SLR International Corporation
195 Church Street, 7th Floor, New Haven, Connecticut, 06510

November 27, 2023

Attention: Ryan Sutherland, AIA LEED AP BD&C
AMS Acquisitions
One Bridge Plaza North, Suite 840
Fort Lee, NJ 07024

SLR Project No.: 141.21543.00001

RE: Traffic Impact Study
131 Danbury Road, Wilton, Connecticut

SLR International Corporation (SLR) has prepared this memorandum to evaluate the traffic-related implications of your proposal to convert the existing approximately 50,000 square-foot (SF) office building site at 131 Danbury Road (US Route 7) in Wilton, Connecticut, into 208 multi-family apartment units with at-grade and structured parking totalling 321 spaces. **Figure 1** shows the site location.

Existing Conditions

Site Environs

Table 1 summarizes the characteristics of Danbury Road in the vicinity of the site.

Table 1 Roadway Characteristics

	Danbury Road (US Route 7)
CTDOT Roadway Classification	Other Principal Arterial
Directionality	North-South
Number of Travel Lanes	3 (2 Northbound, 1 Southbound)
Shoulders	Narrow (< 4 feet)
Pedestrian Facilities	None
Transit	Norwalk Wheels Bus Route 4 10-20 Westport Road Shuttle
Posted Speed Limit	40 mph
Average Speed[1]	39.9 mph Northbound 39.5 mph Southbound
85th Percentile Speed[1]	46.2 mph Northbound 44.5 mph Southbound
Average Daily Traffic (ADT)[1]	22,200 vehicles
Adjacent Land Use	Commercial, Residential

1. Source: Connecticut Department of Transportation (CTDOT) Traffic Monitoring Station WILT-179 located along Danbury Road south of Route 34, March 2023.

Crash History

Traffic crash data was evaluated from the Connecticut Crash Data Repository for the most recent five-year period (July 1, 2018, to July 1, 2023) within an approximately 200-foot radius of the site frontage along Danbury Road. Most crashes appear to be associated with the neighboring 129 Danbury Road driveway to the south, and most appear to be rear-ends or sideswipes involving motorists crashing into others slowing down to turn, or motorists crashing into others attempting a passing maneuver. Three-quarters of the crashes appear to have been non-injury/property-damage only. **Table 2** summarizes the crash history findings.

Table 2 Crash History

Location	Type Of Collision						Severity		
	Front To Rear	Sideswipe, Same Direction	Not Applicable	Front To Front	Sideswipe, Opposite Direction	Grand Total	No Apparent Injury	Possible Injury	Grand Total
Danbury Road Near Site	5	4	2	1	1	13	10	3	13

Source: Connecticut Crash Data Repository

Traffic Data Collection

Turning movement counts were conducted at the signalized intersections of Danbury Road (US Route 7) at Westport Road (Route 33), and Danbury Road (US Route 7) at Grumman Hill Road/ASML Driveway, from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. on Wednesday, September 13, 2023, to capture peak weekday traffic activity. The hour interval with the highest traffic volumes for each time period was extracted from the count data for each intersection and used to calculate traffic capacity and operations. The peak hours were found to be from 7:45 a.m. to 8:45 a.m. during the weekday morning, and 5:00 p.m. to 6:00 p.m. during the weekday afternoon. The existing peak-hour traffic volumes are shown in **Figure 2.**

Proposed Development

Site Access

The site development proposes two curb-cuts along the Danbury Road frontage – an ingress-only driveway at the northern end of the site, and an egress-only driveway at the southern end containing dedicated left- and right-turn lanes. Along the building frontage, a pick-up/drop-off/turn-around lane will link the two driveway aisles. The driveway aisles will continue to the back of the site circling behind and with under-building parking.

Driveway Sight Lines

Intersection sight distance (ISD) accounts for a driver's ability to identify an appropriate gap in oncoming traffic when exiting a driveway or side street, in accordance with the CTDOT *Highway Design Manual*. When determining ISD, the length of the gap, which is dependent on the speed of approaching vehicles and number of lanes a motorist needs to cross to make a turn, should ideally allow a motorist to turn safely out of the driveway, or stop-sign controlled side street, without necessitating a significant change in the speed of approaching vehicles already traveling on the roadway.

The proposed driveway egress will be located in approximately the same location as the existing property's driveway; thus, the sight lines will be virtually the same as existing. The sight lines from the site driveway were reviewed based on the 85th percentile speeds of 46.2 miles per hour (mph) northbound, and 44.5 mph southbound along Danbury Road as recorded by CTDOT traffic monitoring. A motorist preparing to exit the driveway should have 495 feet of ISD when looking to the left prior to turning out onto Danbury Road, and 510 feet when looking to the right prior to turning left onto Danbury Road. The sight lines were found to be sufficient for the state requirement, subject to some vegetation pruning that is needed along the northeastern site frontage and within the right-of-way (ROW). The sight line looking left (north) can be improved by cutting back some of the overgrown tree branches that extend into the sight line presently. Vegetation along the site frontage and within the Danbury Road ROW near the site should be regularly pruned to maintain sufficient ISD.

Trip Generation and Distribution

The proposed site-generated peak-hour trips were estimated using statistical data published by the Institute of Transportation Engineers (ITE) *Trip Generation Manual* under Land Use Code (LUC) 221, "Multifamily Housing (Mid-Rise)". Traffic was also estimated for the existing approximately 50,000-SF office building for comparison purposes using ITE LUC 710, "General Office Building". **Table 3** summarizes the trip generation estimates**.**

Table 3 Trip Generation Summary

Land Use	Size	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
		In	Out	Total	In	Out	Total
Existing Site							
General Office Building	50,000 SF	67	9	76	12	60	72
Proposed Site							
Multifamily Housing (Mid-Rise)	208 Dwelling Units	18	59	77	49	32	81
Net Change in Site Traffic		***-49***	***+50***	***-1***	***+37***	***-28***	***+9***

Source: *Trip Generation*, 11th Edition. Institute of Transportation Engineers, 2021. ITE Land Uses: 221 and 710

It is estimated that the proposed conversion of the site into multifamily housing will produce similar, or slightly less, traffic than the existing office building according to the ITE data. While the existing site use has more traffic entering in the morning and exiting in the afternoon, the proposed site will have more traffic exiting in the morning and entering in the afternoon; essentially a reversal of peak site traffic enter-exit flows by time of day. In comparison to the actual traffic counts taken at the site driveway in September 2023, the ITE traffic generation

estimate for General Office Building is similar during the morning peak hour, but significantly higher during the afternoon peak hour (72 total trips estimated by ITE versus 16 total trips counted). This may simply mean that current site traffic does not leave all at once during the typical commuter peak, but rather interspersed during other time intervals. The COVID-19 impact on office commuting may also factor into the lower site traffic volumes counted.

The geographic distribution of the site-generated traffic volumes was determined based on a review of previous studies done for the nearby properties of 50 Danbury Road and 141 Danbury Road, and existing traffic volumes and patterns. A 50:50 north-south distribution is estimated for the site-generated traffic for the site access at Danbury Road. The site traffic distribution is illustrated in **Figure 3.** The trip generation was applied to the geographic distribution to determine the site-generated traffic per intersection, shown in **Figure 4.**

Future Traffic Analysis

To evaluate the impact of the proposed site on the surrounding roadway network an analysis was conducted comparing future traffic volumes *without* versus *with* the proposed site in place.

Future Traffic Volumes

The CTDOT Bureau of Policy and Planning and the Town of Wilton were contacted for traffic information in the site vicinity for use in this memorandum. SLR received the “Traffic Impact Statement” by the firm Tighe & Bond for the nearby 141 Danbury Road development project, as well as traffic information within the “OSTA Administrative Decision Request” for the 50 Danbury Road project, also by Tighe & Bond.

Traffic growth in a given area is attributed to new development and broader regional transportation trends. Future traffic volumes were estimated for two scenarios: future traffic volumes without the estimated traffic generated by the proposed site (before it is open) and future traffic volumes with the traffic generated by the proposed site (after it open for business). These are labeled the background and combined scenarios, respectively.

The year 2025 was assumed as the projection year for future traffic growth and the year when the proposed site would be open. CTDOT advised applying a general growth rate of 0.7 percent per year to the traffic counts to account for ambient traffic growth. The traffic generation from the 50 Danbury Road and 141 Danbury Road projects were added to the traffic counts as well to result in 2025 background traffic conditions for this analysis, shown in **Figure 5**. The 2025 combined traffic volumes were determined by replacing the existing office site traffic with the proposed residential site traffic previously calculated, shown in **Figure 6**.

Capacity Analysis

Capacity analysis was performed at the site driveways to evaluate the traffic operations impact of the proposed site on the surrounding roadway network. Intersection capacity results are expressed as a level of service (LOS) letter. LOS provides an evaluation of the efficiency of operations of an intersection in terms of delay and inconvenience based on certain quantitative calculations. LOS A describes operations with very low average control delay per vehicle while LOS F describes operations with very long average delays. In many communities, LOS D or even LOS E during peak hours may be considered acceptable and an appropriate trade-off between traffic flow and the amount of land devoted to the movement of motor vehicles.

The study intersections were evaluated using *Synchro 11* (*Trafficware*) traffic analysis software comparing the background and combined traffic scenarios. **Table 4** summarizes the capacity

analysis results for the weekday morning and afternoon peak hours. The *Synchro* analysis output sheets are included in the **Appendix**.

As shown, the proposed site driveway is expected to operate at similar levels from current conditions for egressing left-turning motorists, and at improved levels for right-turning motorists. While peak-hour LOS F conditions remain, it is not uncommon for stop-controlled driveways along high-traffic arterial roadways such as Danbury Road to operate at poor LOS. The existing driveway, as well as other stop-controlled driveways along Danbury Road, operate in such a manner. Additionally, note that while long delays for the motorists turning out of the site during peak hours are expected to remain, motorists traveling on Danbury Road will continue to experience good LOS B or better while passing the site.

Our analysis of off-site intersections nearby finds that there is expected to be no noteworthy traffic impact to the Grumman Hill Road intersection south of the site as a result of this redevelopment project; this intersection is anticipated to continue to operate at good overall LOS B or C during peak hours. At the Danbury Road/Westport Road intersection north of the site, while there is also no notable project impact expected traffic operations at this location will continue to be challenging during busy peak periods with or without this project in place. Most importantly as it pertains to this project, overall LOS traffic operations at both of these nearby signalized intersections are anticipated to remain virtually unchanged regardless of this proposed site redevelopment.

Table 4 Capacity Analysis Summary

Intersection Lane Group	Level of Service			
	Weekday Morning Peak Hour		Weekday Afternoon Peak Hour	
	Background	Combined	Background	Combined
Danbury Road (US Route 7) at Site Driveway				
Existing Site Driveway Eastbound Left/Right	F	-	E	-
Proposed Site Driveway Eastbound Left	-	F	-	F
Proposed Site Driveway Eastbound Right	-	D	-	C
Danbury Road Northbound Left/Through	B	B	B	B
Danbury Road (US Route 7) at Westport Road (Route 33)				
Overall	F	F	F	F
Danbury Road (US Route 7) at Grumman Hill Road/ASML Driveway				
Overall	C	C	B	B

Conclusion

SLR has prepared this traffic impact study for the proposed conversion of the existing office building site at 131 Danbury Road in Wilton, Connecticut, into 208 multi-family apartment units and 321 parking spaces. The future traffic generated by the residential units is expected to be similar to the amount of traffic that would be generated by the site's existing use per industry data.

The results of the traffic capacity analysis show the proposed redevelopment is expected to be accommodated by the surrounding roadway network with conditions remaining similar to those today. While driveway egress is expected to continue to operate at LOS F during peak hours, the new driveway will have separate right- and left-turn lanes, improving right-turning conditions when exiting the site. It should be noted that poor LOS conditions when exiting from stop-controlled driveways occurs today for most driveways nearby along Danbury Road given that this road is a high-traffic arterial state roadway.

The remaining analysis results for the two signalized intersections nearby both show negligible traffic impact as the result of the redevelopment. Overall, LOS F traffic conditions persist during peak hours at the Danbury Road (US Route 7) - Westport Road (Route 33) intersection north of the site, and LOS B/C traffic conditions will continue to occur at the Danbury Road – Grumman Hill Road intersection south of the site.

Sight lines from the site driveway will continue to be sufficient upon recommended trimming of overgrown tree branches along the northeastern site property corner and within the Danbury Road ROW. Vegetation should also be regularly pruned along the entire site frontage and within the adjacent Danbury Road ROW as necessary to maintain sufficient ISD.

We hope this memorandum is useful to you and the Town of Wilton. If you have any questions or need anything further, please do not hesitate to contact the undersigned.

Regards,

SLR International Corporation

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Attachments

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Figure 1
Site Location Map

Weekday AM Peak Hour
(##) Weekday PM Peak Hour

Figure 2
2023 Existing Traffic Volumes

Entering Trip
(##) Exiting Trip

Figure 3
Site Traffic Distribution

Weekday AM Peak Hour
(##) Weekday PM Peak Hour

Figure 4
Site Generated Traffic Volumes

Weekday AM Peak Hour
(##) Weekday PM Peak Hour

Figure 5
2025 Background Traffic Volumes

Weekday AM Peak Hour
(##) Weekday PM Peak Hour

Figure 6
2025 Combined Traffic Volumes

Appendix A

Level Of Service for Signalized Intersections (Motorized Vehicle Mode)

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

Level of Service Criteria for Signalized Intersections

LOS By Volume-to-Capacity Ratio[1]		Control Delay (s/veh)
v/c ≤ 1.0	v/c > 1.0	
A	F	≤ 10
B	F	> 10 and ≤ 20
C	F	> 20 and ≤ 35
D	F	> 35 and ≤ 55
E	F	> 55 and ≤ 80
F	F	> 80

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

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

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

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

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

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

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

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

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

Level Of Service For Unsignalized Intersections: Two-Way Stop-Control (TWSC)

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

Level of Service Criteria for TWSC Intersections

LOS	Control Delay (s/veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

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

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	875	0	622	1031	772	242
Future Volume (vph)	875	0	622	1031	772	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	300		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	0.95
Frt					0.964	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	1863	0	1770	3539	3355	0
Flt Permitted			0.104		0.963	
Satd. Flow (perm)	1863	0	194	3539	3355	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					52	
Link Speed (mph)	40			40	40	
Link Distance (ft)	1310			784	447	
Travel Time (s)	22.3			13.4	7.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	893	0	635	1052	788	247
Shared Lane Traffic (%)						
Lane Group Flow (vph)	893	0	635	1052	1035	0
Turn Type	NA		D.P+P	NA	Prot	
Protected Phases	2		1	1 2	4	
Permitted Phases			2			
Detector Phase	2		1	1 2	4	
Switch Phase						
Minimum Initial (s)	20.0		5.0		10.0	
Minimum Split (s)	26.4		9.0		14.2	
Total Split (s)	45.0		10.0		35.0	
Total Split (%)	50.0%		11.1%		38.9%	
Yellow Time (s)	4.2		3.0		3.0	
All-Red Time (s)	2.2		1.0		1.2	
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	6.4		4.0		4.2	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Recall Mode	C-Min		None		None	
Act Effct Green (s)	38.6		47.6	51.6	30.2	
Actuated g/C Ratio	0.43		0.53	0.57	0.34	
v/c Ratio	1.12		2.93	0.52	0.89	
Control Delay	94.1		890.6	10.0	38.0	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	94.1		890.6	10.0	38.0	
LOS	F		F	A	D	
Approach Delay	94.1			341.5	38.0	
Approach LOS	F			F	D	
Stops (vph)	726		424	331	862	
Fuel Used(gal)	32		120	11	23	

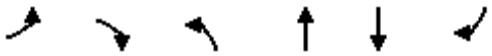
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
CO Emissions (g/hr)	2214		8406	757	1585	
NOx Emissions (g/hr)	431		1635	147	308	
VOC Emissions (g/hr)	513		1948	176	367	
Dilemma Vehicles (#)	42		0	66	0	
Queue Length 50th (ft)	~590		~610	111	269	
Queue Length 95th (ft)	#826		#835	139	#385	
Internal Link Dist (ft)	1230			704	367	
Turn Bay Length (ft)			300			
Base Capacity (vph)	799		217	2028	1182	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	1.12		2.93	0.52	0.88	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 29 (32%), Referenced to phase 2:EBWB and 6:, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.93			
Intersection Signal Delay: 193.5		Intersection LOS: F	
Intersection Capacity Utilization 122.3%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 1: Danbury Road & Westport Road



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	14	5	13	958	1259	32
Future Volume (vph)	14	5	13	958	1259	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	12	12
Storage Length (ft)	50	0	0			0
Storage Lanes	0	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.966				0.997	
Flt Protected	0.964			0.999		
Satd. Flow (prot)	1735	0	0	3300	1857	0
Flt Permitted	0.964			0.999		
Satd. Flow (perm)	1735	0	0	3300	1857	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	213			2513	757	
Travel Time (s)	4.8			42.8	12.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	5	14	1008	1325	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	20	0	0	1022	1359	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		

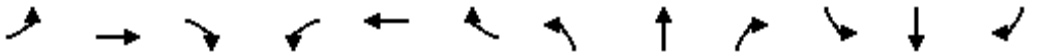
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	5	13	958	1259	32
Future Vol, veh/h	14	5	13	958	1259	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	5	14	1008	1325	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1874	1342	1359	0	-	0
Stage 1	1342	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	71	185	504	-	-	-
Stage 1	243	-	-	-	-	-
Stage 2	554	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	67	185	504	-	-	-
Mov Cap-2 Maneuver	67	-	-	-	-	-
Stage 1	228	-	-	-	-	-
Stage 2	554	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	63.4	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	504	-	81	-	-
HCM Lane V/C Ratio	0.027	-	0.247	-	-
HCM Control Delay (s)	12.3	0.4	63.4	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-



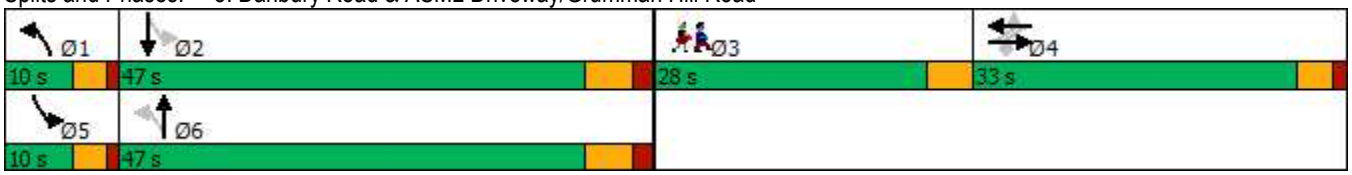
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	1	13	182	51	58	140	912	55	45	1186	32
Future Volume (vph)	11	1	13	182	51	58	140	912	55	45	1186	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	125		0	225		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
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
Frt			0.850		0.973			0.991			0.996	
Flt Protected		0.956			0.970		0.950			0.950		
Satd. Flow (prot)	0	1781	1583	0	1758	0	1770	3507	0	1770	3525	0
Flt Permitted		0.791			0.802		0.090			0.171		
Satd. Flow (perm)	0	1473	1583	0	1454	0	168	3507	0	319	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			103		10			6			2	
Link Speed (mph)		30			30			40			30	
Link Distance (ft)		338			721			491			436	
Travel Time (s)		7.7			16.4			8.4			9.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	12	1	14	202	57	64	156	1013	61	50	1318	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	14	0	323	0	156	1074	0	50	1354	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4		4	4			6			2		
Detector Phase	4	4	4	4	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	9.0	9.0	9.0	9.0	9.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	13.6	13.6	13.6	13.6	13.6		9.0	21.1		9.0	21.1	
Total Split (s)	33.0	33.0	33.0	33.0	33.0		10.0	47.0		10.0	47.0	
Total Split (%)	28.0%	28.0%	28.0%	28.0%	28.0%		8.5%	39.8%		8.5%	39.8%	
Yellow Time (s)	3.2	3.2	3.2	3.2	3.2		3.0	4.3		3.0	4.3	
All-Red Time (s)	1.4	1.4	1.4	1.4	1.4		1.0	1.8		1.0	1.8	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6		4.0	6.1		4.0	6.1	
Lead/Lag	Lag	Lag	Lag	Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Act Effct Green (s)		24.2	24.2		24.2		51.4	44.6		49.2	41.7	
Actuated g/C Ratio		0.26	0.26		0.26		0.56	0.49		0.54	0.46	
v/c Ratio		0.03	0.03		0.82		0.78	0.63		0.19	0.84	
Control Delay		28.4	0.1		50.1		43.4	22.8		13.7	30.1	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		28.4	0.1		50.1		43.4	22.8		13.7	30.1	
LOS		C	A		D		D	C		B	C	
Approach Delay		13.7			50.1			25.4			29.5	
Approach LOS		B			D			C			C	
Stops (vph)		10	0		234		59	675		21	924	
Fuel Used(gal)		0	0		6		2	14		1	41	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	24%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
CO Emissions (g/hr)		11	2		412		160	1002		89	2838	
NOx Emissions (g/hr)		2	0		80		31	195		17	552	
VOC Emissions (g/hr)		3	1		95		37	232		21	658	
Dilemma Vehicles (#)		0	0		0		0	49		0	0	
Queue Length 50th (ft)		5	0		155		33	220		10	322	
Queue Length 95th (ft)		24	0		#405		#216	#503		45	#760	
Internal Link Dist (ft)		258			641			411			356	
Turn Bay Length (ft)			100				125			225		
Base Capacity (vph)		466	572		467		201	1713		271	1609	
Starvation Cap Reductn		0	0		0		0	0		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.03	0.02		0.69		0.78	0.63		0.18	0.84	

Intersection Summary			
Area Type:	Other		
Cycle Length: 118			
Actuated Cycle Length: 91.4			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 29.9		Intersection LOS: C	
Intersection Capacity Utilization 76.8%		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: 3: Danbury Road & ASML Driveway/Grumman Hill Road



Lane Group	Ø3
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

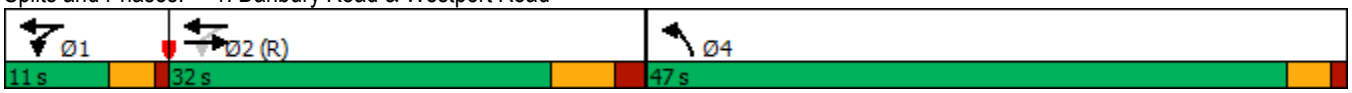
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	878	0	432	723	1019	418
Future Volume (vph)	878	0	432	723	1019	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	300		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	0.95
Frt					0.956	
Flt Protected			0.950		0.966	
Satd. Flow (prot)	1863	0	1770	3539	3337	0
Flt Permitted			0.156		0.966	
Satd. Flow (perm)	1863	0	291	3539	3337	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					99	
Link Speed (mph)	40			40	40	
Link Distance (ft)	1310			784	447	
Travel Time (s)	22.3			13.4	7.6	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	944	0	465	777	1096	449
Shared Lane Traffic (%)						
Lane Group Flow (vph)	944	0	465	777	1545	0
Turn Type	NA		D.P+P	NA	Prot	
Protected Phases	2		1	1 2	4	
Permitted Phases			2			
Detector Phase	2		1	1 2	4	
Switch Phase						
Minimum Initial (s)	20.0		5.0		10.0	
Minimum Split (s)	26.4		9.0		14.2	
Total Split (s)	32.0		11.0		47.0	
Total Split (%)	35.6%		12.2%		52.2%	
Yellow Time (s)	4.2		3.0		3.0	
All-Red Time (s)	2.2		1.0		1.2	
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	6.4		4.0		4.2	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Recall Mode	C-Min		None		None	
Act Effct Green (s)	25.6		35.0	39.0	42.8	
Actuated g/C Ratio	0.28		0.39	0.43	0.48	
v/c Ratio	1.78		2.04	0.51	0.94	
Control Delay	384.4		495.3	9.5	34.3	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	384.4		495.3	9.5	34.3	
LOS	F		F	A	C	
Approach Delay	384.4			191.4	34.3	
Approach LOS	F			F	C	
Stops (vph)	632		272	606	1176	

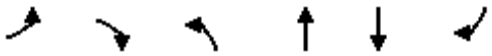
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Fuel Used(gal)	83		49	11	31	
CO Emissions (g/hr)	5782		3392	782	2149	
NOx Emissions (g/hr)	1125		660	152	418	
VOC Emissions (g/hr)	1340		786	181	498	
Dilemma Vehicles (#)	27		0	1	0	
Queue Length 50th (ft)	~812		~346	197	393	
Queue Length 95th (ft)	#1061		m#535	202	#563	
Internal Link Dist (ft)	1230			704	367	
Turn Bay Length (ft)			300			
Base Capacity (vph)	529		228	1533	1638	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	1.78		2.04	0.51	0.94	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 86 (96%), Referenced to phase 2:EBWB and 6:, Start of Green			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.04			
Intersection Signal Delay: 175.1		Intersection LOS: F	
Intersection Capacity Utilization 124.5%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Danbury Road & Westport Road





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	11	3	1	1311	915	1
Future Volume (vph)	11	3	1	1311	915	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	12	12
Storage Length (ft)	50	0	0			0
Storage Lanes	0	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.973					
Flt Protected	0.962					
Satd. Flow (prot)	1744	0	0	3303	1863	0
Flt Permitted	0.962					
Satd. Flow (perm)	1744	0	0	3303	1863	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	213			2513	757	
Travel Time (s)	4.8			42.8	12.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	12	3	1	1395	973	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	0	1396	974	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

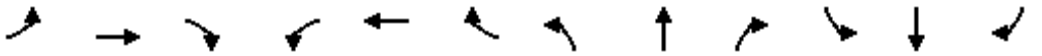
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	3	1	1311	915	1
Future Vol, veh/h	11	3	1	1311	915	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	3	1	1395	973	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1674	974	974	0	-	0
Stage 1	974	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	95	305	706	-	-	-
Stage 1	365	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	94	305	706	-	-	-
Mov Cap-2 Maneuver	94	-	-	-	-	-
Stage 1	363	-	-	-	-	-
Stage 2	455	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	42.8	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	706	-	110	-	-
HCM Lane V/C Ratio	0.002	-	0.135	-	-
HCM Control Delay (s)	10.1	0	42.8	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-



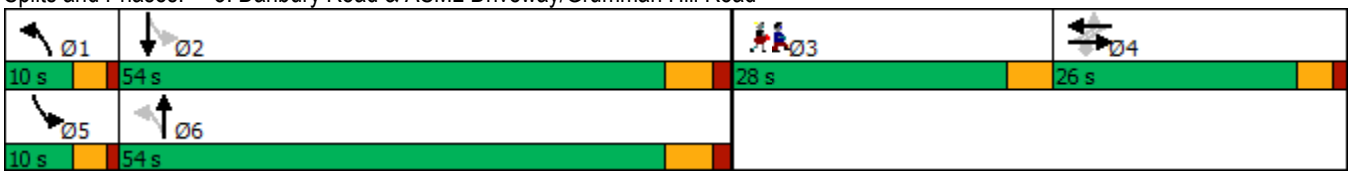
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	34	42	42	16	39	12	1572	133	66	853	10
Future Volume (vph)	38	34	42	42	16	39	12	1572	133	66	853	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	125		0	225		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
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
Frt			0.850		0.945			0.988			0.998	
Flt Protected		0.974			0.979		0.950			0.950		
Satd. Flow (prot)	0	1814	1583	0	1723	0	1770	3497	0	1770	3532	0
Flt Permitted		0.771			0.825		0.311			0.068		
Satd. Flow (perm)	0	1436	1583	0	1452	0	579	3497	0	127	3532	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			103		25			9			1	
Link Speed (mph)		30			30			40			30	
Link Distance (ft)		338			721			491			436	
Travel Time (s)		7.7			16.4			8.4			9.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	39	35	43	43	16	40	12	1621	137	68	879	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	43	0	99	0	12	1758	0	68	889	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4		4	4			6			2		
Detector Phase	4	4	4	4	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	9.0	9.0	9.0	9.0	9.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	13.6	13.6	13.6	13.6	13.6		9.0	21.1		9.0	21.1	
Total Split (s)	26.0	26.0	26.0	26.0	26.0		10.0	54.0		10.0	54.0	
Total Split (%)	22.0%	22.0%	22.0%	22.0%	22.0%		8.5%	45.8%		8.5%	45.8%	
Yellow Time (s)	3.2	3.2	3.2	3.2	3.2		3.0	4.3		3.0	4.3	
All-Red Time (s)	1.4	1.4	1.4	1.4	1.4		1.0	1.8		1.0	1.8	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6		4.0	6.1		4.0	6.1	
Lead/Lag	Lag	Lag	Lag	Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Act Effct Green (s)		10.1	10.1		10.1		58.2	52.0		61.7	58.6	
Actuated g/C Ratio		0.12	0.12		0.12		0.68	0.61		0.72	0.69	
v/c Ratio		0.44	0.15		0.51		0.03	0.82		0.33	0.37	
Control Delay		45.4	1.2		38.2		7.3	20.5		11.8	9.3	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		45.4	1.2		38.2		7.3	20.5		11.8	9.3	
LOS		D	A		D		A	C		B	A	
Approach Delay		29.2			38.2			20.4			9.5	
Approach LOS		C			D			C			A	
Stops (vph)		62	0		66		5	1089		20	349	
Fuel Used(gal)		1	0		2		0	24		2	23	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	24%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
CO Emissions (g/hr)		84	8		115		7	1643		125	1634	
NOx Emissions (g/hr)		16	2		22		1	320		24	318	
VOC Emissions (g/hr)		19	2		27		2	381		29	379	
Dilemma Vehicles (#)		0	0		0		0	96		0	0	
Queue Length 50th (ft)		34	0		34		1	304		6	59	
Queue Length 95th (ft)		97	0		105		13	#930		49	308	
Internal Link Dist (ft)		258			641			411			356	
Turn Bay Length (ft)			100				125			225		
Base Capacity (vph)		367	481		390		485	2133		209	2426	
Starvation Cap Reductn		0	0		0		0	0		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.20	0.09		0.25		0.02	0.82		0.33	0.37	

Intersection Summary			
Area Type:	Other		
Cycle Length: 118			
Actuated Cycle Length: 85.3			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 17.8		Intersection LOS: B	
Intersection Capacity Utilization 76.0%		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: 3: Danbury Road & ASML Driveway/Grumman Hill Road



Lane Group	Ø3
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	875	0	610	1031	780	250
Future Volume (vph)	875	0	610	1031	780	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	300		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	0.95
Frt					0.964	
Flt Protected			0.950		0.964	
Satd. Flow (prot)	1863	0	1770	3539	3358	0
Flt Permitted			0.104		0.964	
Satd. Flow (perm)	1863	0	194	3539	3358	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					54	
Link Speed (mph)	40			40	40	
Link Distance (ft)	1310			784	1204	
Travel Time (s)	22.3			13.4	20.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	893	0	622	1052	796	255
Shared Lane Traffic (%)						
Lane Group Flow (vph)	893	0	622	1052	1051	0
Turn Type	NA		D.P+P	NA	Prot	
Protected Phases	2		1	1 2	4	
Permitted Phases			2			
Detector Phase	2		1	1 2	4	
Switch Phase						
Minimum Initial (s)	20.0		5.0		10.0	
Minimum Split (s)	26.4		9.0		14.2	
Total Split (s)	45.0		10.0		35.0	
Total Split (%)	50.0%		11.1%		38.9%	
Yellow Time (s)	4.2		3.0		3.0	
All-Red Time (s)	2.2		1.0		1.2	
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	6.4		4.0		4.2	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Recall Mode	C-Min		None		None	
Act Effct Green (s)	38.6		47.5	51.5	30.3	
Actuated g/C Ratio	0.43		0.53	0.57	0.34	
v/c Ratio	1.12		2.88	0.52	0.90	
Control Delay	94.1		873.7	10.0	38.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	94.1		873.7	10.0	38.9	
LOS	F		F	A	D	
Approach Delay	94.1			330.9	38.9	
Approach LOS	F			F	D	
Stops (vph)	726		412	331	877	
Fuel Used(gal)	32		116	11	25	

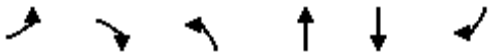
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
CO Emissions (g/hr)	2214		8094	757	1760	
NOx Emissions (g/hr)	431		1575	147	342	
VOC Emissions (g/hr)	513		1876	175	408	
Dilemma Vehicles (#)	42		0	65	0	
Queue Length 50th (ft)	~590		~593	111	274	
Queue Length 95th (ft)	#826		#807	137	#393	
Internal Link Dist (ft)	1230			704	1124	
Turn Bay Length (ft)			300			
Base Capacity (vph)	799		216	2025	1184	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	1.12		2.88	0.52	0.89	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 29 (32%), Referenced to phase 2:EBWB and 6:, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.88			
Intersection Signal Delay: 187.6		Intersection LOS: F	
Intersection Capacity Utilization 122.1%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 1: Danbury Road & Westport Road



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	29	9	957	1258	9
Future Volume (vph)	30	29	9	957	1258	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	12	12
Storage Length (ft)	50	0	0			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt		0.850			0.999	
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	3303	1861	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	3303	1861	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	213			2513	1204	
Travel Time (s)	4.8			42.8	20.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	31	9	1007	1324	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	31	0	1016	1333	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	29	9	957	1258	9
Future Vol, veh/h	30	29	9	957	1258	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	31	9	1007	1324	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1851	1329	1333	0	-	0
Stage 1	1329	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	73	189	516	-	-	-
Stage 1	246	-	-	-	-	-
Stage 2	561	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	70	189	516	-	-	-
Mov Cap-2 Maneuver	70	-	-	-	-	-
Stage 1	236	-	-	-	-	-
Stage 2	561	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	61	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	516	-	70	189	-	-
HCM Lane V/C Ratio	0.018	-	0.451	0.162	-	-
HCM Control Delay (s)	12.1	0.2	93.2	27.7	-	-
HCM Lane LOS	B	A	F	D	-	-
HCM 95th %tile Q(veh)	0.1	-	1.8	0.6	-	-

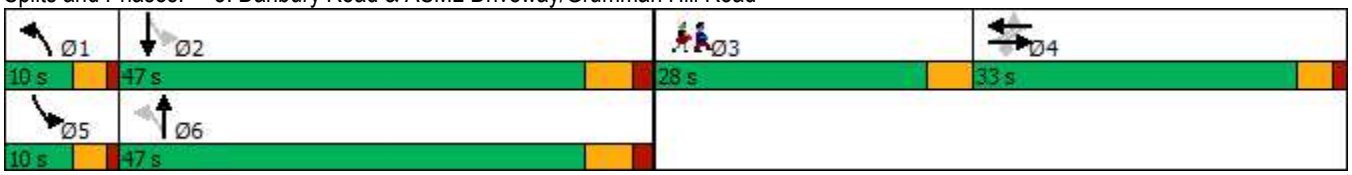
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	1	13	182	51	58	140	908	55	45	1210	32
Future Volume (vph)	11	1	13	182	51	58	140	908	55	45	1210	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	125		0	225		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
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
Frt			0.850		0.973			0.991			0.996	
Flt Protected		0.956			0.970		0.950			0.950		
Satd. Flow (prot)	0	1781	1583	0	1758	0	1770	3507	0	1770	3525	0
Flt Permitted		0.791			0.802		0.090			0.173		
Satd. Flow (perm)	0	1473	1583	0	1454	0	168	3507	0	322	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			103		10			6			2	
Link Speed (mph)		30			30			40			30	
Link Distance (ft)		338			721			491			436	
Travel Time (s)		7.7			16.4			8.4			9.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	12	1	14	202	57	64	156	1009	61	50	1344	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	14	0	323	0	156	1070	0	50	1380	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4		4	4			6			2		
Detector Phase	4	4	4	4	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	9.0	9.0	9.0	9.0	9.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	13.6	13.6	13.6	13.6	13.6		9.0	21.1		9.0	21.1	
Total Split (s)	33.0	33.0	33.0	33.0	33.0		10.0	47.0		10.0	47.0	
Total Split (%)	28.0%	28.0%	28.0%	28.0%	28.0%		8.5%	39.8%		8.5%	39.8%	
Yellow Time (s)	3.2	3.2	3.2	3.2	3.2		3.0	4.3		3.0	4.3	
All-Red Time (s)	1.4	1.4	1.4	1.4	1.4		1.0	1.8		1.0	1.8	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6		4.0	6.1		4.0	6.1	
Lead/Lag	Lag	Lag	Lag	Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Act Effct Green (s)		24.2	24.2		24.2		51.4	44.6		49.2	41.7	
Actuated g/C Ratio		0.26	0.26		0.26		0.56	0.49		0.54	0.46	
v/c Ratio		0.03	0.03		0.82		0.78	0.62		0.19	0.86	
Control Delay		28.4	0.1		50.1		43.4	22.7		13.7	30.9	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		28.4	0.1		50.1		43.4	22.7		13.7	30.9	
LOS		C	A		D		D	C		B	C	
Approach Delay		13.7			50.1			25.3			30.3	
Approach LOS		B			D			C			C	
Stops (vph)		10	0		234		59	672		21	946	
Fuel Used(gal)		0	0		6		2	14		1	42	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	24%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
CO Emissions (g/hr)		11	2		412		160	997		89	2908	
NOx Emissions (g/hr)		2	0		80		31	194		17	566	
VOC Emissions (g/hr)		3	1		95		37	231		21	674	
Dilemma Vehicles (#)		0	0		0		0	49		0	0	
Queue Length 50th (ft)		5	0		155		33	219		10	332	
Queue Length 95th (ft)		24	0		#405		#216	#497		45	#783	
Internal Link Dist (ft)		258			641			411			356	
Turn Bay Length (ft)			100				125			225		
Base Capacity (vph)		466	572		467		201	1713		273	1609	
Starvation Cap Reductn		0	0		0		0	0		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.03	0.02		0.69		0.78	0.62		0.18	0.86	

Intersection Summary			
Area Type:	Other		
Cycle Length: 118			
Actuated Cycle Length: 91.4			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 30.3		Intersection LOS: C	
Intersection Capacity Utilization 77.4%		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: 3: Danbury Road & ASML Driveway/Grumman Hill Road



Lane Group	Ø3
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

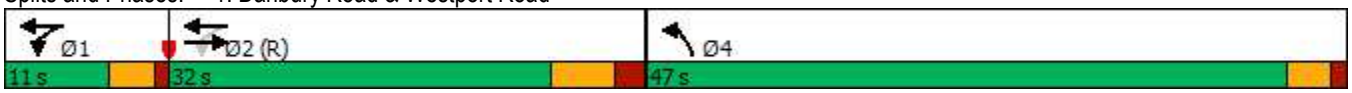
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	878	0	444	723	1021	422
Future Volume (vph)	878	0	444	723	1021	422
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	300		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	0.95
Frt					0.956	
Flt Protected			0.950		0.966	
Satd. Flow (prot)	1863	0	1770	3539	3337	0
Flt Permitted			0.156		0.966	
Satd. Flow (perm)	1863	0	291	3539	3337	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					100	
Link Speed (mph)	40			40	40	
Link Distance (ft)	1310			784	1204	
Travel Time (s)	22.3			13.4	20.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Adj. Flow (vph)	944	0	477	777	1098	454
Shared Lane Traffic (%)						
Lane Group Flow (vph)	944	0	477	777	1552	0
Turn Type	NA		D.P+P	NA	Prot	
Protected Phases	2		1	1 2	4	
Permitted Phases			2			
Detector Phase	2		1	1 2	4	
Switch Phase						
Minimum Initial (s)	20.0		5.0		10.0	
Minimum Split (s)	26.4		9.0		14.2	
Total Split (s)	32.0		11.0		47.0	
Total Split (%)	35.6%		12.2%		52.2%	
Yellow Time (s)	4.2		3.0		3.0	
All-Red Time (s)	2.2		1.0		1.2	
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	6.4		4.0		4.2	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Recall Mode	C-Min		None		None	
Act Effct Green (s)	25.6		35.0	39.0	42.8	
Actuated g/C Ratio	0.28		0.39	0.43	0.48	
v/c Ratio	1.78		2.09	0.51	0.95	
Control Delay	384.3		518.5	9.3	34.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	384.3		518.5	9.3	34.8	
LOS	F		F	A	C	
Approach Delay	384.3			203.0	34.8	
Approach LOS	F			F	C	
Stops (vph)	632		279	603	1181	

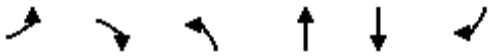
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Fuel Used(gal)	83		52	11	34	
CO Emissions (g/hr)	5781		3633	779	2349	
NOx Emissions (g/hr)	1125		707	152	457	
VOC Emissions (g/hr)	1340		842	181	544	
Dilemma Vehicles (#)	27		0	1	0	
Queue Length 50th (ft)	~812		~360	192	396	
Queue Length 95th (ft)	#1060		m#549	196	#568	
Internal Link Dist (ft)	1230			704	1124	
Turn Bay Length (ft)			300			
Base Capacity (vph)	529		228	1533	1639	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	1.78		2.09	0.51	0.95	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 86 (96%), Referenced to phase 2:EBWB and 6:, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.09			
Intersection Signal Delay: 179.0		Intersection LOS: F	
Intersection Capacity Utilization 125.4%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Danbury Road & Westport Road





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	16	16	25	1308	914	24
Future Volume (vph)	16	16	25	1308	914	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	12	12
Storage Length (ft)	50	0	0			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt		0.850			0.996	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1770	1583	0	3300	1855	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1770	1583	0	3300	1855	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	213			2513	1204	
Travel Time (s)	4.8			42.8	20.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	17	17	27	1391	972	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	17	0	1418	998	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		

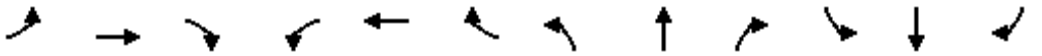
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	16	25	1308	914	24
Future Vol, veh/h	16	16	25	1308	914	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	17	27	1391	972	26

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1735	985	998	0	-	0
Stage 1	985	-	-	-	-	-
Stage 2	750	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	87	300	691	-	-	-
Stage 1	361	-	-	-	-	-
Stage 2	428	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	72	300	691	-	-	-
Mov Cap-2 Maneuver	72	-	-	-	-	-
Stage 1	299	-	-	-	-	-
Stage 2	428	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	43.8	1.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	691	-	72	300	-	-
HCM Lane V/C Ratio	0.038	-	0.236	0.057	-	-
HCM Control Delay (s)	10.4	0.9	69.8	17.7	-	-
HCM Lane LOS	B	A	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	0.2	-	-



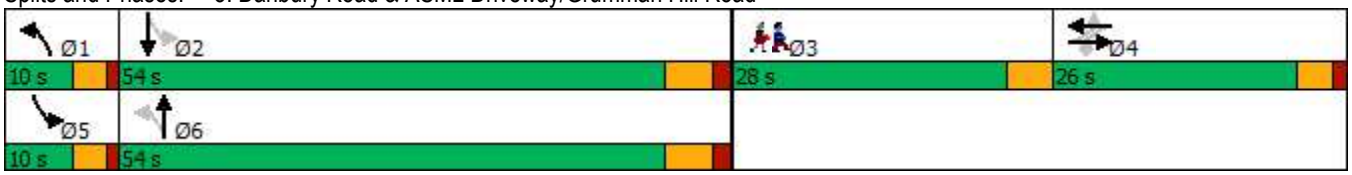
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	34	42	42	16	39	12	1596	133	66	866	10
Future Volume (vph)	38	34	42	42	16	39	12	1596	133	66	866	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	125		0	225		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
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
Frt			0.850		0.945			0.988			0.998	
Flt Protected		0.974			0.979		0.950			0.950		
Satd. Flow (prot)	0	1814	1583	0	1723	0	1770	3497	0	1770	3532	0
Flt Permitted		0.771			0.825		0.305			0.068		
Satd. Flow (perm)	0	1436	1583	0	1452	0	568	3497	0	127	3532	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			103		25			9			1	
Link Speed (mph)		30			30			40			30	
Link Distance (ft)		338			721			491			436	
Travel Time (s)		7.7			16.4			8.4			9.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	39	35	43	43	16	40	12	1645	137	68	893	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	43	0	99	0	12	1782	0	68	903	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4		4	4			6			2		
Detector Phase	4	4	4	4	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	9.0	9.0	9.0	9.0	9.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	13.6	13.6	13.6	13.6	13.6		9.0	21.1		9.0	21.1	
Total Split (s)	26.0	26.0	26.0	26.0	26.0		10.0	54.0		10.0	54.0	
Total Split (%)	22.0%	22.0%	22.0%	22.0%	22.0%		8.5%	45.8%		8.5%	45.8%	
Yellow Time (s)	3.2	3.2	3.2	3.2	3.2		3.0	4.3		3.0	4.3	
All-Red Time (s)	1.4	1.4	1.4	1.4	1.4		1.0	1.8		1.0	1.8	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6		4.0	6.1		4.0	6.1	
Lead/Lag	Lag	Lag	Lag	Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Act Effct Green (s)		10.1	10.1		10.1		58.2	52.0		61.7	58.6	
Actuated g/C Ratio		0.12	0.12		0.12		0.68	0.61		0.72	0.69	
v/c Ratio		0.44	0.15		0.51		0.03	0.84		0.33	0.37	
Control Delay		45.4	1.2		38.2		7.3	21.0		11.8	9.3	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		45.4	1.2		38.2		7.3	21.0		11.8	9.3	
LOS		D	A		D		A	C		B	A	
Approach Delay		29.2			38.2			20.9			9.5	
Approach LOS		C			D			C			A	
Stops (vph)		62	0		66		5	1111		20	356	
Fuel Used(gal)		1	0		2		0	24		2	24	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	24%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Stops (vph)	
Fuel Used(gal)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
CO Emissions (g/hr)		84	8		115		7	1682		125	1662	
NOx Emissions (g/hr)		16	2		22		1	327		24	323	
VOC Emissions (g/hr)		19	2		27		2	390		29	385	
Dilemma Vehicles (#)		0	0		0		0	97		0	0	
Queue Length 50th (ft)		34	0		34		1	313		6	61	
Queue Length 95th (ft)		97	0		105		13	#948		49	314	
Internal Link Dist (ft)		258			641			411			356	
Turn Bay Length (ft)			100				125			225		
Base Capacity (vph)		367	481		390		478	2133		209	2426	
Starvation Cap Reductn		0	0		0		0	0		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.20	0.09		0.25		0.03	0.84		0.33	0.37	

Intersection Summary			
Area Type:	Other		
Cycle Length: 118			
Actuated Cycle Length: 85.3			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 18.1		Intersection LOS: B	
Intersection Capacity Utilization 76.0%		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: 3: Danbury Road & ASML Driveway/Grumman Hill Road



Lane Group	Ø3
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Technical Memorandum

To:	Tom Daly, PE	**From:**	Thom Knowlton, PE
Company:	SLR International Corporation	**SLR International Corporation**	
cc:		**Date:**	November 27, 2023
		Project No.	141.21543.00001

RE: Downstream Sewer Capacity Analysis
131 Danbury Road
Wilton, Connecticut

The following is a summary of the downstream capacity analysis for the proposed 208-unit apartment complex at 131 Danbury Road in Wilton. A downstream capacity analysis report dated January 3, 2022, was prepared by Tighe & Bond (T&B) for 141 Danbury Road, which is immediately adjacent to the north of 131 Danbury Road. Since this site is just upstream of our site on the 24-inch sewer main in Danbury Road, we can utilize the same flow metering data for our analysis. T&B estimated the flow from their proposed residential apartment complex using 150 gallons per day (gpd) per bedroom from the Connecticut Health Code. This unit flow is actually intended for sizing subsurface sewage disposal systems, so it is much higher than the actual flow from an apartment complex. However, T&B found the 24-inch sewer main in Danbury Road had ample capacity.

The proposed development at 131 Danbury Road consists of one-bedroom (95 each), two-bedroom (105 each), and three-bedroom (8 each) units for a total of 329 bedrooms.

329 bedrooms * 150 gpd/bedroom = 49,350 gpd average daily flow
Peak Flow = ADF * Peaking Factor (T&B used 4.0)
Peak Flow = 49,350 gpd * 4.0 = 197,400 gpd = 137 gpm = 0.305 cfs

The T&B report dated January 3, 2022, analyzed three sewer pipe segments in Danbury Road from their proposed site to the Wilton/Norwalk town line to the south. Sewer discharge from our site will flow through these same pipe segments. Table 1 below is taken from the T&B report, with the proposed peak flow from 141 Danbury Road (0.27 cfs) moved into the existing peak flow column and the estimated peak flow from our site at 131 Danbury Road (0.305 cfs) included in the proposed flow column.

Table 1 Capacity Analysis of Danbury Road Sewer Main

Capacity Calculation						
Line ID	Slope (ft/ft)	Maximum Capacity (cfs)	Existing Peak Flow (cfs)	Existing Flow to Full (%)	Proposed Flow (cfs)	Proposed Flow to Full (%)
1	0.0007	6.0	2.527	42	2.832	47
2	0.0017	9.35	2.527	27	2.832	30
3	0.0019	9.89	2.527	26	2.832	29

The existing 24-inch sewer main in Danbury Road has ample capacity to accommodate the peak sewer discharge from 131 Danbury Road.

The proposed 6-inch SDR-35 PVC sewer lateral will be approximately 170'-4" long with a slope of 2.11 percent, which provides a maximum capacity of 476 gpm. With a peak estimated discharge of 137 gpm, the pipe will be flowing at 29 percent of capacity. The proposed 6-inch sewer lateral has ample capacity to accommodate the peak sewer discharge from 131 Danbury Road.

Let me know if you have any questions.

Regards,

SLR International Corporation

Thomas A. Knowlton, PE
Principal Water & Wastewater Engineer

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Wetland and Watercourse Delineation and Impact Assessment

131 Danbury Road, Wilton, Connecticut

AMS Acquisitions

Prepared by:

SLR International Corporation

195 Church Street, 7th Floor, New Haven, Connecticut, 06510

SLR Project No.: 141.21543.00001

Client Reference No: 0001

October 23, 2023

Making Sustainability Happen

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Tables in Text

Appendices

Acronyms and Abbreviations

BFE	Base Flood Elevation
CGS	Connecticut General Statutes
CT DEEP	Connecticut Department of Energy & Environmental Protection
FEMA	Federal Emergency Management Agency
LF	Linear feet
NDDB	Natural Diversity Database
NRCS	Natural Resources Conservation Service
OHW	Ordinary High Water
RCP	Reinforced concrete pipe
S&E	Sediment and Erosion
SF	Square feet
SFHA	Special flood hazard area
SLR	SLR International Corporation

1.0 Introduction

On behalf of AMS Acquisitions, SLR International Corporation (SLR) has prepared the following report to describe the existing conditions of regulated wetland and watercourse resources, and potential impacts to identified regulated resources, resulting from a proposed multi-family building and associated appurtenances at 131 Danbury Road, a 4.75-acre site in southern Wilton (**Figure 1**) with frontage on the Norwalk River. The proposed project involves the redevelopment of a site that contains a two-story masonry office building and paved surface parking lot across the entirety of the parcel. Proposed site activities are depicted on site plans prepared by SLR entitled *Proposed Multi-Family Development* dated October 23, 2023.

On August 3, 2023, Megan B. Raymond, Registered Soil scientist, Professional Wetland Scientist and certified floodplain manager, and Mike Armstrong, Environmental Scientist visited the property to determine the presence or absence of wetlands and/or watercourses, and to assess existing conditions relative to the proposed site work. A wetland and watercourse were identified in the western portion of the site that is comprised of a 385-foot reach of the Norwalk River and a narrow palustrine forested wetland underlain by alluvial soils (**Figure 2**).

In summary, though portions of the proposed activities will take place within the upland review area (URA) to the Norwalk River, the proposed redevelopment does not present a high potential to adversely affect regulated wetland resources. This conclusion is based on five primary elements of the proposed site design. Specifically, 1) no significant direct impacts to wetland/watercourse systems will occur, 2) short-term potential impacts to the resource are managed through redundant sediment and erosion control and best management practices, 3) potential long-term impacts will be avoided through a comprehensive stormwater management system where none currently exist, 4) the overall site impervious and impervious within the regulated area will decrease and 5) a native planting plan is proposed between the Norwalk River and the proposed apartment building and parking area to begin to restore a greenbelt riparian area adjacent to the Norwalk River.

2.0 Regulatory Definitions

Inland wetlands and watercourses within the project area were evaluated in accordance with the regulations of the Town of Wilton and the State of Connecticut Inland Wetlands and Watercourses Act, Connecticut General Statutes (CGS) 22a-36 through 45 and the Federal Clean Water Act (Section 404). The wetland resources identified on the property are protected under local, state, and federal statutes.

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

Upland Review Area, per the Town of Wilton Inland Wetlands and Watercourses Regulations, includes any land adjacent to and within 100 feet of the wetland or watercourse.

Federal Wetlands and Watercourses were considered using the U.S. Army Corps of Engineers *Wetlands Delineation Manual* (USACE, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Northcentral and Northeast Region* (USACE, 2012), and the classification system of the National Cooperative Soil Survey and Field Indicators of Hydric Soils in the United States (USDA, 2017).

3.0 Methodology

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

Wetland determinations were completed based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils and submerged land (e.g., a pond). Soil types were identified by observation of soil morphology (soil texture, color, structure, etc.). To observe the morphology of the property's soils, test pits and/or borings (maximum depth of 2 feet) were completed at the site.

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

Ordinary high water (OHW) boundaries were demarcated (flagged) with blue surveyor's tape (hung from vegetation) labeled with consecutive flag numbers that were generally spaced a maximum of every 50 feet. The wetland boundary is located along the lines that connect these sequentially numbered flags. Flag numbers 1-OHW through 13-OHW demarcate the intermittent watercourse boundary. The resource boundaries are subject to change until adopted by local, state, or federal regulatory agencies.

On the day of the review, weather conditions were sunny and dry, with an air temperature of approximately 75º Fahrenheit. Site conditions were suitable for wetland delineation work.

4.0 General Site Description and Existing Conditions

The 4.75-acre subject parcel is in a moderately settled mixed-use residential and commercial area in the southern portion of Wilton. The site is situated on the west side of Danbury Road roughly 1,250 feet south of its intersection with Westport Road. Accessed to the east from Danbury Road (State Route 7), the site displays 280 linear feet (LF) of frontage on Danbury Road. The topography of this area is a gentle gradient sloping to the west, 138 feet to 149 feet (NAVD 88). The property is primarily underlain by human transported material, or fill, with a small area of coarse-loamy alluvium adjacent to the Norwalk River.

The site is presently developed. Existing structures consist of a multi-story office building and asphalt parking area that extends to within ten feet of the delineated OHW. The existing commercial building is approximately 44,200 square feet (SF). Onsite impervious surface totals approximately 3.22 acres, or roughly 68 percent, of the total lot area. Approximately 25 percent of the 3.22-acres impervious area is paved surface parking within the 100-foot URA to the Norwalk River. Approximately 90 percent of the URA is impervious. No stormwater management practices exist on the site presently. In addition to the building and parking area,

the site is manicured and occupied by lawn area and landscaping trees, including eastern cottonwood (*Populus deltoides*), Norway spruce (*Picea abies*), and Arborvitae (*Thuja* sp.).

The abutting sites to the north and south display variable land uses. A multi-family residential building is under construction north of the property and Ring's End Lumber abuts the site to the south. The Norwalk River comprises the western property line. The abutting northern property displays a similar amount of previous development, extending within 10 feet of the river, while the abutting property to the south includes a narrow woodland between the river and the built environment. Offsite to the south, a headwall with a 24-inch pipe carries stormwater drainage to the rear of the Ring's End surface lot. A depositional outlet fan and scour hole were noted during the site investigation.

Biological and Biodiversity Conditions

Primary ecologies on the site are pavement and urban structure, mowed lawn with trees, and a small area of the Norwalk River and forested palustrine wetland, that occupies 0.25-acre or 5 percent of the site. Beyond the roughly quarter acre wetland resource, the current upland is largely comprised of pavement and urban structure with narrow areas of woodland edge or manicured lawn with trees to the north, south and east. These conditions provide very limited habitat supportive of wildlife other than those generalist species tolerant of human activity and adapted to developed landscapes, limited tree canopy, and shrub density.

The aquatic, and persistently flooded, palustrine habitats associated with the Norwalk River provide the potential for finfish and shellfish habitat. Several non-native Asiatic clam (*Corbicula fluminea*) shells were observed during the delineation. There appears to be at least one dam on the Norwalk River between the subject parcel and Long Island Sound – at Kellogg Pond – which impedes direct mobility for anadromous and catadromous fish species. The narrow overhanging canopy vegetation on the river may provide roosting and perching sites for angling waterfowl.

As noted by the Connecticut Department of Energy & Environmental Protection (CT DEEP) in a letter dated August 21, 2023 (**Appendix C**): "Based on current data maintained by the Natural Diversity Database (NDDB) and housed in the CT DEEP *ezFile Portal*, "no extant populations of Federal or State Endangered, Threatened or Special Concern species (RCSA Sec. 26-306) are known to occur within the project area delineated for the Building and Infrastructure Development".

Watershed Location

The site is located within the lower Norwalk River subregional watershed (Basin #7300), a 10.39-square mile basin in Georgetown, Cannondale, and Wilton. The confluence with the main tributary to the Norwalk River, the Silvermine River, which runs to the west is approximately three miles downstream. The Norwalk River flows approximately three miles from the confluence with the Silvermine River and drains to Long Island Sound in Norwalk.

FEMA Mapping

According to the most recent Federal Emergency Management Agency (FEMA) mapping, effective September 26, 2008, special flood hazard areas (SFHA) including the regulatory floodway, 100-year, and 500-year floodplains occur on the subject site. The base flood elevation (BFE) of these flood hazard zones occurs between 137 and 146 feet NAVD.

5.0 Wetland and Watercourse Delineation Results

Regulated wetland resources onsite consist of the OHW to Norwalk River that includes a narrow palustrine forested wetland at the western property line. The OHW was delineated and flagged with blue surveyor's tape and depicted by flags (W-1 to W-13) (**Figure 2**). In total, 385 LF of watercourse/wetland were delineated on the site occupying approximately 0.25-acres.

5.1 Soils

Geospatial data were accessed via the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS) web soil survey mapping. The soil survey mapping is appended (**Figure 3**). The survey identifies the following soil mapping units with associated NRCS map number in the project area (**Table 1**):

Table 1: NRCS Soil Units

Map Unit		Parent Material	Slope (%)	Drainage Class	High Water Table			Depth To Bedrock (in)
Sym	Name				Depth (in)	Kind	Mos.	
Wetland Soil								
103	Rippowam fine sandy loam	Coarse-loamy alluvium	0 to 3	Poorly drained	0 to 18	-	-	>80
Upland Soil								
305	Udorthents-Pits complex, gravelly	Gravelly outwash	0 to 35	Moderately well drained	>80	-	-	>80

Soils were examined using a Dutch auger. Field investigations confirmed NRCS mapping.

5.2 Wetland and Watercourse Delineation

SLR Registered Soil Scientist and Professional Wetland Scientist Megan B. Raymond, and Environmental Scientist Mike Armstrong delineated the OHW line to the Norwalk River in August 2023. The regulated resource consisted of a steeply earthen vegetated bank, varying between 4 and 15 feet in width, underlain by coarse silty alluvium that commences adjacent to the edge of the asphalt parking lot. A concrete flume, approximately 24" wide, carries stormwater runoff from the parking lot directly to the river adjacent to the southern property line. Vegetation on the bank consists of a canopy of American elm (*Ulmus americana*), red maple (*Acer rubrum*), American sycamore (*Platanus occidentalis*), and hickory (*Carya sp.*). These species shade the eastern portion of the river channel. A dense liana layer is composed of poison ivy (*Toxicodendron radicans*) grape vine (*Vitis* sp.) and Oriental bittersweet (*Celastrus orbiculatus*). The understory consists of a combination of native and non-native shrubs such as silky dogwood (*Swida amonum*), Japanese knotweed (*Fallopia japonica*), multiflora rose (*rosa multiflora*), common wormwood (*Artemisia vulgaris*), stinging nettle (*Urtica diocia*), Asian bittersweet (*Celastrus orbiculatus*), winged burning-bush (*Euonymus alatus*), and deer-tongue rosette grass (*Dichanthelium clandestinium*).

At the toe of the bank, the Norwalk River is approximately 35- to 40-feet wide and displayed water levels around 2- to 5-feet deep during the site investigation. The bed material consists mainly of cobbles and sand. No stormwater outlets were observed on or adjacent to the bank.

The OHW line was delineated based on the first observable break in slope at the top of the bank. Near wetland flag W-3, a man-made riffle grade control was observed in the river. The site lies on a relatively straight reach of the river, but meander bends exist upstream and downstream of the site. Though not observable, an excavated pond exists at the top of the western bank immediately across the river from the subject parcel.

A narrow upland edge exists between OHW and asphalt parking lot. Measuring between 5 to 15 feet in width, vegetation in this edge consists of a canopy of black cherry (*Prunus serotina*), boxelder (*Acer negundo*), black willow (*Salix nigra*), and northern catalpa (*Catalpa speciosa*), and shrub layer of Japanese honeysuckle (*Lonicera japonica*), Morrow's honeysuckle (*Lonicera morrowii*), and crab apple (*Malus* sp.).

5.3 Wetland Resource Functions and Values

A functional evaluation using the USACE *Highway Methodology Workbook Supplement* and based on SLR's field observations is provided (**Table 2**). The first column lists the functions and values generally ascribed to wetlands, while the second column summarizes the rationale used to determine whether these functions and values are being performed within the Norwalk River. Given its perennial nature and regional significance, the river is a high value resource that contributes to many recognized wetland functions.

Table 2: Wetland Functions and Values Assessment

	Functions and Values	Comment
	Groundwater Recharge/Discharge	Yes – Groundwater discharge is associated with a perennial watercourse
	Flood Flow Alteration (Storage and Desynchronization)	Yes – The Norwalk River contains a mapped FEMA floodway and floodplain
	Fish and Shellfish Habitat	Yes – The perennial hydrologic regime supports finfish or shellfish habitat
	Sediment/Toxicant Retention	No – The lack of residence time on the subject parcel limits contribution to this function
	Nutrient Removal/Retention/ Transformation	No – The lack of residence time on the subject parcel limits contribution to this function
	Production Export (Nutrient)	Yes – The vegetative structural heterogeneity allows for trophic level exchange
	Sediment/Shoreline/Watercourse Bank Stabilization	Yes - Banks are vegetated
	Wildlife Habitat	Yes – The watercourse may provide habitat for finfish, shellfish and wading birds
	Recreation (Consumptive and Non-Consumptive)	No – The small area does not allow for recreation
	Educational Scientific Value	No – There is no educational use adjacent to the site
	Uniqueness/Heritage	No – This area does not present unique habitats
	Visual Quality/Aesthetics	Yes – The river provides visual quality and aesthetics
ES	Endangered Species	No – According to the most recent CT DEEP NDDB polygons occur onsite

The principal functions of the wetlands include the following:

- Groundwater recharge
- Floodflow alteration
- Fish and shellfish habitat
- Wildlife Habitat
- Visual Quality

6.0 Proposed Project

The proposed project involves the demolition of an existing building and the construction of a multi-family residential building with a separate structure (Jewel Box) proposed to house the development's amenities at the front of the property. The development proposes one, four and one half-story building with a central courtyard containing a total of 208 residential units. A parking lot is proposed at grade that will accommodate 318 spaces. The site will be accessed from the east by Danbury Road (Route 7) and will be serviced by town water and sewer.

The State of Connecticut regulates activities in, and adjacent to, wetlands and watercourses, as land development may result in short- and long-term direct and indirect impacts to wetlands and watercourses. The project has been designed to have minimal impacts to wetlands from short- and long-term perspectives. Work within the URA has been designed to avoid indirect wetland and watercourse impacts. Sedimentation and erosion control will minimize the potential for short-term impacts, while stormwater management will provide long-term water quality protection.

Much of the proposed building is outside of the URA standing a minimum of 80 feet from the Norwalk (**Figure 4**). Most of the improvements proposed at the rear of the building and in the URA are pervious, including a reinforced turf emergency access drive, permeable paver parking spaces, gathering spaces for residents also constructed from permeable pavers, and two connected, four-foot wide, stone dust walkways. The exceptions are two pads for fire truck outriggers, and a five-foot wide, roughly 50-foot-long walkway which will be constructed of concrete. This area will also include two stormwater infiltration areas (rain gardens) and dense seeding/plantings of native vegetative species. These proposed improvements will replace the existing impervious parking lot. The proposed project design would reduce the overall site impervious surface area by just over 0.88 acres from 4 acres to 3.12 acres. The existing impervious surface coverage is comprised of 41,481 SF of building and 98,923 SF of pavement in the upland area, with an additional 34,016 SF of pavement in the URA. Under the proposed condition, the building would cover 84,483 SF and the pavement 44,729 SF. The existing impervious surface in the URA area is 34,016 SF, while proposed is 6,473 SF, for a reduction of approximately 80 percent. Earthwork in the URA will be a net fill of 508 cubic yards (CY) [1] comprised of imported clean granular material suitable for construction or consist of insitu material from adjacent site regrading.

A native riparian planting buffer is proposed to enhance the riparian zone in the long-term. The restoration plan includes protecting the existing sycamore trees, invasive plant removal, and replanting with a variety of native species. Upland trees will be planted around the perimeter of the development to aid in long-term site stability, increase shading, and improve aesthetic appeal.

No significant direct impacts to the wetland area are proposed[2]. Proposed activities necessitate grading, covered and surface parking spaces, installation of an overlook plaza gathering space, two stormwater infiltration basins, and basin features within the URA to the wetland boundary. Disturbance within the URA 33,094 SF, of which 0.16 acres will be impervious area. Impervious surface within the URA would be reduced by 0.62 acres (from 0.78 acres to 0.16 acres) under the proposed condition. Details of the proposed disturbance within the URA follow:

[1] Earthwork in URA is 237 CY of cut and 745 CY of fill for net 508 CY fill.

[2] See stormwater management (Section 6.2) for proposed work for stormwater outlet.

- Temporary installation of sediment and erosion controls
- Removal of asphalt, concrete, and underlying base (34,016 SF)
- Installation of reinforced turf for fire access (6,672 SF)
- Construction of building in URA (4,876 SF)
- Installation of stormwater piping to discharge from the site
- Landscape areas with native trees/shrubs/perennials (± 17,919 SF)
- Pervious walking paths/seating areas/pervious paver parking (6,396 SF)
- Removal and management of invasive species along the river's edge

A front yard setback will be established along the subject boundary's eastern access point on Danbury Road. The front yard setback will extend 75 feet to the west from Danbury Road. The site's watershed will continue to drain west toward the Norwalk River on the western property boundary. A restored native riparian planting buffer is proposed in disturbed and pervious portion of the URA to enhance the riparian zone to wetland boundary in the long-term including keeping existing sycamore trees, new stormwater infiltration area installation, and invasive plant removal. Additional upland tree plantings will be installed around the perimeter of the development to aid in long-term site stability, shade, and aesthetic appeal.

6.1 Sediment and Erosion Control Measures

A Sediment and Erosion (S&E) Control Plan has been developed to minimize potential short-term impacts during construction. The S&E Control Plan includes descriptive specifications concerning land grading, topsoiling, temporary and permanent vegetative cover, and erosion checks. Details have been provided for all erosion controls with corresponding labels on the S&E Control Plan. All S&E controls provided are in accordance with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control*.

The site will be accessed via Danbury Road on the southeastern part of the property, which will be the entrance for all vehicles following construction. A construction entrance pad will be installed and maintained during operations which will generate vehicular tracking of mud. During construction, the limits of disturbance will be bordered on all sides by sediment filter fence and straw wattles. Temporary soil stockpile areas will be enclosed by a secondary set of silt fencing, within the larger perimeter of silt fence. An erosion control blanket will be placed along the western sediment filter fence to further protect the perennial watercourse during construction. The use of redundant sedimentation and erosion control measures will minimize the potential for short-term impacts to the perennial watercourse, and stockpiles will both be protected by two sediment control measures. Inlet protection and sediment traps will be installed to contain construction runoff during construction. Riprap overflow discharge will be placed between the sediment traps and perennial watercourse as additional protection. Sediment and erosion control measures will remain in place until the site is stabilized.

6.2 Stormwater Management

A comprehensive stormwater management system has been designed to provide water quality management while attenuating proposed peak flow that will be designed, installed and maintained, in accordance with town and state standards, including the 2004 *Connecticut Stormwater Quality Manual*. The system design and components employ standard engineering practices that are regularly used throughout the town and the northeast to prevent stormwater

pollution. The stormwater management system includes water quantity and water quality protections. An underground detention system, comprised of three series of Stormtech infiltration chambers equipped with isolator rows to allow maintenance, will mitigate peak flows. The infiltration chambers are positioned to accommodate runoff from either the building roof or the parking areas, not a combination of the sources. A hydrodynamic separator will be used for water quality at the end of the treatment train, prior to discharge via a rip-rap splash pad to the Norwalk River. The rip-rap splash pad will be located at the existing concrete flume – that will be removed - and require approximately 85 SF of work below the OHW to remove the flume and install the stormwater outlet. Two rain gardens are proposed within the riparian enhancement area that will be planted with native species and outlet via evaporation or infiltration, or to the stormwater system with a significant precipitation event.

6.3 Mitigation

A planting plan of native trees, shrubs, and grasses has been developed to restore and enhance the riparian corridor between the perennial watercourse and the proposed development. Native vegetation, including Serviceberry (*Amelanchier alinifolia*), Blue Wild Indigo (*Baptista australis*), Fox Sedge (*Carex vulpinoidea*), Bayley's Red Twig Dogwood (*Cornus sericea*), Hay-scented Fern (*Dennstaedtia punctilobula*), Joe Pye Weed (*Eupatorium maculatum*), Winterberry (*Ilex verticillata*), Heavy Metal Switch Grass (*Panicum virgatum*), The Blues Little Bluestem (*Schizachyrium scoparium*), Steeplebush (*Spiraea tormentosa*), Lowbush Blueberry (*Vaccinium angustifolium*), and Nannyberry (*Viburnum lentago*), will enhance water quality by slowing down runoff, increasing residence time, and filtering sediment and pollutants from the stormwater before it reaches the river. The addition of these native species will also attract local pollinators and provide enhanced wildlife habitat in addition to a buffer between the proposed site improvements and adjacent regulated resource areas. In addition to the planting plan, other mitigating features include the reduction in impervious area in the URA and on the site overall, and providing water quality renovation of stormwater prior to discharge in the Norwalk River.

6.4 Alternatives

The site was studied to determine the feasible and prudent alternatives that would achieve the project purpose with the fewest land-use impacts. These analyses resulted in a site plan that proposes less impervious overall and an approximately 80 percent reduction in impervious area in the URA. In looking granularly at the design layout, modifications to the building layout and access were considered. Alternatives to the building layout were constrained by the required setbacks from Danbury Road and the Norwalk River. Therefore, no alternative designs were realized with the building. However, of considerable importance was the interface between proposed work and the Norwalk River. In this area, two primary alternatives were considered. One, was a bituminous concrete surface for an emergency access route, and the other is a reinforced turf alternative. After consideration, SLR determined that a the most prudent and feasible alternative was possible and proposes a reinforced turf for the emergency access way. This reinforced turf will allow a "green return" to the riparian area and avoid an underutilized impervious surface adjacent to the ecologically important component of the site.

7.0 Conclusion

SLR delineated wetlands within a 4.75-acre site at 131 Danbury Road in Wilton to assess the potential impact of a proposed multi-family development to on-site wetland resources. Wetland resources consist of the OHW and a narrow forested palustrine wetland to the Norwalk River,

and a perennial watercourse that exists on the western site boundary. The property contains approximately 385 LF of frontage on the Norwalk River.

The proposed redevelopment project will not result in an adverse effect on the Norwalk River. The proposed project avoids significant direct wetland impacts, includes comprehensive stormwater management and sediment and erosion control, includes a riparian enhancement plan, and reduces overall impervious area on the site as well as a significant reduction in the URA. Sedimentation and erosion control will minimize the potential for short-term impacts during construction while stormwater management will prevent long-term impacts. There is no anticipated diminishment of existing wetland function. The proposed project will not result in adverse modification to the existing physical characteristics of existing wetland system.

If you have any questions regarding this report, please do not hesitate to contact Megan B. Raymond at the email addresses below.

Sincerely,

SLR International Corporation

Megan B. Raymond, MS, PWS, RSS, CFM
Principal Scientist, Wetlands & Waterways Lead
mraymond@slrconsulting.com

Chris Robbins
Principal Scientist
crobbins@slrconsulting.com

Mike Armstrong, MS
Environmental Scientist
marmstrong@slrconsulting.com

21543.00001.o1323.rpt.docx

Appendix A Site Maps

Wetland and Watercourse Delineation and Impact Assessment

131 Danbury Road, Wilton, Connecticut

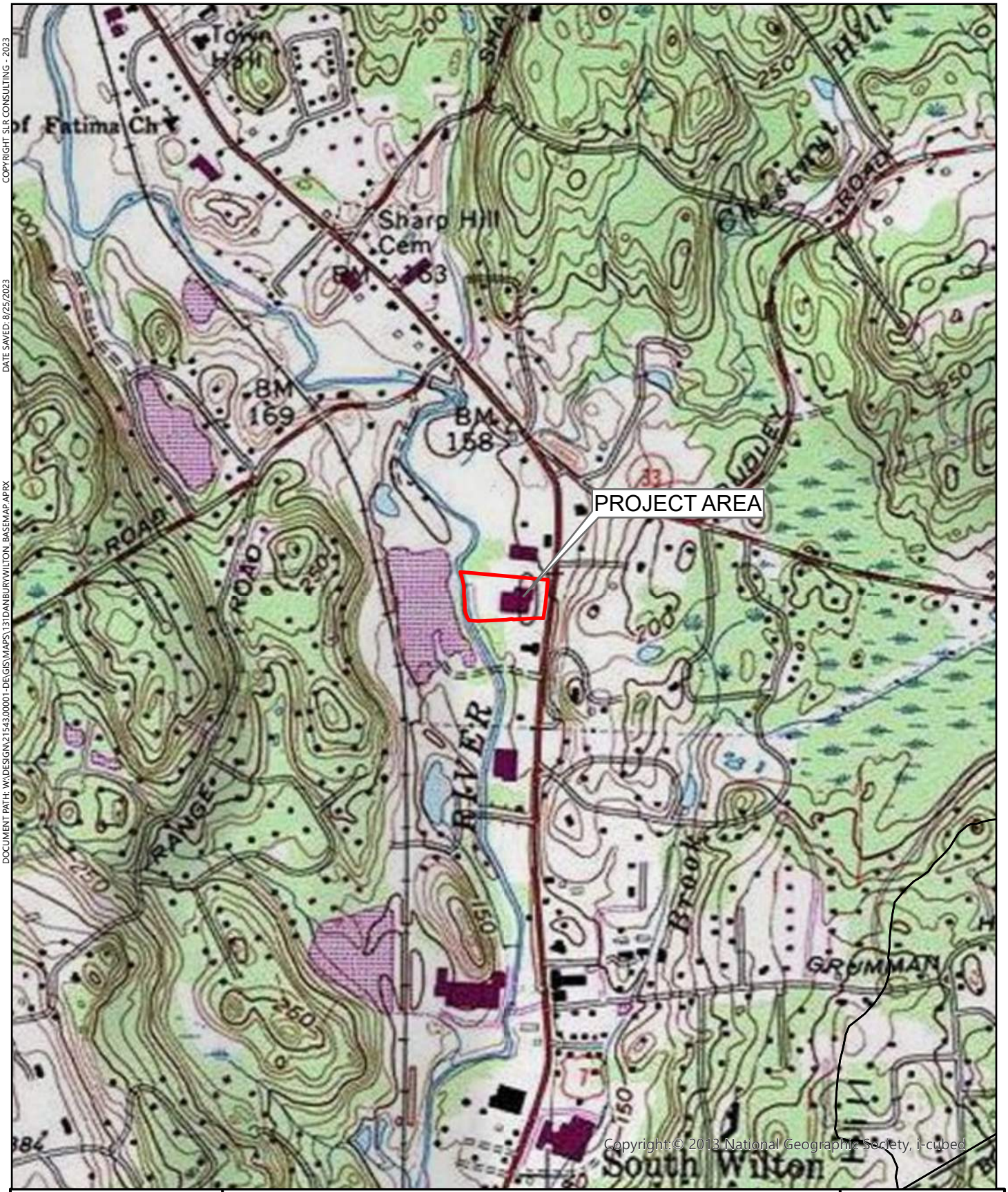
AMS Acquisitions

SLR Project No.: 141.21543.00001

October 23, 2023

DATE SAVED: 8/25/2023

DOCUMENT PATH: W:\DESIGN\21543.00001-DEGIS\MAPS\131DANBURYWILTON_BASEMAP.APRX



SLR
195 CHURCH STREET
7TH FLOOR
NEW HAVEN, CT 06511
203.344.7887

USGS LOCATION MAP

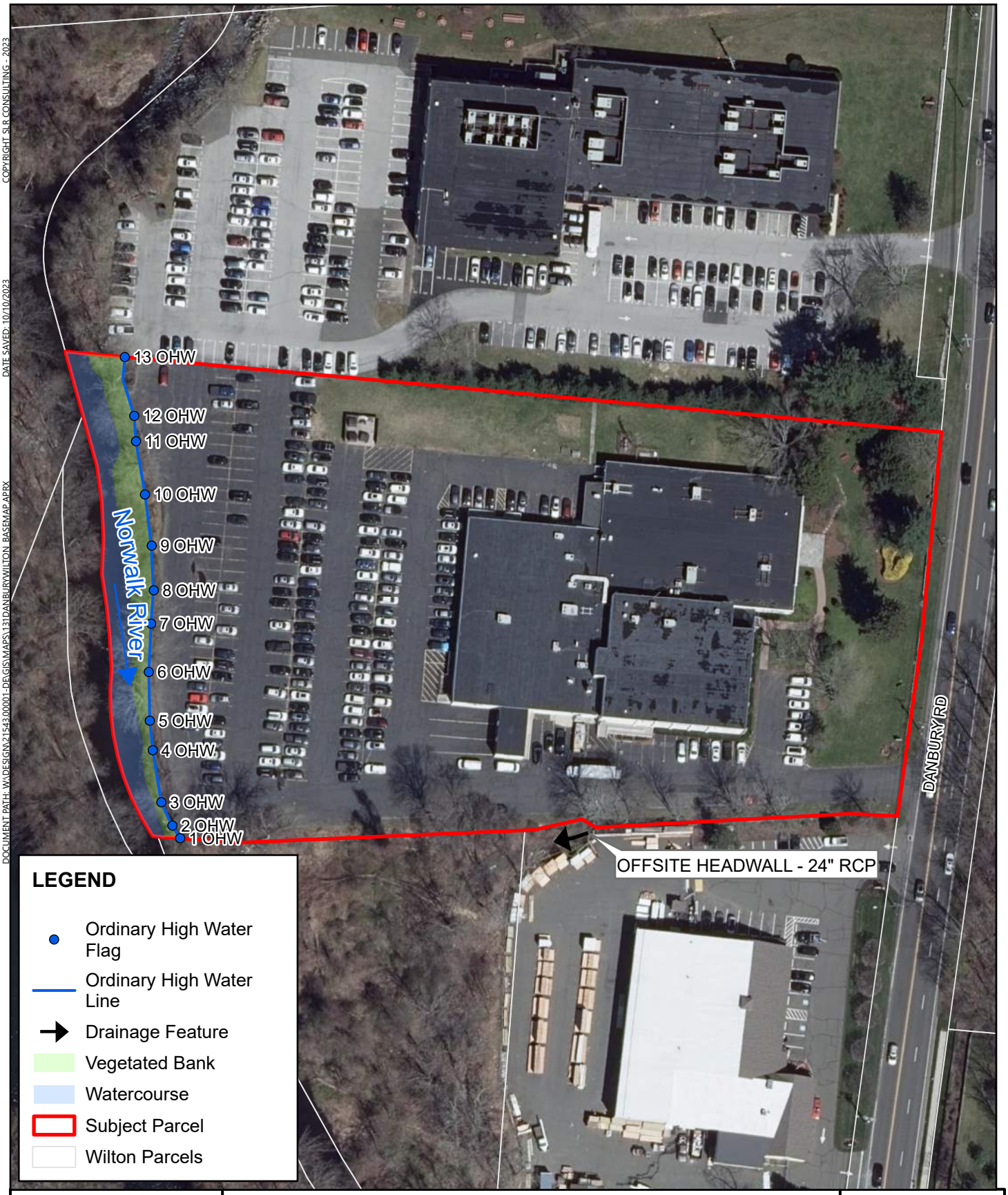
PROPOSAL FOR MULTIFAMILY RESIDENTIAL DEVELOPMENT
AMS ACQUISITIONS
131 DANBURY RD
WILTON, CONNECTICUT

N

0 1,000
Feet

SCALE	1" = 1000'
DATE	10/10/2023
PROJ. NO.	141.21543.00001

FIG. 1



SLR
195 CHURCH STREET
7TH FLOOR
NEW HAVEN, CT 06511
203.344.7887

WETLAND AND WATERCOURSE DELINEATION

PROPOSAL FOR MULTIFAMILY RESIDENTIAL DEVELOPMENT
AMS ACQUISITIONS
131 DANBURY ROAD
WILTON, CONNECTICUT

N
0 100
Feet

SCALE	1" = 100'
DATE	10/10/2023
PROJ. NO.	141.21543.00001

FIG. 3

Figure 3: Soil Map—State of Connecticut

Map Scale: 1:1,180 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: State of Connecticut
Survey Area Data: Version 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 21, 2022—Oct 27, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
103	Rippowam fine sandy loam	0.5	6.6%
305	Udorthents-Pits complex, gravelly	0.9	13.2%
307	Urban land	5.3	77.0%
W	Water	0.2	3.3%
Totals for Area of Interest		**6.9**	**100.0%**

SLR

195 CHURCH STREET
7TH FLOOR
NEW HAVEN, CT 06511
203.344.7887

PROPOSED CONDITIONS

PROPOSAL FOR MULTIFAMILY RESIDENTIAL DEVELOPMENT
AMS ACQUISITIONS
131 DANBURY ROAD
WILTON, CONNECTICUT

N

0 100
Feet

SCALE	1" = 100'
DATE	10/20/2023
PROJ. NO.	141.21543.00001

FIG. 4

Appendix B Photographic Log

Wetland and Watercourse Delineation and Impact Assessment

131 Danbury Road, Wilton, Connecticut

AMS Acquisitions

SLR Project No.: 141.21543.00001

October 23, 2023

SLR

PHOTOGRAPHIC LOG

Client Name:	**Site Location:**	**Project No.**
AMS Acquisitions	131 Danbury Rd, Wilton, Connecticut	141.21543.00001

Photo No.	**Date:**
1	8/3/23

Direction Photo Taken:
South

Description:
Looking downstream on Norwalk River near flag W-3.

Photo No.	**Date:**
2	8/3/23

Direction Photo Taken:
West

Description:
Looking upstream at the constructed riffle structure.

SLR

PHOTOGRAPHIC LOG

Client Name:	**Site Location:**	**Project No.**
AMS Acquisitions	131 Danbury Rd, Wilton, Connecticut	141.21543.00001

Photo No.	**Date:**
3	8/3/23

Direction Photo Taken:
North

Description:
Looking upstream at riffle structure and pool complex in Norwalk River.

Photo No.	**Date:**
4	8/3/23

Direction Photo Taken:
West

Description:
Upland vegetation

SLR

PHOTOGRAPHIC LOG

Client Name:	**Site Location:**	**Project No.**
AMS Acquisitions	131 Danbury Rd, Wilton, Connecticut	141.21543.00001

Photo No.	**Date:**
5	8/3/23

Direction Photo Taken:
South

Description:
Vegetated earthen bank from eastern bank of the Norwalk River

Photo No.	**Date:**
6	8/3/23

Direction Photo Taken:
North

Description:
Parking lot to narrow upland edge and Norwalk River

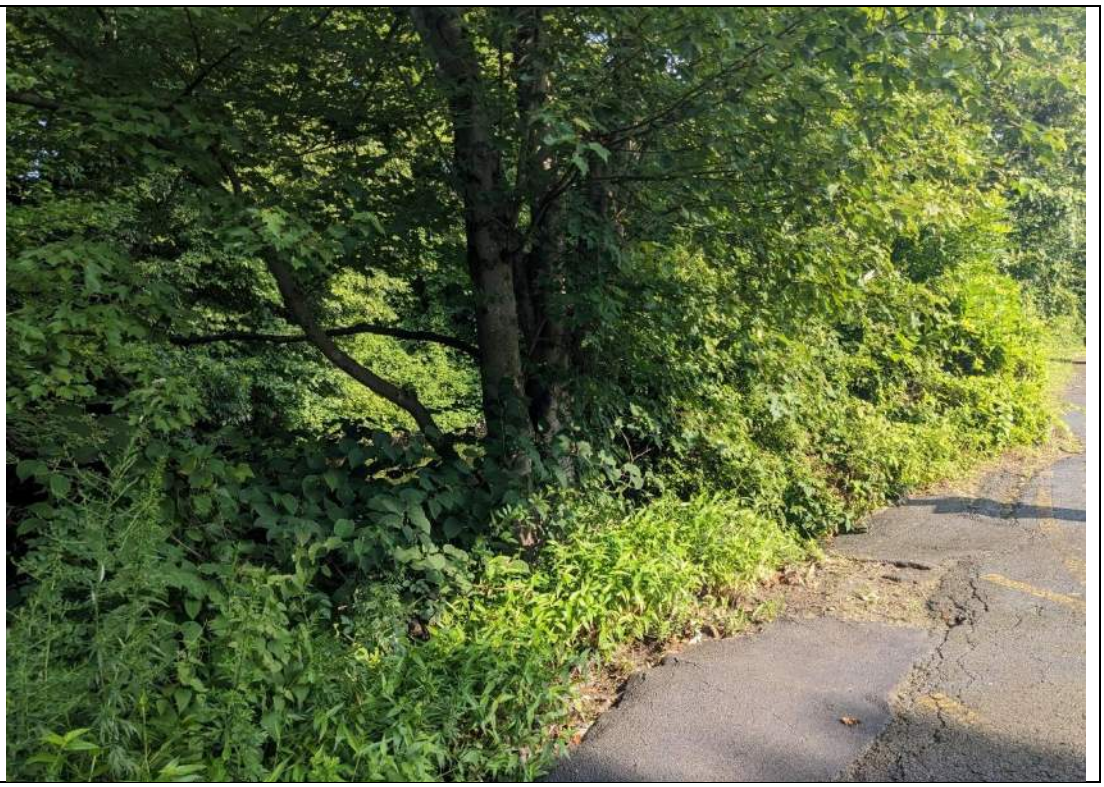


Photo No.	Date:
7	8/3/23

Direction Photo Taken:
N/A

Description:
Invasive Asian Freshwater Clam (*Corbicula fluminea*) in Norwalk River

Appendix C NBBD Correspondence

Wetland and Watercourse Delineation and Impact Assessment

131 Danbury Road, Wilton, Connecticut

AMS Acquisitions

SLR Project No.: 141.21543.00001

October 23, 2023

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Generated by eNDDB on:
8/21/2023

Mike Armstrong
SLR CONSULTING US LLC
195 Church St - 7TH FL
NEW HAVEN, CT 06510
marmstrong@slrconsulting.com

Subject: 131 Danbury Rd
Filing # 100080
NDDB – New Determination Number: 202306018

Expiration Date: 8/21/2025

Based on current data maintained by the Natural Diversity Database (NDDB) and housed in the DEEP ezFile portal, no extant populations of Federal or State Endangered, Threatened or Special Concern species (RCSA Sec. 26-306) are known to occur within the project area delineated for the Building and Infrastructure Development (including stormwater discharge associate with construction) / New Residential - single lot, 131 Danbury Rd .

This NDDB – New determination may be utilized to fulfill the Endangered and Threatened Species requirements for state-issued permit applications, licenses, registration submissions, and authorizations. However, please be aware of the following limitations and conditions:

- This determination does not preclude the possibility that listed species may be encountered on site. Should this occur, a report must be submitted to the Natural Diversity Database promptly and additional action may be necessary to remain in compliance with certain state permits. Please fill out the appropriate survey form and follow the instructions for submittal.
- If your project involves preparing an Environmental Impact Assessment, this NDDB consultation and determination should not be substituted for conducting biological field surveys assessing on-site habitat and species presence.
- This determination applies only to the project as described in the submission and summarized at the end of this letter. Please re-submit an updated Request for Review if the project's scope of work and/or timeframe changes, including if work has not begun by 8/21/2025.

The NDDB – New determination for the 131 Danbury Rd at , as described in the submitted information and summarized at the end of this document is valid for two years from the date on this letter.

Natural Diversity Database information includes all information regarding listed species available to us at the time of the request. This information is a compilation of data collected over the years by the

Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, land owners, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Database and accessed through the ezFile portal as it becomes available.

This letter is computer generated and carries no signature. If however, any clarification is needed, or if you have further questions, please contact the following:

CT DEEP Bureau of Natural Resources
Wildlife Division
Natural Diversity Database
79 Elm Street, 6th floor
Hartford, CT 06106-5127
(860) 424-3011
deep.nddbrequest@ct.gov

Please reference the Determination Number provided in this letter when you e-mail or write. Thank you for submitting your project through DEEP's ezFile portal for Natural Diversity Database reviews.

Application Details:

Project involves federal funds or federal permit:	No
Project involves state funds, state agency action, or relates to CEPA request:	No
Project requires state permit, license, registration, or authorization:	No
DEEP enforcement action related to project:	
Project Type:	Building and Infrastructure Development (including stormwater discharge associate with construction)
Project Sub-type:	New Residential - single lot
Project Name:	131 Danbury Rd
Project Description:	

131 Danbury Rd Map

August 21, 2023

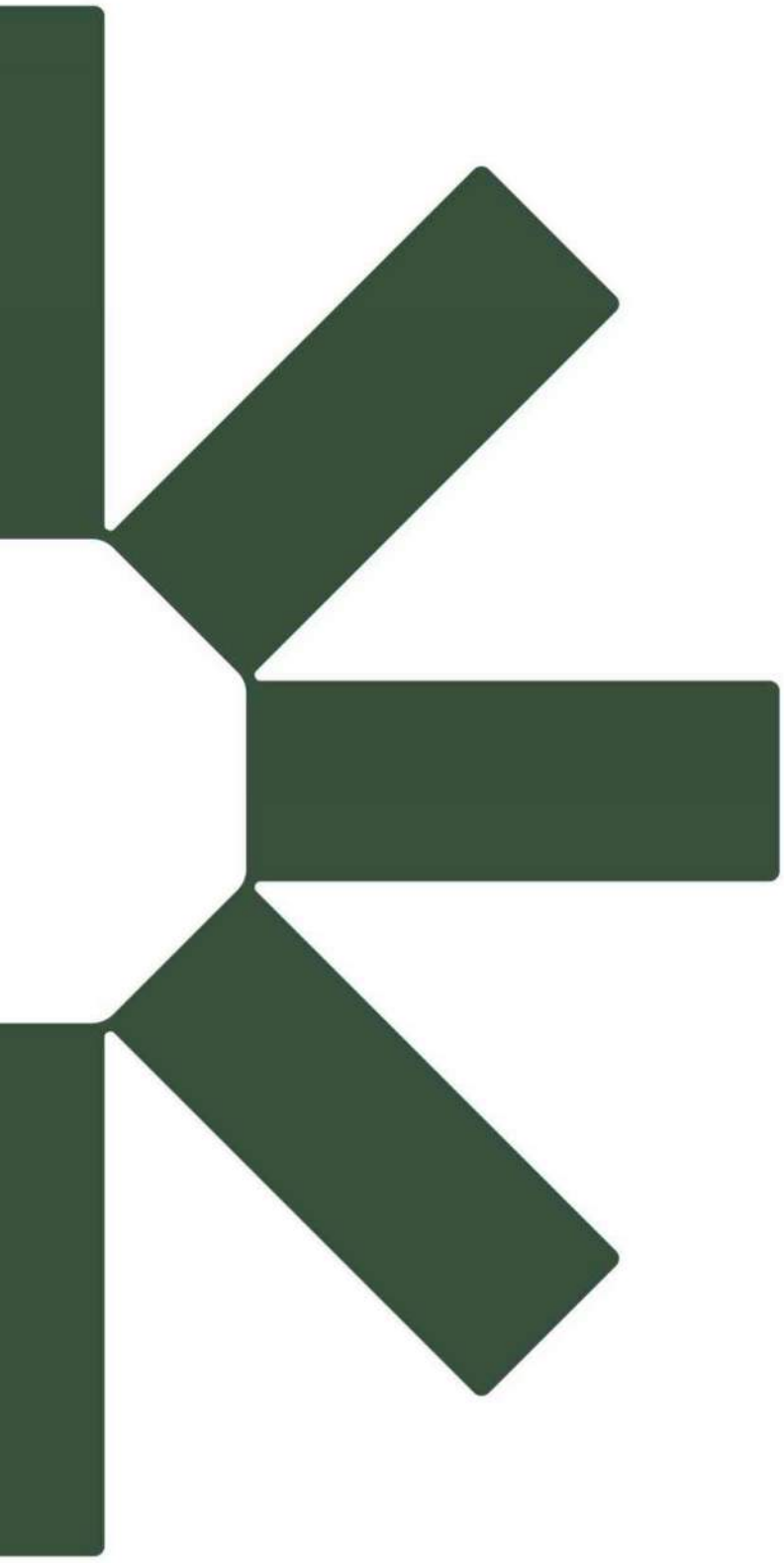
1:9,597

0 0.075 0.15 0.3 mi

0 0.125 0.25 0.5 km

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Filing #100080 ezFile NDDB System



Making Sustainability Happen

Wilton, CT – Market Capacity Study

131 Danbury Rd. | Wilton, CT

AMS Acquisitions

November 16, 2023

GOMAN +YORK ADVISORY SERVICES

111 Founders Plaza
Ste. 1000
East Hartford, CT 06108
Tel: (860) 841-3271
gomanyork.com

Table of Contents

Assignment & Project Overview

GOMAN+YORK

The Assignment

131 Danbury Road, Wilton, CT

Goman York Property Advisers LLC ("Goman+York") was engaged to conduct a preliminary Multifamily Market Capacity Analysis for the proposed development located at 131 Danbury Rd. (Parcel No: 70-1) Wilton, Connecticut. The proposed development consists of one (1) multifamily residential building (approximately 252,495 sq. ft.) providing a total of 208 units and one (1) amenities building. The proposed unit mix consists of ninety-five (95) one-bedroom units, one hundred-five (105) two-bedroom units, and eight (8) three-bedroom units. Our analysis examined key market indicators to determine whether the multifamily market within the Town of Wilton can positively absorb these additional proposed units at 131 Danbury Rd.

Our analysis included:

1. An inventory of current Multifamily units on a macro and micro level.
2. Evaluation of current and proposed multifamily residential projects within the Town of Wilton, CT.
3. Analysis of the current and projected multifamily residential vacancy, rent growth, and absorption rates for the overall greater Stamford market and within the Town of Wilton's local market.

Goman+York Professional Team

Mike Goman
CRX, CLS, CSM
Principal

Brad Senft
MSRE
SVP & Managing Director

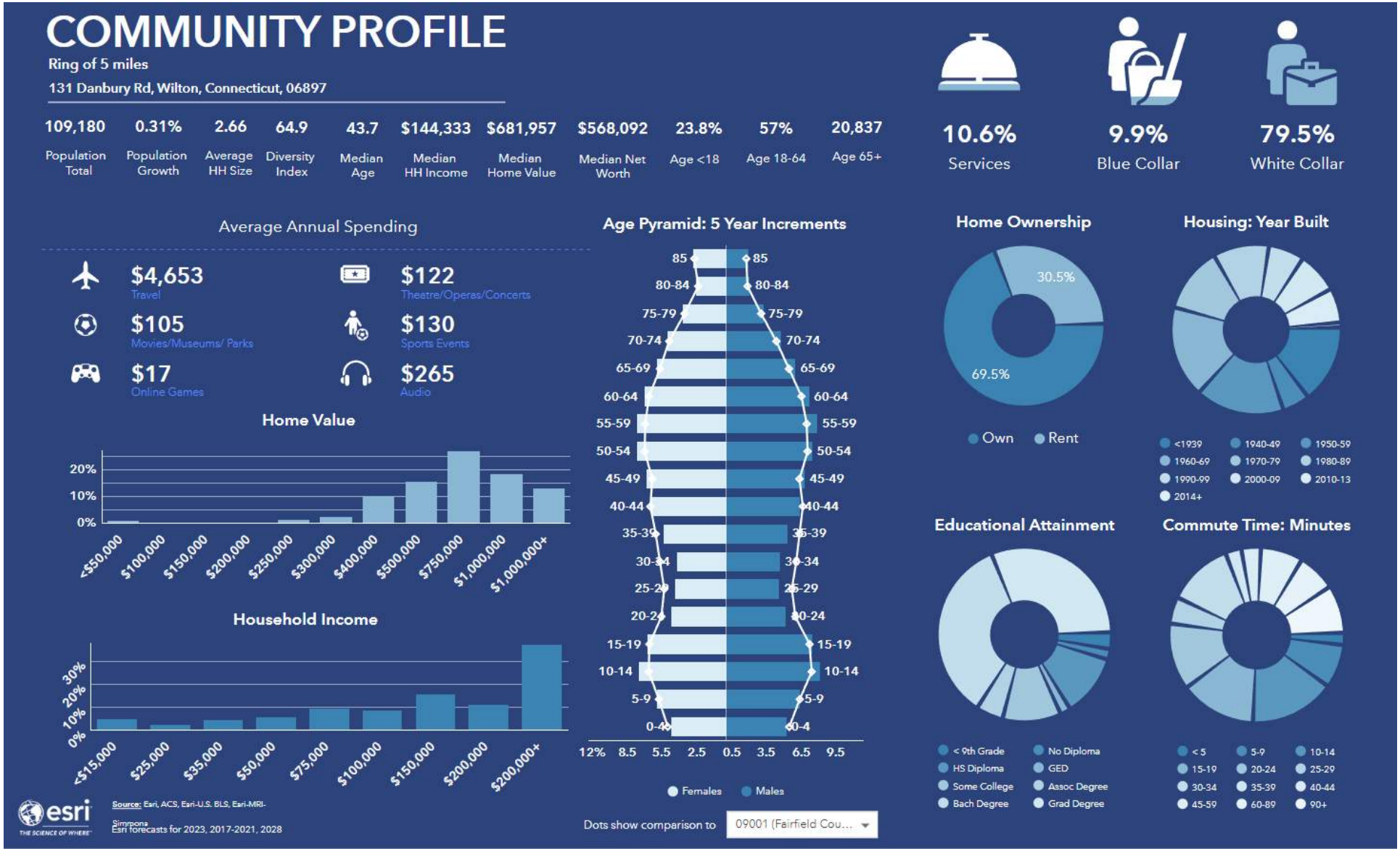
Derek O' Connor
Research & Data Analyst

Area Demographics & Employment

GOMAN+YORK

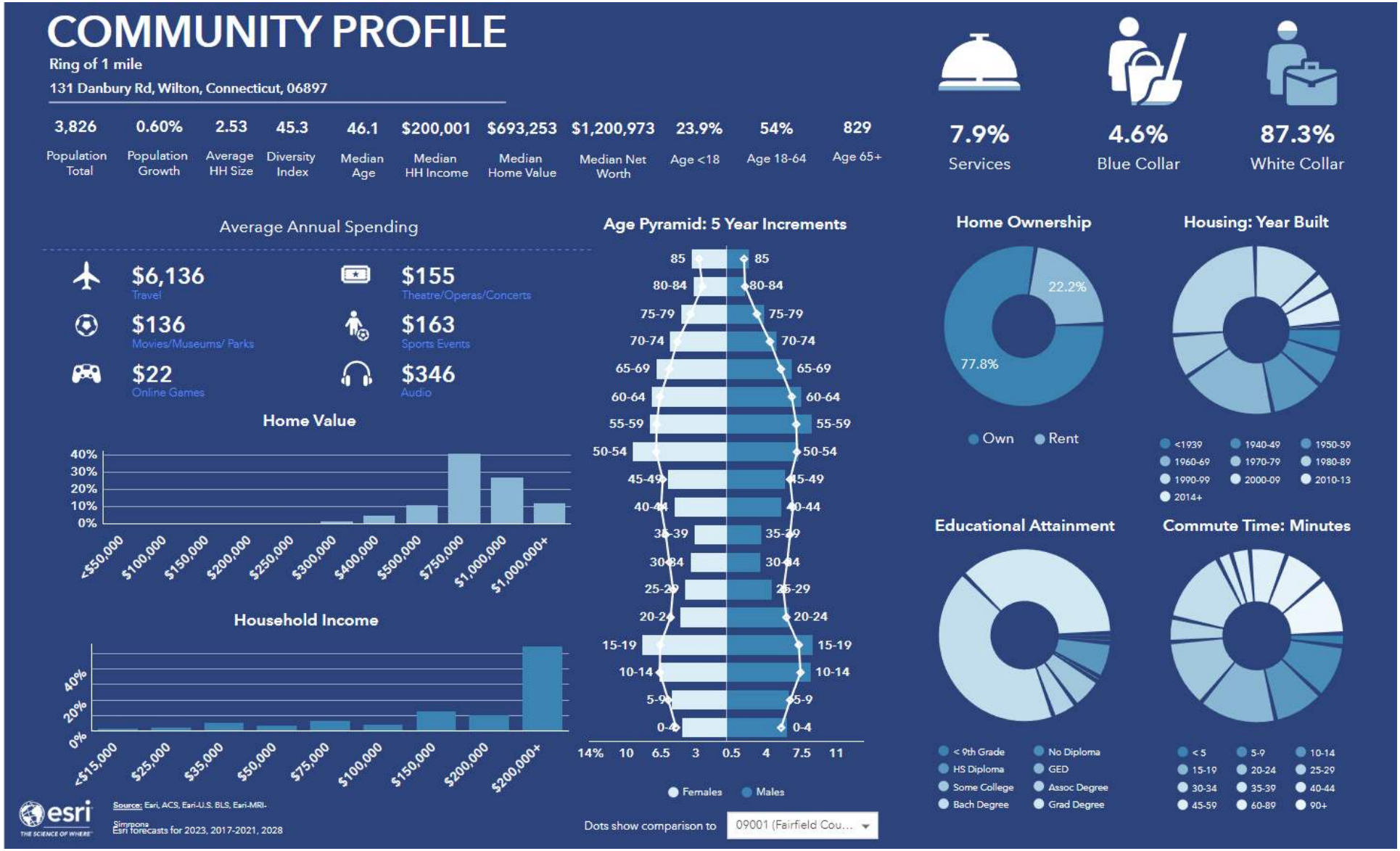
Area Demographics

5-mile Radius (source: ESRI)



Area Demographics

1-mile Radius (source: ESRI)



Area Demographics

5-mile Radius (source: ESRI Tapestry Segmentation)

Area Demographics

1-mile Radius (source: ESRI Tapestry Segmentation)

Area Demographics

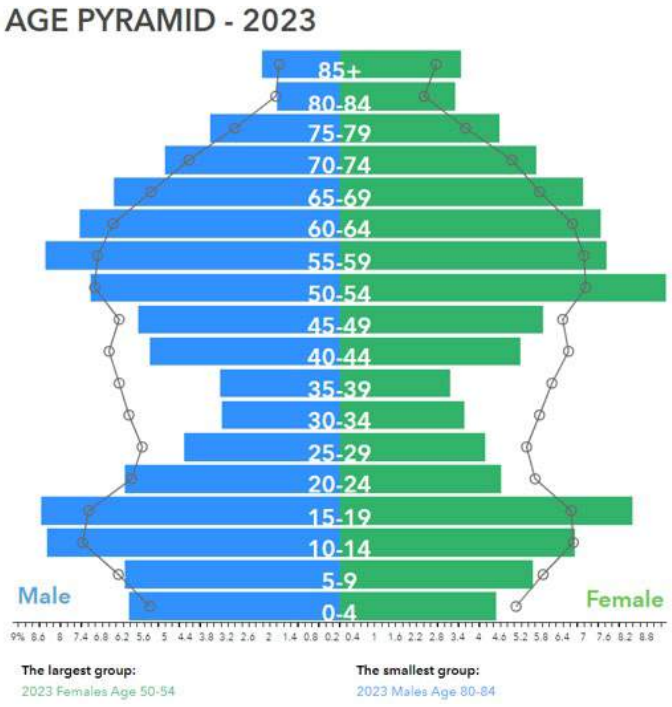
1- & 5-mile Radius - Tapestry Segmentation

The population pyramids within a 1- & 5-mile radius show an aging population, while the community profiles produced by ESRI show a median income level that is considerably higher than the national and state averages. Unlike many communities within Connecticut, these established areas are seeing a slight population increase.

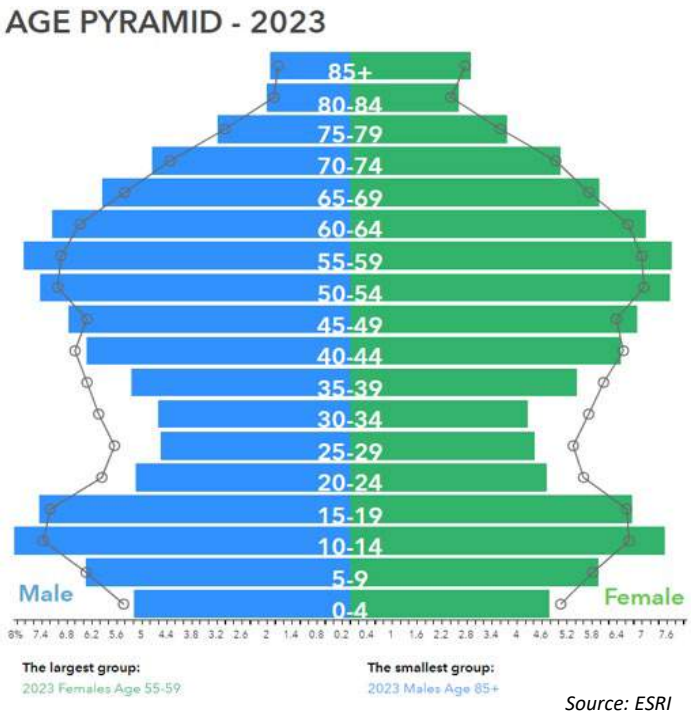
These key demographic points indicate the potential for increased demand for multifamily inventory within the Town of Wilton as a majority of the population is aging and may be looking to downsize as their children leave the household. A higher-than-average income and median net worth indicate the capacity for a large portion of the population to afford highly amenitized Class A and B rentals which would likely be development opportunities within the Town of Wilton market.

Source: ESRI

1-Mile Radius



5-Mile Radius



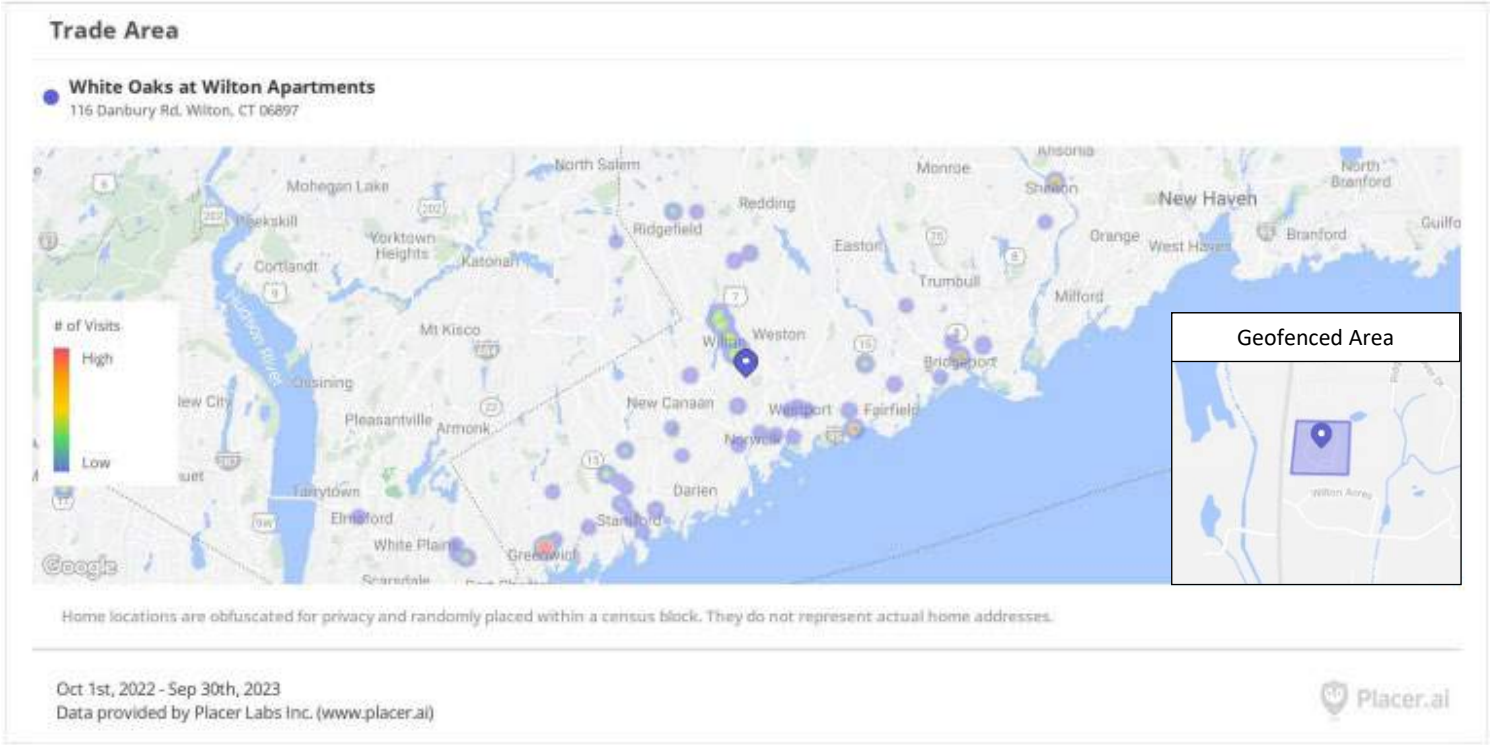
Source: ESRI

Area Demographics

Key Demographic Summary

Using Placer.ai, Goman+York geofenced the White Oaks at Wilton Apartments (116 Danbury Rd.) located near the proposed development. The geofence was then used to establish a trade area associated with the subject property. With the trade area established, Goman+York was able to identify patterns of residents traveling to and from their place of employment, presented in the heat map below.

ESRI's commute time data shows that approximately 50% of the residents within a 1-mile radius of the subject property commute 25 minutes or more to their employment. ESRI's commute time analysis combined with the employment trade area analysis from Placer.ai suggests that the area along the Route 7 corridor within the Town of Wilton is currently functioning as a residential node for employees working in the urban centers within a 25- to 30-minute drive time. As a residential node for the defined urban centers, the Town of Wilton will likely see greater demand for multifamily inventory as the average rent per unit decreases with the delivery of additional inventory.



Source: Placer.ai

Source: ESRI

Area Demographics

Major Area Employers

According to the Town of Wilton Assessor's Office, the Top Ten Employers within the town employed a total of 3,541 people in 2022. This represented an approximate 9.6% increase from 2013.

It is important to note that ASML increased its number of employees in Wilton from 800 in 2013 to 2,118 in 2022, representing a 165% increase. In 2022 ASML made a commitment to allocate $200 million to add an additional 35,000 square feet to their existing 350,000 square foot facility located at 77 Danbury Rd. This expansion is expected to create approximately 450 additional manufacturing positions and 500 additional design and engineering positions. Construction is expected to be completed by the end of 2024 (Schott, Paul. www.ctinsider.com. CT Insider. 09/12/2022. CT company ASML promises 1,000 new jobs with $200M expansion (ctinsider.com). ASML's expansion and subsequent employment increase will create increased demand for housing, including multifamily rental units, within the Town of Wilton. The Town of Wilton does not currently have the multifamily inventory to support the increased demand likely created by ASML's planned expansion.

		2022			2013		
Employer	Nature of Business	Employees	Rank	Percentage of Total Town Employment	Employees	Rank	Percentage of Total Town Employment
ASML Lithography Systems	Printing Machinery & Equipment	2,118	1	25.8 %	800	1	10.1 %
Melissa & Doug LLC	Toy and Puzzle Wholesaler	260	2	3.2	212	6	2.7
Wilton Meadows	Nursing Home	191	3	2.3	239	4	3.0
Belersdorf Inc.	Pharmaceutical Preparations	170	4	2.2			
Cotiviti	Recovery Auditing	150	5	1.8			
Louis Dreyfus	Commodities, Brokage property mgmt.	146	6	1.8	208	7	2.6
Tauck, Inc.	Tour Operator	144	7	1.8			
Wilton Retirement Housing	Nursing Home	132	8	1.6			
Bridgewater Associates Investments	Investment Advisors	115	9	1.4	543	2	6.8
Tracy Locke Partnership	Business Advertising Services	115	10	1.4	160	10	2.0
Deloitte & Touche LLP	Accounting and Consulting				450	3	5.7
Ryan Partnership	Management Consulting Services				220	5	2.8
The Sun Products Corporation	Household Products Provider				199	9	2.5
AIG Global Asset Management					201	8	2.5
Total		3,541		43.3%	3,232		40.7%

Source: Assessor

Source: Town of Wilton Assessor's Office

Existing & Proposed Multifamily Development

GOMAN+YORK

Existing Multifamily Inventory

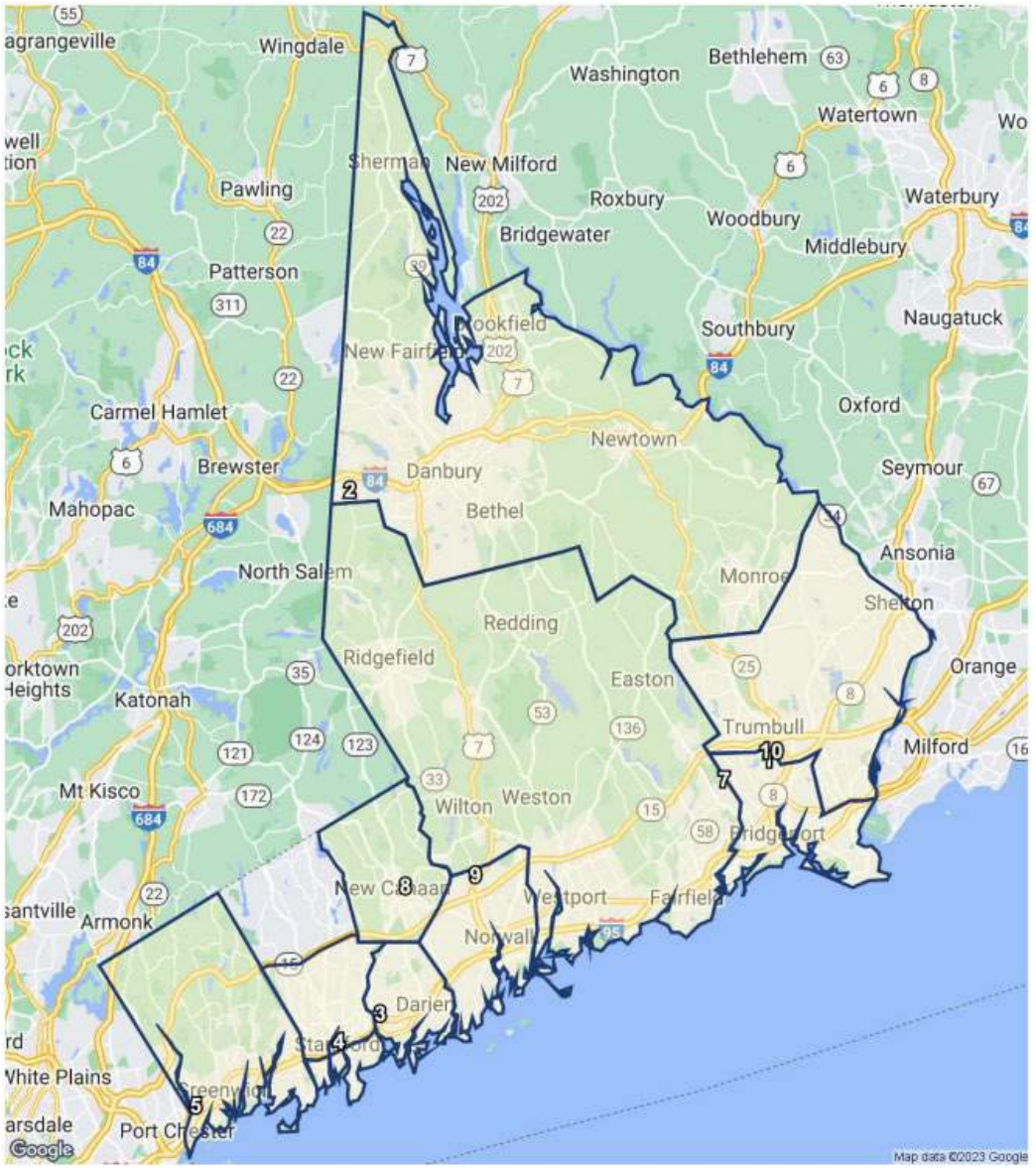
Greater Stamford Market

For the macro market analysis, Goman+York studied the entire Stamford market as defined by CoStar Analytics. Goman+York's decision was made based on the data indicating that the large urban areas within the Stamford market were identified as the major employment nodes for the population concentrated along the Route 7 Corridor, including those within the Town of Wilton.

The current multifamily inventory within the Stamford market consists of 733 buildings containing 37,794 units, while the 4- & 5-Star market consists of 21,485 units. The highest concentration of the inventory exist within the Downtown Stamford Submarket, while the Middle Fairfield County Submarket, which includes the Town of Wilton, contains just 3% of the Stamford market's overall inventory. The overall inventory is a mixture of Class A, B, and C properties with a variety of developments including high-rise, mid-rise, low-rise, townhome, and garden.

SUBMARKET INVENTORY

		Inventory			
No.	Submarket	Bldgs	Units	% Market	Rank
1	Bridgeport/Lower Stratford	254	6,945	18.4%	2
2	Danbury/Newtown/Monroe	64	4,201	11.1%	5
3	Darien	6	489	1.3%	9
4	Downtown Stamford	107	9,199	24.3%	1
5	Greenwich	45	1,117	3.0%	8
6	Harbor Point	69	5,745	15.2%	4
7	Middle Fairfield County	29	1,123	3.0%	7
8	New Canaan	7	207	0.5%	10
9	Norwalk	125	6,303	16.7%	3
10	Trumbull/Upper Stratford…	27	2,465	6.5%	6

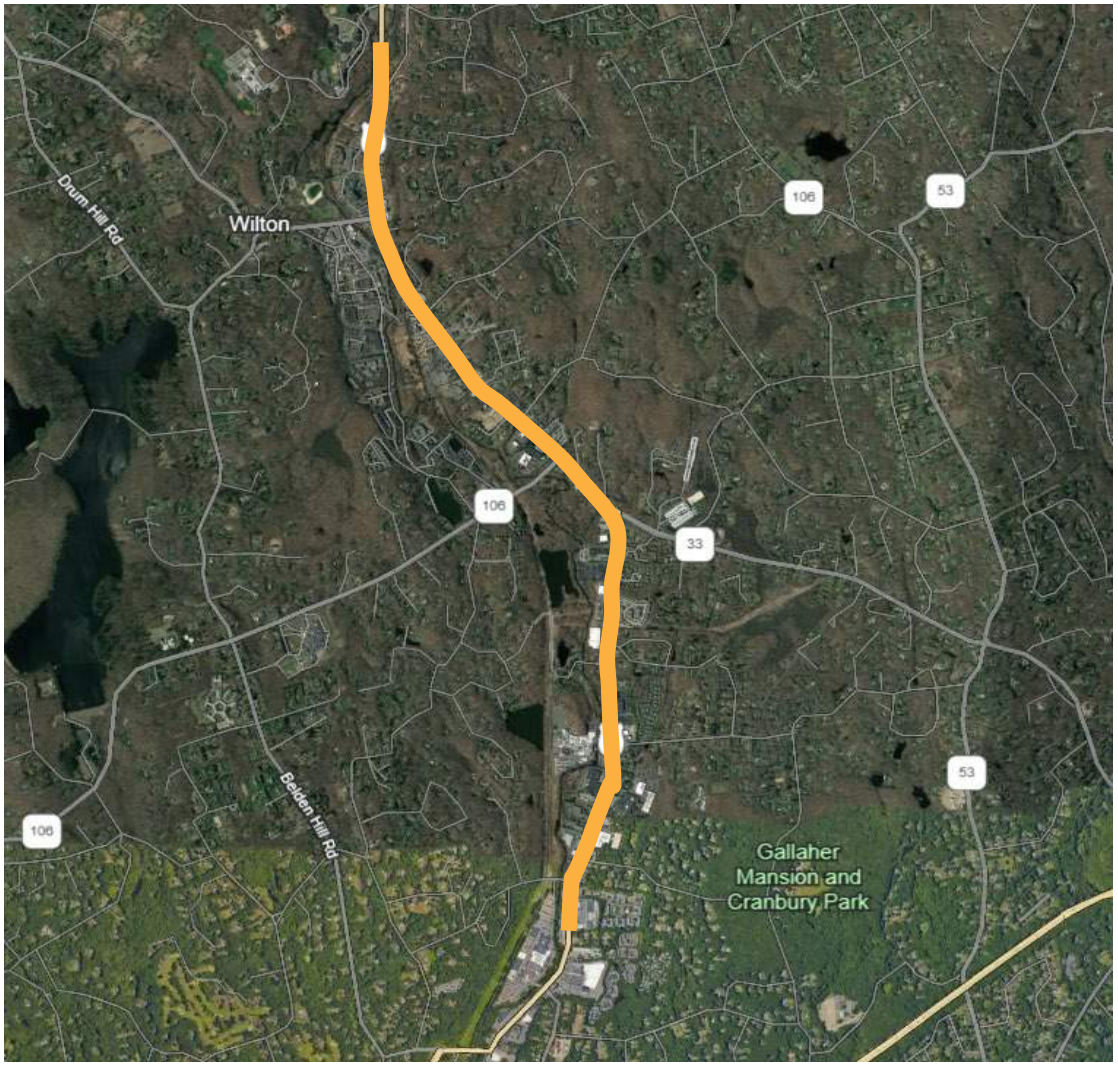


Existing Multifamily Inventory

Town of Wilton – Rt. 7 Corridor

Goman+York collected and compared data for multifamily developments with 20+ rental units for this study to maintain a relevant comparison to the Stamford market. This analysis does not include age-restricted developments. The multifamily inventory matching these criteria is concentrated along the Route 7 Corridor, as highlighted on the map to the right, consisting entirely of Class A and B properties as defined by CoStar.

The current multifamily inventory consists of a variety of configurations including low-rise, mid-rise, garden, townhome, and mixed-use development. The five (5) identified properties contain a total of 277 units which consist of studio, 1-bedroom, 2-bedroom, and 3-bedroom apartments and townhomes. The property located at 141 Danbury Rd is currently under construction and is expected to deliver an additional 173 units in 2025.

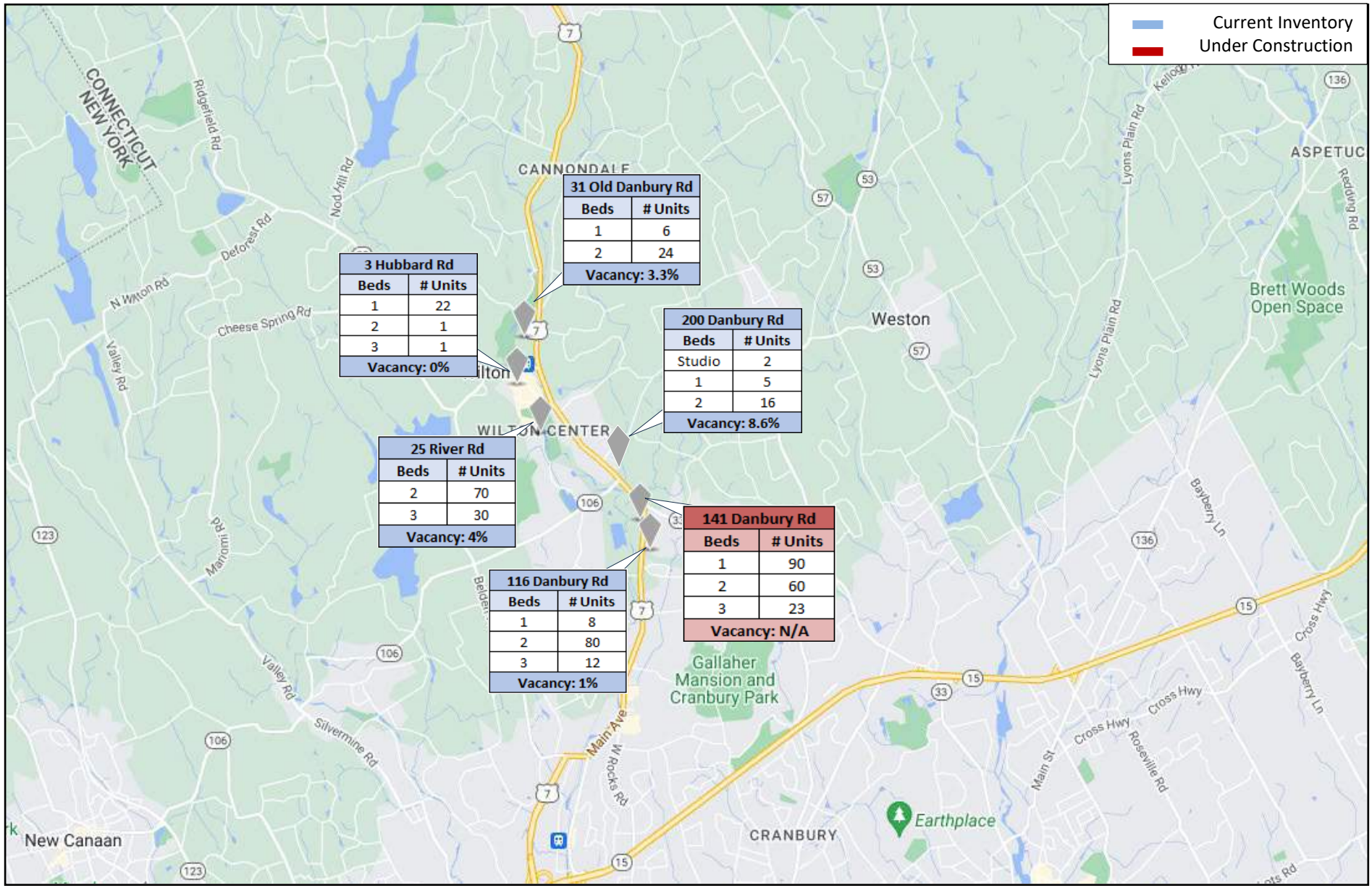


Address	Building Name	Class	Status	# Units	Style	Market	Submarket	City	State
116 Danbury Rd	White Oaks at Wilton	B	Existing	100	Garden	Stamford	Outer Middle Fairfield	Wilton	CT
3 Hubbard Rd	The IVE at Wilton Center	B	Existing	24	Low-Rise	Stamford	Outer Middle Fairfield	Wilton	CT
31 Old Danbury Rd	Station Place at Wilton	B	Existing	30	Low-Rise	Stamford	Outer Middle Fairfield	Wilton	CT
25 River Rd	Avalon Wilton on River Rd	A	Existing	100	Townhome	Stamford	Outer Middle Fairfield	Wilton	CT
200 Danbury Rd	Sharp Hill Square	B	Existing	23	Mixed Use	Stamford	Outer Middle Fairfield	Wilton	CT
141 Danbury Rd		A	Under Construction	173	Mid-Rise	Stamford	Outer Middle Fairfield	Wilton	CT

Source: CoStar and Market Research

Existing Multifamily Inventory

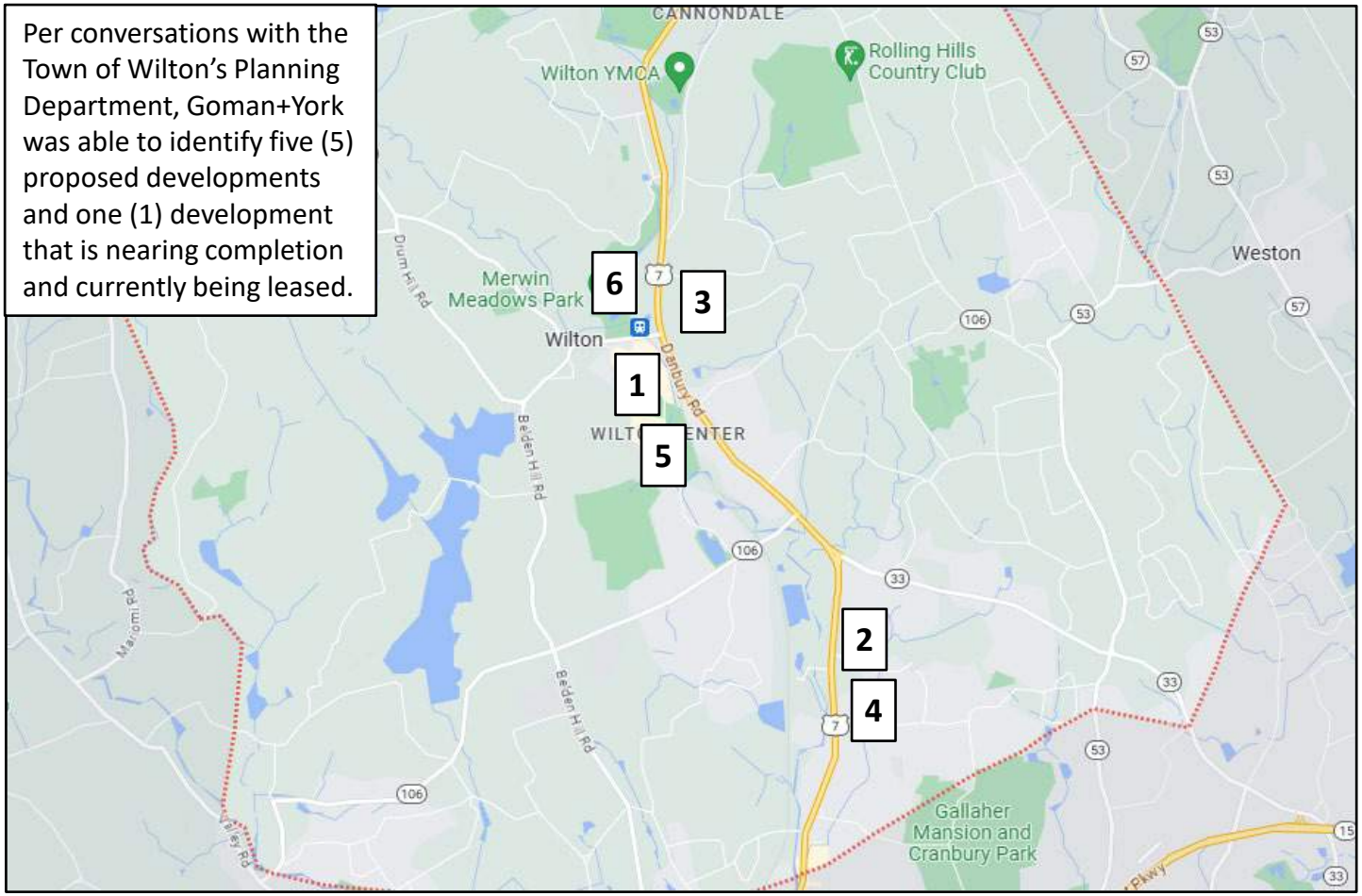
Town of Wilton – Rt. 7 Corridor



Multifamily Inventory

Town of Wilton – Proposed Development

Per conversations with the Town of Wilton's Planning Department, Goman+York was able to identify five (5) proposed developments and one (1) development that is nearing completion and currently being leased.



	Address	Proposed # Units	Description	Current Status
1	12 Godfrey Place	40	Stand alone	Demo is currently underway on the existing building, no building permits issued.
2	2 Hollyhock Rd	17	Converted Office	Leasing underway.
3	300 Danbury Rd	74	Mixed Use	Approved in 2019, permits issued but there has been no action.
4	64 Danbury Rd	75+	Multifamily	Pre-app with P&Z completed, a formal application has not been received - expected within 1-2 months
5	15 River Rd	150+/-	Mixed Use	Formal application has not been received - expected within 1-2 months.
6	15 Old Danbury Rd	208+/-	Converted Office	Pre-application submitted

Stamford
Multifamily Market Analysis

GOMAN+YORK

Stamford Multifamily Market

Key Indicators – Stamford 4- & 5-Star Market

Supply and Demand

Over the historical 5-year period from 2018-2022, the 4- & 5-Star multifamily inventory for the Stamford market increased by 4,893 units from 15,296 units (2018) to 20,189 units (2022). This represents a significant increase of approximately 32%, with an average annual growth rate of approximately 9%. During the same 5-year period, the absorption rate remained positive at an average of 7.3% of the 4- & 5-Star inventory annually. CoStar projects an increase of an additional 3,880 units over the next 5 years (2023-2027), with a 4.7% average annual growth rate and the average absorption rate keeping pace at 4.4% annually. The Stamford market's positive absorption of the consistent increase in supply indicates a healthy market.

Vacancy Rate and Market Rent

Over the historical 5-year period from 2018-2022, the average vacancy rate for the 4- & 5-Star multifamily inventory within the Stamford market was approximately 8.0% annually while the market rent has increased at an average of approximately 3.3% annually. Over the next 5 years, CoStar projects the vacancy rate to average approximately 6.2% annually with the rent growth averaging approximately 3.8% annually.

Stamford Market

4 & 5 STAR SUPPLY & DEMAND

	Inventory			Absorption		
Year	Units	Growth	% Growth	Units	% of Inv	Construction Ratio
2027	25,399	1,172	4.8%	1,101	4.3%	1.1
2026	24,227	900	3.9%	885	3.7%	1.0
2025	23,327	567	2.5%	768	3.3%	0.7
2024	22,760	1,241	5.8%	1,041	4.6%	1.2
2023	21,519	1,330	6.6%	1,300	6.0%	1.0
YTD	21,485	1,296	6.4%	1,078	5.0%	1.2
2022	20,189	592	3.0%	303	1.5%	2.0
2021	19,597	1,744	9.8%	1,969	10.0%	0.9
2020	17,853	606	3.5%	1,209	6.8%	0.5
2019	17,247	1,951	12.8%	1,463	8.5%	1.3
2018	15,296	2,103	15.9%	1,498	9.8%	1.4

4 & 5 STAR VACANCY & RENT

	Vacancy			Market Rent				Effective Rents	
Year	Units	Percent	Ppts Chg	Per Unit	Per SF	% Growth	Ppts Chg	Units	Per SF
2027	1,472	5.8%	0	$3,377	$3.46	2.7%	(1.3)	$3,343	$3.43
2026	1,400	5.8%	(0.2)	$3,287	$3.37	4.0%	(0.6)	$3,255	$3.34
2025	1,387	5.9%	(1.0)	$3,160	$3.24	4.7%	(0.4)	$3,129	$3.21
2024	1,586	7.0%	0.5	$3,020	$3.10	5.1%	2.6	$2,990	$3.07
2023	1,386	6.4%	(0.3)	$2,874	$2.95	2.5%	(2.5)	$2,845	$2.92
YTD	1,586	7.4%	0.6	$2,883	$2.95	1.5%	(3.5)	$2,856	$2.92
2022	1,366	6.8%	1.3	$2,803	$2.87	5.0%	(0.6)	$2,784	$2.85
2021	1,077	5.5%	(1.8)	$2,671	$2.73	5.5%	2.1	$2,645	$2.70
2020	1,300	7.3%	(3.7)	$2,531	$2.59	3.5%	3.2	$2,474	$2.53
2019	1,902	11.0%	1.8	$2,446	$2.50	0.2%	(1.9)	$2,421	$2.47
2018	1,411	9.2%	3.2	$2,440	$2.49	2.1%	0.3	$2,379	$2.43

Source: CoStar

Current Multifamily Market

Key Indicators – Stamford v. United States

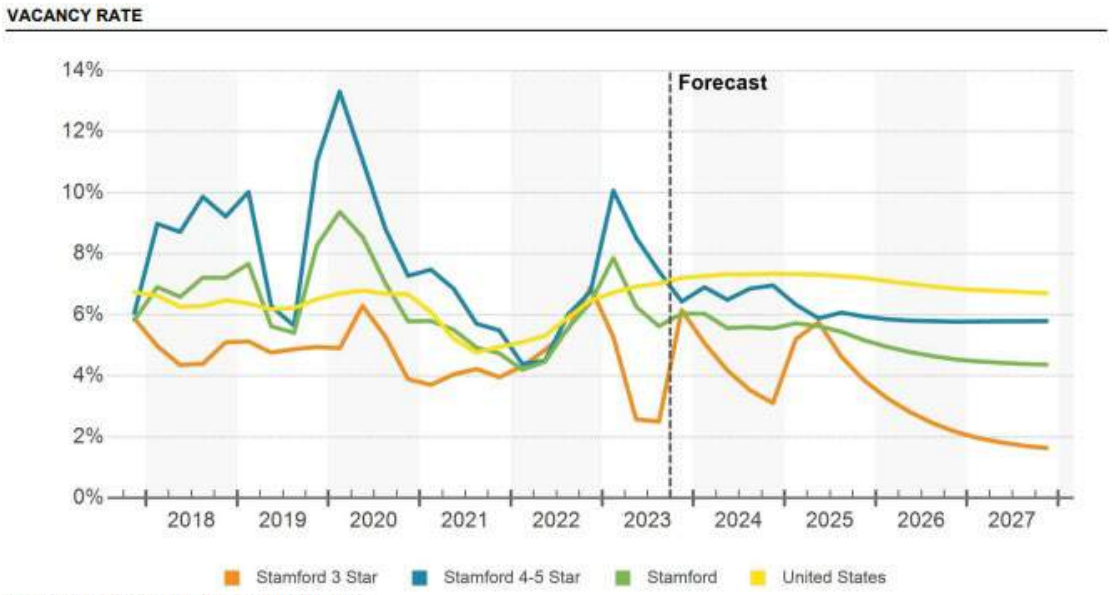
Vacancy Rate

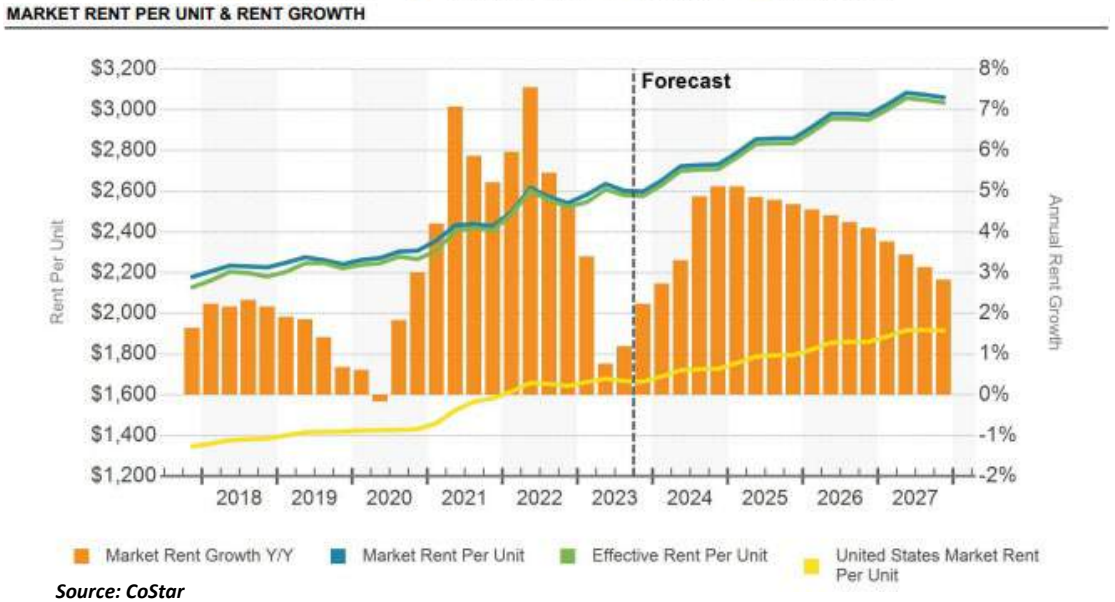
The 5-year vacancy rate for the 4- & 5-Star Stamford market was more volatile than that of the United States market due to the 32% increase in inventory over that period. Historically 4- & 5-Star Stamford multifamily market absorption has kept pace with the increased inventory leading to the vacancy rate remaining at or below 10%, the exception being 2020 where the vacancy rate rose above 10% peaking at approximately 13.5% as the market absorbed the 23.5% increase from 2018-2019. In comparison, the US average remained steady between 5-7% during the same period. In 2023 the US average increased to approximately 7% while the 4- & 5-Star Stamford market fell below 7%, indicating demand is currently outpacing supply. CoStar projects the 4- & 5-Star Stamford market vacancy to remain between 6-7% over the next 5-year period, slightly below the overall US average. Stamford's historic and projected vacancy rates indicate a healthy market.

Rent Growth

The overall Stamford multifamily market has seen consistent rent growth from 2018-2022 peaking at approximately 7% in the second quarter of 2022. CoStar projects consistent rent growth to continue for the next 5 years peaking at 5% in the fourth quarter of 2024. The overall rent per unit in the Stamford market has consistently outpaced the US average, a trend that is projected to continue for the next 5 years.

Stamford Market





Source: CoStar

Rt. 7 Corridor
Market Capacity Analysis

GOMAN+YORK

Town of Wilton Multifamily Market

Key Indicators – Town of Wilton

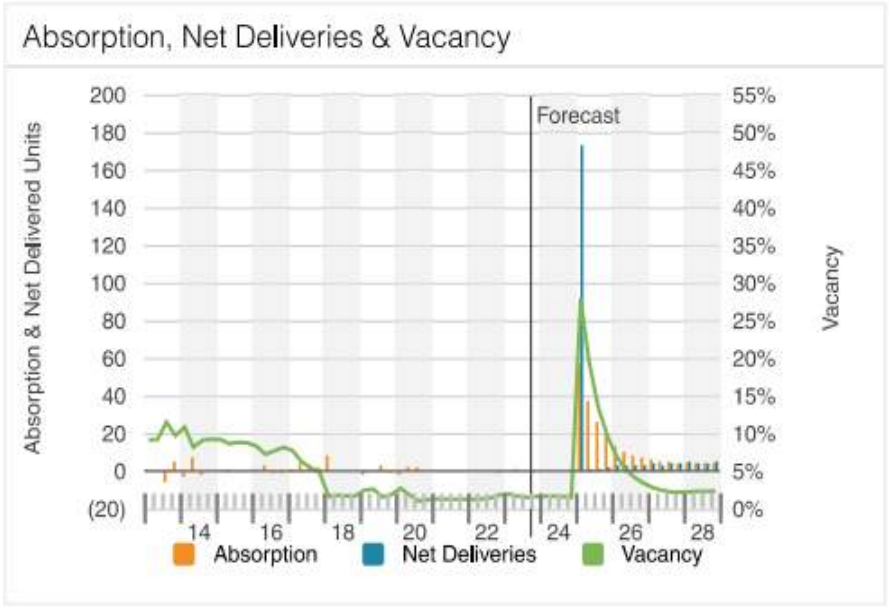
Supply and Demand

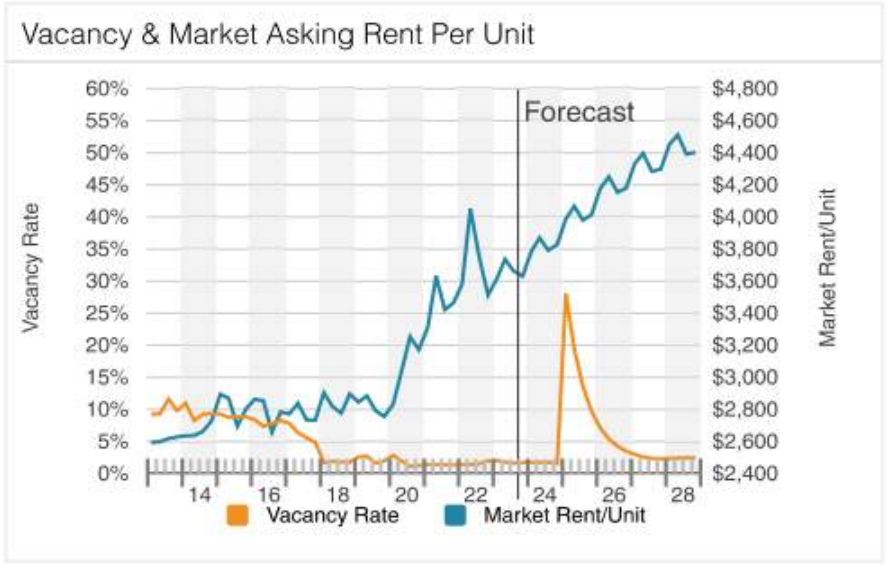
Over the historical 5-year period from 2018-2022, the Town of Wilton multifamily market has seen little absorption due almost entirely to the shortage of new inventory. The first quarter of 2018 saw the largest absorption at approximately nine units. CoStar's data did not capture the 23 units at 200 Danbury Rd. which were delivered in late 2022. Goman+York estimates, based on market research, that 21 of those 23 units have been absorbed. CoStar projects that the 173 units currently under construction at 141 Danbury Rd. will be delivered in the first quarter of 2025 and should be absorbed into the market over a 12- to 18-month period.

Vacancy Rate and Market Rent

The vacancy rate for the Town of Wilton multifamily market over the historical 5-year period from 2018-2022 remained between 1-3% indicating a supply shortage in the market. This trend is forecasted to continue through 2024 until the delivery of the 173 units at 141 Danbury in 2025. At this point, CoStar projects the vacancy rate to peak at 27% and then decline steeply until the second quarter of 2026 where the vacancy rate will return to the historical norm below 5% as the additional inventory is absorbed. The Town of Wilton market rent/unit has increased sharply from the first quarter of 2020-YTD due to an increase in demand and a shortage of supply.

Town of Wilton Market



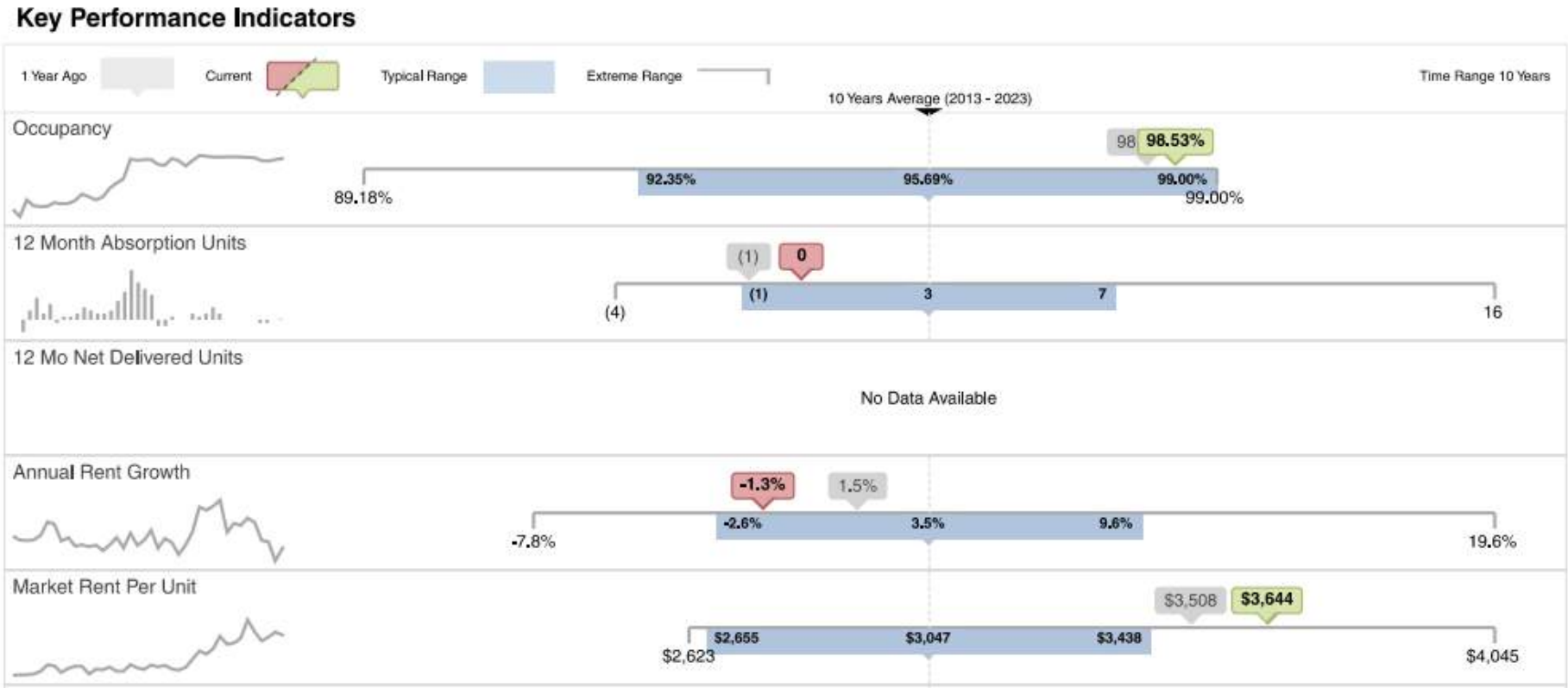


Source: CoStar

Current Multifamily Market

Key Indicators – Wilton, CT – Route 7 Corridor

Wilton's current market rental rate per unit of approximately $3,644 is outpacing that of the 4- and 5-Star Stamford market due to the shortage of inventory and a higher concentration of 2- and 3-bedroom units. Like the Stamford market, the Town of Wilton multifamily market has seen a slight decrease in annual rent growth which relates to the overall US average YTD. As the 1–2-bedroom inventory within the Town of Wilton market increases, the market rent/unit should decrease allowing the market to draw from the employment nodes within the urban core centers. This new amenity-rich product, like the proposed development at 131 Danbury Rd, will also provide an attractive rental option for the local area's aging higher-income and net-worth population.



Source: CoStar

Market Analysis
Conclusion

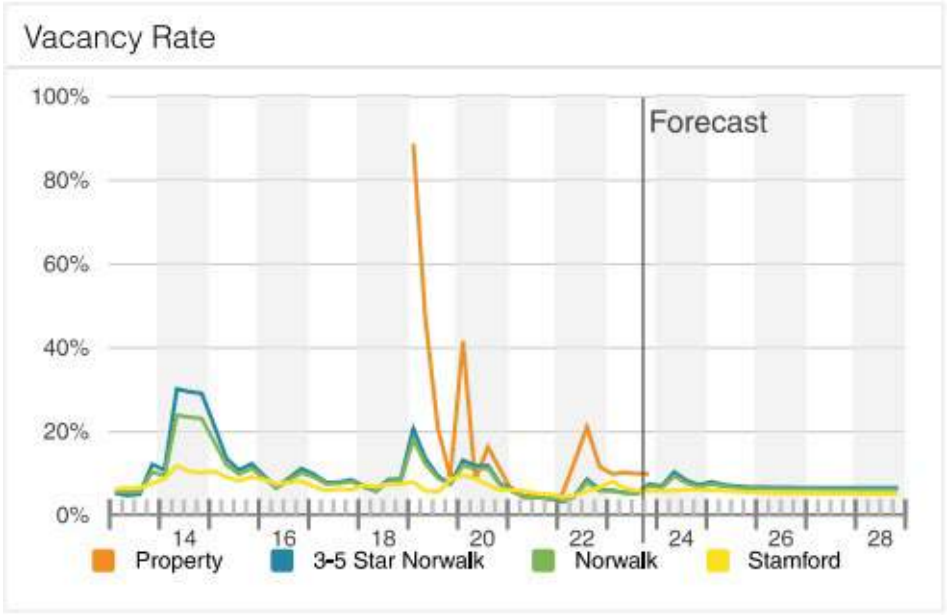
GOMAN+YORK

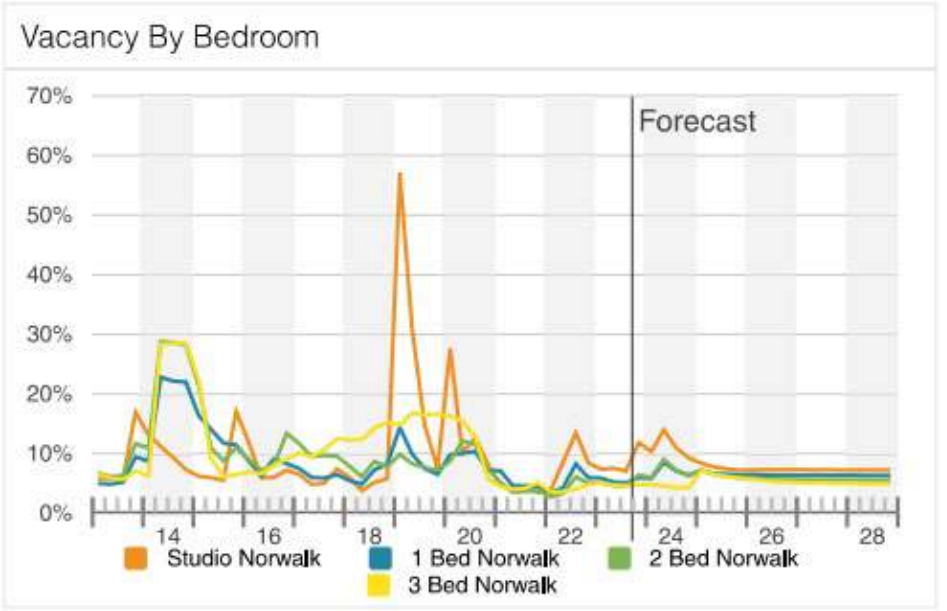
Conclusion

Absorption Case Study – The Curb Apartments, Norwalk CT

The Curb Apartments, located at 150 Glover Ave in Norwalk, CT, is a multi-building development that delivered 761 units consisting of 435 studios, 247 one-bedroom, and 79 two-bedroom units to the market in a multi-phased development approach. The first phase of new inventory was delivered in the first quarter of 2019 with the final phase being delivered in the 3rd quarter of 2022. Over the approximately 5-year period from 2019-2023 Q3, the market has positively absorbed the influx of new inventory. The vacancy rate currently sits at 9.7% for the entire development as the market continues to absorb the delivery of the final phase of new inventory.

The Vacancy By Bedroom graph below indicates the large influx of new studio rental inventory due to the delivery of The Curb's final phase has led to studio vacancy rates of approximately 10% which are higher than the overall Norwalk market average. However, the Norwalk market has rapidly absorbed the additional one-, two-, and three-bedroom inventory with vacancy rates currently maintaining approximately 5% indicating a strong demand within that market sector.





Source: CoStar

Conclusion

Market Capacity Analysis

The Greater Stamford 4-& 5-Star and the Town of Wilton market along the Route 7 Corridor have both historically and are currently experiencing vacancy rates below 8%. The vacancy rate for a healthy multifamily market is generally between 5-10%, while a vacancy rate below 5% generally indicates a market is undersupplied. The 1-3% 5-year historic vacancy rate and the current vacancy rate of approximately 1.5% suggest the multifamily market within the Town of Wilton is currently undersupplied while the overall Stamford market is healthy and has historically shown the ability to absorb additional inventory.

Unlike most communities in Connecticut, the areas within a 1- and 5-mile radius of the proposed multifamily development at 131 Danbury Rd. have seen a slight increase in population. Like most communities within Connecticut, the Town of Wilton is experiencing an aging population with a large portion of the population currently at or above the age of 55. Goman+York has observed an increase in demand for multifamily apartments in other communities with similar demographics as the 55+ population looks to downsize as their children move out of their homes.

As previously described in this report, the Town of Wilton has been identified as a residential node for the urban core areas within a 25- to 30-minute commute. As indicated in the table to the right the Danbury Branch of the New Haven Line commuter rail leading to the main New Haven Line has seen a 100.2% increase YOY from 2021-2022, and it should be noted that the Wilton Train Station has been identified as the busiest station along the Danbury Branch. The available infrastructure provides an opportunity to increase the density within the Town of Wilton as the residential supply increases and becomes available.

The combination of market factors identified in this report suggests the Town of Wilton's multifamily inventory is currently undersupplied while the Greater Stamford market, including the Town of Wilton, has historically positively absorbed new inventory. The Town of Wilton's infrastructure and proximity to large urban core employment nodes will allow the market to draw demand from surrounding areas. In addition, ASML's commitment to creating 950 new jobs and the Town of Wilton's continually aging population should produce a significant increase in demand from within the town, leading to the positive absorption of the proposed new inventory.

ANNUAL RIDERSHIP BY LINE/SEGMENT (In Millions)

Line/Segment	Annual Ridership 2022	Annual Ridership 2021	% Change vs. 2021
Hudson Line	**10.01**	**6.39**	**56.7%▲**
Bronx (Hudson)	0.74	0.44	67.3%▲
Lower Hudson	4.44	2.68	65.7%▲
Upper Hudson	3.18	2.06	54.5%▲
Intermediate*	1.66	1.21	36.6%▲
Harlem Line	**14.99**	**9.57**	**56.7%▲**
Bronx (Harlem)	1.76	1.17	50.1%▲
Lower Harlem	7.18	4.20	71.1%▲
Upper Harlem	3.13	1.85	68.8%▲
Southeast-Wassaic	0.22	0.15	47.7%▲
Intermediate*	2.70	2.19	23.0%▲
New Haven Line	**22.95**	**14.18**	**61.9%▲**
Inner NH (NY)	6.11	3.71	65.0%▲
Inner NH (CT)	1.64	0.87	88.5%▲
Outer New Haven	8.96	5.14	74.2%▲
New Canaan Branch	0.55	0.28	100.8%▲
Danbury Branch	0.20	0.10	100.2%▲
Waterbury Branch	0.10	0.07	46.4%▲
NY Intrastate Intermediate*	1.81	1.47	22.7%▲
Interstate Intermediate*	1.09	0.85	28.1%▲
CT Intrastate Intermediate*	2.49	1.69	47.5%▲
Port Jervis Line	**0.53**	**0.38**	**38.5%▲**
Pascack Valley Line	**0.36**	**0.24**	**50.1%▲**

Legend: ▲ increase; ▼ decrease; ● no change * Excludes travel to/from Manhattan

Thank You!

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Estimate of School Aged Children in Multifamily Housing

131 Danbury Road Multi-Family Housing

Prepared For

131 Danbury Wilton Dev AMS LLC, AMS Acquisitions
1 Bridge Plaza North, Suite 840
Fort Lee, NJ 07024

Prepared by

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

Issued on:
November 15, 2023

Table of Contents

Narrative

The applicant, 131 Danbury Wilton Dev AMS LLC (an affiliate of AMS Acquisitions), is proposing to redevelop 131 Danbury Road, replacing the existing office building with a 4 ½-story residential building. The proposed building consists of 208 units: 95 one-bedroom, 105 two-bedroom, and 8 three-bedroom. Ten percent of the units are affordable as required by the Town of Wilton Zoning Regulations.

An analysis projecting the number of school-age children potentially residing in the new development was developed using: **School-Age Children in Rental Units in New Jersey, July 2018, Davis, Frame, Ladell, & Tantleff, Rutgers Center for Real Estate.** The Rutgers study is based on robust data including 40,000+ units broken down by unit and building type and affordability. Table 1 below is excerpted from the study.

Table 1: School-Age Children per 100 Units

	Affordable All Units	Market Rate Units – Average HH Income						
		<$50K*		$50K - $100K*		>$100K*		
		High-rise or Mid-rise	Low-rise	High-rise or Mid-rise	Low-rise	High-rise	Mid-rise	Low-rise
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
studio or 1br	10.3	2.6	11.4	1.6	7.6	0.4	1.3	1.9
2br	72.1	43.6	126.4	13.4	56.7	2.2	8.9	28.2
3br and larger	108.9	100.0	137.9	17.6	63.0	4.3	23.9	61.8

* Values refer to the average household income of residents of market-rate units in the building.

Using the statistics from the chart above and accounting for the market rate and below market rate units would yield 21 school-age children in 131 Danbury Road.

Table 2: 131 Danbury Road Anticipated School-Age Children Yield

	1 BR	1 BR BMR	2 BR	2 BR BMR	3 BR	3 BR BMR	Total
Rutgers Study School-Age Children per 100 Units[1]	0.016	0.026	0.134	0.436	0.176	1	-
131 Danbury Road Unit Breakdown	85	10	95	10	7	1	208
Anticipated School-Age Children Yield	1.4	0.3	12.7	4.4	1.2	1	**21**

[1]Midrise $50k-$100k values used for standard units and Mid-Rise <$50k used for BMR units per Table 1

REDNISS & MEAD

Source Validation

To determine the applicability and accuracy of the Rutgers Study to Fairfield County, it was tested against three occupied developments for which public school data was available.

Avalon Darien has 189 low-rise units (87 1BR, 72, 2BR, and 30 3BR) of which 30% are affordable. Using the Rutgers data, 90 school-aged children is projected for Avalon Darien. The 5-year average enrollment (15/16 to 20/21) of public-school students in Avalon Darien was 92 (Source: Enrollment Trends & Projections Update prepared for the Darien Public Schools by Milone & MacBroom. Dated November 10, 2020).

515 West Avenue in Norwalk, CT has 362 mid-rise units (173 1BR, 181 2BR, and 8 3BR) of which 10% are affordable. Using Rutgers data, 35 school-aged children are projected for 515 West Avenue. There were 26 school children in 515 West Avenue for the 20/21 school year (Source: Email from Johanna Zanvettor of the Norwalk Public School on October 3, 2020)

Darien Commons in Darien, CT has 122 mid-rise units (66 1BR, 56 2BR) of which 16 are affordable. Using the Rutgers data, 11 school-aged children are projected for Darien Commons. There were 10 school children in the Darien Commons for the 23/24 school year (Source: Email from Jeremy Ginsberg, Director of Land Use with the Town of Darien Planning and Zoning, on October 10, 2023)

Table 3: Source Validation Anticipated School-Age Children Yield

	1 BR	1 BR BMR	2 BR	2 BR BMR	3 BR	3 BR BMR	Total
Avalon, Darien: Low-Rise							
School-Age Children per 100 Units[1]	0.076	0.114	0.567	1.264	0.63	1.379	-
Unit Breakdown	61	26	50	22	21	9	189
Anticipated School-Age Children Yield	4.6	3.0	28.4	27.8	13.2	12.4	**89**
						Confirmed Students at Avalon, Darien:	**92**
Mid-Rise							
School-Age Children per 100 Units[2]	0.016	0.026	0.134	0.436	0.176	1	-
515 West Avenue, Norwalk							
Unit Breakdown	160	13	163	18	7	1	362
Anticipated School-Age Children Yield	2.6	0.3	21.8	7.8	1.2	1.0	**35**
						Confirmed Students at 515 West Ave	**26**
Darien Commons							
Unit Breakdown	57	9	49	7	0	0	122
Anticipated School-Age Children Yield	0.9	0.2	6.6	3.1	0.0	0.0	**11**
						Confirmed Students at Darien Commons	**10**

[1]Low-Rise $50k-$100k values used for standard units and Low-Rise <$50k used for BMR units per Table 1

[2]Mid-Rise $50k-$100k values used for standard units and Mid-Rise <$50k used for BMR units per Table 1

Appendix 1

Excerpt from School-Age Children in Rental Units in New Jersey

REDNISS & MEAD

Executive Summary

In this paper we provide new estimates of the number of school-age children associated with new developments of market-rate and affordable rental units in New Jersey. Given our knowledge of and relationships across the industry, we designed and conducted a large-scale survey completed by developers and property managers of multi-family rental buildings. Among other questions, we asked survey respondents to provide counts of market-rate and affordable units, children aged 5-17 ("school-age children"), and average household income.

Our data and analysis show that a one-size fits all approach is inappropriate for estimating the expected number of school-age children arising from a new development. Instead, we show the following variables are essential to accurately predict the number of school-age children arising from new development: (i) the distribution of the number of bedrooms, separately for affordable and market-rate units, (ii) the product type of the development – High-rise, Mid-rise or Low-rise[1] – and (iii) the expected household income of market-rate residents. With this information, the expected number of school-age children can be determined using the information in Table 1 below:[2]

Table 1: School-Age Children per 100 Units

	Affordable	Market Rate Units – Average HH Income						
		<$50K*		$50K - $100K*		>$100K*		
	All Units	High-rise or Mid-rise	Low-rise	High-rise or Mid-rise	Low-rise	High-rise	Mid-rise	Low-rise
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
studio or 1br	10.3	2.6	11.4	1.6	7.6	0.4	1.3	1.9
2br	72.1	43.6	126.4	13.4	56.7	2.2	8.9	28.2
3br and larger	108.9	100.0	137.9	17.6	63.0	4.3	23.9	61.8

* Values refer to the average household income of residents of market-rate units in the building.

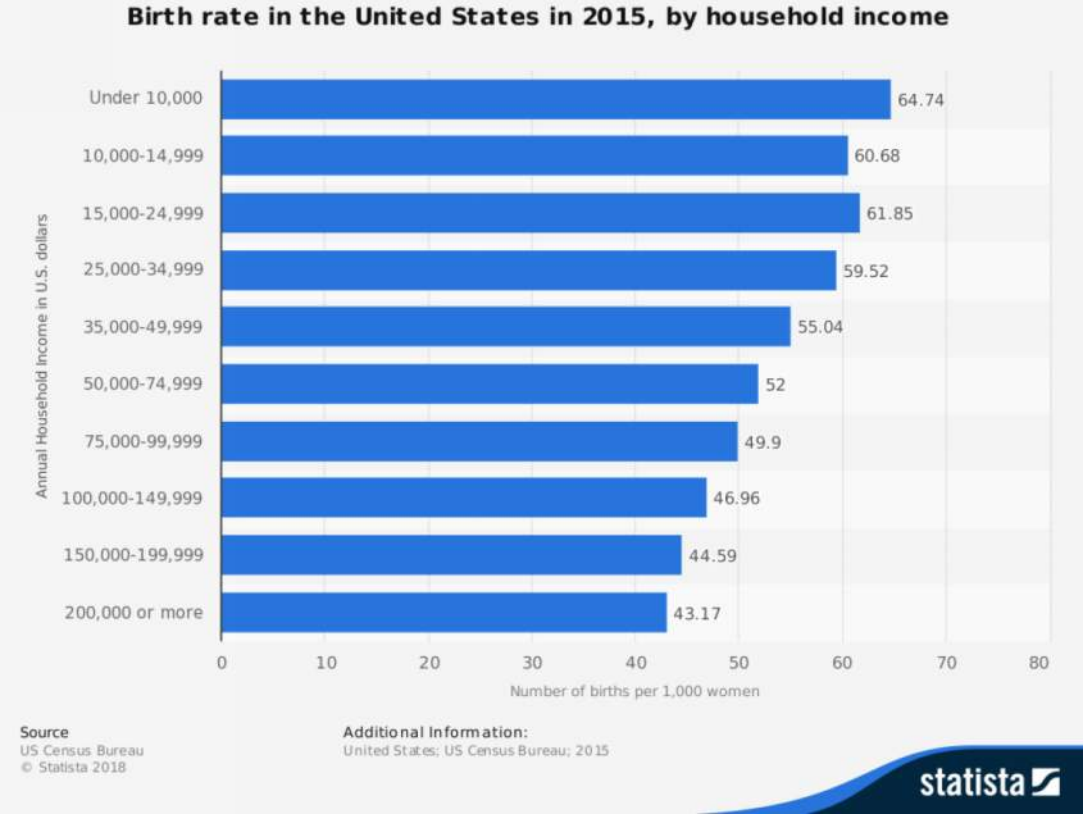
Each element of the table represents expected school-age children per 100 units for the specific characteristics listed.[3] The rows of Table 1 refer to number of bedrooms. The first column refers to school-age children for affordable units only. Columns (2) through (8) are estimates for market-rate residents. Columns (2) and (3) are for developments with average income of residents of less than $50 thousand per year, columns (4) and (5) are for developments with

[1] Low-rise is defined as a Townhome or a building with 1-3 floors, Mid-rise as 4-9 floors and High-rise as 10+ floors.
[2] The results in this data are computed using units built in any year. For the lowest-income category, columns 2 and 3, sample sizes are too small to compute this table using only data on units built after 2000. For the other income categories, columns 4-8, results are similar but not identical when we restrict the sample to units built after 2000.
[3] Our analysis covers all school-age children attending either public or private schools. Data from the 2015 (5-Year) American Community Survey as collected by the United States Census Bureau suggests 12 percent of all school-age children attend private schools in New Jersey.

average income of residents between $50 and $100 thousand per year and columns (6) through (8) are for developments with an average income of residents of over $100 thousand per year. This partition of income splits our sample roughly into thirds, although we demonstrate later the average income of the residents of more than 90% of the units built since 2000 is at least $100,000 per year. Due to sample-size limitations, we combine High-rise and Mid-rise developments when the average income of the market-rate residents is less than $100,000.

There are four fairly non-controversial results that are immediately apparent in Table 1. First, for any income level and building product type, the number of school-age children increases with the number of bedrooms. Second, for any given number of bedrooms and product type, the number of school-age children decreases as income increases. As can be seen in Figures 1 and 2 below, higher-income households have lower birthrates and are more likely to own (rather than rent) their homes. Third, holding income and number of bedrooms fixed, school-age children increases as the product type becomes less dense, i.e. there are more children in Low-rise than in High-rise developments. Finally, the results for affordable units and for market-units on buildings with average income less than $50,000 per year are quite similar, adding credibility to the accuracy of the survey as residents living in affordable units are, by definition, low income households.

Figure 1



We illustrate how to use the information in Table 1 with two examples. These examples highlight the possibility of large differences in the estimated number of school-age children associated with different types of developments and residents.

Example 1 – High income, High-rise
A 200 unit High-rise project with average income of residents of market-rate units of $125,000:

- 30 affordable units (15%): 6 one bedroom, 17 two bedroom, 7 three bedroom
- 170 market rate units: 85 one bedroom, 76 two bedroom, 9 three bedroom

The expected number of school-children is **23**, calculated as follows:

- Affordable units (use estimates in column 1): Expect 20.5 children
  - 6 one bedroom x (10.3 / 100) = 0.6
  - 17 two bedroom x (72.1 / 100) = 12.3
  - 7 three bedroom x (108.9 / 100) = 7.6
- Market units (use estimates in column 6): expect 2.4 children
  - 85 studio and one bedroom x (0.4 / 100) = 0.3
  - 76 two bedroom x (2.2 / 100) = 1.7
  - 9 three bedroom x (4.3 / 100) = 0.4

Given the building type, the income of the market-rate residents, and the distribution of bedrooms, the affordable units in this building are associated with **68.3 children per 100 units**, computed as 100*(20.5/30), and the market-rate units are associated with **1.4 children per 100 units**, computed as 100*(2.4/170).

Example 2 – Middle-income, Low-rise
A 200 unit Low-rise project with average income of residents of market-rate units of $75,000. Assume the number of units and the distribution of bedrooms is the same as with example 1

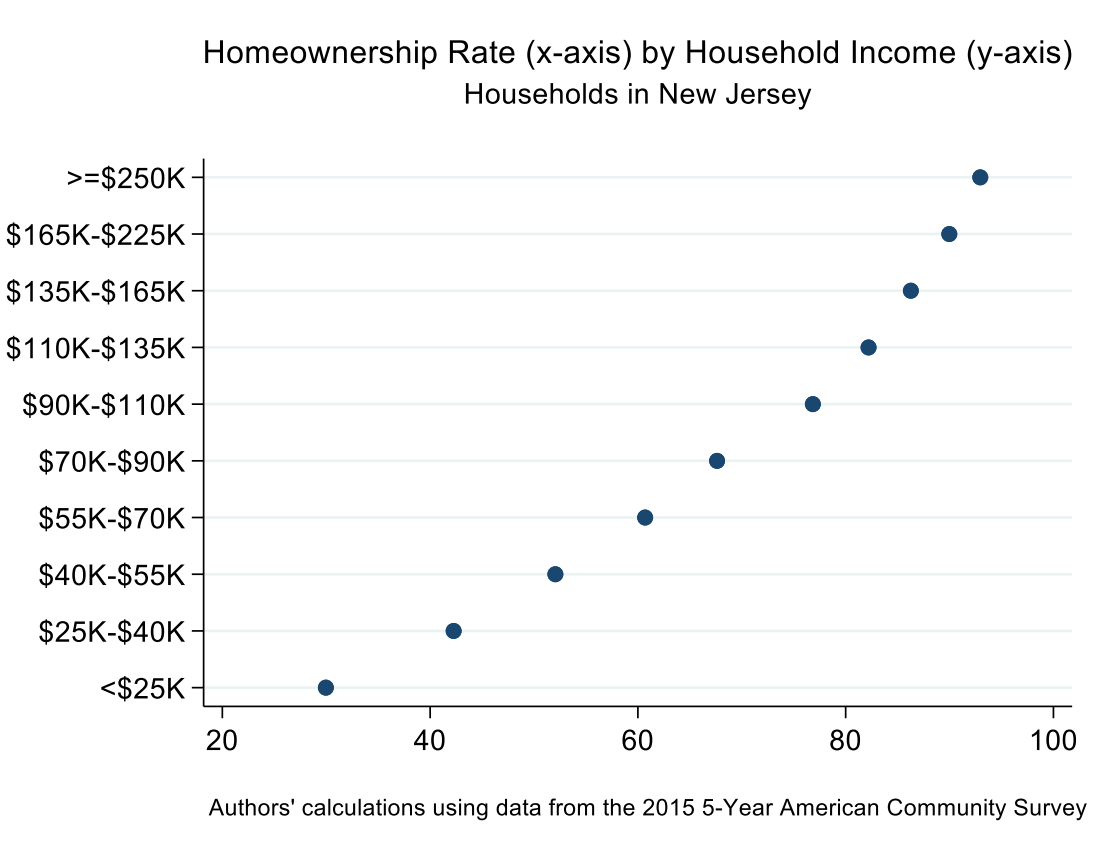
- 30 affordable units (15%): 6 one bedroom, 17 two bedroom, 7 three bedroom
- 170 market rate units: 85 one bedroom, 76 two bedroom, 9 three bedroom

The expected number of school-children is **75**, calculated as follows:

- Affordable units (use estimates in column 1): Expect 20.5 children, same as Example 1
  - 6 one bedroom x (10.3 / 100) = 0.6
  - 17 two bedroom x (72.1 / 100) = 12.3
  - 7 three bedroom x (108.9 / 100) = 7.6
- Market units (use estimates in column 5): expect 55.2 children
  - 85 studio and one bedroom x (7.6 / 100) = 6.5
  - 76 two bedroom x (56.7 / 100) = 43.0
  - 9 three bedroom x (63.0 / 100) = 5.7

Comparing examples 1 and 2 highlights the importance of controlling for product type, number of bedrooms, and income of market-rate residents when determining the expected number of school-age children. The market-rate units in example 2 are associated with **32.5 children per 100 units** (computed as 100* 55.2/170), a 23 times increase in the incidence of school-age children residing in market-rate units relative to the estimate provided in example 1.

Figure 2



Appendix 2

Data Validation Source Materials

Students Generated From Housing

Current Housing Multipliers						
Development Name	**5-Year Average Enrollment**	**Total Units**	**Total Students Generated/ Unit**	**Elementary (K-5) Students Generated/ Unit**	**Middle (6-8) Students Generated/ Unit**	**High School (9-12) Students Generated/ Unit**
Avalon	**92**	189	0.49	0.22	0.10	0.16
The Heights at Darien	**42**	106	0.40	0.22	0.09	0.08
Total	**134**	**295**	**0.45**	**0.22**	**0.10**	**0.14**

- Housing multipliers for existing developments were updated to include 2020-21 enrollment
- Used to determine the students generated from future multi-family housing developments, by unit and by grade grouping

Patrick Shurr

Subject: RE: Residence question

From: Johanna Zanvettor <zanvettorj@norwalkps.org>
Sent: Saturday, October 3, 2020 1:46 PM
To: Vincent Hynes <v.hynes@rednissmead.com>
Subject: RE: Residence question

Hi Vincent,

26 students are currently residing in this complex. Please let me know if you need further information. Thank you.

From: Vincent Hynes <v.hynes@rednissmead.com>
Sent: Thursday, September 24, 2020 7:55 AM
To: Johanna Zanvettor <zanvettorj@norwalkps.org>
Subject: [EXTERNAL] RE: Residence question

Good morning Johanna,

Yes, I'm a Civil Engineer and our client is proposing to build an apartment building similar in size to the Waypointe (515 West Avenue). The reason I had reached out was to see if the Board of Ed had any data as it relates to the number of BOE students that reside at 515 West Avenue. The reason for the request is that we have a pending application before the Zoning Commission and the Zoning Commission is curious as to how many school aged children live in large apartment buildings like the one our client is proposing. We would not need any names or any other private information, just a number of students (if the data is available).

Please feel free to reach out to me if you need any information from me to move forward on this request.

Thank you,

Vincent Hynes, P.E.
Project Engineer
203-327-0500 [x5162]

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LAND SURVEYING | CIVIL ENGINEERING
PLANNING & ZONING CONSULTING | PERMITTING

From: Johanna Zanvettor <zanvettorj@norwalkps.org>
Sent: Wednesday, September 23, 2020 5:33 PM
To: Vincent Hynes <v.hynes@rednissmead.com>
Subject: Residence question

Patrick Shurr

Subject: RE: School Aged Children Study

From: Ginsberg, Jeremy <jginsberg@darienct.gov>
Sent: Tuesday, October 10, 2023 8:58 AM
To: Craig Flaherty <C.Flaherty@rednissmead.com>
Cc: Doneit, Fred <fdoneit@darienct.gov>
Subject: RE: School Aged Children Study

In response to your question, I have reached out to the Board of Ed folks…
The number that has been relayed to me for 102 and 140 Heights Road (Darien Commons) is 10. I have also heard the number 11 being tossed around, so we can assume somewhere in that range.
(This includes all grades PK through 12).
I have also heard that about half of those students were already going to school in Darien, but just changed addresses.

From: Craig Flaherty <C.Flaherty@rednissmead.com>
Sent: Thursday, September 14, 2023 1:14 PM
To: Ginsberg, Jeremy <jginsberg@darienct.gov>
Cc: Doneit, Fred <fdoneit@darienct.gov>
Subject: School Aged Children Study

Hi, Jeremy.

Now that Darien Commons is up and running and the school year has started, I was wondering if you would be willing to request of the Board of Education the total number of Darien Public School students listed with an address of 102 Heights Road as this may help inform future planning in Darien. No individual information is being requested, simply the number of students with Darien Commons listed as the primary address. I thought the request might be better received coming from your office.

Let me know.

Thanks!

CRAIG J FLAHERTY, P.E.
PRESIDENT & SENIOR ENGINEER
203.327.0500 X15111
We enhance properties and communities through exceptional land use services.

REDNISS & MEAD

Engineering Report - Floodplain Analysis

131 Danbury Road, Wilton, Connecticut

AMS Acquisitions

Prepared by:

SLR International Corporation

1 South Main Street, Waterbury, Vermont, 05676

SLR Project No.: 141.21543.00001

Client Reference No: 0001

November 27, 2023

1.0 Floodplain Management Background

The project site (131 Danbury Rd, Wilton, CT) is located along the Norwalk River. A Flood Insurance Study (FIS) was completed for the Norwalk River (Town of Wilton) in 1982. This hydraulic modeling was updated June 18, 2010 and revised October 16, 2013, though the river system was not restudied.

2.0 Modeling

Copies of the input and output for the effective hydraulic model for the Norwalk River were obtained from the FEMA Engineering Library. The effective model was originally developed using HEC-2, the predecessor of the current modeling software known as HEC-RAS. The effective model obtained from FEMA was transferred into HEC-RAS to create a duplicate of the effective model for the floodplain analysis of the project. It should be noted that the vertical datum used in the effective model is the National Geodetic Vertical Datum of 1929 (NGVD29), therefore the data was converted to the North American Vertical Datum of 1988 (NAVD88) in the duplicate model. The conversion factor is 1.0 foot, as used in the FIS. The effective HEC-2 modeling used NGVD29 to calculate flood profiles, however the water surface elevations from the effective model have been converted to NAVD88 in the most-recent FIS.

2.1 Calibrated Model

The duplicate effective model was created to replicate the results published in the FIS. A portion of the original model, encompassing cross sections 15 through 30, and FEMA sections N and O, was used to create the duplicate effective model in HEC-RAS. The project site at 131 Danbury Rd falls between FEMA sections N and O, and more specifically between cross sections 27 and 28 from the effective HEC-2 model. This duplicate effective model was created with a datum of NAVD88. The 100-year computed water surface elevation computed by the duplicate effective model was compared to the effective HEC-2 output and the data provided in the FIS Floodway Table (Table 2-1).

Table 2-1 Calibrated Model Output (100-Year)

FIS CROSS SECTION IDENTIFIER	CALIBRATED MODEL CROSS SECTION NUMBER	WATER SURFACE ELEVATION (NAVD88)		
		HEC-2 Output	Floodway Data Table	Calibrated Model
N	17	141.76	141.3	140.23
	18	141.18		140.26
	19	141.73		140.87
	20	142.06		141.29
	21	142.08		141.32
	22	142.22		141.08
	23	142.61		142.17
	24	142.76		142.22
	25	144.13		144.63
	26	144.93		145.21
	27	146.77		146.61
	28	146.56		146.84
	29	151.83		151.38
O	30	153.11	153.1	153.17

The peak discharge rates used for this analysis were obtained from Volume 1 of the FIS and match those used in the effective model. The flow rates are as follows:

Table 2-2 FIS Norwalk River Flow Rates at Site

RETURN FREQUENCY (YEARS)	ANNUAL CHANCE PROBABILITY	FLOW RATE (CFS)
10	10%	2,980
50	2%	5,840
100	1%	7,455
500	0.2%	12,505

2.2 Corrected Model

After calibrating the duplicate effective model using data from the FIS, a corrected effective model was developed. This corrected model includes editing any erroneous errors in the duplicate effective model. For the corrected effective model, the following corrections were made:

1. Bridge bottom chord elevations were edited to achieve accurate no flow areas.
2. Effective flow zones were edited to better replicate site limitations due to buildings and bridges.

Table 2-2 Summary of HEC-RAS Model Output
Duplicate Effective vs. Corrected Effective (100-Year)

FIS CROSS SECTION IDENTIFIER	MODEL CROSS SECTION NUMBER	WATER SURFACE ELEVATION (NAVD88)	
		Duplicate Effective Model	Corrected Effective Model
N	17	140.23	140.32
	18	140.26	140.84
	19	140.87	141.34
	20	141.29	141.71
	21	141.32	141.62
	22	141.08	140.88
	23	142.17	142.35
	24	142.22	142.40
	25	144.63	144.63
	26	145.21	145.21
	27	146.61	146.61
	28	146.84	146.84
	29	151.38	151.38
O	30	153.17	153.17

2.3 Existing Conditions Model

To evaluate the impact of the proposed redevelopment, a cross section was added to the corrected effective model at the approximate location of 131 Danbury Rd, identified as river station 27.5 in the model. A cross section was added because one did not exist in the effective model at the pojrect site. Topography for the new cross section inserted into the existing conditions model was developed using the best-available LiDAR contour date as well as existing site survey data. Wet channel geometry (i.e. – below the water surface) was interpolated from the data at the bounding upstream and downstream cross sections.

2.4 Proposed Conditions Model

The added cross section was updated to reflect the proposed changes at 131 Danbury Rd. Modifications made to create the proposed conditions model included proposed grading changes, removal of existing building, and addition of obstructions reflecting the ground floor parking area pillars, elevator shaft, and trash receptacle area. The proposed model reflects a conservative condition, projecting all obstructions in close proximity to the cross section. The first floor of the proposed building was not included in the model because flood levels do not approach this elevation.

3.0 Results

Results of water surface elevation for the 100-Year and 10-Year storms were compared between existing and proposed conditions. These results are summarized in Tables 3-1 and 3-2:

Table 3-1 Comparison of Existing vs. Proposed Conditions (100-Year Storm)

FIS CROSS SECTION IDENTIFIER	MODEL CROSS SECTION NUMBER	WATER SURFACE ELEVATION (NAVD88)		
		Existing Conditions	Proposed Conditions	Difference
O	30	153.17	153.17	0.00
	29	151.38	151.38	0.00
	28	146.84	146.84	0.00
	27.5 *	146.70	146.70	0.00
	27	146.61	146.61	0.00
	26	145.21	145.21	0.00
	25	144.63	144.63	0.00
	24	142.40	142.40	0.00
	23	142.35	142.35	0.00
	22	140.88	140.88	0.00
	21	141.62	141.62	0.00
	20	141.71	141.71	0.00
	19	141.34	141.34	0.00
	18	140.84	140.84	0.00
N	17	140.32	140.32	0.00
* Denotes cross section that passes through the project site at 131 Danbury Rd				

Table 3-2 Comparison of Existing vs. Proposed Conditions (10-Year Storm)

FIS CROSS SECTION IDENTIFIER	MODEL CROSS SECTION NUMBER	WATER SURFACE ELEVATION (NAVD88)		
		Existing Conditions	Proposed Conditions	Difference
O	30	151.57	151.57	0.00
	29	147.74	147.74	0.00
	28	143.39	143.39	0.00
	27.5 *	144.27	144.27	0.00
	27	144.21	144.21	0.00
	26	142.54	142.54	0.00
	25	140.68	140.68	0.00
	24	139.83	139.83	0.00
	23	139.84	139.84	0.00
	22	138.1	138.1	0.00
	21	137.2	137.2	0.00
	20	137.55	137.55	0.00
	19	136.99	136.99	0.00
	18	136.5	136.5	0.00
N	17	136.15	136.15	0.00
* Denotes cross section that passes through the project site at 131 Danbury Rd				

As shown in Tables 3-1 and 3-2, there is no change in flood elevation for the 100-year storm or the 10-year storm between the existing and proposed conditions.

4.0 Compliance with Local Floodplain Regulations

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

k. 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.

l. 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.

4.1 Equal Conveyance

There are no increases in the base flood elevation between the Existing and Proposed conditions (Tables 3-1 and 3-2), therefore the Equal Conveyance requirement has been met. In addition, the modeling results indicate that the proposed conditions Base Flood Elevation (BFE) will not exceed the effective BFE as published in the current FIS.

4.2 Compensatory Storage

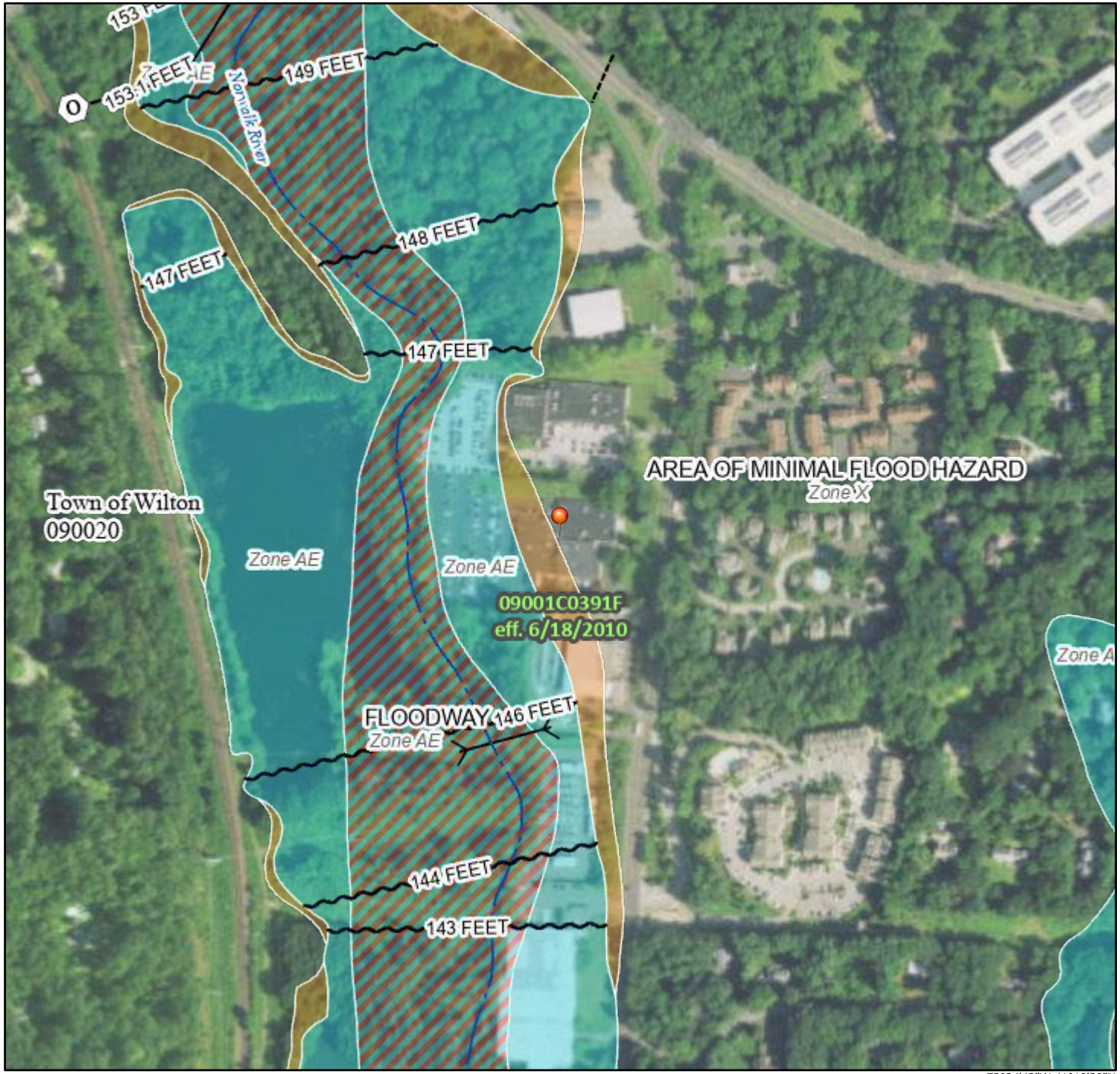
Revised grading has been proposed as part of the redevelopment of 131 Danbury Rd. This proposed earthwork results in a net cut of approximately 72 CY. Removal of the existing building and replacement with a ground level parking garage and raised building also results in a net increase of floodplain storage. Therefore, the proposed condition would not decrease floodplain storage.

Appendix A Figures

National Flood Hazard Layer FIRMette

FEMA

73°25'21"W 41°10'57"N



73°24'43"W 41°10'30"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

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
- 17.5 Water Surface Elevation
- 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

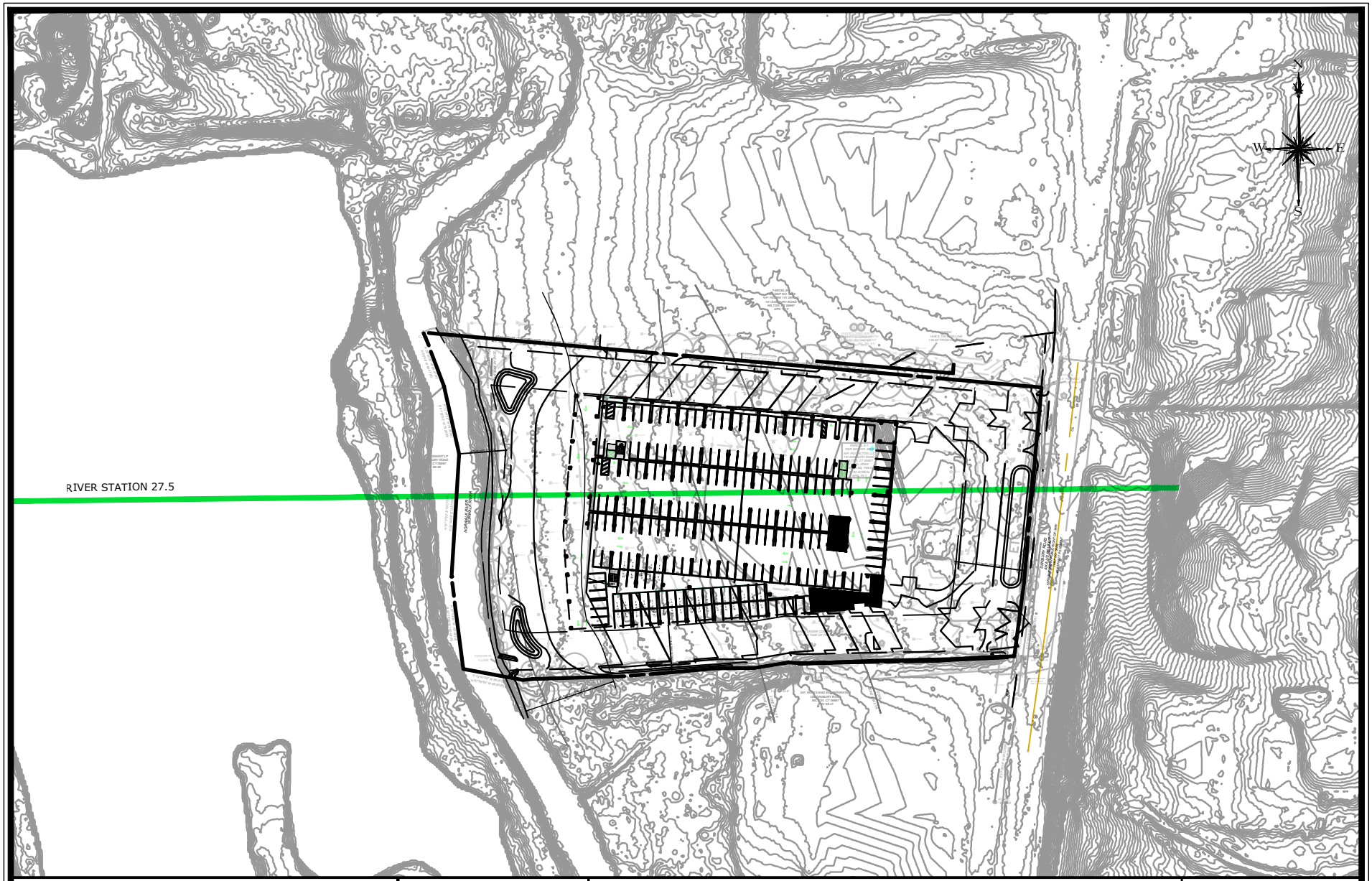
N

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 11/14/2023 at 11:10 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.



SLR

1 SOUTH MAIN STREET
WATERBURY, VT 05676
802.882.8335
SLRCONSULTING.COM

DATE	Nov 27, 2023
SCALE	1"=20'
PROJ. NO.	21543.00001
DESIGNED	---
DRAWN	EMR
CHECKED	---

FLOODPLAIN CROSS SECTION MAP

PROPOSED MULTI-FAMILY DEVELOPMENT

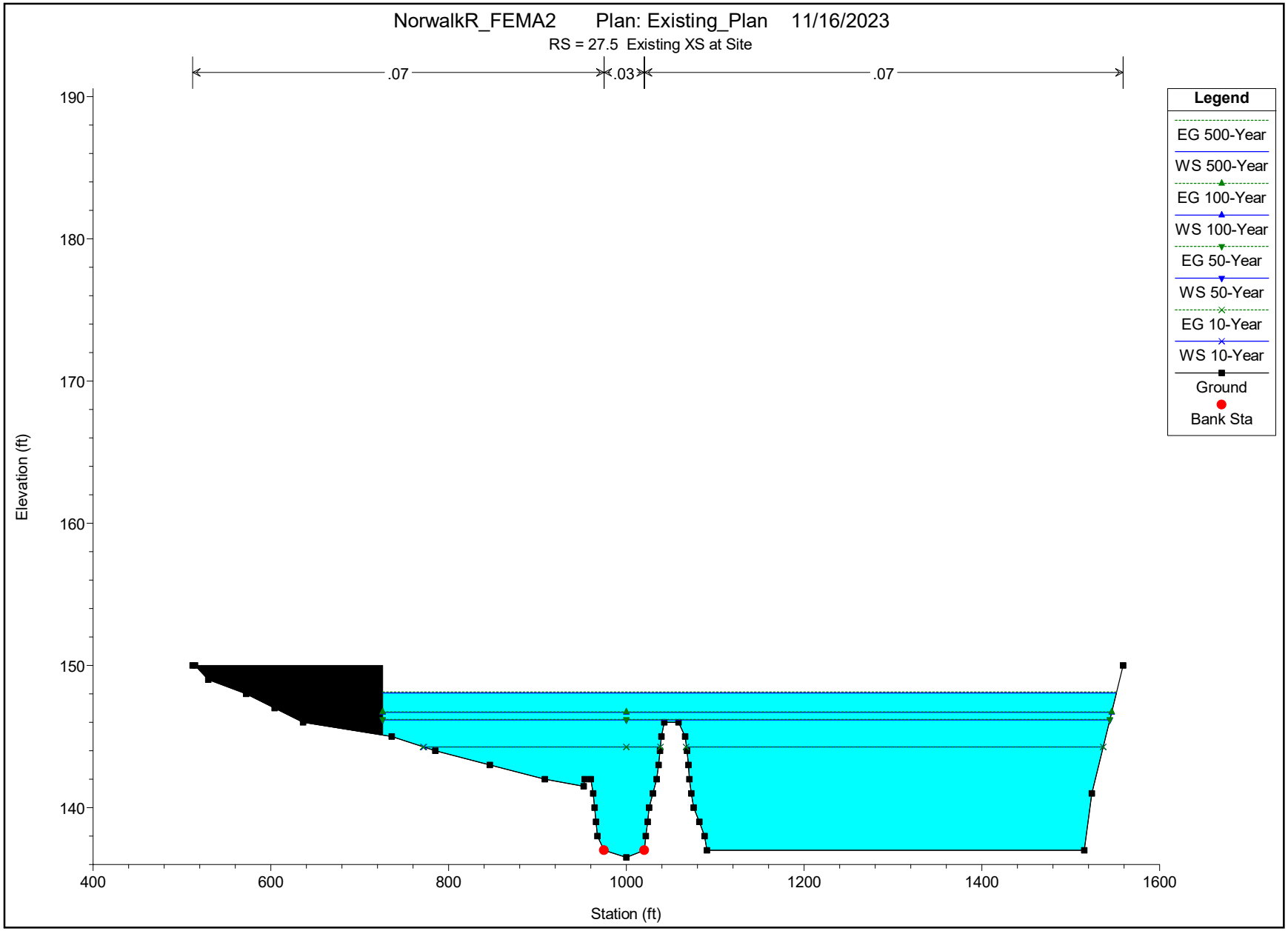
131 DANBURY RD
WILTON, CT

REVISED: ---

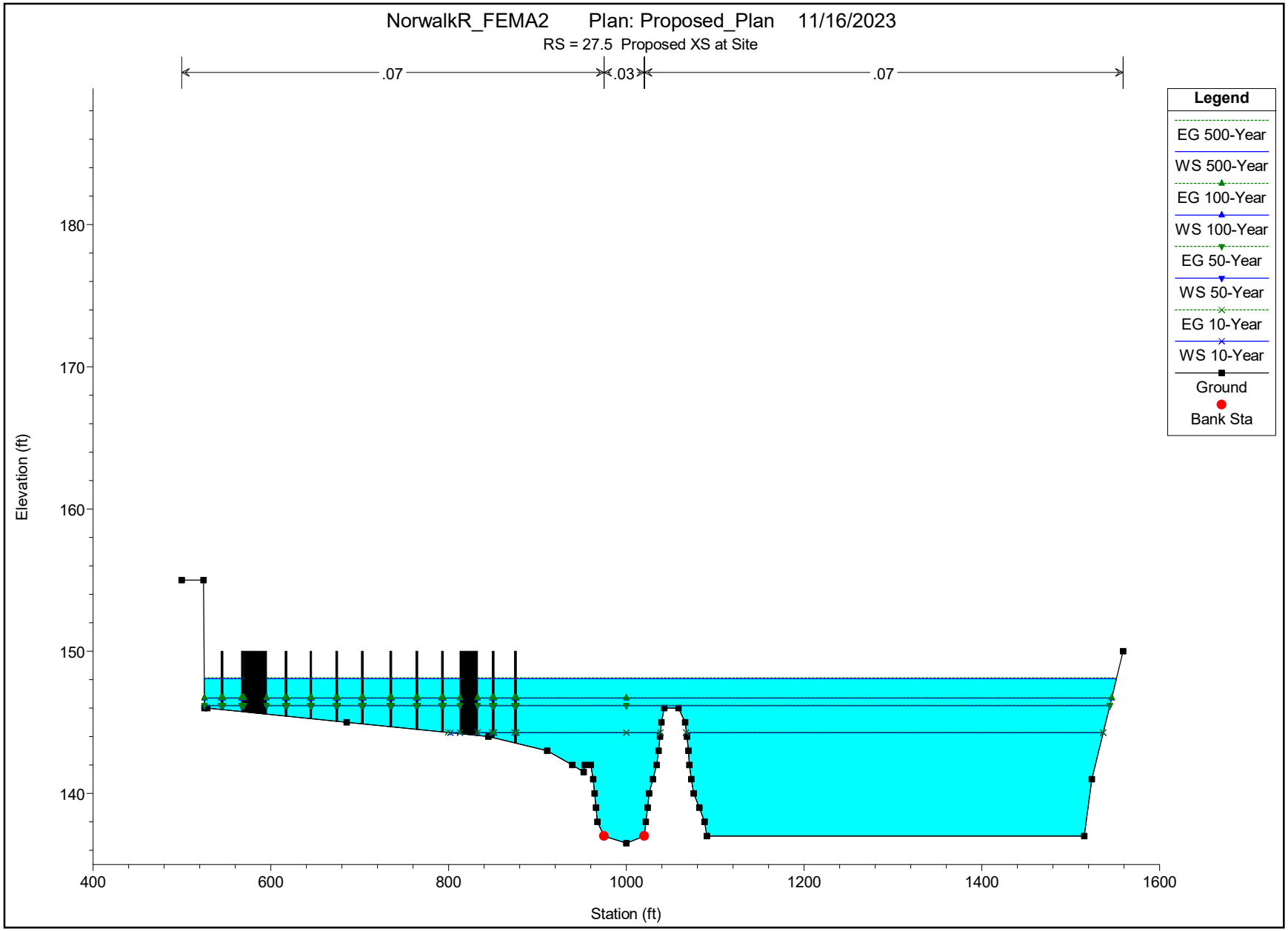
0' 30' 60'
0 1/2" 1"
SCALE 1" = 60'H
1" = 6'V

FIG. 2

Appendix B HEC-RAS Results



1 in Horiz. = 160 ft 1 in Vert. = 10 ft



1 in Horiz. = 160 ft 1 in Vert. = 10 ft

Duplicate Effective HEC-RAS Output Table
November 27, 2023

HEC-RAS Plan: DupEff_NAVD88 River: RIVER-1 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)	(ft/s)	(sq ft)	(ft)	
Reach-1	30	500-Year	12505.00	146.00	154.12	154.12	155.58	0.005709	14.29	2497.82	745.78	0.92
Reach-1	30	100-Year	7455.00	146.00	153.17	153.17	154.29	0.004549	11.65	1808.29	702.76	0.80
Reach-1	30	50-Year	5840.00	146.00	152.76	152.76	153.78	0.004191	10.70	1520.61	683.06	0.76
Reach-1	30	10-Year	2980.00	146.00	151.57	151.57	152.45	0.003765	8.78	776.03	506.92	0.70
Reach-1	29	500-Year	12505.00	141.20	153.54		154.75	0.001505	9.48	1880.78	260.28	0.50
Reach-1	29	100-Year	7455.00	141.20	151.38		152.12	0.001190	7.29	1359.56	224.08	0.43
Reach-1	29	50-Year	5840.00	141.20	150.48		151.08	0.001083	6.48	1162.65	213.79	0.40
Reach-1	29	10-Year	2980.00	141.20	147.71		148.16	0.001323	5.41	616.14	181.80	0.42
Reach-1	28	500-Year	12505.00	137.00	148.97	148.97	151.17	0.003269	14.22	2082.30	574.34	0.75
Reach-1	28	100-Year	7455.00	137.00	146.84	146.84	148.93	0.003409	12.63	1096.50	371.77	0.74
Reach-1	28	50-Year	5840.00	137.00	145.55	145.55	147.82	0.004157	12.61	700.65	255.39	0.79
Reach-1	28	10-Year	2980.00	137.00	143.59		144.87	0.003225	9.17	356.06	74.07	0.67
Reach-1	27	500-Year	12505.00	135.60	147.90		147.99	0.000312	4.62	7682.48	1010.00	0.23
Reach-1	27	100-Year	7455.00	135.60	146.61		146.66	0.000198	3.42	6378.56	1006.02	0.18
Reach-1	27	50-Year	5840.00	135.60	146.09		146.12	0.000157	2.95	5856.68	995.96	0.16
Reach-1	27	10-Year	2980.00	135.60	144.21		144.24	0.000119	2.25	4041.07	939.59	0.14
Reach-1	26	500-Year	12505.00	134.50	146.20	146.20	147.54	0.003091	13.72	3184.65	930.44	0.72
Reach-1	26	100-Year	7455.00	134.50	145.21	145.21	146.30	0.002327	11.19	2278.71	898.74	0.62
Reach-1	26	50-Year	5840.00	134.50	144.75	144.75	145.79	0.002115	10.34	1865.89	883.92	0.59
Reach-1	26	10-Year	2980.00	134.50	142.54	140.84	143.83	0.002627	9.70	495.16	267.44	0.62
Reach-1	25.5		Bridge									
Reach-1	25	500-Year	12505.00	134.50	145.49	145.49	146.65	0.002755	12.39	2527.74	907.56	0.68
Reach-1	25	100-Year	7455.00	134.50	144.63	144.63	145.57	0.002165	10.37	1758.64	880.03	0.59
Reach-1	25	50-Year	5840.00	134.50	144.10	144.10	145.09	0.002220	10.11	1298.71	859.59	0.59
Reach-1	25	10-Year	2980.00	134.50	140.68	140.68	143.02	0.006673	12.78	268.04	62.09	0.95
Reach-1	24	500-Year	12505.00	133.00	144.05		144.41	0.001123	7.86	3631.41	757.79	0.43
Reach-1	24	100-Year	7455.00	133.00	142.22		142.62	0.001455	7.86	2267.51	695.44	0.47
Reach-1	24	50-Year	5840.00	133.00	141.55		141.94	0.001496	7.54	1862.09	576.15	0.47
Reach-1	24	10-Year	2980.00	133.00	139.50		140.04	0.002499	7.97	834.71	386.35	0.58
Reach-1	23	500-Year	12505.00	132.40	143.94		144.04	0.000386	4.75	6999.22	963.89	0.25
Reach-1	23	100-Year	7455.00	132.40	142.17		142.24	0.000321	3.87	5302.98	950.37	0.22
Reach-1	23	50-Year	5840.00	132.40	141.52		141.59	0.000284	3.48	4694.10	945.47	0.20
Reach-1	23	10-Year	2980.00	132.40	139.52		139.58	0.000305	3.05	2841.36	895.29	0.20
Reach-1	22	500-Year	12505.00	129.20	143.05	141.75	143.80	0.001494	10.61	3774.64	757.97	0.52
Reach-1	22	100-Year	7455.00	129.20	141.08	140.47	141.95	0.001663	10.05	2328.25	702.66	0.53
Reach-1	22	50-Year	5840.00	129.20	139.89	139.89	141.17	0.002313	11.00	1528.89	635.75	0.61
Reach-1	22	10-Year	2980.00	129.20	137.56	135.89	139.09	0.002835	10.20	386.51	206.59	0.65
Reach-1	21.5		Bridge									
Reach-1	21	500-Year	12505.00	130.30	143.54	139.09	143.73	0.000554	5.89	5504.64	778.00	0.29
Reach-1	21	100-Year	7455.00	130.30	141.32	137.90	141.49	0.000537	5.09	3820.54	737.45	0.28
Reach-1	21	50-Year	5840.00	130.30	140.28	137.61	140.45	0.000586	4.95	3066.49	711.48	0.29
Reach-1	21	10-Year	2980.00	130.30	137.65	135.88	137.90	0.001011	5.19	1376.83	545.77	0.36
Reach-1	20	500-Year	12505.00	130.30	143.50		143.70	0.000563	5.92	5475.28	778.00	0.30
Reach-1	20	100-Year	7455.00	130.30	141.29		141.45	0.000547	5.12	3793.65	736.70	0.28
Reach-1	20	50-Year	5840.00	130.30	140.24		140.41	0.000600	4.99	3037.84	709.49	0.29
Reach-1	20	10-Year	2980.00	130.30	137.56		137.83	0.001092	5.35	1328.99	535.65	0.37
Reach-1	19	500-Year	12505.00	130.00	142.94		143.22	0.000807	7.65	4622.20	631.46	0.38
Reach-1	19	100-Year	7455.00	130.00	140.87		141.05	0.000611	5.91	3380.14	504.77	0.32
Reach-1	19	50-Year	5840.00	130.00	139.85		140.00	0.000562	5.31	2889.23	469.14	0.30
Reach-1	19	10-Year	2980.00	130.00	137.01		137.16	0.000773	4.92	1602.29	437.14	0.33
Reach-1	18	500-Year	12505.00	126.90	142.05		142.58	0.000845	7.33	2766.56	570.59	0.34
Reach-1	18	100-Year	7455.00	126.90	140.26		140.59	0.000564	5.48	1780.40	486.56	0.27
Reach-1	18	50-Year	5840.00	126.90	139.32		139.60	0.000483	4.82	1474.08	280.57	0.25
Reach-1	18	10-Year	2980.00	126.90	136.53		136.72	0.000448	3.88	906.58	167.01	0.23
Reach-1	17	500-Year	12505.00	126.90	142.01	138.30	142.55	0.000855	7.36	2746.68	570.46	0.34
Reach-1	17	100-Year	7455.00	126.90	140.23	135.38	140.57	0.000568	5.50	1768.91	484.17	0.27
Reach-1	17	50-Year	5840.00	126.90	139.27	134.20	139.58	0.000536	5.07	1374.05	272.97	0.26
Reach-1	17	10-Year	2980.00	126.90	136.15	131.79	136.67	0.001052	5.78	515.88	160.44	0.35
Reach-1	16.5		Bridge									

HEC-RAS Plan: DupEff_NAVD88 River: RIVER-1 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	16	500-Year	12505.00	126.20	139.11	138.84	142.04	0.005480	16.40	2269.95	459.28	0.84
Reach-1	16	100-Year	7455.00	126.20	136.75	136.75	139.40	0.005766	14.53	1321.38	293.15	0.83
Reach-1	16	50-Year	5840.00	126.20	136.50	135.82	138.29	0.003980	11.86	1250.76	291.94	0.68
Reach-1	16	10-Year	2980.00	126.20	134.91	132.41	135.83	0.002376	8.09	805.93	284.49	0.51
Reach-1	15	500-Year	12505.00	126.20	140.71	136.84	141.19	0.000833	8.11	3132.29	719.39	0.39
Reach-1	15	100-Year	7455.00	126.20	137.54	135.67	138.17	0.001280	8.41	1608.70	350.30	0.46
Reach-1	15	50-Year	5840.00	126.20	137.35	135.11	137.77	0.000861	6.82	1543.13	339.95	0.38
Reach-1	15	10-Year	2980.00	126.20	135.23	132.65	135.57	0.000792	5.60	917.71	285.84	0.35

Corrected Effective HEC-RAS Output Table
November 27, 2023

HEC-RAS Plan: Corr_Plan River: RIVER-1 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)	(ft/s)	(sq ft)	(ft)	
Reach-1	30	500-Year	12505.00	146.00	154.12	154.12	155.58	0.005709	14.29	2497.82	745.78	0.92
Reach-1	30	100-Year	7455.00	146.00	153.17	153.17	154.29	0.004549	11.65	1808.29	702.76	0.80
Reach-1	30	50-Year	5840.00	146.00	152.76	152.76	153.78	0.004191	10.70	1520.61	683.06	0.76
Reach-1	30	10-Year	2980.00	146.00	151.57	151.57	152.45	0.003765	8.78	776.03	506.92	0.70
Reach-1	29	500-Year	12505.00	141.20	153.54		154.75	0.001505	9.48	1880.78	260.28	0.50
Reach-1	29	100-Year	7455.00	141.20	151.38		152.12	0.001190	7.29	1359.56	224.08	0.43
Reach-1	29	50-Year	5840.00	141.20	150.48		151.08	0.001083	6.48	1162.65	213.79	0.40
Reach-1	29	10-Year	2980.00	141.20	147.71		148.16	0.001323	5.41	616.14	181.80	0.42
Reach-1	28	500-Year	12505.00	137.00	148.97	148.97	151.17	0.003269	14.22	2082.30	574.34	0.75
Reach-1	28	100-Year	7455.00	137.00	146.84	146.84	148.93	0.003409	12.63	1096.50	371.77	0.74
Reach-1	28	50-Year	5840.00	137.00	145.55	145.55	147.82	0.004157	12.61	700.65	255.39	0.79
Reach-1	28	10-Year	2980.00	137.00	143.59		144.87	0.003225	9.17	356.06	74.07	0.67
Reach-1	27	500-Year	12505.00	135.60	147.90		147.99	0.000312	4.62	7682.48	1010.00	0.23
Reach-1	27	100-Year	7455.00	135.60	146.61		146.66	0.000198	3.42	6378.56	1006.02	0.18
Reach-1	27	50-Year	5840.00	135.60	146.09		146.12	0.000157	2.95	5856.68	995.96	0.16
Reach-1	27	10-Year	2980.00	135.60	144.21		144.24	0.000119	2.25	4041.07	939.59	0.14
Reach-1	26	500-Year	12505.00	134.50	146.20	146.20	147.54	0.003091	13.72	3184.65	930.44	0.72
Reach-1	26	100-Year	7455.00	134.50	145.21	145.21	146.30	0.002327	11.19	2278.71	898.74	0.62
Reach-1	26	50-Year	5840.00	134.50	144.75	144.75	145.79	0.002115	10.34	1865.89	883.92	0.59
Reach-1	26	10-Year	2980.00	134.50	142.54	140.84	143.83	0.002627	9.70	495.16	267.44	0.62
Reach-1	25.5		Bridge									
Reach-1	25	500-Year	12505.00	134.50	145.49	145.49	146.65	0.002755	12.39	2527.74	907.56	0.68
Reach-1	25	100-Year	7455.00	134.50	144.63	144.63	145.57	0.002165	10.37	1758.64	880.03	0.59
Reach-1	25	50-Year	5840.00	134.50	144.10	144.10	145.09	0.002220	10.11	1298.71	859.59	0.59
Reach-1	25	10-Year	2980.00	134.50	140.68	140.68	143.02	0.006673	12.78	268.04	62.09	0.95
Reach-1	24	500-Year	12505.00	133.00	144.67		144.94	0.000754	6.70	4103.64	760.59	0.36
Reach-1	24	100-Year	7455.00	133.00	142.40		142.77	0.001439	7.92	2399.79	729.71	0.47
Reach-1	24	50-Year	5840.00	133.00	141.79		142.13	0.001229	6.98	2005.08	586.03	0.43
Reach-1	24	10-Year	2980.00	133.00	139.83		140.23	0.001781	6.98	966.99	421.43	0.50
Reach-1	23	500-Year	12505.00	132.40	144.59		144.67	0.000296	4.31	7627.96	968.86	0.22
Reach-1	23	100-Year	7455.00	132.40	142.35		142.42	0.000291	3.73	5477.60	951.77	0.21
Reach-1	23	50-Year	5840.00	132.40	141.77		141.82	0.000246	3.30	4925.46	947.33	0.19
Reach-1	23	10-Year	2980.00	132.40	139.84		139.88	0.000236	2.76	3123.74	908.05	0.18
Reach-1	22	500-Year	12505.00	129.20	143.99	141.95	144.51	0.001000	9.10	4361.20	760.00	0.43
Reach-1	22	100-Year	7455.00	129.20	140.88	140.67	142.05	0.002091	11.14	2060.70	692.59	0.59
Reach-1	22	50-Year	5840.00	129.20	140.87	140.09	141.59	0.001299	8.77	2048.25	691.67	0.47
Reach-1	22	10-Year	2980.00	129.20	138.10	135.81	139.45	0.002291	9.59	467.85	281.30	0.59
Reach-1	21.5		Bridge									
Reach-1	21	500-Year	12505.00	130.30	143.92		144.24	0.000949	7.32	4623.07	778.00	0.38
Reach-1	21	100-Year	7455.00	130.30	141.62		142.01	0.001241	7.22	2866.85	743.63	0.42
Reach-1	21	50-Year	5840.00	130.30	140.72		141.18	0.001468	7.34	2205.44	726.80	0.45
Reach-1	21	10-Year	2980.00	130.30	137.20	137.20	139.45	0.006849	12.06	268.27	493.77	0.91
Reach-1	20	500-Year	12505.00	130.30	143.96		144.13	0.000467	5.52	5830.14	778.00	0.27
Reach-1	20	100-Year	7455.00	130.30	141.71		141.84	0.000443	4.73	4105.63	745.33	0.26
Reach-1	20	50-Year	5840.00	130.30	140.84		140.97	0.000425	4.38	3471.13	728.17	0.25
Reach-1	20	10-Year	2980.00	130.30	137.55		137.82	0.001105	5.37	1321.45	534.04	0.37
Reach-1	19	500-Year	12505.00	130.00	143.50		143.74	0.000651	7.08	4976.38	635.44	0.34
Reach-1	19	100-Year	7455.00	130.00	141.34		141.50	0.000536	5.70	3630.67	564.35	0.30
Reach-1	19	50-Year	5840.00	130.00	140.55		140.67	0.000422	4.82	3225.07	489.52	0.26
Reach-1	19	10-Year	2980.00	130.00	136.99		137.14	0.000786	4.95	1592.22	436.89	0.34
Reach-1	18	500-Year	12505.00	126.90	142.80		143.23	0.000659	6.70	3198.13	575.61	0.30
Reach-1	18	100-Year	7455.00	126.90	140.84		141.12	0.000463	5.12	2078.61	561.39	0.25
Reach-1	18	50-Year	5840.00	126.90	140.16		140.37	0.000358	4.35	1738.41	383.94	0.22
Reach-1	18	10-Year	2980.00	126.90	136.50		136.70	0.000456	3.90	901.50	166.40	0.23
Reach-1	17	500-Year	12505.00	126.90	142.04	139.59	143.13	0.001538	9.89	2374.53	570.55	0.46
Reach-1	17	100-Year	7455.00	126.90	140.32	135.24	141.05	0.001085	7.63	1425.08	492.69	0.38
Reach-1	17	50-Year	5840.00	126.90	139.77	134.08	140.32	0.000832	6.50	1222.16	307.24	0.33
Reach-1	17	10-Year	2980.00	126.90	136.15	131.72	136.64	0.000989	5.60	531.45	160.52	0.34
Reach-1	16.5		Bridge									

HEC-RAS Plan: Corr_Plan River: RIVER-1 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	16	500-Year	12505.00	126.20	138.98	138.98	142.49	0.006377	17.55	2141.04	455.20	0.90
Reach-1	16	100-Year	7455.00	126.20	136.65	136.65	139.34	0.005886	14.57	1298.73	292.64	0.83
Reach-1	16	50-Year	5840.00	126.20	136.55	135.73	138.27	0.003775	11.59	1272.18	292.19	0.67
Reach-1	16	10-Year	2980.00	126.20	134.93		135.82	0.002276	7.93	817.72	284.55	0.50
Reach-1	15	500-Year	12505.00	126.20	140.71	136.84	141.19	0.000833	8.11	3132.29	719.39	0.39
Reach-1	15	100-Year	7455.00	126.20	137.54	135.67	138.17	0.001280	8.41	1608.70	350.30	0.46
Reach-1	15	50-Year	5840.00	126.20	137.35	135.11	137.77	0.000861	6.82	1543.13	339.95	0.38
Reach-1	15	10-Year	2980.00	126.20	135.23	132.65	135.57	0.000792	5.60	917.71	285.84	0.35

Existing Conditions HEC-RAS Output Table
November 27, 2023

HEC-RAS Plan: EX_Plan River: RIVER-1 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)	(ft/s)	(sq ft)	(ft)	
Reach-1	30	500-Year	12505.00	146.00	154.12	154.12	155.58	0.005709	14.29	2497.82	745.78	0.92
Reach-1	30	100-Year	7455.00	146.00	153.17	153.17	154.29	0.004549	11.65	1808.29	702.76	0.80
Reach-1	30	50-Year	5840.00	146.00	152.76	152.76	153.78	0.004191	10.70	1520.61	683.06	0.76
Reach-1	30	10-Year	2980.00	146.00	151.57	151.57	152.45	0.003765	8.78	776.03	506.92	0.70
Reach-1	29	500-Year	12505.00	141.20	153.54		154.75	0.001505	9.48	1880.78	260.28	0.50
Reach-1	29	100-Year	7455.00	141.20	151.38		152.12	0.001190	7.29	1359.56	224.08	0.43
Reach-1	29	50-Year	5840.00	141.20	150.48		151.08	0.001083	6.48	1162.65	213.79	0.40
Reach-1	29	10-Year	2980.00	141.20	147.74		148.18	0.001304	5.38	620.16	182.05	0.41
Reach-1	28	500-Year	12505.00	137.00	148.97	148.97	151.17	0.003269	14.22	2082.30	574.34	0.75
Reach-1	28	100-Year	7455.00	137.00	146.84	146.84	148.93	0.003409	12.63	1096.50	371.77	0.74
Reach-1	28	50-Year	5840.00	137.00	145.55	145.55	147.82	0.004157	12.61	700.65	255.39	0.79
Reach-1	28	10-Year	2980.00	137.00	143.39		144.76	0.003632	9.50	341.27	71.23	0.70
Reach-1	27.5	500-Year	12505.00	136.50	148.05		148.14	0.000303	4.34	7056.34	825.22	0.23
Reach-1	27.5	100-Year	7455.00	136.50	146.70		146.75	0.000180	3.07	5948.96	819.98	0.17
Reach-1	27.5	50-Year	5840.00	136.50	146.16		146.20	0.000139	2.60	5506.57	817.88	0.15
Reach-1	27.5	10-Year	2980.00	136.50	144.27		144.28	0.000082	1.72	4025.38	735.54	0.11
Reach-1	27	500-Year	12505.00	135.60	147.90		147.99	0.000312	4.62	7682.48	1010.00	0.23
Reach-1	27	100-Year	7455.00	135.60	146.61		146.66	0.000198	3.42	6378.56	1006.02	0.18
Reach-1	27	50-Year	5840.00	135.60	146.09		146.12	0.000157	2.95	5856.68	995.96	0.16
Reach-1	27	10-Year	2980.00	135.60	144.21		144.24	0.000119	2.25	4041.07	939.59	0.14
Reach-1	26	500-Year	12505.00	134.50	146.20	146.20	147.54	0.003091	13.72	3184.65	930.44	0.72
Reach-1	26	100-Year	7455.00	134.50	145.21	145.21	146.30	0.002327	11.19	2278.71	898.74	0.62
Reach-1	26	50-Year	5840.00	134.50	144.75	144.75	145.79	0.002115	10.34	1865.89	883.92	0.59
Reach-1	26	10-Year	2980.00	134.50	142.54	140.84	143.83	0.002627	9.70	495.16	267.44	0.62
Reach-1	25.5		Bridge									
Reach-1	25	500-Year	12505.00	134.50	145.49	145.49	146.65	0.002755	12.39	2527.74	907.56	0.68
Reach-1	25	100-Year	7455.00	134.50	144.63	144.63	145.57	0.002165	10.37	1758.64	880.03	0.59
Reach-1	25	50-Year	5840.00	134.50	144.10	144.10	145.09	0.002220	10.11	1298.71	859.59	0.59
Reach-1	25	10-Year	2980.00	134.50	140.68	140.68	143.02	0.006673	12.78	268.04	62.09	0.95
Reach-1	24	500-Year	12505.00	133.00	144.67		144.94	0.000754	6.70	4103.64	760.59	0.36
Reach-1	24	100-Year	7455.00	133.00	142.40		142.77	0.001439	7.92	2399.79	729.71	0.47
Reach-1	24	50-Year	5840.00	133.00	141.79		142.13	0.001229	6.98	2005.08	586.03	0.43
Reach-1	24	10-Year	2980.00	133.00	139.83		140.23	0.001781	6.98	966.99	421.43	0.50
Reach-1	23	500-Year	12505.00	132.40	144.59		144.67	0.000296	4.31	7627.96	968.86	0.22
Reach-1	23	100-Year	7455.00	132.40	142.35		142.42	0.000291	3.73	5477.60	951.77	0.21
Reach-1	23	50-Year	5840.00	132.40	141.77		141.82	0.000246	3.30	4925.46	947.33	0.19
Reach-1	23	10-Year	2980.00	132.40	139.84		139.88	0.000236	2.76	3123.74	908.05	0.18
Reach-1	22	500-Year	12505.00	129.20	143.99	141.95	144.51	0.001000	9.10	4361.20	760.00	0.43
Reach-1	22	100-Year	7455.00	129.20	140.88	140.67	142.05	0.002091	11.14	2060.70	692.59	0.59
Reach-1	22	50-Year	5840.00	129.20	140.87	140.09	141.59	0.001299	8.77	2048.25	691.67	0.47
Reach-1	22	10-Year	2980.00	129.20	138.10	135.81	139.45	0.002291	9.59	467.85	281.30	0.59
Reach-1	21.5		Bridge									
Reach-1	21	500-Year	12505.00	130.30	143.92		144.24	0.000949	7.32	4623.07	778.00	0.38
Reach-1	21	100-Year	7455.00	130.30	141.62		142.01	0.001241	7.22	2866.85	743.63	0.42
Reach-1	21	50-Year	5840.00	130.30	140.72		141.18	0.001468	7.34	2205.44	726.80	0.45
Reach-1	21	10-Year	2980.00	130.30	137.20	137.20	139.45	0.006849	12.06	268.27	493.77	0.91
Reach-1	20	500-Year	12505.00	130.30	143.96		144.13	0.000467	5.52	5830.14	778.00	0.27
Reach-1	20	100-Year	7455.00	130.30	141.71		141.84	0.000443	4.73	4105.63	745.33	0.26
Reach-1	20	50-Year	5840.00	130.30	140.84		140.97	0.000425	4.38	3471.13	728.17	0.25
Reach-1	20	10-Year	2980.00	130.30	137.55		137.82	0.001105	5.37	1321.45	534.04	0.37
Reach-1	19	500-Year	12505.00	130.00	143.50		143.74	0.000651	7.08	4976.38	635.44	0.34
Reach-1	19	100-Year	7455.00	130.00	141.34		141.50	0.000536	5.70	3630.67	564.35	0.30
Reach-1	19	50-Year	5840.00	130.00	140.55		140.67	0.000422	4.82	3225.07	489.52	0.26
Reach-1	19	10-Year	2980.00	130.00	136.99		137.14	0.000786	4.95	1592.22	436.89	0.34
Reach-1	18	500-Year	12505.00	126.90	142.80		143.23	0.000659	6.70	3198.13	575.61	0.30
Reach-1	18	100-Year	7455.00	126.90	140.84		141.12	0.000463	5.12	2078.61	561.39	0.25
Reach-1	18	50-Year	5840.00	126.90	140.16		140.37	0.000358	4.35	1738.41	383.94	0.22
Reach-1	18	10-Year	2980.00	126.90	136.50		136.70	0.000456	3.90	901.50	166.40	0.23
Reach-1	17	500-Year	12505.00	126.90	142.04	139.59	143.13	0.001538	9.89	2374.53	570.55	0.46
Reach-1	17	100-Year	7455.00	126.90	140.32	135.24	141.05	0.001085	7.63	1425.08	492.69	0.38

HEC-RAS Plan: EX_Plan River: RIVER-1 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	17	50-Year	5840.00	126.90	139.77	134.08	140.32	0.000832	6.50	1222.16	307.24	0.33
Reach-1	17	10-Year	2980.00	126.90	136.15	131.72	136.64	0.000989	5.60	531.45	160.52	0.34
Reach-1	16.5		Bridge									
Reach-1	16	500-Year	12505.00	126.20	138.98	138.98	142.49	0.006377	17.55	2141.04	455.20	0.90
Reach-1	16	100-Year	7455.00	126.20	136.65	136.65	139.34	0.005886	14.57	1298.73	292.64	0.83
Reach-1	16	50-Year	5840.00	126.20	136.55	135.73	138.27	0.003775	11.59	1272.18	292.19	0.67
Reach-1	16	10-Year	2980.00	126.20	134.93		135.82	0.002276	7.93	817.72	284.55	0.50
Reach-1	15	500-Year	12505.00	126.20	140.71	136.84	141.19	0.000833	8.11	3132.29	719.39	0.39
Reach-1	15	100-Year	7455.00	126.20	137.54	135.67	138.17	0.001280	8.41	1608.70	350.30	0.46
Reach-1	15	50-Year	5840.00	126.20	137.35	135.11	137.77	0.000861	6.82	1543.13	339.95	0.38
Reach-1	15	10-Year	2980.00	126.20	135.23	132.65	135.57	0.000792	5.60	917.71	285.84	0.35

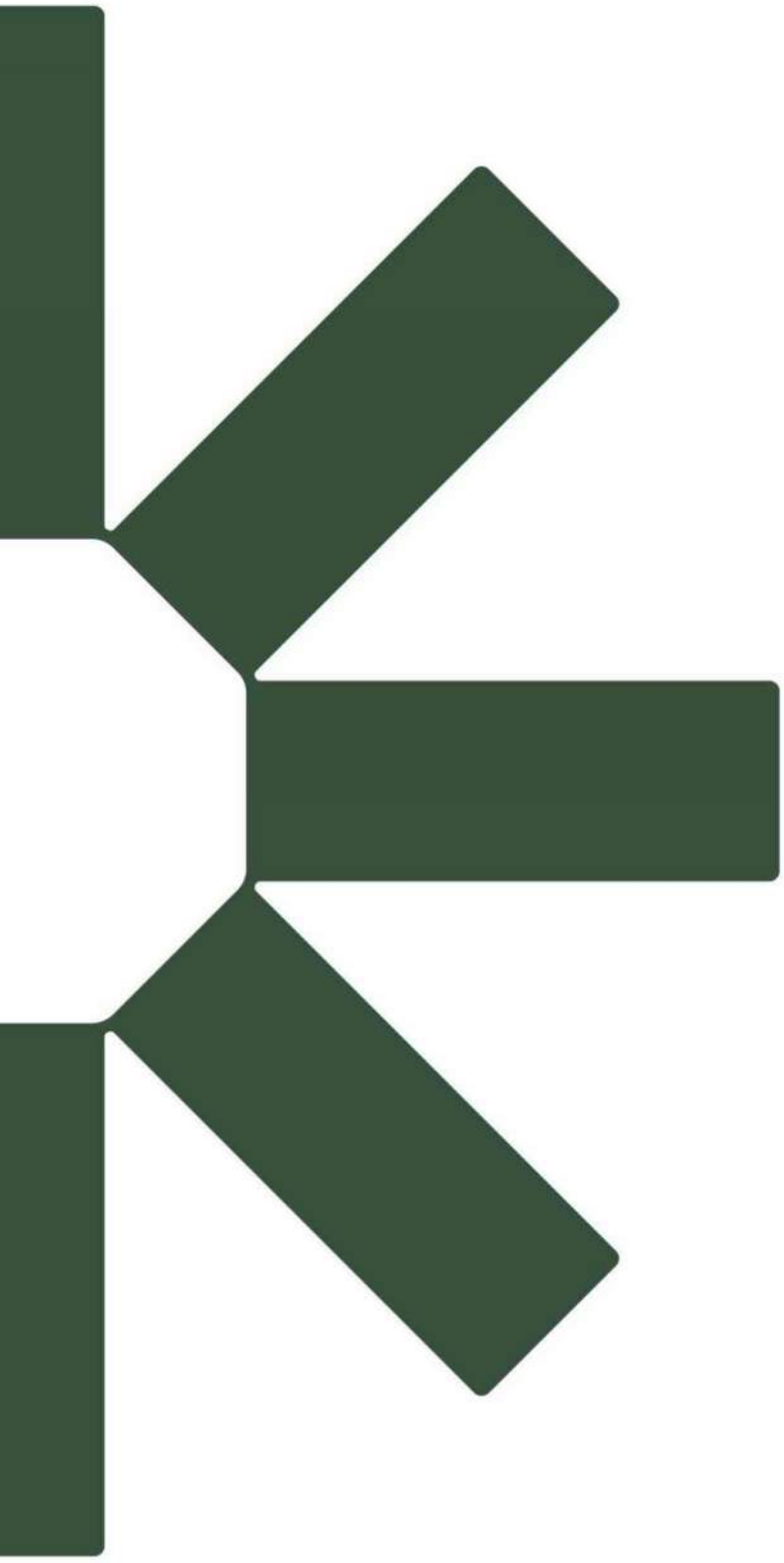
Proposed Conditions HEC-RAS Output Table
November 27, 2023

HEC-RAS Plan: PR_Plan River: RIVER-1 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)	(ft/s)	(sq ft)	(ft)	
Reach-1	30	500-Year	12505.00	146.00	154.12	154.12	155.58	0.005709	14.29	2497.82	745.78	0.92
Reach-1	30	100-Year	7455.00	146.00	153.17	153.17	154.29	0.004549	11.65	1808.29	702.76	0.80
Reach-1	30	50-Year	5840.00	146.00	152.76	152.76	153.78	0.004191	10.70	1520.61	683.06	0.76
Reach-1	30	10-Year	2980.00	146.00	151.57	151.57	152.45	0.003765	8.78	776.03	506.92	0.70
Reach-1	29	500-Year	12505.00	141.20	153.54		154.75	0.001505	9.48	1880.78	260.28	0.50
Reach-1	29	100-Year	7455.00	141.20	151.38		152.12	0.001190	7.29	1359.56	224.08	0.43
Reach-1	29	50-Year	5840.00	141.20	150.48		151.08	0.001083	6.48	1162.65	213.79	0.40
Reach-1	29	10-Year	2980.00	141.20	147.74		148.18	0.001304	5.38	620.10	182.05	0.41
Reach-1	28	500-Year	12505.00	137.00	148.97	148.97	151.17	0.003269	14.22	2082.30	574.34	0.75
Reach-1	28	100-Year	7455.00	137.00	146.84	146.84	148.93	0.003409	12.63	1096.50	371.77	0.74
Reach-1	28	50-Year	5840.00	137.00	145.55	145.55	147.82	0.004157	12.61	700.65	255.39	0.79
Reach-1	28	10-Year	2980.00	137.00	143.39		144.77	0.003626	9.50	341.47	71.25	0.70
Reach-1	27.5	500-Year	12505.00	136.50	148.05		148.14	0.000307	4.37	7256.81	958.95	0.23
Reach-1	27.5	100-Year	7455.00	136.50	146.70		146.75	0.000185	3.12	5969.23	953.56	0.17
Reach-1	27.5	50-Year	5840.00	136.50	146.16		146.20	0.000143	2.64	5454.77	951.40	0.15
Reach-1	27.5	10-Year	2980.00	136.50	144.27		144.28	0.000084	1.74	3891.34	681.62	0.11
Reach-1	27	500-Year	12505.00	135.60	147.90		147.99	0.000312	4.62	7682.48	1010.00	0.23
Reach-1	27	100-Year	7455.00	135.60	146.61		146.66	0.000198	3.42	6378.56	1006.02	0.18
Reach-1	27	50-Year	5840.00	135.60	146.09		146.12	0.000157	2.95	5856.68	995.96	0.16
Reach-1	27	10-Year	2980.00	135.60	144.21		144.24	0.000119	2.25	4041.07	939.59	0.14
Reach-1	26	500-Year	12505.00	134.50	146.20	146.20	147.54	0.003091	13.72	3184.65	930.44	0.72
Reach-1	26	100-Year	7455.00	134.50	145.21	145.21	146.30	0.002327	11.19	2278.71	898.74	0.62
Reach-1	26	50-Year	5840.00	134.50	144.75	144.75	145.79	0.002115	10.34	1865.89	883.92	0.59
Reach-1	26	10-Year	2980.00	134.50	142.54	140.84	143.83	0.002627	9.70	495.16	267.44	0.62
Reach-1	25.5		Bridge									
Reach-1	25	500-Year	12505.00	134.50	145.49	145.49	146.65	0.002755	12.39	2527.74	907.56	0.68
Reach-1	25	100-Year	7455.00	134.50	144.63	144.63	145.57	0.002165	10.37	1758.64	880.03	0.59
Reach-1	25	50-Year	5840.00	134.50	144.10	144.10	145.09	0.002220	10.11	1298.71	859.59	0.59
Reach-1	25	10-Year	2980.00	134.50	140.68	140.68	143.02	0.006673	12.78	268.04	62.09	0.95
Reach-1	24	500-Year	12505.00	133.00	144.67		144.94	0.000754	6.70	4103.64	760.59	0.36
Reach-1	24	100-Year	7455.00	133.00	142.40		142.77	0.001439	7.92	2399.79	729.71	0.47
Reach-1	24	50-Year	5840.00	133.00	141.79		142.13	0.001229	6.98	2005.08	586.03	0.43
Reach-1	24	10-Year	2980.00	133.00	139.83		140.23	0.001781	6.98	966.99	421.43	0.50
Reach-1	23	500-Year	12505.00	132.40	144.59		144.67	0.000296	4.31	7627.96	968.86	0.22
Reach-1	23	100-Year	7455.00	132.40	142.35		142.42	0.000291	3.73	5477.60	951.77	0.21
Reach-1	23	50-Year	5840.00	132.40	141.77		141.82	0.000246	3.30	4925.46	947.33	0.19
Reach-1	23	10-Year	2980.00	132.40	139.84		139.88	0.000236	2.76	3123.74	908.05	0.18
Reach-1	22	500-Year	12505.00	129.20	143.99	141.95	144.51	0.001000	9.10	4361.20	760.00	0.43
Reach-1	22	100-Year	7455.00	129.20	140.88	140.67	142.05	0.002091	11.14	2060.70	692.59	0.59
Reach-1	22	50-Year	5840.00	129.20	140.87	140.09	141.59	0.001299	8.77	2048.25	691.67	0.47
Reach-1	22	10-Year	2980.00	129.20	138.10	135.81	139.45	0.002291	9.59	467.85	281.30	0.59
Reach-1	21.5		Bridge									
Reach-1	21	500-Year	12505.00	130.30	143.92		144.24	0.000949	7.32	4623.07	778.00	0.38
Reach-1	21	100-Year	7455.00	130.30	141.62		142.01	0.001241	7.22	2866.85	743.63	0.42
Reach-1	21	50-Year	5840.00	130.30	140.72		141.18	0.001468	7.34	2205.44	726.80	0.45
Reach-1	21	10-Year	2980.00	130.30	137.20	137.20	139.45	0.006849	12.06	268.27	493.77	0.91
Reach-1	20	500-Year	12505.00	130.30	143.96		144.13	0.000467	5.52	5830.14	778.00	0.27
Reach-1	20	100-Year	7455.00	130.30	141.71		141.84	0.000443	4.73	4105.63	745.33	0.26
Reach-1	20	50-Year	5840.00	130.30	140.84		140.97	0.000425	4.38	3471.13	728.17	0.25
Reach-1	20	10-Year	2980.00	130.30	137.55		137.82	0.001105	5.37	1321.45	534.04	0.37
Reach-1	19	500-Year	12505.00	130.00	143.50		143.74	0.000651	7.08	4976.38	635.44	0.34
Reach-1	19	100-Year	7455.00	130.00	141.34		141.50	0.000536	5.70	3630.67	564.35	0.30
Reach-1	19	50-Year	5840.00	130.00	140.55		140.67	0.000422	4.82	3225.07	489.52	0.26
Reach-1	19	10-Year	2980.00	130.00	136.99		137.14	0.000786	4.95	1592.22	436.89	0.34
Reach-1	18	500-Year	12505.00	126.90	142.80		143.23	0.000659	6.70	3198.13	575.61	0.30
Reach-1	18	100-Year	7455.00	126.90	140.84		141.12	0.000463	5.12	2078.61	561.39	0.25
Reach-1	18	50-Year	5840.00	126.90	140.16		140.37	0.000358	4.35	1738.41	383.94	0.22
Reach-1	18	10-Year	2980.00	126.90	136.50		136.70	0.000456	3.90	901.50	166.40	0.23
Reach-1	17	500-Year	12505.00	126.90	142.04	139.59	143.13	0.001538	9.89	2374.53	570.55	0.46
Reach-1	17	100-Year	7455.00	126.90	140.32	135.24	141.05	0.001085	7.63	1425.08	492.69	0.38

HEC-RAS Plan: PR_Plan River: RIVER-1 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	17	50-Year	5840.00	126.90	139.77	134.08	140.32	0.000832	6.50	1222.16	307.24	0.33
Reach-1	17	10-Year	2980.00	126.90	136.15	131.72	136.64	0.000989	5.60	531.45	160.52	0.34
Reach-1	16.5		Bridge									
Reach-1	16	500-Year	12505.00	126.20	138.98	138.98	142.49	0.006377	17.55	2141.04	455.20	0.90
Reach-1	16	100-Year	7455.00	126.20	136.65	136.65	139.34	0.005886	14.57	1298.73	292.64	0.83
Reach-1	16	50-Year	5840.00	126.20	136.55	135.73	138.27	0.003775	11.59	1272.18	292.19	0.67
Reach-1	16	10-Year	2980.00	126.20	134.93		135.82	0.002276	7.93	817.72	284.55	0.50
Reach-1	15	500-Year	12505.00	126.20	140.71	136.84	141.19	0.000833	8.11	3132.29	719.39	0.39
Reach-1	15	100-Year	7455.00	126.20	137.54	135.67	138.17	0.001280	8.41	1608.70	350.30	0.46
Reach-1	15	50-Year	5840.00	126.20	137.35	135.11	137.77	0.000861	6.82	1543.13	339.95	0.38
Reach-1	15	10-Year	2980.00	126.20	135.23	132.65	135.57	0.000792	5.60	917.71	285.84	0.35



Making Sustainability Happen

AMS CONSTRUCTION MANAGEMENT LLC

Preliminary Construction Management Plan
131 Danbury Road, Wilton, CT

Construction Narrative

1. INTRODUCTION

a. STATEMENT OF PURPOSE

This Construction Narrative has been prepared for review and comment by the Town of Wilton. The construction management plan has been arranged to avoid, minimize, or mitigate adverse impacts from construction activities.

b. PROJECT DESCRIPTION

The proposal includes the removal of the existing office building and construction of a new 4 ½ - story residential building. Covered parking is proposed under the elevated building with additional surface parking to the north and south. New amenity areas are located in the building's central courtyard and along the Norwalk River. The landscaped amenity area around the river consists of walks, seating areas, and a patio.

c. PROJECT PHASING

The AMS development at 131 Danbury Road will be constructed in a single phase. The anticipated construction duration is approximately 30 months from the start of demolition.

d. CONSTRUCTION LOGISTICS

- Site fencing and gates
- Designated storage and staging areas
- Anti-tracking pads for soils control.
- Construction entrances and exits.
- Building footprints.
- Truck Logistics
- The project will consist of roughly seven (7) stages of activity as follows.

STAGE 1: Site Setup, Mobilization, Perimeter fence

During this stage, the project perimeter is established. Silt fence, hay bales, and construction fence, and the temporary offices are constructed. Temporary parking and traffic arrangements are set for the site. Upon completion of the site setup, demolition of the existing building will commence. The stage will conclude with complete site clearing.

STAGE 2: Earthwork and Site Utilities

During this stage additional erosion control and stormwater management measures will be put in place and earthwork (e.g. cut/fill, rough grading, etc) will commence. Site utilities such as sanitary sewer, storm, and water mains and hydrants will begin.

STAGE 3: Foundations and Site Utilities

Once the building pad rough grade is established, stabilized, and approved by third party soils inspector, concrete foundations will begin. Site utilities will also continue during these phase along with water services and underground electrical conduit to building main service rooms.

STAGE 4: Building Superstructure and Site Stabilization

Cast in place concrete podium structure will commence. Provided all necessary underground utilities are in place, site curbing and base asphalt paving will be completed.

STAGE 5: Building Framing and MEP Rough-In

Cast In Place Concrete will begin from the rear of the site garage level and continue to the slab on grade section towards Danbury Road. As soon as a large enough section of slab is ready, wood framing will commence. Exterior façade work, windows and doors will be installed once the first section roof is completed and sheathed. Electrical, plumbing, and mechanical rough ins will follow the weathertight enclosure of each section.

STAGE 6: Interior Finishes

Overlapping partially with Stage 5, the completion of the MEP rough-ins on an area-by-area and floor-by-floor basis. Installation of insulation, drywall, and other materials and equipment will follow the MEP roughs. Painting, interior finishes, cabinetry, and installation of electrical and plumbing fixtures and appliances will complete the interior construction.

STAGE 7: Site Work, Landscaping and Occupancy

Simultaneous with the completion of the building interior, site work including landscaping, paving, and site lighting will be completed. Additionally, completion of the podium courtyard amenities and the surrounding landscape will take place during this phase of the project. The construction of the project will conclude with building commissioning and occupancy.

2. PARKING

a. All workers will park on site within the construction property fencing. Parking along Danbury Road will be prohibited.

3. HOURS OF CONSTRUCTION ACTIVITIES

a. Construction activities and deliveries will be conducted in compliance with the Town of Wilton.

b. It is expected that the typical work week will be from 7:00 AM to 7:00 PM Monday through Friday, and Saturdays from 8:00 AM to 6:00 PM.

c. Workers will be arriving and departing shortly before and after construction starts and construction end times.

4. MATERIAL STORAGE & REMOVAL

a. Materials will be in designated staging areas on-site as shown in the attached Construction Logistics Plan. (See Appendix 1 attached)

b. Material storage and laydown areas shall be located away from public rights-of-way.

5. ACCESS TO CONSTRUCTION SITE

a. Delivery and driving directions will be distributed to all contractors and delivery trucks accessing the site.

b. Every effort will be made to ensure public access to all surrounding streets and properties. The property frontage along Danbury Road will be maintained during construction.

c. Police may be required on a short-term basis during any required street closures of Danbury Road. Street closures would occur during utility street work and/or certain road work operations, if any. Traffic would be rerouted with detour signs, placed in consultation with the Town and Police Department.

6. MEASURES TO ENSURE THE SAFETY OF PEDESTRIANS

a. Sidewalk closings and pedestrian diversions will be used throughout all stages of construction. In the event sidewalk closings are required, the plan would be reviewed and approved by the Town of Wilton prior to implementation and all applicable permits will be filed.

b. For public safety, the entire perimeter of the project sites will be fenced and posted as closed to the public. Signage will be posted at 100-foot intervals on the construction fencing and posted on the construction gates.

7. PRE-CONSTRUCTION SURVEYS

a. If necessary, prior to any ground disturbance, pre-construction surveys would be performed when sensitive receptors are in proximity to the construction site. Pre-construction surveys would be conducted for adjacent structures or utilities within close proximity to the property.

8. SOIL EROSION AND SEDIMENTATION CONTROLS

a. During the Demolition of the existing building, dust mitigation measures will be put in place.

b. An approved Soil Erosion and Sediment Control Plan for the project site would be implemented at the outset of construction. Erosion, sediment control and dust mitigation measures include the following:
   - Minimizing the area of soil that is disturbed at any one time;
   - Minimizing the amount of time during which soils are exposed;
     Spraying water on dusty surfaces;
   - Stabilizing soils with temporary grass seed mixtures, seeding or using erosion control blankets to stabilize soil stockpiles;
   - Using drainage diversion methods (silt fences, hay bales) to minimize soil erosion during site grading;
   - Covering stored materials with a tarp to reduce windborne dust;
   - Limiting on-site construction vehicle speed to 5 mph; and,
   - Using truck covers/tarp rollers that cover fully loaded trucks and keep debris and dust from being expelled from the truck along its haul route.
   - Prepare the site in advance of forecasted significant rainfall events

9. STORMWATER MANAGEMENT

a. A stormwater pollution prevention plan (SWPPP) for the project site would be implemented at the outset of construction. These plans would have been previously approved by the Town of Wilton staff. A copy of the SWPPP will be maintained on site

b. Stormwater pollution prevention measures include the use of silt fence, hay bales, interceptor swales, stabilized construction entrance, temporary seeding, mulching, inlet protection (silt sacks), erosion control matting, sediment basins, stone check dams, and concrete washout stations.

c. Periodic inspections and maintenance will be implemented to properly manage sediment transport and erosion control during the construction. The Construction Manager will also conduct inspections and maintain a log of the control devices during and/or immediately after any adverse weather events, and any necessary repairs or replacement of the erosion and sediment control practices will be addressed following each storm event.

10. CONTROLS ON OFF-SITE TRACKING OF MUD

a. Soil management is the most important step in preventing mud tracking onto public streets. All construction roads that disturb earth will be capped with stone, process or pavement, to minimize mud pick-up by truck or vehicle tires. Soil stabilization will be implemented. Anti- tracking pads will be installed and maintained at all construction exits to dislodge any mud from the truck tires before they exit the site.

b. Street sweeping of the paved access drives and public road frontage on either side of all construction entrance/exits will be performed as needed for the duration of the project, and more frequently if material is tracked off site.

c. Street sweeping will be accomplished with vehicle mounted sweeping equipment, such as a box broom sweeper attachment on a skid steer, or mechanical sweeper as manufactured by Bob Cat, or others.

11. NOISE MITIGATION

a. All construction activities will be conducted in full compliance with existing regulations, including the municipal time restrictions for construction work.

b. Property owners within 200 feet of the Property will receive prior notice of any extraordinary noise (e.g. rock hammering, chipping) that might occur for more than one day.

c. Back-up alarms will be provided for all on-site vehicles.

12. SITE SECURITY

a. A 6-foot-high construction fence will be installed as shown on the attached plan. The gates will be locked, except during designated working hours.

b. Signage will be posted on the gates requiring all visitors to report to Contractor's Construction Manager's trailer before proceeding onto the site.

c. For public safety, the entire perimeter of the project site will be posted as closed to the public. Signage will be posted at 100-foot intervals on the construction fencing and posted on the construction gates.

d. Stealth Monitoring Security Company will be engaged to setup and remotely monitor perimeter cameras during non-working hours.

13. MANAGEMENT OF WASTE

a. Waste and recycling containers will be positioned throughout the site.

b. Concrete washout stations will be used to contain concrete and liquids when the chutes of mixers and hoppers of concrete pumps are rinsed out after deliveries.

14. COORDINATION WITH POLICE, FIRE, AND EMERGENCY MEDICAL SERVICES DEPARTMENTS

a. During Site Plan review, this plan and associated drawings will be coordinated with the Wilton emergency services.

b. A task plan for deliveries and closures will be forwarded to the Wilton Building Department and other Town departments as directed based on a final site plan approval with an approved construction management plan and more definitive construction schedule with updates provided as they become available during the construction process.

c. Upon obtaining permits for any required street closures, we are given a set of requirements for the closure which may include a Police Officer to be present during the working hours of the closure. An account would be set up for payment of the Police which are scheduled several days in advance of the closure. Flag men and barricades may also be required during a closure.

15. COMMUNICATIONS

a. Phone numbers for responsible ownership and contractor contacts will be provided to the Town

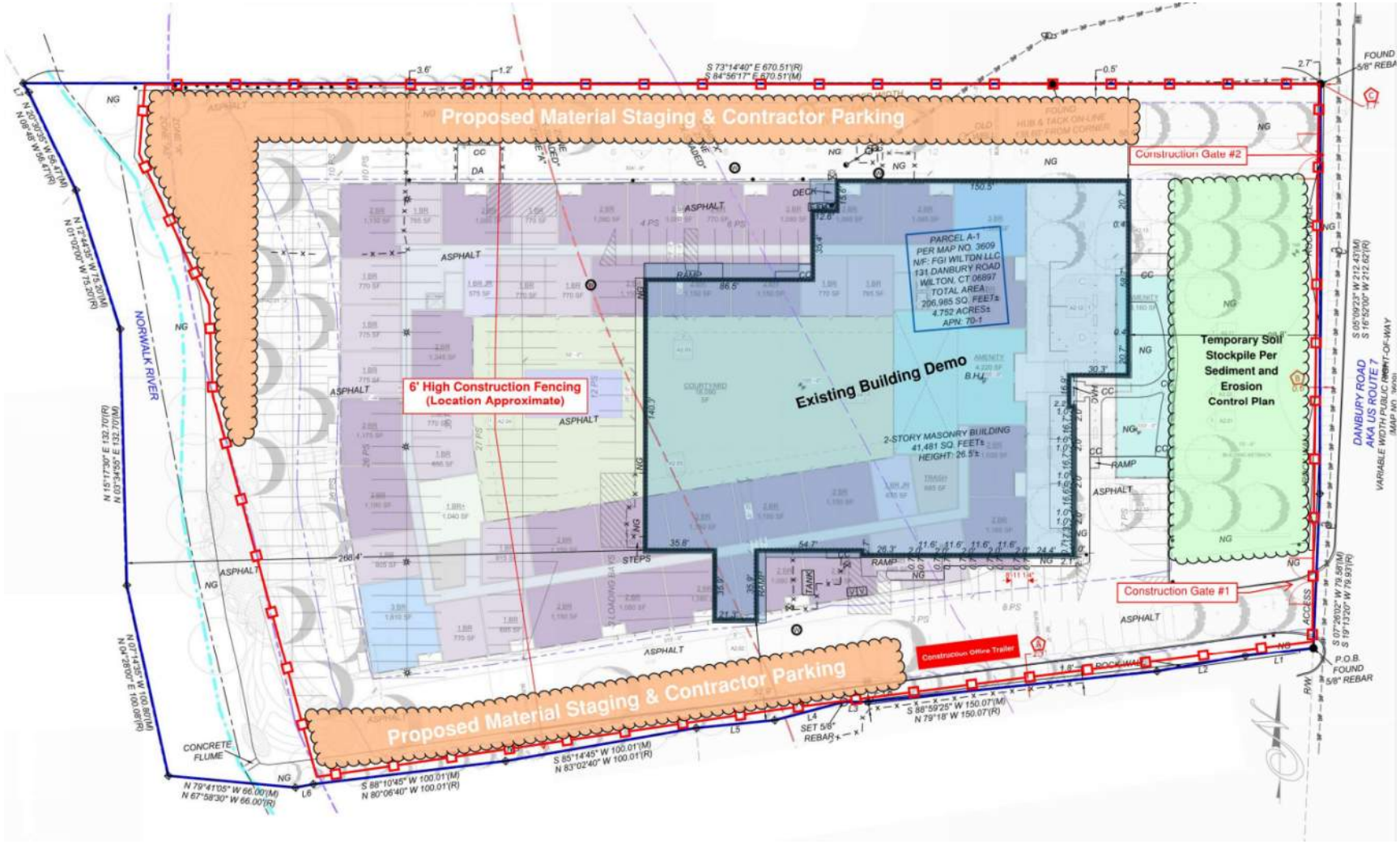
prior to construction start and site mobilization.

b. The AMS team shall meet with the appropriately designated Town staff along with any professionals retained by the Town to assist in the monitoring of construction activities, to review ensure that all responsible parties understand their responsibilities for each specific construction phase.

16. ENFORCEMENT

a. The measures contained within this Construction Management Plan will be enforced through inspections and monitoring to be conducted by the third party inspectors and the Town of Wilton.

Appendix 1: Construction Logistic Plan



List of Project Professionals

1. Contract Purchaser: Ryan Sutherland & Rafi Mitnick - 131 Danbury Wilton Dev AMS (an affiliate of AMS Acquisitions, LLC)

2. Project Architect: Seelan Pather, Principal – Beinfeld Architecture

3. Site Engineer: Thomas J. Daly – SLR International Corporation

4. Landscape Architect: Jason C. Williams – SLR International Corporation

5. Traffic Consultant: Neil Olinski – SLR International Corporation

6. Surveyors: Jerome D. Brunner – Blew & Associates, P.A.

7. Land Use Consultant / Agent: Craig J. Flaherty – Redniss & Mead

8. Land Use Attorney: Joseph L. Hammer – MacDermid, Reynolds & Glissman, P.C.

LIST OF NEIGHBORING PROPERTY OWNERS WITHIN 500'

131 Danbury Road (11/15/23)

	MBLU	Site Address	Owner Name	Mailing Address	Mailing City	Mailing State	Mailing Zip
1	55-1-1	1 LAMBERT COMMON	PEREIRA NORBERTO NARCIZO & PEREIRA MARIA REGINA	1 LAMBERT COMMON	WILTON	CT	06897- 0000
2	55-1-2	2 LAMBERT COMMON	KELEPECZ SONYA	2 LAMBERT COMMON	WILTON	CT	06897- 0000
3	55-1-3	3 LAMBERT COMMON	AVGERINOS MICHAEL AND LINDA LIVING TRUST	3 LAMBERT COMMON	WILTON	CT	06897- 0000
4	55-1-4	4 LAMBERT COMMON	RHODES OLGA L	4 LAMBERT COMMON	WILTON	CT	06897- 0000
5	55-1-5	5 LAMBERT COMMON	BRILL ROBERTA SODEN	5 LAMBERT COMMON	WILTON	CT	06897- 0000
6	55-1-6	6 LAMBERT COMMON	MELATO DENISE	6 LAMBERT COMMON	WILTON	CT	06897- 0000
7	55-1-7	7 LAMBERT COMMON	FARLEY IRENE R	7 LAMBERT COMMON	WILTON	CT	06897- 0000
8	55-1-8	8 LAMBERT COMMON	LUPINSKY ANNA	8 LAMBERT COMMON	WILTON	CT	06897- 0000
9	55-1-9	9 LAMBERT COMMON	BELLOVIN BENJAMIN &	9 LAMBERT COMMON	WILTON	CT	06897- 0000
10	55-1-10	10 LAMBERT COMMON	GUNDERSON BARRY	10 LAMBERT COMMON	WILTON	CT	06897- 0000
11	55-1-11	11 LAMBERT COMMON	GIBBON CAROL	11 LAMBERT COMMON	WILTON	CT	06897- 0000
12	55-1-12	12 LAMBERT COMMON	DA CONCEICAO MIRYAM D & LOPES MELANIE MARIE	12 LAMBERT COMMON	WILTON	CT	06897- 0000
13	55-1-13	13 LAMBERT COMMON	RITCH MARIE TRUSTEE	13 LAMBERT COMMON	WILTON	CT	06897- 0000
14	55-1-14	14 LAMBERT COMMON	WERBLOOD SHERRILL L	14 LAMBERT COMMON	WILTON	CT	06897- 0000
15	55-1-15	15 LAMBERT COMMON	DEVINE CAROL A	224 HOMELAND ST	FAIRFIELD	CT	06825- 0000
16	55-1-16	16 LAMBERT COMMON	QIAN WEIDONG	16 LAMBERT COMMON	WILTON	CT	06897- 0000
17	55-1-17	17 LAMBERT COMMON	TZANOS REBECCA	17 LAMBERT COMMON	WILTON	CT	06897- 0000
18	55-1-18	18 LAMBERT COMMON	DEMPSEY ELIZABETH KIMBALL TR	18 LAMBERT COMMON	WILTON	CT	06897- 0000
19	55-1-19	19 LAMBERT COMMON	MACLAINE MEREDITH ANNE MUNRO	19 LAMBERT COMMON	WILTON	CT	06897- 0000
20	55-1-20	20 LAMBERT COMMON	ZAPPALA PHYLLIS F TRUSTEE	18 BUTTONBALL LA	WESTON	CT	06883- 0000
21	55-1-21	21 LAMBERT COMMON	CHO MIYOUNG	21 LAMBERT COMMON	WILTON	CT	06897- 0000
22	55-1-22	22 LAMBERT COMMON	CANZONETTI RICHARD & EDITH	22 LAMBERT COMMON	WILTON	CT	06897- 0000
23	55-1-23	23 LAMBERT COMMON	SHRAGO MARSHA	23 LAMBERT COMMON	WILTON	CT	06897- 0000
24	55-1-24	24 LAMBERT COMMON	HAUSDORFF RITA H	24 LAMBERT COMMOM	WILTON	CT	06897- 0000
25	55-1-25	25 LAMBERT COMMON	KASMAN CHRISTINA MARIE & ROSENBERG SAMUEL CHARLES	25 LAMBERT COMMON	WILTON	CT	06897- 0000
26	55-1-26	26 LAMBERT COMMON	KIM GUMSOOK & HWI TAE	26 LAMBERT COMMON	WILTON	CT	06897- 0000
27	55-1-27	27 LAMBERT COMMON	BURROUGHS NANCY	27 LAMBERT COMMON	WILTON	CT	06897- 0000
28	55-1-28	28 LAMBERT COMMON	KELLEY MARGARET M	28 LAMBERT COMMON	WILTON	CT	06897- 0000
29	55-1-29	29 LAMBERT COMMON	MANNIX CATHERINE J	32 DOROTHY RD	REDDING	CT	06896- 0000
30	55-1-30	30 LAMBERT COMMON	MCSWEENEY MADY E	30 LAMBERT COMMON	WILTON	CT	06897- 0000
31	55-1-31	31 LAMBERT COMMON	KEARNEY PETER A TRUSTEE	31 LAMBERT COMMON	WILTON	CT	06897- 0000
32	55-1-32	32 LAMBERT COMMON	ALIANIELLO ROCCO	32 LAMBERT COMMON	WILTON	CT	06897- 0000
33	55-1-33	33 LAMBERT COMMON	OLSON KURT & CHRISTINE	33 LAMBERT COMMON	WILTON	CT	06897- 0000

LIST OF NEIGHBORING PROPERTY OWNERS WITHIN 500'

131 Danbury Road (11/15/23)

	MBLU	Site Address	Owner Name	Mailing Address	Mailing City	Mailing State	Mailing Zip
34	55-1-34	34 LAMBERT COMMON	SIMPSON MARJORIE & SIMPSON SAMUEL & SV	34 LAMBERT COMMON	WILTON	CT	06897- 0000
35	55-1-35	35 LAMBERT COMMON	BUFANO LORI A	35 LAMBERT COMMON	WILTON	CT	06897- 0000
36	55-1-36	36 LAMBERT COMMON	LEHMAN DAVID	36 LAMBERT COMMON	WILTON	CT	06897- 0000
37	55-1-37	37 LAMBERT COMMON	EDGAR RICHARD A & EDGAR LORRAINE JEAN & SV	37 LAMBERT COMMON UNIT #347	WILTON	CT	06897- 0000
38	55-1-38	38 LAMBERT COMMON	PASCARELLI JEANNETTE R	38 LAMBERT COMMOM	WILTON	CT	06897- 0000
39	55-1-39	39 LAMBERT COMMON	CIOFFI GAIL M	39 LAMBERT COMMON	WILTON	CT	06897- 0000
40	55-1-40	40 LAMBERT COMMON	DOBEY ROSLYN	40 LAMBERT COMMON	WILTON	CT	06897- 0000
41	55-1-41	41 LAMBERT COMMON	PRESTON MARY B	41 LAMBERT COMMON	WILTON	CT	06897- 0000
42	55-1-42	42 LAMBERT COMMON	ROBERTSON DENISE	42 LAMBERT COMMON	WILTON	CT	06897- 0000
43	55-1-43	43 LAMBERT COMMON	COCOZZA JOHN	43 LAMBERT COMMON	WILTON	CT	06897- 0000
44	55-1-44	44 LAMBERT COMMON	PICONE ELIZABETH TRUSTEE	44 LAMBERT COMMON	WILTON	CT	06897- 0000
45	55-1-45	45 LAMBERT COMMON	PIEDMONT KARENA	45 LAMBERT COMMON	WILTON	CT	06897- 0000
46	55-1-46	46 LAMBERT COMMON	LIN XIN YU	46 LAMBERT COMMON	WILTON	CT	06897- 0000
47	55-1-47	47 LAMBERT COMMON	SAYANTAN SARKER & MAYURI MANDLEKAR JT/S	47 LAMBERT COMMON	WILTON	CT	06897- 0000
48	55-1-48	48 LAMBERT COMMON	BONDESON JANET M ESTATE OF	1034 WEST RIVER ST	MILFORD	CT	06461- 0000
49	55-1-49	49 LAMBERT COMMON	JAIPRAKASH AGARWAL & DIPKA K BEHERA	49 LAMBERT COMMON	WILTON	CT	06897- 0000
50	55-4-1	1 WILTON HILLS	KAYLOR JAMES A & KAYLOR LINDA	1 WILTON HILLS	WILTON	CT	06897- 0000
51	55-4-2	2 WILTON HILLS	SHERVIN SHAHAB	2 WILTON HILLS	WILTON	CT	06897- 0000
52	55-4-3	3 WILTON HILLS	BLOCK JOSEPH & LOIS	3 WILTON HILLS	WILTON	CT	06897- 0000
53	55-4-4	4 WILTON HILLS	PICCHIONE FRANK L	4 WILTON HILLS	WILTON	CT	06897- 0000
54	55-4-5	5 WILTON HILLS	RAMAMOORTHY KAUSHIK & MUTHUKRISHNAN AARTHIE	5 WILTON HILLS	WILTON	CT	06897- 0000
55	55-4-6	6 WILTON HILLS	DHAYAFULE MITHUN	6 WILTON HILLS	WILTON	CT	06897- 0000
56	55-4-7	7 WILTON HILLS	PARK JOO HYOUNG	7 WILTON HILLS	WILTON	CT	06897- 0000
57	55-4-8	8 WILTON HILLS	WRIGHT-WARREN HOLLIS E	8 WILTON HILLS	WILTON	CT	06897- 0000
58	55-4-9	9 WILTON HILLS	RAMSEY DARYL	9 WILTON HILLS	WILTON	CT	06897- 0000
59	55-4-10	10 WILTON HILLS	BILOKIN FEDIR & GANNA	10 WILTON HILLS	WILTON	CT	06897- 0000
60	55-4-11	11 WILTON HILLS	RZEPKA FRED	25250 ROCKSIDE RD	BEDFORD HEIGHTS	OH	44146- 0000
61	55-4-12	12 WILTON HILLS	GJURAJ LUSHE	12 WILTON HILLS	WILTON	CT	06897- 0000
62	55-4-13	13 WILTON HILLS	THOMAS, CHARLES CALVIN & THOMAS BETTY WELLS	13 WILTON HILLS	WILTON	CT	06897- 0000
63	55-4-14	14 WILTON HILLS	GANDHI TIMSY & VINAY	14 WILTON HILLS	WILTON	CT	06897- 0000
64	55-4-15	15 WILTON HILLS	SCHOPICK ANDREW M	15 WILTON HILLS	WILTON	CT	06897- 0000

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131 Danbury Road (11/15/23)

	MBLU	Site Address	Owner Name	Mailing Address	Mailing City	Mailing State	Mailing Zip
65	55-4-16	16 WILTON HILLS	TSUI TAK KWAN	16 WILTON HILLS	WILTON	CT	06897- 0000
66	55-4-17	17 WILTON HILLS	STOLPEN ADAM D	17 WILTON HILLS	WILTON	CT	06897- 0000
67	55-4-18	18 WILTON HILLS	RUDNICKI MICHELE A	18 WILTON HILLS	WILTON	CT	06897- 0000
68	55-5	116 DANBURY RD	REIF III DANBURY ROAD LLC	230 PARK AVE	NEW YORK	NY	10169- 0000
69	56-1	149 DANBURY RD	RING'S END INC	160 AVON ST	STRATFORD	CT	06615- 0000
70	56-2	153 DANBURY RD	CONNECTICUT STATE OF	2800 BERLIN TPKE	NEWINGTON	CT	06131- 0000
71	56-3	159 DANBURY RD	CONNECTICUT STATE OF	2800 BERLIN TPKE	NEWINGTON	CT	06131- 0000
72	56-45	156 DANBURY RD	CONNECTICUT STATE OF	2800 BERLIN TPKE	NEWINGTON	CT	06131- 0000
73	56-46A-BC	DANBURY RD	CONNECTICUT STATE OF	2800 BERLIN TPKE	NEWINGTON	CT	06131- 0000
74	69-38	111 DANBURY RD	CUBESMART LP C/O PTA-CS#831	PO BOX 320099	ALEXANDRIA	VA	22320- 0000
75	69-41	129 DANBURY RD	RING'S END INCORPORATED	160 AVON ST	STRATFORD	CT	06615- 0000
76	70-1	131 DANBURY RD	AMS ACQUISITIONS	ATTN: RYAN SUTHERLAND, 1 BRIDGE PLAZA NORTH, SUITE 840	FORT LEE	NJ	07024
77	70-2	141 DANBURY RD	FDSPIN 141 DR LLC	1 NORTH WATER ST SUITE 100	NORWALK	CT	06854- 0000
78	70-3	17 WOLFPIT RD	CONNECTICUT STATE OF	2800 BERLIN TPKE	NEWINGTON	CT	06131- 0000
79	70-2A	DANBURY RD	CONNECTICUT STATE OF	2800 BERLIN TPKE	NEWINGTON	CT	06131- 0000
80	55-1	1-49 LAMBERT COMMON	THE PROPERTY GROUP OF CT, INC.	25 CRESCENT STREET	STAMFORD	CT	06906
81	55-4	1-18 WILTON HILLS	4 WILTON HILLS	4 WILTON HILLS	WILTON	CT	06897
82	AGENT		REDNISS & MEAD, INC.	22 FIRST STREET	STAMFORD	CT	06905