



THE RESIDENCES AT STONE RIDGE

Presentation to Milford ZBA

May 16, 2018

Project Team:

Site / Civil:	SMMA
Architecture:	Sheskey Architects
Traffic Engineer	TEC
Counsel:	Goulston & Storrs





TRAFFIC

Liz Oltman, P.E.
TEC

SITE





TRAFFIC IMPACT

Previous MEPA approval outlined mitigation associated with each development phase:

Phase I = 150,000 SF of office

- Improvements to site driveway – NB left turn lane on Cedar Street
- Evaluate timing changes at Route 495 NB Ramps/Cedar Street



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Stone Ridge Development Site Generated Trip Summary

<u>Time Period</u>	<u>Phase I 150,000 SF Office (previously approved)^a</u>	<u>Restaurant Depot</u>	<u>272 Apartments (ITE LUC 220)</u>	<u>Total Modified Development (RD+Apts)</u>
<i>Weekday Daily</i>	1,825	290	1,772	2,062
<i>Weekday Morning</i>				
IN	228	36	28	64
OUT	<u>31</u>	<u>36</u>	<u>110</u>	<u>146</u>
TOTAL	259	73	138	210
<i>Weekday Evening</i>				
IN	42	31	109	140
OUT	<u>205</u>	<u>31</u>	<u>59</u>	<u>90</u>
TOTAL	247	62	168	230

^a Based on 150,000 SF Office – LUC 710 – *Trip Generation, 7th Edition* (Edition used during original permitting)

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Intersection Capacity and Queue Analysis Summary – Revised

Intersection / Lane Group	2017 Existing				2024 Build with Existing Timings			
	V/C ^a	Delay ^b	LOS ^c	Queue ^d	V/C	Delay	LOS	Queue
Cedar Street (Route 85) / I-495 NB Ramps								
<i>Weekday Morning Peak Period</i>								
I-495 NB Off-ramp WBL	0.52	18.1	B	47/98	0.55	20.2	C	62/135
I-495 NB Off-ramp WBR	0.00	0.0	A	<25/<25	0.00	0.0	A	<25/<25
Cedar Street NBL	0.68	8.5	A	85/178	0.77	9.5	A	105/257
Cedar Street NBT	0.41	6.2	A	71/143	0.51	6.7	A	208/111
Cedar Street SB Approach	0.40	15.6	B	48/105	0.53	17.0	B	94/200
Overall Intersection	0.58	11.3	B	-	0.53	12.5	B	-
<i>Weekday Evening Peak Period</i>								
I-495 NB Off-ramp WBL	0.63	22.1	C	67/135	0.68	26.1	C	95/151
I-495 NB Off-ramp WBR	0.00	0.0	A	<25/<25	0.00	0.0	A	<25/<25
Cedar Street NBL	0.83	10.3	B	131/260	0.92	18.4	B	219/422
Cedar Street NBT	0.26	5.0	A	48/77	0.39	5.5	A	89/128
Cedar Street SB Approach	0.65	16.5	B	125/204	0.69	17.8	B	201/267
Overall Intersection	0.51	14.0	B	-	0.59	16.9	B	-

^a Volume-to-capacity ratio

^b Delay expressed in seconds per vehicle (average)

^c Level of service

^d 50th/95th Percentile Queue for signalized intersections

Intersection Capacity and Queue Analysis Summary - Revised

Intersection / Lane Group	2024 No Build				2024 Build			
	V/C ^a	Delay ^b	LOS ^c	Queue ^d	V/C	Delay	LOS	Queue
Cedar Street (Route 85) / Deer Street								
<i>Weekday Morning Peak Period</i>								
Cedar Street NBL	0.06	8.2	A	<25	0.06	8.3	A	<25
Deer Street EBL	0.04	31.7	D	<25	0.28	44.3	E	25
Deer Street EBR	0.06	10.9	B	<25	0.19	11.9	B	<25
<i>Weekday Evening Peak Period</i>								
Cedar Street NBL	0.04	9.5	A	<25	0.16	10.2	B	<25
Deer Street EBL	0.04	30.2	D	<25	0.20	49.1	E	<25
Deer Street EBR	0.08	14.9	B	<25	0.20	16.5	C	<25

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Intersection Capacity and Queue Analysis Summary - Revised

Intersection / Lane Group	2024 No Build				2024 Build			
	V/C ^a	Delay ^b	LOS ^c	Queue ^d	V/C	Delay	LOS	Queue
Cedar Street (Route 85) / I-495 SB Ramps								
<i>Weekday Morning Peak Period</i>								
Cedar Street SBL	0.29	15.0	C	<25	0.33	15.7	C	50
I-495 SB Off-ramp EBL	0.27	72.9	F	<25	0.54	129.9	F	50
I-495 SB Off-ramp EBR	1.11	90.5	F	543	1.14	102.5	F	580
<i>Weekday Evening Peak Period</i>								
Cedar Street SBL	0.60	23.1	C	<25	0.65	25.9	D	<25
I-495 SB Off-ramp EBL	>1.0	exceed	F	exceed	>1.0	exceed	F	exceed
I-495 SB Off-ramp EBR	1.23	141.3	F	642	1.24	147.3	F	655

^a Volume-to-capacity ratio

^b Delay expressed in seconds per vehicle (average)

^c Level of service

^d 95th Percentile Queue for unsignalized intersections



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Conclusions:

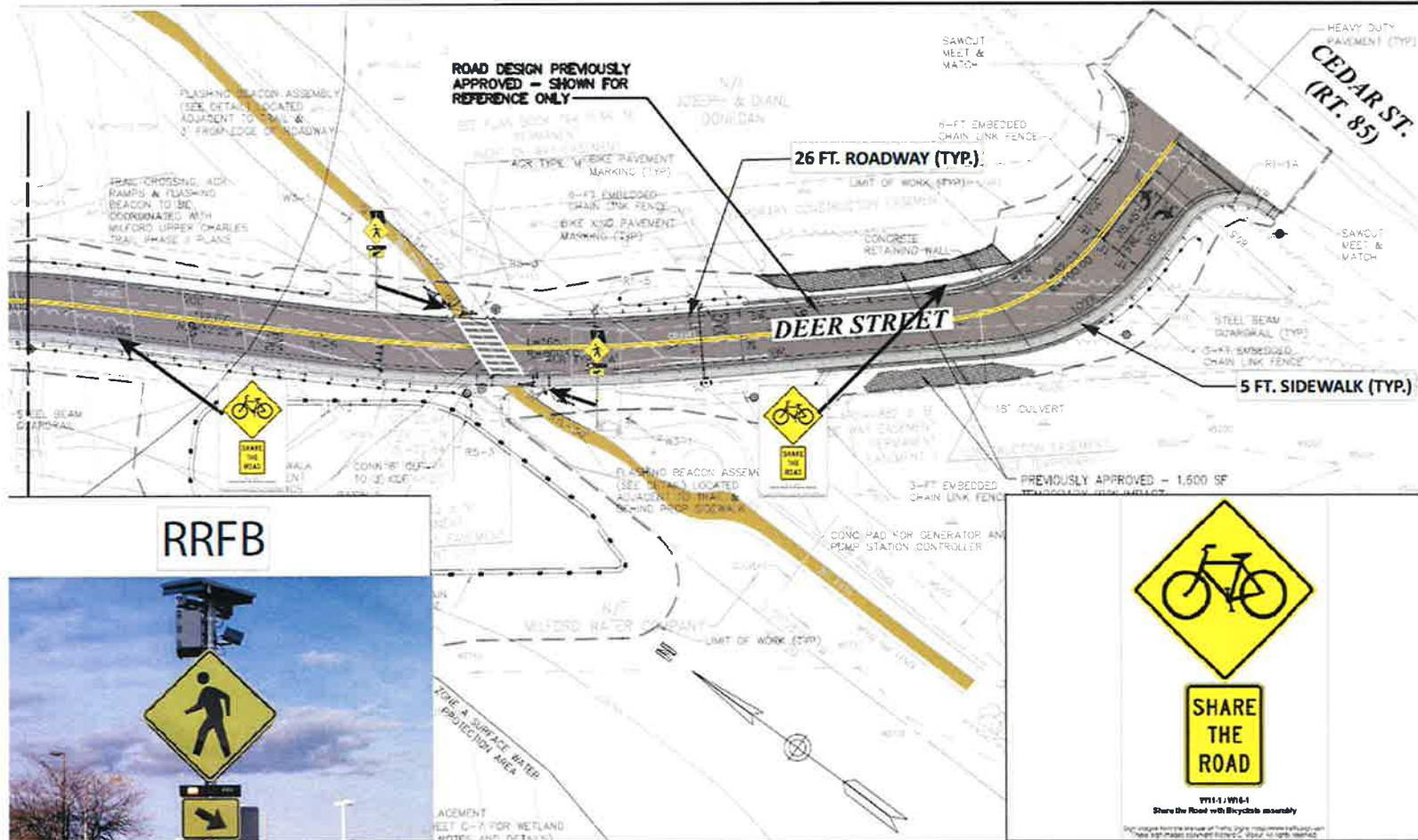
- Projected peak hour trips are less than the MEPA Phase I trips
- Analysis of Cedar Street intersections indicate no modifications necessary
- No further mitigation required with Phase I

PEDESTRIAN CIRCULATION

Proposed Sidewalk 



DEER STREET



2008 APPROVED SITE PLAN – 625,000 SF OF OFFICE



FUTURE OFFICE PHASE

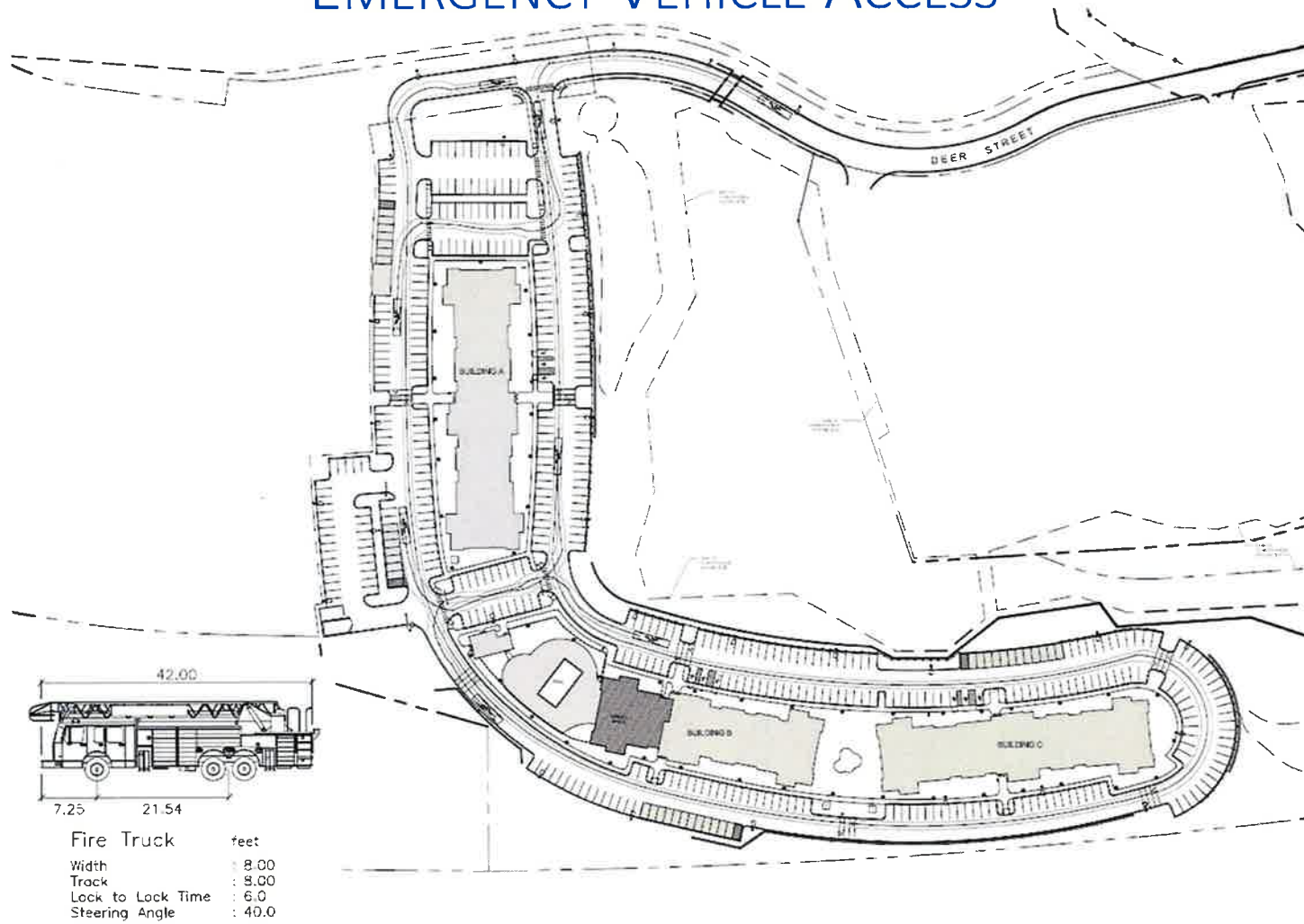




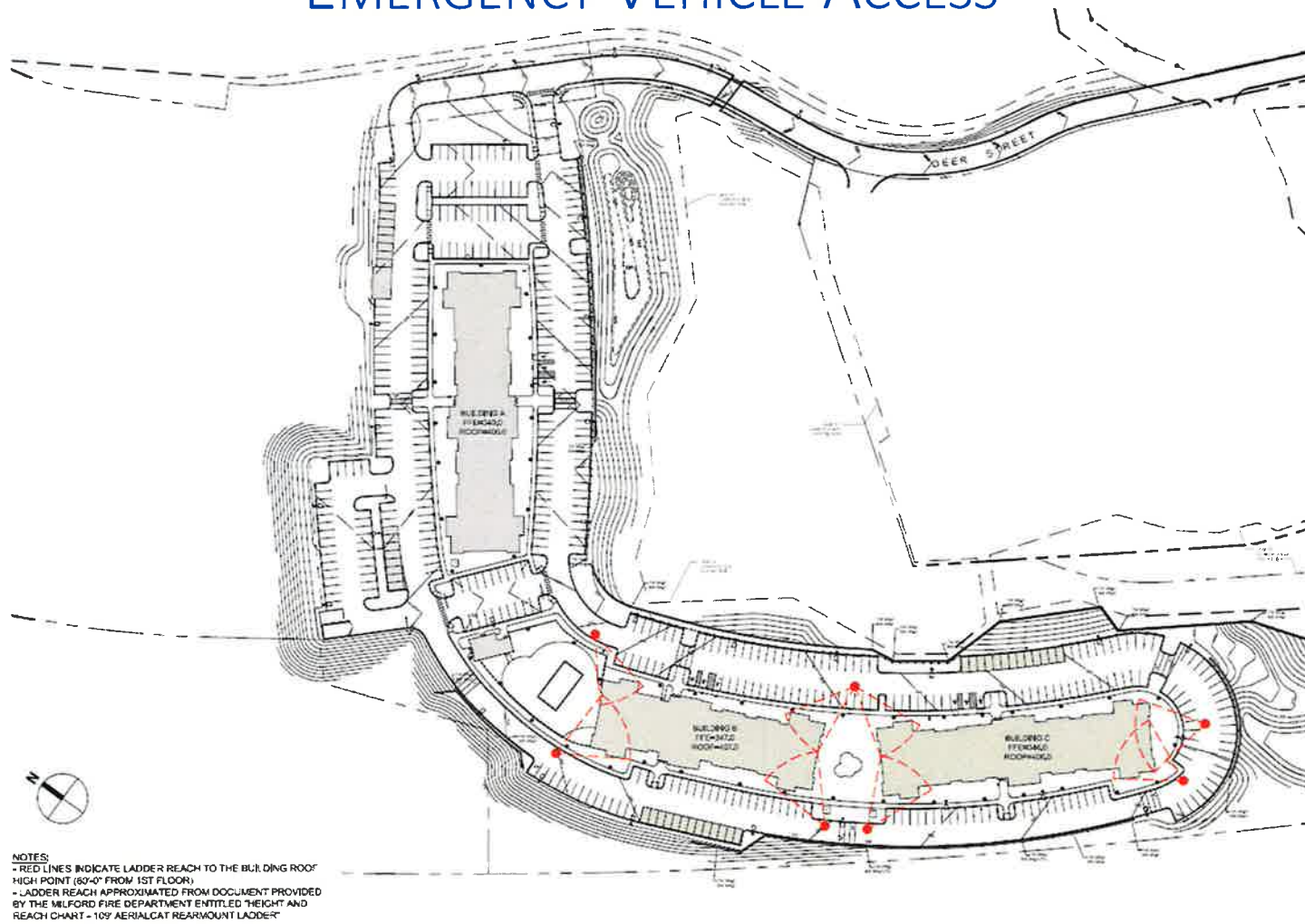
EMERGENCY VEHICLE ACCESS

Will Park, P.E., CDT
SMMA

EMERGENCY VEHICLE ACCESS



EMERGENCY VEHICLE ACCESS



BRIDGE CROSSING (NORTH BANK)



BRIDGE CROSSING



BRIDGE CROSSING (SOUTH BANK)





THE RESIDENCES AT STONE RIDGE

Questions...







