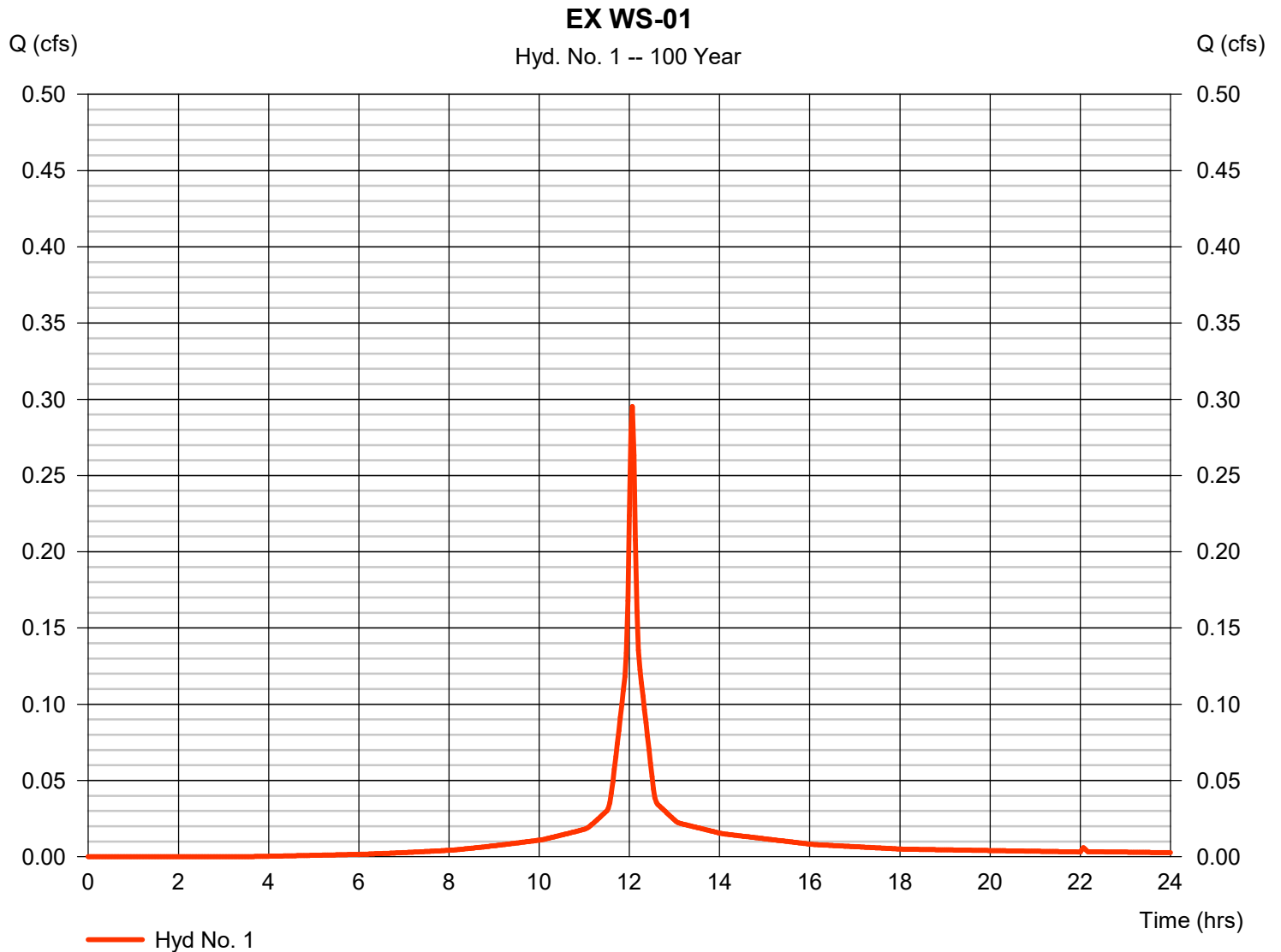
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 8 / 2022

## Hyd. No. 1

EX WS-01

Hydrograph type	= SCS Runoff	Peak discharge	= 0.295 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 934 cuft
Drainage area	= 0.040 ac	Curve number	= 87
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484





# Hydrograph Report

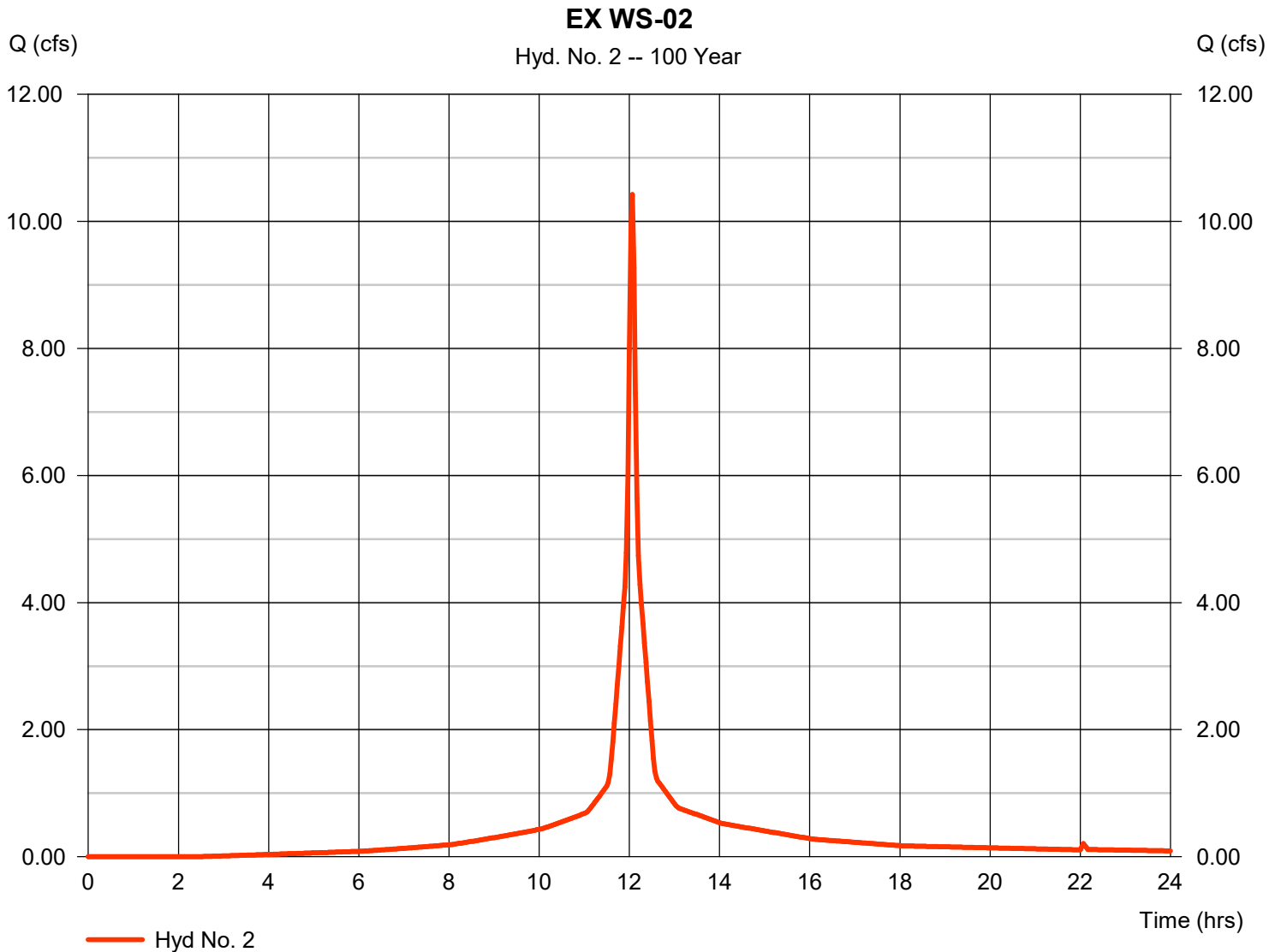
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 8 / 2022

## Hyd. No. 2

EX WS-02

Hydrograph type	= SCS Runoff	Peak discharge	= 10.42 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 33,919 cuft
Drainage area	= 1.358 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

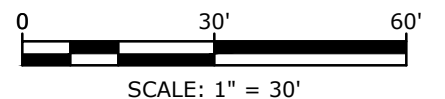




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**Tighe&Bond**

**APPENDIX D**



WILTON GSE, LLC  
372, 378, & 380 DANBURY ROAD  
WILTON, CT

PROPOSED WATERSHED FIGURE

DATE: 12/08/2022

SCALE: 1"=30'

FIGURE PR-WS

**Tighe & Bond**



DESIGN POINT A  
(TO DRAINAGE  
IN DANBURY RD)

DESIGN POINT B  
(TO NORWALK RIVER)

PR WS-02A

PR WS-02B

DANBURY ROAD (US ROUTE 7)

NORWALK RIVER

EXISTING 2 STORY  
BLOCK BUILDING

ARTIFICIAL  
TURF PLAY  
AREA

CHAIN  
LINK  
FENCE

DUMPSTER  
PAD

GRAVEL  
FLOODWAY LINE

CONCRETE  
PAD

10' RIGHT OF WAY/EASEMENT



Consulting Engineers  
Environmental Specialists

Project Name: **372, 378 & 280 Danbury Road**  
 Project Number: **G5081-001**  
 Project Location: **Wilton, CT**  
 Description: **Proposed CN & Tc Calculations**  
 Prepared By: **AVC** Date: **December 8, 2022**

Designation: **PR WS-01**  
 Location:

Cover Type	Area, ac	CN	A x CN
Pavement/Roof	0.000	98	0.0000
Landscaped and Lawns	0.053	69	3.6512
	0.053		3.651

**Weighted CN: 69**

**Time of Concentration**

(computed in accordance with ConnDOT Drainage Manual, Sec. 6C)

Overland				
Segment	Surface "n"	Flow Length (ft.)	Slope (ft/ft)	Time (min.)
Segment A - B	0.24	20	0.05	2.69

**Total Tc = 2.7 Min. (MIN)**  
**5.0 Min. (MIN)**

Note: Overland time of concentration computed using "Kinematic Wave" equation  
 Gutter and pipe time of concentration computed using Manning's equation

Designation: **PR WS-02A**  
 Location:

Cover Type	Area, ac	CN	A x CN
Pavement/Roof	0.716	98	70.1928
Landscaped and Lawns	0.224	69	15.4521
	0.940		85.6450

**Weighted CN: 91**

**Time of Concentration**

(computed in accordance with ConnDOT Drainage Manual, Sec. 6C)

Overland				
Segment	Surface "n"	Flow Length (ft.)	Slope (ft/ft)	Time (min.)
Segment A - B	0.24	28	0.05	3.52
Segment B - C	0.015	31	0.02	0.60
Segment C - D	0.24	9	0.02	2.05
Segment D - E	0.015	100	0.02	1.53

**Total Tc = 7.7 Min.**

Note: Overland time of concentration computed using "Kinematic Wave" equation  
 Gutter and pipe time of concentration computed using Manning's equation



Consulting Engineers  
Environmental Specialists

Project Name: **372, 378 & 280 Danbury Road**  
 Project Number: **G5081-001**  
 Project Location: **Wilton, CT**  
 Description: **Proposed CN & Tc Calculations**  
 Prepared By: **AVC** Date: **December 8, 2022**

Designation: **PR WS-02B**

Location:

Cover Type	Area, ac	CN	A x CN
Pavement/Roof	0.183	98	17.9532
Landscaped and Lawns	0.221	69	15.2700
	0.404		33.2231

**Weighted CN: 82**

**Time of Concentration**

(computed in accordance with ConnDOT Drainage Manual, Sec. 6C)

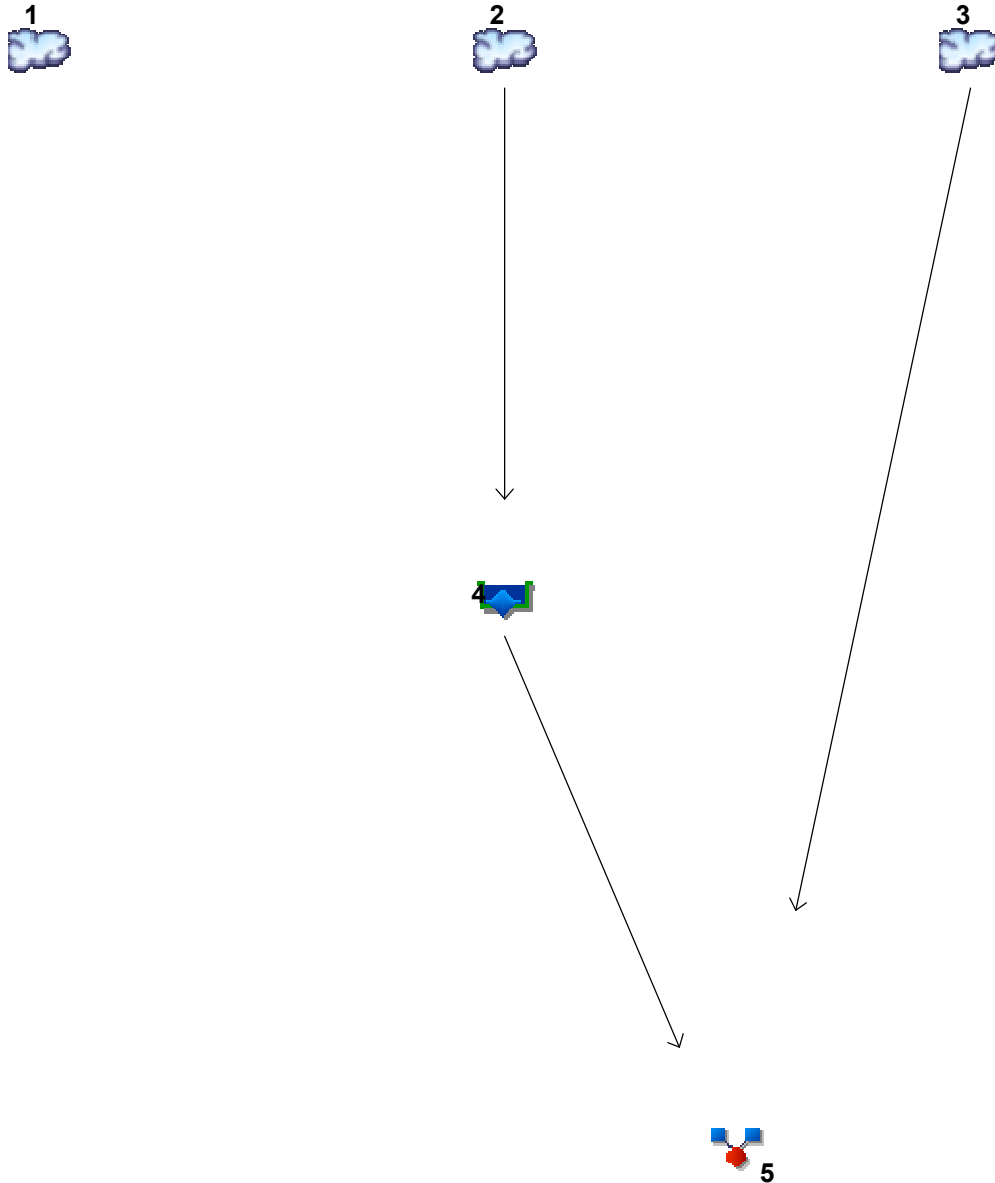
Overland				
Segment	Surface "n"	Flow Length (ft.)	Slope (ft/ft)	Time (min.)
Segment A - B	0.24	25	0.035	3.71
Segment B - C	0.015	63	0.02	1.06

**Total Tc = 4.8 Min.**  
**5.0 Min. (MIN)**

Note: Overland time of concentration computed using "Kinematic Wave" equation  
 Gutter and pipe time of concentration computed using Manning's equation

# Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021



## Legend

<u>Hyd. Origin</u>	<u>Description</u>
1	SCS Runoff PR WS-01
2	SCS Runoff PR WS-02A
3	SCS Runoff PR WS-02B
4	Reservoir <no description>
5	Combine PR WS-02 (COMBINED)



# Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	-----	-----	0.055	-----	-----	0.136	0.192	0.236	0.284	PR WS-01
2	SCS Runoff	-----	-----	2.541	-----	-----	4.200	5.222	5.978	6.790	PR WS-02A
3	SCS Runoff	-----	-----	0.842	-----	-----	1.587	2.060	2.413	2.793	PR WS-02B
4	Reservoir	2	-----	2.542	-----	-----	4.194	5.218	5.864	6.244	<no description>
5	Combine	3, 4	-----	3.312	-----	-----	5.627	7.071	8.029	8.777	PR WS-02 (COMBINED)

# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

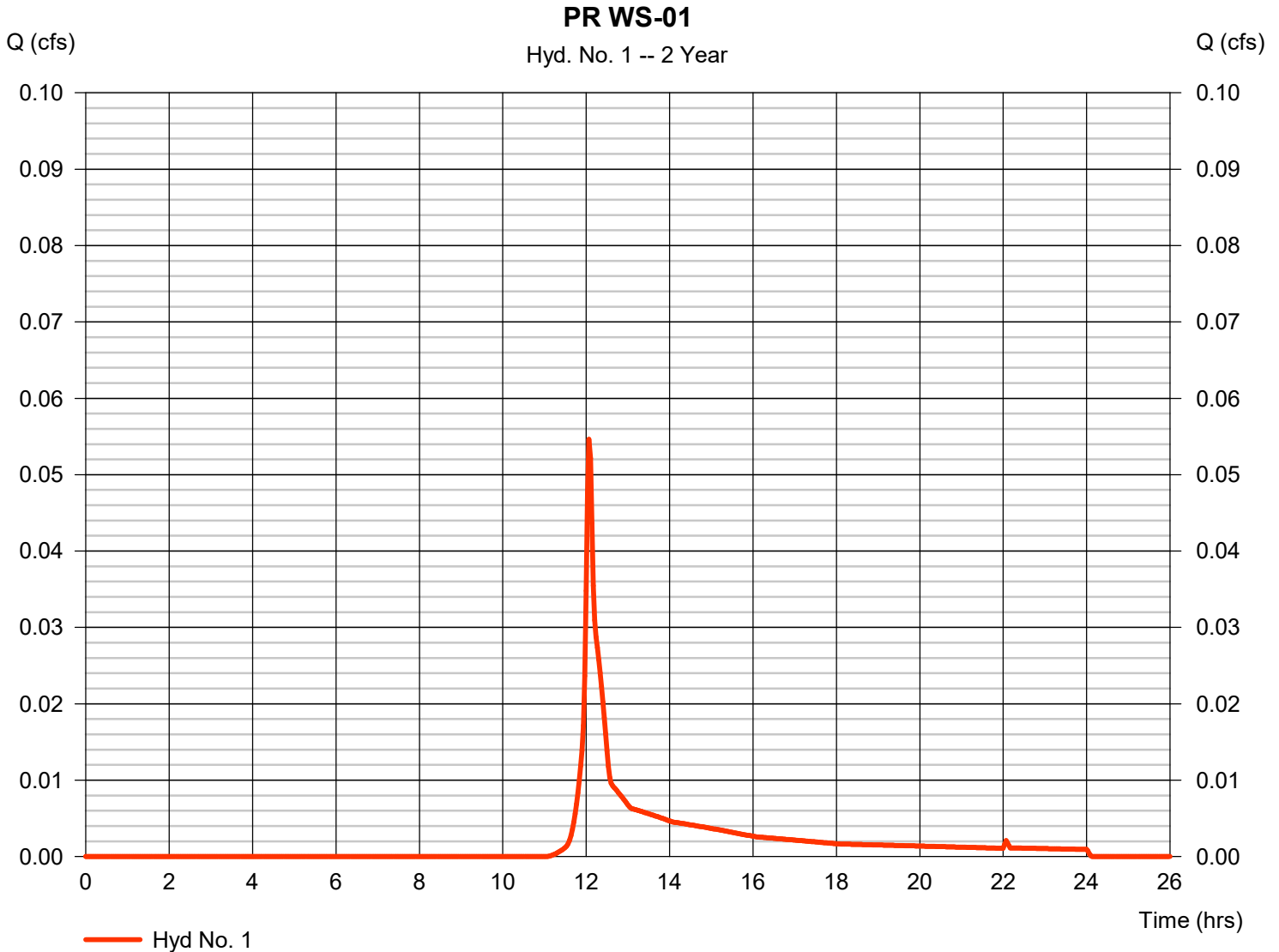
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	SCS Runoff	0.055	2	724	179	-----	-----	-----	PR WS-01	
2	SCS Runoff	2.541	2	726	8,865	-----	-----	-----	PR WS-02A	
3	SCS Runoff	0.842	2	724	2,519	-----	-----	-----	PR WS-02B	
4	Reservoir	2.542	2	726	8,622	2	205.71	338	<no description>	
5	Combine	3.312	2	726	11,141	3, 4	-----	-----	PR WS-02 (COMBINED)	
Proposed-Hydraflow.gpw					Return Period: 2 Year			Thursday, 01 / 5 / 2023		

# Hydrograph Report

## Hyd. No. 1

PR WS-01

Hydrograph type	= SCS Runoff	Peak discharge	= 0.055 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 179 cuft
Drainage area	= 0.053 ac	Curve number	= 69
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.56 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

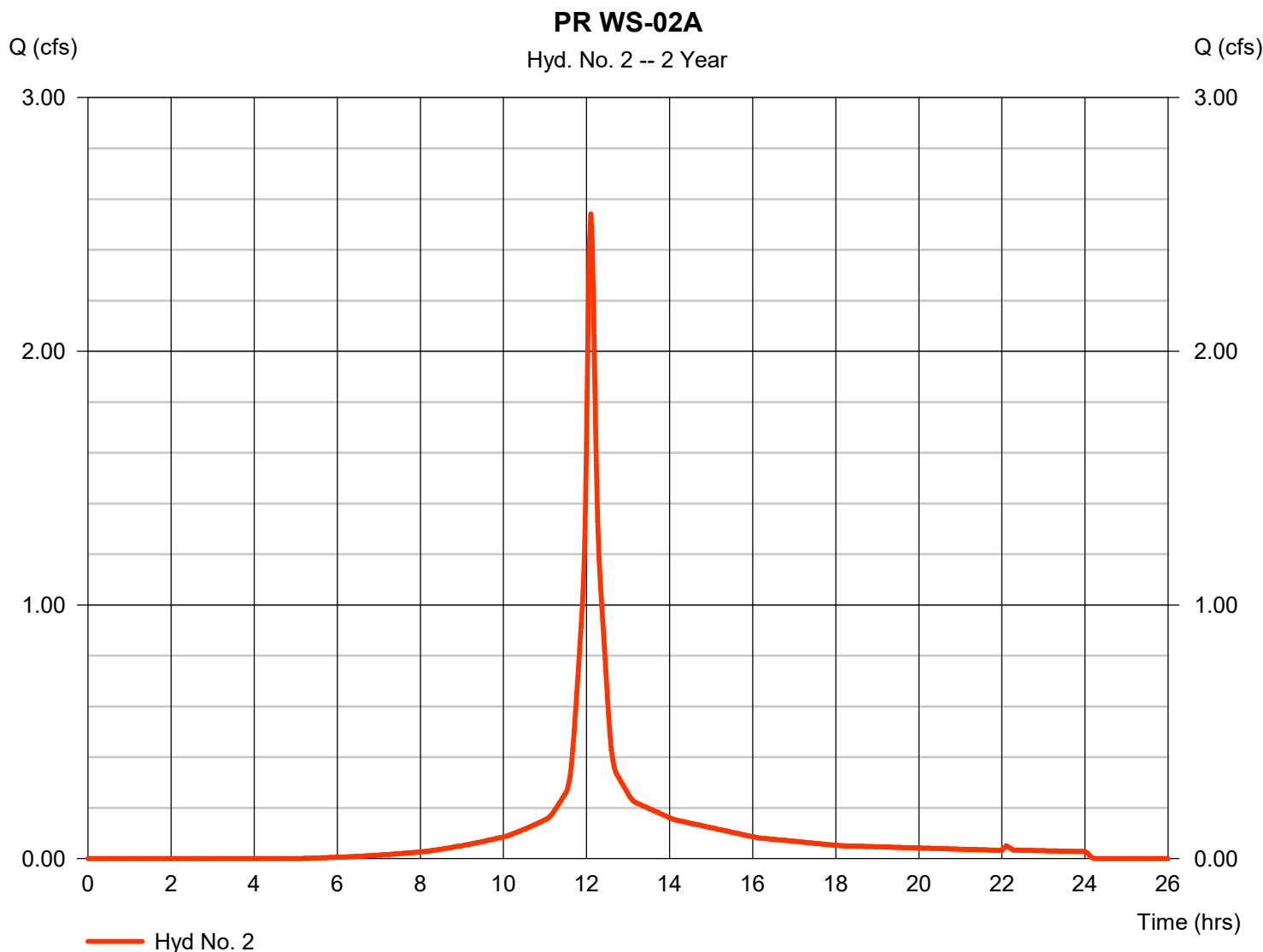
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 2

PR WS-02A

Hydrograph type	= SCS Runoff	Peak discharge	= 2.541 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 8,865 cuft
Drainage area	= 0.940 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.70 min
Total precip.	= 3.56 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

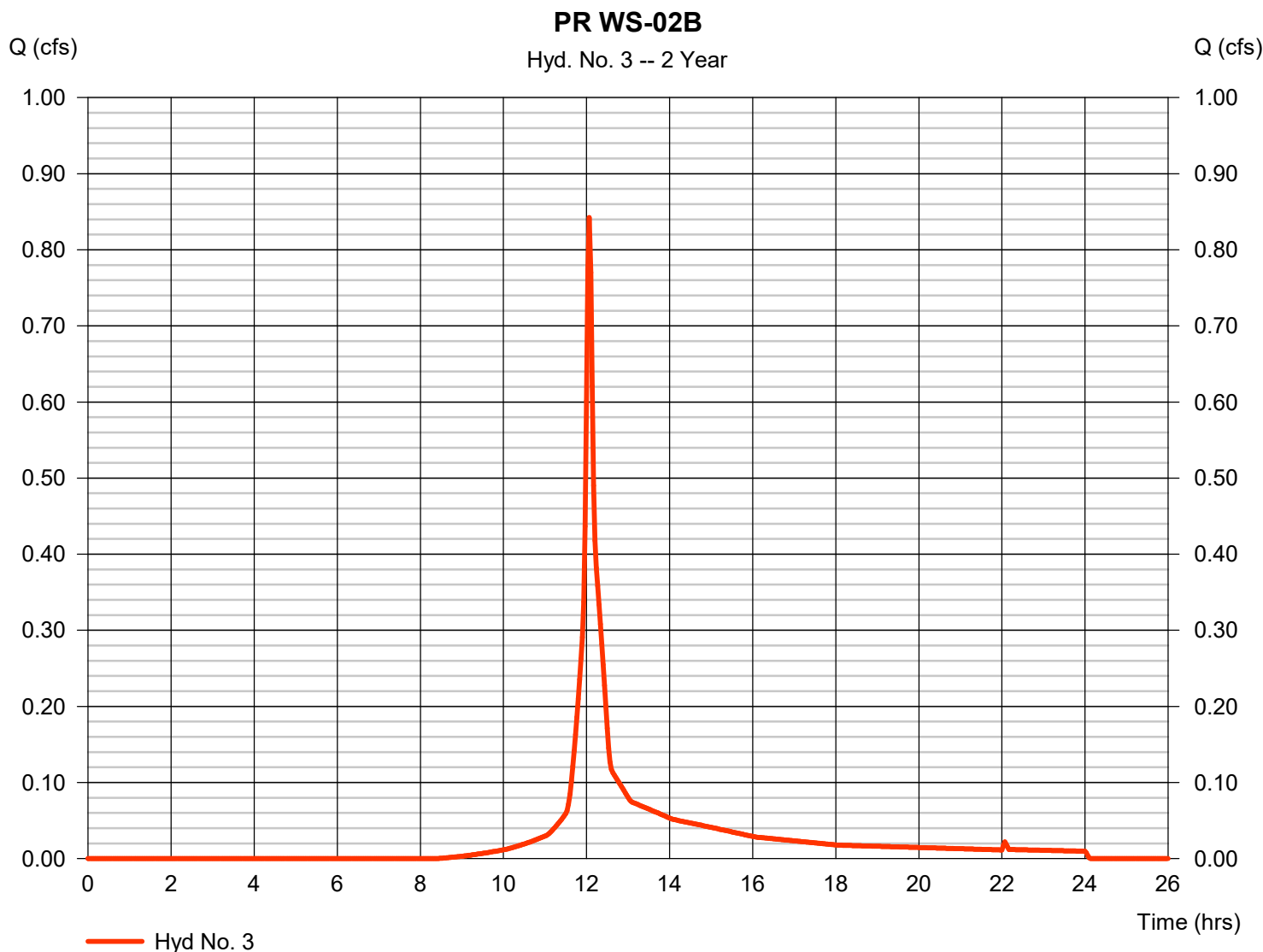
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 3

PR WS-02B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.842 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 2,519 cuft
Drainage area	= 0.404 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.56 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

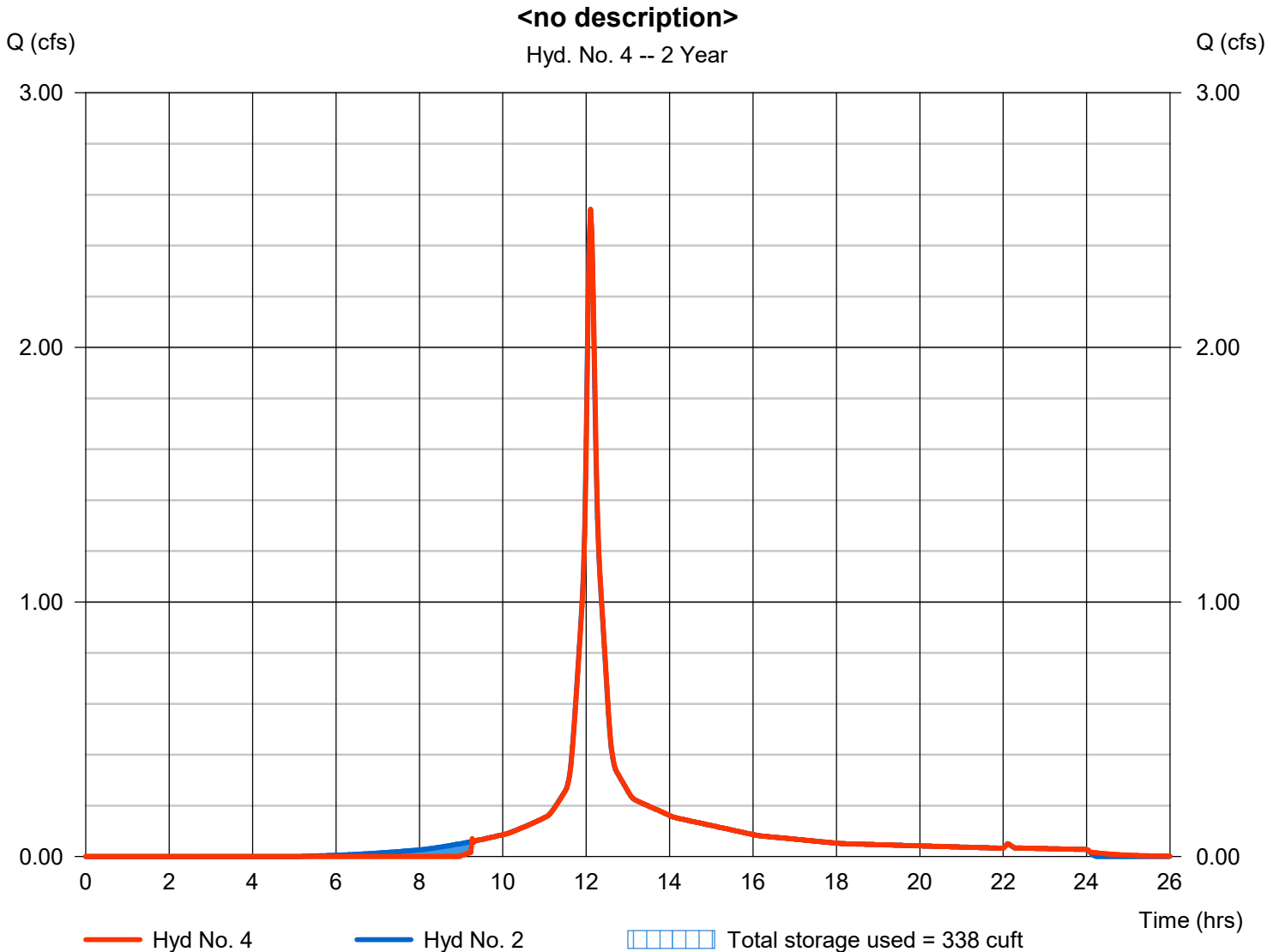
Thursday, 01 / 5 / 2023

## Hyd. No. 4

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 2.542 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 8,622 cuft
Inflow hyd. No.	= 2 - PR WS-02A	Max. Elevation	= 205.71 ft
Reservoir name	= Infiltration Swale	Max. Storage	= 338 cuft

Storage Indication method used.



## Pond No. 1 - Infiltration Swale

### Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 205.00 ft

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	205.00	750	0	0
0.01	205.01	200	5	5
1.00	206.00	750	470	475
1.10	206.10	1,500	113	588

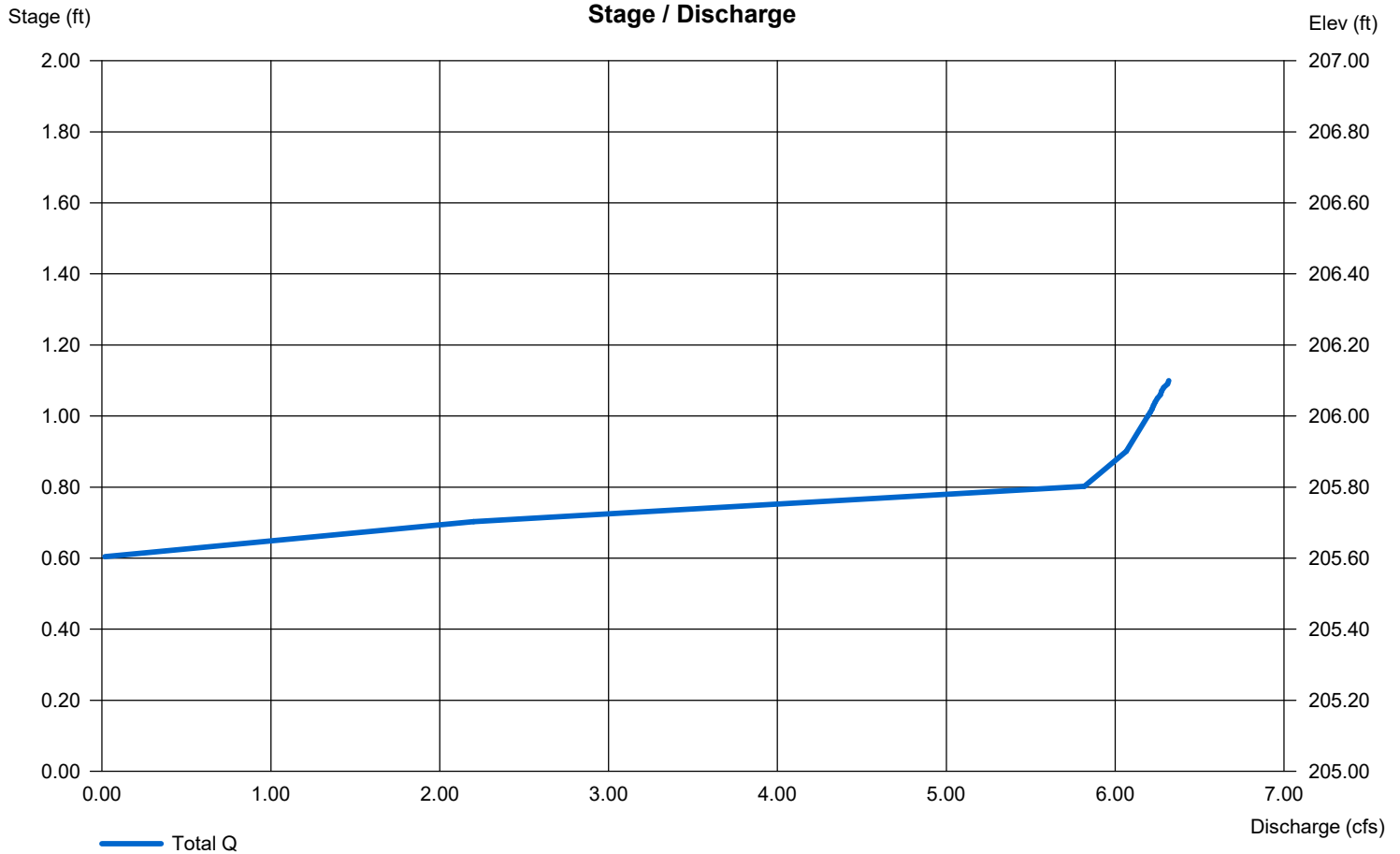
### Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	Inactive	Inactive	Inactive
Span (in)	= 12.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 202.40	0.00	0.00	0.00
Length (ft)	= 45.00	0.00	0.00	0.00
Slope (%)	= 0.50	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

### Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 20.00	Inactive	Inactive	Inactive
Crest El. (ft)	= 205.60	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= Yes	No	No	No
Exfil.(in/hr)	= 0.000 (by Contour)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

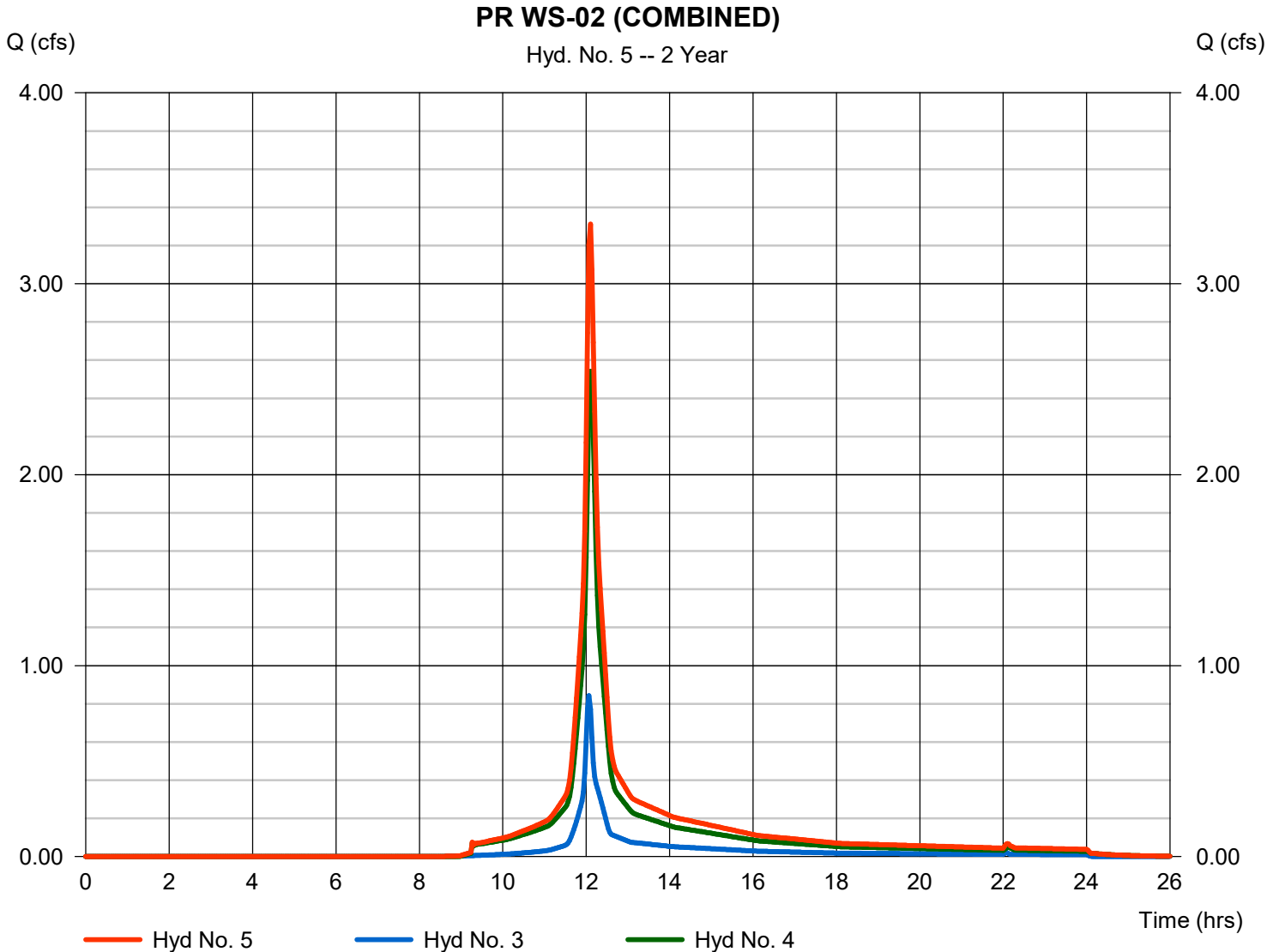
Thursday, 01 / 5 / 2023

## Hyd. No. 5

PR WS-02 (COMBINED)

Hydrograph type = Combine  
Storm frequency = 2 yrs  
Time interval = 2 min  
Inflow hyds. = 3, 4

Peak discharge = 3.312 cfs  
Time to peak = 12.10 hrs  
Hyd. volume = 11,141 cuft  
Contrib. drain. area = 0.404 ac





# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

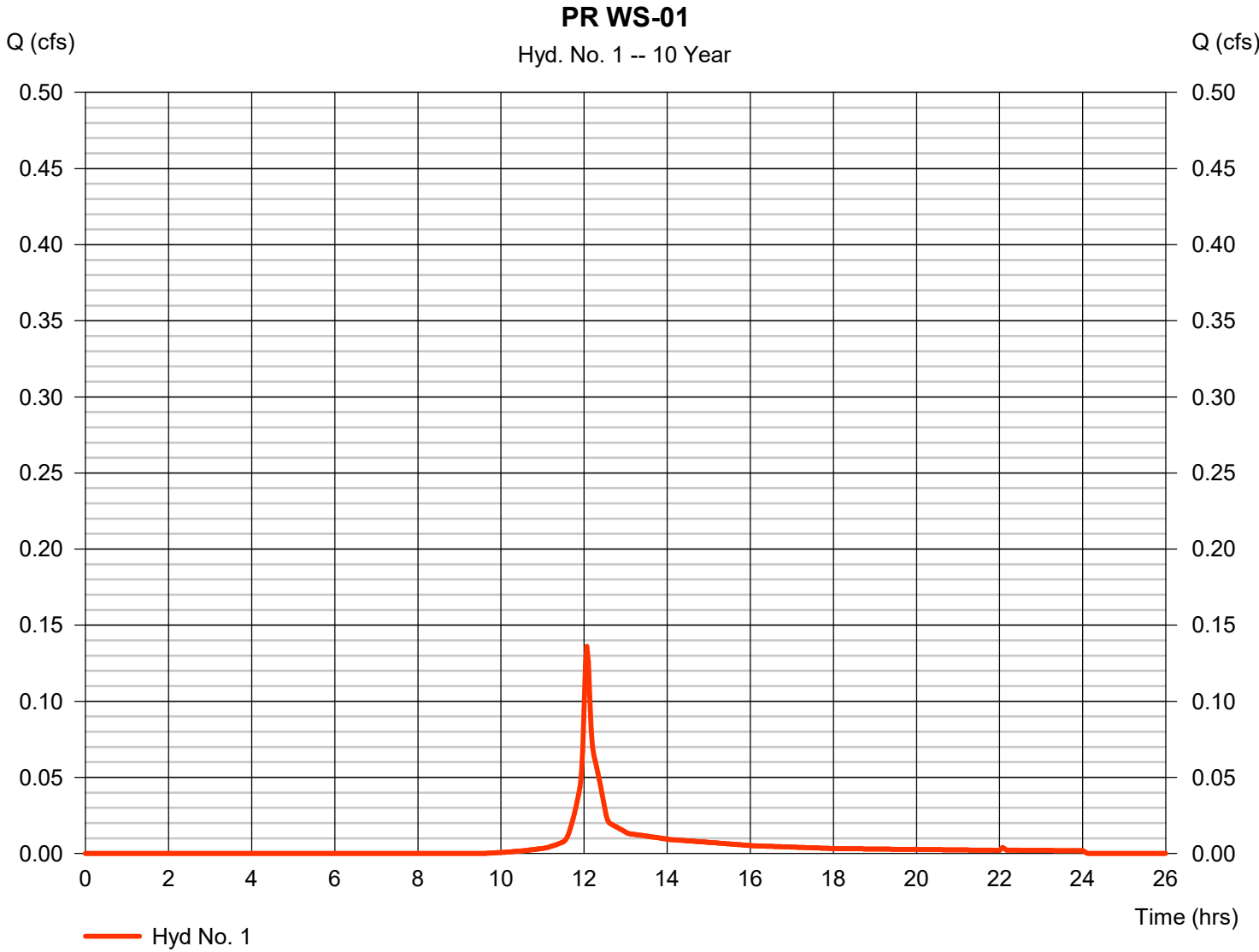
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	SCS Runoff	0.136	2	724	412	-----	-----	-----	PR WS-01	
2	SCS Runoff	4.200	2	726	15,048	-----	-----	-----	PR WS-02A	
3	SCS Runoff	1.587	2	724	4,778	-----	-----	-----	PR WS-02B	
4	Reservoir	4.194	2	726	14,806	2	205.76	360	<no description>	
5	Combine	5.627	2	726	19,584	3, 4	-----	-----	PR WS-02 (COMBINED)	
Proposed-Hydraflow.gpw					Return Period: 10 Year			Thursday, 01 / 5 / 2023		

# Hydrograph Report

## Hyd. No. 1

PR WS-01

Hydrograph type	= SCS Runoff	Peak discharge	= 0.136 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 412 cuft
Drainage area	= 0.053 ac	Curve number	= 69
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.44 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

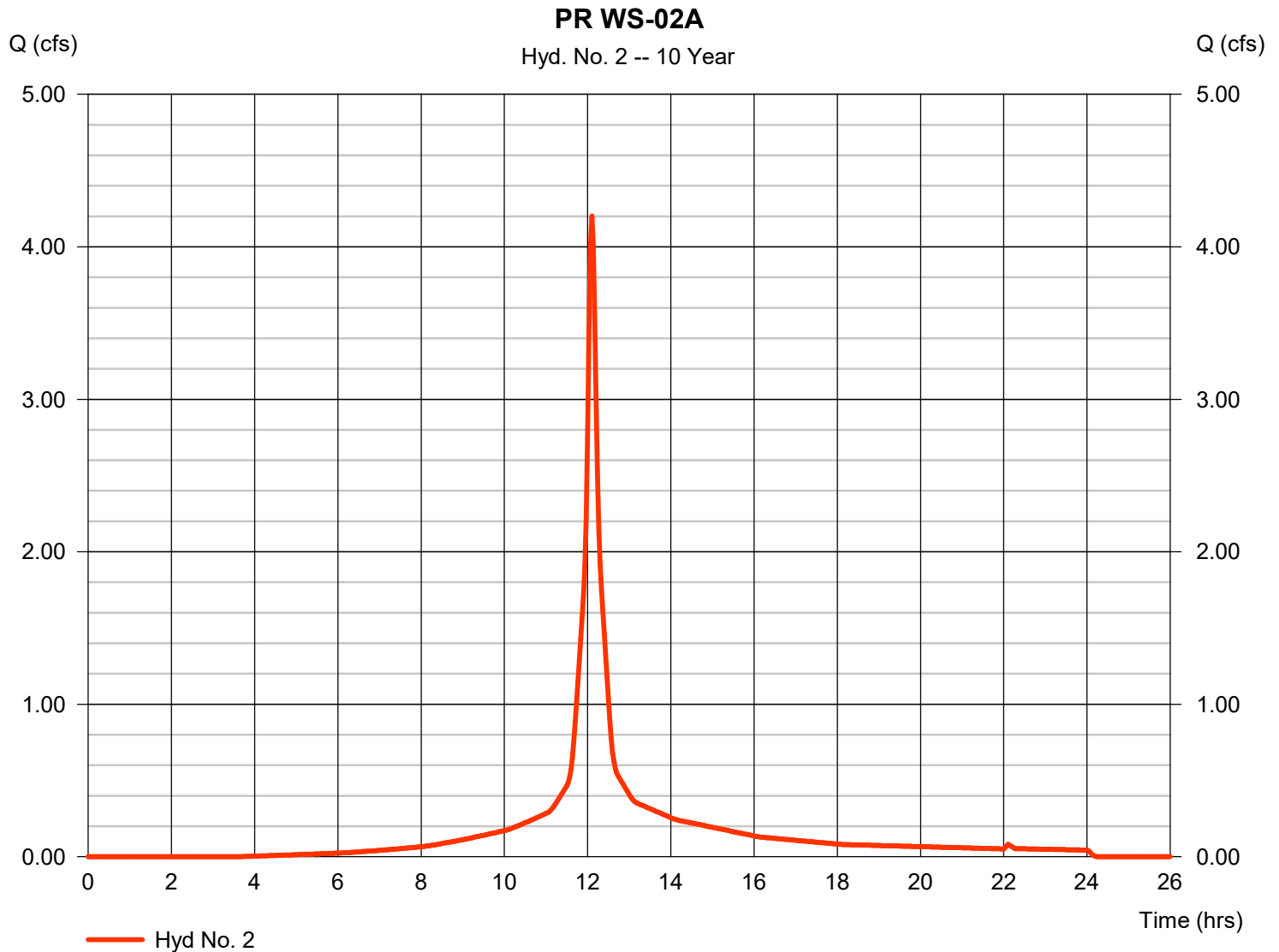
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 2

PR WS-02A

Hydrograph type	= SCS Runoff	Peak discharge	= 4.200 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 15,048 cuft
Drainage area	= 0.940 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.70 min
Total precip.	= 5.44 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

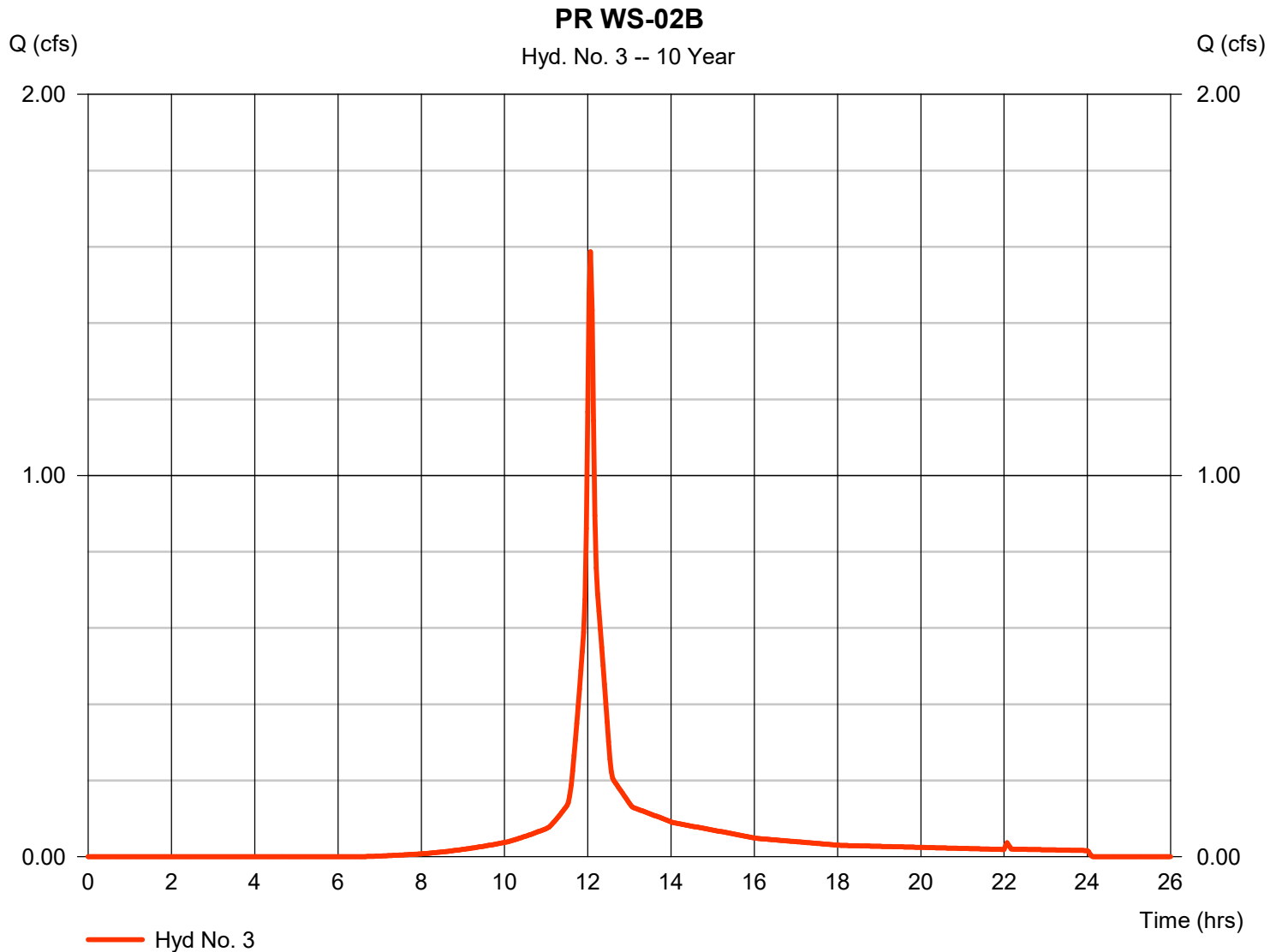
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 3

PR WS-02B

Hydrograph type	= SCS Runoff	Peak discharge	= 1.587 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 4,778 cuft
Drainage area	= 0.404 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.44 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

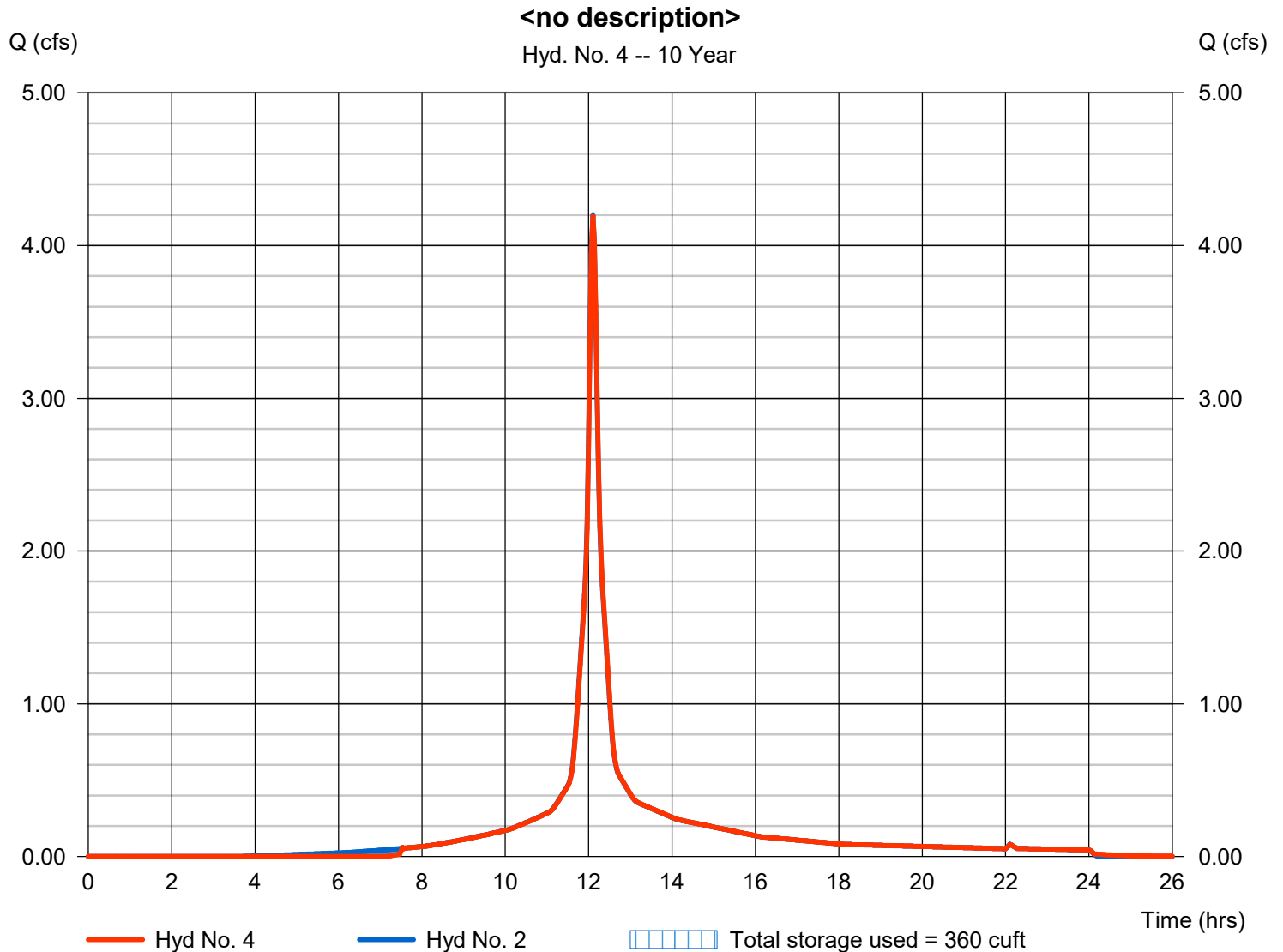
Thursday, 01 / 5 / 2023

## Hyd. No. 4

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 4.194 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 14,806 cuft
Inflow hyd. No.	= 2 - PR WS-02A	Max. Elevation	= 205.76 ft
Reservoir name	= Infiltration Swale	Max. Storage	= 360 cuft

Storage Indication method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

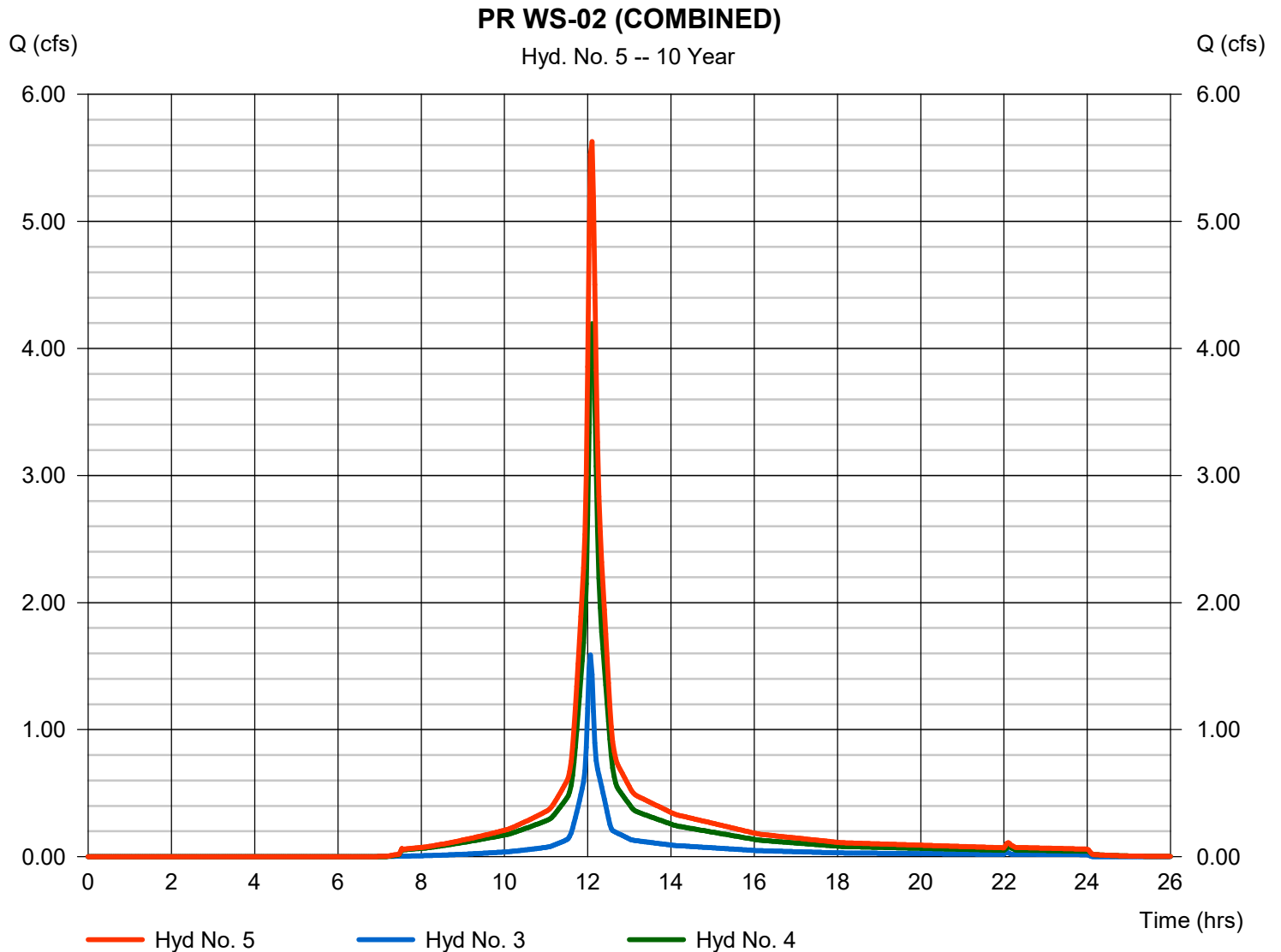
Thursday, 01 / 5 / 2023

## Hyd. No. 5

PR WS-02 (COMBINED)

Hydrograph type = Combine  
Storm frequency = 10 yrs  
Time interval = 2 min  
Inflow hyds. = 3, 4

Peak discharge = 5.627 cfs  
Time to peak = 12.10 hrs  
Hyd. volume = 19,584 cuft  
Contrib. drain. area = 0.404 ac



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	SCS Runoff	0.192	2	724	577	-----	-----	-----	PR WS-01	
2	SCS Runoff	5.222	2	726	18,956	-----	-----	-----	PR WS-02A	
3	SCS Runoff	2.060	2	724	6,258	-----	-----	-----	PR WS-02B	
4	Reservoir	5.218	2	726	18,713	2	205.79	373	<no description>	
5	Combine	7.071	2	726	24,971	3, 4	-----	-----	PR WS-02 (COMBINED)	
Proposed-Hydraflow.gpw					Return Period: 25 Year			Thursday, 01 / 5 / 2023		

# Hydrograph Report

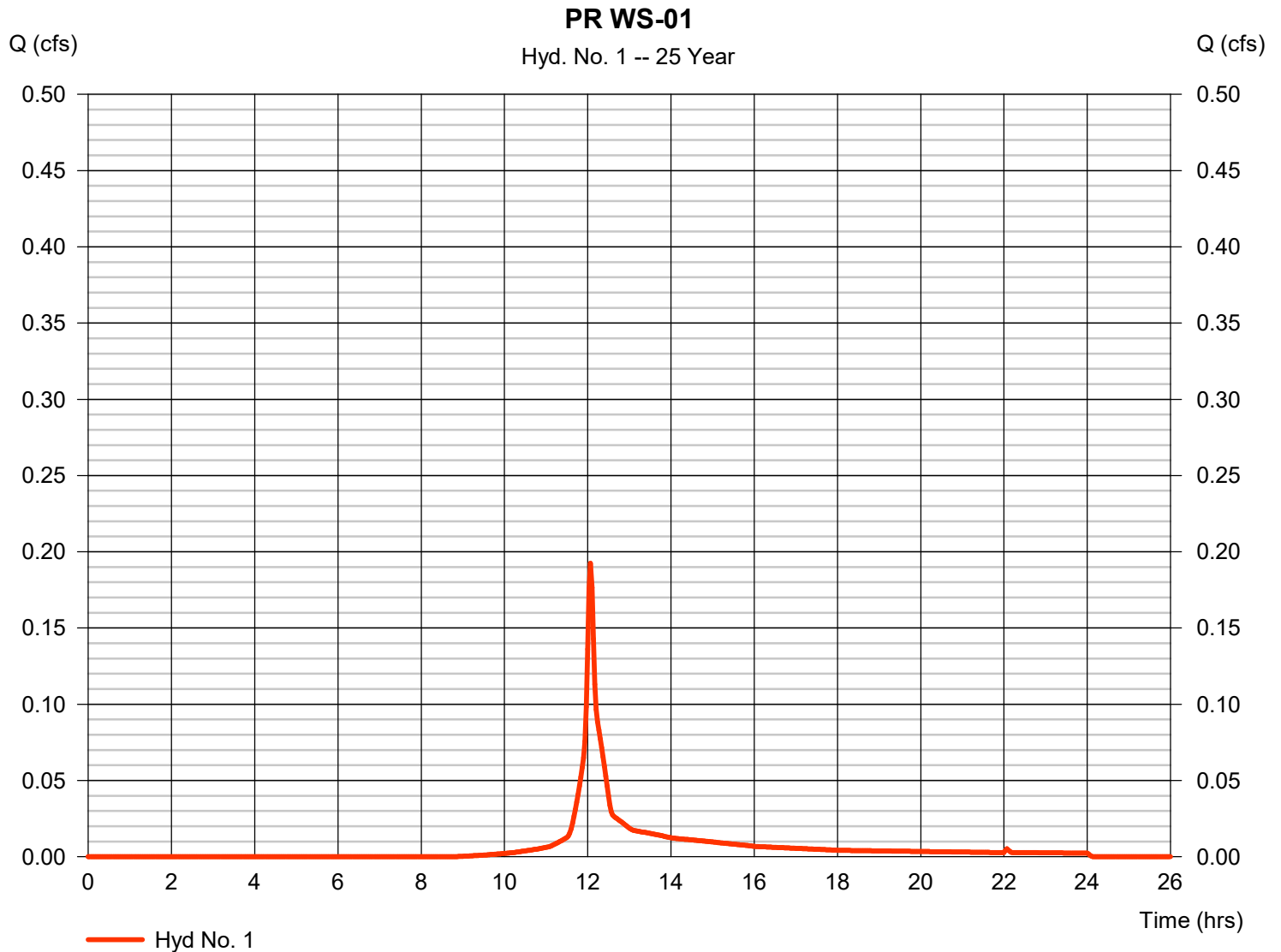
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 1

PR WS-01

Hydrograph type	= SCS Runoff	Peak discharge	= 0.192 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 577 cuft
Drainage area	= 0.053 ac	Curve number	= 69
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.61 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484





# Hydrograph Report

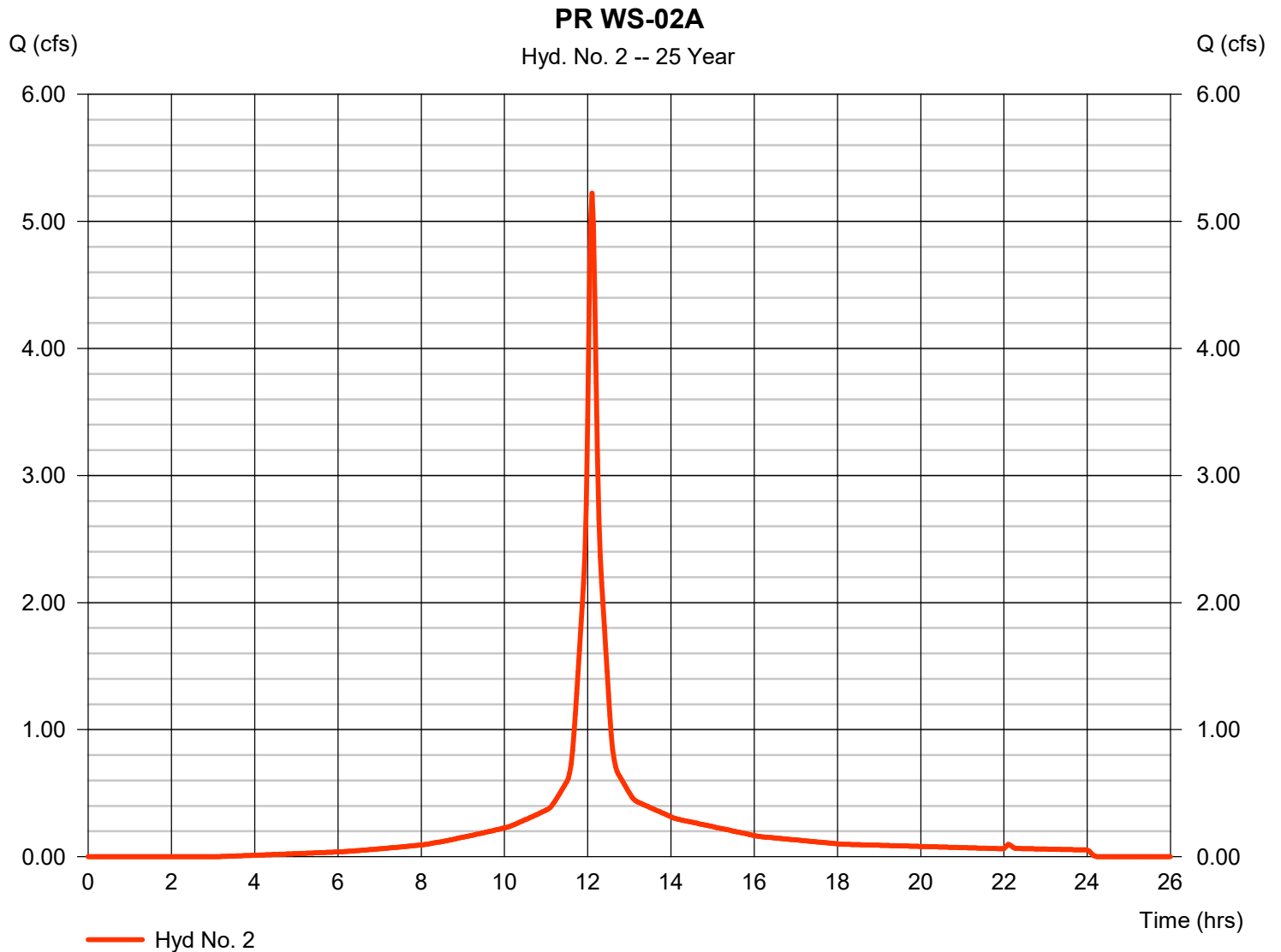
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 2

PR WS-02A

Hydrograph type	= SCS Runoff	Peak discharge	= 5.222 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 18,956 cuft
Drainage area	= 0.940 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.70 min
Total precip.	= 6.61 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

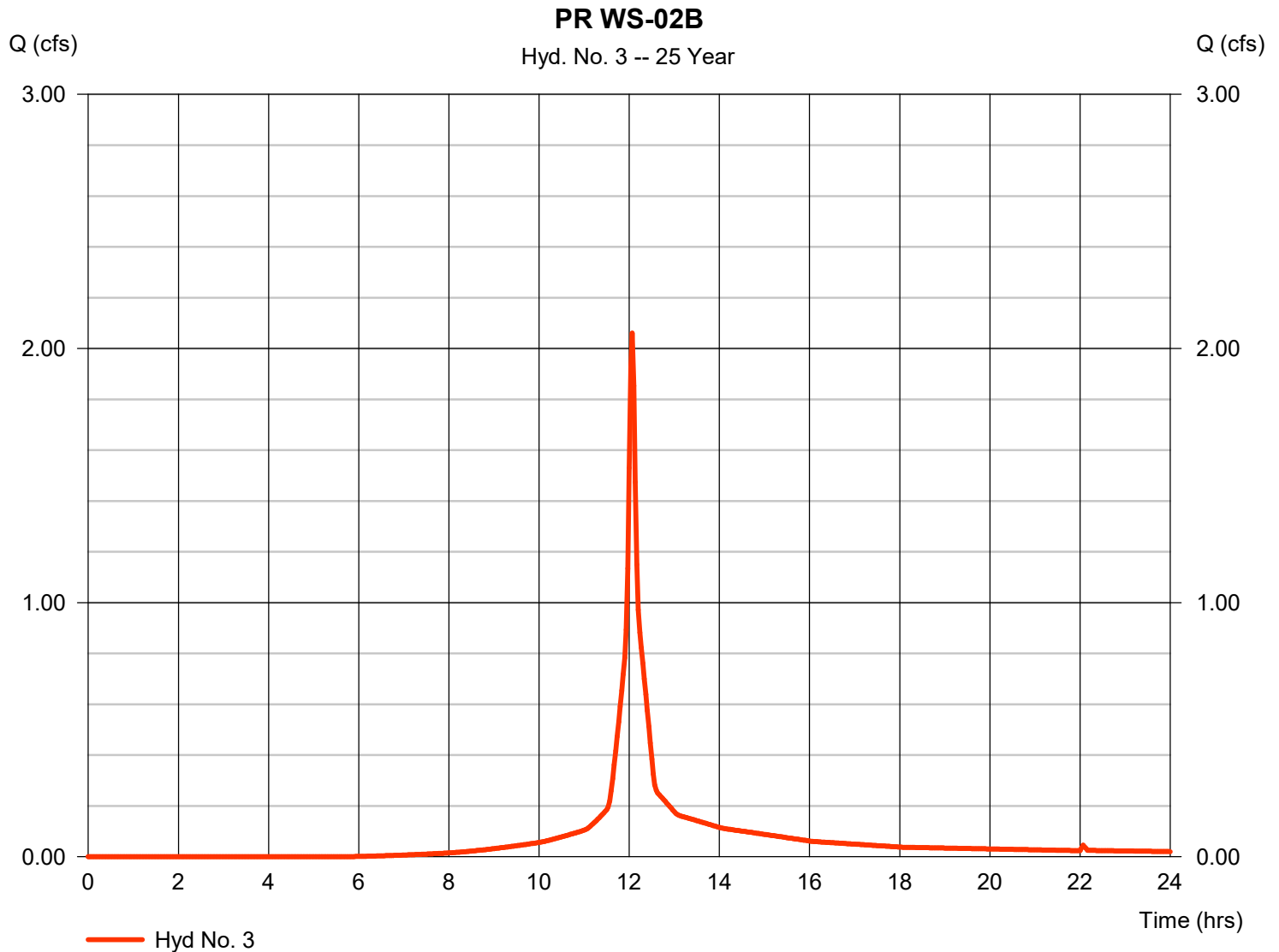
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 3

PR WS-02B

Hydrograph type	= SCS Runoff	Peak discharge	= 2.060 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 6,258 cuft
Drainage area	= 0.404 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.61 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

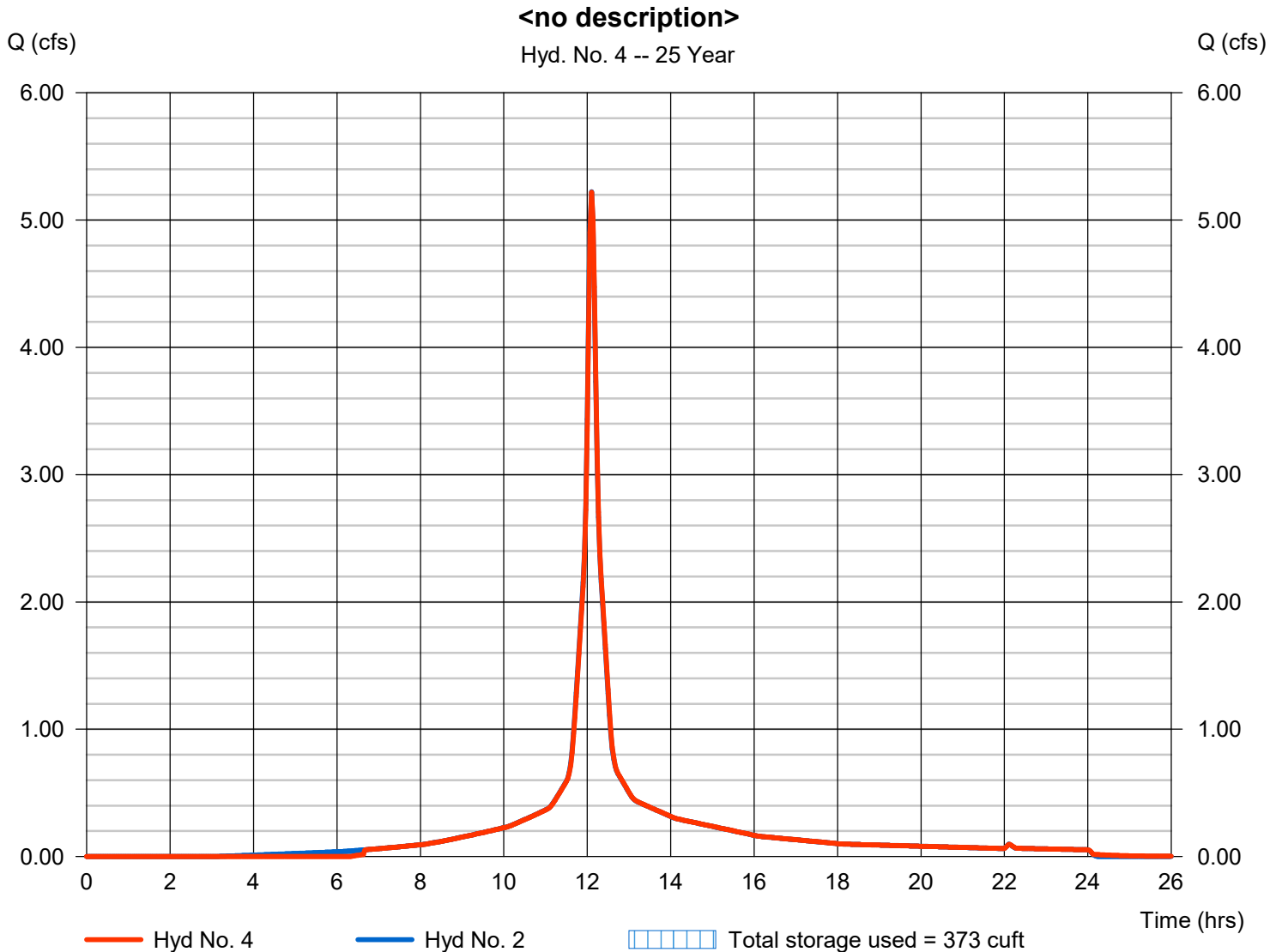
Thursday, 01 / 5 / 2023

## Hyd. No. 4

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 5.218 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 18,713 cuft
Inflow hyd. No.	= 2 - PR WS-02A	Max. Elevation	= 205.79 ft
Reservoir name	= Infiltration Swale	Max. Storage	= 373 cuft

Storage Indication method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

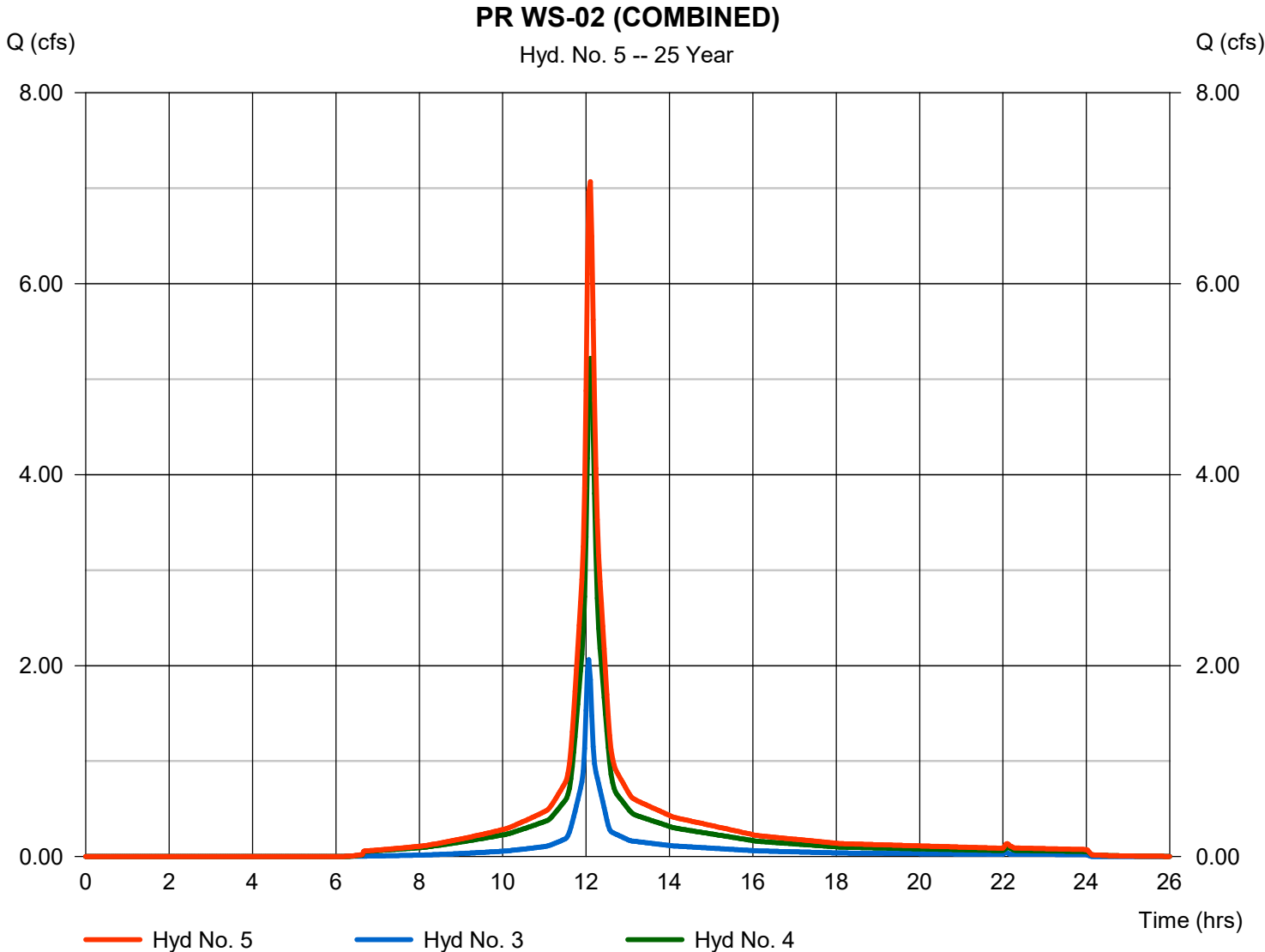
Thursday, 01 / 5 / 2023

## Hyd. No. 5

PR WS-02 (COMBINED)

Hydrograph type = Combine  
Storm frequency = 25 yrs  
Time interval = 2 min  
Inflow hyds. = 3, 4

Peak discharge = 7.071 cfs  
Time to peak = 12.10 hrs  
Hyd. volume = 24,971 cuft  
Contrib. drain. area = 0.404 ac



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	SCS Runoff	0.236	2	724	705	-----	-----	-----	PR WS-01	
2	SCS Runoff	5.978	2	726	21,877	-----	-----	-----	PR WS-02A	
3	SCS Runoff	2.413	2	724	7,380	-----	-----	-----	PR WS-02B	
4	Reservoir	5.864	2	726	21,634	2	205.82	390	<no description>	
5	Combine	8.029	2	726	29,014	3, 4	-----	-----	PR WS-02 (COMBINED)	
Proposed-Hydraflow.gpw					Return Period: 50 Year			Thursday, 01 / 5 / 2023		

# Hydrograph Report

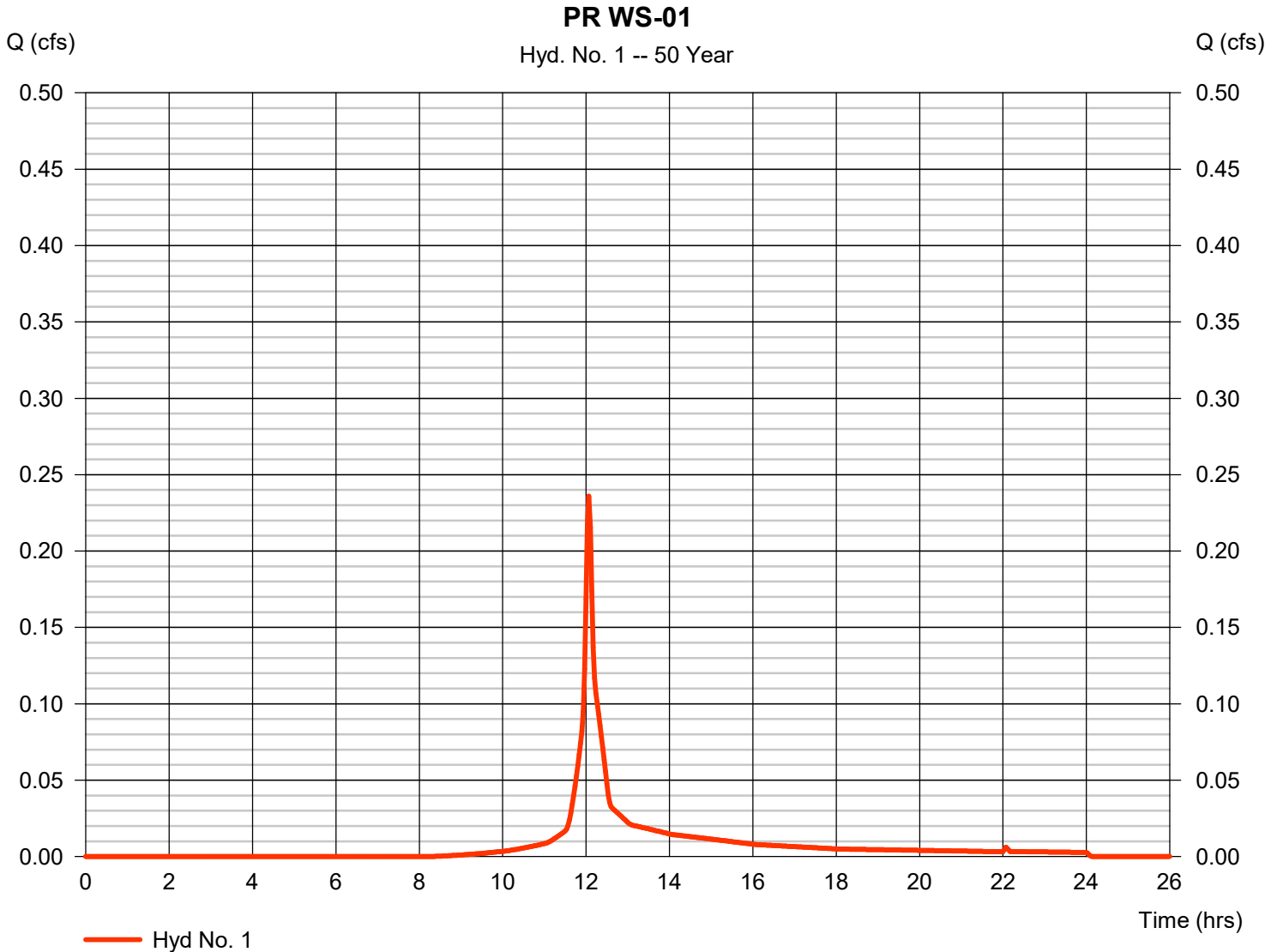
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 1

PR WS-01

Hydrograph type	= SCS Runoff	Peak discharge	= 0.236 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 705 cuft
Drainage area	= 0.053 ac	Curve number	= 69
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 7.48 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

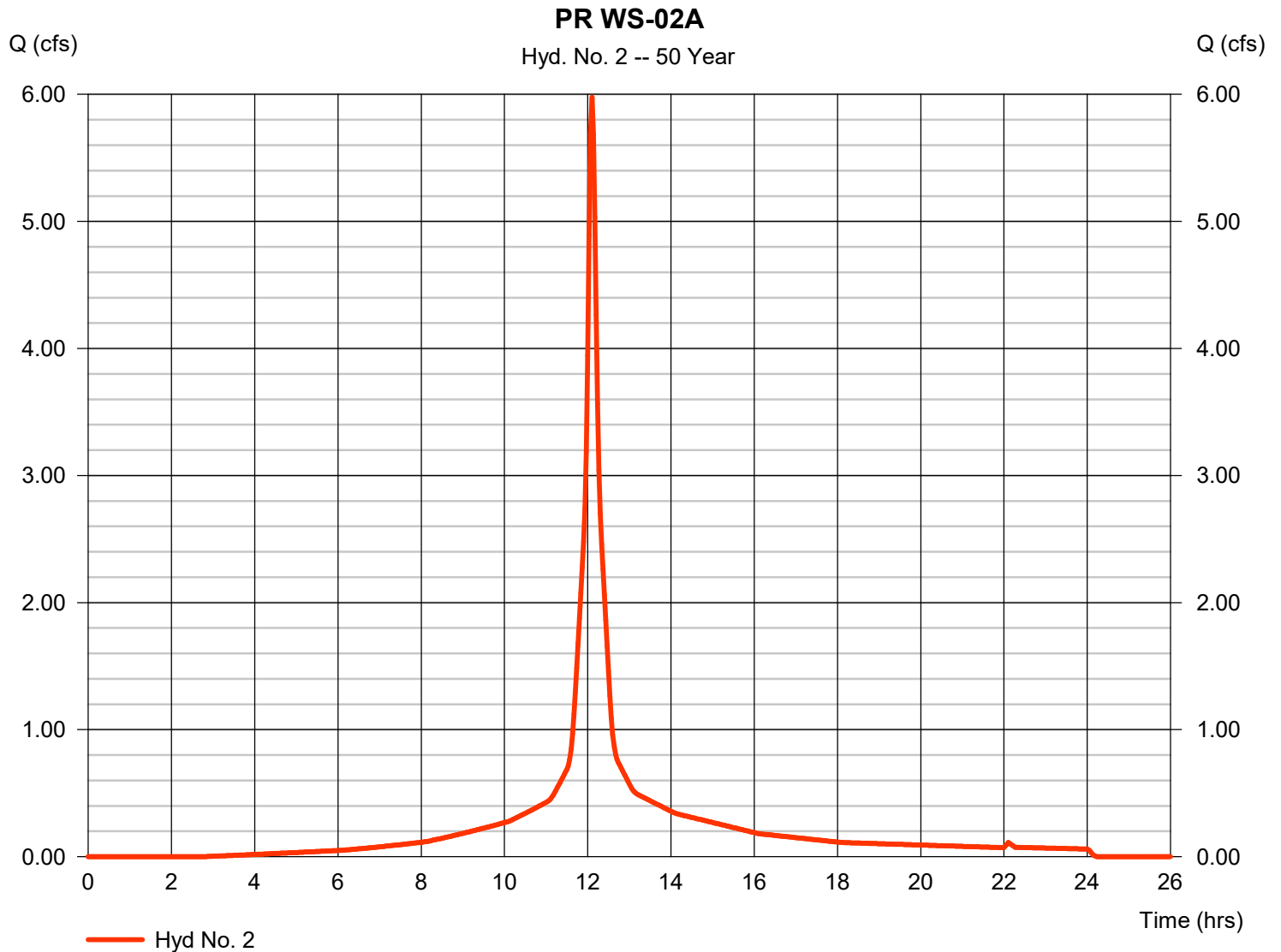
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 2

PR WS-02A

Hydrograph type	= SCS Runoff	Peak discharge	= 5.978 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 21,877 cuft
Drainage area	= 0.940 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.70 min
Total precip.	= 7.48 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

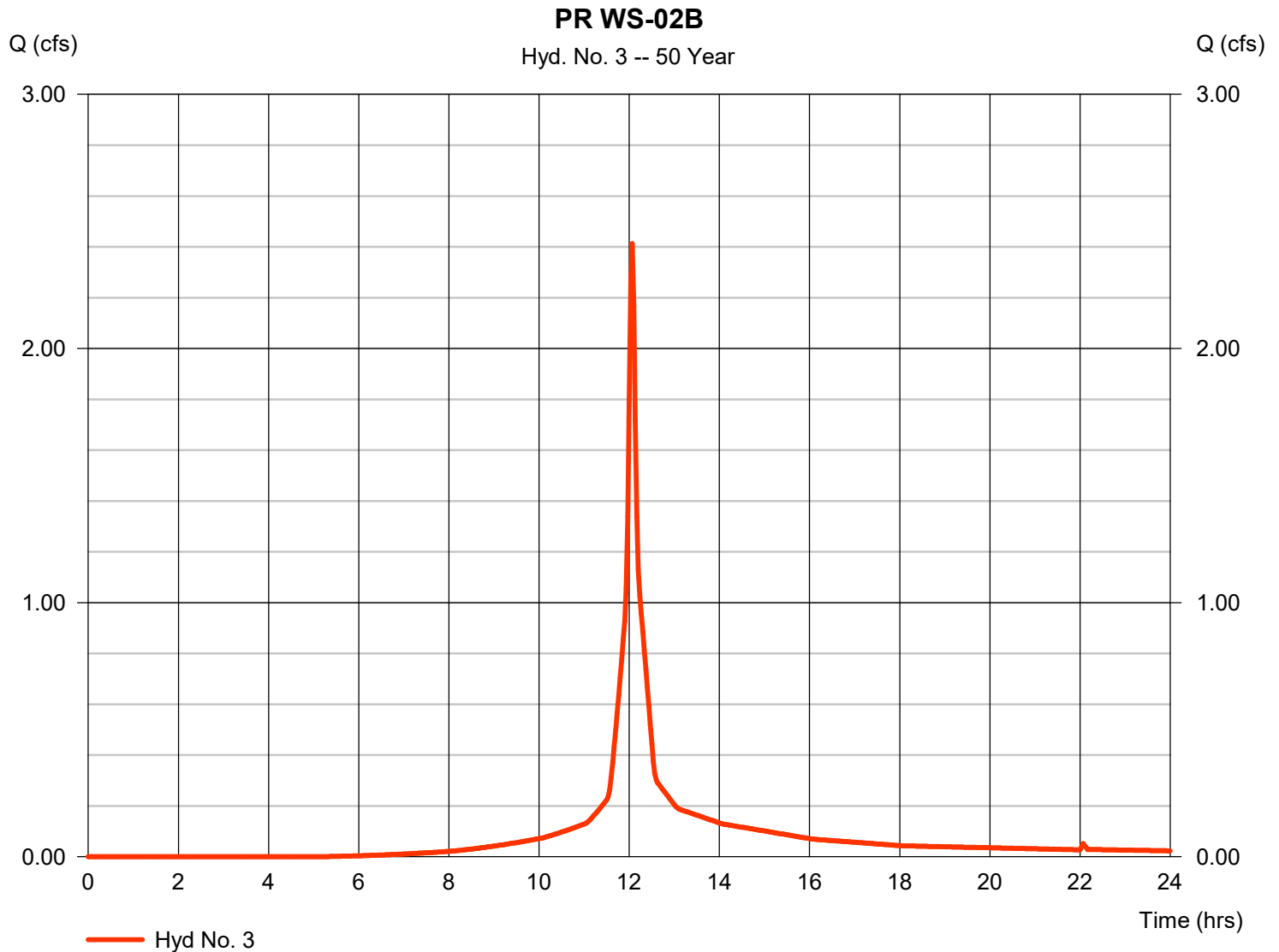
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 3

PR WS-02B

Hydrograph type	= SCS Runoff	Peak discharge	= 2.413 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 7,380 cuft
Drainage area	= 0.404 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 7.48 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484





# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

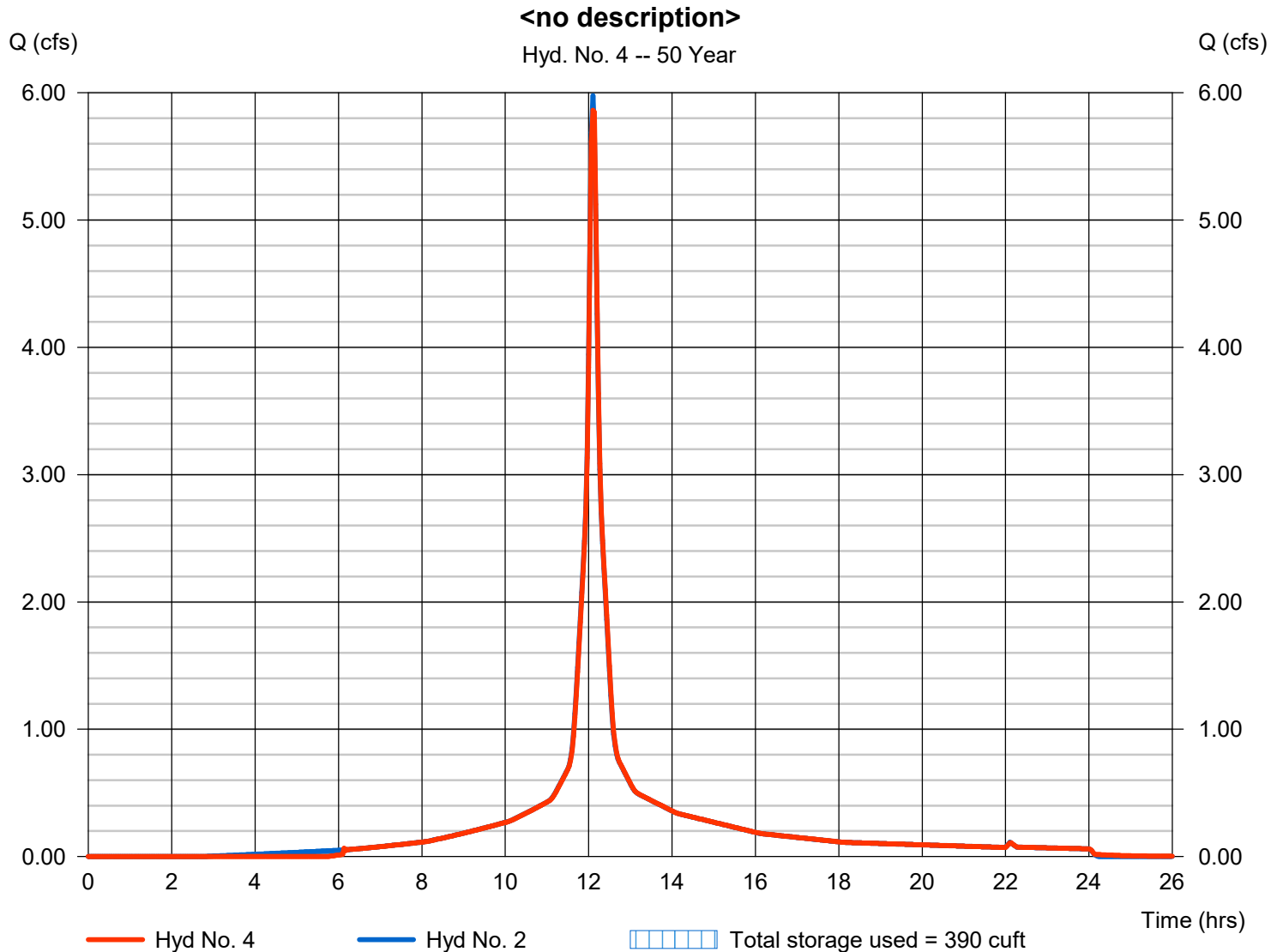
Thursday, 01 / 5 / 2023

## Hyd. No. 4

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 5.864 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 21,634 cuft
Inflow hyd. No.	= 2 - PR WS-02A	Max. Elevation	= 205.82 ft
Reservoir name	= Infiltration Swale	Max. Storage	= 390 cuft

Storage Indication method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

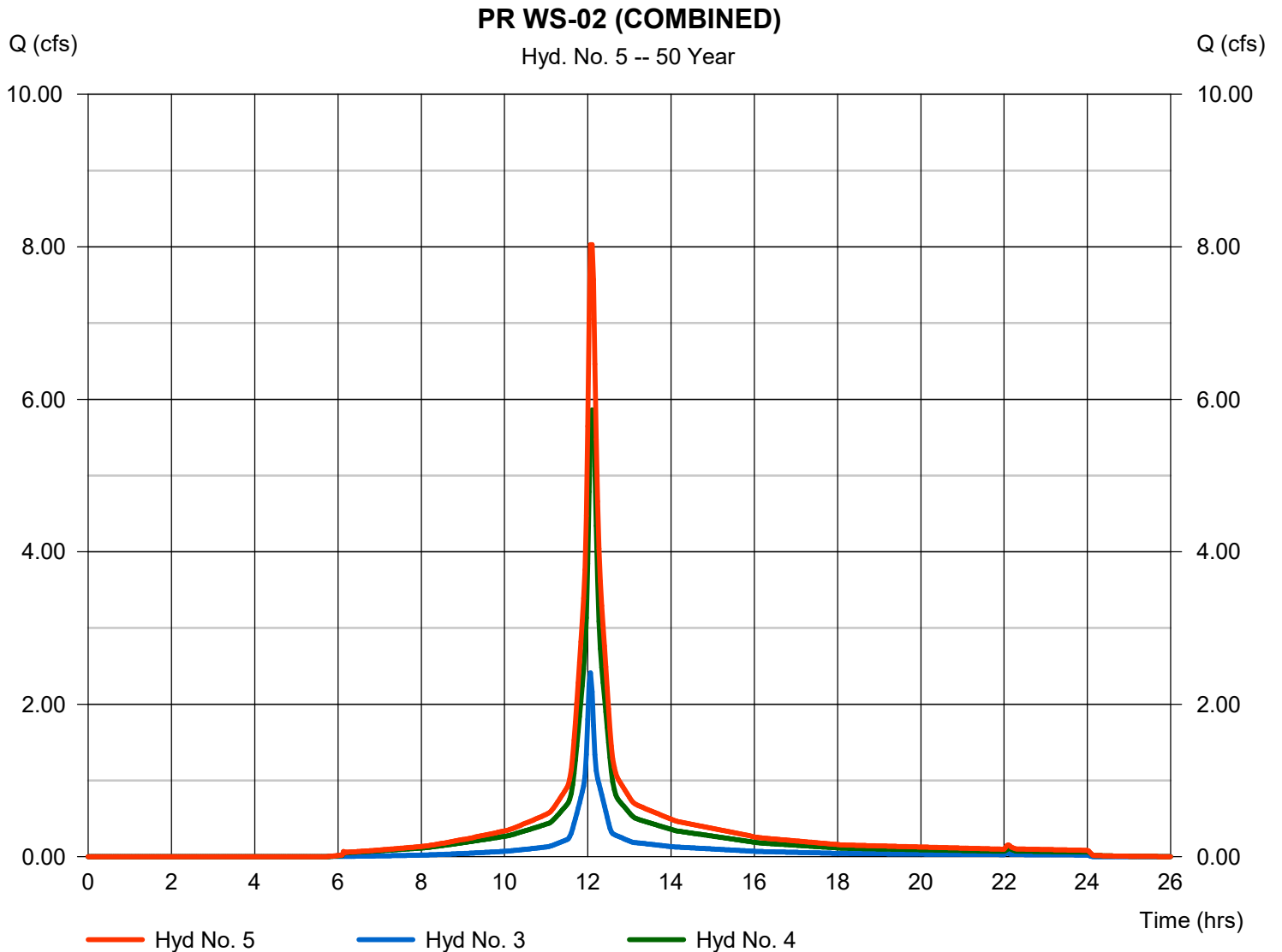
Thursday, 01 / 5 / 2023

## Hyd. No. 5

PR WS-02 (COMBINED)

Hydrograph type = Combine  
Storm frequency = 50 yrs  
Time interval = 2 min  
Inflow hyds. = 3, 4

Peak discharge = 8.029 cfs  
Time to peak = 12.10 hrs  
Hyd. volume = 29,014 cuft  
Contrib. drain. area = 0.404 ac



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	SCS Runoff	0.284	2	724	849	-----	-----	-----	PR WS-01	
2	SCS Runoff	6.790	2	726	25,043	-----	-----	-----	PR WS-02A	
3	SCS Runoff	2.793	2	724	8,606	-----	-----	-----	PR WS-02B	
4	Reservoir	6.244	2	728	24,801	2	206.04	525	<no description>	
5	Combine	8.777	2	724	33,407	3, 4	-----	-----	PR WS-02 (COMBINED)	
Proposed-Hydraflow.gpw					Return Period: 100 Year			Thursday, 01 / 5 / 2023		

# Hydrograph Report

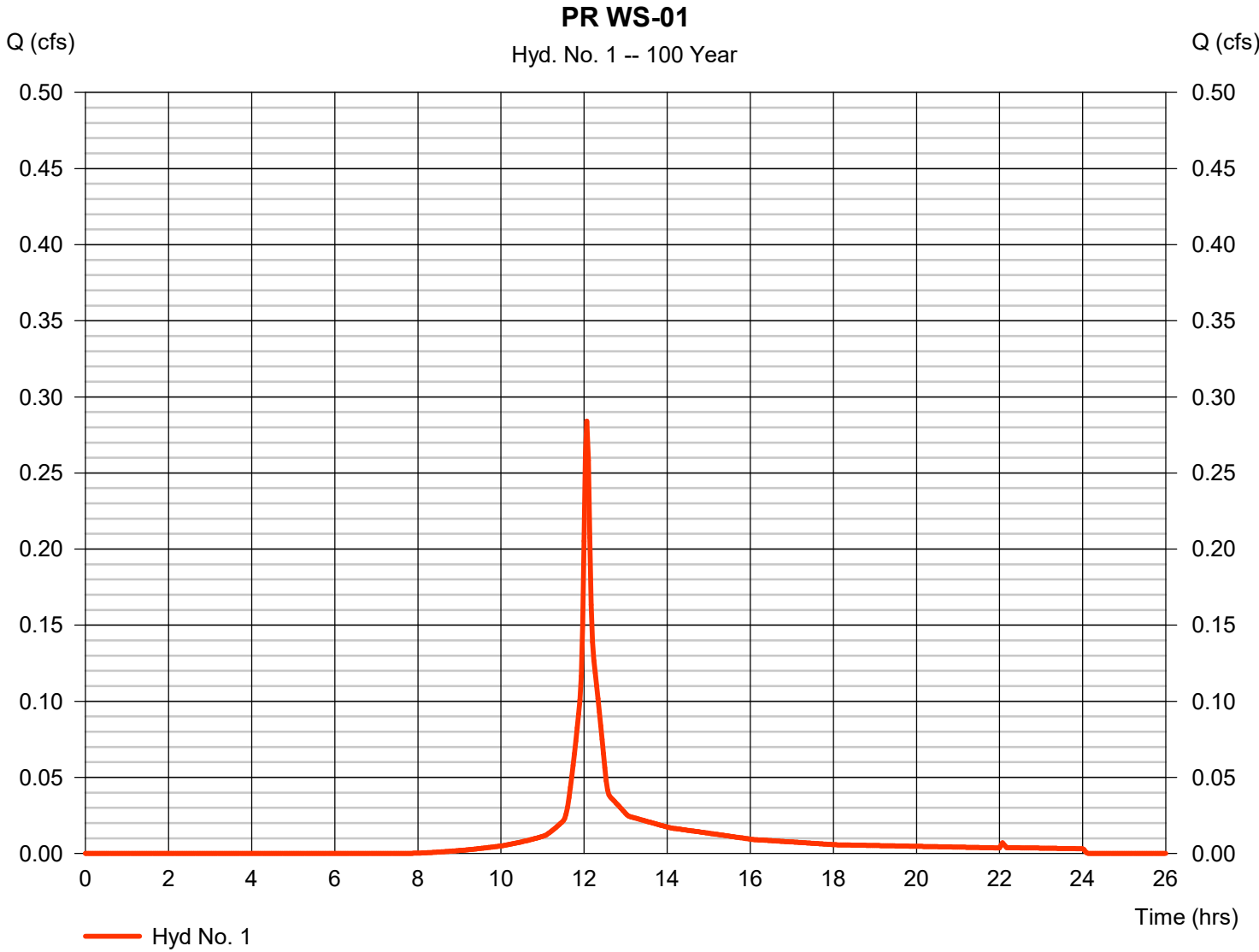
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 1

PR WS-01

Hydrograph type	= SCS Runoff	Peak discharge	= 0.284 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 849 cuft
Drainage area	= 0.053 ac	Curve number	= 69
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

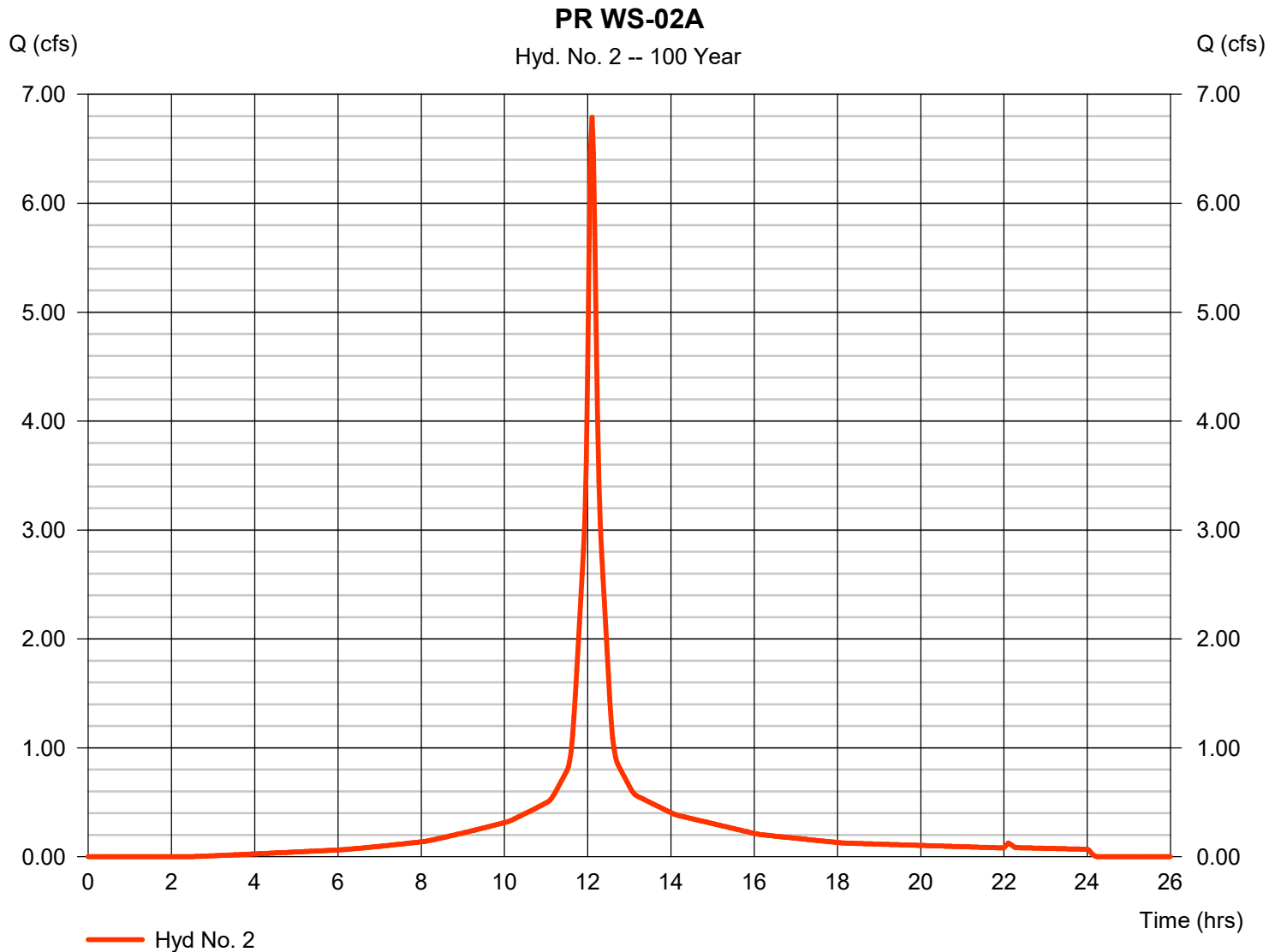
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 2

PR WS-02A

Hydrograph type	= SCS Runoff	Peak discharge	= 6.790 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 2 min	Hyd. volume	= 25,043 cuft
Drainage area	= 0.940 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.70 min
Total precip.	= 8.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

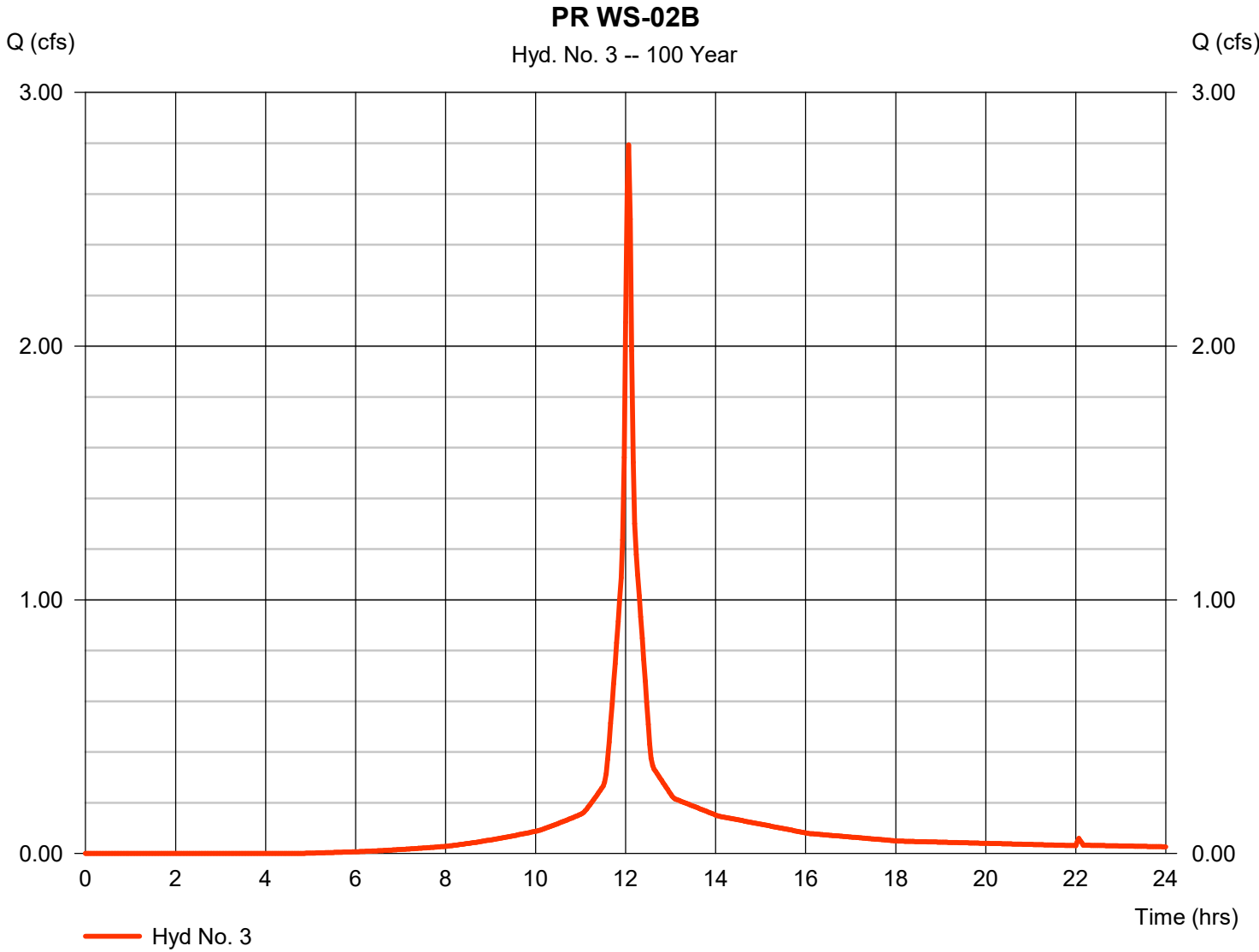


# Hydrograph Report

## Hyd. No. 3

PR WS-02B

Hydrograph type	= SCS Runoff	Peak discharge	= 2.793 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 8,606 cuft
Drainage area	= 0.404 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 8.42 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

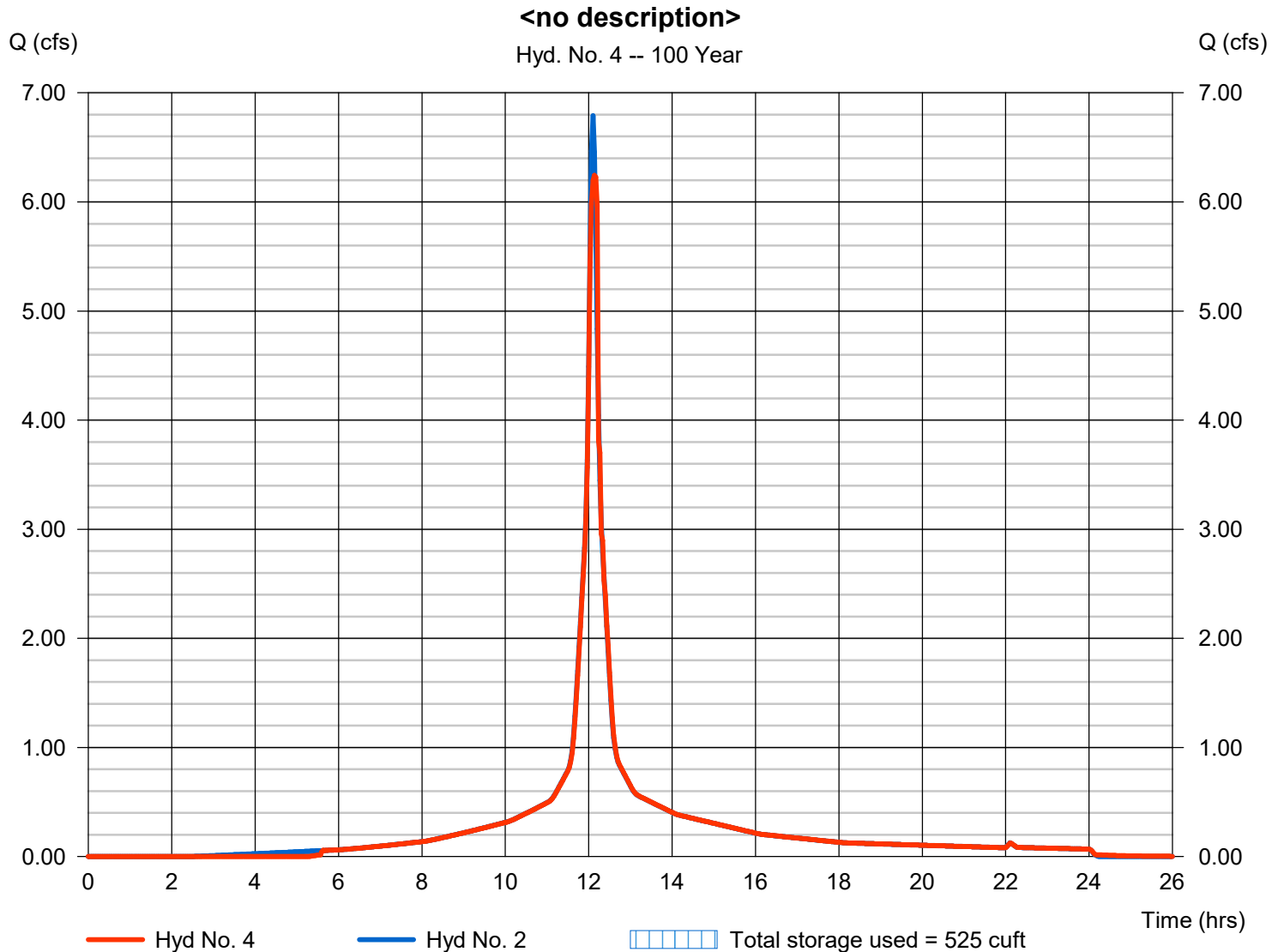
Thursday, 01 / 5 / 2023

## Hyd. No. 4

<no description>

Hydrograph type	= Reservoir	Peak discharge	= 6.244 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.13 hrs
Time interval	= 2 min	Hyd. volume	= 24,801 cuft
Inflow hyd. No.	= 2 - PR WS-02A	Max. Elevation	= 206.04 ft
Reservoir name	= Infiltration Swale	Max. Storage	= 525 cuft

Storage Indication method used.



# Hydrograph Report

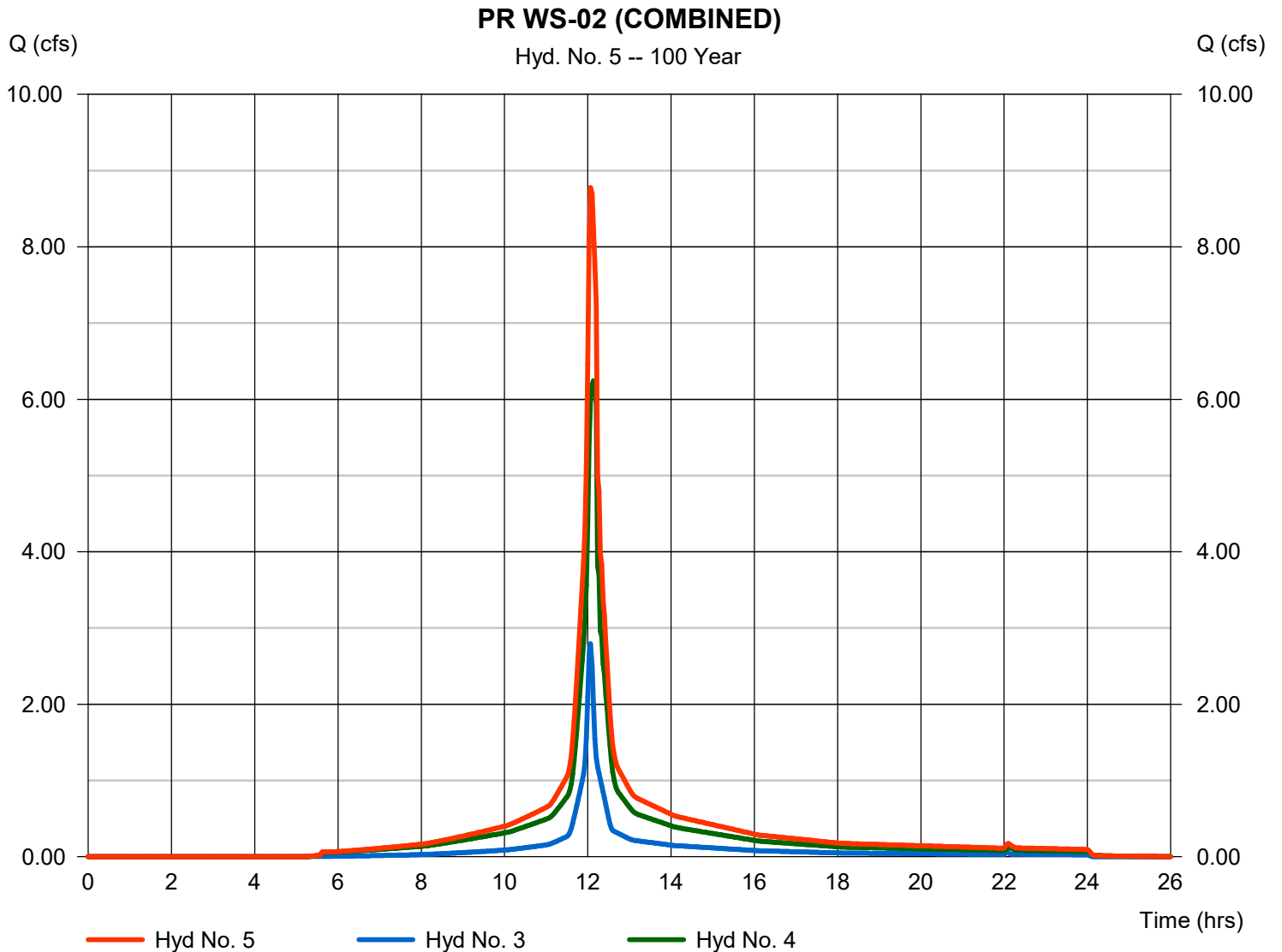
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 01 / 5 / 2023

## Hyd. No. 5

PR WS-02 (COMBINED)

Hydrograph type	= Combine	Peak discharge	= 8.777 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 33,407 cuft
Inflow hyds.	= 3, 4	Contrib. drain. area	= 0.404 ac







<b>Watershed Model Schematic.....</b>	<b>1</b>
<b>Hydrograph Return Period Recap.....</b>	<b>2</b>
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Hydrograph No. 2, SCS Runoff, PR WS-02A.....	5
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Hydrograph No. 4, Reservoir, <no description>.....	7
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Hydrograph No. 2, SCS Runoff, PR WS-02A.....	30
Hydrograph No. 3, SCS Runoff, PR WS-02B.....	31
Hydrograph No. 4, Reservoir, <no description>.....	32

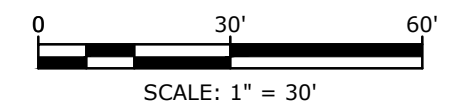
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Hydrograph No. 5, Combine, PR WS-02 (COMBINED).....	33
<b>IDF Report.....</b>	<b>34</b>

**Tighe&Bond**

**APPENDIX E**

DANBURY ROAD (US ROUTE 7)



WILTON GSE, LLC 372, 378, & 380 DANBURY ROAD WILTON, CT	
INLET WATERSHED AND WATER QUALITY FIGURE	
DATE: 12/08/2022	
SCALE: 1"=30'	
FIGURE INLET/WQF	



Engineers | Environmental Specialists

Project Name: **372, 278 & 380 Danbury Road**  
 Project Number: **G5081-001**  
 Project Location: **Wilton, CT**  
 Description: **Proposed C & Tc Calculations**  
 Prepared By: **AVC** Date: **December 8, 2022**

Designation: **INF-01**

Cover Type	Area, ac	Coef.	A x C
Pavement	0.716	0.90	0.644
Landscaped and Lawns	0.224	0.30	0.067
	0.940		0.712

**Weighted C: 0.76**

**Time of Concentration**

(computed in accordance with ConnDOT Drainage Manual, Sec. 6C)

Overland				
Segment	Surface "n"	Flow Length (ft.)	Slope (ft/ft)	Time (min.)
Segment A - B	0.24	28	0.05	3.52
Segment B - C	0.015	31	0.02	0.60
Segment C - D	0.24	9	0.02	2.05
Segment D - E	0.015	100	0.02	1.53

**Total Tc = 7.7 Min.**

Designation: **INF-02**

Cover Type	Area, ac	Coef.	A x C
Pavement	0.123	0.90	0.111
Landscaped and Lawns	0.034	0.30	0.010
	0.157		0.121

**Weighted C: 0.77**

**Time of Concentration**

(computed in accordance with ConnDOT Drainage Manual, Sec. 6C)

Overland				
Segment	Surface "n"	Flow Length (ft.)	Slope (ft/ft)	Time (min.)
Segment A - B	0.24	25	0.035	3.71
Segment B - C	0.015	63	0.02	1.06

**Total Tc = 4.8 Min.**  
**USE 5.0 MIN (MINIMUM)**

# Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	6.710	0.16	0.16	0.77	0.12	0.12	5.0	5.0	8.6	5.97	2.58	7.60	12	0.45	202.18	202.21	203.35	203.51	205.17	205.60	Pipe - (04) (1)
2	1	36.000	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	4.91	2.80	6.25	12	0.53	202.21	202.40	203.96	204.54	205.60	205.60	Pipe - (04)

Project File: G5081-001-Stormsewers.stm

Number of lines: 2

Run Date: 1/5/2023

NOTES: Intensity =  $36.34 / (\text{Inlet time} + 3.20)^{0.68}$ ; Return period = Yrs. 25 ; c = cir e = ellip b = box



Consulting Engineers  
Environmental Specialists

Project Name: **372, 278 & 380 Danbury Road**  
Project Number: **G5081-001**  
Project Location: **Wilton, CT**  
Description: **Level Spreader Calculation**  
Prepared By: **AVC** Date: **January 5, 2023**

## Level Spreader

Flow for 10 Yr Storm= 5.09 CFS

Depth= 0.9 FT

Max Allowable Velocity **0.5** FPS

Length= **11.31111** FT

Proposed Length	<b>15</b> FT
-----------------	--------------

*Calculated in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control Section 5-11*



## Riprap Apron

Invert Elevation = 202.40 ft  
Tailwater Elevation = 203.32 ft  
Tailwater Depth (TW) = 0.92 ft  
Inside Pipe Diameter ( $S_p$ ) = 1.00 ft  
Pipe Discharge (Q) = 5.97 cfs  
Outlet Velocity (V) = 7.67 ft/s

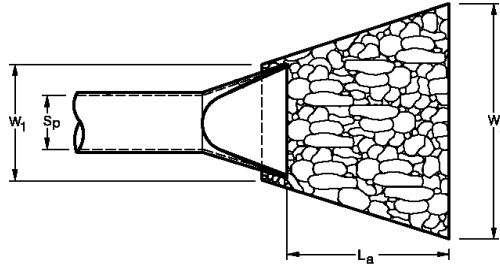
### Apron Type

Type A Riprap Apron (Minimum Tailwater Condition)  $TW < 0.5R_p$

Type B Riprap Apron (Maximum Tailwater Condition)  $TW \geq 0.5R_p$

$TW = 0.92 > 0.5R_p$

**Use Type B Apron**



### Apron Length

**Type B Riprap Apron (Maximum Tailwater Condition)  $TW \geq 0.5R_p$**

$$L_a = (3.0(Q-5)/S_p^{1.5}) + 10.0$$

$$L_a = 12.91 \text{ ft}$$

### Apron Width

**Type B Riprap Apron (Maximum Tailwater Condition)  $TW \geq 0.5R_p$**

$$W_1 = 3 * S_p$$

$$W_2 = 3 * S_p + 0.4 L_a$$

$$W_1 = 3.00 \text{ ft}$$

$$W_2 = 8.16 \text{ ft}$$

### Riprap Specification

Outlet Velocity (V)=	0-8 ft/s	Modified
Outlet Velocity (V)=	8-10 ft/s	Intermediate
Outlet Velocity (V)=	10-14 ft/s	Standard

Outlet Velocity (V)=	7.67 ft/s	Use Modified Riprap
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Outlet protection has been designed in accordance with the Section 11.13 of the ConnDOT Drainage Manual

**WQA - INF-01 = 0.940 acres**

BMP	BMP DESCRIPTION	Starting TSS Load	TSS Removal Rate	Amount Removed	Remaining Load
Street Sweeping	Street Sweping	1.00	10%	0.10	0.90
Deep Sump Catch Basin	Catch Basins	0.90	10%	0.09	0.81
Underground Infiltration	Bio-filtration Swale	0.81	80%	0.65	0.16

Total weighted average TSS removal efficiency = **83.80%**

**WQA - INF-02 = 0.157 acres**

BMP	BMP DESCRIPTION	Starting TSS Load	TSS Removal Rate	Amount Removed	Remaining Load
Street Sweeping	Street Sweping	1.00	10%	0.10	0.90
Underground Infiltration	Bio-filtration Swale	0.90	80%	0.72	0.18

Total weighted average TSS removal efficiency = **82.00%**

Treatment Area	Area	Removal Efficiency	Area x TSS removal
INF-01	0.940	0.8380	0.788
INF-02	0.157	0.8200	0.129
SUM:	1.097		0.916

Total weighted average TSS removal efficiency = **83.5%**



# NOAA NGS Coordinate Conversion and Transformation Tool (NCAT)

Input Coordinate		Output Coordinate		Total Change + Uncertainty	
Latitude	N41° 12' 29.18002" N411229.18002 41.2081055622	Latitude	N41° 12' 29.18002" N411229.18002 41.2081055622	Latitude	0.00000' ±0.00000' (0.000 m ±0.0000 m) <sup>*</sup>
Longitude	E286° 34' 10.38013" W0732549.61987 -73.4304499626	Longitude	E286° 34' 10.38013" W0732549.61987 -73.4304499626	Longitude	0.00000' ±0.00000' (0.000 m ±0.0000 m) <sup>*</sup>
Ellipsoid Height (ift)	Not given	Ellipsoid Height (ift)	Not given	Ellipsoid Height	Not given
Orthometric Height (ift)	10.000	Orthometric Height (ift)	8.930	Orthometric Height	-1.070 ift ±0.007 ift
Reference Frame	NAD83(2011)	Reference Frame	NAD83(2011)		
Geopotential Datum	NGVD29	Geopotential Datum	NAVD88		

<sup>\*</sup>Approximate value to aid interpretation and not an actual distance. See **TM NOS NGS 82** for more details.

**TABLE 5 - SUMMARY OF DISCHARGES** - continued

<u>FLOODING SOURCE AND LOCATION</u>	<u>DRAINAGE AREA (sq. miles)</u>	<u>PEAK DISCHARGES (cfs)</u>			
		<u>10- PERCENT- ANNUAL- CHANCE</u>	<u>2- PERCENT- ANNUAL- CHANCE</u>	<u>1- PERCENT- ANNUAL- CHANCE</u>	<u>0.2- PERCENT- ANNUAL- CHANCE</u>
NOROTON RIVER - continued					
At Jelliff Mill Road	4.38	520	890	1,080	1,900
Upstream of Mead Park	1.90	220	390	460	820
Upstream of Wahackne Road	0.79	90	160	200	340
Upstream of Greenley Road	0.43	50	90	110	190
NORTH FARRAR BROOK					
At the confluence with the Pequonnock River (Upper Reach)	0.46	100	245	350	780
At the Trumbull-Monroe corporate limits	0.03	10	25	35	80
NORWALK RIVER					
Upstream of confluence of Betts Pond Brook	57.6	4,100	9,500	14,000	16,250
Upstream of confluence of Silvermine River	32.8	2,600	6,300	9,100	20,000
At Kent Road	30.0	2,980	5,840	7,455	12,505
Downstream of confluence of Comstock Brook	25.7	2,680	5,280	6,735	11,295
Upstream of confluence of Comstock Brook	18.4	1,845	3,660	4,675	7,840
Downstream of confluence of Gilbert and Bennett Brooks	13.8	1,425	2,865	3,655	6,135
Upstream of confluence of Gilbert and Bennett Brooks	12.3	1,205	2,445	3,125	5,240
Downstream of the confluence of Cooper Pond Brook	11.13	1,010	2,085	2,665	4,475
Upstream of the confluence of Cooper Pond Brook	8.73	665	1,250	1,595	2,680

# Norwalk River Calibrated (Duplicate Effective) Model Output Table

HEC-RAS Plan: 01\_Effective River: Norwalk River Reach: Reach-1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	50935	10% Chance	1425.00	229.20	234.31	234.31	235.12	0.005625	8.92	269.27	161.36	0.72
Reach-1	50935	2% Chance	2865.00	229.20	235.31	235.31	236.44	0.006791	11.13	433.72	168.78	0.82
Reach-1	50935	1% Chance	3655.00	229.20	235.75	235.74	237.03	0.007089	11.95	508.62	171.81	0.85
Reach-1	50935	0.2% Chance	6135.00	229.20	237.40		238.71	0.005261	12.06	800.79	180.81	0.76
Reach-1	50705 AH	10% Chance	1425.00	227.40	232.15		232.84	0.005040	8.05	257.39	97.30	0.68
Reach-1	50705 AH	2% Chance	2865.00	227.40	233.44		234.61	0.006424	10.80	387.99	106.19	0.80
Reach-1	50705 AH	1% Chance	3655.00	227.40	234.01		235.40	0.006887	11.91	449.27	111.28	0.84
Reach-1	50705 AH	0.2% Chance	6135.00	227.40	235.51	235.38	237.27	0.007061	13.92	695.39	190.36	0.88
Reach-1	49910 AG	10% Chance	1425.00	225.10	230.42		230.66	0.001611	4.69	429.09	180.44	0.39
Reach-1	49910 AG	2% Chance	2865.00	225.10	231.87		232.21	0.001528	5.48	695.49	188.17	0.39
Reach-1	49910 AG	1% Chance	3655.00	225.10	232.47		232.88	0.001550	5.89	810.51	191.42	0.40
Reach-1	49910 AG	0.2% Chance	6135.00	225.10	233.93		234.55	0.001689	7.01	1130.71	255.95	0.43
Reach-1	49260 AF	10% Chance	1425.00	222.20	227.34	226.88	228.35	0.005542	8.45	195.56	112.05	0.71
Reach-1	49260 AF	2% Chance	2865.00	222.20	228.70	228.70	229.97	0.005578	10.15	390.40	160.22	0.74
Reach-1	49260 AF	1% Chance	3655.00	222.20	229.24	229.24	230.61	0.005583	10.77	480.35	181.21	0.76
Reach-1	49260 AF	0.2% Chance	6135.00	222.20	230.52	230.52	232.15	0.005517	12.12	757.91	233.37	0.78
Reach-1	48333	10% Chance	1425.00	221.00	227.50		227.54	0.000183	1.77	896.61	230.28	0.13
Reach-1	48333	2% Chance	2865.00	221.00	228.29		232.21	0.000431	2.98	1086.94	251.04	0.21
Reach-1	48333	1% Chance	3655.00	221.00	228.73		228.90	0.000530	3.46	1200.93	262.72	0.24
Reach-1	48333	0.2% Chance	6135.00	221.00	229.86		230.15	0.000771	4.63	1513.84	294.47	0.29
Reach-1	48225 AE	10% Chance	1425.00	223.50	226.56	226.56	227.26	0.007614	7.22	225.19	220.05	0.73
Reach-1	48225 AE	2% Chance	2865.00	223.50	227.20	227.20	228.02	0.007991	8.37	446.02	252.65	0.77
Reach-1	48225 AE	1% Chance	3655.00	223.50	227.50	227.50	228.44	0.008233	8.95	523.88	262.42	0.79
Reach-1	48225 AE	0.2% Chance	6135.00	223.50	228.33	228.33	229.56	0.008165	10.11	750.22	288.93	0.82
Reach-1	48207.5		Inl Struct									
Reach-1	48190	10% Chance	1425.00	218.30	223.68		223.85	0.001108	4.10	475.12	135.84	0.32
Reach-1	48190	2% Chance	2865.00	218.30	226.76		226.91	0.000586	4.11	1009.38	212.43	0.26
Reach-1	48190	1% Chance	3655.00	218.30	227.08		227.30	0.000795	4.92	1079.97	219.77	0.30
Reach-1	48190	0.2% Chance	6135.00	218.30	228.20		228.59	0.001249	6.70	1339.43	244.86	0.38
Reach-1	47775	10% Chance	1845.00	216.30	221.96	221.96	222.75	0.004826	9.19	342.63	182.34	0.69
Reach-1	47775	2% Chance	3660.00	216.30	226.64		226.74	0.000252	3.17	1680.83	341.98	0.17
Reach-1	47775	1% Chance	4675.00	216.30	226.92		227.06	0.000349	3.79	1777.93	345.76	0.21
Reach-1	47775	0.2% Chance	7840.00	216.30	227.94		228.21	0.000567	5.14	2153.19	374.69	0.27
Reach-1	47675	10% Chance	1845.00	216.10	221.60	219.44	222.04	0.002217	5.29	348.66	71.00	0.42
Reach-1	47675	2% Chance	3660.00	216.10	226.47	221.04	226.67	0.000531	3.92	1137.81	364.89	0.22
Reach-1	47675	1% Chance	4675.00	216.10	226.69	221.81	226.97	0.000754	4.73	1215.97	370.32	0.26
Reach-1	47675	0.2% Chance	7840.00	216.10	227.57	225.33	228.07	0.001212	6.35	1552.71	392.88	0.34
Reach-1	47660		Bridge									
Reach-1	47645 AD	10% Chance	1845.00	216.10	221.23	219.45	221.74	0.002839	5.72	322.56	71.00	0.47
Reach-1	47645 AD	2% Chance	3660.00	216.10	222.90	221.05	223.97	0.004172	8.31	440.55	71.00	0.59
Reach-1	47645 AD	1% Chance	4675.00	216.10	223.11	221.81	224.74	0.006122	10.26	455.71	71.00	0.71
Reach-1	47645 AD	0.2% Chance	7840.00	216.10	224.40	223.93	227.59	0.009717	14.32	547.64	168.19	0.91
Reach-1	47545	10% Chance	1845.00	215.60	220.18		221.20	0.005745	8.32	249.31	70.45	0.72
Reach-1	47545	2% Chance	3660.00	215.60	221.72	221.72	223.30	0.006448	10.88	462.31	167.86	0.80
Reach-1	47545	1% Chance	4675.00	215.60	222.41	222.41	224.11	0.006274	11.58	584.20	186.20	0.81
Reach-1	47545	0.2% Chance	7840.00	215.60	224.64	224.00	226.11	0.004276	11.68	1087.74	279.26	0.70
Reach-1	46900	10% Chance	1845.00	212.30	218.79		219.09	0.001580	5.49	578.92	337.49	0.40
Reach-1	46900	2% Chance	3660.00	212.30	221.58		221.65	0.000404	3.59	2608.62	918.32	0.21
Reach-1	46900	1% Chance	4675.00	212.30	222.69		222.74	0.000269	3.17	3669.34	990.81	0.18
Reach-1	46900	0.2% Chance	7840.00	212.30	225.05		225.09	0.000175	2.95	6218.41	1173.70	0.15
Reach-1	46835	10% Chance	1845.00	207.80	218.54	214.50	218.96	0.001354	5.20	355.13	50.00	0.33
Reach-1	46835	2% Chance	3660.00	207.80	220.15	216.64	221.28	0.002939	8.53	429.10	148.84	0.49
Reach-1	46835	1% Chance	4675.00	207.80	220.47	217.67	222.19	0.004313	10.53	443.91	212.32	0.60
Reach-1	46835	0.2% Chance	7840.00	207.80	224.42	220.47	224.92	0.001399	7.32	2483.40	767.32	0.35
Reach-1	46815		Bridge									
Reach-1	46795	10% Chance	1845.00	207.80	218.48	214.50	218.91	0.001388	5.24	352.29	50.00	0.33
Reach-1	46795	2% Chance	3660.00	207.80	219.98	216.65	221.15	0.003111	8.69	421.37	115.68	0.51
Reach-1	46795	1% Chance	4675.00	207.80	220.14	217.67	221.99	0.004811	10.91	428.66	146.94	0.63
Reach-1	46795	0.2% Chance	7840.00	207.80	222.56	222.56	224.17	0.004104	11.44	1335.66	545.14	0.59
Reach-1	46755	10% Chance	1845.00	211.20	216.73	216.73	218.41	0.009288	10.81	201.74	68.00	0.91
Reach-1	46755	2% Chance	3660.00	211.20	219.97	219.97	220.92	0.003259	9.27	790.48	622.58	0.59
Reach-1	46755	1% Chance	4675.00	211.20	220.48	220.48	221.34	0.003120	9.48	1145.75	700.67	0.59
Reach-1	46755	0.2% Chance	7840.00	211.20	221.30	221.30	222.28	0.003846	11.23	1733.91	732.71	0.66
Reach-1	45975 AC	10% Chance	1845.00	208.60	213.94		214.12	0.002172	5.38	857.39	682.87	0.44
Reach-1	45975 AC	2% Chance	3660.00	208.60	214.35		214.72	0.004305	8.03	1144.90	711.58	0.64
Reach-1	45975 AC	1% Chance	4675.00	208.60	214.63		215.04	0.004617	8.63	1350.04	731.37	0.66
Reach-1	45975 AC	0.2% Chance	7840.00	208.60	215.47		215.91	0.004580	9.49	1991.07	792.93	0.68

HEC-RAS Plan: 01\_Effective River: Norwalk River Reach: Reach-1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	45635	10% Chance	1845.00	205.80	213.86		213.90	0.000232	2.30	1734.26	780.41	0.16
Reach-1	45635	2% Chance	3660.00	205.80	214.01		214.13	0.000761	4.22	1850.20	787.52	0.28
Reach-1	45635	1% Chance	4675.00	205.80	214.13		214.30	0.001077	5.08	1945.66	799.82	0.34
Reach-1	45635	0.2% Chance	7840.00	205.80	214.76		215.02	0.001527	6.41	2463.09	834.33	0.41
Reach-1	45265	10% Chance	1845.00	207.49	213.82		213.84	0.000108	1.48	1732.53	685.14	0.11
Reach-1	45265	2% Chance	3660.00	207.49	213.86		213.94	0.000405	2.88	1758.26	686.35	0.20
Reach-1	45265	1% Chance	4675.00	207.49	213.90		214.02	0.000633	3.61	1782.93	687.50	0.26
Reach-1	45265	0.2% Chance	7840.00	207.49	214.36		214.60	0.001055	4.89	2113.72	730.59	0.33
Reach-1	45264	10% Chance	1845.00	207.49	213.82	211.66	213.84	0.000110	1.49	1633.14	685.09	0.11
Reach-1	45264	2% Chance	3660.00	207.49	213.85	213.80	213.93	0.000414	2.91	1654.42	686.16	0.21
Reach-1	45264	1% Chance	4675.00	207.49	213.89	213.80	214.01	0.000650	3.65	1674.99	687.19	0.26
Reach-1	45264	0.2% Chance	7840.00	207.49	214.34	213.81	214.60	0.001099	4.98	1975.17	729.43	0.34
Reach-1	45251.5		Bridge									
Reach-1	45238	10% Chance	1845.00	207.40	212.02		212.24	0.001817	4.58	587.51	544.34	0.40
Reach-1	45238	2% Chance	3660.00	207.40	212.88	212.27	213.08	0.001402	4.55	1113.24	645.42	0.36
Reach-1	45238	1% Chance	4675.00	207.40	213.20	212.48	213.41	0.001386	4.71	1320.69	653.82	0.36
Reach-1	45238	0.2% Chance	7840.00	207.40	214.15		214.40	0.001167	4.81	1964.12	702.05	0.34
Reach-1	44980	10% Chance	1845.00	207.11	211.56		211.71	0.001727	4.36	694.59	464.10	0.38
Reach-1	44980	2% Chance	3660.00	207.11	211.45	211.45	212.14	0.008130	9.29	646.91	415.66	0.82
Reach-1	44980	1% Chance	4675.00	207.11	211.76	211.76	212.48	0.007995	9.67	787.60	481.47	0.83
Reach-1	44980	0.2% Chance	7840.00	207.11	213.66		213.97	0.001838	5.93	1829.09	592.15	0.42
Reach-1	44625	10% Chance	1845.00	205.64	210.39	210.39	210.91	0.002696	5.66	326.34	377.86	0.49
Reach-1	44625	2% Chance	3660.00	205.64	211.17	211.17	211.86	0.000162	1.56	664.23	474.14	0.12
Reach-1	44625	1% Chance	4675.00	205.64	211.45	211.45	212.21	0.000120	1.39	798.54	500.55	0.11
Reach-1	44625	0.2% Chance	7840.00	205.64	213.63		213.95	0.000012	0.56	2021.97	595.77	0.04
Reach-1	44330 AB	10% Chance	1845.00	203.10	209.41		209.67	0.002367	6.21	803.51	395.60	0.48
Reach-1	44330 AB	2% Chance	3660.00	203.10	210.66		210.94	0.002445	7.27	1345.40	472.88	0.50
Reach-1	44330 AB	1% Chance	4675.00	203.10	211.22		211.52	0.002425	7.65	1622.77	516.63	0.51
Reach-1	44330 AB	0.2% Chance	7840.00	203.10	213.73		213.89	0.001070	6.21	3541.76	963.42	0.35
Reach-1	43420 AA	10% Chance	1845.00	198.00	205.47	205.36	206.63	0.004625	9.86	350.03	197.67	0.89
Reach-1	43420 AA	2% Chance	3660.00	198.00	207.90		208.59	0.002624	9.20	1017.92	361.47	0.54
Reach-1	43420 AA	1% Chance	4675.00	198.00	208.98		209.50	0.001984	8.63	1450.52	469.21	0.48
Reach-1	43420 AA	0.2% Chance	7840.00	198.00	213.15		213.27	0.000459	5.24	4385.62	791.61	0.25
Reach-1	42455	10% Chance	1845.00	195.00	201.87		202.63	0.003528	7.02	262.97	51.36	0.54
Reach-1	42455	2% Chance	3660.00	195.00	205.27		206.20	0.002297	7.94	608.31	209.62	0.48
Reach-1	42455	1% Chance	4675.00	195.00	207.32		207.94	0.001333	6.98	1130.44	272.29	0.38
Reach-1	42455	0.2% Chance	7840.00	195.00	212.48		212.79	0.000505	5.60	2631.74	298.81	0.25
Reach-1	42280	10% Chance	1845.00	194.00	200.81	199.29	201.83	0.004977	8.08	228.37	79.43	0.61
Reach-1	42280	2% Chance	3660.00	194.00	203.64	201.56	205.37	0.005580	10.55	346.96	209.31	0.65
Reach-1	42280	1% Chance	4675.00	194.00	204.99	202.66	207.07	0.005846	11.58	403.65	271.39	0.66
Reach-1	42280	0.2% Chance	7840.00	194.00	208.68	205.65	211.74	0.006490	14.03	558.89	319.08	0.68
Reach-1	42260		Bridge									
Reach-1	42240	10% Chance	1845.00	194.10	199.34	199.34	201.30	0.013787	11.23	164.27	42.00	1.00
Reach-1	42240	2% Chance	3660.00	194.10	201.60	201.60	204.70	0.013341	14.11	259.30	115.61	1.00
Reach-1	42240	1% Chance	4675.00	194.10	202.70	202.70	206.34	0.013312	15.31	305.43	166.13	1.00
Reach-1	42240	0.2% Chance	7840.00	194.10	205.70	205.70	210.83	0.013596	18.18	431.29	286.04	1.00
Reach-1	42165	10% Chance	1845.00	193.50	197.96		198.82	0.005397	7.94	301.70	102.08	0.69
Reach-1	42165	2% Chance	3660.00	193.50	200.28		201.32	0.003884	9.10	560.25	121.00	0.63
Reach-1	42165	1% Chance	4675.00	193.50	201.42		202.52	0.003402	9.50	702.95	129.26	0.61
Reach-1	42165	0.2% Chance	7840.00	193.50	204.48		205.71	0.002604	10.43	1156.68	191.35	0.57
Reach-1	41885 Z	10% Chance	1845.00	190.30	196.81		197.59	0.003470	7.80	335.55	89.47	0.58
Reach-1	41885 Z	2% Chance	3660.00	190.30	199.12		200.27	0.003485	9.85	554.71	99.36	0.62
Reach-1	41885 Z	1% Chance	4675.00	190.30	200.26		201.54	0.003369	10.59	669.93	104.18	0.62
Reach-1	41885 Z	0.2% Chance	7840.00	190.30	203.18		204.85	0.003193	12.43	992.42	116.62	0.63
Reach-1	41300	10% Chance	1845.00	189.20	195.62		195.98	0.001928	4.94	415.66	111.31	0.41
Reach-1	41300	2% Chance	3660.00	189.20	198.36		198.84	0.001396	5.79	740.80	124.15	0.38
Reach-1	41300	1% Chance	4675.00	189.20	199.63		200.17	0.001282	6.18	900.95	128.53	0.37
Reach-1	41300	0.2% Chance	7840.00	189.20	202.77		203.50	0.001178	7.31	1321.18	139.37	0.38
Reach-1	40988	10% Chance	1845.00	185.80	194.62		195.10	0.001254	5.71	366.87	65.25	0.37
Reach-1	40988	2% Chance	3660.00	185.80	196.84		197.86	0.001941	8.45	527.50	79.70	0.48
Reach-1	40988	1% Chance	4675.00	185.80	197.86		199.16	0.002192	9.59	612.42	86.47	0.52
Reach-1	40988	0.2% Chance	7840.00	185.80	200.11	197.40	202.34	0.003020	12.78	823.92	101.36	0.62
Reach-1	40330 Y	10% Chance	1845.00	189.10	192.69	191.59	193.26	0.003788	6.04	305.58	88.27	0.57
Reach-1	40330 Y	2% Chance	3660.00	189.10	194.42	192.98	195.42	0.003929	8.03	455.88	88.93	0.62
Reach-1	40330 Y	1% Chance	4675.00	189.10	194.69	193.66	196.16	0.005418	9.75	482.38	121.47	0.73
Reach-1	40330 Y	0.2% Chance	7840.00	189.10	196.06	196.06	198.40	0.006664	12.54	770.63	231.60	0.84
Reach-1	40049		Inl Struct									

HEC-RAS Plan: 01\_Effective River: Norwalk River Reach: Reach-1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	39768	10% Chance	1845.00	182.50	187.64		187.97	0.001680	4.63	406.57	98.93	0.39
Reach-1	39768	2% Chance	3660.00	182.50	189.15		189.83	0.002380	6.71	596.43	148.02	0.49
Reach-1	39768	1% Chance	4675.00	182.50	189.83		190.69	0.002620	7.58	703.29	165.57	0.52
Reach-1	39768	0.2% Chance	7840.00	182.50	192.33		193.36	0.002164	8.55	1186.22	219.02	0.50
Reach-1	39240	X 10% Chance	1845.00	178.60	186.02	185.53	186.36	0.003274	6.39	671.32	343.49	0.43
Reach-1	39240	X 2% Chance	3660.00	178.60	187.43	186.39	187.72	0.003139	6.72	1197.50	400.22	0.41
Reach-1	39240	X 1% Chance	4675.00	178.60	188.64	186.73	188.81	0.001831	5.51	1780.90	522.98	0.32
Reach-1	39240	X 0.2% Chance	7840.00	178.60	192.14	187.58	192.22	0.000530	3.66	3800.12	622.21	0.18
Reach-1	39232.5		Bridge									
Reach-1	39225	10% Chance	1845.00	178.60	185.53	185.53	186.20	0.005950	8.35	507.33	321.66	0.59
Reach-1	39225	2% Chance	3660.00	178.60	187.38	186.39	187.68	0.003285	6.86	1176.93	398.61	0.42
Reach-1	39225	1% Chance	4675.00	178.60	188.59	186.73	188.77	0.001909	5.61	1754.33	521.16	0.32
Reach-1	39225	0.2% Chance	7840.00	178.60	192.12	187.58	192.21	0.000534	3.67	3789.73	621.82	0.18
Reach-1	38505	10% Chance	1845.00	177.80	183.04		183.61	0.002336	6.86	442.08	220.53	0.55
Reach-1	38505	2% Chance	3660.00	177.80	186.68		186.86	0.000515	4.68	1637.42	488.47	0.28
Reach-1	38505	1% Chance	4675.00	177.80	188.12		188.25	0.000349	4.27	2390.66	556.05	0.24
Reach-1	38505	0.2% Chance	7840.00	177.80	191.94		192.01	0.000154	3.53	5061.97	826.24	0.17
Reach-1	38255	10% Chance	2680.00	172.20	181.12		182.16	0.001816	8.43	378.84	62.88	0.52
Reach-1	38255	2% Chance	5280.00	172.20	183.99		185.92	0.002334	11.72	580.57	79.67	0.63
Reach-1	38255	1% Chance	6735.00	172.20	184.62		187.33	0.003077	13.97	632.53	84.57	0.73
Reach-1	38255	0.2% Chance	11295.00	172.20	187.41	187.41	191.25	0.003540	17.32	1044.83	179.00	0.81
Reach-1	37825	10% Chance	2680.00	173.00	179.74	179.12	181.57	0.004880	11.16	276.60	58.69	0.82
Reach-1	37825	2% Chance	5280.00	173.00	182.42	182.42	185.24	0.004776	14.21	499.17	126.06	0.86
Reach-1	37825	1% Chance	6735.00	173.00	183.67	183.67	186.65	0.004405	14.96	665.68	139.93	0.84
Reach-1	37825	0.2% Chance	11295.00	173.00	186.55	186.55	190.00	0.004055	17.05	1124.52	192.24	0.85
Reach-1	37730	W 10% Chance	2680.00	172.50	180.05		181.01	0.002204	8.07	352.54	66.31	0.56
Reach-1	37730	W 2% Chance	5280.00	172.50	182.35	180.74	184.00	0.002628	10.79	566.18	125.54	0.64
Reach-1	37730	W 1% Chance	6735.00	172.50	183.53		185.30	0.002459	11.35	721.79	137.09	0.63
Reach-1	37730	W 0.2% Chance	11295.00	172.50	186.12		188.37	0.002450	13.21	1102.99	153.00	0.66
Reach-1	37480	V 10% Chance	2680.00	173.40	179.60	178.00	180.57	0.003159	7.88	339.89	65.12	0.61
Reach-1	37480	V 2% Chance	5280.00	173.40	181.27	180.31	183.36	0.004971	11.62	465.84	100.49	0.79
Reach-1	37480	V 1% Chance	6735.00	173.40	181.88	181.86	184.59	0.005842	13.35	529.14	107.08	0.87
Reach-1	37480	V 0.2% Chance	11295.00	173.40	184.44	184.44	187.69	0.004960	15.01	838.64	136.69	0.84



# Norwalk River

## Existing Conditions (Corrected Effective) Model Output Table

HEC-RAS Plan: 02\_Existing River: Norwalk River Reach: Reach-1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)		
Reach-1	50935	10% Chance	1425.00	229.20	234.31	234.31	235.12	0.005625	8.92	269.27	161.36	0.72
Reach-1	50935	2% Chance	2865.00	229.20	235.31	235.31	236.44	0.006791	11.13	433.72	168.78	0.82
Reach-1	50935	1% Chance	3655.00	229.20	235.75	235.74	237.03	0.007089	11.95	508.62	171.81	0.85
Reach-1	50935	0.2% Chance	6135.00	229.20	237.40		238.71	0.005261	12.06	800.79	180.81	0.76
Reach-1	50705 AH	10% Chance	1425.00	227.40	232.15		232.84	0.005040	8.05	257.39	97.30	0.68
Reach-1	50705 AH	2% Chance	2865.00	227.40	233.44		234.61	0.006424	10.80	387.99	106.19	0.80
Reach-1	50705 AH	1% Chance	3655.00	227.40	234.01		235.40	0.006887	11.91	449.27	111.28	0.84
Reach-1	50705 AH	0.2% Chance	6135.00	227.40	235.51	235.38	237.27	0.007061	13.92	695.39	190.36	0.88
Reach-1	49910 AG	10% Chance	1425.00	225.10	230.42		230.66	0.001611	4.69	429.09	180.44	0.39
Reach-1	49910 AG	2% Chance	2865.00	225.10	231.87		232.21	0.001528	5.48	695.49	188.17	0.39
Reach-1	49910 AG	1% Chance	3655.00	225.10	232.47		232.88	0.001550	5.89	810.51	191.42	0.40
Reach-1	49910 AG	0.2% Chance	6135.00	225.10	233.93		234.55	0.001689	7.01	1130.71	255.95	0.43
Reach-1	49260 AF	10% Chance	1425.00	222.20	227.34	226.88	228.35	0.005542	8.45	195.56	112.05	0.71
Reach-1	49260 AF	2% Chance	2865.00	222.20	228.70	228.70	229.97	0.005578	10.15	390.40	160.22	0.74
Reach-1	49260 AF	1% Chance	3655.00	222.20	229.24	229.24	230.61	0.005583	10.77	480.35	181.21	0.76
Reach-1	49260 AF	0.2% Chance	6135.00	222.20	230.52	230.52	232.15	0.005517	12.12	757.91	233.37	0.78
Reach-1	48333	10% Chance	1425.00	221.00	227.50		227.54	0.000183	1.77	896.61	230.28	0.13
Reach-1	48333	2% Chance	2865.00	221.00	228.29		232.21	0.000431	2.98	1086.94	251.04	0.21
Reach-1	48333	1% Chance	3655.00	221.00	228.73		228.90	0.000530	3.46	1200.93	262.72	0.24
Reach-1	48333	0.2% Chance	6135.00	221.00	229.86		230.15	0.000771	4.63	1513.84	294.47	0.29
Reach-1	48225 AE	10% Chance	1425.00	223.50	226.56	226.56	227.26	0.007614	7.22	225.19	220.05	0.73
Reach-1	48225 AE	2% Chance	2865.00	223.50	227.20	227.20	228.02	0.007991	8.37	446.02	252.65	0.77
Reach-1	48225 AE	1% Chance	3655.00	223.50	227.50	227.50	228.44	0.008233	8.95	523.88	262.42	0.79
Reach-1	48225 AE	0.2% Chance	6135.00	223.50	228.33	228.33	229.56	0.008165	10.11	750.22	288.93	0.82
Reach-1	48207.5		Inl Struct									
Reach-1	48190	10% Chance	1425.00	218.30	223.68		223.85	0.001108	4.10	475.12	135.84	0.32
Reach-1	48190	2% Chance	2865.00	218.30	226.76		226.91	0.000586	4.11	1009.38	212.43	0.26
Reach-1	48190	1% Chance	3655.00	218.30	227.08		227.30	0.000795	4.92	1079.97	219.77	0.30
Reach-1	48190	0.2% Chance	6135.00	218.30	228.20		228.59	0.001249	6.70	1339.43	244.86	0.38
Reach-1	47775	10% Chance	1845.00	216.30	221.96	221.96	222.75	0.004826	9.19	342.63	182.34	0.69
Reach-1	47775	2% Chance	3660.00	216.30	226.64		226.74	0.000252	3.17	1680.83	341.98	0.17
Reach-1	47775	1% Chance	4675.00	216.30	226.92		227.06	0.000349	3.79	1777.93	345.76	0.21
Reach-1	47775	0.2% Chance	7840.00	216.30	227.94		228.21	0.000567	5.14	2153.19	374.69	0.27
Reach-1	47675	10% Chance	1845.00	216.10	221.60	219.44	222.04	0.002217	5.29	348.66	71.00	0.42
Reach-1	47675	2% Chance	3660.00	216.10	226.47	221.04	226.67	0.000531	3.92	1137.81	364.89	0.22
Reach-1	47675	1% Chance	4675.00	216.10	226.69	221.81	226.97	0.000754	4.73	1215.97	370.32	0.26
Reach-1	47675	0.2% Chance	7840.00	216.10	227.57	225.33	228.07	0.001212	6.35	1552.71	392.88	0.34
Reach-1	47660		Bridge									
Reach-1	47645 AD	10% Chance	1845.00	216.10	221.23	219.45	221.74	0.002839	5.72	322.56	71.00	0.47
Reach-1	47645 AD	2% Chance	3660.00	216.10	222.90	221.05	223.97	0.004172	8.31	440.55	71.00	0.59
Reach-1	47645 AD	1% Chance	4675.00	216.10	223.11	221.81	224.74	0.006122	10.26	455.71	71.00	0.71
Reach-1	47645 AD	0.2% Chance	7840.00	216.10	224.40	223.93	227.59	0.009717	14.32	547.64	168.19	0.91
Reach-1	47545	10% Chance	1845.00	215.60	220.18		221.20	0.005745	8.32	249.31	70.45	0.72
Reach-1	47545	2% Chance	3660.00	215.60	221.72	221.72	223.30	0.006448	10.88	462.31	167.86	0.80
Reach-1	47545	1% Chance	4675.00	215.60	222.41	222.41	224.11	0.006274	11.58	584.20	186.20	0.81
Reach-1	47545	0.2% Chance	7840.00	215.60	224.64	224.00	226.11	0.004276	11.68	1087.74	279.26	0.70
Reach-1	46900	10% Chance	1845.00	212.30	218.79		219.09	0.001580	5.49	578.92	337.49	0.40
Reach-1	46900	2% Chance	3660.00	212.30	221.58		221.65	0.000404	3.59	2608.62	918.32	0.21
Reach-1	46900	1% Chance	4675.00	212.30	222.69		222.74	0.000269	3.17	3669.34	990.81	0.18
Reach-1	46900	0.2% Chance	7840.00	212.30	225.05		225.09	0.000175	2.95	6218.41	1173.70	0.15
Reach-1	46835	10% Chance	1845.00	207.80	218.54	214.50	218.96	0.001354	5.20	355.13	50.00	0.33
Reach-1	46835	2% Chance	3660.00	207.80	220.15	216.64	221.28	0.002939	8.53	429.10	148.84	0.49
Reach-1	46835	1% Chance	4675.00	207.80	220.47	217.67	222.19	0.004313	10.53	443.91	212.32	0.60
Reach-1	46835	0.2% Chance	7840.00	207.80	224.42	220.47	224.92	0.001399	7.32	2483.40	767.32	0.35
Reach-1	46815		Bridge									
Reach-1	46795	10% Chance	1845.00	207.80	218.48	214.50	218.91	0.001388	5.24	352.29	50.00	0.33
Reach-1	46795	2% Chance	3660.00	207.80	219.98	216.65	221.15	0.003111	8.69	421.37	115.68	0.51
Reach-1	46795	1% Chance	4675.00	207.80	220.14	217.67	221.99	0.004811	10.91	428.66	146.94	0.63
Reach-1	46795	0.2% Chance	7840.00	207.80	222.56	222.56	224.17	0.004104	11.44	1335.66	545.14	0.59
Reach-1	46755	10% Chance	1845.00	211.20	216.73	216.73	218.41	0.009288	10.81	201.74	68.00	0.91
Reach-1	46755	2% Chance	3660.00	211.20	219.97	219.97	220.92	0.003259	9.27	790.48	622.58	0.59
Reach-1	46755	1% Chance	4675.00	211.20	220.48	220.48	221.34	0.003120	9.48	1145.75	700.67	0.59
Reach-1	46755	0.2% Chance	7840.00	211.20	221.30	221.30	222.28	0.003846	11.23	1733.91	732.71	0.66
Reach-1	45975 AC	10% Chance	1845.00	208.60	213.94		214.12	0.002172	5.38	857.39	682.87	0.44
Reach-1	45975 AC	2% Chance	3660.00	208.60	214.35		214.72	0.004305	8.03	1144.90	711.58	0.64
Reach-1	45975 AC	1% Chance	4675.00	208.60	214.63		215.04	0.004617	8.63	1350.04	731.37	0.66
Reach-1	45975 AC	0.2% Chance	7840.00	208.60	215.45		215.90	0.004651	9.54	1980.06	792.68	0.68

## HEC-RAS Plan: 02\_Existing River: Norwalk River Reach: Reach-1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude #	Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)		
Reach-1	45635	10% Chance	1845.00	205.80	213.86		213.90	0.000232	2.30	1734.26	780.41	0.16	
Reach-1	45635	2% Chance	3660.00	205.80	214.01		214.13	0.000761	4.22	1850.20	787.52	0.28	
Reach-1	45635	1% Chance	4675.00	205.80	214.13		214.30	0.001077	5.08	1945.66	799.82	0.34	
Reach-1	45635	0.2% Chance	7840.00	205.80	214.71		214.98	0.001606	6.54	2421.83	832.17	0.42	
Reach-1	45265	10% Chance	1845.00	207.49	213.82		213.84	0.000108	1.48	1732.53	685.14	0.11	
Reach-1	45265	2% Chance	3660.00	207.49	213.86		213.94	0.000405	2.88	1758.26	686.35	0.20	
Reach-1	45265	1% Chance	4675.00	207.49	213.90		214.02	0.000633	3.61	1782.93	687.50	0.26	
Reach-1	45265	0.2% Chance	7840.00	207.49	214.28		214.53	0.001151	5.07	2054.01	726.03	0.35	
Reach-1	45264	10% Chance	1845.00	207.49	213.82	211.66	213.84	0.000110	1.49	1633.14	685.09	0.11	
Reach-1	45264	2% Chance	3660.00	207.49	213.85	213.80	213.93	0.000414	2.91	1654.42	686.16	0.21	
Reach-1	45264	1% Chance	4675.00	207.49	213.89	213.80	214.01	0.000650	3.65	1674.99	687.19	0.26	
Reach-1	45264	0.2% Chance	7840.00	207.49	214.26	213.81	214.53	0.001200	5.16	1918.51	724.76	0.35	
Reach-1	45251.5		Bridge										
Reach-1	45238	10% Chance	1845.00	207.40	211.92	211.67	212.19	0.002220	4.99	537.59	518.87	0.44	
Reach-1	45238	2% Chance	3660.00	207.40	212.88	212.27	213.08	0.001402	4.55	1113.24	645.42	0.36	
Reach-1	45238	1% Chance	4675.00	207.40	213.20	212.48	213.41	0.001386	4.71	1320.69	653.82	0.36	
Reach-1	45238	0.2% Chance	7840.00	207.40	214.02		214.30	0.001347	5.10	1875.01	692.46	0.36	
Reach-1	44980	10% Chance	1845.00	207.11	211.21		211.46	0.003153	5.54	549.28	383.18	0.51	
Reach-1	44980	2% Chance	3660.00	207.11	211.45	211.45	212.14	0.008130	9.29	646.91	415.66	0.82	
Reach-1	44980	1% Chance	4675.00	207.11	211.76	211.76	212.48	0.007995	9.67	787.60	481.47	0.83	
Reach-1	44980	0.2% Chance	7840.00	207.11	213.38		213.76	0.002448	6.64	1668.07	578.16	0.48	
Reach-1	44625	10% Chance	1845.00	205.64	210.57	210.39	211.00	0.000648	2.86	396.65	392.63	0.24	
Reach-1	44625	2% Chance	3660.00	205.64	211.23	211.17	211.86	0.000135	1.43	692.54	479.83	0.11	
Reach-1	44625	1% Chance	4675.00	205.64	211.77		212.28	0.000058	1.00	967.45	536.85	0.08	
Reach-1	44625	0.2% Chance	7840.00	205.64	213.36		213.74	0.000016	0.63	1862.14	587.22	0.04	
Reach-1	44330 AB	10% Chance	1845.00	205.65	209.72	209.72	210.51	0.008259	9.22	519.80	330.00	0.84	
Reach-1	44330 AB	2% Chance	3660.00	205.65	211.17		211.72	0.004758	8.72	1065.41	406.38	0.68	
Reach-1	44330 AB	1% Chance	4675.00	205.65	211.61		212.21	0.004531	8.98	1245.04	414.81	0.67	
Reach-1	44330 AB	0.2% Chance	7840.00	205.65	212.75		213.67	0.003873	9.40	1735.65	440.46	0.64	
Reach-1	43742	10% Chance	1845.00	200.70	207.18		207.73	0.002251	6.62	503.46	166.13	0.47	
Reach-1	43742	2% Chance	3660.00	200.70	208.62		209.47	0.003071	8.91	824.85	331.06	0.57	
Reach-1	43742	1% Chance	4675.00	200.70	209.00	209.00	209.92	0.003312	9.57	960.85	370.53	0.60	
Reach-1	43742	0.2% Chance	7840.00	200.70	212.89		213.15	0.000206	3.12	2866.98	533.16	0.16	
Reach-1	43644	10% Chance	1845.00	200.50	206.37	205.77	207.38	0.004454	8.69	357.20	144.94	0.66	
Reach-1	43644	2% Chance	3660.00	200.50	208.45	208.45	209.14	0.002640	8.30	850.30	439.58	0.53	
Reach-1	43644	1% Chance	4675.00	200.50	208.72	208.72	209.49	0.002813	8.77	976.20	469.49	0.55	
Reach-1	43644	0.2% Chance	7840.00	200.50	212.96		213.10	0.000074	1.90	3662.20	680.23	0.10	
Reach-1	43420 AA	10% Chance	1845.00	199.61	205.59	205.59	206.40	0.003650	8.08	279.16	142.62	0.60	
Reach-1	43420 AA	2% Chance	3660.00	199.61	207.26		207.95	0.001421	5.99	577.83	197.08	0.39	
Reach-1	43420 AA	1% Chance	4675.00	199.61	208.29		208.94	0.000815	4.96	789.58	217.67	0.30	
Reach-1	43420 AA	0.2% Chance	7840.00	199.61	212.66		213.05	0.000150	2.82	2104.09	354.49	0.14	
Reach-1	42455	10% Chance	1845.00	195.00	201.87		202.63	0.003528	7.02	262.97	51.36	0.54	
Reach-1	42455	2% Chance	3660.00	195.00	205.27		206.20	0.002297	7.94	608.31	209.62	0.48	
Reach-1	42455	1% Chance	4675.00	195.00	207.32		207.94	0.001333	6.98	1130.44	272.29	0.38	
Reach-1	42455	0.2% Chance	7840.00	195.00	212.48		212.79	0.000505	5.60	2631.74	298.81	0.25	
Reach-1	42280	10% Chance	1845.00	194.00	200.81	199.29	201.83	0.004977	8.08	228.37	79.43	0.61	
Reach-1	42280	2% Chance	3660.00	194.00	203.64	201.56	205.37	0.005580	10.55	346.96	209.31	0.65	
Reach-1	42280	1% Chance	4675.00	194.00	204.99	202.66	207.07	0.005846	11.58	403.65	271.39	0.66	
Reach-1	42280	0.2% Chance	7840.00	194.00	208.68	205.65	211.74	0.006490	14.03	558.89	319.08	0.68	
Reach-1	42260		Bridge										
Reach-1	42240	10% Chance	1845.00	194.10	199.34	199.34	201.30	0.013787	11.23	164.27	42.00	1.00	
Reach-1	42240	2% Chance	3660.00	194.10	201.60	201.60	204.70	0.013341	14.11	259.30	115.61	1.00	
Reach-1	42240	1% Chance	4675.00	194.10	202.70	202.70	206.34	0.013312	15.31	305.43	166.13	1.00	
Reach-1	42240	0.2% Chance	7840.00	194.10	205.70	205.70	210.83	0.013596	18.18	431.29	286.04	1.00	
Reach-1	42165	10% Chance	1845.00	193.50	197.96		198.82	0.005397	7.94	301.70	102.08	0.69	
Reach-1	42165	2% Chance	3660.00	193.50	200.28		201.32	0.003884	9.10	560.25	121.00	0.63	
Reach-1	42165	1% Chance	4675.00	193.50	201.42		202.52	0.003402	9.50	702.95	129.26	0.61	
Reach-1	42165	0.2% Chance	7840.00	193.50	204.48		205.71	0.002604	10.43	1156.68	191.35	0.57	
Reach-1	41885 Z	10% Chance	1845.00	190.30	196.81		197.59	0.003470	7.80	335.55	89.47	0.58	
Reach-1	41885 Z	2% Chance	3660.00	190.30	199.12		200.27	0.003485	9.85	554.71	99.36	0.62	
Reach-1	41885 Z	1% Chance	4675.00	190.30	200.26		201.54	0.003369	10.59	669.93	104.18	0.62	
Reach-1	41885 Z	0.2% Chance	7840.00	190.30	203.18		204.85	0.003193	12.43	992.42	116.62	0.63	
Reach-1	41300	10% Chance	1845.00	189.20	195.62		195.98	0.001928	4.94	415.66	111.31	0.41	
Reach-1	41300	2% Chance	3660.00	189.20	198.36		198.84	0.001396	5.79	740.80	124.15	0.38	
Reach-1	41300	1% Chance	4675.00	189.20	199.63		200.17	0.001282	6.18	900.95	128.53	0.37	
Reach-1	41300	0.2% Chance	7840.00	189.20	202.77		203.50	0.001178	7.31	1321.18	139.37	0.38	
Reach-1	40988	10% Chance	1845.00	185.80	194.62		195.10	0.001254	5.71	366.87	65.25	0.37	
Reach-1	40988	2% Chance	3660.00	185.80	196.84		197.86	0.001941	8.45	527.50	79.70	0.48	

HEC-RAS Plan: 02\_Existing River: Norwalk River Reach: Reach-1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	40988	1% Chance	4675.00	185.80	197.86		199.16	0.002192	9.59	612.42	86.47	0.52
Reach-1	40988	0.2% Chance	7840.00	185.80	200.11	197.40	202.34	0.003020	12.78	823.92	101.36	0.62
Reach-1	40330	Y 10% Chance	1845.00	189.10	192.69	191.59	193.26	0.003788	6.04	305.58	88.27	0.57
Reach-1	40330	Y 2% Chance	3660.00	189.10	194.42	192.98	195.42	0.003929	8.03	455.88	88.93	0.62
Reach-1	40330	Y 1% Chance	4675.00	189.10	194.69	193.66	196.16	0.005418	9.75	482.38	121.47	0.73
Reach-1	40330	Y 0.2% Chance	7840.00	189.10	196.06	196.06	198.40	0.006664	12.54	770.63	231.60	0.84
Reach-1	40049		Inl Struct									
Reach-1	39768	10% Chance	1845.00	182.50	187.64		187.97	0.001680	4.63	406.57	98.93	0.39
Reach-1	39768	2% Chance	3660.00	182.50	189.15		189.83	0.002380	6.71	596.43	148.02	0.49
Reach-1	39768	1% Chance	4675.00	182.50	189.83		190.69	0.002620	7.58	703.29	165.57	0.52
Reach-1	39768	0.2% Chance	7840.00	182.50	192.33		193.36	0.002164	8.55	1186.22	219.02	0.50
Reach-1	39240	X 10% Chance	1845.00	178.60	186.02	185.53	186.36	0.003274	6.39	671.32	343.49	0.43
Reach-1	39240	X 2% Chance	3660.00	178.60	187.43	186.39	187.72	0.003139	6.72	1197.50	400.22	0.41
Reach-1	39240	X 1% Chance	4675.00	178.60	188.64	186.73	188.81	0.001831	5.51	1780.90	522.98	0.32
Reach-1	39240	X 0.2% Chance	7840.00	178.60	192.14	187.58	192.22	0.000530	3.66	3800.12	622.21	0.18
Reach-1	39232.5		Bridge									
Reach-1	39225	10% Chance	1845.00	178.60	185.53	185.53	186.20	0.005950	8.35	507.33	321.66	0.59
Reach-1	39225	2% Chance	3660.00	178.60	187.38	186.39	187.68	0.003285	6.86	1176.93	398.61	0.42
Reach-1	39225	1% Chance	4675.00	178.60	188.59	186.73	188.77	0.001909	5.61	1754.33	521.16	0.32
Reach-1	39225	0.2% Chance	7840.00	178.60	192.12	187.58	192.21	0.000534	3.67	3789.73	621.82	0.18
Reach-1	38505	10% Chance	1845.00	177.80	183.04		183.61	0.002336	6.86	442.08	220.53	0.55
Reach-1	38505	2% Chance	3660.00	177.80	186.68		186.86	0.000515	4.68	1637.42	488.47	0.28
Reach-1	38505	1% Chance	4675.00	177.80	188.12		188.25	0.000349	4.27	2390.66	556.05	0.24
Reach-1	38505	0.2% Chance	7840.00	177.80	191.94		192.01	0.000154	3.53	5061.97	826.24	0.17
Reach-1	38255	10% Chance	2680.00	172.20	181.12		182.16	0.001816	8.43	378.84	62.88	0.52
Reach-1	38255	2% Chance	5280.00	172.20	183.99		185.92	0.002334	11.72	580.57	79.67	0.63
Reach-1	38255	1% Chance	6735.00	172.20	184.62		187.33	0.003077	13.97	632.53	84.57	0.73
Reach-1	38255	0.2% Chance	11295.00	172.20	187.41	187.41	191.25	0.003540	17.32	1044.83	179.00	0.81
Reach-1	37825	10% Chance	2680.00	173.00	179.74	179.12	181.57	0.004880	11.16	276.60	58.69	0.82
Reach-1	37825	2% Chance	5280.00	173.00	182.42	182.42	185.24	0.004776	14.21	499.17	126.06	0.86
Reach-1	37825	1% Chance	6735.00	173.00	183.67	183.67	186.65	0.004405	14.96	665.68	139.93	0.84
Reach-1	37825	0.2% Chance	11295.00	173.00	186.55	186.55	190.00	0.004055	17.05	1124.52	192.24	0.85
Reach-1	37730	W 10% Chance	2680.00	172.50	180.05		181.01	0.002204	8.07	352.54	66.31	0.56
Reach-1	37730	W 2% Chance	5280.00	172.50	182.35	180.74	184.00	0.002628	10.79	566.18	125.54	0.64
Reach-1	37730	W 1% Chance	6735.00	172.50	183.53		185.30	0.002459	11.35	721.79	137.09	0.63
Reach-1	37730	W 0.2% Chance	11295.00	172.50	186.12		188.37	0.002450	13.21	1102.99	153.00	0.66
Reach-1	37480	V 10% Chance	2680.00	173.40	179.60	178.00	180.57	0.003159	7.88	339.89	65.12	0.61
Reach-1	37480	V 2% Chance	5280.00	173.40	181.27	180.31	183.36	0.004971	11.62	465.84	100.49	0.79
Reach-1	37480	V 1% Chance	6735.00	173.40	181.88	181.86	184.59	0.005842	13.35	529.14	107.08	0.87
Reach-1	37480	V 0.2% Chance	11295.00	173.40	184.44	184.44	187.69	0.004960	15.01	838.64	136.69	0.84

# Norwalk River Proposed Conditions Model Output Table

HEC-RAS Plan: 03\_Proposed River: Norwalk River Reach: Reach-1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	50935	10% Chance	1425.00	229.20	234.31	234.31	235.12	0.005625	8.92	269.27	161.36	0.72
Reach-1	50935	2% Chance	2865.00	229.20	235.31	235.31	236.44	0.006791	11.13	433.72	168.78	0.82
Reach-1	50935	1% Chance	3655.00	229.20	235.75	235.74	237.03	0.007089	11.95	508.62	171.81	0.85
Reach-1	50935	0.2% Chance	6135.00	229.20	237.40		238.71	0.005261	12.06	800.79	180.81	0.76
Reach-1	50705 AH	10% Chance	1425.00	227.40	232.15		232.84	0.005040	8.05	257.39	97.30	0.68
Reach-1	50705 AH	2% Chance	2865.00	227.40	233.44		234.61	0.006424	10.80	387.99	106.19	0.80
Reach-1	50705 AH	1% Chance	3655.00	227.40	234.01		235.40	0.006887	11.91	449.27	111.28	0.84
Reach-1	50705 AH	0.2% Chance	6135.00	227.40	235.51	235.38	237.27	0.007061	13.92	695.39	190.36	0.88
Reach-1	49910 AG	10% Chance	1425.00	225.10	230.42		230.66	0.001611	4.69	429.09	180.44	0.39
Reach-1	49910 AG	2% Chance	2865.00	225.10	231.87		232.21	0.001528	5.48	695.49	188.17	0.39
Reach-1	49910 AG	1% Chance	3655.00	225.10	232.47		232.88	0.001550	5.89	810.51	191.42	0.40
Reach-1	49910 AG	0.2% Chance	6135.00	225.10	233.93		234.55	0.001689	7.01	1130.71	255.95	0.43
Reach-1	49260 AF	10% Chance	1425.00	222.20	227.34	226.88	228.35	0.005542	8.45	195.56	112.05	0.71
Reach-1	49260 AF	2% Chance	2865.00	222.20	228.70	228.70	229.97	0.005578	10.15	390.40	160.22	0.74
Reach-1	49260 AF	1% Chance	3655.00	222.20	229.24	229.24	230.61	0.005583	10.77	480.35	181.21	0.76
Reach-1	49260 AF	0.2% Chance	6135.00	222.20	230.52	230.52	232.15	0.005517	12.12	757.91	233.37	0.78
Reach-1	48333	10% Chance	1425.00	221.00	227.50		227.54	0.000183	1.77	896.61	230.28	0.13
Reach-1	48333	2% Chance	2865.00	221.00	228.29		232.21	0.000431	2.98	1086.94	251.04	0.21
Reach-1	48333	1% Chance	3655.00	221.00	228.73		228.90	0.000530	3.46	1200.93	262.72	0.24
Reach-1	48333	0.2% Chance	6135.00	221.00	229.86		230.15	0.000771	4.63	1513.84	294.47	0.29
Reach-1	48225 AE	10% Chance	1425.00	223.50	226.56	226.56	227.26	0.007614	7.22	225.19	220.05	0.73
Reach-1	48225 AE	2% Chance	2865.00	223.50	227.20	227.20	228.02	0.007991	8.37	446.02	252.65	0.77
Reach-1	48225 AE	1% Chance	3655.00	223.50	227.50	227.50	228.44	0.008233	8.95	523.88	262.42	0.79
Reach-1	48225 AE	0.2% Chance	6135.00	223.50	228.33	228.33	229.56	0.008165	10.11	750.22	288.93	0.82
Reach-1	48207.5		Inl Struct									
Reach-1	48190	10% Chance	1425.00	218.30	223.68		223.85	0.001108	4.10	475.12	135.84	0.32
Reach-1	48190	2% Chance	2865.00	218.30	226.76		226.91	0.000586	4.11	1009.38	212.43	0.26
Reach-1	48190	1% Chance	3655.00	218.30	227.08		227.30	0.000795	4.92	1079.97	219.77	0.30
Reach-1	48190	0.2% Chance	6135.00	218.30	228.20		228.59	0.001249	6.70	1339.43	244.86	0.38
Reach-1	47775	10% Chance	1845.00	216.30	221.96	221.96	222.75	0.004826	9.19	342.63	182.34	0.69
Reach-1	47775	2% Chance	3660.00	216.30	226.64		226.74	0.000252	3.17	1680.83	341.98	0.17
Reach-1	47775	1% Chance	4675.00	216.30	226.92		227.06	0.000349	3.79	1777.93	345.76	0.21
Reach-1	47775	0.2% Chance	7840.00	216.30	227.94		228.21	0.000567	5.14	2153.19	374.69	0.27
Reach-1	47675	10% Chance	1845.00	216.10	221.60	219.44	222.04	0.002217	5.29	348.66	71.00	0.42
Reach-1	47675	2% Chance	3660.00	216.10	226.47	221.04	226.67	0.000531	3.92	1137.81	364.89	0.22
Reach-1	47675	1% Chance	4675.00	216.10	226.69	221.81	226.97	0.000754	4.73	1215.97	370.32	0.26
Reach-1	47675	0.2% Chance	7840.00	216.10	227.57	225.33	228.07	0.001212	6.35	1552.71	392.88	0.34
Reach-1	47660		Bridge									
Reach-1	47645 AD	10% Chance	1845.00	216.10	221.23	219.45	221.74	0.002839	5.72	322.56	71.00	0.47
Reach-1	47645 AD	2% Chance	3660.00	216.10	222.90	221.05	223.97	0.004172	8.31	440.55	71.00	0.59
Reach-1	47645 AD	1% Chance	4675.00	216.10	223.11	221.81	224.74	0.006122	10.26	455.71	71.00	0.71
Reach-1	47645 AD	0.2% Chance	7840.00	216.10	224.40	223.93	227.59	0.009717	14.32	547.64	168.19	0.91
Reach-1	47545	10% Chance	1845.00	215.60	220.18		221.20	0.005745	8.32	249.31	70.45	0.72
Reach-1	47545	2% Chance	3660.00	215.60	221.72	221.72	223.30	0.006448	10.88	462.31	167.86	0.80
Reach-1	47545	1% Chance	4675.00	215.60	222.41	222.41	224.11	0.006274	11.58	584.20	186.20	0.81
Reach-1	47545	0.2% Chance	7840.00	215.60	224.64	224.00	226.11	0.004276	11.68	1087.74	279.26	0.70
Reach-1	46900	10% Chance	1845.00	212.30	218.79		219.09	0.001580	5.49	578.92	337.49	0.40
Reach-1	46900	2% Chance	3660.00	212.30	221.58		221.65	0.000404	3.59	2608.62	918.32	0.21
Reach-1	46900	1% Chance	4675.00	212.30	222.69		222.74	0.000269	3.17	3669.34	990.81	0.18
Reach-1	46900	0.2% Chance	7840.00	212.30	225.05		225.09	0.000175	2.95	6218.41	1173.70	0.15
Reach-1	46835	10% Chance	1845.00	207.80	218.54	214.50	218.96	0.001354	5.20	355.13	50.00	0.33
Reach-1	46835	2% Chance	3660.00	207.80	220.15	216.64	221.28	0.002939	8.53	429.10	148.84	0.49
Reach-1	46835	1% Chance	4675.00	207.80	220.47	217.67	222.19	0.004313	10.53	443.91	212.32	0.60
Reach-1	46835	0.2% Chance	7840.00	207.80	224.42	220.47	224.92	0.001399	7.32	2483.40	767.32	0.35
Reach-1	46815		Bridge									
Reach-1	46795	10% Chance	1845.00	207.80	218.48	214.50	218.91	0.001388	5.24	352.29	50.00	0.33
Reach-1	46795	2% Chance	3660.00	207.80	219.98	216.65	221.15	0.003111	8.69	421.37	115.68	0.51
Reach-1	46795	1% Chance	4675.00	207.80	220.14	217.67	221.99	0.004811	10.91	428.66	146.94	0.63
Reach-1	46795	0.2% Chance	7840.00	207.80	222.56	222.56	224.17	0.004104	11.44	1335.66	545.14	0.59
Reach-1	46755	10% Chance	1845.00	211.20	216.73	216.73	218.41	0.009288	10.81	201.74	68.00	0.91
Reach-1	46755	2% Chance	3660.00	211.20	219.97	219.97	220.92	0.003259	9.27	790.48	622.58	0.59
Reach-1	46755	1% Chance	4675.00	211.20	220.48	220.48	221.34	0.003120	9.48	1145.75	700.67	0.59
Reach-1	46755	0.2% Chance	7840.00	211.20	221.30	221.30	222.28	0.003846	11.23	1733.91	732.71	0.66
Reach-1	45975 AC	10% Chance	1845.00	208.60	213.94		214.12	0.002172	5.38	857.39	682.87	0.44
Reach-1	45975 AC	2% Chance	3660.00	208.60	214.35		214.72	0.004305	8.03	1144.90	711.58	0.64
Reach-1	45975 AC	1% Chance	4675.00	208.60	214.63		215.04	0.004617	8.63	1350.04	731.37	0.66
Reach-1	45975 AC	0.2% Chance	7840.00	208.60	215.45		215.90	0.004672	9.56	1976.82	792.61	0.68

HEC-RAS Plan: 03\_Proposed River: Norwalk River Reach: Reach-1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	45635	10% Chance	1845.00	205.80	213.86		213.90	0.000232	2.30	1734.26	780.41	0.16
Reach-1	45635	2% Chance	3660.00	205.80	214.01		214.13	0.000761	4.22	1850.20	787.52	0.28
Reach-1	45635	1% Chance	4675.00	205.80	214.13		214.30	0.001077	5.08	1945.66	799.82	0.34
Reach-1	45635	0.2% Chance	7840.00	205.80	214.70		214.97	0.001632	6.58	2408.62	831.47	0.42
Reach-1	45265	10% Chance	1845.00	207.49	213.82		213.84	0.000108	1.48	1732.53	685.14	0.11
Reach-1	45265	2% Chance	3660.00	207.49	213.86		213.94	0.000405	2.88	1758.26	686.35	0.20
Reach-1	45265	1% Chance	4675.00	207.49	213.90		214.02	0.000633	3.61	1782.93	687.50	0.26
Reach-1	45265	0.2% Chance	7840.00	207.49	214.25		214.51	0.001185	5.13	2034.15	724.44	0.35
Reach-1	45264	10% Chance	1845.00	207.49	213.82	211.66	213.84	0.000110	1.49	1633.14	685.09	0.11
Reach-1	45264	2% Chance	3660.00	207.49	213.85	213.80	213.93	0.000414	2.91	1654.42	686.16	0.21
Reach-1	45264	1% Chance	4675.00	207.49	213.89	213.80	214.01	0.000650	3.65	1674.99	687.19	0.26
Reach-1	45264	0.2% Chance	7840.00	207.49	214.23	213.81	214.51	0.001237	5.22	1899.63	722.92	0.36
Reach-1	45251.5		Bridge									
Reach-1	45238	10% Chance	1845.00	207.40	211.92	211.67	212.19	0.002236	5.00	535.84	518.71	0.44
Reach-1	45238	2% Chance	3660.00	207.40	212.88	212.27	213.08	0.001402	4.55	1113.24	645.42	0.36
Reach-1	45238	1% Chance	4675.00	207.40	213.20	212.48	213.41	0.001386	4.71	1320.69	653.82	0.36
Reach-1	45238	0.2% Chance	7840.00	207.40	213.97		214.26	0.001421	5.22	1842.72	691.20	0.37
Reach-1	44980	10% Chance	1845.00	207.11	211.19		211.45	0.003229	5.59	544.07	381.89	0.51
Reach-1	44980	2% Chance	3660.00	207.11	211.45	211.45	212.14	0.008130	9.29	646.91	415.66	0.82
Reach-1	44980	1% Chance	4675.00	207.11	211.76	211.76	212.48	0.007995	9.67	787.60	481.47	0.83
Reach-1	44980	0.2% Chance	7840.00	207.11	213.25		213.66	0.002840	7.04	1591.37	563.66	0.52
Reach-1	44625	10% Chance	1845.00	205.64	210.58	210.39	211.01	0.000617	2.79	399.51	393.34	0.24
Reach-1	44625	2% Chance	3660.00	205.64	211.17	211.17	211.86	0.000161	1.55	665.36	474.37	0.12
Reach-1	44625	1% Chance	4675.00	205.64	211.53	211.45	212.22	0.000099	1.27	839.13	514.80	0.10
Reach-1	44625	0.2% Chance	7840.00	205.64	213.23		213.64	0.000019	0.67	1784.99	583.05	0.04
Reach-1	44330 AB	10% Chance	1845.00	205.65	209.72	209.72	210.51	0.008259	9.22	519.80	330.00	0.84
Reach-1	44330 AB	2% Chance	3660.00	205.65	211.10		211.69	0.005240	9.06	1034.97	404.99	0.71
Reach-1	44330 AB	1% Chance	4675.00	205.65	211.38		212.11	0.005999	10.05	1149.10	410.44	0.76
Reach-1	44330 AB	0.2% Chance	7840.00	205.65	212.58		213.56	0.004546	10.01	1659.74	437.52	0.69
Reach-1	43742	10% Chance	1845.00	200.70	207.09		207.61	0.002178	6.45	489.62	164.66	0.47
Reach-1	43742	2% Chance	3660.00	200.70	208.49	207.35	209.33	0.003113	8.87	793.94	361.56	0.58
Reach-1	43742	1% Chance	4675.00	200.70	208.99	208.99	209.76	0.002849	8.87	1014.19	508.22	0.56
Reach-1	43742	0.2% Chance	7840.00	200.70	212.97		213.12	0.000110	2.29	3543.21	682.08	0.12
Reach-1	43644	10% Chance	1845.00	200.50	206.41	205.75	207.29	0.003962	8.24	371.23	155.69	0.62
Reach-1	43644	2% Chance	3660.00	200.50	208.23	208.23	209.01	0.003027	8.71	793.92	388.30	0.57
Reach-1	43644	1% Chance	4675.00	200.50	208.56	208.56	209.41	0.003123	9.11	927.76	423.83	0.58
Reach-1	43644	0.2% Chance	7840.00	200.50	212.97		213.11	0.000086	2.05	3645.61	680.28	0.10
Reach-1	43420 AA	10% Chance	1845.00	199.61	205.59	205.59	206.40	0.003650	8.08	279.16	142.62	0.60
Reach-1	43420 AA	2% Chance	3660.00	199.61	207.26		207.95	0.001421	5.99	577.83	197.08	0.39
Reach-1	43420 AA	1% Chance	4675.00	199.61	208.29		208.94	0.000815	4.96	789.58	217.67	0.30
Reach-1	43420 AA	0.2% Chance	7840.00	199.61	212.66		213.05	0.000150	2.82	2104.09	354.49	0.14
Reach-1	42455	10% Chance	1845.00	195.00	201.87		202.63	0.003528	7.02	262.97	51.36	0.54
Reach-1	42455	2% Chance	3660.00	195.00	205.27		206.20	0.002297	7.94	608.31	209.62	0.48
Reach-1	42455	1% Chance	4675.00	195.00	207.32		207.94	0.001333	6.98	1130.44	272.29	0.38
Reach-1	42455	0.2% Chance	7840.00	195.00	212.48		212.79	0.000505	5.60	2631.74	298.81	0.25
Reach-1	42280	10% Chance	1845.00	194.00	200.81	199.29	201.83	0.004977	8.08	228.37	79.43	0.61
Reach-1	42280	2% Chance	3660.00	194.00	203.64	201.56	205.37	0.005580	10.55	346.96	209.31	0.65
Reach-1	42280	1% Chance	4675.00	194.00	204.99	202.66	207.07	0.005846	11.58	403.65	271.39	0.66
Reach-1	42280	0.2% Chance	7840.00	194.00	208.68	205.65	211.74	0.006490	14.03	558.89	319.08	0.68
Reach-1	42260		Bridge									
Reach-1	42240	10% Chance	1845.00	194.10	199.34	199.34	201.30	0.013787	11.23	164.27	42.00	1.00
Reach-1	42240	2% Chance	3660.00	194.10	201.60	201.60	204.70	0.013341	14.11	259.30	115.61	1.00
Reach-1	42240	1% Chance	4675.00	194.10	202.70	202.70	206.34	0.013312	15.31	305.43	166.13	1.00
Reach-1	42240	0.2% Chance	7840.00	194.10	205.70	205.70	210.83	0.013596	18.18	431.29	286.04	1.00
Reach-1	42165	10% Chance	1845.00	193.50	197.96		198.82	0.005397	7.94	301.70	102.08	0.69
Reach-1	42165	2% Chance	3660.00	193.50	200.28		201.32	0.003884	9.10	560.25	121.00	0.63
Reach-1	42165	1% Chance	4675.00	193.50	201.42		202.52	0.003402	9.50	702.95	129.26	0.61
Reach-1	42165	0.2% Chance	7840.00	193.50	204.48		205.71	0.002604	10.43	1156.68	191.35	0.57
Reach-1	41885 Z	10% Chance	1845.00	190.30	196.81		197.59	0.003470	7.80	335.55	89.47	0.58
Reach-1	41885 Z	2% Chance	3660.00	190.30	199.12		200.27	0.003485	9.85	554.71	99.36	0.62
Reach-1	41885 Z	1% Chance	4675.00	190.30	200.26		201.54	0.003369	10.59	669.93	104.18	0.62
Reach-1	41885 Z	0.2% Chance	7840.00	190.30	203.18		204.85	0.003193	12.43	992.42	116.62	0.63
Reach-1	41300	10% Chance	1845.00	189.20	195.62		195.98	0.001928	4.94	415.66	111.31	0.41
Reach-1	41300	2% Chance	3660.00	189.20	198.36		198.84	0.001396	5.79	740.80	124.15	0.38
Reach-1	41300	1% Chance	4675.00	189.20	199.63		200.17	0.001282	6.18	900.95	128.53	0.37
Reach-1	41300	0.2% Chance	7840.00	189.20	202.77		203.50	0.001178	7.31	1321.18	139.37	0.38
Reach-1	40988	10% Chance	1845.00	185.80	194.62		195.10	0.001254	5.71	366.87	65.25	0.37
Reach-1	40988	2% Chance	3660.00	185.80	196.84		197.86	0.001941	8.45	527.50	79.70	0.48

HEC-RAS Plan: 03\_Proposed River: Norwalk River Reach: Reach-1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	40988	1% Chance	4675.00	185.80	197.86		199.16	0.002192	9.59	612.42	86.47	0.52
Reach-1	40988	0.2% Chance	7840.00	185.80	200.11	197.40	202.34	0.003020	12.78	823.92	101.36	0.62
Reach-1	40330	Y 10% Chance	1845.00	189.10	192.69	191.59	193.26	0.003788	6.04	305.58	88.27	0.57
Reach-1	40330	Y 2% Chance	3660.00	189.10	194.42	192.98	195.42	0.003929	8.03	455.88	88.93	0.62
Reach-1	40330	Y 1% Chance	4675.00	189.10	194.69	193.66	196.16	0.005418	9.75	482.38	121.47	0.73
Reach-1	40330	Y 0.2% Chance	7840.00	189.10	196.06	196.06	198.40	0.006664	12.54	770.63	231.60	0.84
Reach-1	40049		Inl Struct									
Reach-1	39768	10% Chance	1845.00	182.50	187.64		187.97	0.001680	4.63	406.57	98.93	0.39
Reach-1	39768	2% Chance	3660.00	182.50	189.15		189.83	0.002380	6.71	596.43	148.02	0.49
Reach-1	39768	1% Chance	4675.00	182.50	189.83		190.69	0.002620	7.58	703.29	165.57	0.52
Reach-1	39768	0.2% Chance	7840.00	182.50	192.33		193.36	0.002164	8.55	1186.22	219.02	0.50
Reach-1	39240	X 10% Chance	1845.00	178.60	186.02	185.53	186.36	0.003274	6.39	671.32	343.49	0.43
Reach-1	39240	X 2% Chance	3660.00	178.60	187.43	186.39	187.72	0.003139	6.72	1197.50	400.22	0.41
Reach-1	39240	X 1% Chance	4675.00	178.60	188.64	186.73	188.81	0.001831	5.51	1780.90	522.98	0.32
Reach-1	39240	X 0.2% Chance	7840.00	178.60	192.14	187.58	192.22	0.000530	3.66	3800.12	622.21	0.18
Reach-1	39232.5		Bridge									
Reach-1	39225	10% Chance	1845.00	178.60	185.53	185.53	186.20	0.005950	8.35	507.33	321.66	0.59
Reach-1	39225	2% Chance	3660.00	178.60	187.38	186.39	187.68	0.003285	6.86	1176.93	398.61	0.42
Reach-1	39225	1% Chance	4675.00	178.60	188.59	186.73	188.77	0.001909	5.61	1754.33	521.16	0.32
Reach-1	39225	0.2% Chance	7840.00	178.60	192.12	187.58	192.21	0.000534	3.67	3789.73	621.82	0.18
Reach-1	38505	10% Chance	1845.00	177.80	183.04		183.61	0.002336	6.86	442.08	220.53	0.55
Reach-1	38505	2% Chance	3660.00	177.80	186.68		186.86	0.000515	4.68	1637.42	488.47	0.28
Reach-1	38505	1% Chance	4675.00	177.80	188.12		188.25	0.000349	4.27	2390.66	556.05	0.24
Reach-1	38505	0.2% Chance	7840.00	177.80	191.94		192.01	0.000154	3.53	5061.97	826.24	0.17
Reach-1	38255	10% Chance	2680.00	172.20	181.12		182.16	0.001816	8.43	378.84	62.88	0.52
Reach-1	38255	2% Chance	5280.00	172.20	183.99		185.92	0.002334	11.72	580.57	79.67	0.63
Reach-1	38255	1% Chance	6735.00	172.20	184.62		187.33	0.003077	13.97	632.53	84.57	0.73
Reach-1	38255	0.2% Chance	11295.00	172.20	187.41	187.41	191.25	0.003540	17.32	1044.83	179.00	0.81
Reach-1	37825	10% Chance	2680.00	173.00	179.74	179.12	181.57	0.004880	11.16	276.60	58.69	0.82
Reach-1	37825	2% Chance	5280.00	173.00	182.42	182.42	185.24	0.004776	14.21	499.17	126.06	0.86
Reach-1	37825	1% Chance	6735.00	173.00	183.67	183.67	186.65	0.004405	14.96	665.68	139.93	0.84
Reach-1	37825	0.2% Chance	11295.00	173.00	186.55	186.55	190.00	0.004055	17.05	1124.52	192.24	0.85
Reach-1	37730	W 10% Chance	2680.00	172.50	180.05		181.01	0.002204	8.07	352.54	66.31	0.56
Reach-1	37730	W 2% Chance	5280.00	172.50	182.35	180.74	184.00	0.002628	10.79	566.18	125.54	0.64
Reach-1	37730	W 1% Chance	6735.00	172.50	183.53		185.30	0.002459	11.35	721.79	137.09	0.63
Reach-1	37730	W 0.2% Chance	11295.00	172.50	186.12		188.37	0.002450	13.21	1102.99	153.00	0.66
Reach-1	37480	V 10% Chance	2680.00	173.40	179.60	178.00	180.57	0.003159	7.88	339.89	65.12	0.61
Reach-1	37480	V 2% Chance	5280.00	173.40	181.27	180.31	183.36	0.004971	11.62	465.84	100.49	0.79
Reach-1	37480	V 1% Chance	6735.00	173.40	181.88	181.86	184.59	0.005842	13.35	529.14	107.08	0.87
Reach-1	37480	V 0.2% Chance	11295.00	173.40	184.44	184.44	187.69	0.004960	15.01	838.64	136.69	0.84

**Tighe&Bond**

**APPENDIX G**

**372, 378, 380 Danbury Road  
Wilton, Connecticut**

# **Maintenance and Inspection Plan**

**January 2023**



The initial inspection will be made during an intense rainfall to check the adequacy of the catch basins, piping, infiltration systems, and system outlet.

The following is a checklist of items that will be checked and maintained during scheduled maintenance operations.

Drainage Structures: The Owner will be responsible for cleaning the catch basins, piping, bio-filtration swale, and outlet protection on their property. A Connecticut licensed hauler shall clean the sumps, and legally dispose of removed sand at an off-site location. The road sand may not be reused or stored on-site. As part of the hauling contract, the hauler shall notify the Owner in writing where the material is being disposed.

Each catch basin shall be inspected every four months, with one inspection occurring during the month of April. Any debris occurring within one foot from the bottom of each sump shall be removed by Vacuum "Vactor" type of maintenance equipment. Maintain a log of inspections. Remove organic matter, sand, and debris from catch basins as necessary and dispose of legally.

Bio-filtration Swale: The swale will be cleaned of all silt, debris and sediment, including the catch basin inlet structures and the underdrains. The outlet catch basin will be inspected and cleaned to make sure nothing is clogging the discharge pipe.

Level Spreader: The level spreader shall be inspected two times annually. Regular maintenance includes removing accumulated debris and sediment, checking for erosion, vegetative bare spots, and removing invasive plant species or tree saplings.

Pavement: Paved areas shall be swept periodically by the Owner to clean trash and other debris. The Owner will sweep paved areas on its property in the spring to remove winter accumulations of road sand.

Perform a visual inspection of paved areas four times per year with one inspection after the last snowfall, but no later than April 1. Sweep accumulated sediment and debris from the paved areas. Clean paved areas as necessary during the remainder of the year.

**Drainage Structures Inspection**

Each catch basin shall be inspected every four months, with one inspection occurring during the month of April. Any debris occurring within one foot from the bottom of each sump shall be removed by Vacuum "Vactor" type of maintenance equipment. Maintain a log of inspections. Remove organic matter, sand, and debris from catch basins as necessary and dispose of legally.

Date (MM/DD/YY)	Company/Person	Supervising Team Member	Comments



***Pavement Inspection***

Perform a visual inspection of paved areas four times per year with one inspection after the last snowfall, but no later than April 1. Sweep accumulated sediment and debris from the paved areas. Clean paved areas as necessary during the remainder of the year.

Date (MM/DD/YY)	Company/Person	Supervising Team Member	Comments



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16-5081-001A  
January 18, 2023

Jacob M. Grossman  
Wilton GSE, LLC c/o The Grossman Companies, Inc.  
One Adams Place  
859 Willard Street, Suite 501  
Quincy, MA 02169

Re: **Traffic Engineering and Parking Statement  
372 Danbury Road (U.S. Route 7) Partial Medical-Office Conversion  
Wilton, Connecticut**

Dear Mr. Grossman:

Tighe & Bond has prepared this traffic impact statement to review the potential impact of the proposed parking expansion and partial medical-office conversion of 372 Danbury Road (U.S. Route 7) in Wilton. This statement is provided in support of the Town of Wilton Planning & Zoning and Office of the State Traffic Administration (OSTA) approval processes. The analysis presented in the following letter shows that the proposed land use conversion is not expected to have a significant impact on traffic operations in the study area and the proposed parking expansion will accommodate the site's demand.

## Existing Conditions

The existing 372 Danbury Road property consists of a partially occupied 82,535-square-foot building with general office, medical office, and school uses. It is bordered by Danbury Road to the west, the Norwalk River and the Metro North Danbury Branch Line railroad to the south and east, and the 378 and 380 Danbury Road properties to the north. Regionally, the site is surrounded by residential properties to the east, Wilton High School to the west, and mostly commercial properties to the north and south. A Site Location Map depicting the property and the surrounding area is provided in Figure 1. The property is accessible via the existing driveway located near the south end of the site on Danbury Road at the signalized intersection with School Road. Traffic operations at this driveway were analyzed as part of this study.

Parking for the site is accommodated via a surface lot that contains 273 spaces, including 7 accessible spaces. A small portion of the lot is located south of the driveway entrance, while the majority is located to the north along the building and is served by a one-way counterclockwise parking aisle. An auxiliary right-turn lane is provided on the site driveway approach to the traffic signal.

Danbury Road (U.S. Route 7) runs north-south and is classified as a principal arterial by the Connecticut Department of Transportation (CTDOT) and the Wilton Plan of Conservation and Development (POCD). Danbury Road serves as the main corridor within Wilton and connects Interstate 95 in Norwalk to the south with Interstate 84 in Danbury to the north, where it continues north beyond the Connecticut State Line. The roadway has a four-lane cross-section with additional left-turn lanes approaching the site driveway intersection. In the vicinity of the site, lane widths range from 10 to 12 feet and shoulder widths range from 3 to 5 feet. Sidewalk is provided along the west side of roadway. The posted speed limit on Danbury Road is 40 miles per hour within the study area.



School Road, located directly across from the site driveway, is a local road as classified by CTDOT and the Wilton POCD. It runs from the Danbury Road intersection with the site driveway to the east to Middlebrook Farm Road to the west, which connects to Ridgefield Road (State Route 33). The roadway provides access to the area's schools, the school bus depot, the Wilton Parks & Recreation Department, and private residences. It typically has a two-lane cross section with 11 to 12-foot travel lanes with no shoulders. A speed limit of 25 miles per hour is set on School Road.

## Collision History

Vehicle collision history was collected from the Connecticut Crash Data Repository at the study area intersection of Danbury Road with the Site Driveway and School Road between January 1, 2017 to October 31, 2022. These five plus years of data were reviewed to assess pre-pandemic conditions through the most recent available data. Table 1 provides a summary of the collision types and severity.

As shown in Table 1, there were 41 motor vehicle collisions reported within the period analyzed. The most frequent type of collision was rear-end, which accounted for 26 crashes (63.4%). Angle was the second most common at 10 collisions (24.4%). The remaining five crashes included same-direction sideswipe, animal, fixed object, and head-on. Throughout the period analyzed, there were no fatalities or collisions reporting serious injuries. All collisions resulted in minor injuries or property damage only.

A significant and/or abnormal pattern of collisions was not identified from the analysis. The proposed project and generated traffic are not anticipated to negatively impact existing collision patterns or roadway safety at the study intersection.

## Traffic Volumes

The study analyses focus on the weekday morning and weekday afternoon peak periods when commuter and site-generated traffic volumes are typically at their highest levels. The 2022 existing traffic volumes were collected via manual intersection turning movement counts (TMCs) conducted at the study area intersection during the peak periods. The data showed that the weekday morning and afternoon peaks occurred from 7:30am to 8:30am and 5:00pm to 6:00pm, respectively. These 2022 Existing Traffic Volumes for the weekday morning and afternoon peaks are presented in Figure 2. Raw TMC data is included for reference.

Historic traffic volume data collected at CTDOT Count Station WILT-116 showed that the average daily traffic (ADT) in 2020 during the COVID-19 pandemic was approximately 17,540 vehicles per day (8,565 northbound, 8,975 southbound). In 2017, prior to the pandemic, the ADT was approximately 28,745 vehicles per day (14,220 northbound, 14,525 southbound). In addition to this volume information, the data also showed that the vehicle operating speed, or 85<sup>th</sup> percentile speed, on Danbury Road was approximately 48 miles per hour. The raw count station data is attached for reference.

Upon consultation with CTDOT, the 2022 existing traffic volumes were projected to the 2024 project completion year using a 0.5% annual growth rate to account for general traffic growth and smaller developments in the area. No additional proposed developments in the area were identified. Additionally, the existing building is partially vacant. Trip generation estimates, discussed further in the Trip Generation section of this statement, were calculated for the vacant general office space to estimate full (100%) building occupancy. Figure 3 shows the traffic added to approximate full occupancy and is distributed at the intersection using the approach outlined in the Arrival/Departure Distribution section of this statement. The total projected 2024 background traffic volumes for the weekday morning and afternoon peaks are

presented in Figure 4 and include the background traffic growth and the vacant space estimates for site traffic volumes.

## Proposed Conditions

The application proposes to convert 40,800 square feet of existing general office space at 372 Danbury Road to medical office space. Following the conversion, and including the previous conversions, the 82,535-square-foot building will contain 60,000 square feet of medical office (19,200 existing approved plus 40,800 proposed), 11,988 square feet of general office space, and 10,547 square feet of school space.

To satisfy Town of Wilton parking requirements, the parking associated with the proposed medical office conversion will be accommodated with additional surface parking on the adjacent 378 and 380 Danbury Road properties to the north.

Access to the property will remain via the existing driveway on Danbury Road across from School Road. The new proposed parking will only be accessible via an internal driveway connection to the existing lot at the northeast corner of the 372 Danbury Road property. The existing driveway that serves the 378 and 380 Danbury Road properties will be separately maintained for a 10-foot right-of-way easement for the 384 Danbury Road property to the northeast and will not be utilized by 372 Danbury Road traffic.

## Trip Generation

Site-generated traffic volumes were estimated using the Institute of Transportation Engineers (ITE) Trip Generation, 11<sup>th</sup> Edition, 2021. As shown in Table 2-A, the existing 36,766 square feet of vacant space was assumed to be fully occupied by ITE Land Use Code 710 – General Office to estimate the background traffic volumes. The occupied space is expected to generate approximately 56 additional trips (49 entering, 7 exiting) during the weekday morning peak hour and 53 trips (9 entering, 44 exiting) during the weekday afternoon peak hour.

The net new trips expected to be generated by the proposed conversion were estimated based on the difference between the existing land use 710 – General Office and proposed land use 720 – Medical-Dental Office as shown in Table 2-B. Based on the ITE data, the 40,800-square-foot conversion is expected to generate approximately 64 additional trips (45 entering, 19 exiting) during the weekday morning peak hour and 101 additional trips (38 entering, 63 exiting) during the weekday afternoon peak hour.

## Arrival/Departure Distribution

The distribution of the peak hour site-generated traffic was applied to the roadway network based on observed existing regional traffic patterns at the existing site driveway. The traffic volume data showed that a distribution of 70% of site-generated traffic to and from the south and 30% to and from the north is expected during the peak hours.

Figure 5 shows the trip arrival and departure distribution percentage into and out of the property at the site driveway. This distribution was used to allocate the weekday morning and afternoon peak hour traffic volumes for the vacant space utilization estimates, shown in Figure 3, and the site-generated traffic volumes, shown in Figure 6. The site-generated volumes were then added to the 2024 Background Traffic Volumes to generate the 2024 Combined Traffic Volumes shown in Figure 7.



## Capacity and Queue Analysis

Capacity and queue analyses were performed at the study intersection for the 2022 Existing, 2024 Background, and 2024 Combined conditions during the weekday morning and afternoon peak hours using Trafficware Synchro Studio 11 – Traffic Analysis Software. The software conducts the analyses based on the methodology provided in the *Highway Capacity Manual, 6<sup>th</sup> Edition*. The analysis results are categorized in terms of Level of Service (LOS) and queue. LOS describes the qualitative intersection operational conditions based on the calculated average delay per vehicle. The queue analysis results are summarized based on the length of vehicle queues on an intersection approach. The queues are quantified for 50<sup>th</sup> (average) and 95<sup>th</sup> (design) percentile queues with 25 feet representing one car length. Attached is a detailed summary of the HCM capacity analysis methodology. Tables 3 and 4 summarize the capacity and queue analyses results, respectively. Capacity analyses worksheets with full inputs, settings, and results are also attached for reference.

As shown in Tables 3 and 4, the addition of traffic generated by the proposed medical office conversion does not significantly impact traffic operations at the study intersections. The signalized intersection of Danbury Road at the Site Driveway and School Road operates at overall LOS C in the morning and B in the afternoon peak hours under 2024 Combined Conditions. The site driveway operates acceptably at LOS C in the morning and D in the afternoon. Increases in delay between the Background and Combined Conditions are negligible. Additionally, queue lengths do not increase substantially and fit within one car length of available storage space.

## Parking Analysis

The existing 372 Danbury Road site provides 273 parking spaces, including 7 accessible spaces. The proposed parking expansion will provide an additional 92 spaces, including 1 additional accessible space, for a total of 365 spaces. Based on the Town of Wilton parking requirements outlined in Section 29-8.B of the Zoning Regulations, 40 spaces are required for the remaining 11,988 square feet of general office space, 300 spaces are required for the 60,000 square feet of medical office space, and 25 spaces are required for the existing 10,547-square-foot Westport Day School with 20 faculty and 50 students, totaling 365 required spaces. Therefore, the proposed site land use conversion will be accommodated by the associated proposed parking lot expansion. These parking requirement calculations are summarized in Table 5.

## Conclusion

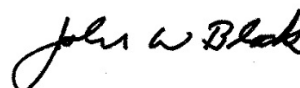
Based on the results of the analyses, it is the professional opinion of Tighe & Bond that the traffic generated by the proposed medical office conversion will not have a significant impact on traffic operations or safety on Danbury Road. The analyses show that the driveway intersection will operate at an acceptable LOS with queue lengths that fit within one car length of available storage and there is no significant pattern of collisions. In addition, the site will provide sufficient parking with the proposed parking lot expansion to be in accordance with the Town of Wilton zoning regulations.

Sincerely,

**TIGHE & BOND, INC.**



Thomas J. Wamser, PE, PTOE, RSP2I  
Project Engineer

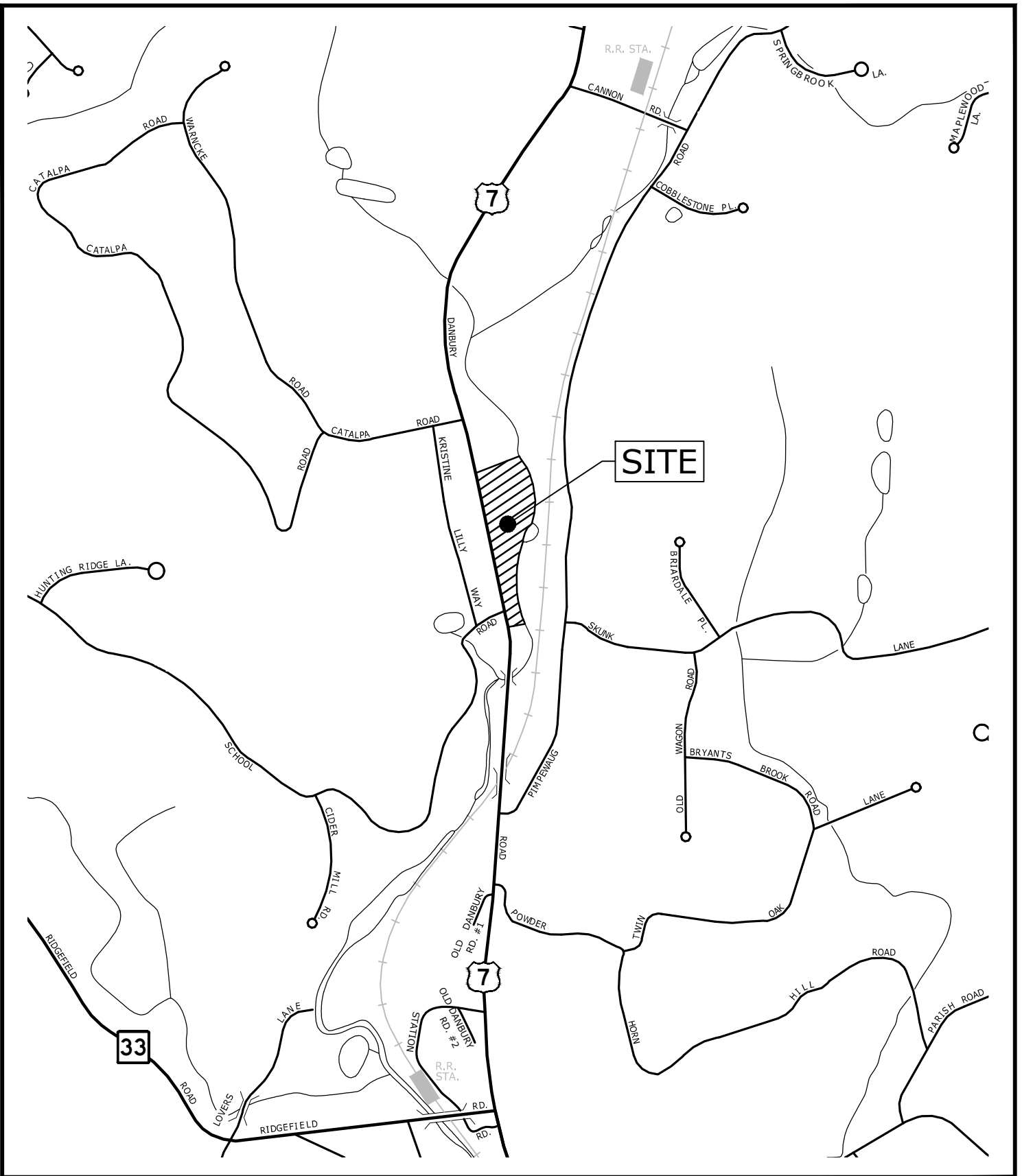


John W. Block, PE, LS  
Senior Vice President

Enclosures: Site Location Map (Figure 1)  
Traffic Volumes (Figures 2 through 7)  
Collision History (Table 1)  
Trip Generation (Tables 2-A and 2-B)  
Capacity Analyses (Tables 3 and 4)  
Parking Requirements (Table 5)  
Capacity Analysis Methodology Summary  
Capacity Analyses Worksheets  
Raw TMC Data  
Raw CTDOT Count Station Data  
Site Plan (C-101, Dated 11/10/2022)

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Nov 21, 2022-2:04pm Plotted By: AWetmore  
Tighe & Bond, Inc. J:\G55081-The Grossman Companies, Inc\001 - 372 Danbury Road\Drawings\AutoCAD\Sheet\Site Location Map.dwg



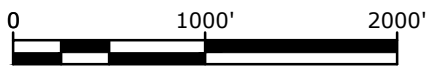
372 DANBURY ROAD  
WILTON, CT

# SITE LOCATION MAP



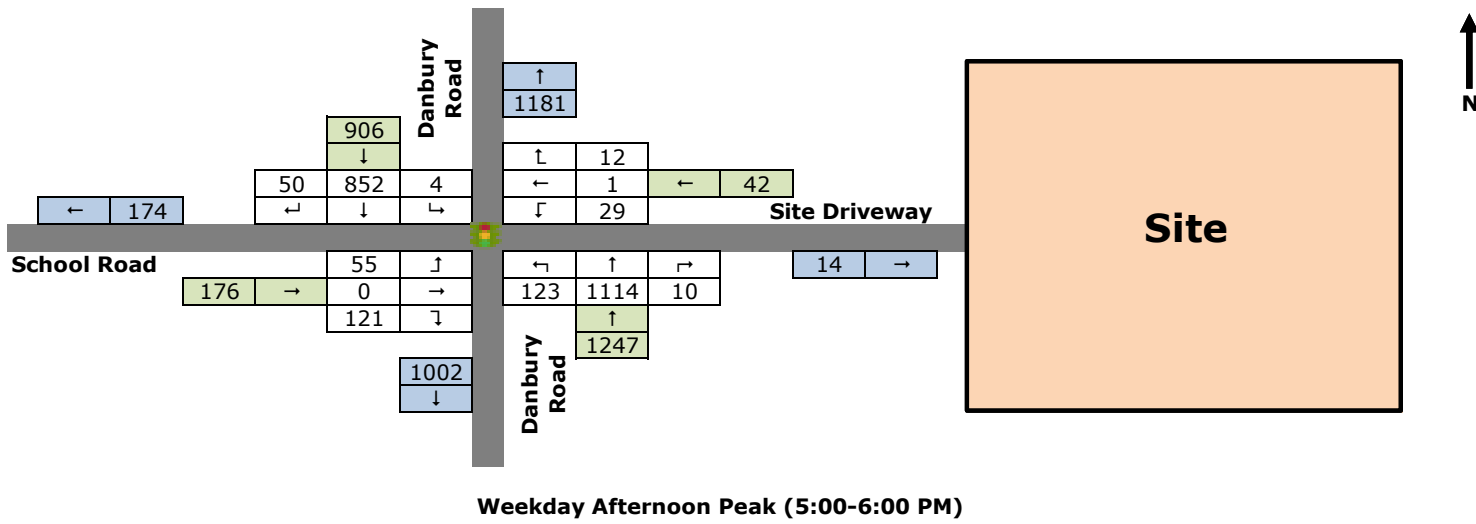
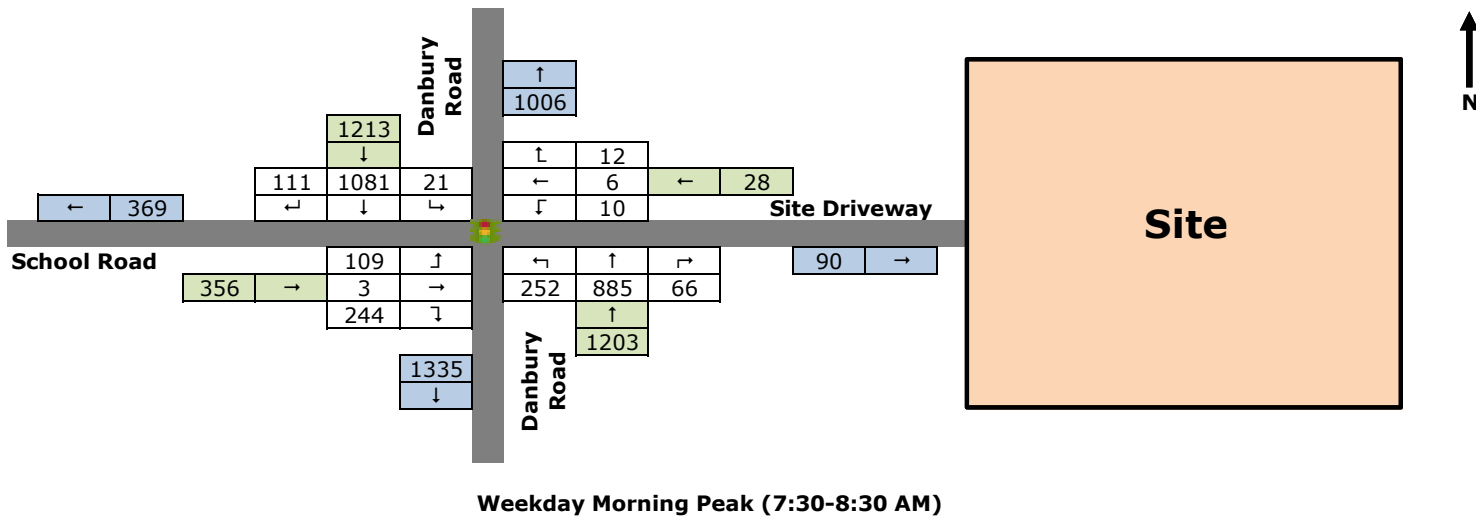
1" = 1000'

FIGURE 1

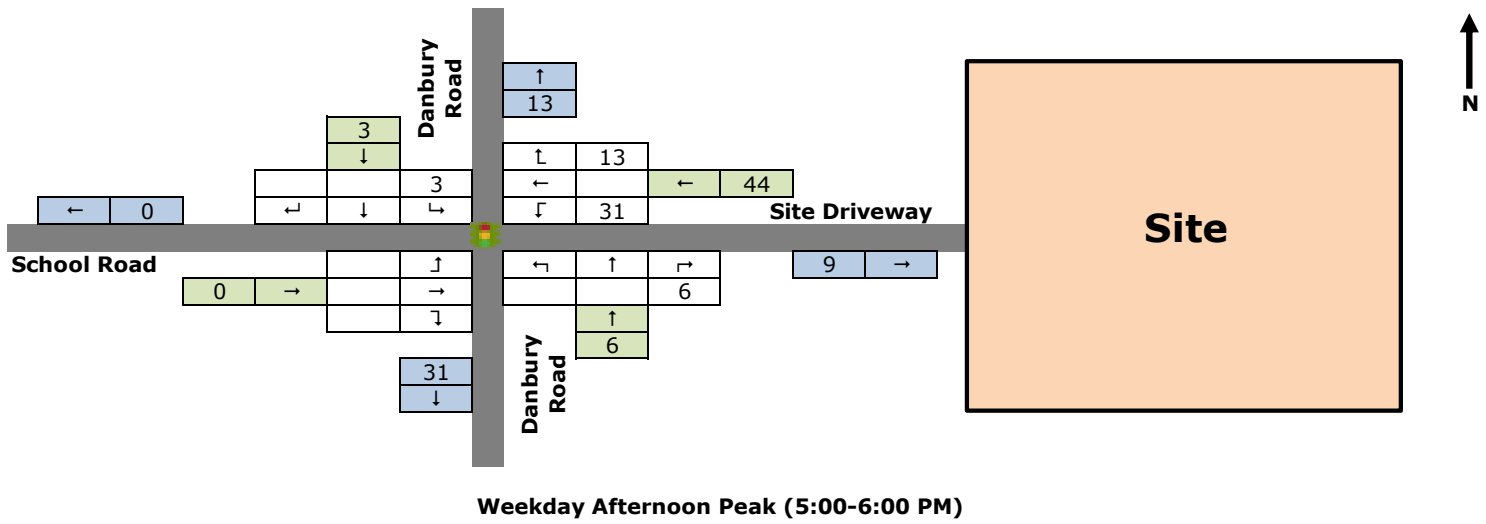
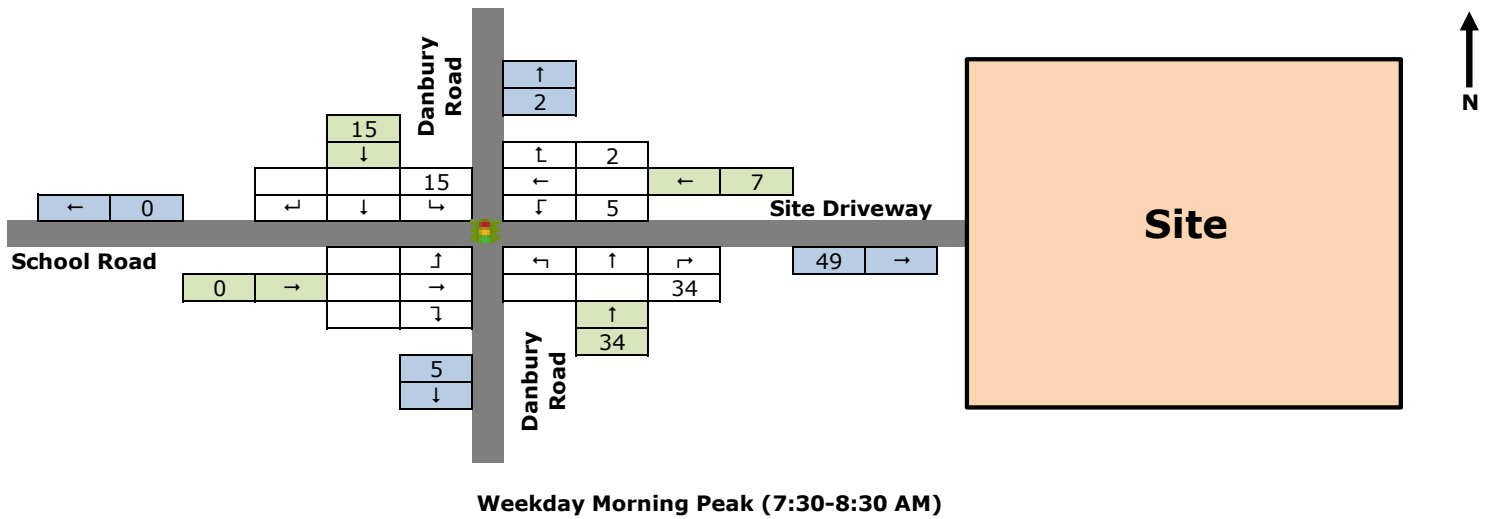


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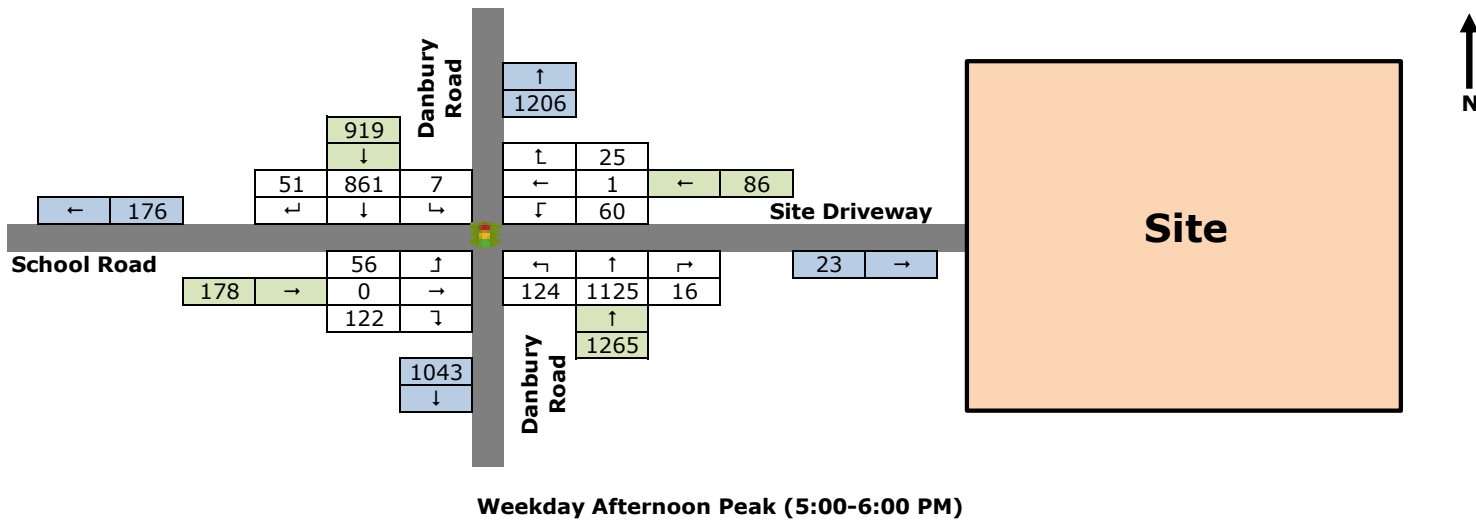
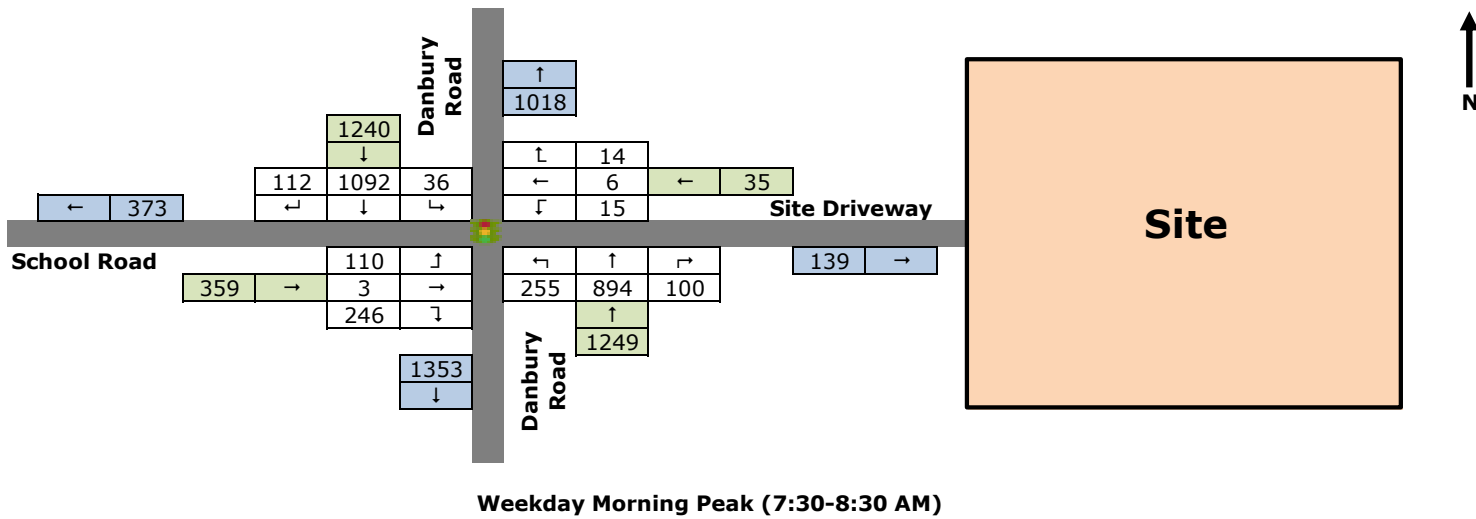
**Tighe & Bond**



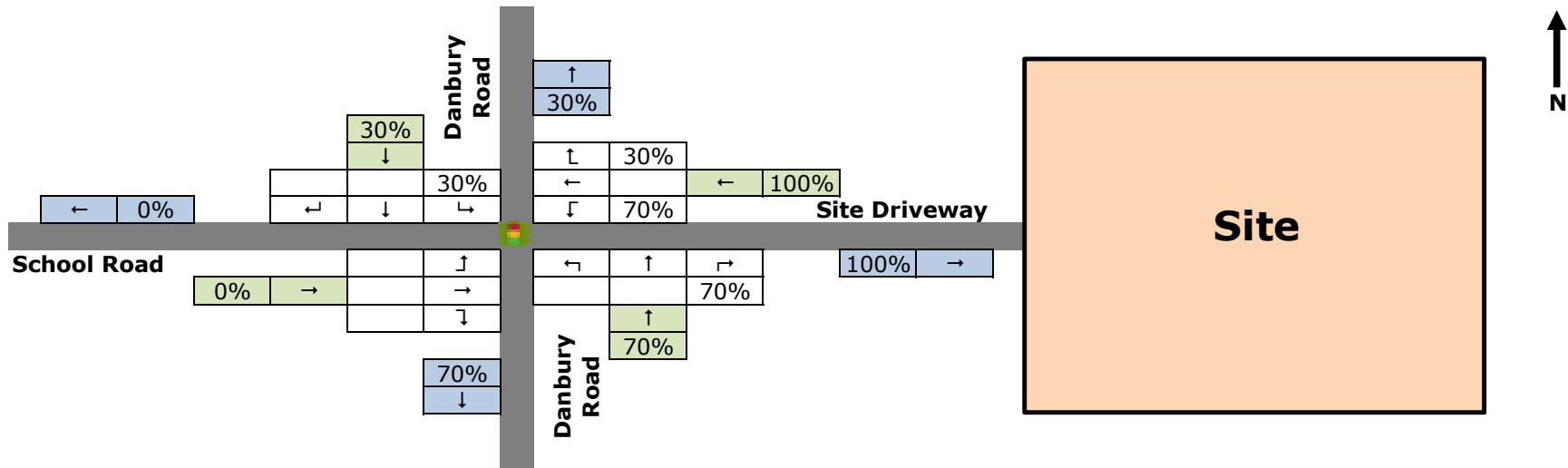
**2022 Existing Condition Traffic Volumes**  
**372 Danbury Road**  
**Figure 2**



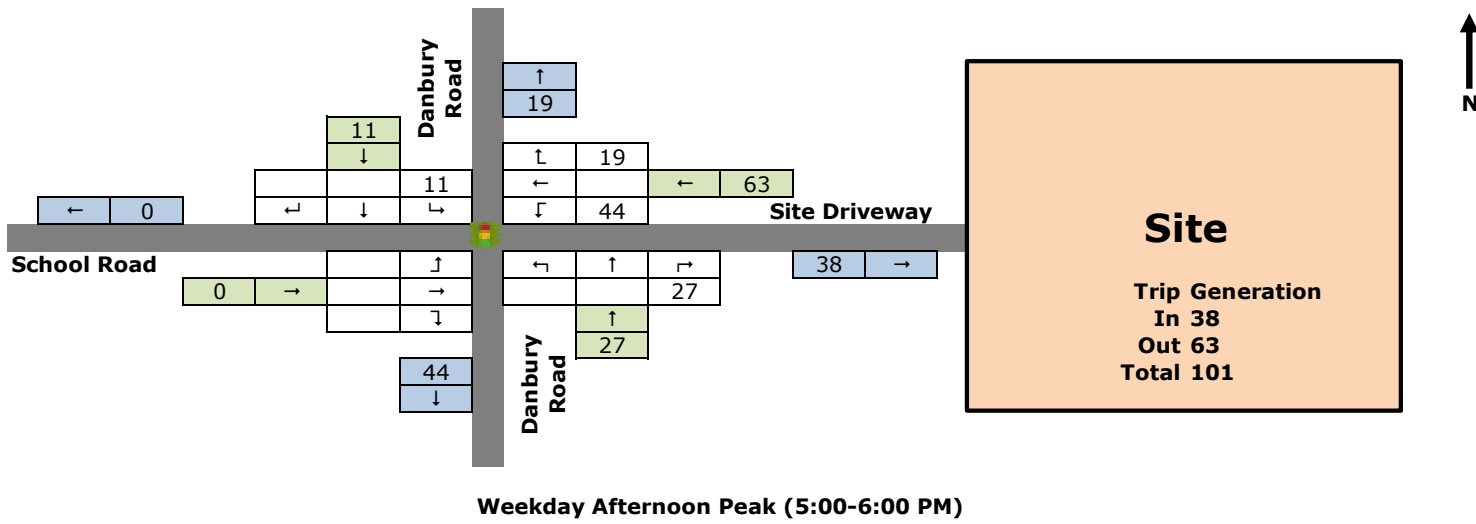
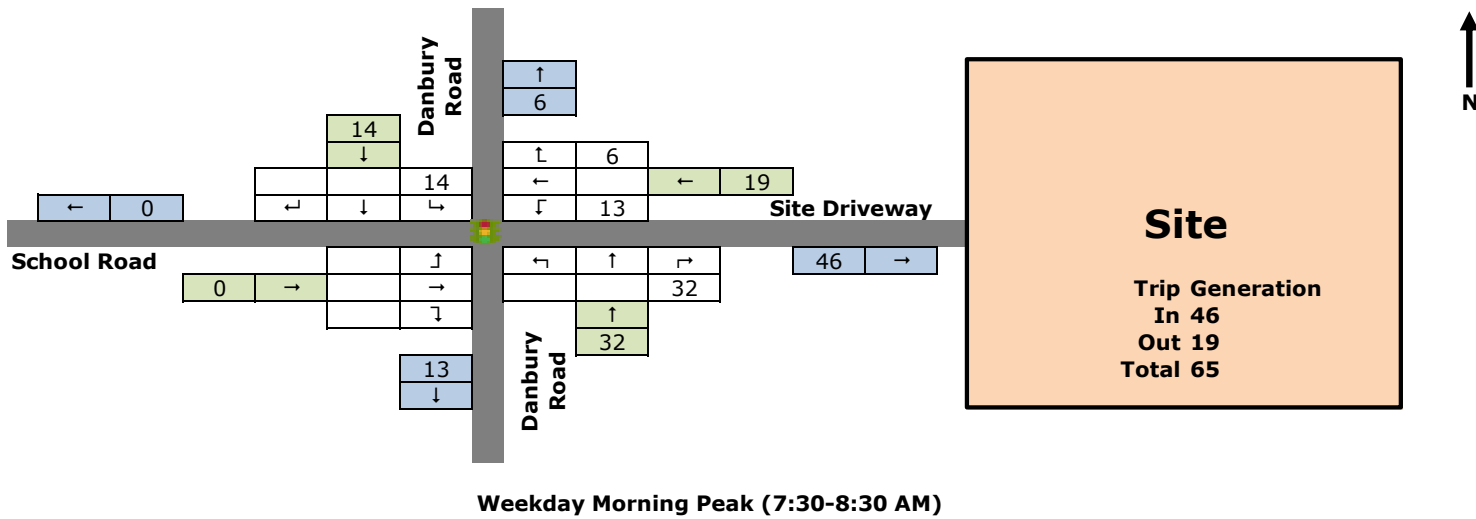
**2024 Vacant Space Background Traffic Volumes  
372 Danbury Road  
Figure 3**



**2024 Background Condition Traffic Volumes**  
**372 Danbury Road**  
**Figure 4**

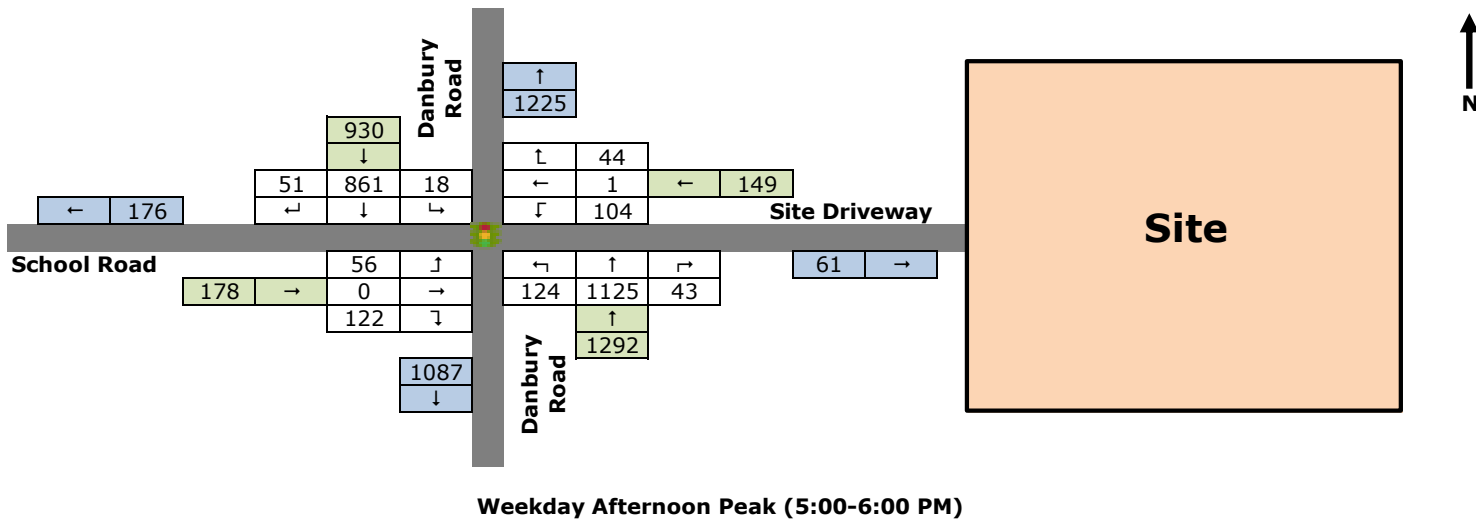
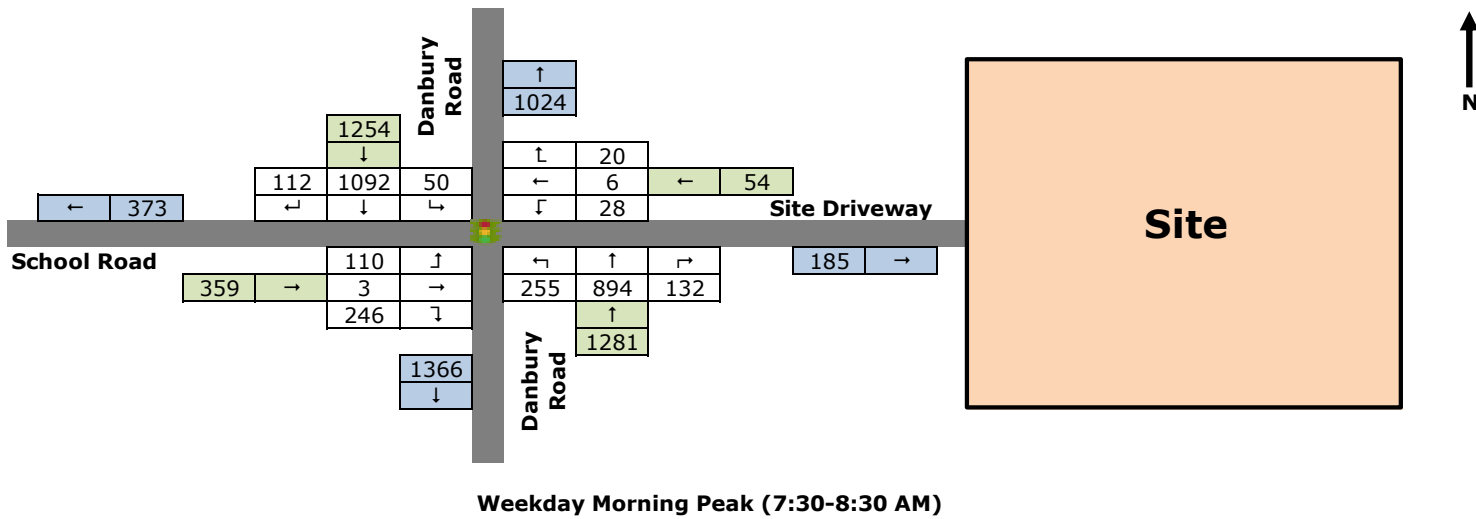


**Site-Generated Traffic  
Trip Distribution  
372 Danbury Road  
Figure 5**



**Site-Generated Traffic Volumes**  
**372 Danbury Road**  
**Figure 6**





**2024 Combined Condition Traffic Volumes**  
**372 Danbury Road**  
**Figure 7**

**TABLE 1**  
**Intersection Collision History Summary**

Intersection: **Danbury Road at Site Driveway / School Road**

**COLLISION TYPE**

	2017	2018	2019	2020	2021	2022	Total	Percent
Rear-End	11	2	6	3	4	0	26	63.4%
Angle	1	2	4	0	1	2	10	24.4%
Sideswipe, Same Direction	0	0	1	1	0	0	2	4.9%
Animal	0	0	1	0	0	0	1	2.4%
Fixed Object	0	0	0	1	0	0	1	2.4%
Head-On	0	0	0	0	0	1	1	2.4%
<b>TOTAL</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>41</b>	<b>100%</b>

**SEVERITY**

	2017	2018	2019	2020	2021	2022	Total	Percent
Minor Injury / Property Damage Only (PDO)	12	4	12	5	5	3	41	100.0%
Serious Injury	0	0	0	0	0	0	0	0.0%
Fatal	0	0	0	0	0	0	0	0.0%
<b>TOTAL</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>41</b>	<b>100%</b>

**DAY & TIME**

	2017	2018	2019	2020	2021	2022	Total	Percent
Weekday Off-Peak	2	2	6	1	0	1	12	29.3%
Weekday 6-9 A.M.	3	0	3	1	2	1	10	24.4%
Weekday 3-6 P.M.	2	2	1	0	2	1	8	19.5%
Weekend Off-Peak	3	0	2	2	0	0	7	17.1%
Saturday 11 A.M. - 2 P.M.	2	0	0	1	1	0	4	9.8%
<b>TOTAL</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>41</b>	<b>100%</b>

**WEATHER**

	2017	2018	2019	2020	2021	2022	Total	Percent
Clear	9	4	10	4	5	3	35	85.4%
Rain	1	0	2	1	0	0	4	9.8%
Snow	2	0	0	0	0	0	2	4.9%
<b>TOTAL</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>41</b>	<b>100%</b>

**ROAD SURFACE CONDITION**

	2017	2018	2019	2020	2021	2022	Total	Percent
Dry	8	4	9	4	4	3	32	78.0%
Wet	2	0	3	1	0	0	6	14.6%
Snow	2	0	0	0	1	0	3	7.3%
<b>TOTAL</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>41</b>	<b>100%</b>

**LIGHT CONDITIONS**

	2017	2018	2019	2020	2021	2022	Total	Percent
Light	12	4	10	5	4	3	38	92.7%
Dark	0	0	2	0	1	0	3	7.3%
<b>TOTAL</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>41</b>	<b>100%</b>

**TABLE 2-A**  
 Site-Generated Traffic  
 Current Vacant General Office Space

<b>Currently Vacant - 36,766 SF General Office</b>			
<b>Peak Hour Period</b>	<b>Enter</b>	<b>Exit</b>	<b>Total</b>
Weekday Morning	49	7	56
Weekday Afternoon	9	44	53

**Note:**

1. Vacancy as of 11/03/2022 during traffic counts. Square footage based on architectural drawings prepared by The Monroe Partnership, dated 12/13/2022.

**Source:** Institute of Transportation Engineering, Trip Generation, 11th Edition, 2021.  
 Land Use - 710 General Office

**TABLE 2-B**

Site-Generated Traffic  
Proposed Medical Office Conversion

<b>Existing - 40,800 SF General Office</b>			
<b>Peak Hour Period</b>	<b>Enter</b>	<b>Exit</b>	<b>Total</b>
Weekday Morning	55	7	62
Weekday Afternoon	10	49	59

<b>Proposed - 40,800 SF Medical Office</b>			
<b>Peak Hour Period</b>	<b>Enter</b>	<b>Exit</b>	<b>Total</b>
Weekday Morning	100	26	126
Weekday Afternoon	48	112	160

<b>New Trips (Proposed minus Existing)</b>			
<b>Peak Hour Period</b>	<b>Enter</b>	<b>Exit</b>	<b>Total</b>
Weekday Morning	45	19	64
Weekday Afternoon	38	63	101

**Note:**

1. 19,200 GSF of Medical Office approved under SP#395 & SP#416.

**Source:** Institute of Transportation Engineering, Trip Generation, 11th Edition, 2021.  
Land Use - 710 General Office  
Land Use - 720 Medical-Dental Office

**TABLE 3**  
Intersection Operation Summary - Capacity

Lane Use	Weekday Morning Peak Hour									Weekday Afternoon Peak Hour									
	2022 Existing			2024 Background			2024 Combined			2022 Existing			2024 Background			2024 Combined			
	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	
<b>Traffic Signal - U.S. Route 7 (Danbury Road) at School Street &amp; Site Driveway</b>																			
<b>Overall</b>	<b>C</b>	<b>21.8</b>	<b>0.83</b>	<b>C</b>	<b>22.8</b>	<b>0.84</b>	<b>C</b>	<b>23.3</b>	<b>0.85</b>	<b>A</b>	<b>9.6</b>	<b>0.51</b>	<b>B</b>	<b>13.5</b>	<b>0.76</b>	<b>B</b>	<b>19.5</b>	<b>0.80</b>	
School Street	EBLT	E	59.0	0.75	E	59.6	0.76	E	60.4	0.76	D	46.1	0.45	D	37.9	0.36	C	33.3	0.29
	EBR	C	21.2	0.50	C	21.3	0.50	C	21.3	0.50	B	10.4	0.30	A	8.9	0.25	A	7.9	0.19
Site Driveway	WBLT	C	31.5	0.10	C	32.2	0.13	C	34.9	0.25	D	50.1	0.51	E	59.5	0.76	D	54.4	0.80
	WBR	A	0.3	0.05	A	0.4	0.06	A	0.5	0.08	A	0.9	0.12	A	6.1	0.19	B	10.6	0.22
	NBL	D	41.8	0.83	D	44.7	0.84	D	45.4	0.85	A	4.6	0.30	A	6.6	0.34	B	10.3	0.42
U.S. Route 7 (Danbury Road)	NBTR	B	10.3	0.51	B	12.0	0.56	B	13.5	0.60	A	6.6	0.48	A	9.5	0.55	B	16.4	0.68
	SBL	A	5.1	0.07	A	5.5	0.12	A	6.1	0.18	A	3.2	0.01	A	4.6	0.02	A	5.9	0.07
	SBTR	C	23.6	0.82	C	24.3	0.83	C	24.4	0.83	A	9.0	0.42	B	12.5	0.48	B	18.1	0.59

**Legend**

LOS - Level of Service

Delay - average delay per vehicle in seconds

V/C - volume to capacity ratio

**TABLE 4**

## Intersection Operation Summary - Queues

	Lane Use	Available Storage	Weekday Morning Peak Hour						Weekday Afternoon Peak Hour					
			2022 Existing		2024 Background		2024 Combined		2022 Existing		2024 Background		2024 Combined	
			50 <sup>th</sup>	95 <sup>th</sup>	50 <sup>th</sup>	95 <sup>th</sup>	50 <sup>th</sup>	95 <sup>th</sup>	50 <sup>th</sup>	95 <sup>th</sup>	50 <sup>th</sup>	95 <sup>th</sup>	50 <sup>th</sup>	95 <sup>th</sup>
<b>Traffic Signal - U.S. Route 7 (Danbury Road) at School Street &amp; Site Driveway</b>														
School Street	EBLT	165	79	116	80	116	80	117	35	68	34	66	28	69
	EBR	165	114	153	117	155	117	155	18	51	18	50	14	50
Site Driveway	WBLT	100	10	26	13	30	22	44	39	39	79	79	123	123
	WBR	45	0	0	0	0	0	0	0	0	0	0	7	0
	NBL	400	107	247	113	258	114	258	14	35	20	42	33	42
U.S. Route 7 (Danbury Road)	NBTR	>1000	128	250	210	264	222	276	111	292	154	330	257	343
	SBL	130	3	11	6	15	8	20	1	3	1	5	4	9
	SBTR	>1000	320	407	324	414	324	414	126	206	155	234	222	234

**Legend**

50th &amp; 90th - 50th and 95th percentile queue lengths in feet

**TABLE 5**

## Parking Requirements

<b>Use</b>	<b>Size Unit</b>	<b>Parking Requirement</b>	<b>Required Parking</b>
General Office	11,988 GFA	1 space per 300 sf	40
Medical Office	60,000 GFA	1 space per 200 sf	300
	20 Faculty	1 space per faculty member	20
Westport Day School	50 Students	1 space per 10 students	5
	10,547 GFA	NA	--
<b>Total</b>	<b>82,535 GFA</b>		<b>365</b>
		Existing Spaces	273
		Proposed Spaces	92
		Total Future Spaces	365

**Notes:**

GFA = gross floor area in square feet as defined by Wilton Zoning Regulations Section 29-2.B.57.

Parking Requirements based on Wilton Zoning Regulations Section 29-8.B.

Westport Day School Faculty & Students based on SP #406 approved values.

GFA based on architectural calculations prepared by The Monroe Partnership Dated 12/13/2022.

## CAPACITY ANALYSIS METHODOLOGY

A primary result of capacity analysis is the assignment of levels of service to traffic facilities under various traffic flow conditions. The capacity analysis methodology is based on the concepts and procedures in the *Highway Capacity Manual* (HCM).<sup>1</sup> The concept of level of service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst. Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year. A description of the operating condition under each level of service is provided below:

- *LOS A* describes conditions with little to no delay to motorists.
- *LOS B* represents a desirable level with relatively low delay to motorists.
- *LOS C* describes conditions with average delays to motorists.
- *LOS D* describes operations where the influence of congestion becomes more noticeable. Delays are still within an acceptable range.
- *LOS E* represents operating conditions with high delay values. This level is considered by many agencies to be the limit of acceptable delay.
- *LOS F* is considered to be unacceptable to most drivers with high delay values that often occur, when arrival flow rates exceed the capacity of the intersection.

### Signalized Intersections

Levels of service for signalized intersections are also calculated using the operational analysis methodology of the HCM. The methodology for signalized intersections assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on average *control* delay. Control delay is used to establish the operating characteristics for an intersection or an approach to an intersection. Volume-to-capacity (v/c) ratios are also used to help signify the utilization of a lane group's capacity at an intersection. A v/c ratio of  $\geq 1.00$  represents conditions when the traffic signal cycle capacity is fully utilized and indicates a capacity failure. The level-of-service criteria for signalized intersections are shown in Table A-1.

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<sup>1</sup>*Highway Capacity Manual, 6<sup>TH</sup> Edition: A Guide for Multimodal Mobility Analysis*. Washington, D.C.: Transportation Research Board, 2016.



## Unsignalized Intersections

Levels of service for unsignalized intersections are calculated using the operational analysis methodology of the HCM. The procedure accounts for lane configuration on both the minor and major street approaches, conflicting traffic stream volumes, and the type of intersection control (STOP, YIELD, or all-way STOP control). The definition of level of service for unsignalized intersections is a function of average *control* delay. Control delay at an unsignalized intersection is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. This time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position.

Volume-to-capacity (v/c) ratios are also used to help signify the utilization of a movement's capacity at an intersection. A v/c ratio of  $\geq 1.00$  represents conditions when the movement is fully utilized and indicates a capacity failure. The capacity of the movements is based on the distribution of gaps in the major street traffic stream, the selection of gaps to complete the desired movement, and the follow-up headways for each driver in the queue. When an unsignalized intersection is located within 0.25 miles of a signalized intersection, traffic flows may not be random and some platoon structure may exist, thereby affecting the minor street operations. The level-of-service criteria for unsignalized intersections are shown in Table A-1.

**TABLE A-1**  
Level-of-Service Criteria for Intersections























Level of Service	Signalized Intersection Criteria	Unsignalized Intersection Criteria	V/C Ratio >1.00 <sup>a</sup>
	Average Control Delay (Seconds per Vehicle)	Average Control Delay (Seconds per Vehicle)	
A	$\leq 10$	$\leq 10$	F
B	>10 and $\leq 20$	>10 and $\leq 15$	F
C	>20 and $\leq 35$	>15 and $\leq 25$	F
D	>35 and $\leq 55$	>25 and $\leq 35$	F
E	>55 and $\leq 80$	>35 and $\leq 50$	F
F	>80	>50	F

Note: <sup>a</sup>For approach-based and intersection-wide assessments, LOS is defined solely by control delay.

Source: *Highway Capacity Manual, 6<sup>th</sup> Edition: A Guide for Multimodal Mobility Analysis*. Washington, D.C.: Transportation Research Board, 2016. Exhibit 19-8, Pg. 19-16.

For signalized intersections, this delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to the entire intersection. For unsignalized intersections, this delay criterion may be applied in assigning level-of-service designations to individual lane groups on the minor street approaches or to the left turns from the major street approaches.

101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2022 Existing Conditions Weekday Morning Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	3	244	10	6	12	252	885	66	21	1081	111
Future Volume (vph)	109	3	244	10	6	12	252	885	66	21	1081	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	13	12	11	13	11	11	12	12	11	12
Storage Length (ft)	0		0	0		80	400		0	130		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			80			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.990			0.986	
Flt Protected		0.954			0.970		0.950			0.950		
Satd. Flow (prot)	0	1653	1574	0	1665	1560	1678	3322	0	1687	3216	0
Flt Permitted		0.717			0.786		0.094			0.251		
Satd. Flow (perm)	0	1241	1574	0	1349	1539	166	3322	0	446	3216	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			43			80		12			17	
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		222			142			593			309	
Travel Time (s)		6.1			3.9			10.1			5.3	
Confl. Peds. (#/hr)	1						1					
Peak Hour Factor	0.77	0.77	0.77	0.78	0.78	0.78	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	6%	6%	6%	7%	7%	7%	4%	4%	4%	7%	7%	7%
Adj. Flow (vph)	142	4	317	13	8	15	300	1054	79	24	1215	125
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	317	0	21	15	300	1133	0	24	1340	0
Turn Type	Perm	NA	pm+ov	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4	1		4		1	6		5	2	
Permitted Phases	4		4	4		4	6			2		
Detector Phase	4	4	1	4	4	4	1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0		7.0	20.0	
Minimum Split (s)	13.2	13.2	11.0	13.2	13.2	13.2	11.0	25.6		11.0	25.6	
Total Split (s)	24.0	24.0	15.0	24.0	24.0	24.0	15.0	51.0		15.0	51.0	
Total Split (%)	26.7%	26.7%	16.7%	26.7%	26.7%	26.7%	16.7%	56.7%		16.7%	56.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3		3.0	4.3	
All-Red Time (s)	3.2	3.2	1.0	3.2	3.2	3.2	1.0	1.3		1.0	1.3	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2	4.0		6.2	6.2	4.0	5.6		4.0	5.6	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Act Effct Green (s)		14.1	34.6		14.1	14.1	65.7	59.7		54.4	45.8	
Actuated g/C Ratio		0.16	0.38		0.16	0.16	0.73	0.66		0.60	0.51	
v/c Ratio		0.75	0.50		0.10	0.05	0.83	0.51		0.07	0.82	
Control Delay		59.0	21.2		31.5	0.3	41.8	10.3		5.1	23.6	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		59.0	21.2		31.5	0.3	41.8	10.3		5.1	23.6	
LOS		E	C		C	A	D	B		A	C	

101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2022 Existing Conditions Weekday Morning Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		33.1			18.5			16.9				23.2
Approach LOS		C			B			B				C
Queue Length 50th (ft)		79	114		10	0	107	128		3		320
Queue Length 95th (ft)		116	153		26	0	#247	250		11		407
Internal Link Dist (ft)		142			62			513				229
Turn Bay Length (ft)						80	400			130		
Base Capacity (vph)		245	631		266	368	361	2206		441		1652
Starvation Cap Reductn		0	0		0	0	0	0		0		0
Spillback Cap Reductn		0	0		0	0	0	0		0		0
Storage Cap Reductn		0	0		0	0	0	0		0		0
Reduced v/c Ratio		0.60	0.50		0.08	0.04	0.83	0.51		0.05		0.81

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow, Master Intersection

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 21.8

Intersection LOS: C

Intersection Capacity Utilization 73.4%

ICU Level of Service D

Analysis Period (min) 15























# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway



101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2022 Existing Conditions Weekday Afternoon Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	0	121	29	1	12	123	1114	10	4	852	50
Future Volume (vph)	55	0	121	29	1	12	123	1114	10	4	852	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	13	12	11	13	11	11	12	12	11	12
Storage Length (ft)	0		0	0		80	400		0	130		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			80			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.992	
Flt Protected		0.950			0.954		0.950			0.950		
Satd. Flow (prot)	0	1745	1669	0	1718	1636	1694	3385	0	1787	3427	0
Flt Permitted		0.711			0.685		0.247			0.210		
Satd. Flow (perm)	0	1304	1669	0	1233	1614	440	3385	0	395	3427	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			101			80		1			9	
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		222			142			593			309	
Travel Time (s)		6.1			3.9			10.1			5.3	
Confl. Peds. (#/hr)	1						1					
Peak Hour Factor	0.85	0.85	0.85	0.42	0.42	0.42	0.90	0.90	0.90	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	3%	3%	3%	1%	1%	1%
Adj. Flow (vph)	65	0	142	69	2	29	137	1238	11	4	906	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	142	0	71	29	137	1249	0	4	959	0
Turn Type	Perm	NA	pm+ov	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4	1		4		1	6		5	2	
Permitted Phases	4		4	4		4	6			2		
Detector Phase	4	4	1	4	4	4	1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0		7.0	20.0	
Minimum Split (s)	13.2	13.2	11.0	13.2	13.2	13.2	11.0	25.6		11.0	25.6	
Total Split (s)	24.0	24.0	15.0	24.0	24.0	24.0	15.0	51.0		15.0	51.0	
Total Split (%)	26.7%	26.7%	16.7%	26.7%	26.7%	26.7%	16.7%	56.7%		16.7%	56.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3		3.0	4.3	
All-Red Time (s)	3.2	3.2	1.0	3.2	3.2	3.2	1.0	1.3		1.0	1.3	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2	4.0		6.2	6.2	4.0	5.6		4.0	5.6	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Act Effct Green (s)		10.1	21.0		10.1	10.1	71.9	69.7		68.0	59.4	
Actuated g/C Ratio		0.11	0.23		0.11	0.11	0.80	0.77		0.76	0.66	
v/c Ratio		0.45	0.30		0.51	0.12	0.30	0.48		0.01	0.42	
Control Delay		46.1	10.4		50.1	0.9	4.6	6.6		3.2	9.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		46.1	10.4		50.1	0.9	4.6	6.6		3.2	9.0	
LOS		D	B		D	A	A	A		A	A	

101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2022 Existing Conditions Weekday Afternoon Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		21.6			35.8			6.4			9.0	
Approach LOS		C			D			A			A	
Queue Length 50th (ft)		35	18		39	0	14	111		1	126	
Queue Length 95th (ft)		68	51		34	0	35	292		3	206	
Internal Link Dist (ft)		142			62			513			229	
Turn Bay Length (ft)						80	400			130		
Base Capacity (vph)		257	530		243	383	507	2621		486	2266	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.25	0.27		0.29	0.08	0.27	0.48		0.01	0.42	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow, Master Intersection

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 9.6

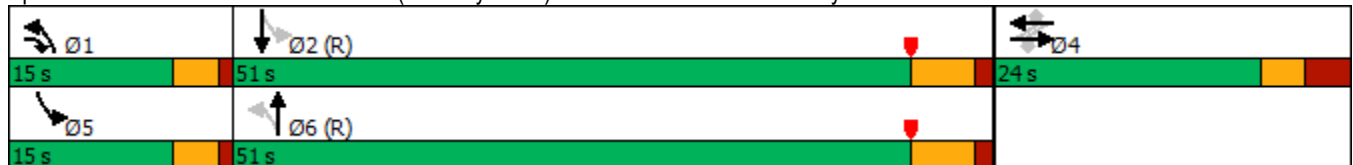
Intersection LOS: A

Intersection Capacity Utilization 59.8%























ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway



101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2024 Background Conditions Weekday Morning Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	3	246	15	6	14	255	894	100	36	1092	112
Future Volume (vph)	110	3	246	15	6	14	255	894	100	36	1092	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	13	12	11	13	11	11	12	12	11	12
Storage Length (ft)	0		0	0		80	400		0	130		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			80			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.985			0.986	
Flt Protected		0.954			0.966		0.950			0.950		
Satd. Flow (prot)	0	1653	1574	0	1658	1560	1678	3305	0	1687	3216	0
Flt Permitted		0.712			0.745		0.089			0.227		
Satd. Flow (perm)	0	1232	1574	0	1279	1539	157	3305	0	403	3216	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			41			80		19			17	
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		222			142			593			309	
Travel Time (s)		6.1			3.9			10.1			5.3	
Confl. Peds. (#/hr)	1						1					
Peak Hour Factor	0.77	0.77	0.77	0.78	0.78	0.78	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	6%	6%	6%	7%	7%	7%	4%	4%	4%	7%	7%	7%
Adj. Flow (vph)	143	4	319	19	8	18	304	1064	119	40	1227	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	147	319	0	27	18	304	1183	0	40	1353	0
Turn Type	Perm	NA	pm+ov	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4	1		4		1	6		5	2	
Permitted Phases	4		4	4		4	6			2		
Detector Phase	4	4	1	4	4	4	1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0		7.0	20.0	
Minimum Split (s)	13.2	13.2	11.0	13.2	13.2	13.2	11.0	25.6		11.0	25.6	
Total Split (s)	24.0	24.0	15.0	24.0	24.0	24.0	15.0	51.0		15.0	51.0	
Total Split (%)	26.7%	26.7%	16.7%	26.7%	26.7%	26.7%	16.7%	56.7%		16.7%	56.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3		3.0	4.3	
All-Red Time (s)	3.2	3.2	1.0	3.2	3.2	3.2	1.0	1.3		1.0	1.3	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2	4.0		6.2	6.2	4.0	5.6		4.0	5.6	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Act Effct Green (s)		14.2	34.9		14.2	14.2	65.6	57.4		54.1	45.5	
Actuated g/C Ratio		0.16	0.39		0.16	0.16	0.73	0.64		0.60	0.51	
v/c Ratio		0.76	0.50		0.13	0.06	0.84	0.56		0.12	0.83	
Control Delay		59.6	21.3		32.2	0.4	44.7	12.0		5.5	24.3	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		59.6	21.3		32.2	0.4	44.7	12.0		5.5	24.3	
LOS		E	C		C	A	D	B		A	C	

101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2024 Background Conditions Weekday Morning Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		33.4			19.5			18.7				23.8
Approach LOS		C			B			B				C
Queue Length 50th (ft)		80	117		13	0	113	210		6		324
Queue Length 95th (ft)		116	155		30	0	#258	264		15		414
Internal Link Dist (ft)		142			62			513				229
Turn Bay Length (ft)						80	400			130		
Base Capacity (vph)		243	636		252	368	360	2114		416		1640
Starvation Cap Reductn		0	0		0	0	0	0		0		0
Spillback Cap Reductn		0	0		0	0	0	0		0		0
Storage Cap Reductn		0	0		0	0	0	0		0		0
Reduced v/c Ratio		0.60	0.50		0.11	0.05	0.84	0.56		0.10		0.82























Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow, Master Intersection  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 22.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 74.0%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway



101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2024 Background Conditions Weekday Afternoon Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	0	122	60	1	25	124	1125	16	7	861	51
Future Volume (vph)	56	0	122	60	1	25	124	1125	16	7	861	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	13	12	11	13	11	11	12	12	11	12
Storage Length (ft)	0		0	0		80	400		0	130		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			80			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.998			0.992	
Flt Protected		0.950			0.953		0.950			0.950		
Satd. Flow (prot)	0	1745	1669	0	1716	1636	1694	3381	0	1787	3427	0
Flt Permitted		0.643			0.681		0.226			0.191		
Satd. Flow (perm)	0	1180	1669	0	1226	1614	403	3381	0	359	3427	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			98			80		2			10	
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		222			142			593			309	
Travel Time (s)		6.1			3.9			10.1			5.3	
Confl. Peds. (#/hr)	1						1					
Peak Hour Factor	0.85	0.85	0.85	0.42	0.42	0.42	0.90	0.90	0.90	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	3%	3%	3%	1%	1%	1%
Adj. Flow (vph)	66	0	144	143	2	60	138	1250	18	7	916	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	144	0	145	60	138	1268	0	7	970	0
Turn Type	Perm	NA	pm+ov	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4	1		4		1	6		5	2	
Permitted Phases	4		4	4		4	6			2		
Detector Phase	4	4	1	4	4	4	1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0		7.0	20.0	
Minimum Split (s)	13.2	13.2	11.0	13.2	13.2	13.2	11.0	25.6		11.0	25.6	
Total Split (s)	24.0	24.0	15.0	24.0	24.0	24.0	15.0	51.0		15.0	51.0	
Total Split (%)	26.7%	26.7%	16.7%	26.7%	26.7%	26.7%	16.7%	56.7%		16.7%	56.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3		3.0	4.3	
All-Red Time (s)	3.2	3.2	1.0	3.2	3.2	3.2	1.0	1.3		1.0	1.3	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2	4.0		6.2	6.2	4.0	5.6		4.0	5.6	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Act Effct Green (s)		14.1	27.9		14.1	14.1	65.3	61.9		61.1	52.5	
Actuated g/C Ratio		0.16	0.31		0.16	0.16	0.73	0.69		0.68	0.58	
v/c Ratio		0.36	0.25		0.76	0.19	0.34	0.55		0.02	0.48	
Control Delay		37.9	8.9		59.5	6.1	6.6	9.5		4.6	12.5	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		37.9	8.9		59.5	6.1	6.6	9.5		4.6	12.5	
LOS		D	A		E	A	A	A		A	B	



101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2024 Background Conditions Weekday Afternoon Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		18.0			43.9			9.2			12.5	
Approach LOS		B			D			A			B	
Queue Length 50th (ft)		34	18		79	0	20	154		1	155	
Queue Length 95th (ft)		66	50		57	0	42	330		5	234	
Internal Link Dist (ft)		142			62			513			229	
Turn Bay Length (ft)						80	400			130		
Base Capacity (vph)		233	644		242	383	451	2324		434	2003	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.28	0.22		0.60	0.16	0.31	0.55		0.02	0.48	























Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow, Master Intersection
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	13.5
Intersection LOS:	B
Intersection Capacity Utilization:	60.6%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway



101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2024 Combined Conditions Weekday Morning Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	3	246	28	6	20	255	894	132	50	1092	112
Future Volume (vph)	110	3	246	28	6	20	255	894	132	50	1092	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	13	12	11	13	11	11	12	12	11	12
Storage Length (ft)	0		0	0		80	400		0	130		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			80			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.981			0.986	
Flt Protected		0.954			0.961		0.950			0.950		
Satd. Flow (prot)	0	1653	1574	0	1650	1560	1678	3292	0	1687	3216	0
Flt Permitted		0.700			0.657		0.089			0.202		
Satd. Flow (perm)	0	1211	1574	0	1128	1539	157	3292	0	359	3216	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			41			80		26			17	
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		222			142			593			309	
Travel Time (s)		6.1			3.9			10.1			5.3	
Confl. Peds. (#/hr)	1						1					
Peak Hour Factor	0.77	0.77	0.77	0.78	0.78	0.78	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	6%	6%	6%	7%	7%	7%	4%	4%	4%	7%	7%	7%
Adj. Flow (vph)	143	4	319	36	8	26	304	1064	157	56	1227	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	147	319	0	44	26	304	1221	0	56	1353	0
Turn Type	Perm	NA	pm+ov	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4	1		4		1	6		5	2	
Permitted Phases	4		4	4		4	6			2		
Detector Phase	4	4	1	4	4	4	1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0		7.0	20.0	
Minimum Split (s)	13.2	13.2	11.0	13.2	13.2	13.2	11.0	25.6		11.0	25.6	
Total Split (s)	24.0	24.0	15.0	24.0	24.0	24.0	15.0	51.0		15.0	51.0	
Total Split (%)	26.7%	26.7%	16.7%	26.7%	26.7%	26.7%	16.7%	56.7%		16.7%	56.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3		3.0	4.3	
All-Red Time (s)	3.2	3.2	1.0	3.2	3.2	3.2	1.0	1.3		1.0	1.3	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2	4.0		6.2	6.2	4.0	5.6		4.0	5.6	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Act Effct Green (s)		14.3	35.0		14.3	14.3	65.5	55.1		54.0	45.4	
Actuated g/C Ratio		0.16	0.39		0.16	0.16	0.73	0.61		0.60	0.50	
v/c Ratio		0.76	0.50		0.25	0.08	0.85	0.60		0.18	0.83	
Control Delay		60.4	21.3		34.9	0.5	45.4	13.5		6.1	24.4	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		60.4	21.3		34.9	0.5	45.4	13.5		6.1	24.4	
LOS		E	C		C	A	D	B		A	C	

101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2024 Combined Conditions Weekday Morning Peak

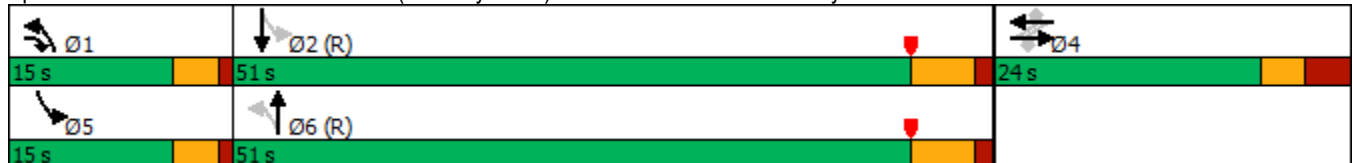


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		33.6			22.1			19.8				23.6
Approach LOS		C			C			B				C
Queue Length 50th (ft)		80	117		22	0	114	222		8		324
Queue Length 95th (ft)		117	155		44	0	#258	276		20		414
Internal Link Dist (ft)		142			62			513				229
Turn Bay Length (ft)						80	400			130		
Base Capacity (vph)		239	636		223	368	358	2024		393		1639
Starvation Cap Reductn		0	0		0	0	0	0		0		0
Spillback Cap Reductn		0	0		0	0	0	0		0		0
Storage Cap Reductn		0	0		0	0	0	0		0		0
Reduced v/c Ratio		0.62	0.50		0.20	0.07	0.85	0.60		0.14		0.83























Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow, Master Intersection  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 23.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 74.0%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway



101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2024 Combined Conditions Weekday Afternoon Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	0	122	104	1	44	124	1125	43	18	861	51
Future Volume (vph)	56	0	122	104	1	44	124	1125	43	18	861	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	13	12	11	13	11	11	12	12	11	12
Storage Length (ft)	0		0	0		80	400		0	130		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			80			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.994			0.992	
Flt Protected		0.950			0.953		0.950			0.950		
Satd. Flow (prot)	0	1745	1669	0	1716	1636	1694	3368	0	1787	3427	0
Flt Permitted		0.484			0.679		0.190			0.139		
Satd. Flow (perm)	0	888	1669	0	1223	1614	339	3368	0	261	3427	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			98			88		6				10
Link Speed (mph)		25			25			40				40
Link Distance (ft)		222			142			593				309
Travel Time (s)		6.1			3.9			10.1				5.3
Confl. Peds. (#/hr)	1						1					
Peak Hour Factor	0.85	0.85	0.85	0.42	0.42	0.42	0.90	0.90	0.90	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	3%	3%	3%	1%	1%	1%
Adj. Flow (vph)	66	0	144	248	2	105	138	1250	48	19	916	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	144	0	250	105	138	1298	0	19	970	0
Turn Type	Perm	NA	pm+ov	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4	1		4		1	6		5	2	
Permitted Phases	4		4	4		4	6			2		
Detector Phase	4	4	1	4	4	4	1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0		7.0	20.0	
Minimum Split (s)	13.2	13.2	11.0	13.2	13.2	13.2	11.0	25.6		11.0	25.6	
Total Split (s)	24.0	24.0	15.0	24.0	24.0	24.0	15.0	51.0		15.0	51.0	
Total Split (%)	26.7%	26.7%	16.7%	26.7%	26.7%	26.7%	16.7%	56.7%		16.7%	56.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3		3.0	4.3	
All-Red Time (s)	3.2	3.2	1.0	3.2	3.2	3.2	1.0	1.3		1.0	1.3	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.2	4.0		6.2	6.2	4.0	5.6		4.0	5.6	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Act Effct Green (s)		23.1	37.0		23.1	23.1	55.7	50.7		52.0	43.4	
Actuated g/C Ratio		0.26	0.41		0.26	0.26	0.62	0.56		0.58	0.48	
v/c Ratio		0.29	0.19		0.80	0.22	0.42	0.68		0.07	0.59	
Control Delay		33.3	7.9		54.4	10.6	10.3	16.4		5.9	18.1	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		33.3	7.9		54.4	10.6	10.3	16.4		5.9	18.1	
LOS		C	A		D	B	B	B		A	B	

101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway  
 2024 Combined Conditions Weekday Afternoon Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		15.9			41.5			15.8				17.8
Approach LOS		B			D			B				B
Queue Length 50th (ft)		28	14		123	7	33	257		4	222	
Queue Length 95th (ft)		69	50		93	0	42	343		9	234	
Internal Link Dist (ft)		142			62			513				229
Turn Bay Length (ft)						80	400			130		
Base Capacity (vph)		227	800		313	479	379	1900		348	1773	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.29	0.18		0.80	0.22	0.36	0.68		0.05	0.55	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow, Master Intersection

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 19.5

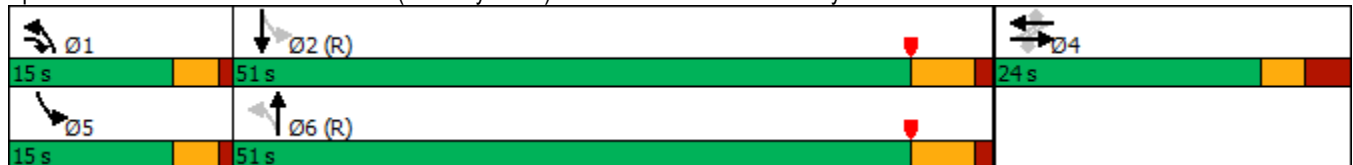
Intersection LOS: B

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 101: U.S. Route 7 (Danbury Road) & School Road/Site Driveway



Route 7 at School Road/372 Danbury Road - TMC

Thu Nov 3, 2022

Full Length (7 AM-9 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1018192, Location: 41.206123, -73.430387

Provided by: Connecticut Counts LLC

63 Sugar Maple Lane,

Kensington, CT, 12345, US

Leg Direction	Route 7 Southbound						372 Danbury Road Westbound						Route 7 Northbound						School Road Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2022-11-03 7:00AM	24	238	0	0	262	0	0	0	0	0	0	0	0	134	38	0	172	0	19	0	6	0	25	0	459
7:15AM	34	276	3	0	313	1	1	0	0	0	1	0	7	147	58	0	212	0	25	0	5	0	30	0	556
7:30AM	38	296	7	0	341	0	4	2	1	0	7	0	8	226	67	0	301	0	80	1	34	0	115	0	764
7:45AM	20	255	3	0	278	0	3	2	3	0	8	0	29	211	68	0	308	0	37	0	22	0	59	0	653
Hourly Total	116	1065	13	0	1194	1	8	4	4	0	16	0	44	718	231	0	993	0	161	1	67	0	229	0	2432
8:00AM	38	264	5	0	307	0	4	2	3	0	9	0	17	260	81	0	358	0	66	1	20	0	87	0	761
8:15AM	15	266	6	0	287	1	1	0	3	0	4	0	12	188	36	0	236	0	61	1	33	0	95	0	622
8:30AM	9	235	1	0	245	0	1	0	5	0	6	0	5	180	9	0	194	0	17	0	6	0	23	0	468
8:45AM	6	296	2	0	304	0	2	0	4	0	6	0	10	198	11	0	219	0	8	1	11	0	20	0	549
Hourly Total	68	1061	14	0	1143	1	8	2	15	0	25	0	44	826	137	0	1007	0	152	3	70	0	225	0	2400
<b>Total</b>	184	2126	27	0	2337	2	16	6	19	0	41	0	88	1544	368	0	2000	0	313	4	137	0	454	0	4832
<b>% Approach</b>	7.9%	91.0%	1.2%	0%	-	-	39.0%	14.6%	46.3%	0%	-	-	4.4%	77.2%	18.4%	0%	-	-	68.9%	0.9%	30.2%	0%	-	-	-
<b>% Total</b>	3.8%	44.0%	0.6%	0%	48.4%	-	0.3%	0.1%	0.4%	0%	0.8%	-	1.8%	32.0%	7.6%	0%	41.4%	-	6.5%	0.1%	2.8%	0%	9.4%	-	-
<b>Lights</b>	171	1983	27	0	2181	-	15	5	19	0	39	-	88	1452	358	0	1898	-	281	4	129	0	414	-	4532
<b>% Lights</b>	92.9%	93.3%	100%	0%	93.3%	-	93.8%	83.3%	100%	0%	95.1%	-	100%	94.0%	97.3%	0%	94.9%	-	89.8%	100%	94.2%	0%	91.2%	-	93.8%
<b>Articulated Trucks and Single-Unit Trucks</b>	5	127	0	0	132	-	1	1	0	0	2	-	0	71	0	0	71	-	7	0	2	0	9	-	214
<b>% Articulated Trucks and Single-Unit Trucks</b>	2.7%	6.0%	0%	0%	5.6%	-	6.3%	16.7%	0%	0%	4.9%	-	0%	4.6%	0%	0%	3.6%	-	2.2%	0%	1.5%	0%	2.0%	-	4.4%
<b>Buses</b>	8	16	0	0	24	-	0	0	0	0	0	-	0	21	10	0	31	-	25	0	6	0	31	-	86
<b>% Buses</b>	4.3%	0.8%	0%	0%	1.0%	-	0%	0%	0%	0%	0%	-	0%	1.4%	2.7%	0%	1.6%	-	8.0%	0%	4.4%	0%	6.8%	-	1.8%
<b>Pedestrians</b>	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

**Route 7 at School Road/372 Danbury Road - TMC**

Thu Nov 3, 2022

Full Length (7 AM-9 AM)

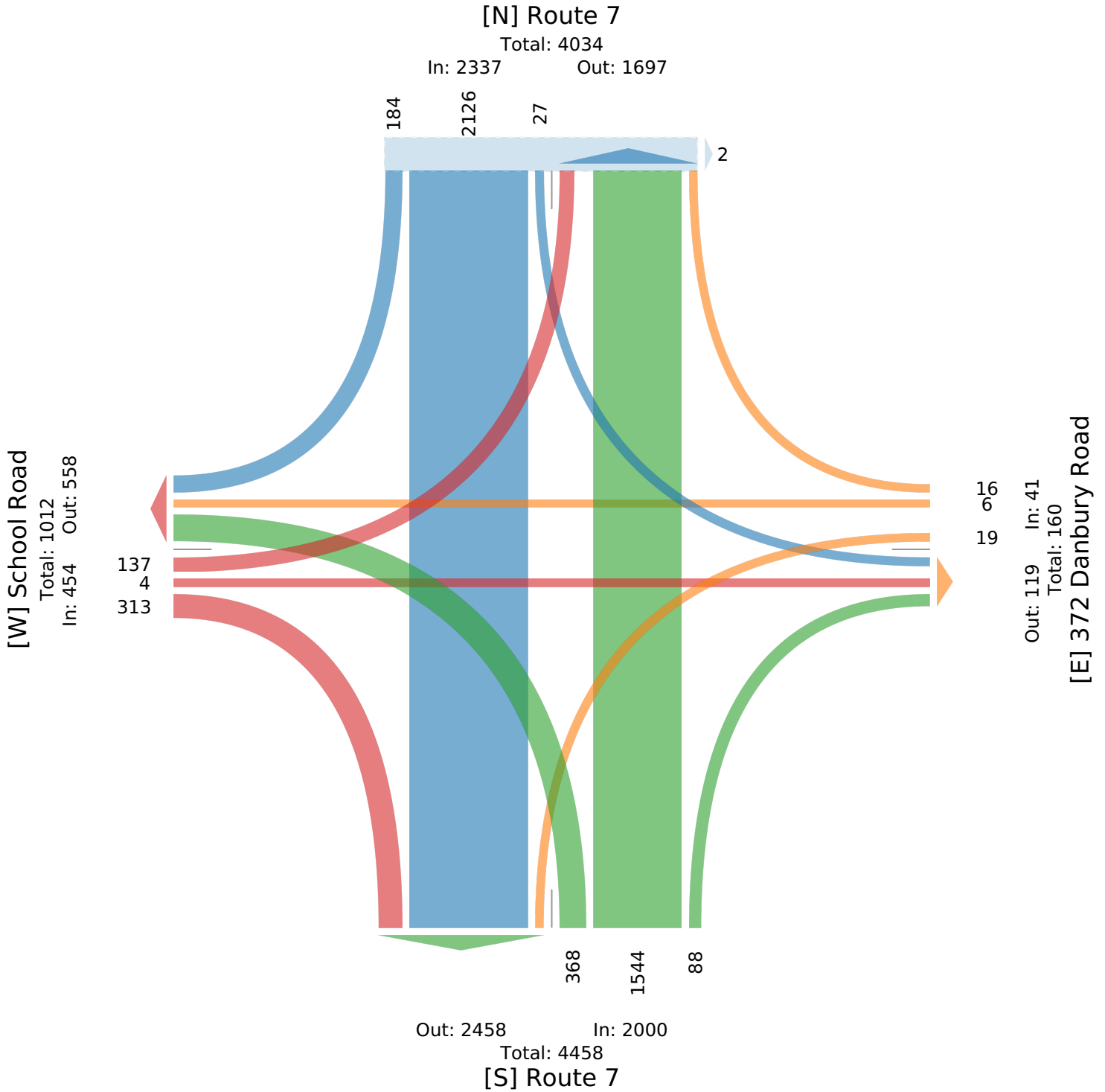
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1018192, Location: 41.206123, -73.430387

Provided by: Connecticut Counts LLC

63 Sugar Maple Lane,  
Kensington, CT, 12345, US



Route 7 at School Road/372 Danbury Road - TMC

Thu Nov 3, 2022

AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1018192, Location: 41.206123, -73.430387

Provided by: Connecticut Counts LLC

63 Sugar Maple Lane,

Kensington, CT, 12345, US

Leg Direction	Route 7 Southbound					372 Danbury Road Westbound					Route 7 Northbound					School Road Eastbound									
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2022-11-03 7:30AM	38	296	7	0	341	0	4	2	1	0	7	0	8	226	67	0	301	0	80	1	34	0	115	0	764
7:45AM	20	255	3	0	278	0	3	2	3	0	8	0	29	211	68	0	308	0	37	0	22	0	59	0	653
8:00AM	38	264	5	0	307	0	4	2	3	0	9	0	17	260	81	0	358	0	66	1	20	0	87	0	761
8:15AM	15	266	6	0	287	1	1	0	3	0	4	0	12	188	36	0	236	0	61	1	33	0	95	0	622
<b>Total</b>	111	1081	21	0	1213	1	12	6	10	0	28	0	66	885	252	0	1203	0	244	3	109	0	356	0	2800
<b>% Approach</b>	9.2%	89.1%	1.7%	0%	-	-	42.9%	21.4%	35.7%	0%	-	-	5.5%	73.6%	20.9%	0%	-	-	68.5%	0.8%	30.6%	0%	-	-	-
<b>% Total</b>	4.0%	38.6%	0.8%	0%	43.3%	-	0.4%	0.2%	0.4%	0%	1.0%	-	2.4%	31.6%	9.0%	0%	43.0%	-	8.7%	0.1%	3.9%	0%	12.7%	-	-
<b>PHF</b>	0.730	0.913	0.750	-	0.889	-	0.750	0.750	0.833	-	0.778	-	0.569	0.851	0.778	-	0.840	-	0.763	0.750	0.801	-	0.774	-	0.916
<b>Lights</b>	104	1005	21	0	1130	-	11	5	10	0	26	-	66	843	251	0	1160	-	227	3	103	0	333	-	2649
<b>% Lights</b>	93.7%	93.0%	100%	0%	93.2%	-	91.7%	83.3%	100%	0%	92.9%	-	100%	95.3%	99.6%	0%	96.4%	-	93.0%	100%	94.5%	0%	93.5%	-	94.6%
<b>Articulated Trucks and Single-Unit Trucks</b>	4	66	0	0	70	-	1	1	0	0	2	-	0	28	0	0	28	-	2	0	1	0	3	-	103
<b>% Articulated Trucks and Single-Unit Trucks</b>	3.6%	6.1%	0%	0%	5.8%	-	8.3%	16.7%	0%	0%	7.1%	-	0%	3.2%	0%	0%	2.3%	-	0.8%	0%	0.9%	0%	0.8%	-	3.7%
<b>Buses</b>	3	10	0	0	13	-	0	0	0	0	0	-	0	14	1	0	15	-	15	0	5	0	20	-	48
<b>% Buses</b>	2.7%	0.9%	0%	0%	1.1%	-	0%	0%	0%	0%	0%	-	0%	1.6%	0.4%	0%	1.2%	-	6.1%	0%	4.6%	0%	5.6%	-	1.7%
<b>Pedestrians</b>	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



**Route 7 at School Road/372 Danbury Road - TMC**

Thu Nov 3, 2022

AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour

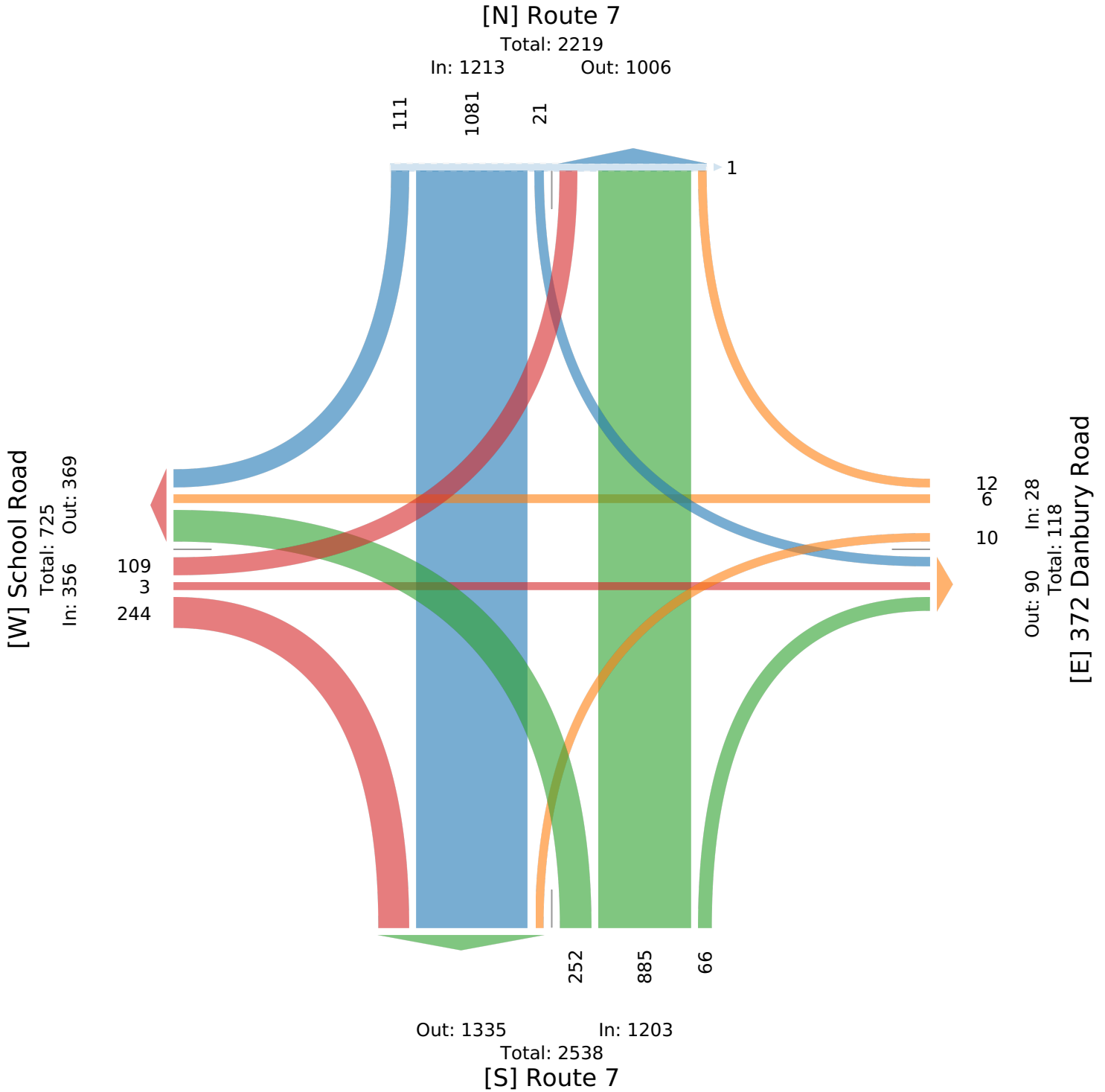
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1018192, Location: 41.206123, -73.430387

Provided by: Connecticut Counts LLC

63 Sugar Maple Lane,  
Kensington, CT, 12345, US



**Route 7 at School Road/372 Danbury Road - TMC**

Thu Nov 3, 2022

Full Length (4 PM-6 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1018196, Location: 41.206123, -73.430387

Provided by: Connecticut Counts LLC

63 Sugar Maple Lane,

Kensington, CT, 12345, US

Leg Direction	Route 7 Southbound						372 Danbury Road Westbound						Route 7 Northbound						School Road Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2022-11-03 4:00PM	10	197	1	0	208	1	2	0	10	0	12	0	5	223	26	0	254	1	28	0	13	0	41	0	515
4:15PM	12	196	0	0	208	2	4	1	8	0	13	1	4	216	39	0	259	1	36	0	22	0	58	0	538
4:30PM	16	213	0	0	229	0	3	1	9	0	13	0	2	236	23	0	261	0	36	0	15	0	51	0	554
4:45PM	9	204	2	0	215	0	5	0	5	0	10	0	4	259	17	0	280	0	21	0	17	0	38	0	543
Hourly Total	47	810	3	0	860	3	14	2	32	0	48	1	15	934	105	0	1054	2	121	0	67	0	188	0	2150
5:00PM	14	225	1	0	240	1	8	1	16	0	25	0	1	250	33	0	284	0	26	0	18	0	44	0	593
5:15PM	12	212	0	1	225	0	0	0	4	0	4	0	5	301	39	0	345	0	36	0	16	0	52	0	626
5:30PM	13	223	1	0	237	0	3	0	5	0	8	0	1	287	26	0	314	0	30	0	11	0	41	0	600
5:45PM	11	192	1	0	204	0	1	0	4	0	5	0	3	276	25	0	304	0	29	0	10	0	39	0	552
Hourly Total	50	852	3	1	906	1	12	1	29	0	42	0	10	1114	123	0	1247	0	121	0	55	0	176	0	2371
<b>Total</b>	97	1662	6	1	1766	4	26	3	61	0	90	1	25	2048	228	0	2301	2	242	0	122	0	364	0	4521
<b>% Approach</b>	5.5%	94.1%	0.3%	0.1%	-	-	28.9%	3.3%	67.8%	0%	-	-	1.1%	89.0%	9.9%	0%	-	-	66.5%	0%	33.5%	0%	-	-	-
<b>% Total</b>	2.1%	36.8%	0.1%	0%	39.1%	-	0.6%	0.1%	1.3%	0%	2.0%	-	0.6%	45.3%	5.0%	0%	50.9%	-	5.4%	0%	2.7%	0%	8.1%	-	-
<b>Lights</b>	94	1634	6	1	1735	-	25	3	60	0	88	-	23	1985	214	0	2222	-	242	0	120	0	362	-	4407
<b>% Lights</b>	96.9%	98.3%	100%	100%	98.2%	-	96.2%	100%	98.4%	0%	97.8%	-	92.0%	96.9%	93.9%	0%	96.6%	-	100%	0%	98.4%	0%	99.5%	-	97.5%
<b>Articulated Trucks and Single-Unit Trucks</b>	0	24	0	0	24	-	1	0	1	0	2	-	2	52	0	0	54	-	0	0	2	0	2	-	82
<b>% Articulated Trucks and Single-Unit Trucks</b>	0%	1.4%	0%	0%	1.4%	-	3.8%	0%	1.6%	0%	2.2%	-	8.0%	2.5%	0%	0%	2.3%	-	0%	0%	1.6%	0%	0.5%	-	1.8%
<b>Buses</b>	3	4	0	0	7	-	0	0	0	0	0	-	0	11	14	0	25	-	0	0	0	0	0	-	32
<b>% Buses</b>	3.1%	0.2%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0.5%	6.1%	0%	1.1%	-	0%	0%	0%	0%	0%	-	0.7%
<b>Pedestrians</b>	-	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	0	
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

**Route 7 at School Road/372 Danbury Road - TMC**

Thu Nov 3, 2022

Full Length (4 PM-6 PM)

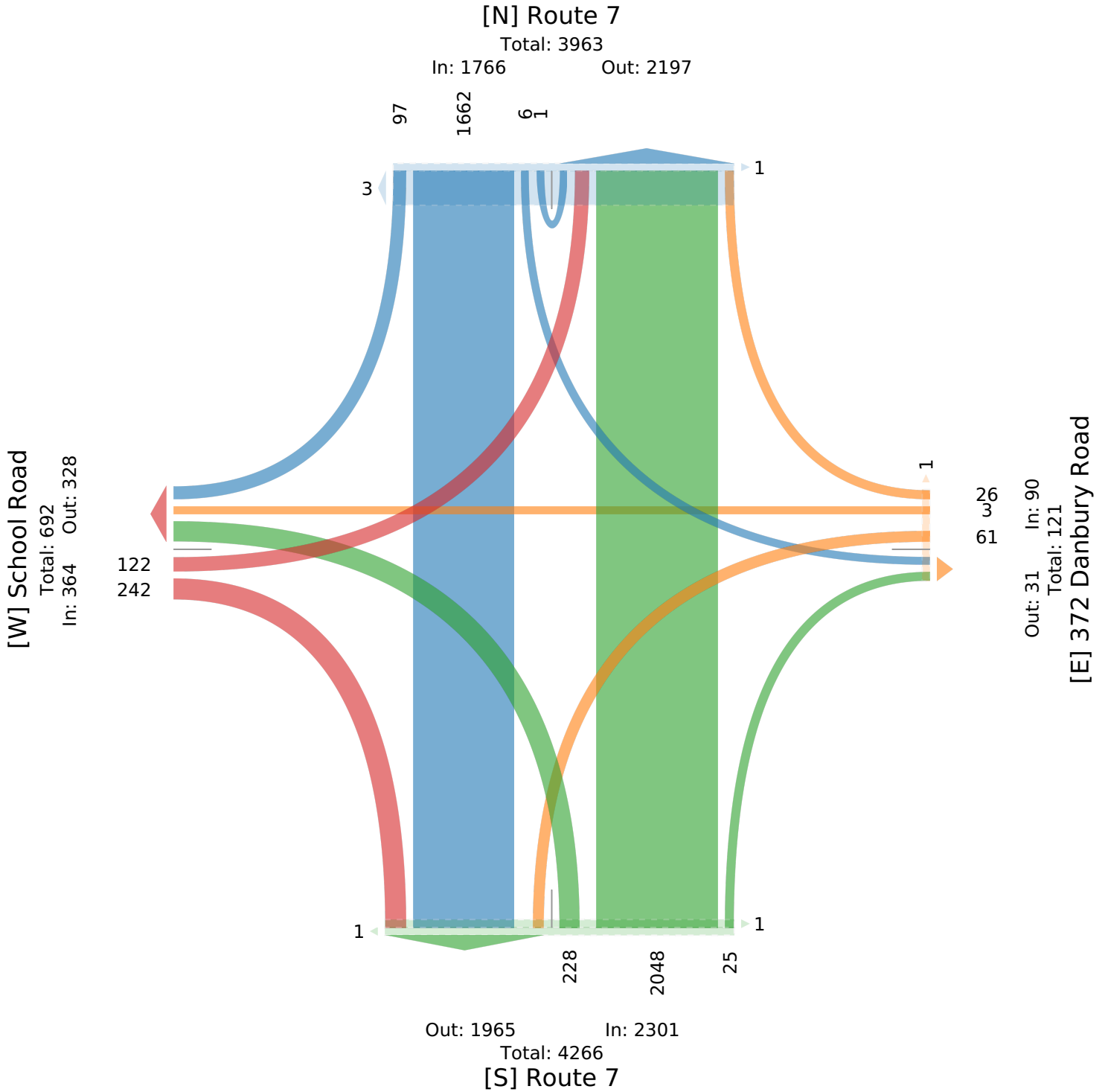
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1018196, Location: 41.206123, -73.430387

Provided by: Connecticut Counts LLC

63 Sugar Maple Lane,  
Kensington, CT, 12345, US



**Route 7 at School Road/372 Danbury Road - TMC**

Thu Nov 3, 2022

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1018196, Location: 41.206123, -73.430387

Provided by: Connecticut Counts LLC

63 Sugar Maple Lane,

Kensington, CT, 12345, US

Leg Direction	Route 7 Southbound						372 Danbury Road Westbound						Route 7 Northbound						School Road Eastbound						Int
	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	
2022-11-03 5:00PM	14	225	1	0	240	1	8	1	16	0	25	0	1	250	33	0	284	0	26	0	18	0	44	0	593
5:15PM	12	212	0	1	225	0	0	0	4	0	4	0	5	301	39	0	345	0	36	0	16	0	52	0	626
5:30PM	13	223	1	0	237	0	3	0	5	0	8	0	1	287	26	0	314	0	30	0	11	0	41	0	600
5:45PM	11	192	1	0	204	0	1	0	4	0	5	0	3	276	25	0	304	0	29	0	10	0	39	0	552
<b>Total</b>	50	852	3	1	906	1	12	1	29	0	42	0	10	1114	123	0	1247	0	121	0	55	0	176	0	2371
<b>% Approach</b>	5.5%	94.0%	0.3%	0.1%	-	-	28.6%	2.4%	69.0%	0%	-	-	0.8%	89.3%	9.9%	0%	-	-	68.8%	0%	31.3%	0%	-	-	-
<b>% Total</b>	2.1%	35.9%	0.1%	0%	38.2%	-	0.5%	0%	1.2%	0%	1.8%	-	0.4%	47.0%	5.2%	0%	52.6%	-	5.1%	0%	2.3%	0%	7.4%	-	-
<b>PHF</b>	0.893	0.947	0.750	0.250	0.944	-	0.375	0.250	0.453	-	0.420	-	0.500	0.925	0.788	-	0.904	-	0.840	-	0.764	-	0.846	-	0.947
<b>Lights</b>	50	842	3	1	896	-	12	1	28	0	41	-	8	1084	123	0	1215	-	121	0	55	0	176	-	2328
<b>% Lights</b>	100%	98.8%	100%	100%	98.9%	-	100%	100%	96.6%	0%	97.6%	-	80.0%	97.3%	100%	0%	97.4%	-	100%	0%	100%	0%	100%	-	98.2%
<b>Articulated Trucks and Single-Unit Trucks</b>	0	9	0	0	9	-	0	0	1	0	1	-	2	25	0	0	27	-	0	0	0	0	0	-	37
<b>% Articulated Trucks and Single-Unit Trucks</b>	0%	1.1%	0%	0%	1.0%	-	0%	0%	3.4%	0%	2.4%	-	20.0%	2.2%	0%	0%	2.2%	-	0%	0%	0%	0%	0%	-	1.6%
<b>Buses</b>	0	1	0	0	1	-	0	0	0	0	0	-	0	5	0	0	5	-	0	0	0	0	0	-	6
<b>% Buses</b>	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0.3%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

**Route 7 at School Road/372 Danbury Road - TMC**

Thu Nov 3, 2022

PM Peak (5 PM - 6 PM) - Overall Peak Hour

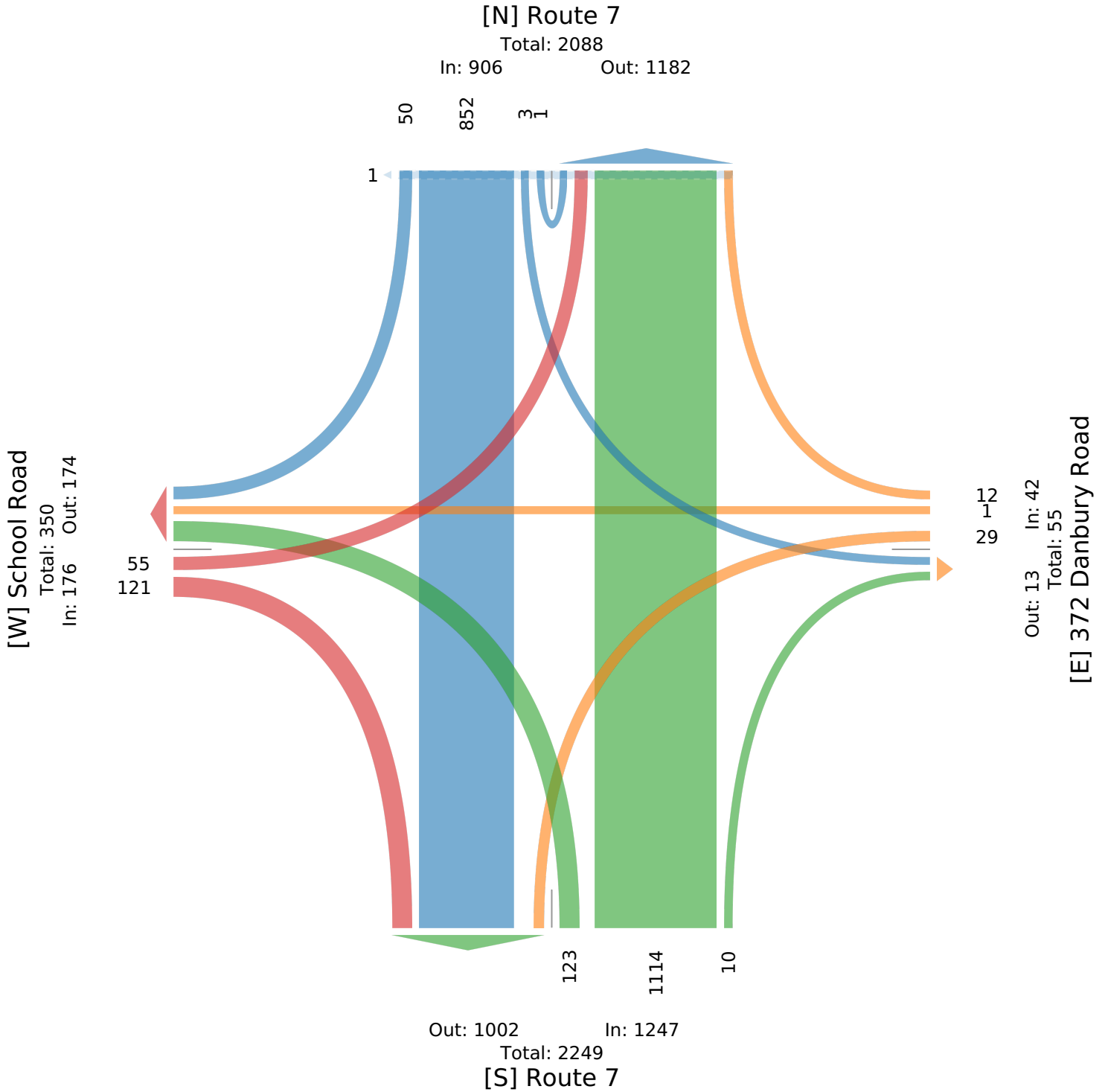
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All Movements

ID: 1018196, Location: 41.206123, -73.430387

Provided by: Connecticut Counts LLC

63 Sugar Maple Lane,  
Kensington, CT, 12345, US



Status: OK

**WILT-116 - Combined - n/s**

Route 7 - 8.06 mi North of High School Road

Collected during COVID-19 epoch

	06-Jul Mon	07-Jul Tue	08-Jul Wed	09-Jul Thu	
Town.....Wilton		64	70	80	
Station.....116		32	34	27	
Location..... 41.206615,-73.4305		29	33	42	
Posted Speed Limit.....40 MPH		35	41	35	
A.K.A.....2116		78	71	93	
2015-Principal Arterial - Other 3...2015-Urban		382	388	379	
HPMS Section ID.....		996	983	1004	
Start Report.....06-Jul-2020 01:00PM		1355	1302	1328	
End Report.....09-Jul-2020 12:00PM		1494	1315	1436	
Annualized ADT.....17500		1241	1302	1288	
24-Hour Count.....18560 * G2(0.93) = 17260.8		1113	1073	1228	
Day 1.....+19580 * G2(0.93) = 35470.2		1105	1234	1287	
Day 2.....+18444 * G2(0.93) = 52623.1		x	1316	x	
UnRounded AADT.....52623.1 / 3 = 17541.0		1207	1270	1298	
OK 2020 Mon 06-Jul -this report-.....17500		1295	1367	1458	
OK 2017 Mon 27-Nov .....28700		1453	1508	1248	
OK 2014 Tue 02-Dec .....28600		1265	1509	1114	
REV 2011 Mon 18-Apr .....23200		1281	1521	1241	
OK 2008 Mon 24-Mar .....20900		1029	1121	910	
		07:00pm	660	778	707
		08:00pm	502	540	521
		09:00pm	322	374	352
		10:00pm	231	262	269
		11:00pm	153	168	164
Totals	9398	19580	18444	8227	

Status: OK

- North
- Combined
- South
- Class
- Speed

**WILT-116 - North**

Route 7 - 8.06 mi North of High School Road

Collected during COVID-19 epoch		06-Jul	07-Jul	08-Jul	09-Jul	
		Mon	Tue	Wed	Thu	
Town.....	Wilton		31	41	51	
Station.....	116		15	19	13	
Location.....	41.206615,-73.4305		15	20	27	
Posted Speed Limit.....	40 MPH		21	22	17	
A.K.A.....	2116		26	29	33	
2015-Principal Arterial - Other	3...2015-Urban		109	109	109	
HPMS Section ID.....			376	373	349	
Start Report.....	06-Jul-2020 01:00PM		501	465	462	
End Report.....	09-Jul-2020 12:00PM		651	524	634	
Annualized ADT.....	8600		537	557	560	
24-Hour Count.....	8972 * G2(0.93) = 8344.0		512	488	549	
Day 1.....	+ 9751 * G2(0.93) = 17412.4		529	606	623	
Day 2.....	+ 8907 * G2(0.93) = 25695.9		620	649	x	
UnRounded AADT.....	25695.9 / 3 = 8565.3		620	673	650	
OK 2020 Mon 06-Jul -this report-	17500	620	734	733	791	
OK 2017 Mon 27-Nov	28700	778	874	874	659	
OK 2014 Tue 02-Dec	28600	690	866	866	609	
REV 2011 Mon 18-Apr	23200	635	871	871	686	
OK 2008 Mon 24-Mar	20900	594	629	629	523	
		348	430	430	381	
		273	309	309	294	
		154	190	190	179	
		132	148	148	153	
		71	85	85	80	
		Totals	5029	9751	8907	3427

Status: OK

- North
- Combined
- South
- Class
- Speed

**WILT-116 - South**

Route 7 - 8.06 mi North of High School Road

Collected during COVID-19 epoch

	06-Jul	07-Jul	08-Jul	09-Jul
	Mon	Tue	Wed	Thu
Town.....Wilton	12:00am	33	29	29
Station.....116	01:00am	17	15	14
Location..... 41.206615,-73.4305	02:00am	14	13	15
Posted Speed Limit.....40 MPH	03:00am	14	19	18
A.K.A.....2116	04:00am	52	42	60
2015-Principal Arterial - Other 3...2015-Urban	05:00am	273	279	270
HPMS Section ID.....	06:00am	620	610	655
Start Report.....06-Jul-2020 01:00PM	07:00am	854	837	866
End Report.....09-Jul-2020 12:00PM	08:00am	843	791	802
Annualized ADT.....9000	09:00am	704	745	728
24-Hour Count..... 9588 * G2(0.93) = 8916.8	10:00am	601	585	679
Day 1.....+ 9829 * G2(0.93) = 18057.8	11:00am	576	628	664
Day 2.....+ 9537 * G2(0.93) = 26927.2	12:00pm	x	618	667
UnRounded AADT.....26927.2 / 3 = 8975.7	01:00pm	587	597	648
OK 2020 Mon 06-Jul -this report-.....17500	02:00pm	561	634	667
OK 2017 Mon 27-Nov .....28700	03:00pm	675	634	589
OK 2014 Tue 02-Dec .....28600	04:00pm	575	643	505
REV 2011 Mon 18-Apr .....23200	05:00pm	646	650	555
OK 2008 Mon 24-Mar .....20900	06:00pm	435	492	387
	07:00pm	312	348	326
	08:00pm	229	231	227
	09:00pm	168	184	173
	10:00pm	99	114	116
	11:00pm	82	83	84
Totals	4369	9829	9537	4800



Status: OK

**WILT-116 - Combined - n/s**

Route 7 - 8.06 mi North of High School Road

Town.....	Wilton	27-Nov	28-Nov
Station.....	116	Mon	Tue
Location.....	41.206615,-73.4305	12:00am	36
A.K.A.....	2116	01:00am	44
2015-Principal Arterial - Other	3...2015-Urban	02:00am	56
HPMS Section ID.....		03:00am	56
Start Report.....	27-Nov-2017 12:00AM	04:00am	148
End Report.....	28-Nov-2017 11:00PM	05:00am	528
Axle Correction Factor.....	None	06:00am	1547
Annualized ADT.....	28700	07:00am	2398
24-Hour Count.....	29010 * G2(0.98) = 28429.8	08:00am	2471
Day 1.....	+29658 * G2(0.98) = 57494.6	09:00am	1915
UnRounded AADT.....	57494.6 / 2 = 28747.3	10:00am	1476
OK 2020 Mon 06-Jul	17500	11:00am	1469
OK 2017 Mon 27-Nov -this report-	28700	12:00pm	1502
OK 2014 Tue 02-Dec	28600	01:00pm	1516
REV 2011 Mon 18-Apr	23200	02:00pm	2025
OK 2008 Mon 24-Mar	20900	03:00pm	2119
		04:00pm	2356
		05:00pm	2462
		06:00pm	1999
		07:00pm	1188
		08:00pm	773
		09:00pm	478
		10:00pm	286
		11:00pm	162
		Totals	29010
			29658

Status: OK

North Combined South

WILT-116 - North

Route 7 - 8.06 mi North of High School Road

Town.....	Wilton	27-Nov	28-Nov
Station.....	116	Mon	Tue
Location.....	41.206615,-73.4305	12:00am	24
A.K.A.....	2116	01:00am	23
2015-Principal Arterial - Other	3...2015-Urban	02:00am	28
HPMS Section ID.....		03:00am	22
Start Report.....	27-Nov-2017 12:00AM	04:00am	56
End Report.....	28-Nov-2017 11:00PM	05:00am	118
Axle Correction Factor.....	None	06:00am	425
Annualized ADT.....	14200	07:00am	833
24-Hour Count.....	14258 * G2(0.98) = 13972.8	08:00am	996
Day 1.....	+14765 * G2(0.98) = 28442.5	09:00am	717
UnRounded AADT.....	28442.5 / 2 = 14221.3	10:00am	646
OK 2020 Mon 06-Jul	17500	11:00am	690
OK 2017 Mon 27-Nov -this report-	28700	12:00pm	724
OK 2014 Tue 02-Dec	28600	01:00pm	745
REV 2011 Mon 18-Apr	23200	02:00pm	1065
OK 2008 Mon 24-Mar	20900	03:00pm	1187
		04:00pm	1410
		05:00pm	1582
		06:00pm	1253
		07:00pm	719
		08:00pm	475
		09:00pm	268
		10:00pm	164
		11:00pm	88
		Totals	14258
			14765

Status: OK

North Combined South

WILT-116 - South

Route 7 - 8.06 mi North of High School Road

Town.....	Station.....	Location.....	A.K.A.....	2015-Principal Arterial - Other	HPMS Section ID.....	Start Report.....	End Report.....	Axle Correction Factor.....	Annualized ADT.....	24-Hour Count.....	Day 1.....	UnRounded AADT.....	OK 2020 Mon 06-Jul	OK 2017 Mon 27-Nov -this report-	OK 2014 Tue 02-Dec	REV 2011 Mon 18-Apr	OK 2008 Mon 24-Mar	Time	27-Nov	28-Nov	
Wilton	116	41.206615,-73.4305	2116	3...2015-Urban		27-Nov-2017 12:00AM	28-Nov-2017 11:00PM	None	14500	14752 * G2(0.98) = 14457.0	+14893 * G2(0.98) = 29052.1	29052.1 / 2 = 14526.0	17500	28700	28600	23200	20900		Mon	Tue	
																		12:00am	12	33	
																			01:00am	21	17
																			02:00am	28	20
																			03:00am	34	18
																			04:00am	92	86
																			05:00am	410	415
																			06:00am	1122	1097
																			07:00am	1565	1655
																			08:00am	1475	1499
																			09:00am	1198	1167
																			10:00am	830	859
																			11:00am	779	780
																			12:00pm	778	790
																			01:00pm	771	760
																			02:00pm	960	946
																			03:00pm	932	984
																			04:00pm	946	868
																			05:00pm	880	889
																			06:00pm	746	764
																			07:00pm	469	456
																			08:00pm	298	304
																			09:00pm	210	248
																			10:00pm	122	153
																			11:00pm	74	85
																			Totals	14752	14893

Status: OK [North] [Combined] [South]

WILT-116 - Combined - n/s

Route 7 - 8.06 mi North of High School Road

Collected during COVID-19 epoch

Hour	MPH 0-15	MPH 16-20	MPH 21-25	MPH 26-30	MPH 31-35	MPH 36-40	MPH 41-45	MPH 46-50	MPH 51-55	MPH 56-60	MPH 61-65	MPH 66-70	MPH 71-75	MPH 76+
Town.....Wilton														
Station.....116														
Location..... 41.206615,-73.4305														
Posted Speed Limit.....40 MPH														
A.K.A.....2116														
2015-Principal Arterial - Other 3...2015-Urban														
HPMS Section ID.....														
Start Report.....06-Jul-2020 01:00PM														
End Report.....09-Jul-2020 12:00PM														
All Vehicles Average Speed..... 38 MPH														
Total Vehicles.....55649														
Percentile Sampling Period..... 9AM to 4PM														
Vehicle Too Close.....5 secs														
Vehicle Too Slow..... < 25 MPH														
Speed Lower Limit.....15 MPH below Posted														
<u>All Report Days</u>														
85th Percentile Speed.....47.8 MPH														
50th Percentile Speed.....36.7 MPH														
10 MPH Pace (49%).....30-39 MPH														
All Hours Total Vehicles.....55649														
In-Period Total Vehicles.....25529														
Omitted Vehicles Too Close (74%).....18821														
Omitted Vehicles Too Slow ( 1%).....348														
Sampled Vehicles (25%).....6360														
<u>Monday 06-Jul-2020</u>														
85th Percentile Speed.....48.7 MPH														
50th Percentile Speed.....37.1 MPH														
10 MPH Pace (46%).....30-39 MPH														
All Hours Total Vehicles.....9398														
In-Period Total Vehicles.....3955														
Omitted Vehicles Too Close (75%).....2965														
Omitted Vehicles Too Slow ( 2%).....69														
Sampled Vehicles (23%).....921														
<u>Tuesday 07-Jul-2020</u>														
85th Percentile Speed.....49.0 MPH														
50th Percentile Speed.....38.0 MPH														
10 MPH Pace (45%).....30-39 MPH														
All Hours Total Vehicles.....19580														
In-Period Total Vehicles.....8842														
Omitted Vehicles Too Close (73%).....6420														
Omitted Vehicles Too Slow ( 1%).....105														
Sampled Vehicles (26%).....2317														
<u>Wednesday 08-Jul-2020</u>														
85th Percentile Speed.....46.4 MPH														
50th Percentile Speed.....36.3 MPH														
10 MPH Pace (53%).....30-39 MPH														
All Hours Total Vehicles.....18444														
In-Period Total Vehicles.....8929														
Omitted Vehicles Too Close (74%).....6628														
Omitted Vehicles Too Slow ( 1%).....130														
Sampled Vehicles (24%).....2171														
<u>Thursday 09-Jul-2020</u>														
85th Percentile Speed.....46.4 MPH														
50th Percentile Speed.....35.9 MPH														
10 MPH Pace (54%).....31-40 MPH														
All Hours Total Vehicles.....8227														
In-Period Total Vehicles.....3803														
Omitted Vehicles Too Close (74%).....2808														
Omitted Vehicles Too Slow ( 1%).....44														
Sampled Vehicles (25%).....951														

2020 WILT-116 - Speed

12:00am	.	.	1	6	12	13	16	21	10	1	.	.	.	.
01:00am	.	.	.	2	10	3	3	3	5	1	.	.	.	.
02:00am	.	.	.	1	6	10	9	10	6	.	.	.	.	.
03:00am	.	.	.	2	9	8	7	7	1	.	.	.	.	.
04:00am	.	.	.	5	28	27	19	7	5	1	.	.	.	.
05:00am	.	.	2	8	69	146	108	25	7	8	5	.	.	.
06:00am	1	4	19	69	225	297	150	92	87	43	12	5	.	.
07:00am	.	4	39	167	376	316	171	117	80	44	10	3	1	1
08:00am	.	2	50	304	360	292	179	145	71	26	5	1	1	1
09:00am	.	2	55	214	431	279	146	87	50	23	1	.	.	.
10:00am	.	4	32	178	391	288	151	117	55	11	1	.	.	.
11:00am	.	3	30	179	425	273	176	119	70	10	1	1	.	.
12:00pm	x	x	x	x	x	x	x	x	x	x	x	x	x	x
01:00pm														
02:00pm														
03:00pm														
04:00pm														
05:00pm														
06:00pm														
07:00pm														
08:00pm														
09:00pm														
10:00pm														
11:00pm														
Totals	1	19	228	1135	2342	1952	1135	750	447	168	35	10	2	.
Percent	0.01	0.23	2.77	13.80	28.47	23.73	13.80	9.12	5.43	2.04	0.43	0.12	0.02	0.0

Status: OK [North] [Combined] [South]

WILT-116 - North

Route 7 - 8.06 mi North of High School Road

Collected during COVID-19 epoch

Hour	MPH 0-15	MPH 16-20	MPH 21-25	MPH 26-30	MPH 31-35	MPH 36-40	MPH 41-45	MPH 46-50	MPH 51-55	MPH 56-60	MPH 61-65	MPH 66-70	MPH 71-75	MPH 76+
Town.....Wilton														
Station.....116														
Location..... 41.206615,-73.4305														
Posted Speed Limit.....40 MPH														
A.K.A.....2116														
2015-Principal Arterial - Other 3...2015-Urban														
HPMS Section ID.....														
Start Report.....06-Jul-2020 01:00PM														
End Report.....09-Jul-2020 12:00PM														
All Vehicles Average Speed..... 44 MPH														
Total Vehicles.....27114														
Percentile Sampling Period..... 9AM to 4PM														
Vehicle Too Close.....5 secs														
Vehicle Too Slow..... < 25 MPH														
Speed Lower Limit.....15 MPH below Posted														
<u>All Report Days</u>														
85th Percentile Speed.....51.2 MPH														
50th Percentile Speed.....43.6 MPH														
10 MPH Pace (51%).....41-50 MPH														
All Hours Total Vehicles.....27114														
In-Period Total Vehicles.....12742														
Omitted Vehicles Too Close (73%).....9356														
Omitted Vehicles Too Slow ( 0%).....19														
Sampled Vehicles (26%).....3367														
<u>Monday 06-Jul-2020</u>														
85th Percentile Speed.....51.6 MPH														
50th Percentile Speed.....44.5 MPH														
10 MPH Pace (56%).....41-50 MPH														
All Hours Total Vehicles.....5029														
In-Period Total Vehicles.....2132														
Omitted Vehicles Too Close (77%).....1639														
Omitted Vehicles Too Slow ( 0%).....1														
Sampled Vehicles (23%).....492														
<u>Tuesday 07-Jul-2020</u>														
85th Percentile Speed.....52.2 MPH														
50th Percentile Speed.....44.7 MPH														
10 MPH Pace (52%).....41-50 MPH														
All Hours Total Vehicles.....9751														
In-Period Total Vehicles.....4478														
Omitted Vehicles Too Close (72%).....3242														
Omitted Vehicles Too Slow ( 0%).....3														
Sampled Vehicles (28%).....1233														
<u>Wednesday 08-Jul-2020</u>														
85th Percentile Speed.....49.4 MPH														
50th Percentile Speed.....42.3 MPH														
10 MPH Pace (51%).....41-50 MPH														
All Hours Total Vehicles.....8907														
In-Period Total Vehicles.....4400														
Omitted Vehicles Too Close (74%).....3259														
Omitted Vehicles Too Slow ( 0%).....12														
Sampled Vehicles (26%).....1129														
<u>Thursday 09-Jul-2020</u>														
85th Percentile Speed.....49.9 MPH														
50th Percentile Speed.....40.8 MPH														
10 MPH Pace (47%).....36-45 MPH														
All Hours Total Vehicles.....3427														
In-Period Total Vehicles.....1732														
Omitted Vehicles Too Close (70%).....1216														
Omitted Vehicles Too Slow ( 0%).....3														
Sampled Vehicles (30%).....513														

2020 WILT-116 - Speed

12:00am	.	.	.	.	1	5	13	21	10	1	.	.	.	
01:00am	.	.	.	.	1	.	3	3	5	1	.	.	.	
02:00am	.	.	.	.	.	2	9	10	6	.	.	.	.	
03:00am	.	.	.	.	.	2	6	7	1	.	.	.	.	
04:00am	.	.	.	.	2	4	13	7	5	1	.	.	.	
05:00am	.	.	.	.	4	19	52	16	4	8	5	.	.	
06:00am	.	.	2	3	23	31	56	87	87	43	12	5	.	
07:00am	.	1	2	7	25	69	104	116	80	44	10	3	1	
08:00am	.	.	8	33	63	128	154	144	71	26	5	1	1	
09:00am	.	1	8	30	116	123	121	87	50	23	1	.	.	
10:00am	.	.	.	30	113	112	112	115	55	11	1	.	.	
11:00am	.	.	7	27	119	125	144	119	70	10	1	1	.	
12:00pm	x	x	x	x	x	x	x	x	x	x	x	x	.	
01:00pm														
02:00pm														
03:00pm														
04:00pm														
05:00pm														
06:00pm														
07:00pm														
08:00pm														
09:00pm														
10:00pm														
11:00pm														
Totals	0	2	27	130	467	620	787	732	444	168	35	10	2	
Percent	0.00	0.06	0.79	3.79	13.63	18.09	22.96	21.36	12.96	4.90	1.02	0.29	0.06	0.05

Status: OK [North] [Combined] [South]

WILT-116 - South

Route 7 - 8.06 mi North of High School Road

Collected during COVID-19 epoch

Hour	MPH 0-15	MPH 16-20	MPH 21-25	MPH 26-30	MPH 31-35	MPH 36-40	MPH 41-45	MPH 46-50	MPH 51-55	MPH 56-60	MPH 61-65	MPH 66-70	MPH 71-75	MPH 76+
Town.....Wilton														
Station.....116														
Location..... 41.206615,-73.4305														
Posted Speed Limit.....40 MPH														
A.K.A.....2116														
2015-Principal Arterial - Other 3...2015-Urban														
HPMS Section ID.....														
Start Report.....06-Jul-2020 01:00PM														
End Report.....09-Jul-2020 12:00PM														
All Vehicles Average Speed..... 33 MPH														
Total Vehicles.....28535														
Percentile Sampling Period..... 9AM to 4PM														
Vehicle Too Close.....5 secs														
Vehicle Too Slow..... < 25 MPH														
Speed Lower Limit.....15 MPH below Posted														
<u>All Report Days</u>														
85th Percentile Speed.....	37.1	MPH												
50th Percentile Speed.....	32.9	MPH												
10 MPH Pace (75%).....	28-37	MPH												
All Hours Total Vehicles.....	28535													
In-Period Total Vehicles.....	12787													
Omitted Vehicles Too Close (74%).....	9465													
Omitted Vehicles Too Slow ( 3%).....	329													
Sampled Vehicles (23%).....	2993													
<u>Monday 06-Jul-2020</u>														
85th Percentile Speed.....	36.7	MPH												
50th Percentile Speed.....	32.7	MPH												
10 MPH Pace (77%).....	29-38	MPH												
All Hours Total Vehicles.....	4369													
In-Period Total Vehicles.....	1823													
Omitted Vehicles Too Close (73%).....	1326													
Omitted Vehicles Too Slow ( 4%).....	368													
Sampled Vehicles (24%).....	429													
<u>Tuesday 07-Jul-2020</u>														
85th Percentile Speed.....	37.8	MPH												
50th Percentile Speed.....	33.0	MPH												
10 MPH Pace (74%).....	28-37	MPH												
All Hours Total Vehicles.....	9829													
In-Period Total Vehicles.....	4364													
Omitted Vehicles Too Close (73%).....	3178													
Omitted Vehicles Too Slow ( 2%).....	102													
Sampled Vehicles (25%).....	1084													
<u>Wednesday 08-Jul-2020</u>														
85th Percentile Speed.....	37.0	MPH												
50th Percentile Speed.....	32.8	MPH												
10 MPH Pace (76%).....	29-38	MPH												
All Hours Total Vehicles.....	9537													
In-Period Total Vehicles.....	4529													
Omitted Vehicles Too Close (74%).....	3369													
Omitted Vehicles Too Slow ( 3%).....	118													
Sampled Vehicles (23%).....	1042													
<u>Thursday 09-Jul-2020</u>														
85th Percentile Speed.....	36.9	MPH												
50th Percentile Speed.....	33.0	MPH												
10 MPH Pace (74%).....	28-37	MPH												
All Hours Total Vehicles.....	4800													
In-Period Total Vehicles.....	2071													
Omitted Vehicles Too Close (77%).....	1592													
Omitted Vehicles Too Slow ( 2%).....	41													
Sampled Vehicles (21%).....	438													
Totals														
Percent	0.11	0.37	7.12	26.48	37.15	23.16	5.24	0.34	0.02	0.00	0.00	0.00	0.00	0.00
Tuesday														
07-Jul														
12:00am														
01:00am														
02:00am														
03:00am														
04:00am														
05:00am														
06:00am														
07:00am														
08:00am														
09:00am														
10:00am														
11:00am														
Totals														
Percent	0.04	0.30	5.90	23.58	38.34	25.50	5.86	0.45	0.04	0.00	0.00	0.00	0.00	0.00
Wednesday														
08-Jul														
12:00am														
01:00am														
02:00am														
03:00am														
04:00am														
05:00am														
06:00am														
07:00am														
08:00am														
09:00am														
10:00am														
11:00am														
12:00pm														
01:00pm														
02:00pm														
03:00pm														
04:00pm														
05:00pm														
06:00pm														
07:00pm														
08:00pm														
09:00pm														
10:00pm														
11:00pm														
Totals														
Percent	0.09	0.29	5.75	22.29	37.45	26.63	6.99	0.45	0.04	0.00	0.00	0.00	0.00	0.00
Thursday														
09-Jul														



2020 WILT-116 - Speed

12:00am	.	.	1	6	11	8	3	.	.	.	.	.	.	.
01:00am	.	.	.	2	9	3	.	.	.	.	.	.	.	.
02:00am	.	.	.	1	6	8	.	.	.	.	.	.	.	.
03:00am	.	.	.	2	9	6	1	.	.	.	.	.	.	.
04:00am	.	.	.	5	26	23	6	.	.	.	.	.	.	.
05:00am	.	.	2	8	65	127	56	9	3	.	.	.	.	.
06:00am	1	4	17	66	202	266	94	5	.	.	.	.	.	.
07:00am	.	3	37	160	351	247	67	1	.	.	.	.	.	.
08:00am	.	2	42	271	297	164	25	1	.	.	.	.	.	.
09:00am	.	1	47	184	315	156	25	.	.	.	.	.	.	.
10:00am	.	4	32	148	278	176	39	2	.	.	.	.	.	.
11:00am	.	3	23	152	306	148	32	.	.	.	.	.	.	.
12:00pm	x	x	x	x	x	x	x	x	x	x	x	x	x	:
01:00pm														
02:00pm														
03:00pm														
04:00pm														
05:00pm														
06:00pm														
07:00pm														
08:00pm														
09:00pm														
10:00pm														
11:00pm														
Totals	1	17	201	1005	1875	1332	348	18	3	0	0	0	0	(
Percent	0.02	0.35	4.19	20.94	39.06	27.75	7.25	0.38	0.06	0.00	0.00	0.00	0.00	0.00

**REGULATORY  
REVIEW  
SUBMISSION**

THIS DOCUMENT IS INCOMPLETE AND IS  
RELEASED TEMPORARILY FOR PROGRESS  
REVIEW ONLY. IT IS NOT INTENDED FOR  
BIDDING OR CONSTRUCTION PURPOSES.

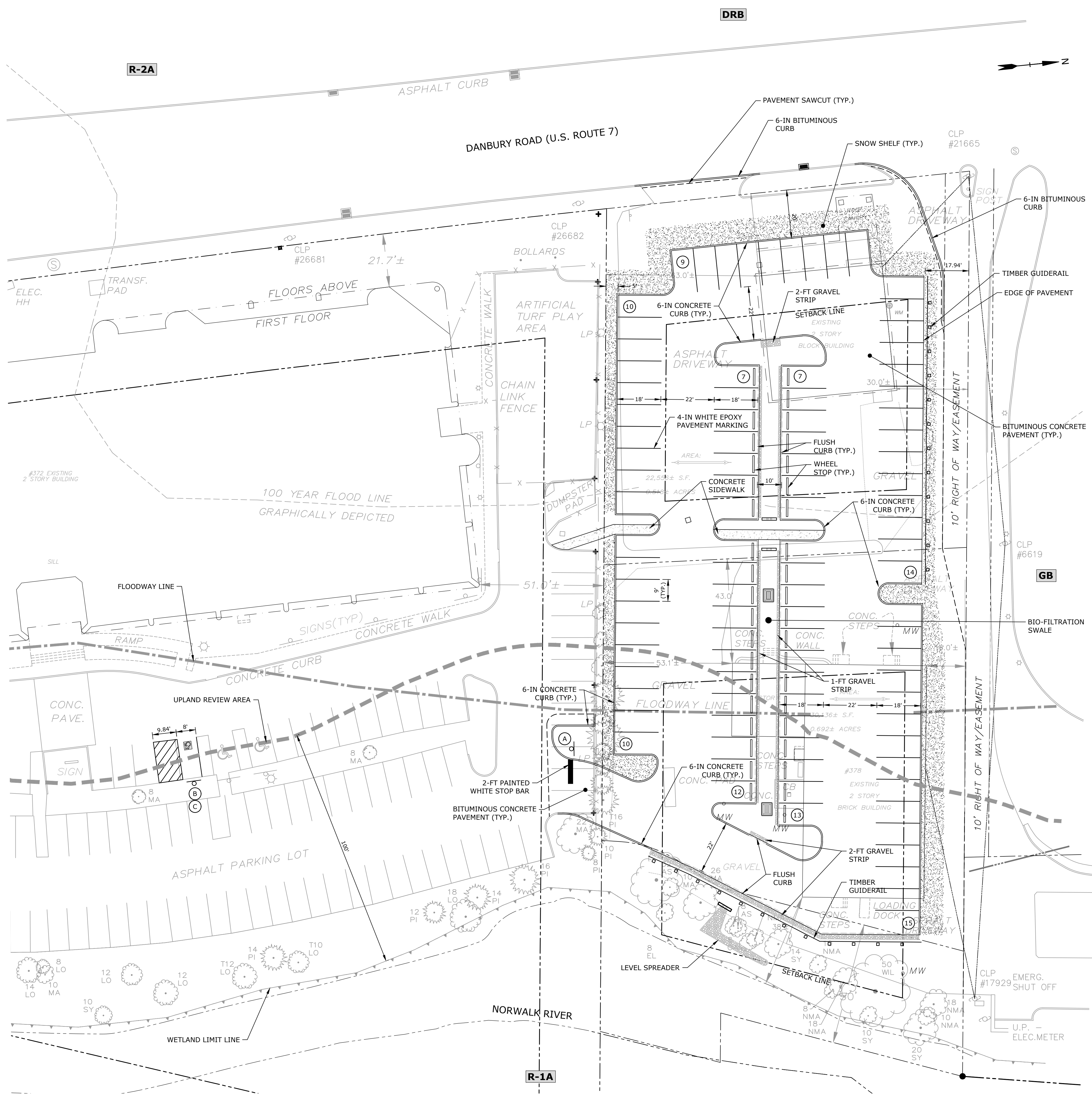
**Wilton GSE, LLC**

372, 378, & 380  
Danbury Road

Wilton,  
Connecticut

MARK	DATE	DESCRIPTION
PROJECT NO:	G5081-001	
DATE:	01/05/2023	
FILE:	G5081-01-C-100-SITE.dwg	
DRAWN BY:	EWL	
DESIGNED/CHECKED BY:	EWL	
APPROVED BY:	JWB	

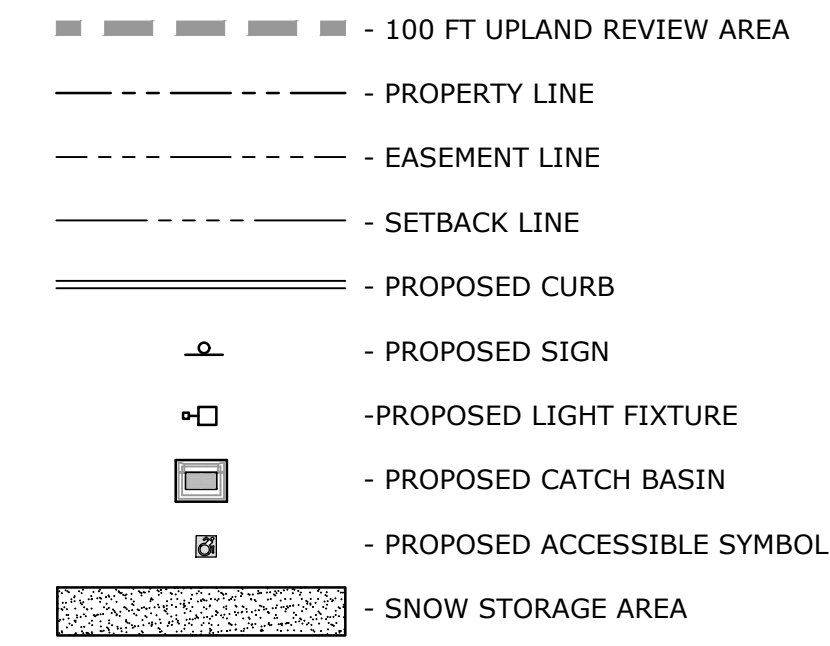
SITE PLAN	
SCALE:	1" = 20'
<b>C-101</b>	



**SIGN LEGEND**



**SITE PLAN LEGEND**

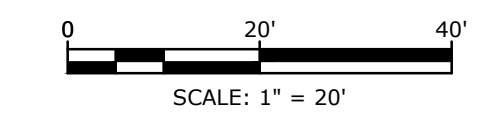


**NOTE**

1. SURVEY CONDITIONS TAKEN FROM PLAN ENTITLED "TOPOGRAPHIC SURVEY, PREPARED FOR SEYFARTH SHAW LLP, 372, 378, 380 DANBURY ROAD, WILTON, CONNECTICUT" BY BRAUTIGAM LAND SURVEYORS, P.C., DATED SEPTEMBER 9, 2022, AND LAST REVISED NOVEMBER 22, 2022.

**PARKING SUMMARY**

NEW STD. SPACES	- 97
NEW ACCESSIBLE SPACES	- 1
EXISTING STD. SPACES LOST	- 6
TOTAL NET SPACES	- 92



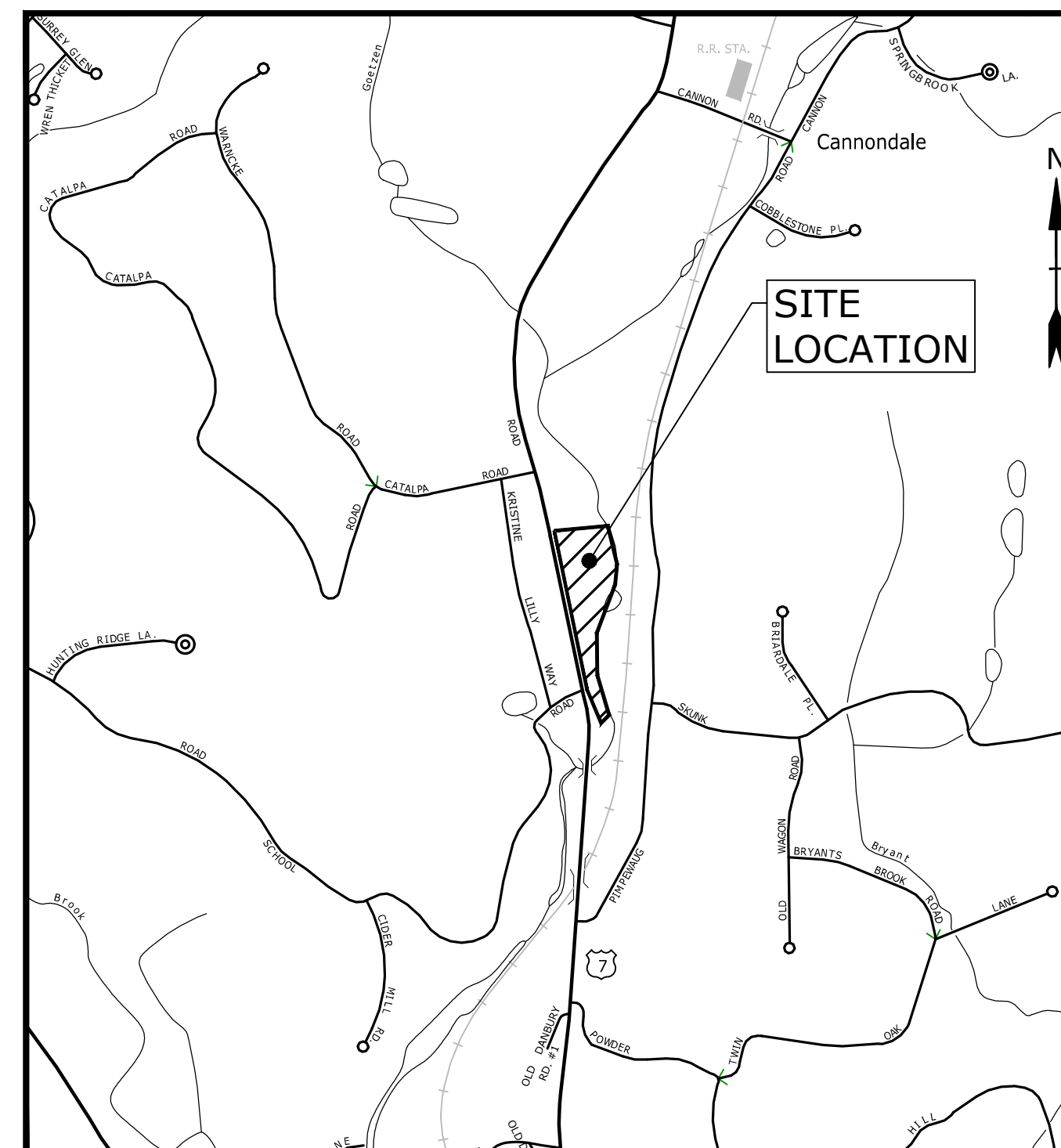
Last Saved: 1/10/2023  
 Printed On: Jan 18, 2023 - 10:10am By: EWL\jwb  
 Tighe & Bond\3\G5081 The Grosman Companies, Inc\001 - 372 Danbury Road\Drawings\AutoCAD\Sheet\G5081-01-C-100-SITE.dwg

# TOWN OF WILTON, CONNECTICUT

## 372, 378, AND 380 DANBURY ROAD

### REGULATORY REVIEW SUBMISSION JANUARY 25, 2023

LIST OF DRAWINGS		
SHEET NO.	DRAWING NO.	DRAWING TITLE
GENERAL		
1	G-001	COVER SHEET
2		TOPOGRAPHY SURVEY
3	C-001	GENERAL NOTES, LEGEND AND ABBREVIATIONS
CIVIL		
4	C-100	OVERALL SITE PLAN
5	C-101	SITE PLAN
6	C-200	GRADING AND DRAINAGE PLAN
7	C-300	SOIL EROSION AND SEDIMENT CONTROL PLAN
8	C-301	SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
9	C-302	SOIL EROSION AND SEDIMENT CONTROL DETAILS
10	C-400	DETAILS
11	C-401	DETAILS
12	C-402	DETAILS
LANDSCAPE		
13	LP-1	LANDSCAPING AND LIGHTING PLAN
14	SL-1	PHOTOMETRIC PLAN (1-FC)
15	SL-2	PHOTOMETRIC PLAN (2.5-FC)



LOCATION MAP  
SCALE: 1" = 1000'

PREPARED BY:

**Tighe & Bond**

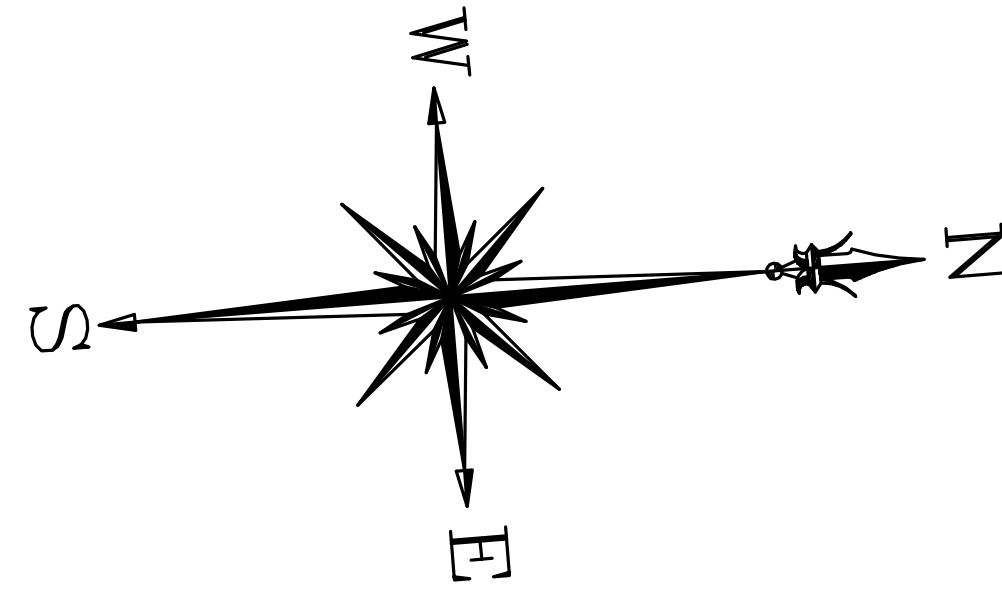
1000 Bridgeport Avenue  
Suite 320  
Shelton, CT 06484  
(203) 712-1100

ENVIRONMENTAL  
LAND SOLUTIONS, LLC

ENVIRONMENTAL ARCHITECTURE  
PLANNING  
8 KNIGHT STREET  
SUITE 203  
NORWALK, CT 06851  
T: (203) 855-7879  
F: (203) 855-7836  
info@elsllc.net  
www.elsllc.net

PREPARED FOR:  
THE GROSSMAN COMPANIES, INC.  
ONE ADAMS PLACE  
8 WILLARD STREET, SUITE 501  
QUINCY, MA 02169

**COMPLETE SET 15 SHEETS**

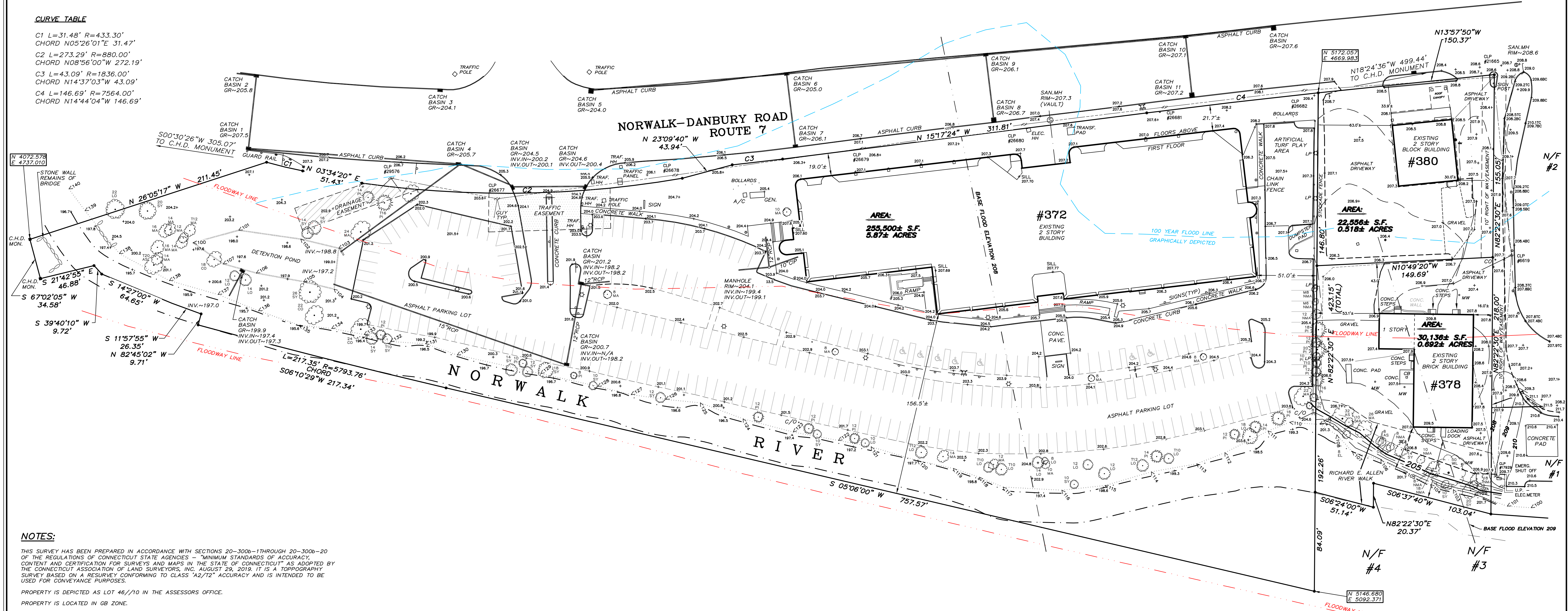


CATCH BASIN 1 GR~207.5 INV=201.9	CATCH BASIN 3 GR~204.1 INV=200.3	CATCH BASIN 5 GR~204.0 INV=200.4	CATCH BASIN 7 GR~206.1 INV=202.2	CATCH BASIN 9 GR~206.1 INV=202.5	CATCH BASIN 11 GR~207.2 INV=204.0
CATCH BASIN 2 GR~205.8 INV=202.9	CATCH BASIN 4 GR~205.7 INV=200.0 (S)=201.2	CATCH BASIN 6 GR~205.0 INV=201.7	CATCH BASIN 8 GR~206.7 INV=203.3	CATCH BASIN 10 GR~207.1 INV=203.4	

INVERTS AS NOTED ABOVE ARE AS DEPICTED AND NOTED ON "STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION RECONSTRUCTION OF ROUTE U.S. 7", PROJECT NUMBER 161-124 DRAWING NO: DPS 12 SHEETS 121 & 126"  
\*GRATE ELEVATIONS ARE FIELD LOCATED BY THIS OFFICE

**CURVE TABLE**

- C1 L=31.48' R=433.30'  
CHORD N05°26'01"E 31.47'
- C2 L=273.29' R=880.00'  
CHORD N08°56'00"W 272.19'
- C3 L=43.09' R=1836.00'  
CHORD N14°37'03"W 43.09'
- C4 L=146.69' R=7564.00'  
CHORD N14°44'04"W 146.69'



**NOTES:**  
THIS SURVEY HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1 THROUGH 20-300b-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES - "MINIMUM STANDARDS OF ACCURACY, CONTENT AND CERTIFICATION FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. AUGUST 29, 2019. IT IS A TOPOGRAPHY SURVEY BASED ON A RESURVEY CONFORMING TO CLASS "A2/12" ACCURACY AND IS INTENDED TO BE USED FOR CONVEYANCE PURPOSES.  
PROPERTY IS DEPICTED AS LOT 46//10 IN THE ASSESSORS OFFICE.  
PROPERTY IS LOCATED IN GB ZONE.  
ZONE AND SETBACKS ARE SUBJECT TO THE DETERMINATION OF THE ZONING ENFORCEMENT OFFICER.  
REFER TO MAP Nos. 1757, 2281, 2346, 2393, 2812, 2910, 3132, 3302, 3495, 3767, 4141 AND 53830N FILE IN THE TOWN CLERKS OFFICE.  
REFER TO BOOK 1165, PAGE 245 WILTON LAND RECORDS.  
REFER TO "CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF WILTON - NORWALK/DANBURY ROAD FROM THE WHITE PROPERTY NORTHERLY ABOUT 5,700 FEET, ROUTE NO. 126", NUMBER 544 SHEET 2 OF 2, APPROVED 11-14-29.  
REFER TO "ALTA/ACSM LAND TITLE SURVEY FOR WILTON OFFICE PLAZA, 372 DANBURY ROAD, WILTON CT.", SCALE 1"=40', DATED 12/12/13 AND PREPARED BY CO-OPERATIVE LAND SURVEYS, LLC  
REFER TO NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP, FAIRFIELD COUNTY CONNECTICUT, TOWN OF WILTON COMMUNITY PANEL NUMBER 09020-0383B BEARING AN EFFECTIVE DATE OF JUNE 18, 2010. PROPERTY LIES IN FEMA FLOOD ZONE AE WITH AN APPROXIMATE BASE FLOOD ELEVATION OF 209 FEET.  
VERTICAL DATUM BASED ON NGS BENCHMARK LX1871 ~ ELEV. = 225.20 NAVD 88  
UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS IF ANY ARE NOT DEPICTED OR NOTED.  
THIS SURVEY WAS PREPARED FOR A SPECIFIC PURPOSE, ANY USE OTHER THAN THAT WHICH WAS ORIGINALLY INTENDED IS A MISUSE OF THIS INFORMATION AND RENDERS THE PREPARERS DECLARATION NULL AND VOID.  
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS SURVEY, WHICH BEARS THE LICENSED SURVEYORS LIVE SIGNATURE AND EMBOSSED SEAL, RENDERS ANY DECLARATION NOTED HEREON NULL AND VOID.

- #1 N/F TERMINAL HOLDINGS LLC 384 DANBURY ROAD
- #2 N/F STEPHEN M. RUTTKAMP TRUSTEE 382 DANBURY ROAD SPLASH CAR WASH
- #3 N/F STATE OF CONNECTICUT 408 DANBURY ROAD
- #4 N/F MARY CONSTANCE DEBENIGNO

**TREE LEGEND**

- AP = APPLE
- AS = ASH
- BB = BLACK BIRCH
- BC = BIRCH
- BI = BIRCH
- CE = CEDAR
- CH = CHERRY
- CC = COTTONWOOD
- DC = DOGWOOD
- EL = ELM
- F1 = FIR
- HE = HEMLOCK
- HI = HICKORY
- HB = HORN BEAM
- JU = JUNIPER
- LO = LOCUST
- MA = MAPLE
- MG = MAGNOLIA
- NMA = NORWAY MAPLE
- OA = OAK
- OR = ORNAMENTAL
- PO = POPLAR
- PI = PINE
- S4 = SASSAFRAS
- SP = SPRUCE
- SY = SYCAMORE
- TU = TULIP
- W = WILLOW

CB = CATCH BASIN  
C/O = CLEAN OUT  
MW = MONITORING WELL  
LP = LIGHT POLE  
HH = HAND HOLE

**BRAUTIGAM LAND SURVEYORS, P.C.**

90 South Main Street  
Newtown, Connecticut 06470  
Telephone (203) 270-7810  
E-mail Surveying@brautigamland.com

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

*Paul A. Brautigam*  
PAUL A. BRAUTIGAM CT. LIC. NO. 15166

THE SURVEY DEPICTED HEREON IS NULL AND VOID WITHOUT THE LICENSED SURVEYORS LIVE SIGNATURE AND EMBOSSED SEAL.

FOR TOWN ARCHIVE PURPOSES ONLY

NOT A LIVE SIGNATURE

JOB NO. 9622004-01 SCALE: 1" = 40'

FIELD NOTES: 259-138 DATE: 9/9/22

DRAWN BY: SRM CHECKED BY: PAB

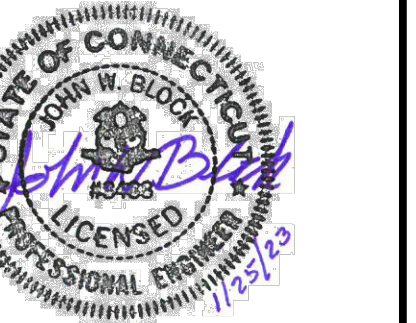
NO. DATE REVISIONS

1	10/24/22	WETLANDS
2	11/22/22	ADDITIONAL TOPOGRAPHY
3	1/10/23	NOTATIONS

9612008-01  
TOPO 372

**TOPOGRAPHY SURVEY**  
PREPARED FOR  
**SEYFARTH SHAW LLP**  
372, 378, 380 DANBURY ROAD  
WILTON, CONNECTICUT





**REGULATORY REVIEW SUBMISSION**

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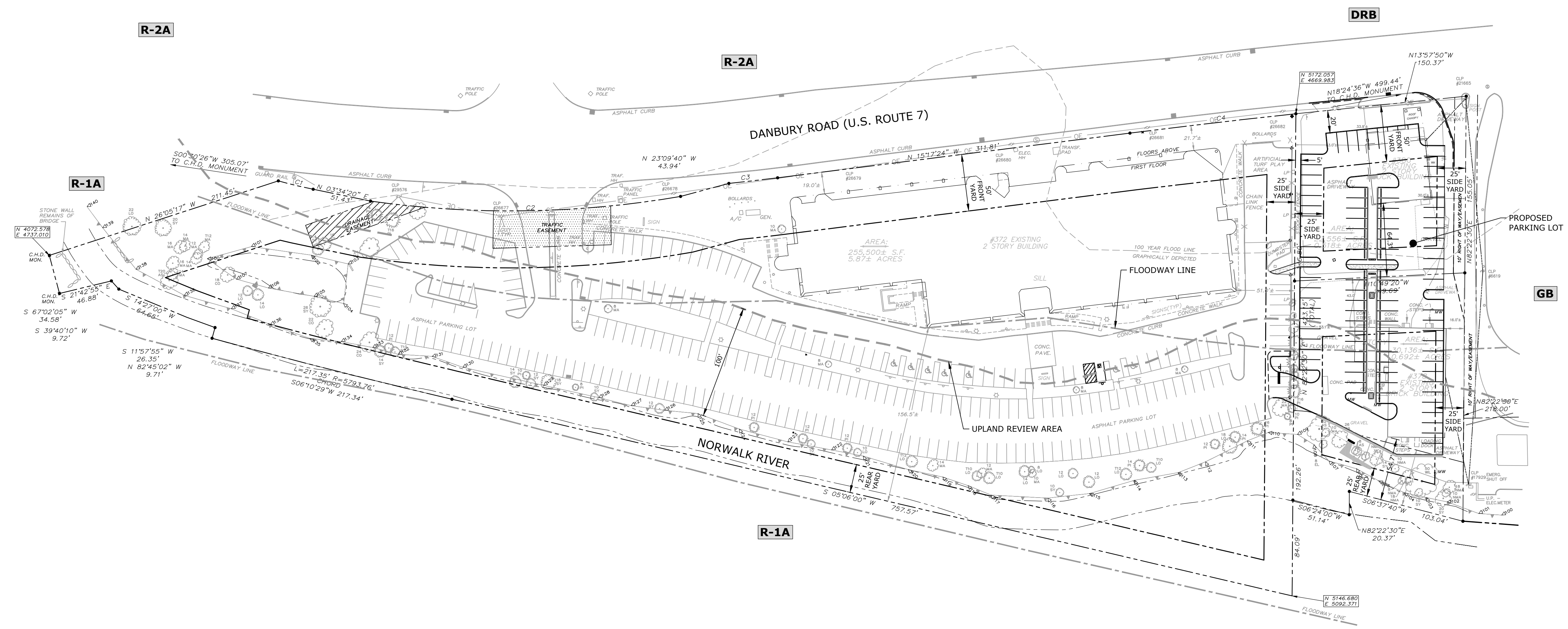
**Grossman Companies, Inc.**

372, 378, & 380 Danbury Road

Wilton, Connecticut

MARK	DATE	DESCRIPTION
PROJECT NO:	G5081-001	
DATE:	01/25/2023	
FILE:	G5081-01-C-100-SITE.dwg	
DRAWN BY:	EWL	
DESIGNED/CHECKED BY:	EWL	
APPROVED BY:	JWB	

**OVERALL SITE PLAN**  
SCALE: 1" = 50'  
**C-100**



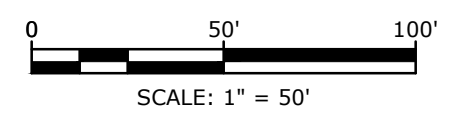
- ZONE DESIGNATIONS**
- GB GENERAL BUSINESS
  - DRB DESIGN RETAIL BUSINESS DISTRICT
  - R-1A SINGLE FAMILY RESIDENTIAL DISTRICT 1A
  - R-2A SINGLE FAMILY RESIDENTIAL DISTRICT 2A

- SITE PLAN LEGEND**
- - - - - 100 FT UPLAND REVIEW AREA
  - PROPERTY LINE
  - EASEMENT LINE
  - SETBACK LINE
  - ===== PROPOSED CURB
  - - - - - PROPOSED SIGN
  - PROPOSED LIGHT FIXTURE
  - ▣ PROPOSED CATCH BASIN
  - ⊠ PROPOSED ACCESSIBLE SYMBOL

REGULATION	ZONE	372 DANBURY ROAD		378 DANBURY ROAD		380 DANBURY ROAD	
		EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
MIN. FRONT YARD	50	19' (MIN)	19' (MIN)	43' (MIN)	N/A	33.9' (MIN)	N/A
MIN. SIDE YARD (EACH)	25 (50)	51' (MIN)	51' (MIN)	16' (MIN)	N/A	30' (MIN)	N/A
MIN. REAR YARD	50	156.5' (MIN)	156.5' (MIN)	54.7' (MIN)	N/A	64.3' (MIN)	N/A
MIN. PARKING & LOADING SETBACKS (SIDE AND REAR YARDS)	10	3' (MIN)	3' (MIN)	3' (MIN)	5' (MIN)	5' (MIN)	5' (MIN)
MAX. BUILDING HEIGHT	2 / 35	2 STORIES	2 STORIES	2 STORIES	N/A	2 STORIES	N/A
MAX. BUILDING COVERAGE (%)	25%	17%	17%	19%	0%	16%	0%
MAX. SITE COVERAGE (%)	80%	55%	55%	75%	54%	92%	72%
MIN. LOT SIZE (ACRES)	1	5.86	5.86	0.692	0.692	0.518	0.518
MIN. LOT FRONTAGE	50	902'	902'	FLAG LOT	FLAG LOT	150'	150'
MAXIMUM FLOOR AREA RATIO (FAR)	0.35	0.32	0.32	0.19	0.0	0.18	0.0

**NOTE**

1. SURVEY CONDITIONS TAKEN FROM PLAN ENTITLED "TOPOGRAPHIC SURVEY, PREPARED FOR SEYFARTH SHAW LLP, 372, 378, 380 DANBURY ROAD, WILTON, CONNECTICUT" BY BRAUTIGAM LAND SURVEYORS, P.C., DATED SEPTEMBER 9, 2022, AND LAST REVISED NOVEMBER 22, 2022.



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 Tighe & Bond: 372 Danbury Road, Drawing: AutoCAD/Sheet: G5081-01-C-100-SITE.dwg



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372, 378, & 380  
Danbury Road

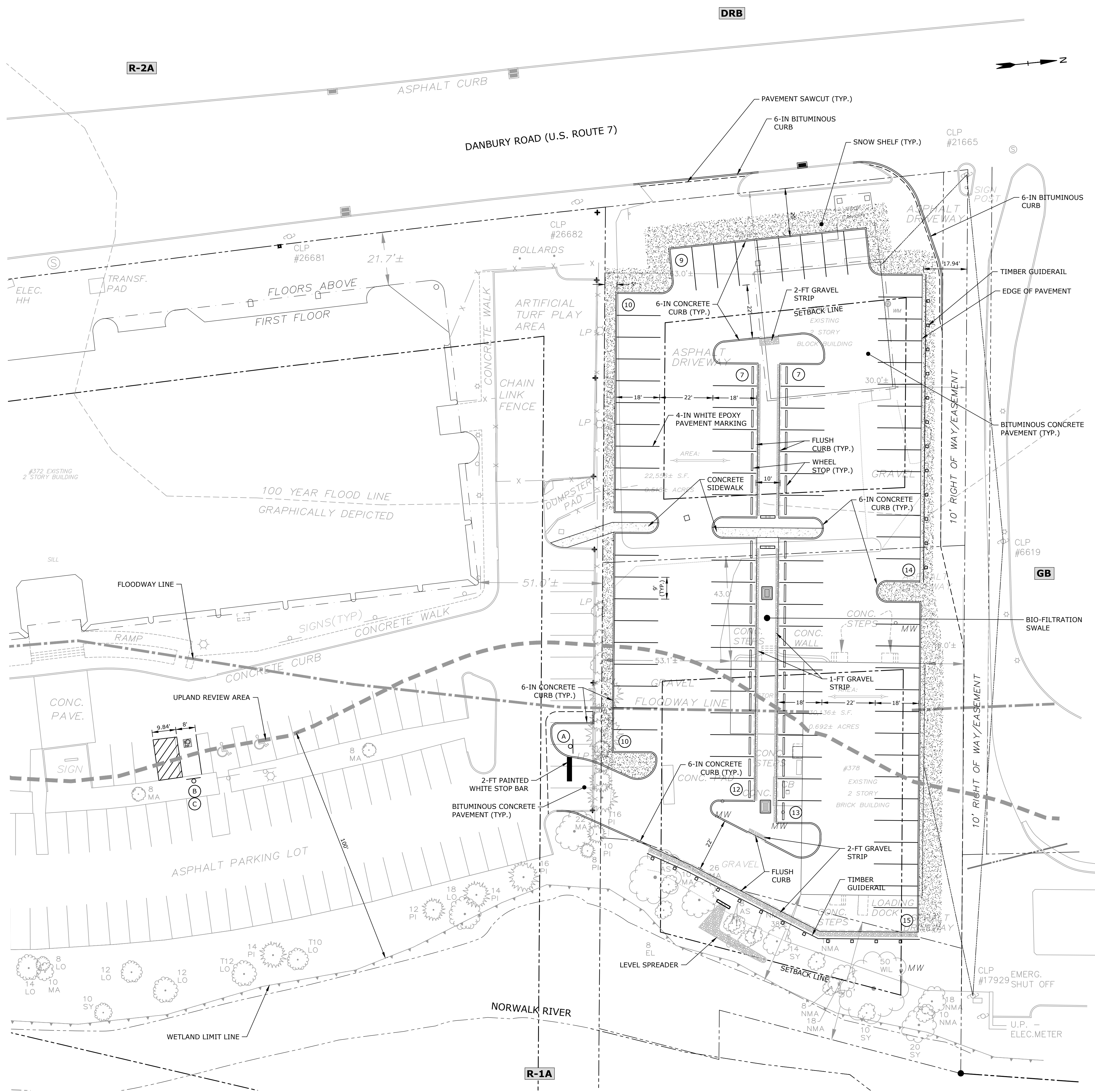
Wilton,  
Connecticut

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DESIGNED/CHECKED BY:	EWL	
APPROVED BY:	JWB	

**SITE PLAN**

SCALE: 1" = 20'

**C-101**



**SIGN LEGEND**



**SITE PLAN LEGEND**

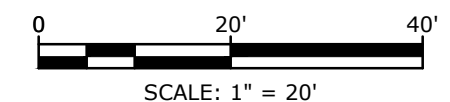
- 100 FT UPLAND REVIEW AREA
- PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED LIGHT FIXTURE
- PROPOSED CATCH BASIN
- PROPOSED ACCESSIBLE SYMBOL
- SNOW STORAGE AREA

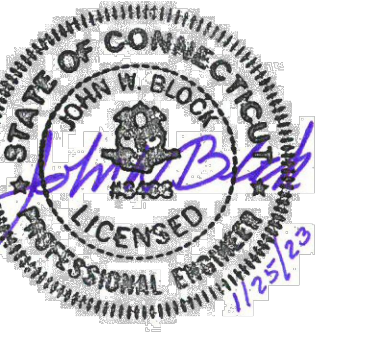
**NOTE**

- SURVEY CONDITIONS TAKEN FROM PLAN ENTITLED "TOPOGRAPHIC SURVEY, PREPARED FOR SEYFARTH SHAW LLP, 372, 378, 380 DANBURY ROAD, WILTON, CONNECTICUT" BY BRAUTIGAM LAND SURVEYORS, P.C., DATED SEPTEMBER 9, 2022, AND LAST REVISED NOVEMBER 22, 2022.

**PARKING SUMMARY**

NEW STD. SPACES	- 97
NEW ACCESSIBLE SPACES	- 1
EXISTING STD. SPACES LOST	- 6
TOTAL NET SPACES	- 92





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**Grossman  
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372, 378, & 380  
Danbury Road

Wilton,  
Connecticut

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PROJECT NO:	G5081-001	
DATE:	01/25/2023	
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DRAWN BY:	EWL	
DESIGNED/CHECKED BY:	EWL	
APPROVED BY:	JWB	

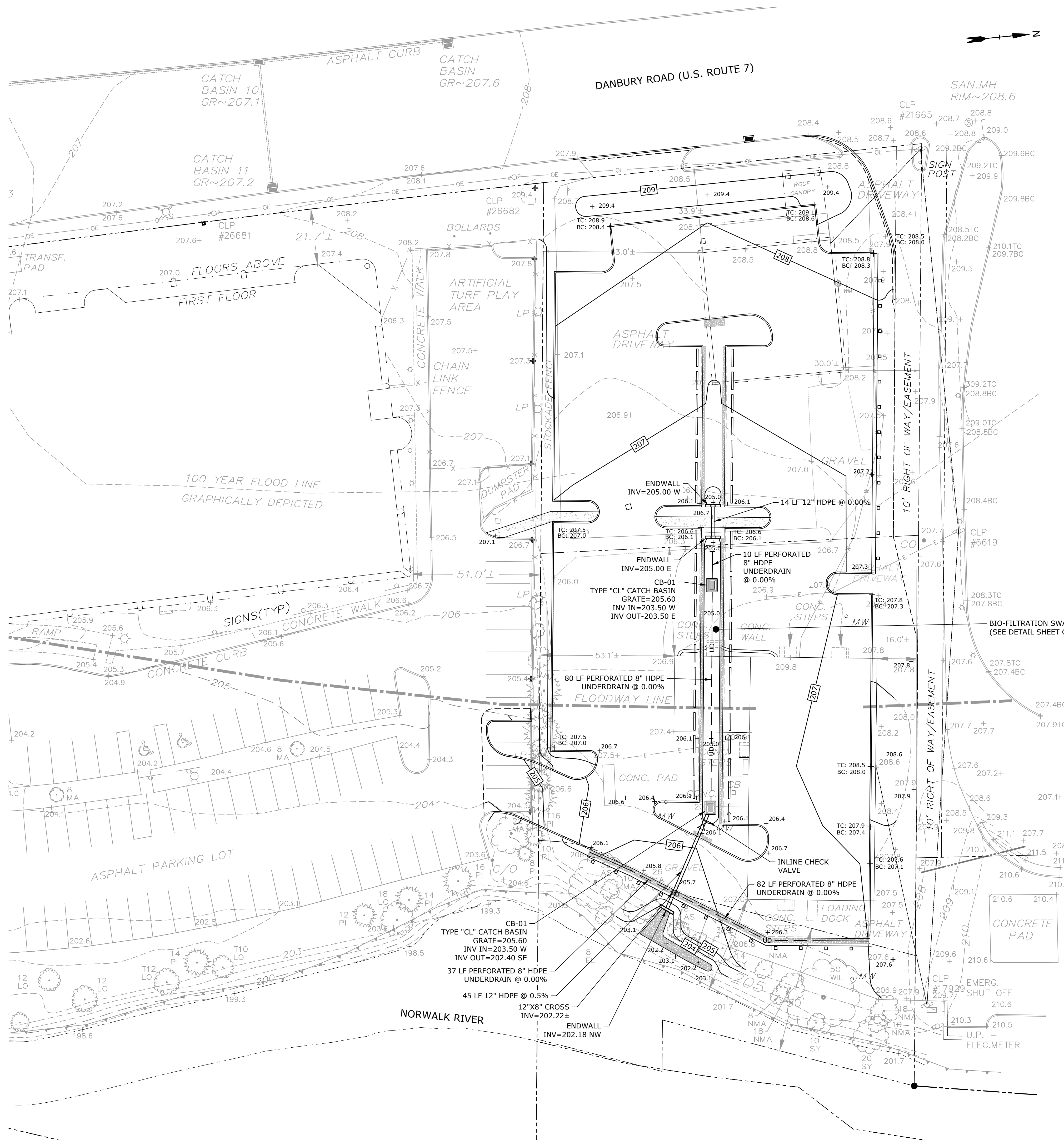
**GRADING AND DRAINAGE  
PLAN**

SCALE: 1" = 20'

**C-200**

**NOTES**

1. THE CONTRACTOR SHALL VERIFY ALL GRADES AND EXISTING CONDITIONS, AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE.
2. MAKE SMOOTH TRANSITIONS BETWEEN ALL SLOPE CHANGES AND FEATHER EDGES OF ALL CUTS AND FILLS TO BLEND WITH EXISTING CONDITIONS.
3. PRIOR TO PAVING, PLANTING AND SEEDING, ALL FINAL GRADING SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE.
4. ADJUST ALL EXISTING AND RELOCATED UTILITY COLLARS, FRAMES, INLETS, VALVE BOXES, ETC. TO MEET NEW GRADES.
5. ADJUST ALL EXISTING AND RELOCATED MANHOLES, CATCH BASINS AND UTILITY STRUCTURES TO NEW ELEVATIONS WHERE REQUIRED.
6. ALL EXCAVATED MATERIAL NOT REQUIRED FOR GRADING OR FILLING SHALL BE REMOVED PROMPTLY FROM THE SITE AND DISPOSED OF LEGALLY.
7. SURVEY CONDITIONS TAKEN FROM PLAN ENTITLED "TOPOGRAPHIC SURVEY, PREPARED FOR SEYFARTH SHAW LLP, 372, 378, 380 DANBURY ROAD, WILTON, CONNECTICUT" BY BRAUTIGAM LAND SURVEYORS, P.C., DATED SEPTEMBER 9, 2022, AND LAST REVISED NOVEMBER 22, 2022.
8. ACCESSIBLE SPACES TO BE GRADED AT 2% OR LESS.
9. ACCESSIBLE ROUTE TO BUILDING NOT TO EXCEED 5%

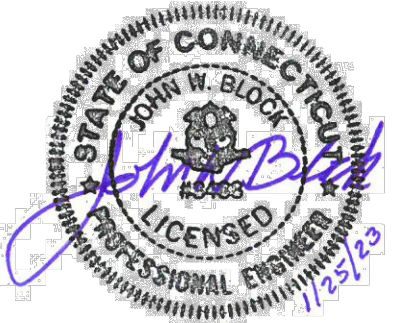
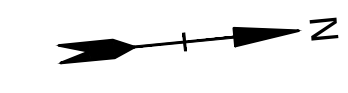


**LEGEND**

- - - 100 FT UPLAND REVIEW AREA
- - - PROPERTY LINE
- - - EASEMENT LINE
- - - SETBACK LINE
- - - 25' EXISTING INDEX CONTOUR
- - - EXISTING INTERMEDIATE CONTOUR
- x 141.2 - EXISTING SPOT ELEVATION
- 25 - PROPOSED INDEX CONTOUR
- - - PROPOSED INTERMEDIATE CONTOUR
- + 32.0 - PROPOSED SPOT ELEVATION
- [Symbol] - PROPOSED CATCH BASIN
- [Symbol] - PROPOSED YARD DRAIN
- [Symbol] - TEST PIT LOCATION
- [Symbol] - SOIL BORING LOCATION







**REGULATORY  
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**Grossman  
 Companies, Inc.**

372, 378, & 380  
 Danbury Road

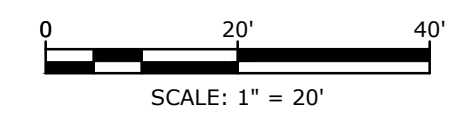
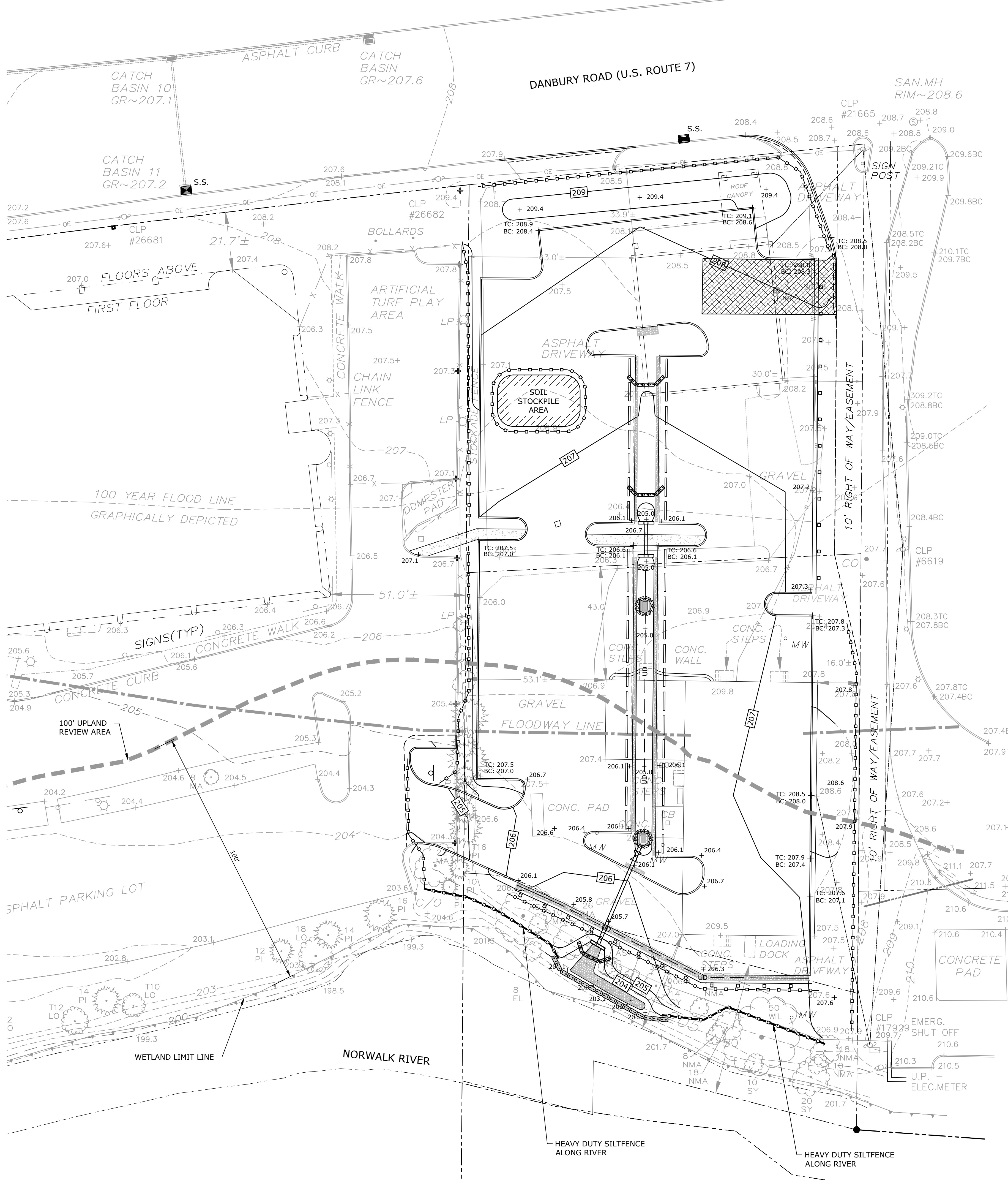
Wilton,  
 Connecticut

**NOTE:**

- SEE SHEET C-301 AND C-302 FOR EROSION CONTROL NOTES, DETAILS, AND NARRATIVE.

**SOIL EROSION AND SEDIMENT CONTROL LEGEND**

- 100 FT UPLAND REVIEW AREA
- PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- GEOTEXTILE SILTFENCE
- HEAVY DUTY SILTFENCE
- HAYBALE BARRIER]
- SILT SACK
- CATCH BASIN INLET PROTECTION
- HAYBALE CHECK DAM
- CONSTRUCTION ENTRANCE
- SOIL STOCKPILE AREA



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 Tighe & Bond: S:\G5081 The Grossman Companies, Inc\001 - 372 Danbury Road\Drawings\AutoCAD\Sheet\G5081-01-C-300-SESC.dwg

MARK	DATE	DESCRIPTION
PROJECT NO:	G5081-001	
DATE:	01/25/2023	
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DRAWN BY:	EWL	
DESIGNED/CHECKED BY:	EWL	
APPROVED BY:	JWB	

**SOIL EROSION AND  
 SEDIMENT CONTROL PLAN**

SCALE: 1" = 20'

**C-300**

**SOIL EROSION AND SEDIMENT CONTROL:**

THE STORMWATER MANAGEMENT MEASURES WILL ADDRESS THE STORMWATER QUALITY ONCE THE SITE HAS BEEN CONSTRUCTED AND STABILIZED. SEDIMENTATION AND EROSION CONTROL MEASURES WILL BE INSTALLED DURING CONSTRUCTION WHICH WILL MINIMIZE ADVERSE IMPACTS FROM CONSTRUCTION ACTIVITIES.

ALL SEDIMENTATION AND EROSION CONTROL MEASURES PROPOSED FOR THIS DEVELOPMENT HAVE BEEN DESIGNED IN ACCORDANCE WITH THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AS PUBLISHED BY THE CONNECTICUT COUNCIL ON SOIL EROSION AND WATER CONSERVATION. ADDITIONAL GUIDELINES HAVE ALSO BEEN FOLLOWED THAT ARE AVAILABLE FROM THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION AS RECOMMENDED FOR SEDIMENTATION CONTROL DURING CONSTRUCTION ACTIVITIES.

LISTED BELOW ARE THE EROSION CONTROL NARRATIVE AND THE EROSION CONTROL NOTES.

**SOIL EROSION AND SEDIMENT CONTROL NARRATIVE:**

**GENERAL**

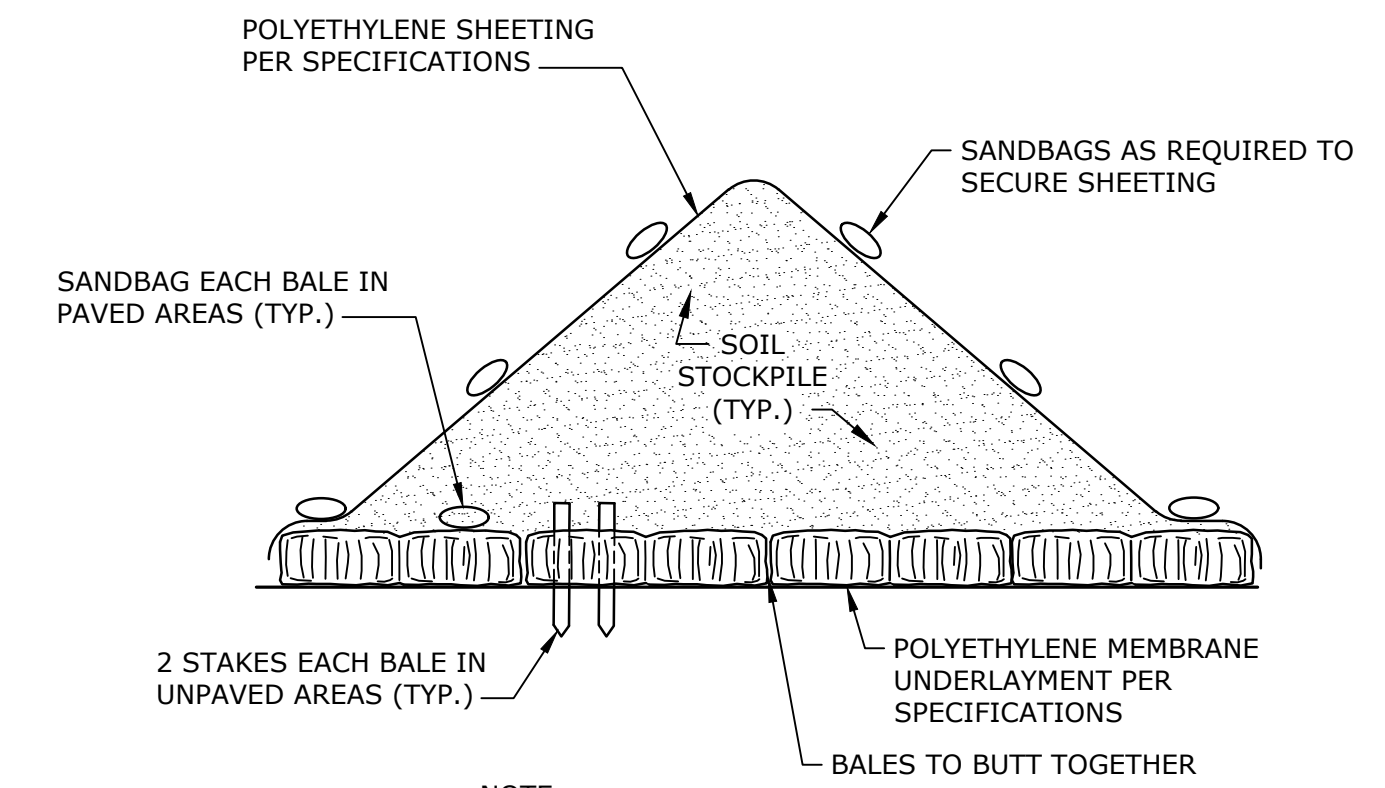
1. THE PROPOSED DEVELOPMENT IS ENTITLED 372, 378, AND 380 DANBURY ROAD, WILTON, CONNECTICUT.
2. ESTIMATED:  
PROJECT START: SPRING 2023  
PROJECT COMPLETION: FALL 2023  
EROSION CONTROL NARRATIVE REFERS TO DRAWINGS C-300 THROUGH C-302.
4. THE PROPOSED SITE DEVELOPMENT WILL CONSIST OF BUILDING DEMOLITION, CLEARING AND GRUBBING THE EXISTING SITE, EXCAVATION, CONSTRUCTION OF BIO-FILTRATION SWALE, AND ROUGH GRADING OF SITE, PARKING AREAS, SIDEWALKS AND CURBING.
5. THE DEVELOPMENT IS LOCATED IN WILTON, CONNECTICUT AND IS LOCATED ON DANBURY ROAD.

**CONSTRUCTION SEQUENCE**

1. CONDUCT A PRE-CONSTRUCTION MEETING WITH THE OWNER OR OWNER'S REPRESENTATIVE, TOWN PLANNER, DESIGN ENGINEER, SITE ENGINEER, CONTRACTOR AND SITE SUPERINTENDENT TO ESTABLISH THE LIMITS OF CONSTRUCTION, CONSTRUCTION PROCEDURES AND MATERIAL STOCKPILE AREAS.
2. FIELD STAKE THE LIMITS OF CONSTRUCTION.
3. INSTALL ALL APPLICABLE SOIL AND EROSION CONTROL MEASURES AROUND THE PERIMETER OF THE SITE TO THE EXTENT POSSIBLE. THIS WILL INCLUDE SILTATION FENCE AROUND THE PROJECT AS SHOWN ON THE PLANS.
4. INSTALL CONSTRUCTION ACCESS ROAD AND ANTI-TRACKING PAVEMENT IN THE AREAS AS SHOWN ON THE PLANS. ALL CONSTRUCTION ACCESS SHALL BE INTO THE SITE THROUGH THE ANTI-TRACKING PADS.
5. ESTABLISH TEMPORARY STAGING AREA.
6. BEGIN BUILDING DEMOLITION AND PAVEMENT REMOVAL.
7. CONSTRUCT THE LEVEL SPREADER AND INITIAL STORM DRAINAGE AS SHOWN ON THE PLANS.
8. PROVIDE SILT FENCE/HAYBALE BARRIER AROUND SOIL STOCKPILE AREA. PROVIDE TEMPORARY VEGETATIVE COVER (DEFINED IN EROSION CONTROL NOTES) ON ALL EXPOSED SURFACES.
9. BEGIN ROUGH GRADING PARKING AREA.
10. PAVE BINDER COURSE ON PARKING AREA AND DRIVEWAYS.
11. INSTALL BIO-FILTRATION SWALE WITH LINER AND REMAINING DRAINAGE PER THE PLANS.
12. ESTABLISH TEMPORARY VEGETATIVE COVER.
13. FINE GRADE SITE.
14. COMPLETE CONSTRUCTION OF SIDEWALKS.
15. ESTABLISH FINAL VEGETATIVE COVER AND LANDSCAPING.
16. PAVE SURFACE COURSE ON PARKING AREA.
17. REMOVE EROSION CONTROLS WHEN SITE IS STABILIZED.

**SOIL EROSION AND SEDIMENT CONTROL NOTES:**

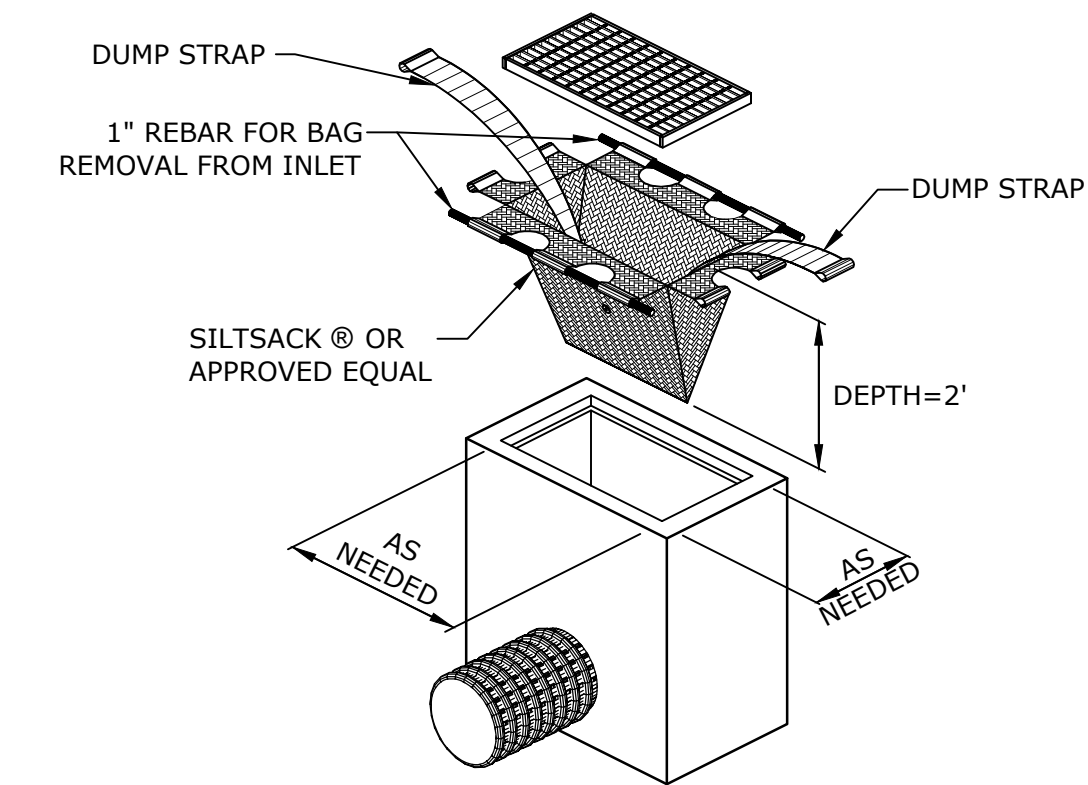
1. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", DEP BULLETIN NO. 34, AND ALL AMENDMENTS AND ADDENDA THERETO AS PUBLISHED BY THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION.
2. LAND DISTURBANCE SHALL BE KEPT TO THE MINIMUM NECESSARY FOR CONSTRUCTION OPERATIONS.
3. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLAN AND ELSEWHERE AS ORDERED BY THE ENGINEER.
4. ALL CATCH BASINS SHALL BE PROTECTED WITH A SILT SACKS, HAYBALE RING, SILT FENCE OR BLOCK AND STONE INLET PROTECTION THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
5. WHENEVER POSSIBLE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. SEE "EROSION CONTROL NARRATIVE".
6. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD AS ORDERED BY THE ENGINEER.
7. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
8. SEDIMENT REMOVED SHALL BE DISPOSED OF OFF SITE OR IN A MANNER AS REQUIRED BY THE ENGINEER.
9. THE CONSTRUCTION CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF ALL CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.
10. ALL DISTURBED AREAS TO BE LEFT EXPOSED FOR MORE THAN 30 DAYS SHALL BE PROTECTED WITH A TEMPORARY VEGETATIVE COVER. SEED THESE AREAS WITH PERENNIAL RYEGRASS AT THE RATE OF 40 LBS. PER ACRE (1 LB. PER 1,000 SQ. FT). APPLY SOIL AMENDMENTS AND MULCH AS REQUIRED TO ESTABLISH A UNIFORM STAND OF VEGETATION OVER ALL DISTURBED AREAS.
11. THE CONSTRUCTION CONTRACTOR SHALL UTILIZE APPROVED METHODS/MATERIALS FOR PREVENTING THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES ONTO ADJACENT PROPERTIES AND SITE AREAS.
12. THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A SUPPLY OF SILT FENCE/HAYBALES AND ANTI-TRACKING CRUSHED STONE ON SITE FOR EMERGENCY REPAIRS.
13. ALL DRAINAGE STRUCTURES SHALL BE PERIODICALLY INSPECTED WEEKLY BY THE CONSTRUCTION CONTRACTOR AND CLEANED TO PREVENT THE BUILD-UP OF SILT.
14. THE CONSTRUCTION CONTRACTOR SHALL CAREFULLY COORDINATE THE PLACEMENT OF EROSION CONTROL MEASURES WITH THE PHASING OF CONSTRUCTION.
15. KEEP ALL PAVED SURFACES CLEAN. SWEEP AND SCRAPE BEFORE FORECASTED STORMS.
16. TREAT ALL UNPAVED SURFACE WITH 4" MINIMUM OF TOPSOIL PRIOR TO FINAL STABILIZATION.
17. HAYBALE BARRIERS AND SILT FENCING SHALL BE INSTALLED ALONG THE TOE OF CRITICAL CUT AND FILL SLOPES.
18. THE CONTRACTOR SHALL NOTIFY THE TOWN OFFICIALS PRIOR TO THE INSTALLATION OF EROSION CONTROLS, CUTTING OF TREES, OR ANY EXCAVATION.
19. ALL TRUCKS LEAVING THE SITE MUST BE COVERED.
20. SOME CONTROL MEASURES ARE PERMANENT. THESE STRUCTURES SHALL BE CLEANED AND REPLENISHED AT THE END OF CONSTRUCTION. LOCATIONS OF THE PERMANENT CONTROL STRUCTURES ARE SHOWN ON THE DRAINAGE PLANS.
21. ALL SEDIMENTATION AND EROSION CONTROLS SHALL BE CHECKED WEEKLY AND/OR AFTER EACH RAIN FALL EVENT. NECESSARY REPAIRS SHALL BE MADE WITHOUT DELAY.
22. PRIOR TO ANY FORECASTED RAINFALL, EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED AND REPAIRED AS NECESSARY.
23. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, EROSION CONTROLS MAY BE REMOVED ONCE AUTHORIZATION TO DO SO HAS BEEN SECURED FROM THE OWNER. DISTURBED AREAS SHALL BE SEEDED AND MULCHED.



NOTE:

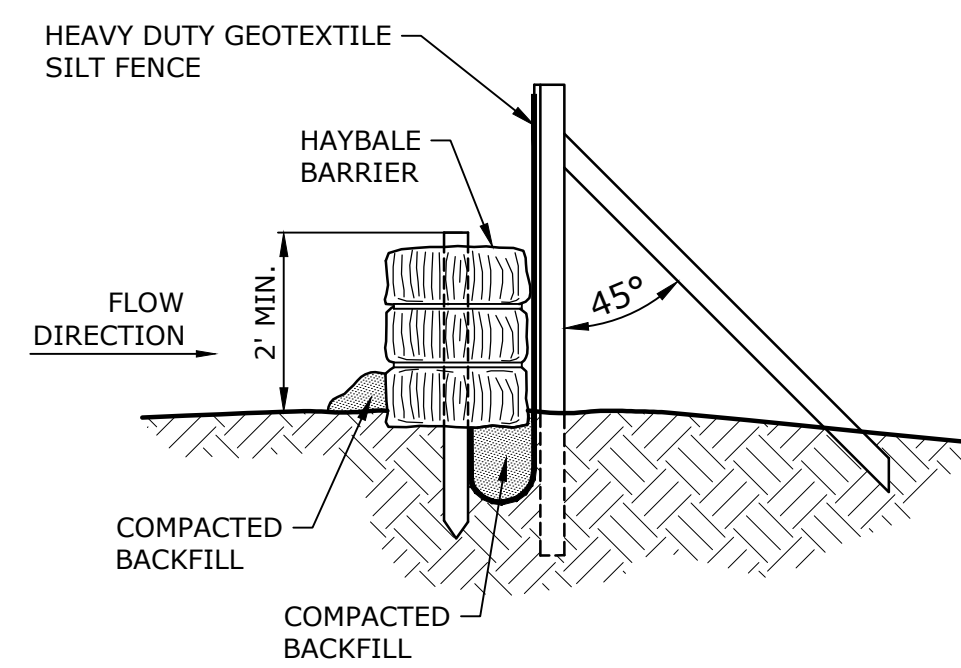
1. DIMENSIONS AS SHOWN ON PLANS

**TEMPORARY CONTROLLED STOCKPILE AREA**  
NO SCALE



SILTSACK MANUFACTURED BY:  
ACF ENVIRONMENTAL  
2831 CARDWELL ROAD  
RICHMOND, VIRGINIA 23237

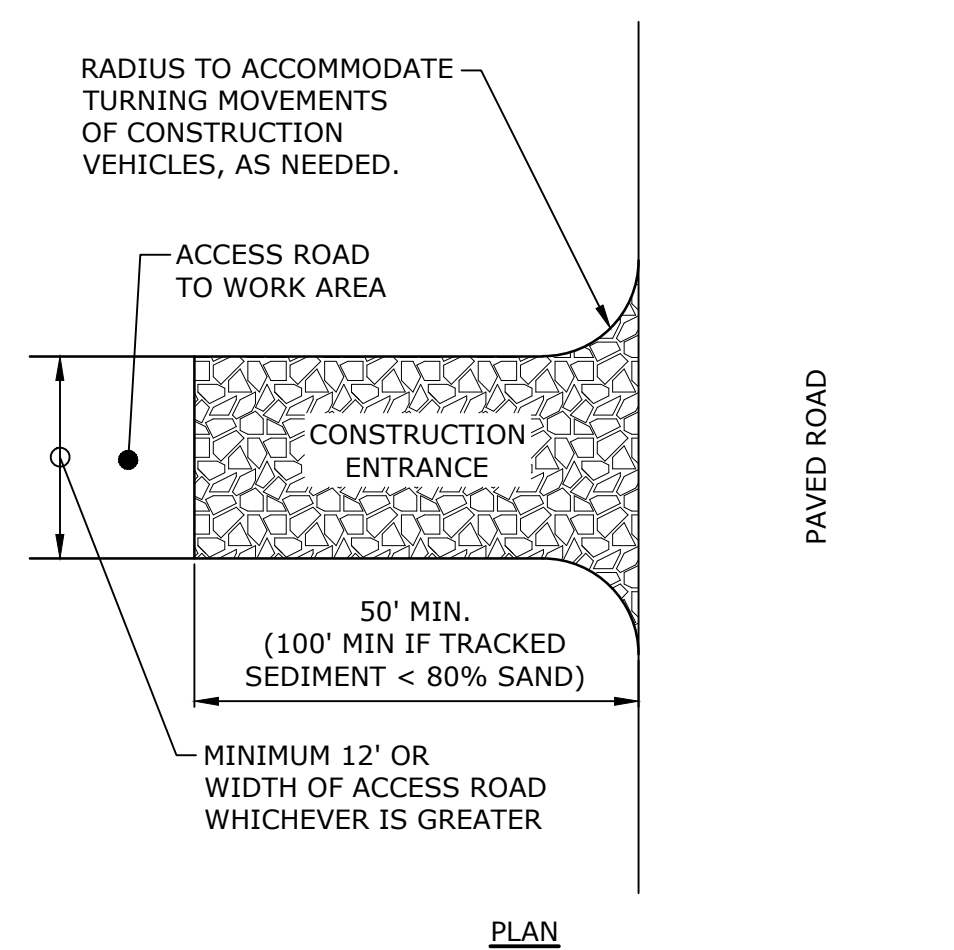
**SILTSACK®**  
NO SCALE



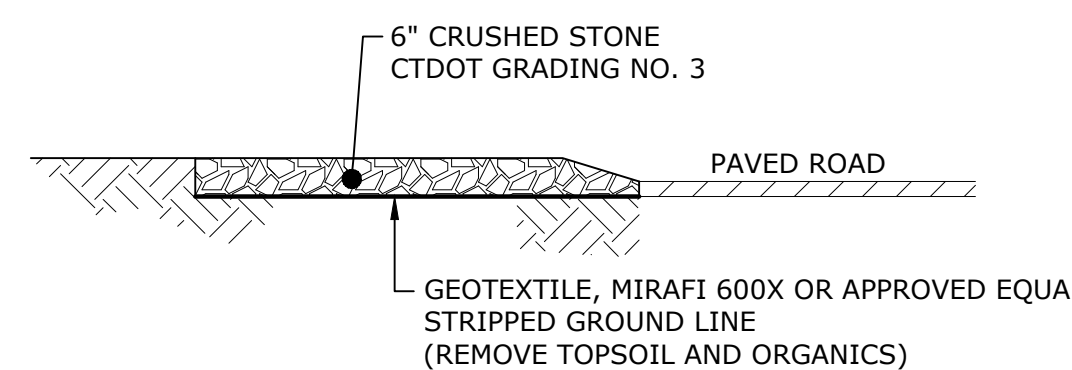
NOTE:

1. BACKFILL AND COMPACT THE EXCAVATED SOIL AS SHOWN ON THE UPHILL SIDE OF THE BARRIER TO PREVENT PIPING.

**SILT FENCE AND HAYBALE COMBINED BARRIER**  
NO SCALE

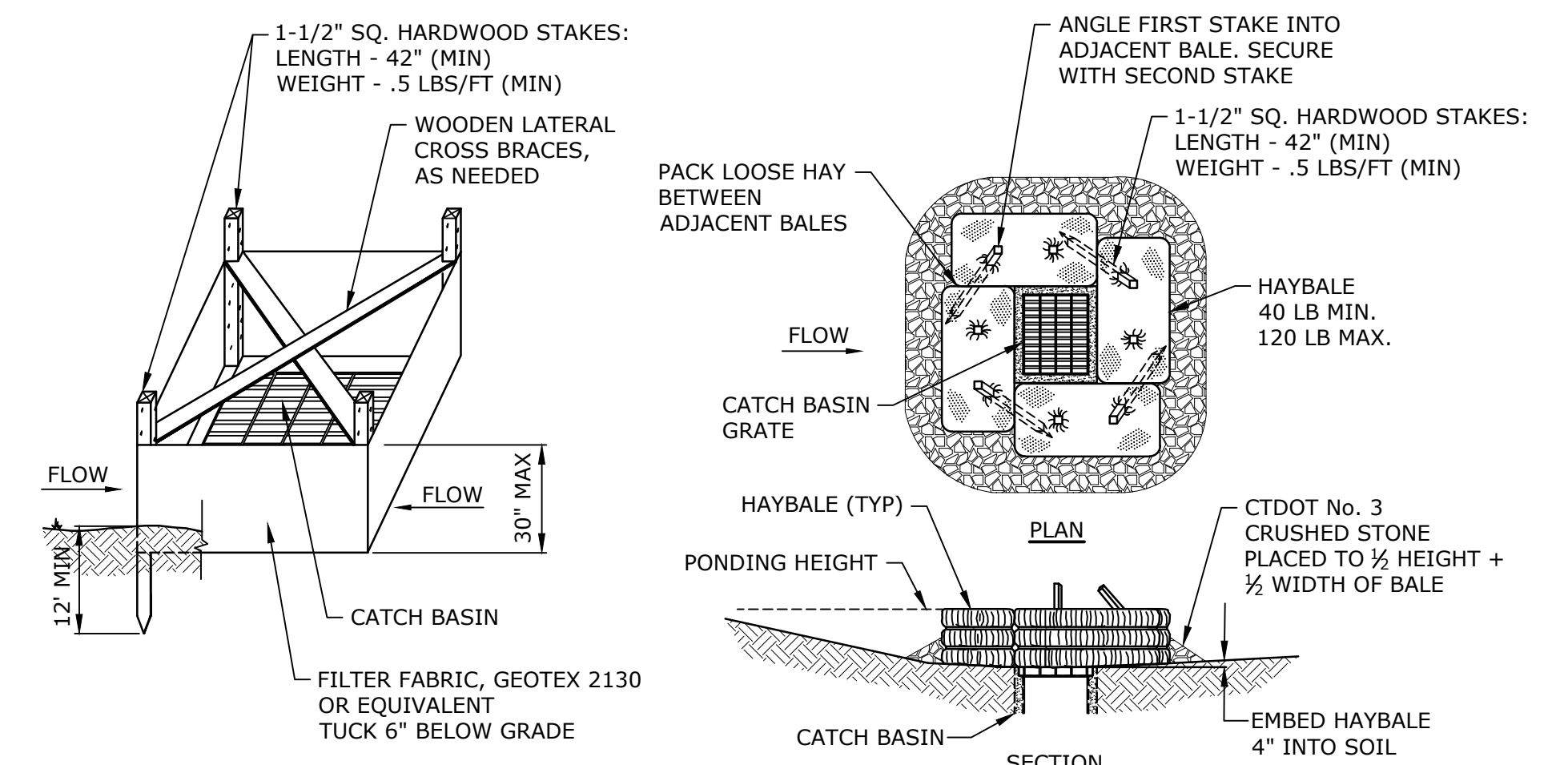


PLAN



ELEVATION

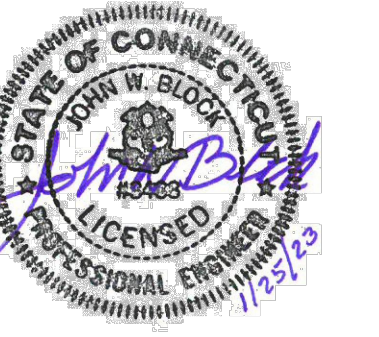
**CONSTRUCTION ENTRANCE**  
NO SCALE



**SILT FENCE INSTALLATION AT CATCH BASIN AT LOW POINTS**

**HAYBALE FILTER INSTALLATION AT CATCH BASIN AT LOW POINTS**

**CATCH BASIN EROSION CONTROL**  
NO SCALE



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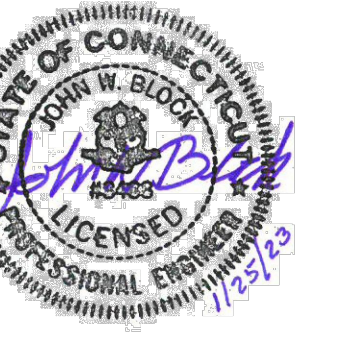
372, 378, & 380  
Danbury Road

Wilton,  
Connecticut

MARK	DATE	DESCRIPTION
PROJECT NO:	G5081-001	
DATE:	01/25/2023	
FILE:	G5081-01-C-300-SESC.dwg	
DRAWN BY:	EWL	
DESIGNED/CHECKED BY:	EWL	
APPROVED BY:	JWB	

**SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS**

SCALE: AS SHOWN



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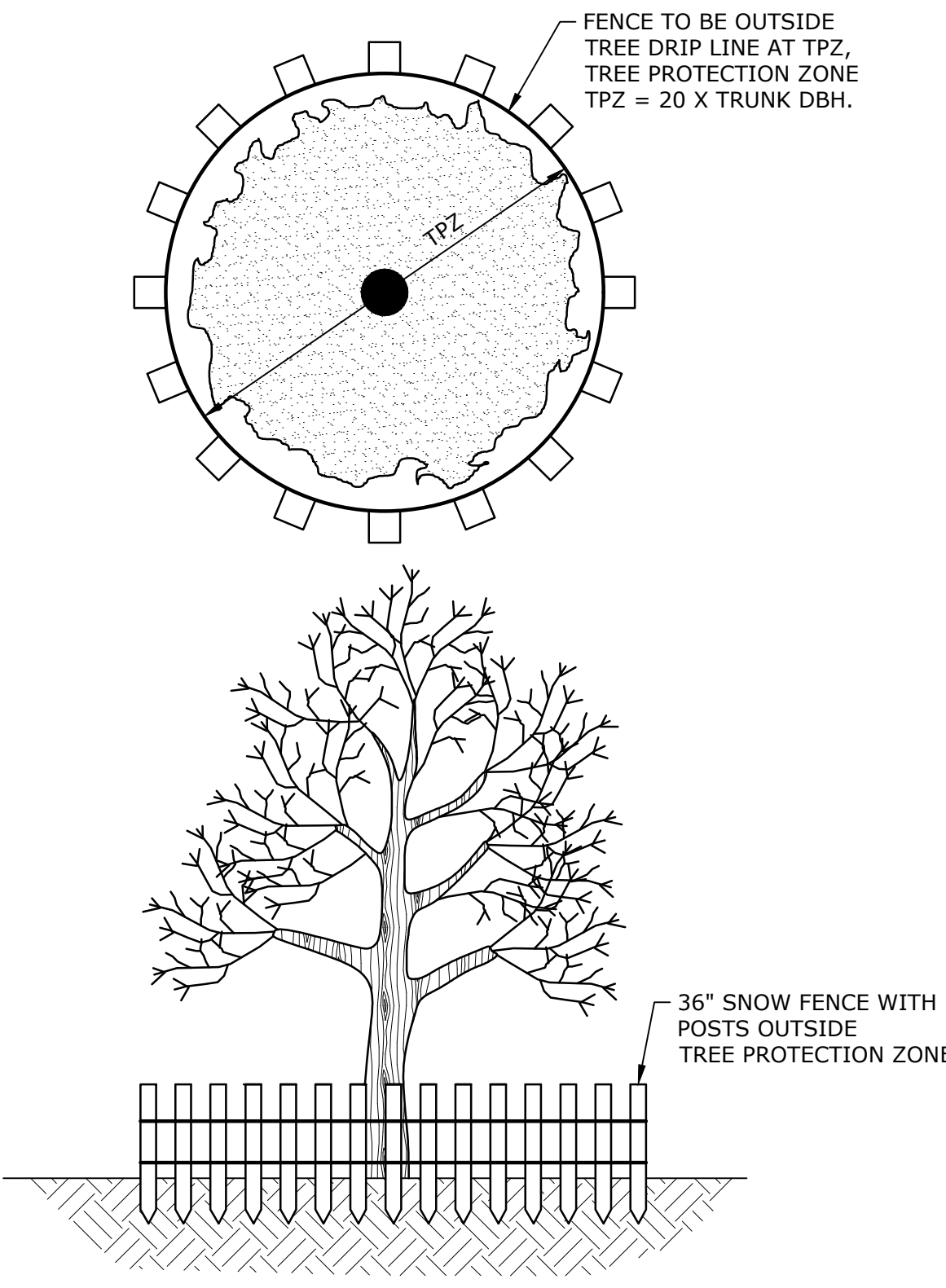
Wilton,  
Connecticut

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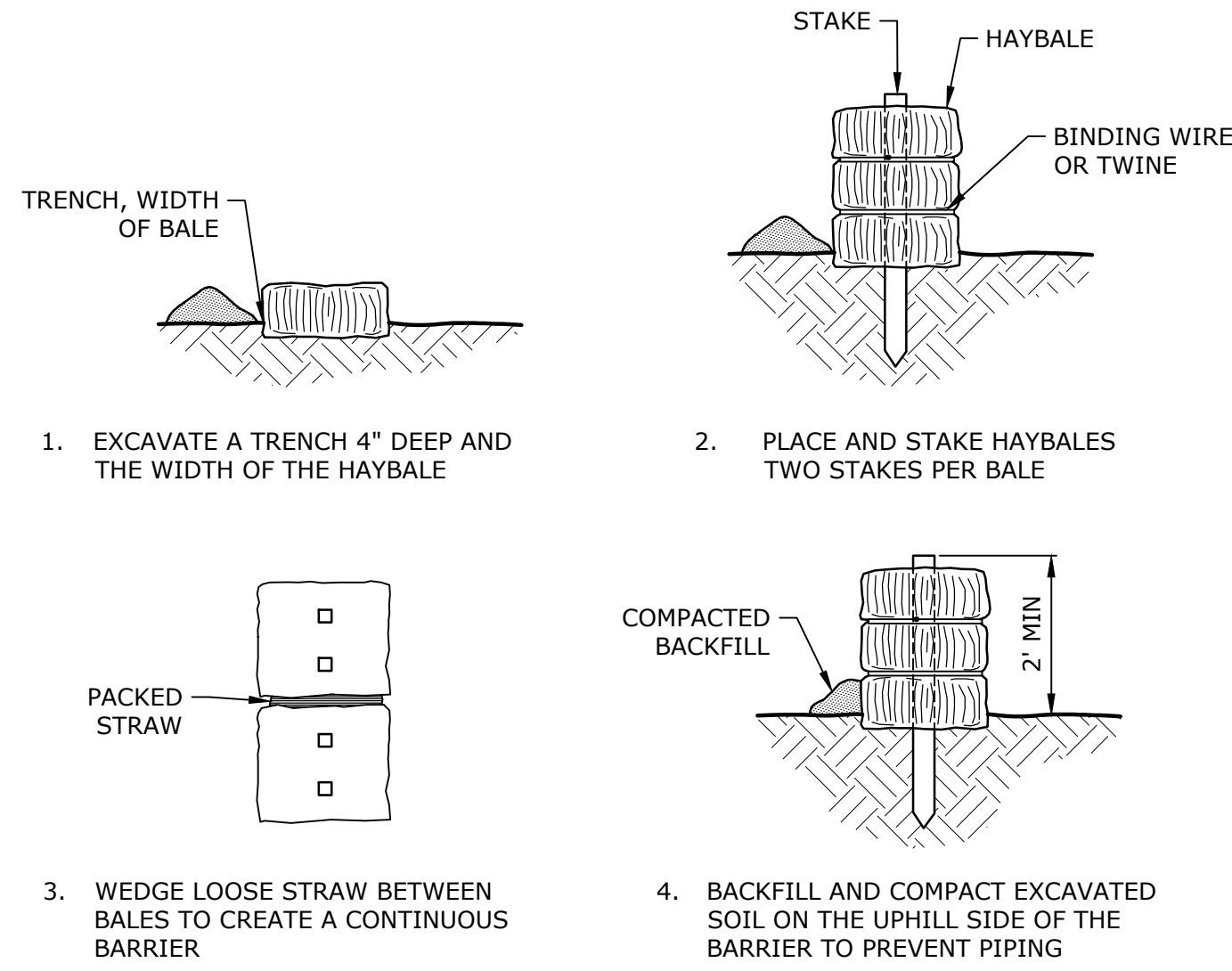
**SOIL EROSION AND  
SEDIMENTATION CONTROL  
DETAILS**

SCALE: AS SHOWN

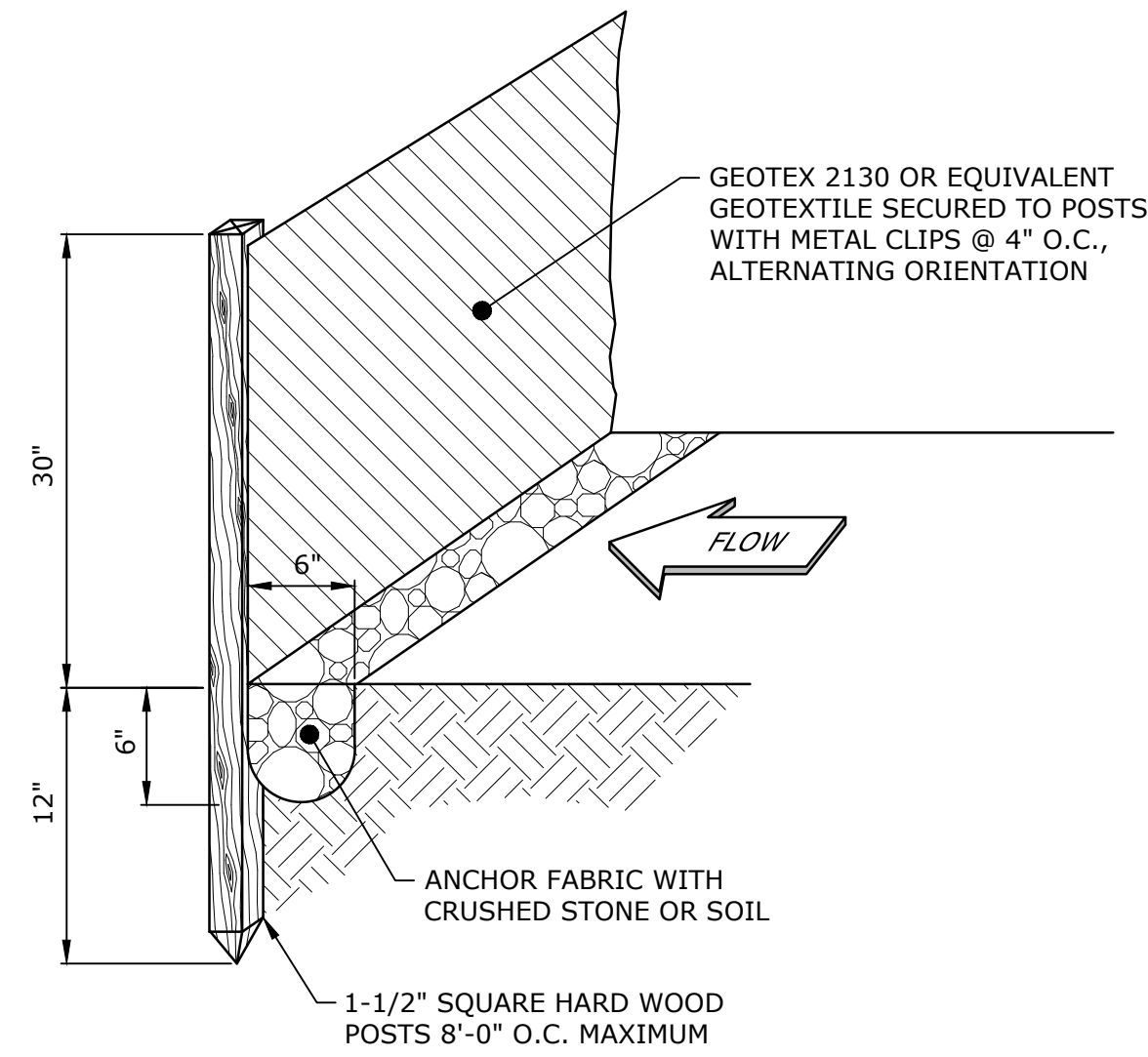
**C-302**



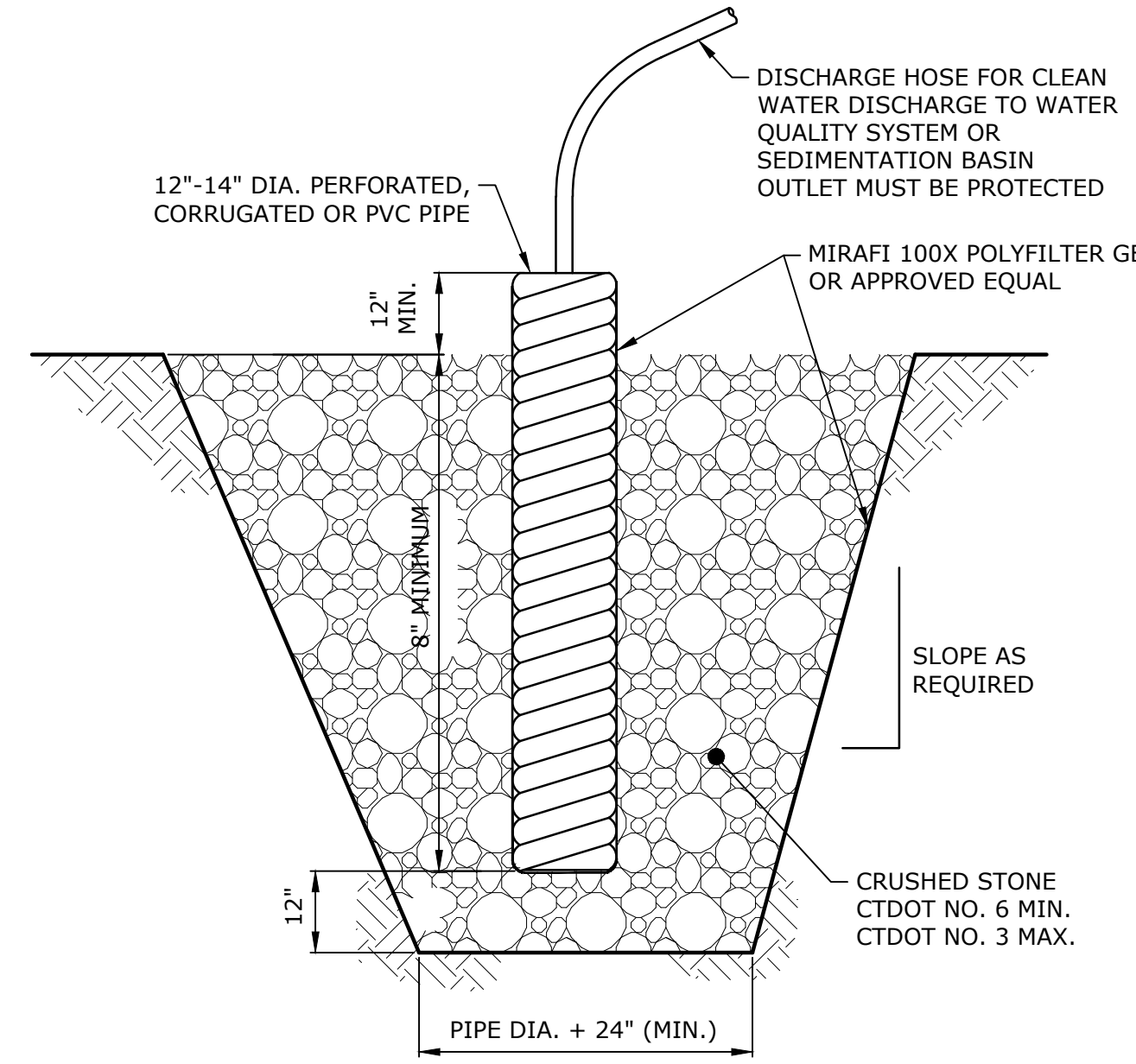
**TREE PROTECTION**  
NO SCALE



**PLACEMENT AND CONSTRUCTION  
OF HAYBALE BARRIER**  
NO SCALE

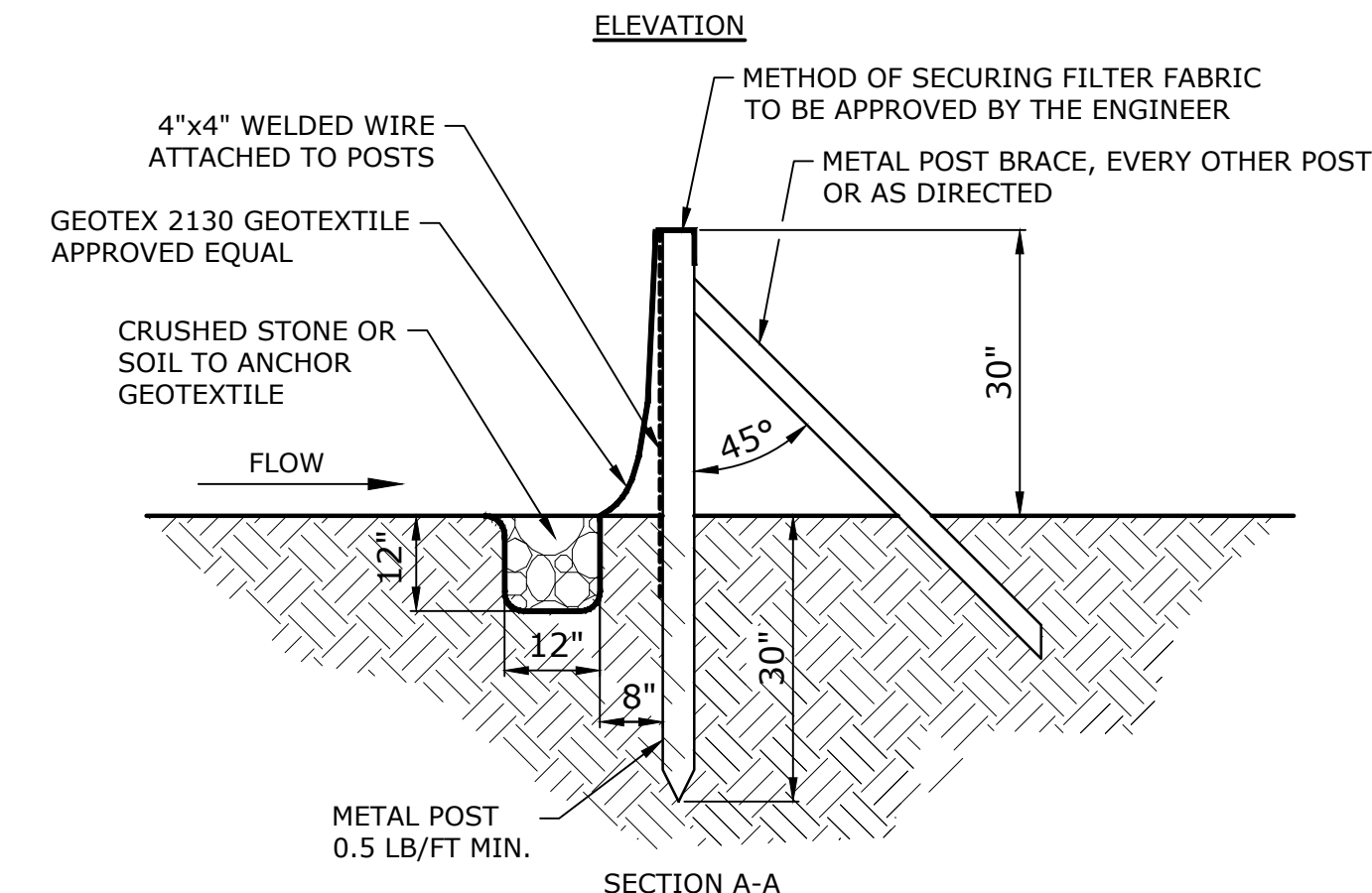
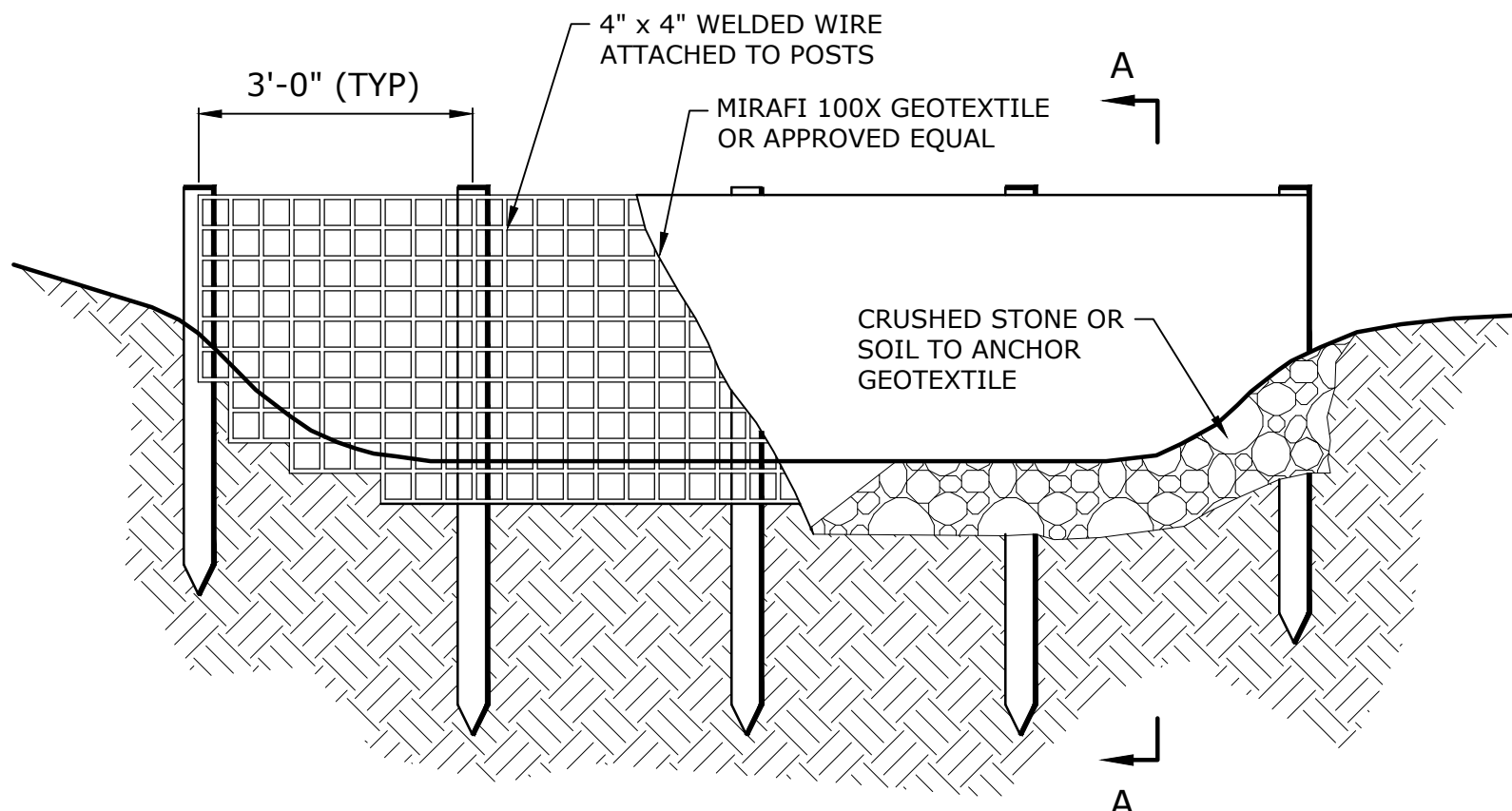


**SILT FENCE**  
NO SCALE



- NOTES:**
- PERFORATIONS SHALL BE CIRCULAR OR SLOTS, NOT TO EXCEED 1/2" DIAMETER.
  - SIDE SLOPES TO MEET OSHA TRENCHING REQUIREMENTS.

**SUMP PIT DETAIL (IF REQUIRED)**  
NO SCALE



**HEAVY DUTY SILT FENCE**  
NO SCALE



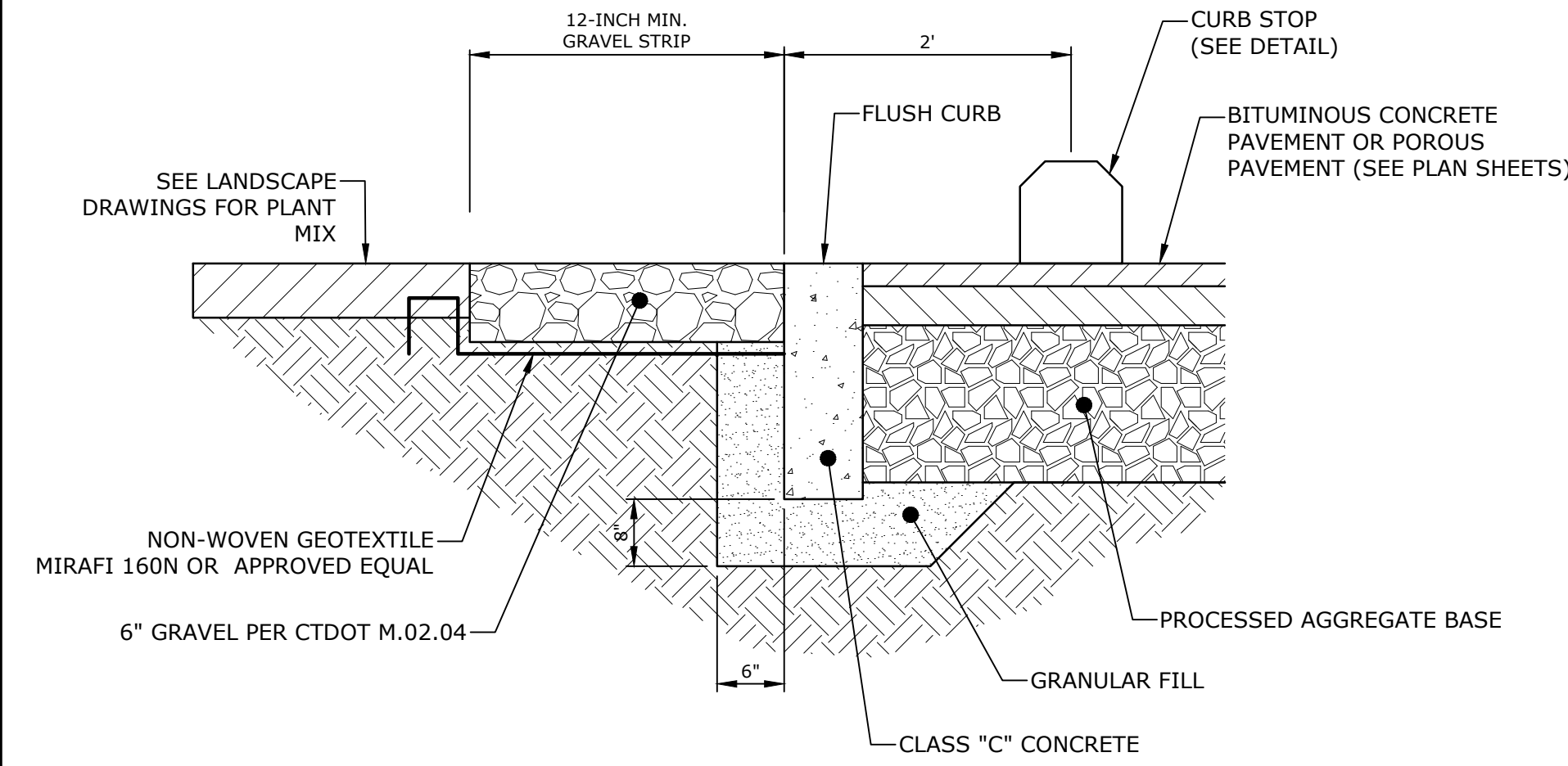
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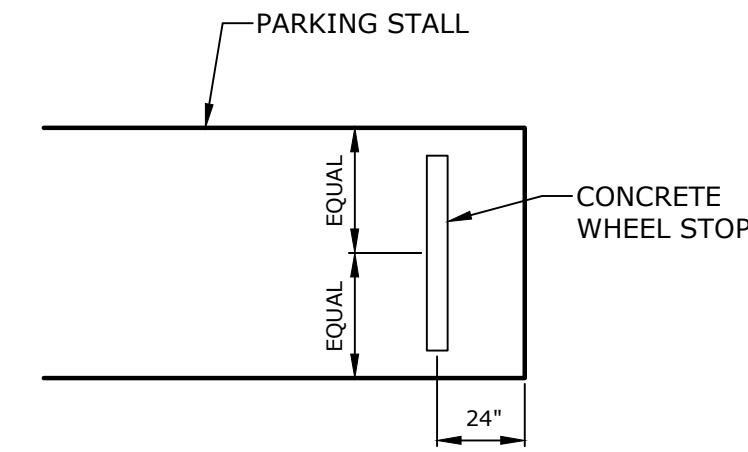
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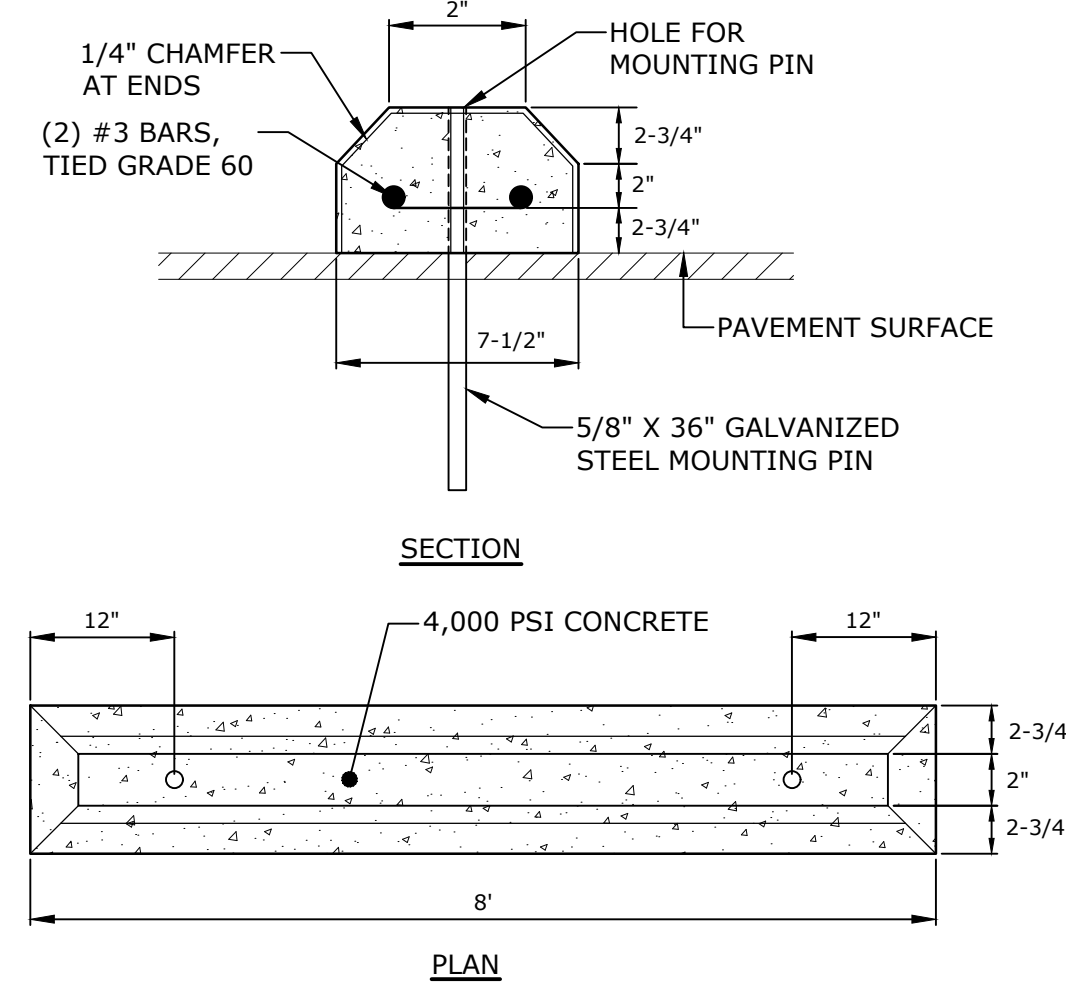
Wilton,  
Connecticut



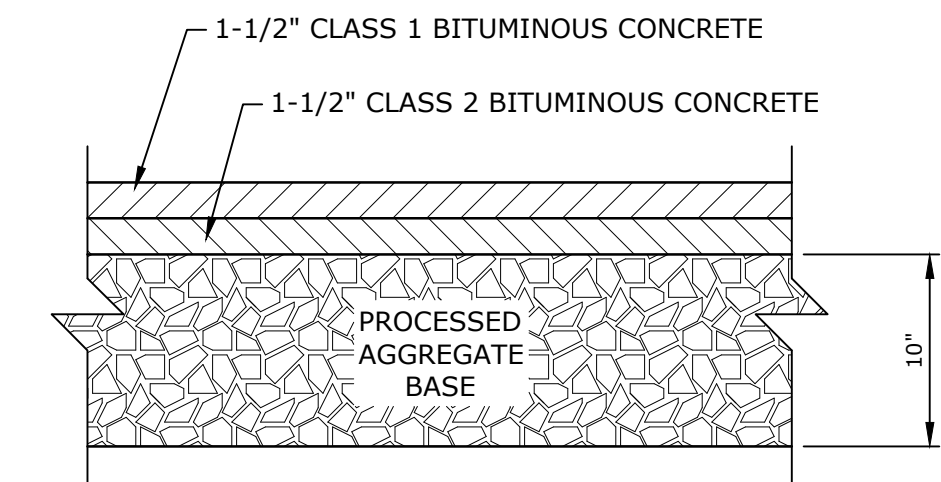
**2' GRAVEL STRIP WITH FLUSH CURB DETAIL**  
NO SCALE



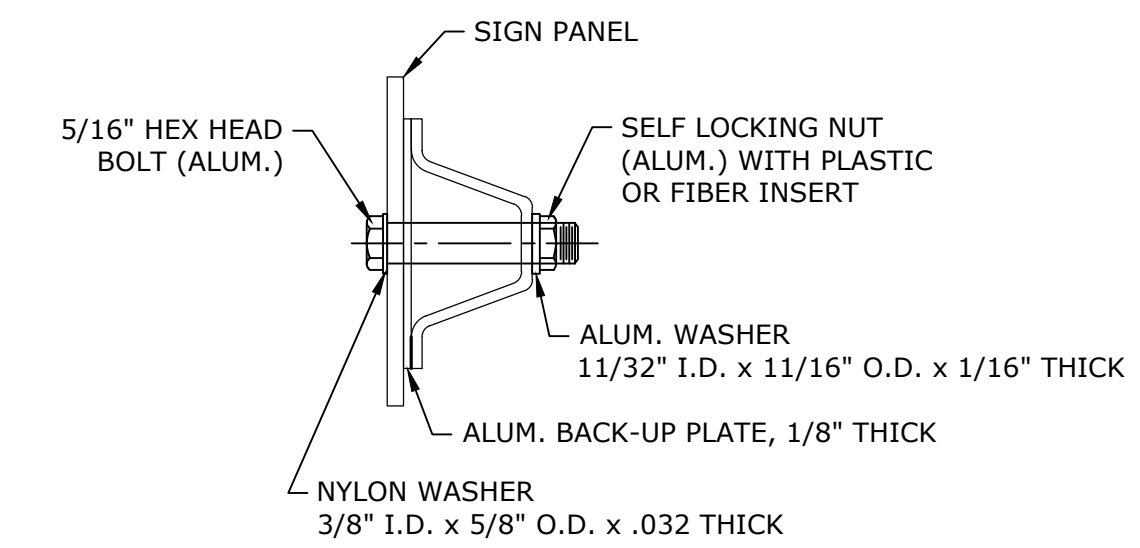
**CONCRETE WHEEL STOP DETAIL**  
NO SCALE



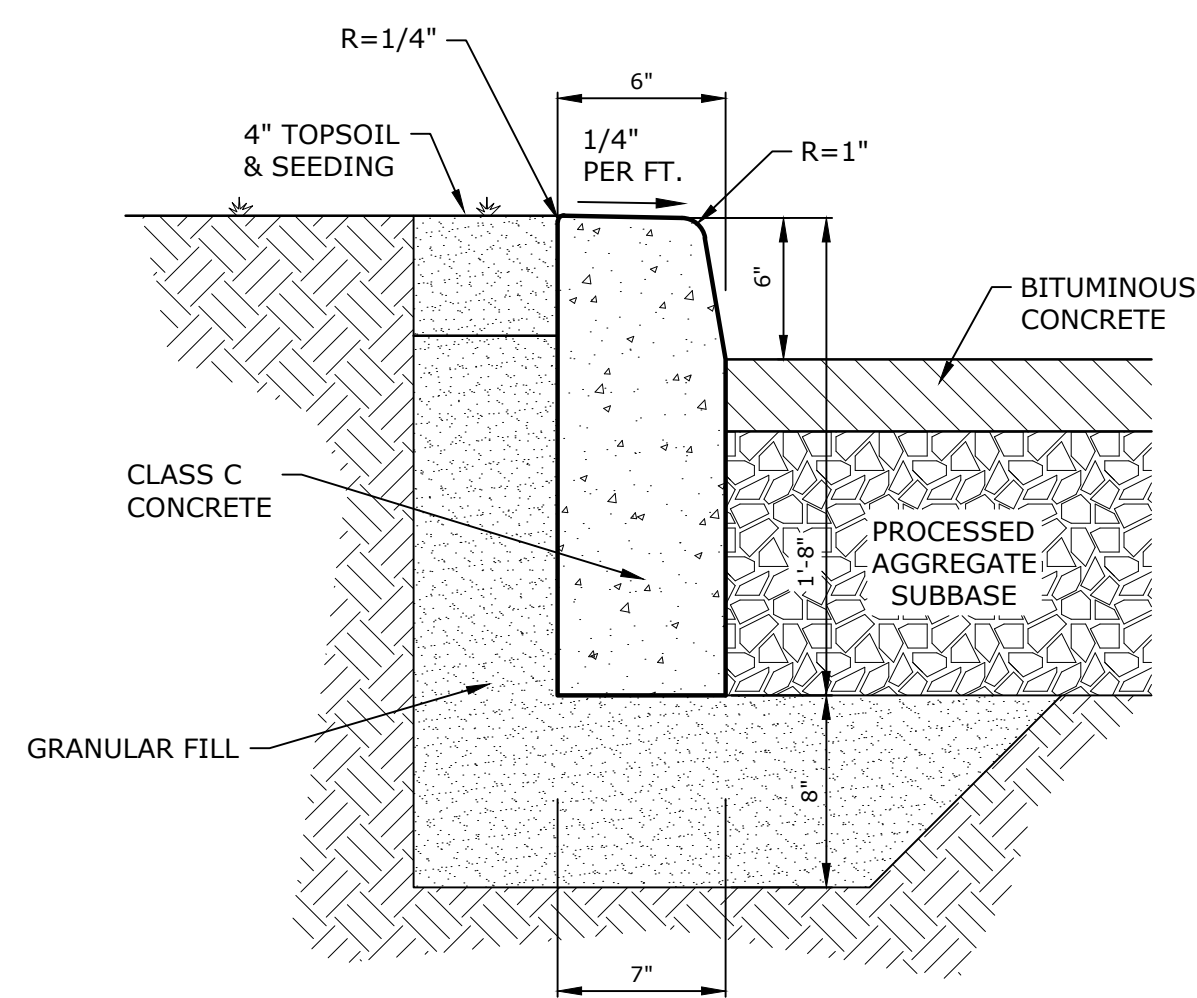
**CONCRETE WHEEL STOP DETAIL**  
NO SCALE



**BITUMINOUS CONCRETE PAVEMENT**  
NO SCALE

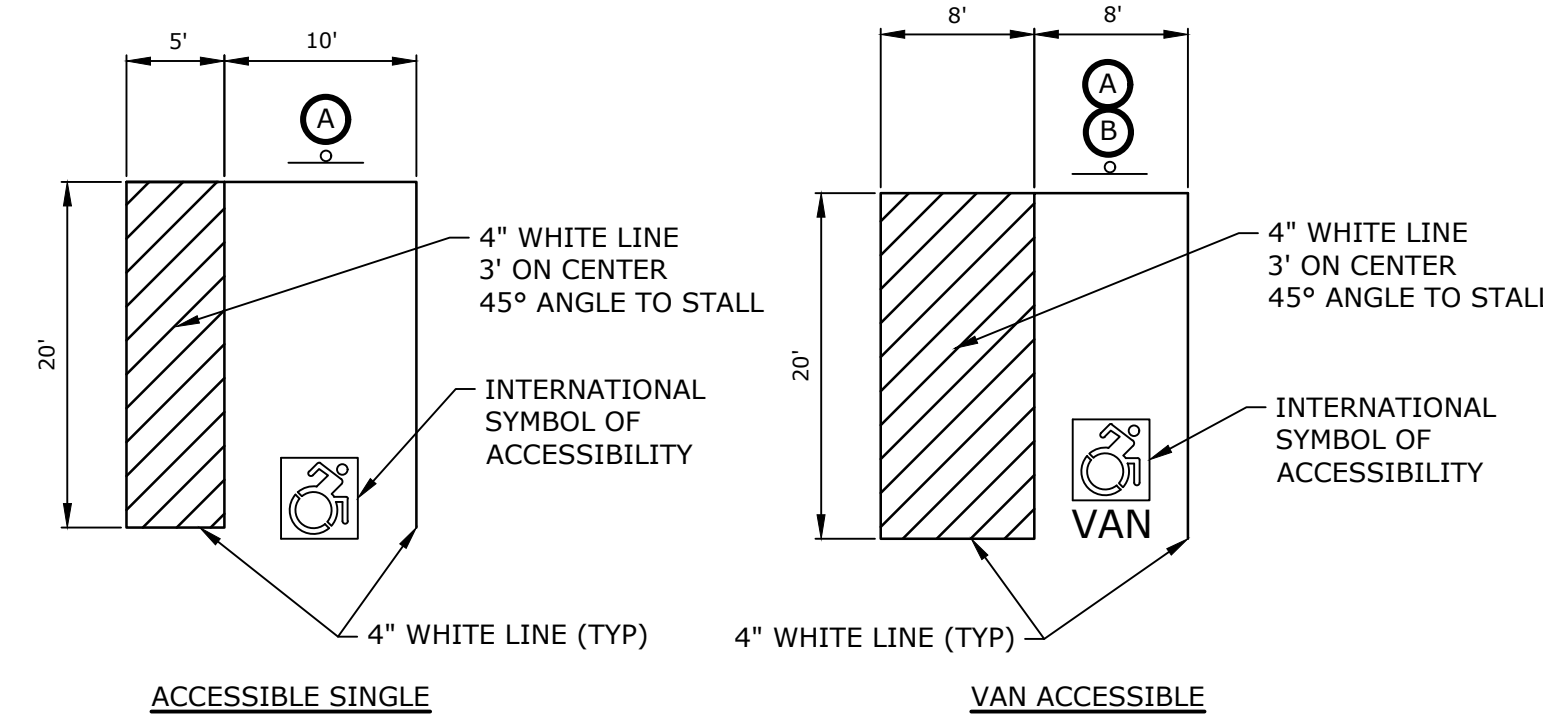


**TYPICAL SIGN  
PANEL ATTACHMENT**  
NO SCALE



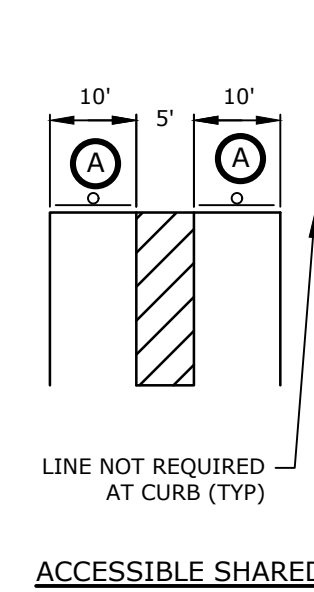
- NOTES:**
- CONSTRUCT CURBING IN SECTIONS NOT TO EXCEED 10 FEET IN LENGTH, SUCH THAT THE CURBING JOINTS ALIGN WITH JOINTS IN THE CONCRETE PAVEMENT SLAB. NO SECTION SHALL BE LESS THAN 6 FEET IN LENGTH.

**CONCRETE CURB ADJACENT TO GRASS**  
NO SCALE



**ACCESSIBLE SINGLE**

**VAN ACCESSIBLE**

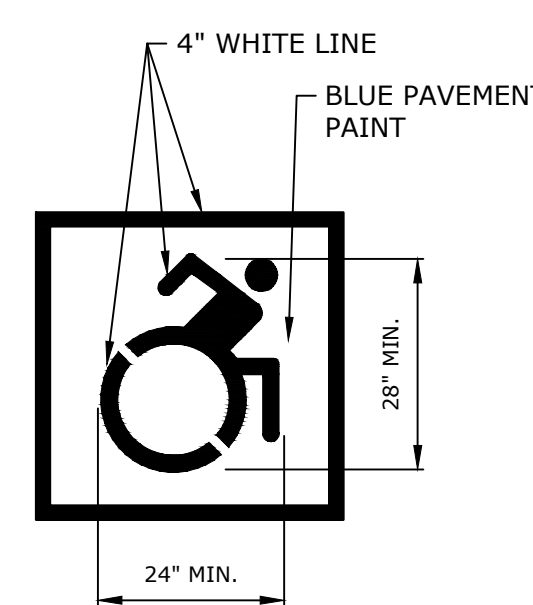


**ACCESSIBLE SHARED**



**SIGNS**

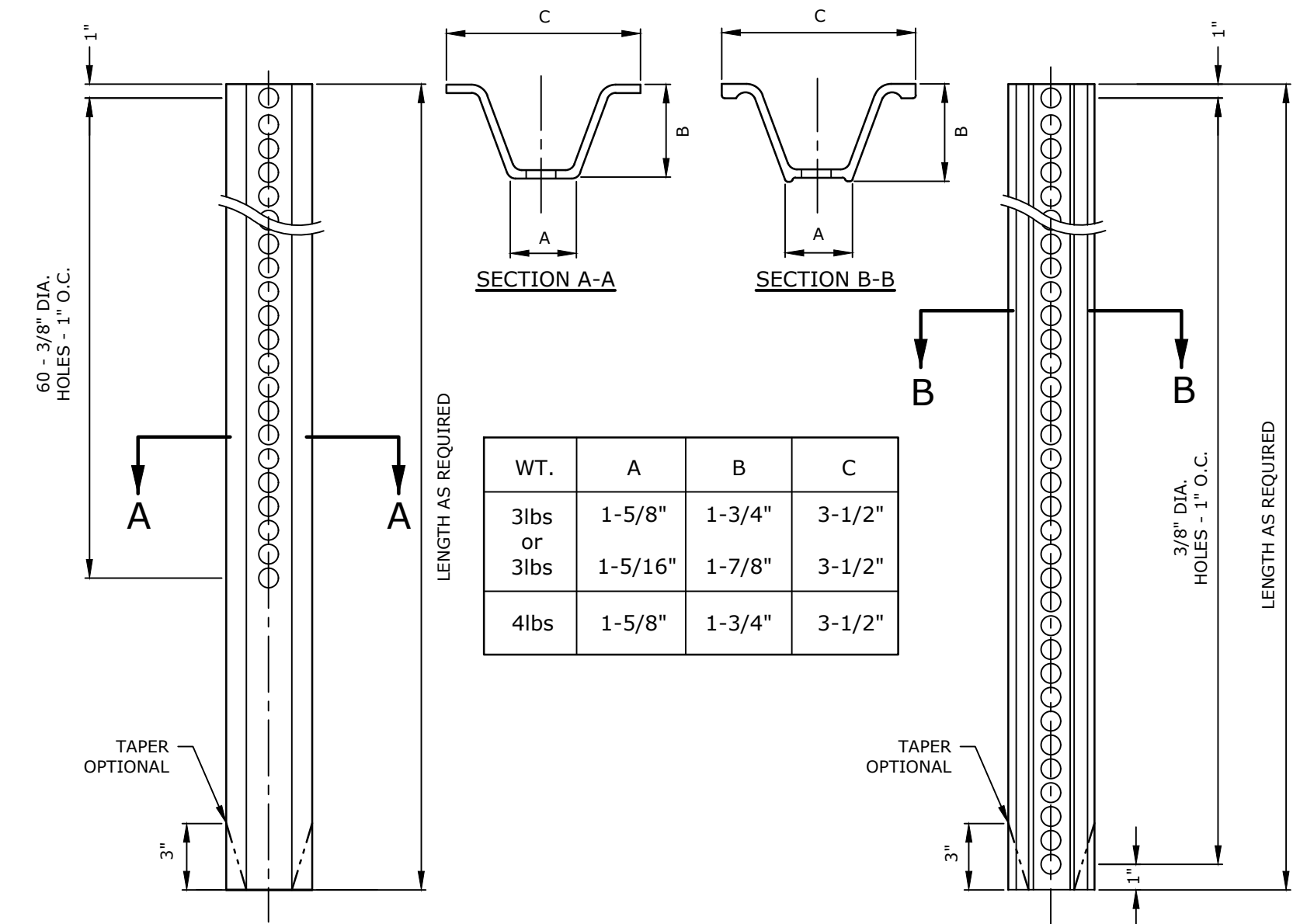
**VAN ACCESSIBLE**



**INTERNATIONAL SYMBOL OF ACCESSIBILITY**

- NOTES:**
- SIGN LOCATED AT ALL HANDICAPPED PARKING SPACES.
  - 18' X 15' D.O.T STANDARD ACCESSIBLE PARKING STALL
  - SIGN BACKGROUND - BLUE REFLECTIVE
  - LETTERS, GRAPHICS & BORDER - WHITE REFLECTIVE

**ACCESSIBLE PARKING STRIPING DETAILS**  
NO SCALE



**NOTES:**

- STEEL FOR POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499-81 GRADE 60 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1-76 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT OF 91 LBS. OR GREATER PER LINEAR YARD.
- AFTER FABRICATION, ALL STEEL POSTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A 123.
- ALL SIGN POSTS SHALL HAVE "BREAKAWAY" FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS-1985." THE "BREAKAWAY" FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGNS SHOWN IN THE PLANS AT 60 MPH WIND LOADINGS. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- TYPE A POSTS - 3 LB/FT TYPE B POSTS - 4 LB/FT.

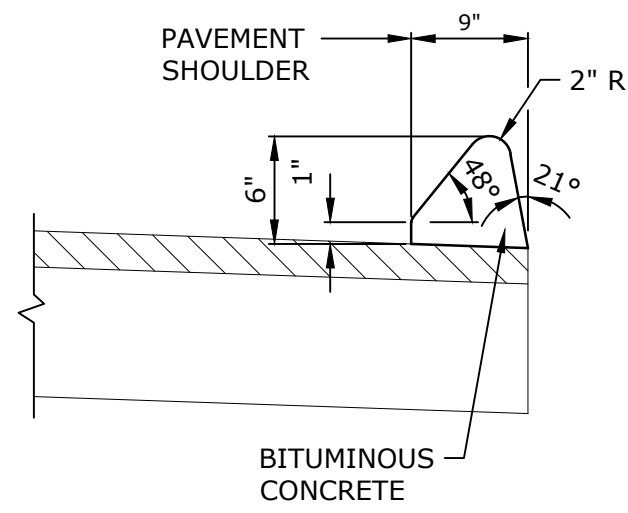
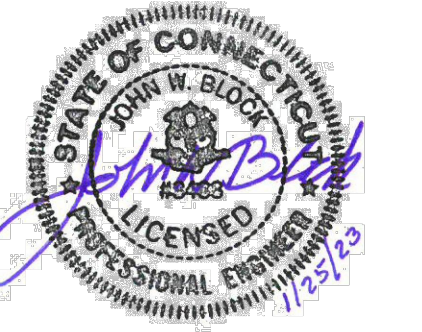
**TYPICAL METAL SIGN POSTS**  
NO SCALE

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APPROVED BY:	JWB	

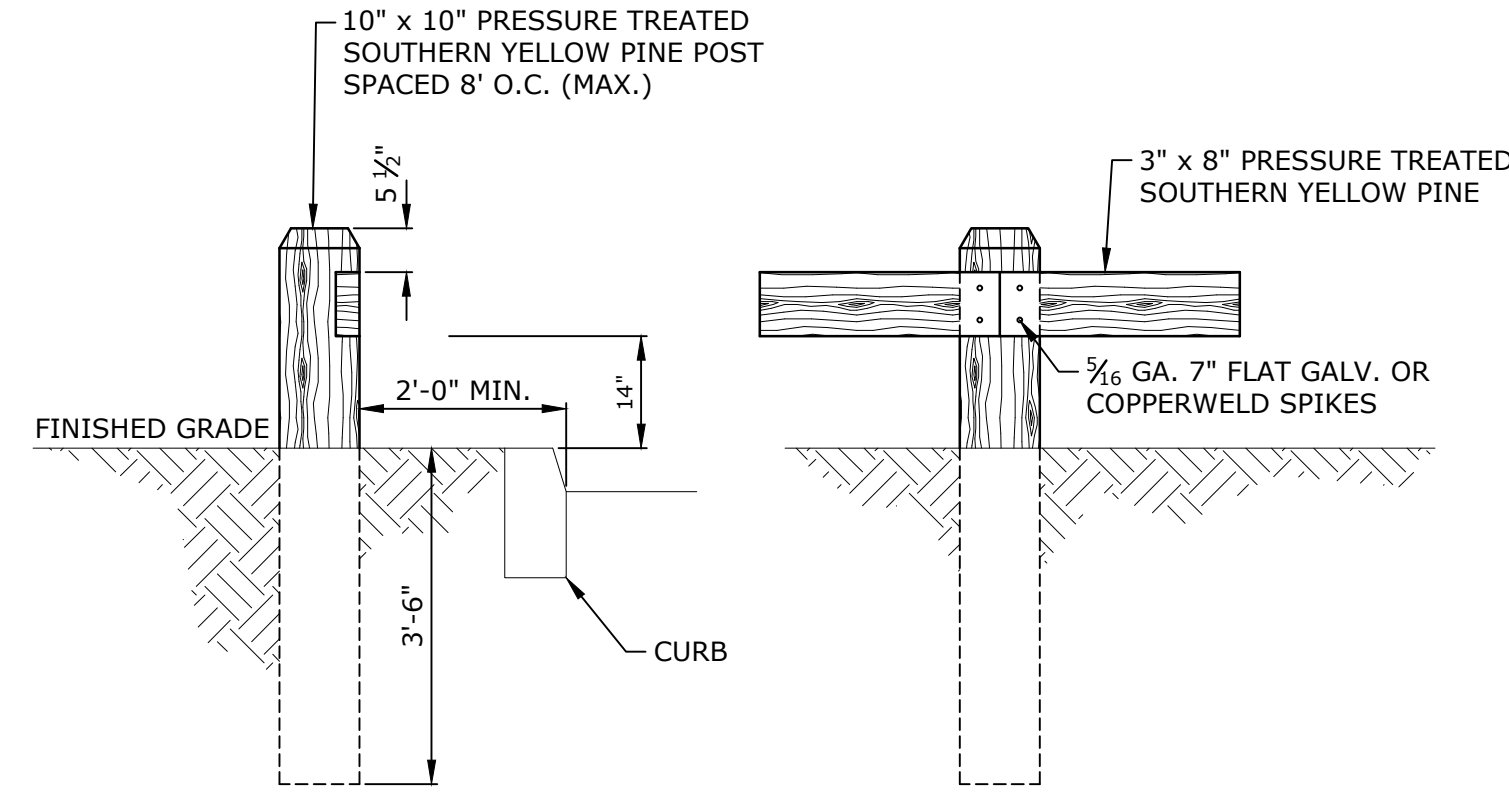
**DETAILS**

SCALE: 1" = 20'

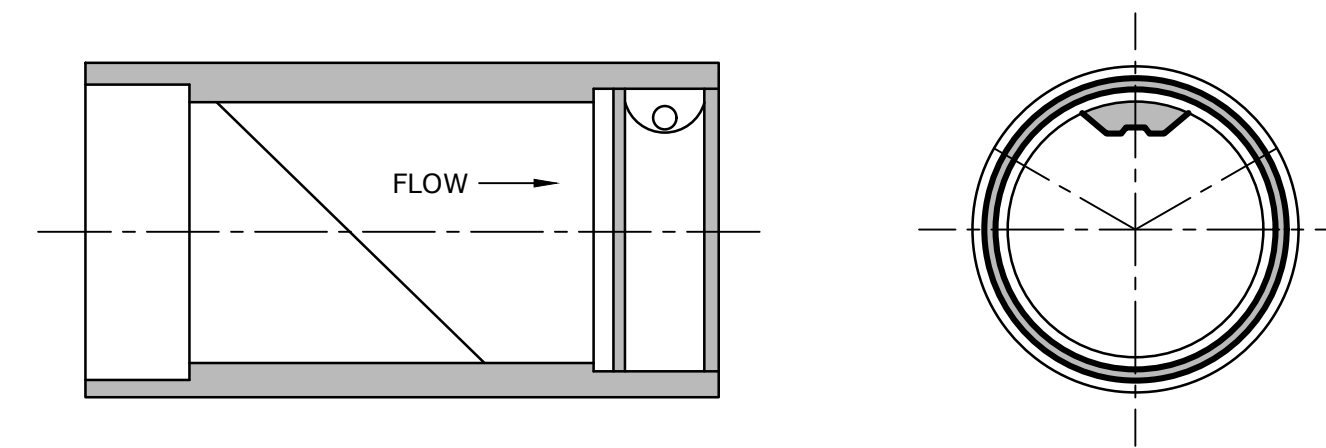
**C-400**



**BITUMINOUS CONCRETE LIP CURBING**  
NO SCALE



**TIMBER GUIDE RAIL DETAIL**  
NO SCALE



CHECKMATE VALVE							
NOMINAL PIPE SIZE I.D.	OVERALL LENGTH		NUMBER OF CLAMPS	CUFF DEPTH		BACK PRESSURE RATING	
	Inches	Millimeters		Inches	Millimeters	Feet	Meters
12	300	23	584	1	2	51	40
14	350	25.75	654	1	4	102	20
16	400	28.61	727	1	4	102	20
18	450	31	787	1	4	102	20
20	500	42.14	1070	2	8	203	20
24	600	47.5	1207	2	8	203	20

**CHECKMATE® IN LINE CHECK VALVE DETAIL**  
NO SCALE

**REGULATORY REVIEW SUBMISSION**

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**Grossman Companies, Inc.**

372, 378, & 380 Danbury Road

Wilton, Connecticut

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APPROVED BY:	JWB	

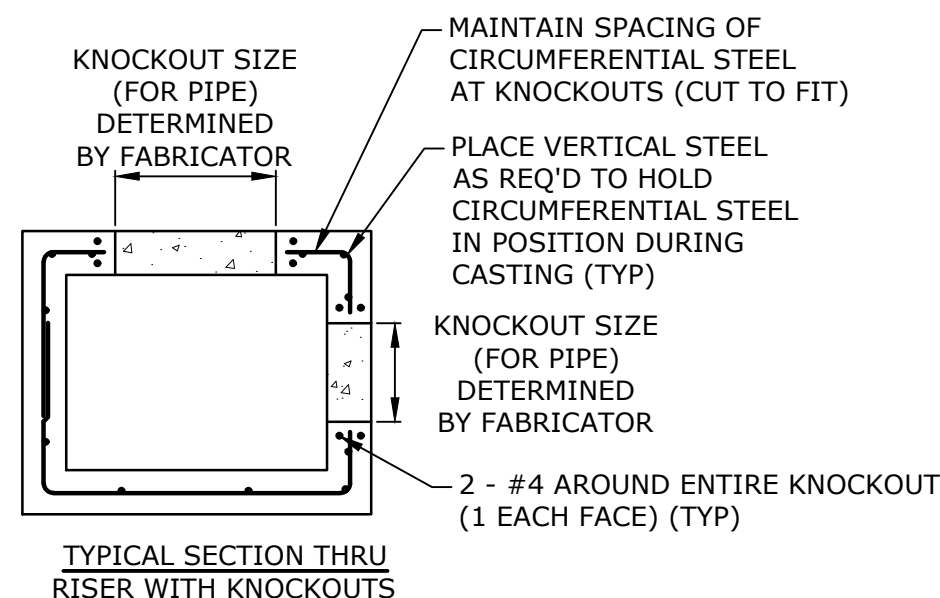
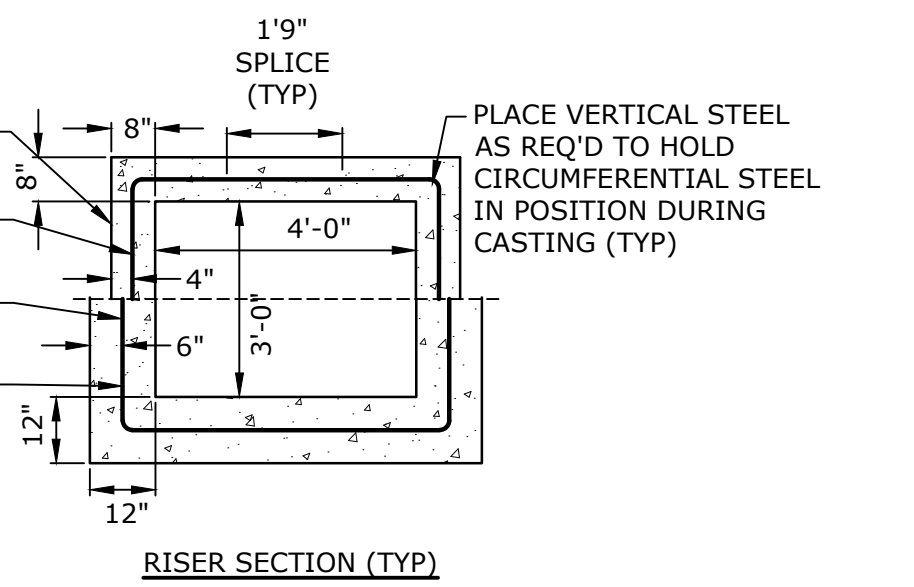
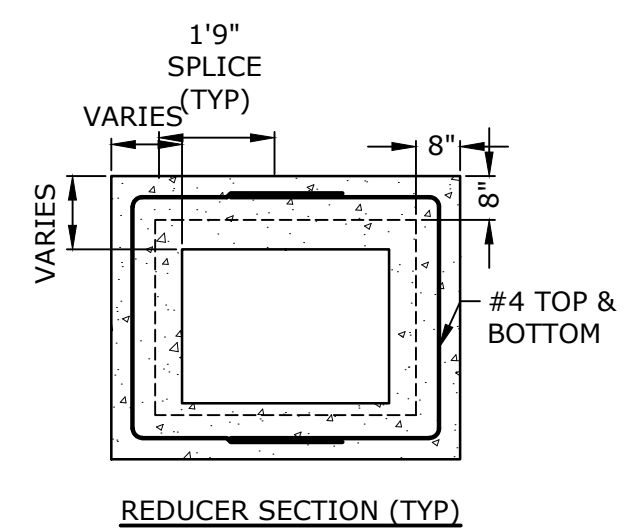
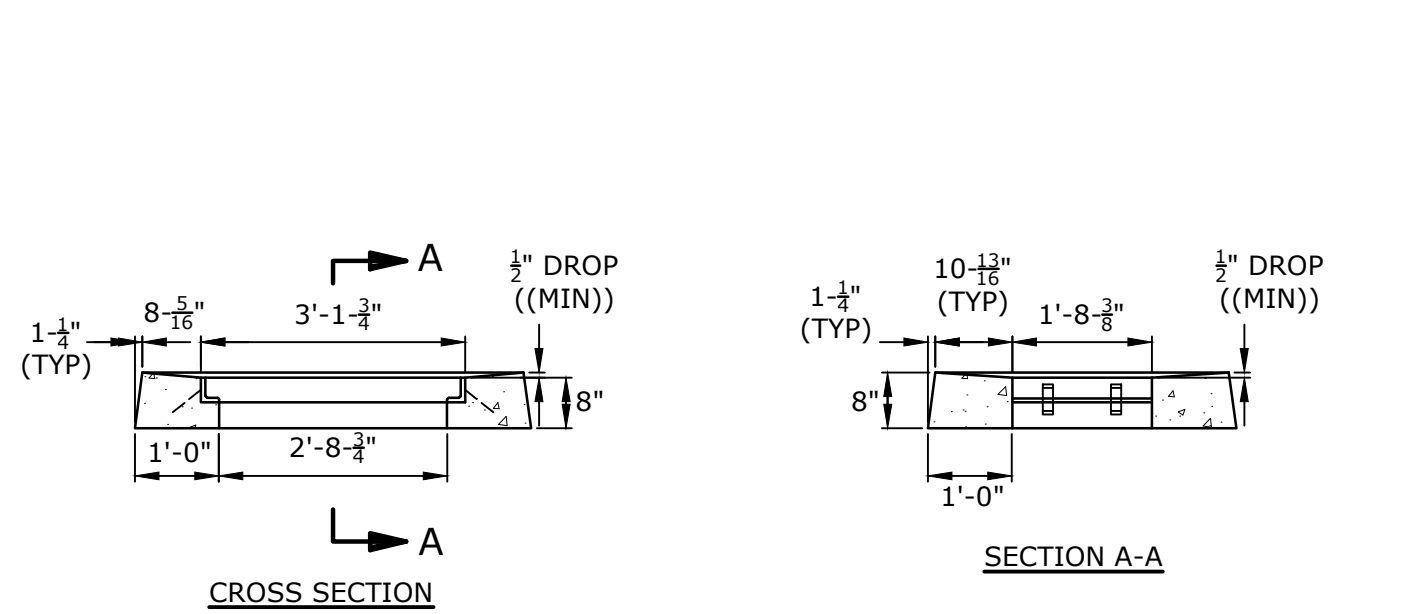
**DETAILS**

SCALE: 1" = 20"

**C-401**

**NOTES:**

- REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.
- DETAILS ON THIS SHEET SHOW STANDARD REINFORCEMENT. WELDED WIRE FABRIC WITH AN AREA EQUAL TO OR GREATER THAN THE REINFORCING SHOWN MAY BE SUBSTITUTED.
- ALL LAP SPLICES, DEVELOPMENT LENGTHS, BENDS FOR REINFORCEMENT, AND WELDED WIRE FABRIC SHALL CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
- ALL REINFORCEMENT SHALL HAVE A MINIMUM CLEAR COVER OF 2", EXCEPT FOR BENEATH BOTTOM REINFORCEMENT IN TOP SLABS, WHERE THE MINIMUM MAY BE 1 1/2"
- MINIMUM CONCRETE COMPRESSIVE STRENGTH FC'=4,000PSI SHALL BE OBTAINED BEFORE SHIPPING.
- BASES AND RISERS AT A DEPTH OF 20' AND GREATER SHALL BE DESIGNED BY THE CONTRACTOR AND WORKING DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
- SEE STANDARD DRAWING S07-K FOR CATCH BASIN FRAMES AND GRATES.
- FOR DOT MAINTENANCE PERSONNEL, RISERS MAY BE PREFABRICATED WITH PIPE OPENINGS IN ALL FOUR WALLS. ADEQUATE REINFORCING AROUND PIPE OPENINGS TO CONFORMING TO THESE PLANS SHALL BE PROVIDED. ANY RISERS USED WHERE A PIPE OPENING IS TO REMAIN IN PLACE MUST BE FORMED UP WITH BRICK AS DIRECTED BY THE ENGINEER.
- RISERS SHALL NEVER HAVE CORNER PIPE ENTRIES. WHERE THE ALIGNMENT OF THE PIPE WITH RESPECT TO THE CORNER OF THE CATCH BASIN CANNOT BE CHANGED, A ROUND STRUCTURE CONFORMING TO ASTM C478 SHALL BE USED. REINFORCING FOR THE ROUND TOP SLAB WITH A RECTANGULAR OPENING SHALL CONFORM TO DETAILS SHOWN HERE.
- ALL PIPE OPENINGS SHALL BE CLOSED USING MATERIALS WHICH CONFORM TO STATE OF CONNECTICUT STANDARD SPECIFICATIONS SECTION M.08.02. IF THE ENGINEER DETERMINES THAT THE CLOSURE OF ANY PIPE OPENING IS UNSATISFACTORY, THE CONTRACTOR SHALL RECLOSE SAID OPENING AT NO ADDITIONAL COST TO THE STATE. KNOCKOUTS FOR PIPE OPENINGS SHALL NOT RESULT IN A REDUCED WALL THICKNESS.
- THE LATEST STATE OF CONNECTICUT STANDARD SPECIFICATIONS AND SUPPLEMENTALS SHALL GOVERN.
- FOR ADDITIONAL DETAILS, SEE OTHER CATCH BASIN SHEETS.
- WALL THICKNESS OF ALL CB'S OVER 10' DEEP SHALL BE INCREASED TO 12" THICK. INSIDE DIMENSION SHALL REMAIN THE SAME. (THE 12" THICKNESS SHALL START AFTER THE FIRST 10')
- BUTYL RUBBER JOINT SEAL SHALL CONFORM TO AASHTO M-198 AND MORTAR SHALL CONFORM TO THE LATEST STATE OF CONNECTICUT STANDARD SPECIFICATIONS MATERIAL SECTION M11.04.
- SHRINKAGE AND TEMPERATURE REINFORCEMENT SHALL BE PROVIDED IN THE TOPS OF SLABS. THE TOTAL AREA OF REINFORCEMENT PROVIDED SHALL BE AT LEAST 0.125 IN<sup>2</sup>/FT IN EACH DIRECTION. THE MAXIMUM SPACING OF THIS REINFORCEMENT SHALL NOT EXCEED 18 INCHES.
- THE DETAILS SHOWN IN THE PLAN VIEW FOR THE PRECAST CONCRETE ROUND STRUCTURES SHALL ALSO BE USED FOR CONVERTING MANHOLES TO CATCH BASINS.



**TYPE "C-L" CATCH BASIN**  
NO SCALE



**PLANT LIST - PARKING LOT**

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
<b>TREES</b>						
2	AR	ACER RUBRUM	RED MAPLE	2 1/2-3" CAL.	B&B	FULL
3	CO	CELTIS OCCIDENTALIS	HACKBERRY	2-2 1/2" CAL.	B&B	
3	QB	QUERUS BICOLOR	SWAMP WHITE OAK	2-2.5" CAL.	B&B	
4	QP	QUERCUS PALUSTRIS	PINK OAK	2-2.5" CAL.	B&B	
<b>EVERGREENS</b>						
16	JV	JUNIPERUS VIRGINIANA	RED CEDAR	6-7' HT.	B&B	
14	TO	THUGA OCCIDENTALIS	DARK ARBORVITAE	7-8' HT.	B&B	
<b>SHRUBS</b>						
11	MP	MYRICA PENNSYLVANICA	BAYBERRY	36-42" HT.	CONT.	
9	NB	PHYSCARPUS OPUULIFOLIUS 'AMBER JUBILEE'	NINEBARK	36-42" HT.	CONT.	
20	GL	RHUS AROMATIC 'GRO-LOW'	GRO-LOW SUMAC	2 GAL.	CONT.	
6	VD	VIBURNUM DENTATUM 'BLUE MUFFIN'	BLUE MUFFIN ARROWWOOD	36-42" HT.	CONT.	
17	VL	VIBURNUM LENTAGO	NANNYBERRY	36-42" HT.	CONT.	
18	VP	VIBURNUM PRUNIFOLIUM	BLACKHAW VIBURNUM	36-42" HT.	CONT.	
<b>PERENNIALS</b>						
400	PV	PANICUM VIRGATUM 'SHENANDOAH'	SWITHGRASS	1 GAL.	CONT.	
38	PO	POTENITILLA FRUTICOSA 'DAKOTA SUNSPOT'	YELLOW CINQUEFOIL	1 GAL.	CONT.	
35	BS	SCHIZACHYRIUM SCOPARIUM 'CAROUSEL'	CAROUSEL BLUESTEM	1 GAL.	CONT.	

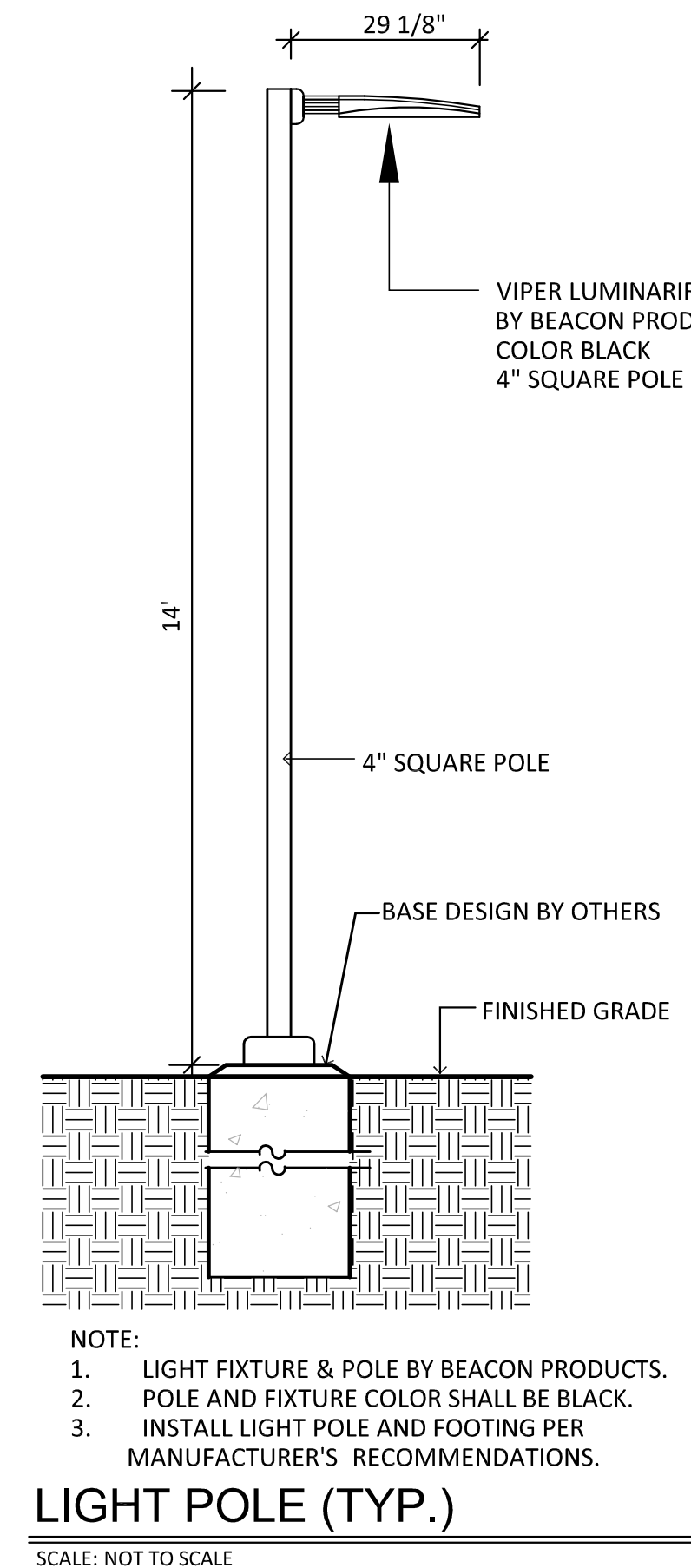
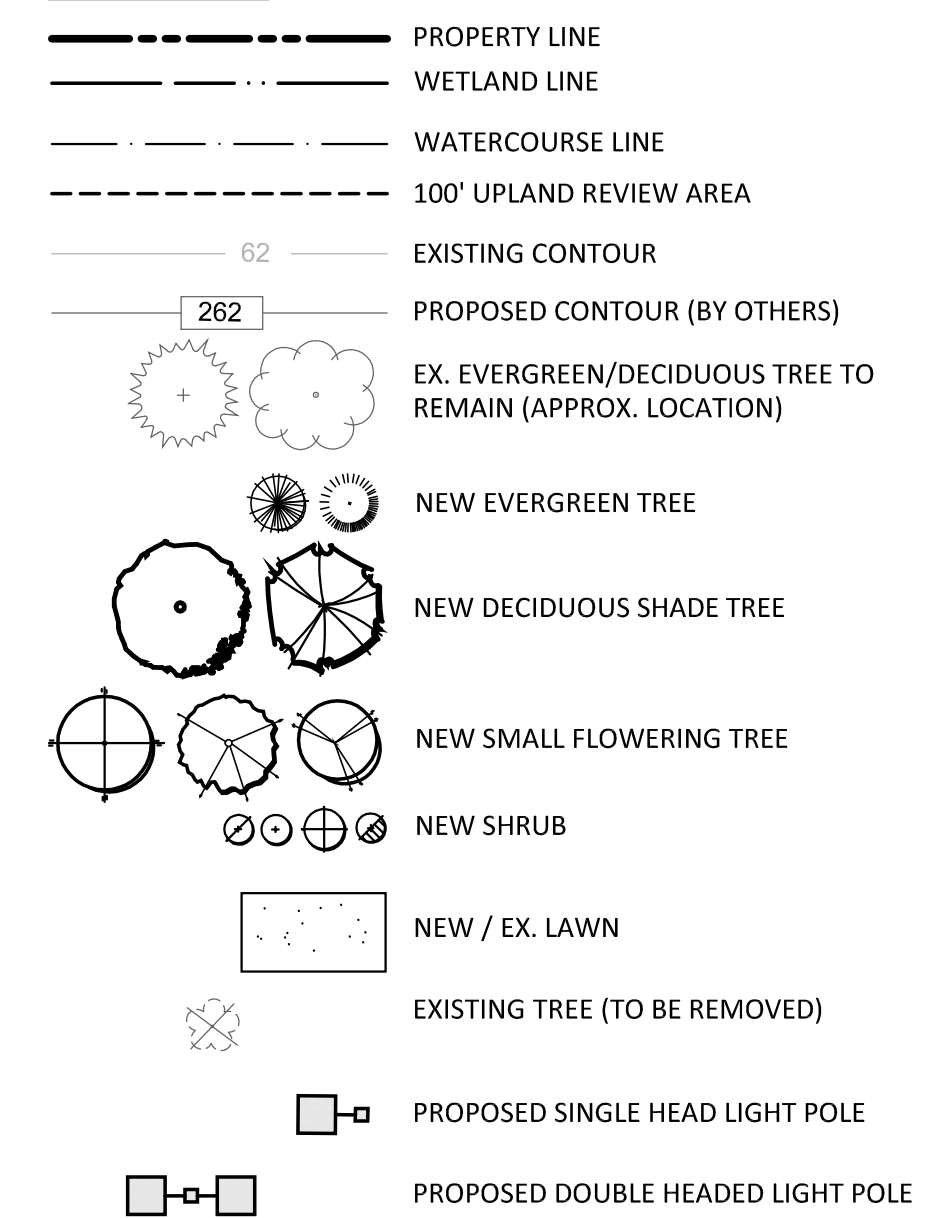
**PLANT LIST - RIVER BUFFER**

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
<b>TREES</b>						
3	PD	CORNUS ALTERFOLIA	PAGODA DOGWOOD	6-7' HT.	B&B	WHITE
15	SD	SALIX DISCOLOR	PUSSY WILLOW	4-5' HT.	CONT.	
<b>SHRUBS</b>						
13	AA	ARONIA ARBUTIFOLIA 'BRILLIANTISSIMA'	RED CHOKEBERRY	2-3' HT.	CONT.	
20	CA	CLETHRA ALNIFOLIA	CLETHRA	3-4' HT.	CONT.	
38	CS	CORNUS SERICEA	RED OSIER DOGWOOD	2-3' HT.	CONT.	
7	LB	LINDERA BENZOIN	SPICEBUSH	2-3' HT.	CONT.	
10	SC	SAMBUCUS CANADENSIS	ELDERBERRY	2-3' HT.	CONT.	
<b>PERENNIALS</b>						
50	HF	DENNSTAETIDIA PUNCTILOBA	HAYSCENTED FERN	1 QT.		
50	BF	IRIS VERSICOLOR	BLUE FLAG IRIS	1 QT.		

**NOTES:**

- EXISTING AND PROPOSED SITE INFORMATION TAKEN FROM A DIGITAL AUTOCADD SITE PLAN SUPPLIED BY TIGHE&BOND, DATED XXXXX.
- CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO HAVE UNDERGROUND UTILITY LINES MARKED BY THEM PRIOR TO START OF ANY EXCAVATION WORK.
- SEED AREAS AT THE METHODS AND 125% THE APPLICATION RATE RECOMMENDED BY THE MANUFACTURER. THE SEED SHALL BE SPREAD ON THE PREPARED SOIL, LIGHTLY RAKED TO ESTABLISH GOOD SOIL CONTACT AFTER SOWING, AND MULCHED WITH A 2 INCH LOOSE LAYER OF CLEAN OAT STRAW OR COMMERCIAL WOOD FIBER PRODUCTS APPLIED BY HAND OR BY HYDROSEEDING ON SLOPES LESS THAN 10%. SEEDING AREAS ON SLOPES ON OR GREATER THAN 10% SHALL BE COVERED WITH A PLASTIC-FREE AND 100% BIODEGRADABLE (INCLUDING ANCHOR STAPLES) EROSION CONTROL BLANKET. A NURSE CROP OF PERENNIAL RYE GRASS AT THE RATE OF 40 LBS./ACRE SHALL BE ADDED TO THE SEED MIX ON SLOPES OF EXCESS OF 10% AND AS SPECIFIED. SEED MIX SUBSTITUTIONS SHALL BE EQUIVALENT TO THAT SPECIFIED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO USE. UNLESS OTHERWISE SPECIFIED, MAINTAIN SEEDING AREAS AS RECOMMENDED BY THE MANUFACTURER. EXCEPT FOR LAWN AREAS, DO NOT FERTILIZE AREAS TO BE SEEDING UNLESS SPECIFIED BY THE MANUFACTURER. SEED AREAS AS PER THE FOLLOWING SCHEDULE:
  - A. LAWN: SEED LAWN AREAS WITH "SMART SEED NORTHEAST" MIX BY PENNINGTON SEED, INC. OR APPROVED EQUIVALENT. APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE MANUFACTURER.
  - B. WETLAND BUFFERS (UPLAND AREAS): SEED THIS AREA WITH "NEW ENGLAND CONSERVATION / WILDLIFE SEED MIX" BY FROM NEW ENGLAND WETLAND PLANTS, INC. (413-548-8000).
- IF SPECIFIED SEEDING CAN NOT OCCUR DUE TO SEASONAL AND WEATHER CONDITIONS, TEMPORARY SEED DISTURBED UPLAND AREAS WITH A MIXTURE OF ANNUAL RYE AT 20 LBS./ACRE, PERENNIAL RYE AT 20 LBS./ACRE, AND REDTOP AT 2 LBS./ACRE AND DISTURBED WETLAND AREAS WITH ANNUAL RYE AT THE RATE OF 30 LBS./ACRE. MULCHING, WITHOUT SEEDING, MAY BE USED DURING THE NON-GROWING SEASON IN ACCORDANCE WITH THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL (2002)".
- EXACT LOCATION OF PROPOSED PLANTINGS AND SPECIES TYPES MAY VARY FROM THIS PLAN BASED ON SITE PLAN REVISIONS AND/OR ACTUAL FIELD CONDITIONS.
- SPRAY NEW PLANTINGS IMMEDIATELY AFTER INSTALLATION WITH A WHITE-TAILED DEER REPELLENT AND CONTINUE AS NEEDED TO MAINTAIN PLANTS FREE OF SIGNIFICANT DEER BROWSING.
- PLANT SPECIES SUBSTITUTIONS MAY BE MADE WITH THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING. SUBSTITUTED PLANTS SHALL BE AT AN EQUAL OR GREATER SIZE AS NOTED USING A SIMILAR TYPE PLANT.
- MULCH AREAS AROUND NEW TREES AND SHRUBS WITH A 3" THICK LAYER OF SHREDDED CEDAR BARK MULCH. NEW TREES SHALL EACH HAVE A 5' MIN. DIA. MULCHED BED AND NEW SHRUBS SHALL EACH HAVE A MINIMUM 3' DIAMETER MULCHED BED. AREAS WITHIN 4" OF TREE TRUNKS SHALL BE MAINTAINED FREE OF MULCH.
- PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE "AMERICAN STANDARDS FOR NURSERY STOCK," LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
- THE CONTRACTOR SHALL VERIFY WITH THE PROJECT ENGINEER THAT THE NEW PLANTINGS DO NOT INTERFERE WITH EXISTING AND/OR PROPOSED UTILITIES, SIGHT LINES, AND/OR STRUCTURES.
- THIS PLAN FOR PLANTING PURPOSES ONLY. SEE PLANS BY OTHERS FOR ADDITIONAL INFORMATION.
- NONNATIVE INVASIVE MANAGEMENT: REMOVE JAPANESE BARBERRY, BURNINGBUSH, ASIATIC BITTERSWEET, MULTIFLORA ROSE AND NORWAY MAPLES UNDER 3" CALIPER FROM WETLAND AND ADJACENT UPLAND AREAS BY HAND PULLING, OR IF NOT PRACTICAL, CUTTING THE PLANTS DOWN TO JUST ABOVE GRADE AND APPLYING AN APPROPRIATE HERBICIDE, SUCH AS ROUNDUP IN UPLAND AREAS AND IMAZAPYR (TRADE NAME: HABITAT) IN WET CONDITIONS, INTO THE STEM WELLS. SEVERAL TREATMENT MAY BE REQUIRED. THE PERIOD BETWEEN JULY AND OCTOBER IS THE PREFERRED TIMING TO APPLY HERBICIDE. NONNATIVE INVASIVE PLANTS SHALL BE MANAGED FOR A MINIMUM OF THREE YEARS.

**LEGEND**



THIS DOCUMENT IS INCOMPLETE AND IS RELEASED TEMPORARILY FOR PROGRESS REVIEW ONLY. IT IS NOT INTENDED FOR BIDDING OR CONSTRUCTION PURPOSES.

**Grossman Companies, Inc.**

372, 378, & 380 Danbury Road

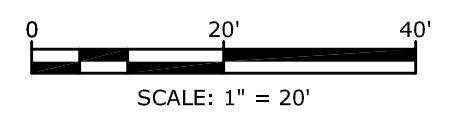
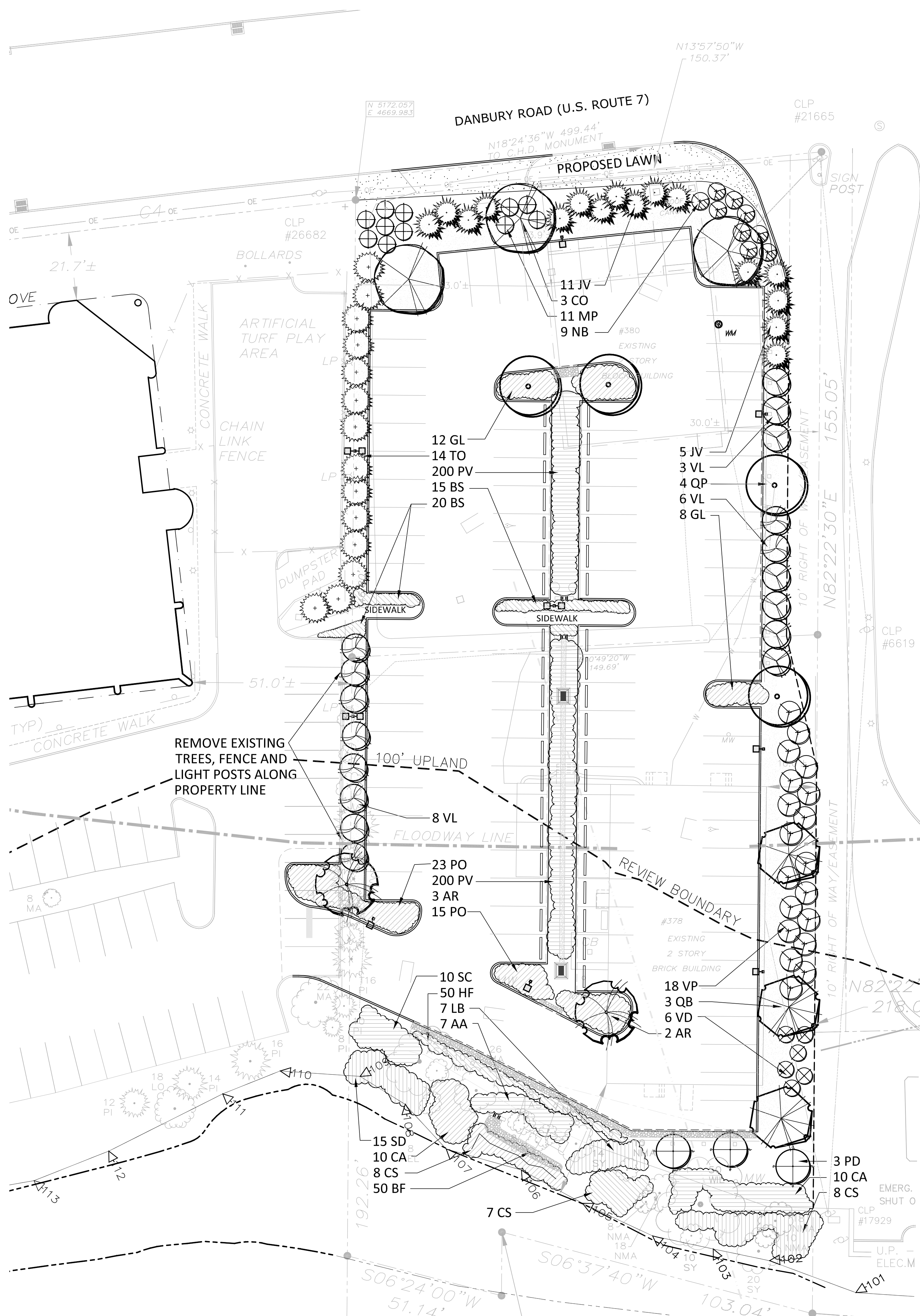
Wilton, Connecticut

PROJECT NO: G5081-001  
DATE: 1/25/2023  
FILE: Drawing1.dwg  
DRAWN BY: KET  
DESIGNED/CHECKED BY: MEP  
APPROVED BY: KET

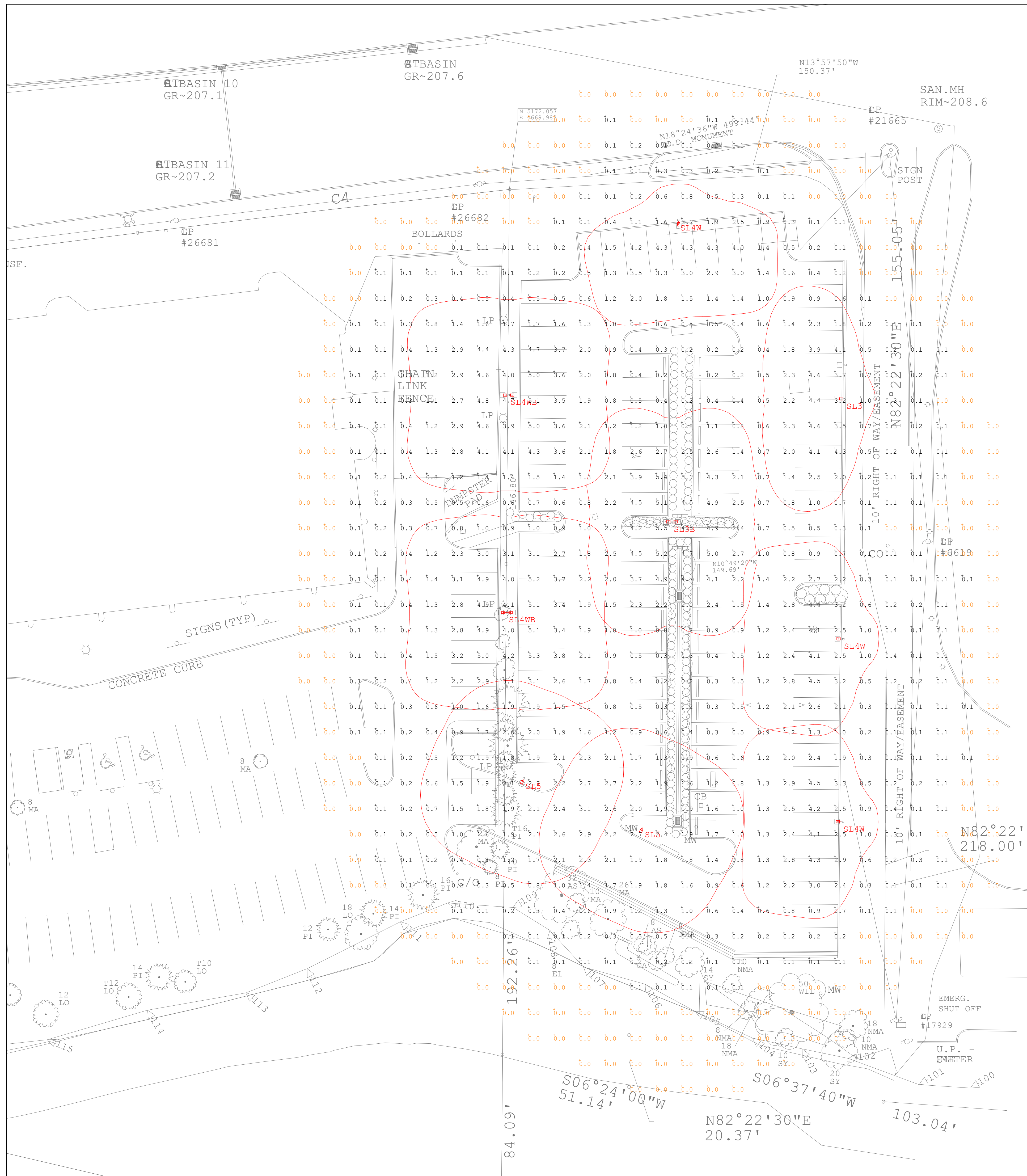
LANDSCAPING & LIGHTING PLAN

SCALE: 1" = 20'

LP-1



Tighe & Bond Landscape Architecture



Qty	Label	Total Watts	Arrangement	LLF	Description
1	SL3	37.33	Single	1.197	Beacon VP-1-160L-75-3K7-3-x TOF @ 14FT AFG
1	SL3B	134.66	Back-Back	1.197	Beacon VP-1-160L-75-3K7-3-x (2 @180) TOF @ 14FT AFG
3	SL4W	201.99	Single	1.197	Beacon VP-1-160L-75-3K7-4W-x TOF @ 14FT AFG
2	SL4WB	269.32	Back-Back	1.197	Beacon VP-1-160L-75-3K7-4W-x (2@180) TOF @ 14FT AFG
2	SL5	134.66	Single	1.197	Beacon VP-1-160L-75-3K7-50W-x TOF @ 14FT AFG

Label	Units	Avg	Max	Min	Avg/Min	Max/Min	Grid Height
Site	Fc	1.01	5.5	0.0	N.A.	N.A.	0
Parking & Drive Lane	Fc	1.95	5.4	0.2	9.75	27.00	

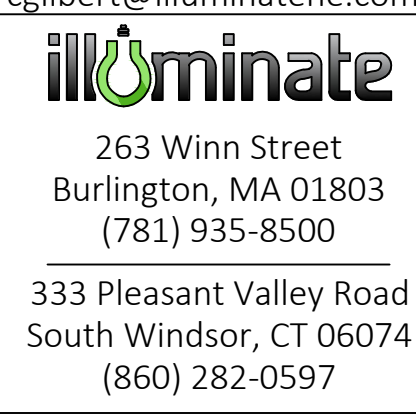
Project:  
372, 278 & 380 Danbury Road

Contact:  
Cliff Gilbert  
Specifications - Southern CT  
(203) 788-0814  
cgilbert@illuminatene.com

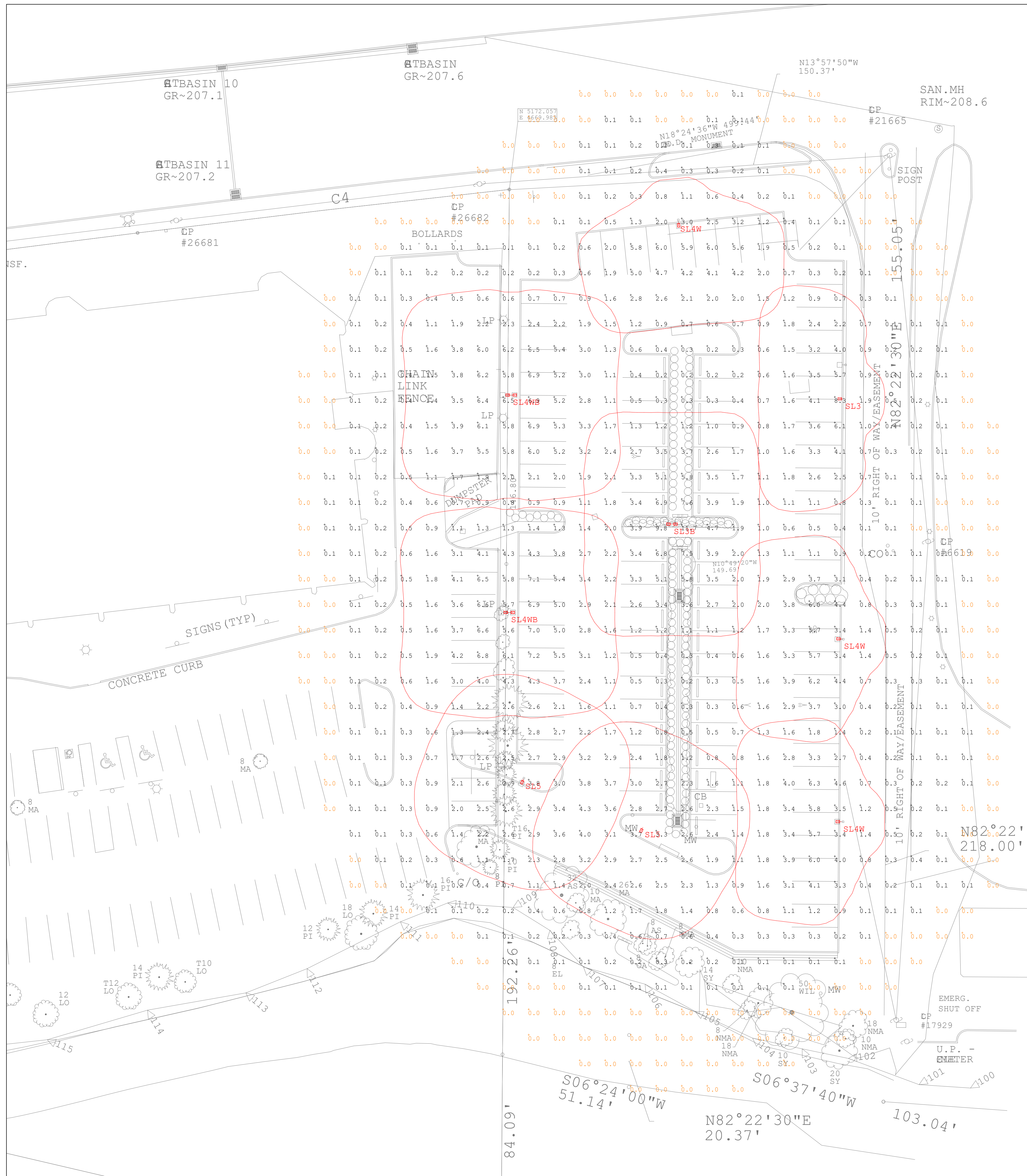
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Date: 1/12/2023  
Revision: ----  
Scale: 1" = 20'-0"  
Drawn By: CK

Drawing Number:  
**SL-1**

Sheet 1 of 1







Qty	Label	Total Watts	Arrangement	LLF	Description
1	SL3	93.25	Single	0.750	Beacon VP-1-160L-100-3K7-3-x TOF @ 14FT AFG
1	SL3B	186.5	Back-Back	0.750	Beacon VP-1-160L-100-3K7-3-x (2 @180) TOF @ 14FT AFG
3	SL4W	279.75	Single	0.750	Beacon VP-1-160L-100-3K7-4W-x TOF @ 14FT AFG
2	SL4WB	373	Back-Back	0.750	Beacon VP-1-160L-100-3K7-4W-x (2@180) TOF @ 14FT AFG
2	SL5	186.5	Single	0.750	Beacon VP-1-160L-100-3K7-5QW-x TOF @ 14FT AFG

Label	Units	Avg	Max	Min	Avg/Min	Max/Min	Grid Height
Site	Fc	1.33	11.7	0.0	N.A.	N.A.	0
Parking & Drive Lane	Fc	2.52	8.3	0.2	12.60	41.50	

Project:  
372, 278 & 380 Danbury Road

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Detail: Photometric Calculation  
Date: 1/23/2023  
Revision: B  
Scale: 1" = 20'-0"  
Drawn By: CK

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Drawing Number:  
**SL-2**  
Sheet 1 of 1