To: Brandon Handfield
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191 Norwich Avenue
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Date: January 16, 2026

Project #: 43273.00

From: William Kresic, P.E., PTOE
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Re: Park Place Traffic Impact Assessment
Addendum 1

VHB previously submitted a traffic analysis (dated October 24, 2025) for the proposed development of single family attached residential affordable housing located on Park Place in East Lyme, Connecticut. VHB has prepared this addendum to the Traffic Impact Assessment to address traffic generated by an adjacent development, Village Crossing of Niantic.

This addendum has been prepared to provide additional trip generation information and update the capacity analyses.

Traffic Volume Update

The adjacent project, Village Crossing of Niantic is located at 12 Park Place, Niantic, CT. Traffic from Village Crossing exits the site onto Park Place, passing the Park Place proposed development driveway before turning onto West Main Street.

The Village Crossing site was partially open during the Traffic Impact Assessment process for the Park Place project. Turning movement counts for the intersection of Park Place at West Main Street were obtained in January 2024. At the time, 42 of the proposed 66 apartments were open. As such, traffic from those apartments was captured in the 2024 traffic counts.

While traffic from 42 of the 66 apartments was accounted for, the additional 24 apartment units should be included in the analysis.

Additionally, it should be noted that the original report applied a growth factor to the existing traffic volumes of 1% per year for five years to ensure that the Build Conditions capture future traffic growth due to new developments or additional demand. While no other developments are anticipated to impact the study area of the Park Place proposed development, this 1% conservative growth rate helps to mitigate any potential variance.

Trip Generation and Distribution

Trip Generation

The additional vehicle trips that the Village Crossing development is expected to generate were calculated based on trip generation rates provided in the ITE Trip Generation manual, 11th edition. The rate at which any development generates traffic is dependent upon a number of factors such as size, location, and concentration of surrounding developments. Land Use Codes (LUC) 215 for Single-Family Attached Housing was selected as the most applicable methodology for the development. The total additional trips generated by the full opening of the Village Crossing development would result in 7 (2 entering, 5 exiting) trips in the AM peak hour and 10 (6 entering, 4 exiting) new trips in the PM peak hour. The trip generation associated with the Village Crossing development program is shown in **Table 1.**

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Table 1
Trip Generation Summary
24 Condominium Units

Time Period	Apartment Trips[1]
Weekday Morning Peak Hour[2]	
Enter	2
Exit	5
Total	7
Weekday Evening Peak Hour[2]	
Enter	6
Exit	4
Total	10

1 Based on ITE Land Use Code (LUC) 215 (Single Family Attached Housing)
Traffic volumes expressed in vehicles per hour

Trip Distribution – Village Crossing

The Village Crossing directional distribution of the vehicular traffic approaching and departing the site is a function of population densities, the location of employment, existing travel patterns, and the efficiency of the existing roadway system. Anticipated trip distribution patterns were based on the existing distribution of vehicle traffic on West Main Street, and Park Place and match the trip distribution used for the Trip Generation from the original Traffic Assessment.

Table 2 Trip Distribution

Location	Traffic Entering/Leaving
West Main St East	50%
West Main St West	50%

The resulting site-generated trips will be split between the roadways as shown, directing traffic to downtown Niantic, East Lyme, and out of the town.

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Revised Traffic Operations Analysis

The additional trips generated from the Village Crossing of Niantic Development were added to the previous Synchro analysis network to develop revised capacity analysis for the study area intersections.

Unsignalized Intersection Capacity Analysis

The addition of trips to the network with the complete opening of the Village Crossing of Niantic were analyzed.

The revised results indicate that Park Place at the Site Driveway will attain acceptable LOS through 2030 build conditions with minimal changes from the prior Traffic Impact Assessment.

Park Place at Site Driveway: Under Build conditions the intersection is still expected to operate with LOS A with no noteworthy reduction in traffic capacity.

Park Place at West Main St: Park Place at West Main Street operates with LOS C or better under all peak hours during existing conditions and is expected to do so under future No-Build conditions as well. Under Build conditions the level of service is expected to remain LOS C or better with the new projected traffic. Additional site traffic accounted for in this addendum is not anticipated to significantly impact queuing and delays are expected to remain similar to existing conditions during the weekday evening peak hour and morning peak hour.

Table 2 Unsignalized Intersection Capacity Analysis Summary

Location	Peak Hour	Mov't	2025 Existing Conditions					2030 Build Conditions					2030 Revised Build Conditions				
			Dem.[1]	v/c[2]	Del[3]	LOS[4]	Q95[5]	Dem.	v/c	Del	LOS	Q95	Dem.	v/c	Del	LOS	Q95
W Main Street at Park Place	AM	EB L/T	244	0.003	7.8	A	0	259	0.007	7.9	A	0	260	0.008	7.9	A	0
		WB T/R	218	0	0	A	0	231	0	0	A	0	232	0	0	A	0
		SB L/R	17	0.043	11.7	B	0.1	41	0.103	12.2	B	0.3	46	0.117	12.3	B	0.4
	PM	EB L/T	330	0.011	8.3	A	0	353	0.021	8.4	A	0.1	356	0.024	8.5	A	0.1
		WB T/R	398	0	0	A	0	426	0	0	A	0	429	0	0	A	0
		SB L/R	14	0.064	15.2	C	0.2	29	0.134	16.1	C	0.5	33	0.153	16.4	C	0.5
Park Place at Site Driveway	AM	EB L/R						24	0.025	8.5	A	0.1	24	0.025	8.5	A	0.1
		NB L/T						22	0.007	7.3	A	0	24	0.007	7.3	A	0
		SB T/R						17	0	0	A	0	22	0	0	A	0
	PM	EB L/R						15	0.015	8.4	A	0	15	0.015	8.5	A	0
		NB L/T						48	0.014	7.3	A	0	54	0.014	7.3	A	0
		SB T/R						14	0	0	A	0	18	0	0	A	0

Source: VHB, Inc. using Synchro 11 software and HCM 6th TWSC Edition methodology.
1 demand, in vehicles per hour
2 volume-to-capacity ratio for the critical movement
3 delay of critical approach only, in seconds
4 level of service
5 95th percentile queue length, in vehicles
EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; R = right; T = through, L= left

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Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	251	217	15	26	20
Future Vol, veh/h	9	251	217	15	26	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	77	77	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	282	282	19	37	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	301	0	-	0	594	292
Stage 1	-	-	-	-	292	-
Stage 2	-	-	-	-	302	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1260	-	-	-	468	747
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	750	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1260	-	-	-	464	747
Mov Cap-2 Maneuver	-	-	-	-	464	-
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	750	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1260	-	-	-	556
HCM Lane V/C Ratio	0.008	-	-	-	0.117
HCM Control Delay (s)	7.9	0	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	24	10	14	22	0
Future Vol, veh/h	0	24	10	14	22	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	11	15	24	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	61	24	24	0	-	0
Stage 1	24	-	-	-	-	-
Stage 2	37	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	945	1052	1591	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	938	1052	1591	-	-	-
Mov Cap-2 Maneuver	938	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1591	-	1052	-	-
HCM Lane V/C Ratio	0.007	-	0.025	-	-
HCM Control Delay (s)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	332	399	30	21	12
Future Vol, veh/h	24	332	399	30	21	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	86	86	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	349	464	35	36	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	499	0	-	0	881	482
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	399	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1065	-	-	-	317	584
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	678	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1065	-	-	-	308	584
Mov Cap-2 Maneuver	-	-	-	-	308	-
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	678	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1065	-	-	-	372
HCM Lane V/C Ratio	0.024	-	-	-	0.153
HCM Control Delay (s)	8.5	0	-	-	16.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	15	21	33	18	0
Future Vol, veh/h	0	15	21	33	18	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	23	36	20	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	102	20	20	0	-	0
Stage 1	20	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	896	1058	1596	-	-	-
Stage 1	1003	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	883	1058	1596	-	-	-
Mov Cap-2 Maneuver	883	-	-	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	941	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	2.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1596	-	1058	-	-
HCM Lane V/C Ratio	0.014	-	0.015	-	-
HCM Control Delay (s)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-