



Mass Ave/Appleton Design Review Committee

03-23-21

Daniel Amstutz, Town of Arlington
Department of Planning & Community
Development

Agenda

1. Welcome and Opening of Remote Meeting, including Ground Rules
2. Committee Members and Brief Introductions
3. Review of Existing Conditions at Mass Ave and Appleton Street
4. Discussion of Key Design Principles for Reviewing Safety Improvement Concepts
5. Review of Initial Concepts and Prioritize Design Considerations for Next Meeting
6. Discuss Next Steps and Set Next Committee Meeting Dates – Frequency and Timing
7. Adjourn



Remote Meeting and Ground Rules

- Remote meeting script
- Confirm committee members are here
- Please use “Raise Hand” function to comment
- Start with committee members before public comments
- Recorded Meeting



Purpose of Design Review Committee

- Established by Select Board on June 8 after fatal crash killing Charlie Proctor in May
- “to study and make recommendations for both short term and long term improvements to the intersection of Massachusetts Avenue and Appleton Street”
- Nearby intersections are relevant (Lowell/Mass Ave, Forest/Mass Ave)



Committee Members and Brief Introductions

- Committee membership:
 - Representative of the Transportation Advisory Committee
 - Representative of the Arlington Bicycle Advisory Committee
 - Representative of the Arlington Police Department
 - Representative of the Engineering Division (DPW)
 - Senior Transportation Planner (DPCD)
 - Representative of Local Business
 - Representative of St. Athanasius Parish
 - 3 Resident Representatives
- Committee members:
 - Name
 - Affiliation on the committee
 - Interest and goals for the committee



Goals of the Committee

- To improve safety and accessibility for all users of the Mass Ave/Appleton intersection and the adjacent corridor





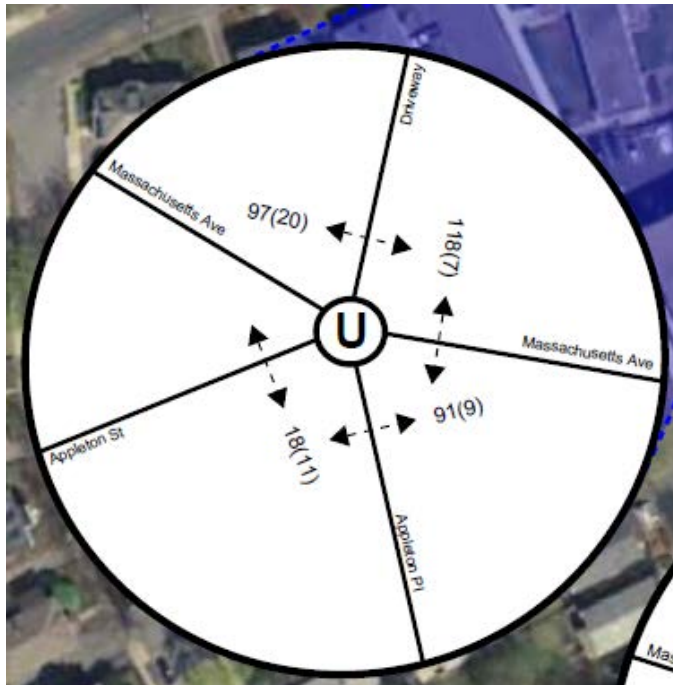
Existing Conditions: Mass Ave & Appleton



Traffic counts

Table 2 – Automatic Traffic Recorder (ATR) Summary

Location	Period	ADT ^a			Peak Hour Traffic				
		Volumes (vpd) ^b	Directional Distribution		Period	Volumes (vph) ^c	Directional Distribution		K Factor ^d
Massachusetts Avenue, between Burton Road and Pine Court	Weekday	13,127	51%	EB	Morning	1,052	53%	WB	0.08
					Afternoon	1,051	57%	EB	0.08



Left: Pedestrian Counts

Source: 1165R Mass Ave Apartments – Traffic Impact Report, Nitsch Engineering, July 6, 2020

Reported and Identified Safety Issues (not exhaustive)

- Solar glare
- Red-light running
- Ottoson School students crossing in the mornings
- No separated bicycle facilities
- No crosswalk on west side of intersection
- Multiple conflict points with no protected turns
- Speed? (No data at this time)
- Other issues?



Crash data

Table 5 – Crash Statistics

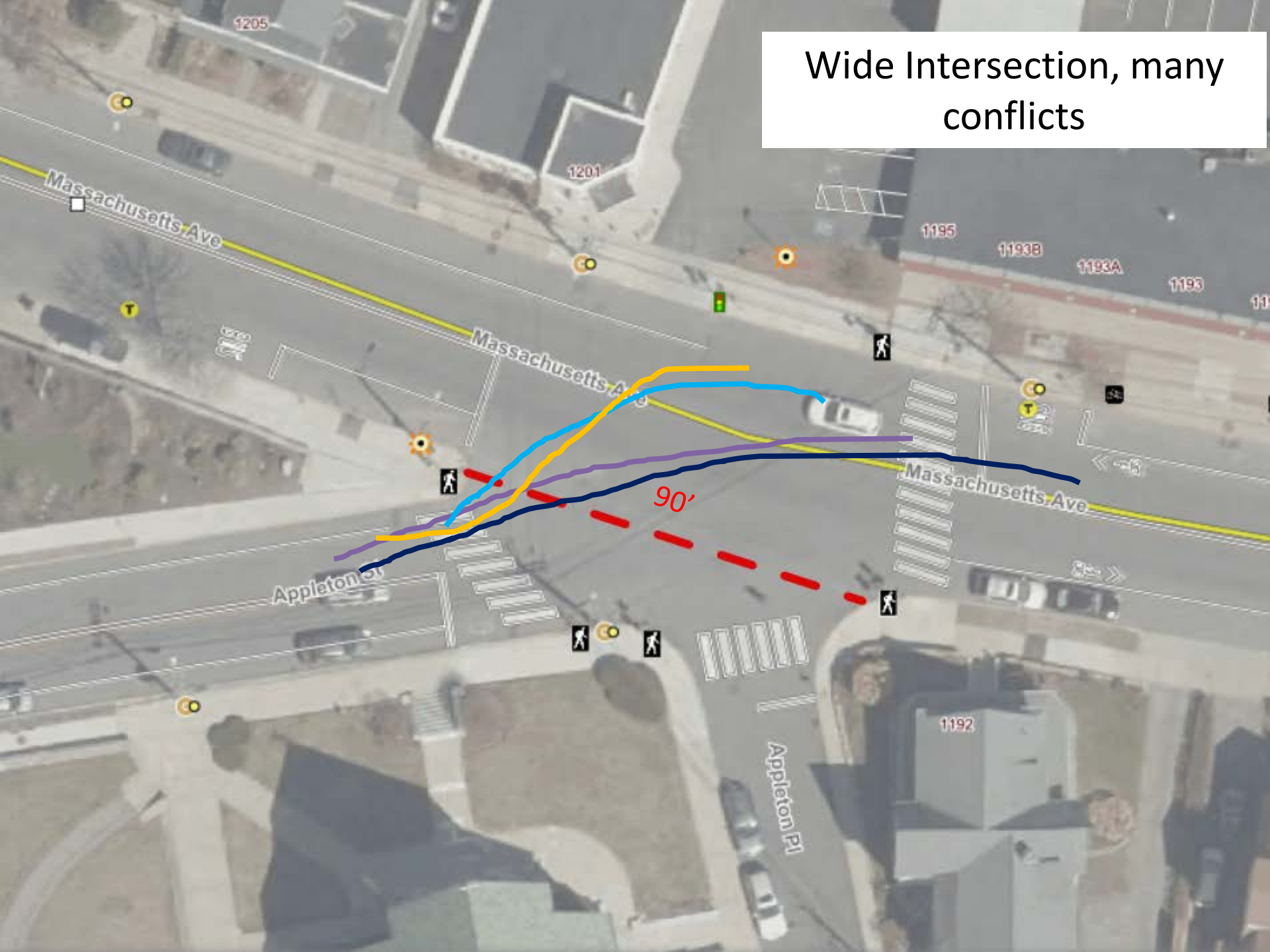
Location	Number of Crashes			Severity				Manner of Collision				Incl. Ped/Bike ^j	Percent During	
	Year	Total Crashes	Annual Average	PD ^a	PI ^b	NR ^c	F ^d	A ^e	RE ^f	HO ^g	Other ^h		Peak Hours ^k	Wet/Icy Conditions
Massachusetts Avenue and Appleton Street/Appleton Place/Commercial Driveway	2017	4	3.3	4				2	2				0%	50%
	2018	0												
	2019	6		5		1		3	3				33%	50%
	Total	10		9	0	1	0	5	5	0	0	0	20%	50%

Table 6 – Crash Rate Summary

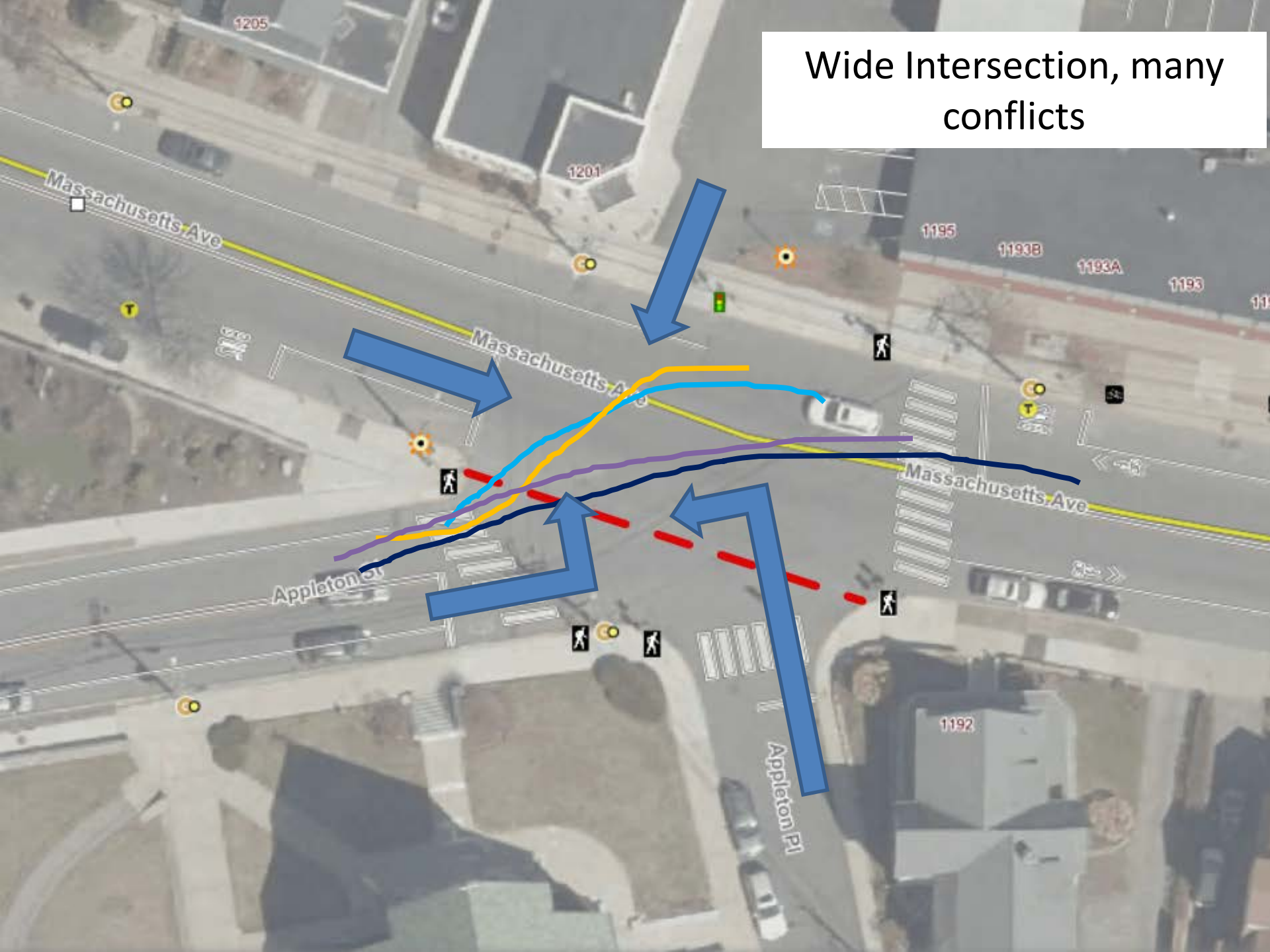
Location	Facility Type	Number of Crashes ^a	Crash Rate ^b	Average Rates ^{b,c}		Comparison to Average Rates	
				District 4	Statewide	District 4	Statewide
Massachusetts Avenue and Appleton Street/Appleton Place/Commercial Driveway	Unsignalized Intersection	10	0.60	0.57	0.57	Slightly Above	Slightly Above

Source: 1165R Mass Ave Apartments – Traffic Impact Report, Nitsch Engineering, July 6, 2020

Wide Intersection, many conflicts



Wide Intersection, many conflicts



Key Design Principles

- How can the design address goals of the committee? How should different users be accommodated in the design?
- Should certain movements be protected or prohibited?
- Examples:
 - Conflicting movements (Left turns from Mass Ave to Appleton currently being prohibited in the evening by APD)
 - Pedestrian crossings
 - Bus stops/transit users
 - Bicyclists
 - Short term vs. long term
 - Parking
- Discussion



Review of Initial Concepts

- Five concepts posted
 - Short Term Improvements developed by Phil Goff
 - Short Term Improvements developed Neighborways Design
 - Redesign concept developed by Petru Sofio
 - Short Term Improvements Alternate 1 (Developed by Green International for the Town)
 - Short Term Improvements Alternate 2 (Developed by Green International for the Town)
- Based on key design principles, what design considerations should be prioritized?



SHORT-TERM Bicycle Safety Proposal at the Mass Ave/Appleton Intersection
 Arlington, MA
 by Phil Goff
 May 21, 2020



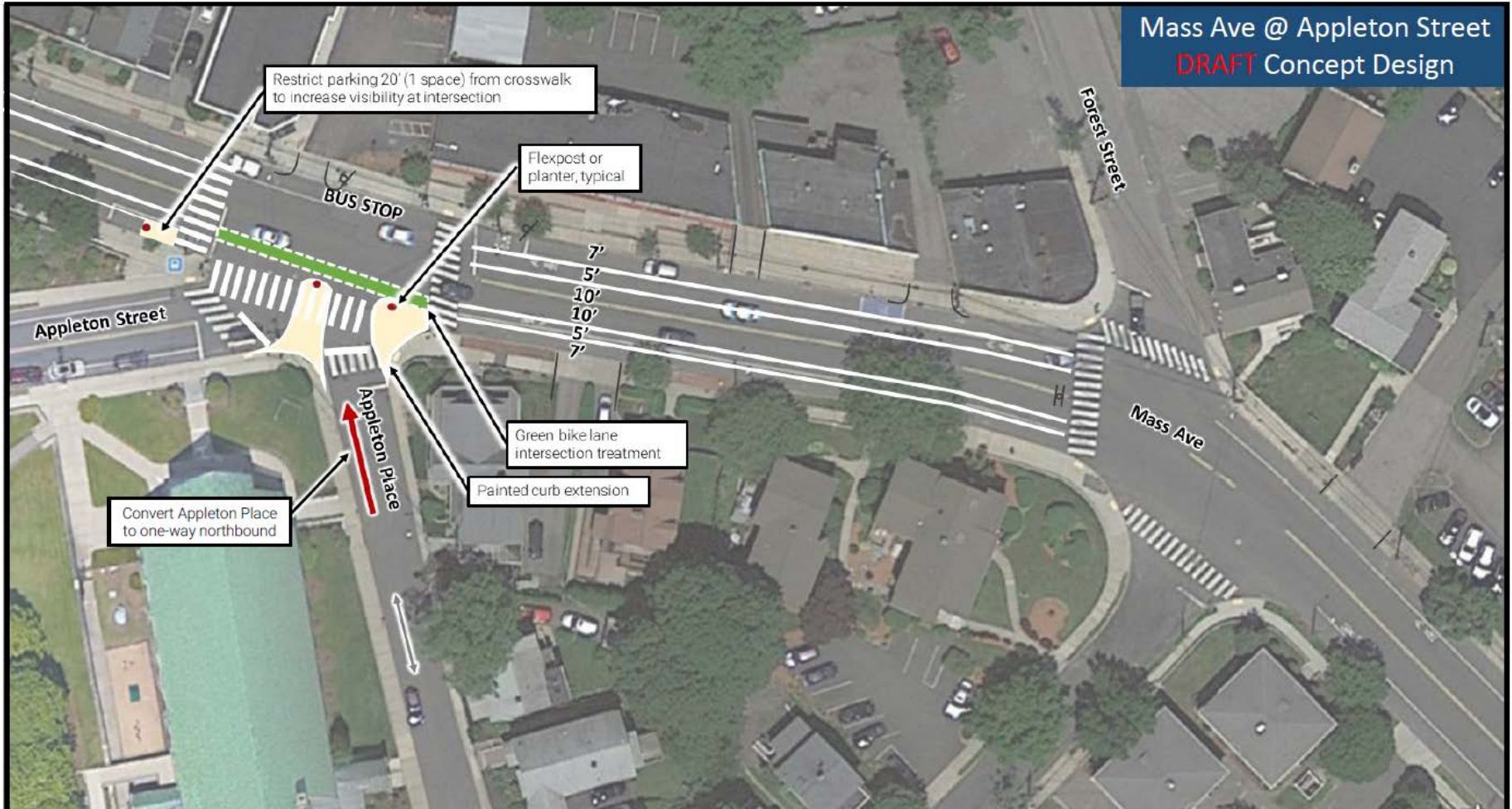
Current View Looking West



PROPOSED View Looking West



Mass Ave @ Appleton Street
DRAFT Concept Design



DRAFT / NOT FOR CONSTRUCTION

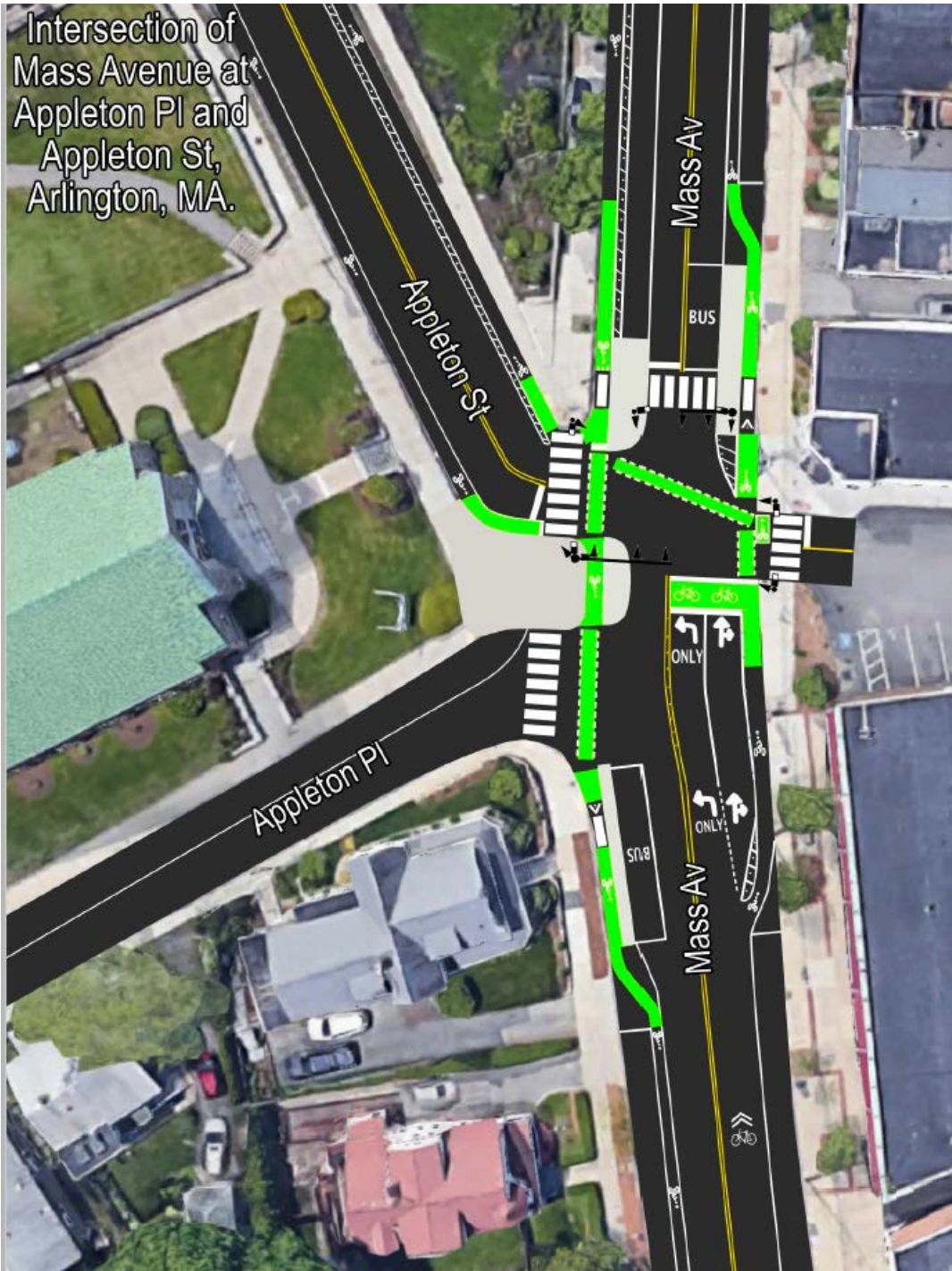
Not to scale

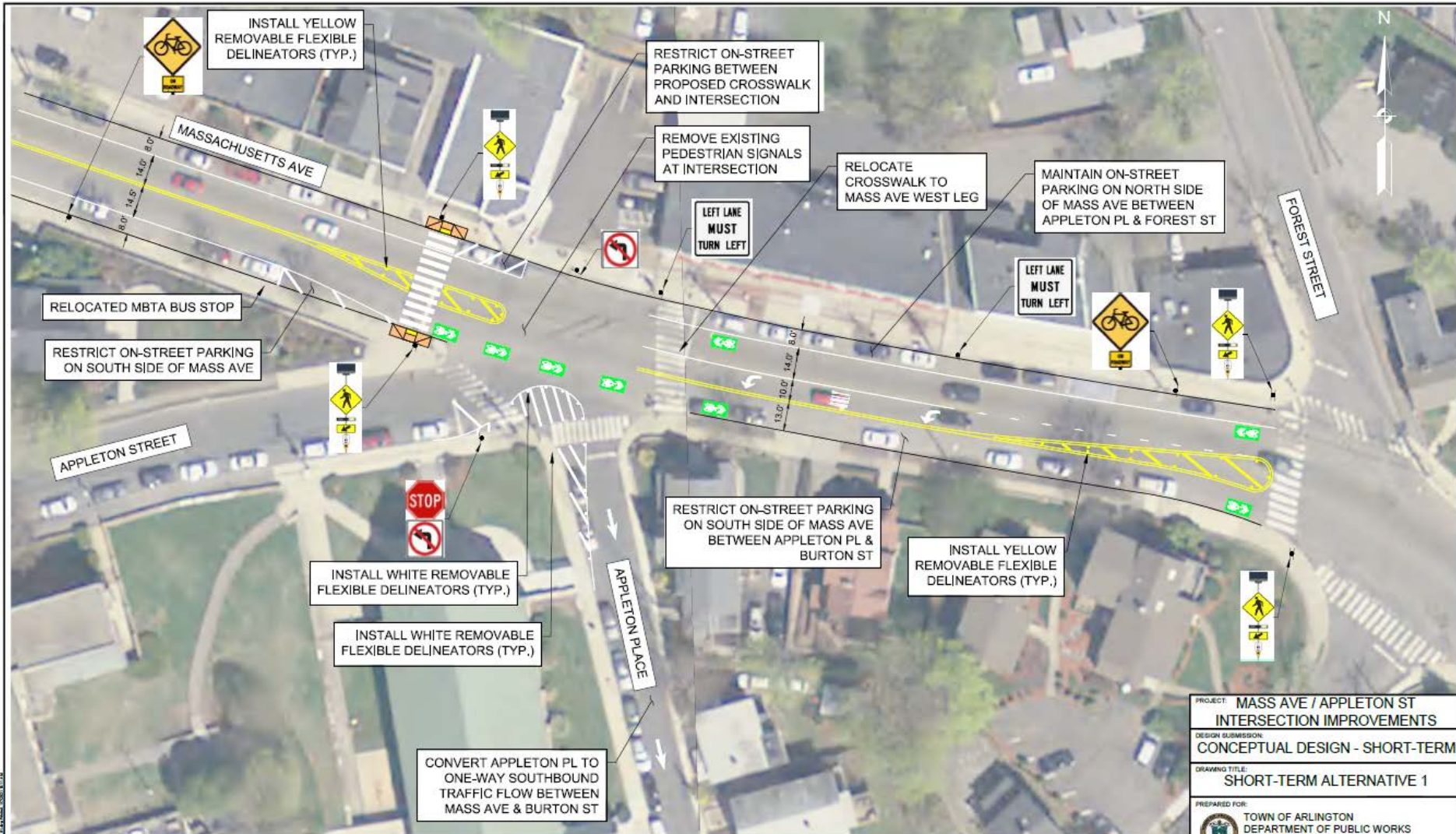
Notes:

- Measurements from google earth – need to field verify. Assumed 44' width curb to curb
- Consider / check truck restrictions on Appleton – need to verify turning radii in Autoturn with SU-30. recommend restricting WB-50s
- Consider painted curb extensions or mountable concrete (similar to Paul Revere Rd @ Mass Ave)
- Consider consolidating parking to one side of the street – see street mix cross sections.



Intersection of
Mass Avenue at
Appleton Pl and
Appleton St,
Arlington, MA.

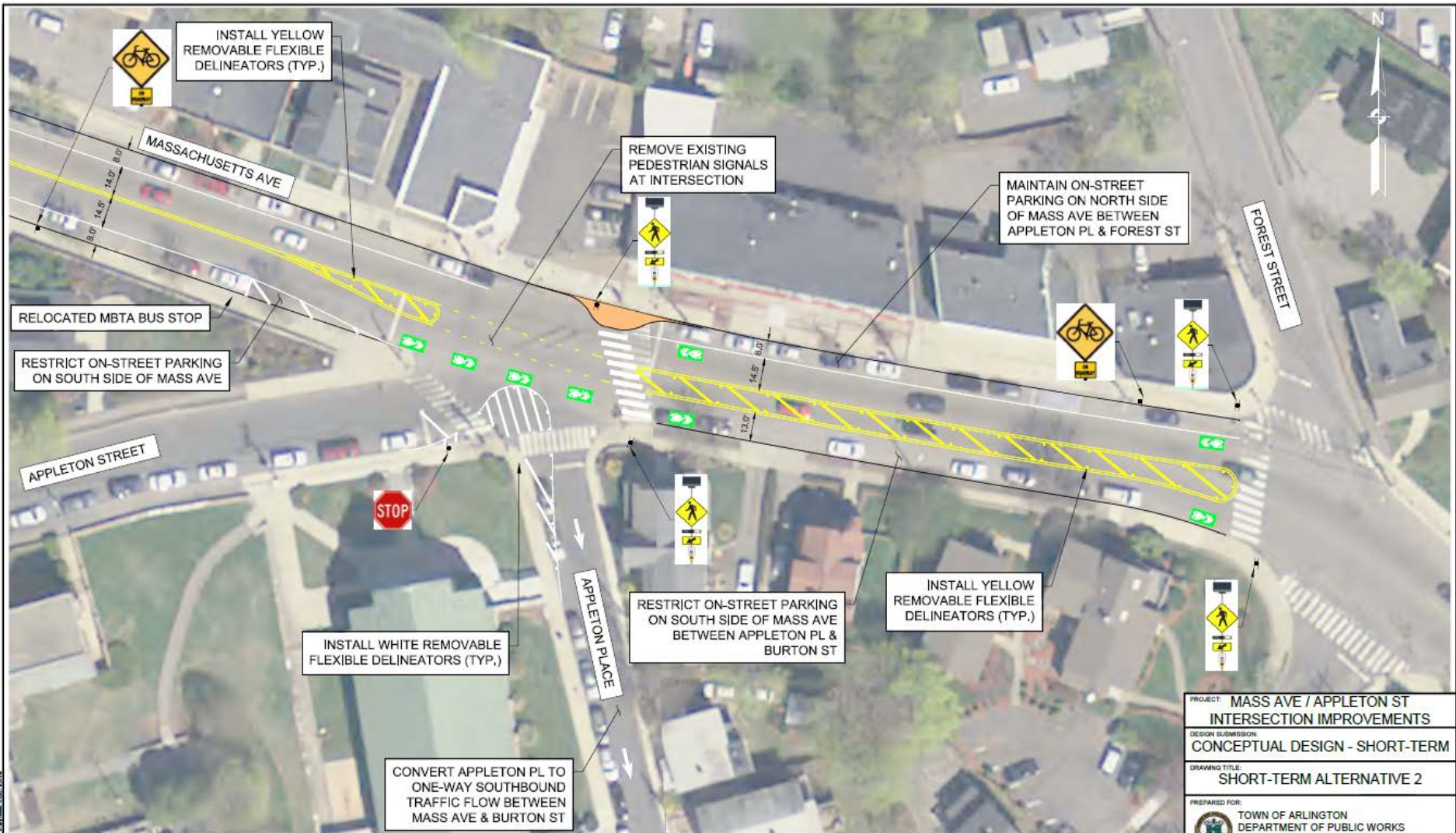




MASSACHUSETTS AVE / APPLETON STREET / APPLETON PLACE
 SHORT-TERM INTERSECTION IMPROVEMENTS
 ALTERNATIVE 1



PROJECT: MASS AVE / APPLETON ST INTERSECTION IMPROVEMENTS	
DESIGN SUBMISSION: CONCEPTUAL DESIGN - SHORT-TERM	
DRAWING TITLE: SHORT-TERM ALTERNATIVE 1	
PREPARED FOR: TOWN OF ARLINGTON DEPARTMENT OF PUBLIC WORKS 51 GROVE STREET ARLINGTON, MASSACHUSETTS	
PREPARED BY: GREEN INTERNATIONAL AFFILIATES, INC. TRANSPORTATION / STRUCTURAL / WATER RESOURCES / CIVIL/SITE 328 LITTLETON ROAD, SUITE 3 WESTFORD, MA 01086 978.823.0400 www.giaintl.com	
SCALE: AS NOTED	DESIGNED BY: JG
DATE: 11/09/2020	DRAWN BY: JG
PROJECT NO: 20107	CHECKED BY: VW
SHEET NO. 1 OF 2	



MASSACHUSETTS AVE / APPLETON STREET / APPLETON PLACE
SHORT-TERM INTERSECTION IMPROVEMENTS
ALTERNATIVE 2



SCALE: 1" = 40'

PROJECT: MASS AVE / APPLETON ST INTERSECTION IMPROVEMENTS	
DESIGN SUBMISSION: CONCEPTUAL DESIGN - SHORT-TERM	
DRAWING TITLE: SHORT-TERM ALTERNATIVE 2	
PREPARED FOR: TOWN OF ARLINGTON DEPARTMENT OF PUBLIC WORKS 51 GROVE STREET ARLINGTON, MASSACHUSETTS	
PREPARED BY: GREEN INTERNATIONAL AFFILIATES, INC. TRANSPORTATION STRUCTURAL WATER RESOURCES CIVIL/IRRE 250 LITTLETON ROAD, SUITE 3 WESTFORD, MA 01586 978.825.0483 www.greenintl.com	
SCALE: AS NOTED	DESIGNED BY: JG
DATE: 11/09/2020	DRAWN BY: JG
PROJECT NO: 20107	CHECKED BY: WW
SHEET NO. 2 of 2	

Next Steps & Committee Meeting Dates/Frequency

- Next Steps:
 - Identify elements that can be completed in the short term/on a trial basis as soon as possible
 - Provide guidance to Green International/DPW on design concept development
 - Recommendation to Select Board on short term improvements
 - Begin determining longer-term improvements and process
- Committee meeting dates and frequency
 - Also: length of meetings
- Adjourn

