TRANSPORTATION ADVISORY COMMITTEE

Date: October 9, 2024

To: Select Board

From: Transportation Advisory Committee

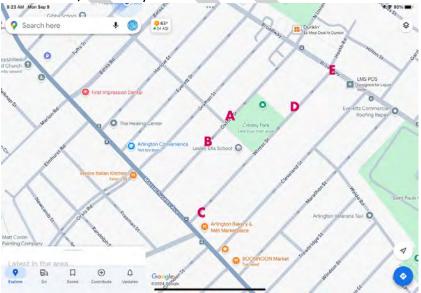
Subject: Appendix Information re: Recommendations for Winter St/Oxford St Corridor

I. Summary Observations

Frequent in-person observations over the course of the past year have resulted in five specific areas of recommendation. Focus on these five areas, however, should not take away from larger safety concerns for the wider East Arlington area that include the Broadway corridor, the Broadway/Warren/Harvard/Bates intersection, Gibbs School/Rawson Rd/Foster St, and Thompson School/North Union St, all of which are connected in some way to the Winter/Oxford corridor and pedestrian, bicycle, and motor vehicle patterns through and around East Arlington and specifically the ladder streets between Broadway and Mass Ave.

The five specific areas addressed in this report are as follows:

- A: The Oxford/Raleigh Intersection
- B: Oxford St in front of the rear entrance to Lesley Ellis School
- C: Winter St/Mass Ave Intersection
- D: Winter St from the area adjacent to the park down to Broadway
- E: Winter St/Broadway Intersection



A: Oxford and Raleigh Street Intersection

- 1. Raleigh is 2-way traffic
- 2. Oxford is 1-way with only a sign above the stop sign on Raleigh
- 3. Oxford has a 'no trucks' sign near entrance from Broadway
- 4. Oxford has a designated School Zone 20mph sign reflective of the LES area
- 5. The faculty parking lot for LES is across the street from the Raleigh terminus
- 6. The street is a de facto continuation of a pedestrian path across the park to/from Gibbs School
- 7. The pedestrian crossing is on the 'turn side' for cars turning from Raleigh on to Oxford
- 8. Overall poor visibility for cars coming down Oxford due to parked vehicles
- 9. Users/residents report wrong-way traffic turning from Raleigh
- 10. Users/residents report frequent parking congestion related to use of racket courts
- 11. Users/residents report frequent speeding
- 12. Speed data (attached) from October 2023 supports 85% percentile is above school zone speed
- 13. TAC observations on several occasions confirms high velocity of vehicles
- 14. TAC observations on confirms vehicular failure to stop at the crosswalk
- 15. No Parking signage on Raleigh is good







School Zone signage on Oxford street is non-compliant and unclear as it does not have time designations. Current signage is "School Speed Limit Mon-Fri". Speed data was collected in October 2023 from 76 Oxford St at a location just before the school zone signage. 85th percentile was 24mph in a 25mph zone. It is unclear if all vehicles achieved a speed below 20mph in the immediate moments following data collection in approach to the school zone.



Location of speed data from October 2023.

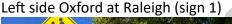


School Zone signage on Oxford St

B. Oxford Street at the rear entrance to Lesley Ellis School

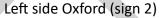
*. Prior to the implementation of the arrival/dismissal plan by LES in September of 2023, this area was used for pick up and drop off via vehicles standing in a signaled no parking zone. The arrival/dismissal plan that requires all pick-up/drop-off to occur on the front side (Winter St) utilizing the driveway with designated pedestrian zones has been widely successful and as of September 2024 there are virtually no cars dropping off.

- 1. Signage of the no parking area along Oxford between Raleigh and the end of the school zone is confusing there are three signs but it is not clear if there is a zone between signs where parking is legal or not
- 2. The alternating side of no parking from the left to right after the school area as the street nears Mass Ave is a relatively effective form of reducing vehicular speed





Left side Oxford (sign 3)







C. Winter St/Mass Ave Intersection

1. This is a very dangerous pedestrian crossing due to three distinct vehicle 'turns' – one from outbound Mass Ave, one making a left turn from inbound Mass Ave, and one from traffic coming across from Lake Street. While there is a signal and an all-red pedestrian crossing for the

Mass Ave/Lake St intersection, the mouth of Winter St is offset outside of this intersection and thus pedestrians are frequently in conflict with vehicles.

2. There is a bus stop on the outbound side west of the mouth of Winter St that is frequented by students and elderly.

3. The right side corner of Winter St is frequented by take-away food vehicles servicing the numerous food establishments on the block. This corner is signaled 'no parking here to corner' approximately 35' from the intersection





D. Winter St from the area adjacent to the park down to Broadway

- 1. There is frequent vehicular congestion on this street
- 2. A child was struck by a motor vehicle in front of LES in 2023

3. Delivery trucks, fire engines, and buses often cannot pass due to parking on both sides of the street for a portion of the road as well as vehicles parking illegally on the left side in front of the park area

4. Cars queue up on the left side turning into the LES driveway – prior to the implementation of arrival/dismissal changes in September 2023, this queue was exacerbated by a slow 'loading' process. However, since implementation which addresses early childhood dismissal (which, obviously, takes longer per child than older children) this issue is less of a concern

5. The parking situation from the exit of the LES school driveway to the end of Winter needs immediate attention – this is a hazard for emergency vehicles





- E: Winter St/Broadway Intersection
 - 1. There is dangerous visibility at the intersecton of Winter and Broadway
 - 2. The design of the new building at 80 Broadway creates a barrier for drivers to be able to see oncoming traffic
 - 3. Vehicles parked in front of the new 80 Broadway exacerbate the problem
 - 4. Vehicles need to station not only blocking the crosswalk but beyond the crosswalk in order to see around the building and any parked cars





Additionally, any future redevelopment or enhancement of Crosby Park and its recreational facilities should make use of the frontage on both Winter and Crosby for possible diagonal parking or reconfiguration of curbs at the park to allow for parking.

BROADWAY:

With the redevelopment of 80 Broadway (formerly Menotomy Beer & Wine) a traffic hazard visibility has been created that dramatically increases the potential for conflict between users. In addition to the NO PARKING on Broadway in front of the new building, it may be worth considering a reversal of direction for Winter and Oxford one-way streets. This is a far larger discussion that could potentially have significant impact on Raleigh Street causing downstream safety issues for the multiple intersections that it contains, but in the longer term planning of Broadway corridor redevelopment, the impact on the ladder streets between Broadway and Mass Ave should be considered and the direction of Winter and Oxford may offer the potential

as a traffic calming measure. This includes any impact such a change would have on the Mass Ave Lake St irregular intersection.

WINTER STREET AND OXFORD STREET

Due to the school zone and speed conditions for these two streets, raised crosswalks, speed tables, and curb extensions should all be considered at the time of any alteration of surface conditions as well as the alteration of any park and recreational amenities.

September 11, 2024.

II. Supporting Information for Recommendations

- A: The Oxford/Raleigh Intersection
- B: Oxford St in front of the rear entrance to Lesley Ellis School
- C: Winter St/Mass Ave Intersection
- D: Winter St from the area adjacent to the park down to Broadway
- E: Winter St/Broadway Intersection



A: INTERSECTION OF OXFORD ST AND RALEIGH ST:

1. Install a standard R5-1 "Do Not Enter" sign on Southeast corner of intersection (at discretion as to whether 2 are needed on each side or just one on south side of Oxford)

2. Install a standard R6-1 "One Way" arrow sign directly in front of intersection

Note: 2B.46.02 "A DO NOT ENTER sign should be installed at other locations where additional emphasis is needed where wrong-way movements are prominent or where the intersecting angle of roadways is such that the visibility of ONE WAY signs alone does not sufficiently convey the restriction."



B: OXFORD ST PARKING

- 1. Sign 1 Maintain the existing No Parking Any Time → sign at the corner of Raleigh and Oxford on the left side of the street
- Sign 2 Amend existing sign located in the middle of the no parking area from "→" to "←→" (This sign is after the Raleigh intersection and before the sidewalk entrance to LES)
- 3. Sign 3 Amend existing sign located at the end of the no parking area from no arrow to " \leftarrow " (This sign is visible when near the sidewalk rear entrance to LES)

This would result in a three sign sequence of " \rightarrow ", " $\leftarrow \rightarrow$ ", " \leftarrow ".

Note: 2B-40 suggests alternative options may be used such as "NO PARKING BETWEEN SIGNS". However, due to the three-sign sequence and the alignment of this area, it would not be clear between which signs.

Note: 2B-41: "At intermediate points within a zone, a single sign without any arrow or appended plaque should be used, facing in the direction of approaching traffic. Otherwise the standards of placement should be the same as for signs using directional arrows." However, the existing sign at the intermediate point already has a single-direction arrow. While the removal of the arrow might be sufficient, it is our recommendation that the single-direction arrow be amended to bidirectional in line with other bidirectional arrow signs in the immediate area.

Existing usage of bidirectional arrow (R7-1) within the Oxford/Winter corridor:



- C: Winter St/Mass Ave Corner Intersection
 - 1. There is sufficient space to allow for the creation of one single additional parking space and maintain a 20' buffer of no parking to the curb. This area is already being used as such, and would serve both as a service to the local businesses and as a measure of traffic calming as residents have noted the presence of a vehicle in this spot reduces the propensity for vehicles crossing from Lake to attempt to 'straighten the curve' on approach into Winter St. Thus, it is recommended that a "5 Minute Parking" or "5 Minute Parking, Pick-up Drop-off Only" sign be installed
 - 2. The "No Parking Here to Corner" sign be adjusted to the 20' buffer from the intersection at the front of the single parking space created with the 5-minute designation

Note: 2B-52.04-A "Permissive parking signs allowing parking with restrictions include, but are not limited to: Parking only allowed for limited time duration (such as 30 minutes or for 1 hour)"

Suggested potential signs for parking space that fit within both the signage guidelines as well as the spatial dimensions of the corner curb area:



D: Winter St from the area adjacent to Crosby Park down to Broadway

- Installation of a "NO PARKING ANY TIME ←" sign on the utility pole at the end of the Crosby Park area, left side of street. There is currently no sign in this location. This is just west of 54 Winter St.
- 2. Additional "NO PARKING ANY TIME" sign should be installed in front of Crosby Park between the end of the school zone and the recommendation D1 above, approximately across from 45 Winter St. at the corner of the field and the start of the racket courts. Currently, there is no signage in this stretch and it is not clear that this is a no parking zone. This is the main area of concern for bottleneck where emergency vehicles and delivery trucks are not able to pass due to illegally parked cars.

3. Install 3 "NO PARKING ANY TIME" signs on the right side of the street beginning across from the park on the north side of the driveway at 51 Winter St, with an additional sign north of the driveway at 65 Winter, and a final sign in front of the apartment building that exists on the corner of Winter and Broadway. Driveway entrances across from the park earlier on Winter eliminate the need for signage in this stretch across from the school and park.

Note: This will result in the following: There will be no parking on the left side of Winter street from Mass Ave to the end of Crosby Park, and will be no parking on the right side of the street from Crosby Park to Broadway.

Installation of sign on post, left side, end of park (D1)



Installation of additional NO PARKING sign in front of Crosby Park (D2)



Installation of NO PARKING signs on right side of Winter extending from Crosby Park to Broadway (D3)

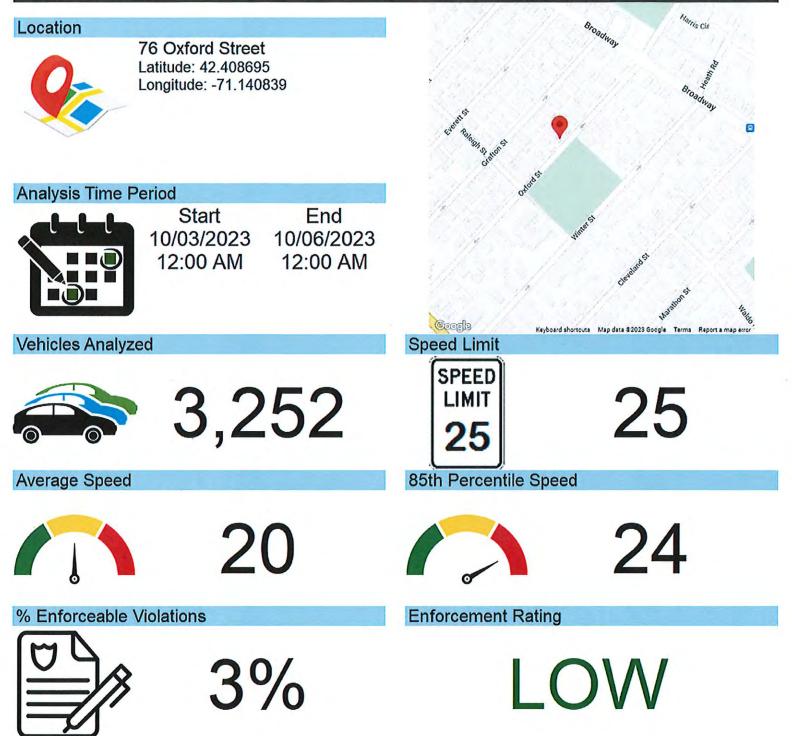


E: Winter St/Broadway Intersection

1. Install a NO PARKING HERE TO CORNER sign on the right side of Broadway directly in front of the new building at 80 Broadway. There is a curb cut at the entrance to the building breezeway that forms a natural transition to the no parking zone. This is imperative to partially mitigate the line of sight hazard created by the configuration of the new building's first floor extension that blocks driver visibility for cars exiting from Winter St onto Broadway.

NOTE: As this sign would be on Broadway and involves an existing construction site, TAC refers this to the Planning Board and any working groups related to Broadway. However, the installation of this sign should in no way be delayed as the existing conditions present a clear and present danger to pedestrians, cyclists, and vehicular traffic at the intersection of Winter and Broadway

SPEED DATA ANALYSIS



Site Code: 76 Oxford Street Station ID: Location 1: Location 2: Latitude: 42.408695 Longitude: -71 140839

Longitude: -71.140839 Direction: South, None Specified

10/03/2023		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
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1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:00	0	1	0	0	2	0	0	0	0	0	0	0	0	3
4:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
5:00	2	1	3	2	0	0	1	0	0	0	0	0	0	9
6:00	2	6	23	3	1	0	0	0	0	0	0	0	0	35
7:00	3	49	82	30	3	0	0	0	0	0	0	0	0	167
8:00	16	52	79	10	1	1	0	0	0	0	0	0	0	159
9:00		27	29	13	1	0	0	0	0	0	0	0	0	83
10:00	12	21	13	3	1	0	0	0	0	0	0	0	0	50
11:00		34	12	3	2	0	0	0	0	0	0	0	0	60
12:00 PM	7	13	25	4	0	0	0	0	0	0	0	0	0	49
1:00	8	12	14	4	0	0	0	0	0	0	0	0	0	38
2:00		35	27	9	0	0	0	0	0	0	0	0	0	88
3:00	15	42	28	6	0	0	0	0	0	0	0	0	0	91
4:00		29	36	7	0	0	0	0	0	0	0	0	0	77
5:00		44	31	4	1	0	0	0	0	0	0	0	0	92
6:00		26	22	1	0	0	0	0	0	0	0	0	0	57
7:00		17	10	0	0	0	0	0	0	0	0	0	0	35
8:00		7	12	1	1	0	0	0	0	0	0	0	0	22
9:00		5	5	5	1	0	0	0	0	0	0	0	0	18
10:00		1	4	0	0	0	0	0	0	0	0	0	0	7
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File Name: Oxford Street 10-23 Date Printed: 10/11/2023 Start Date: 10/03/2023 End Date: 10/05/2023 GPS Accuracy: 0 ft Location Verified: No

Site Code: 76 Oxford Street Station ID: Location 1: Location 2: Latitude: 42.408695 Longitude: -71.140839 Direction: South, None Specified

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10/04/2023		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		T
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM		0	1	0	1	0	0	0	0	0	0	0	0	3
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2:00		0	0	0	0	0	0	0	0	0	0	0	0	0
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4:00		20	37	7	0	0	0	0	0	0	0	0	0	74
5:00		46	34	6	0	0	0	0	0	0	0	0	0	103
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7:00		9	17	3	1	0	0	0	0	0	0	0	0	39
8:00		15	11	4	0	0	0	0	0	0	0	0	0	32
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File Name: Oxford Street 10-23 Date Printed: 10/11/2023 Start Date: 10/03/2023 End Date: 10/05/2023 GPS Accuracy: 0 ft Location Verified: No

Site Code: 76 Oxford Street Station ID: Location 1: Location 2: Latitude: 42.408695 Loppitude: -71 140839

Longitude: -71.140839 Direction: South, None Specified

10/05/2023		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
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5:00	10	31	23	2	0	0	0	0	0	0	0	0	0	66
6:00	7	23	24	9	0	0	0	0	0	0	0	0	0	63
7:00	4	16	17	6	0	0	0	0	0	0	0	0	0	43
8:00	8	10	12	1	0	2	0	0	0	0	0	0	0	33
9:00	3	3	7	2	0	0	0	0	0	0	0	0	0	15
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11:00		0	0	0	0	0	0	0	0	0	0	0	0	0
Total		375		110	8	2	0	0	0	0	0	0	0	1014
Grand Total	428	1174	1261	340	41	3	1	0	0	0	0	0	0	3248
Stats			Percentile	15th	50th	85th	95th							
			Speed	15	20	24	27							
			ed (Average)	19.4										
		10 MPH	Pace Speed	15-24										

ean Speed (Average) 19.4 10 MPH Pace Speed 15-24 Number in Pace 2413 Percent in Pace 74.3% Number > 25 MPH 385

Percent > 25 MPH 11.9%

File Name: Oxford Street 10-23 Date Printed: 10/11/2023 Start Date: 10/03/2023 End Date: 10/05/2023 GPS Accuracy: 0 ft Location Verified: No

Site Code: 76 O Station ID: Location 1: Location 2: Latitude: 42.408 Longitude: -71.1	695 40839	File Name: 76 Oxford Street 10-23 Date Printed: 10/11/2023 Start Date: 10/03/2023 End Date: 10/05/2023 GPS Accuracy: 0 ft Location Verified: No
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8:00	22	
9:00	18	
10:00	7	
11:00	4	
Total	1148	
AM Peak	7:00	
Volume	167	
PM Peak	5:00	
Volume	92	

Site Code: 76 O Station ID: Location 1: Location 2: Latitude: 42.408 Longitude: -71.1	695 40839	File Name: 76 Oxford Street 10-23 Date Printed: 10/11/2023 Start Date: 10/03/2023 End Date: 10/05/2023 GPS Accuracy: 0 ft Location Verified: No
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8:00	149	
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10:00	9	
11:00	3	
Total	1086	
AM Peak	8:00	
Volume	149	
PM Peak	5:00	
Volume	103	

Site Code: 76 O Station ID: Location 1: Location 2: Latitude: 42.408 Longitude: -71.1	695			File Name: 76 Oxford Street 10-23 Date Printed: 10/11/2023 Start Date: 10/03/2023 End Date: 10/05/2023 GPS Accuracy: 0 ft Location Verified: No
10/05/2023	South, None			
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2:00	0			
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1:00	41			
2:00	53			
3:00	87			
4:00	67			
5:00	66			
6:00	63			
7:00	43			
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10:00	7			
11:00	3			
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AM Peak	7:00			
Volume	147			
PM Peak	3:00			
Volume	87			
Grand Total	3251			
ADT		ADT: 1,084	AADT: 1,084	