

# Colchester Avenue: Bikeways, Parking, and Intersection Safety Study

## Advisory Committee Meeting #2

March 19, 2020



# Agenda



(Re)Introductions



Review Updated Purpose and Need



Review and Discuss Corridor  
and Intersection Concepts

Conceptual Plans  
Preliminary Evaluation



Discussion & Feedback



Next Steps

# Advisory Committee (Re)Introductions

- **CCRPC** | Jason Charest, PE, Marshall Distel
- **City of Burlington** | Nicole Losch, PTP
- **Third Sector Associates** | Diane Meyerhoff
- **VHB** | Jenn Conley, PE, PTOE, Drew Gingras, PE, Karen Sentoff
- **City of Burlington** | Will Clavelle
- **UVM Medical Center** | Ashley Bond
- **UVM** | Jim Barr
- **Green Mountain Transit** | Chris Damiani
- **Burlington Walk Bike Council** | Jason Stuffle
- **VTrans** | Mario Dupigny-Giroux, PE
- **NPA Representative** | David Cawley
- **City Council** | Sharon Bushor

# Project Purpose

The purpose of the **Colchester Avenue: Bikeways, Parking, & Intersection Safety Study** is to **identify and prioritize improvements** that align with the City's vision for sustainable transportation infrastructure and enable a continuous and connected multimodal transportation corridor. Specifically, the study will evaluate improvements:

- along Colchester Avenue in its entirety which will **enhance mobility and safety for all modes** and include solutions for parking demand of businesses, employers, and residents;
- at the intersection of Colchester Avenue and East Avenue which will **improve safety** for all modes of transportation.





# Project Needs

- **Improve Intersection Safety**
- **Improve Corridor Safety for all Users**
- **Enhance Mobility for Bicyclists**
- **Solutions for Parking Demand of Local Businesses, Employers, and Residents**



# Concepts Considered

Concept 1	maintain curb-to-curb
<b>Concept 2</b>	<b>separated bike lanes both directions within curb</b>
Concept 3	shared use path both sides
<b>Concept 4</b> <b>Concept 4A</b>	<b>raised, separated bike lanes both directions</b> <b>where possible, shifts to allow greenspace, bus pulloffs, parking</b>
Concept 5	two-way cycle track
<b>Concept 6</b>	<b>shared use path uphill; separated bike lane downhill</b>

# Alternatives Presentation

Corridor Concepts	East Ave Intersection Alternatives
<b>Concept 2</b> Separated Bike Lanes within Curb	<b>Alternative 1</b> Equipment and Striping Signalized Intersection
<b>Concept 4</b> Raised, Separated Bike Lanes	<b>Alternative 2</b> Bike Separated Signalized Intersection
<b>Concept 4A</b> Raised, Separated Bike Lanes with Enhancements	<b>Alternative 2A</b> Bike Lane thru Signalized Intersection
<b>Concept 6</b> Shared Use Paths	<b>Alternative 3</b> Roundabout

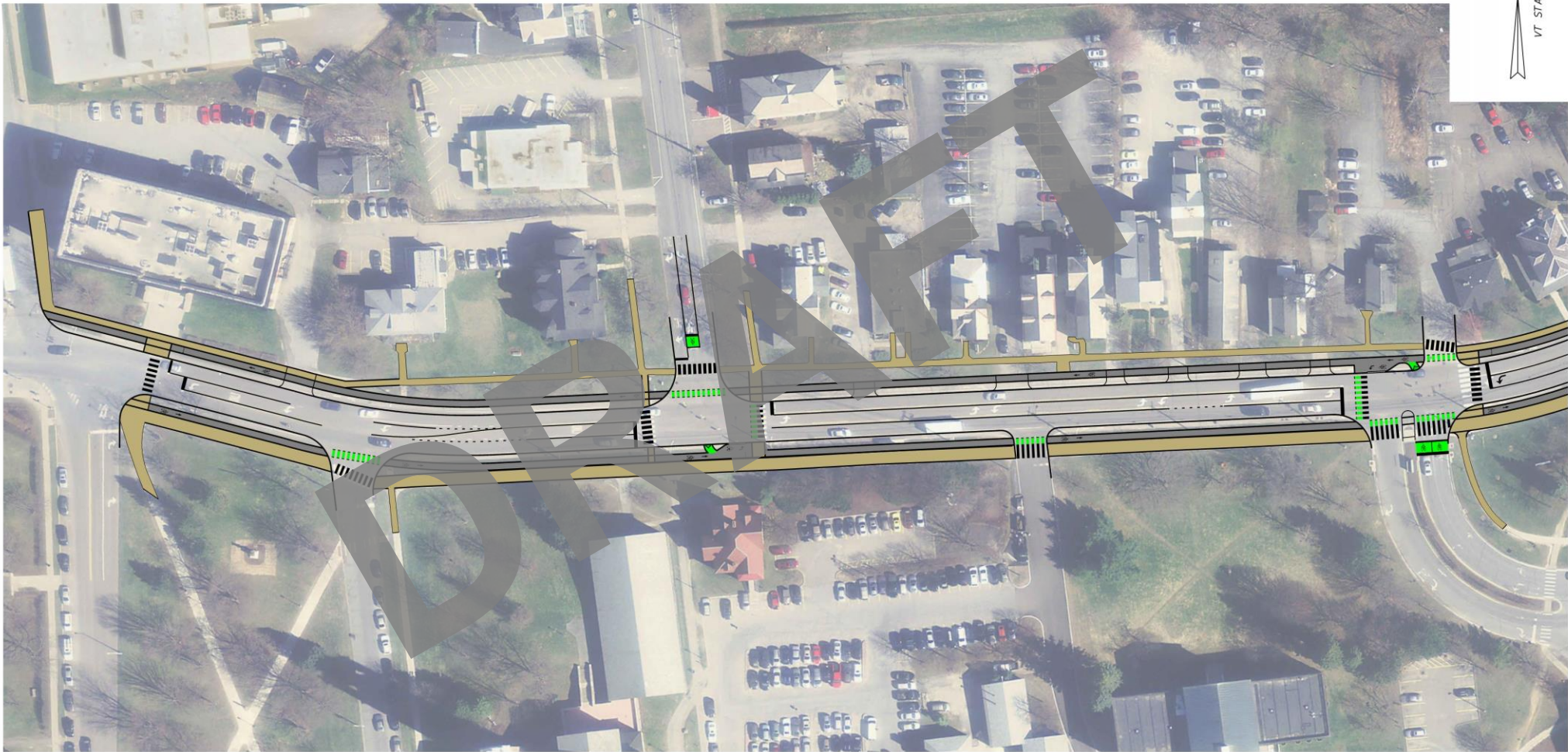


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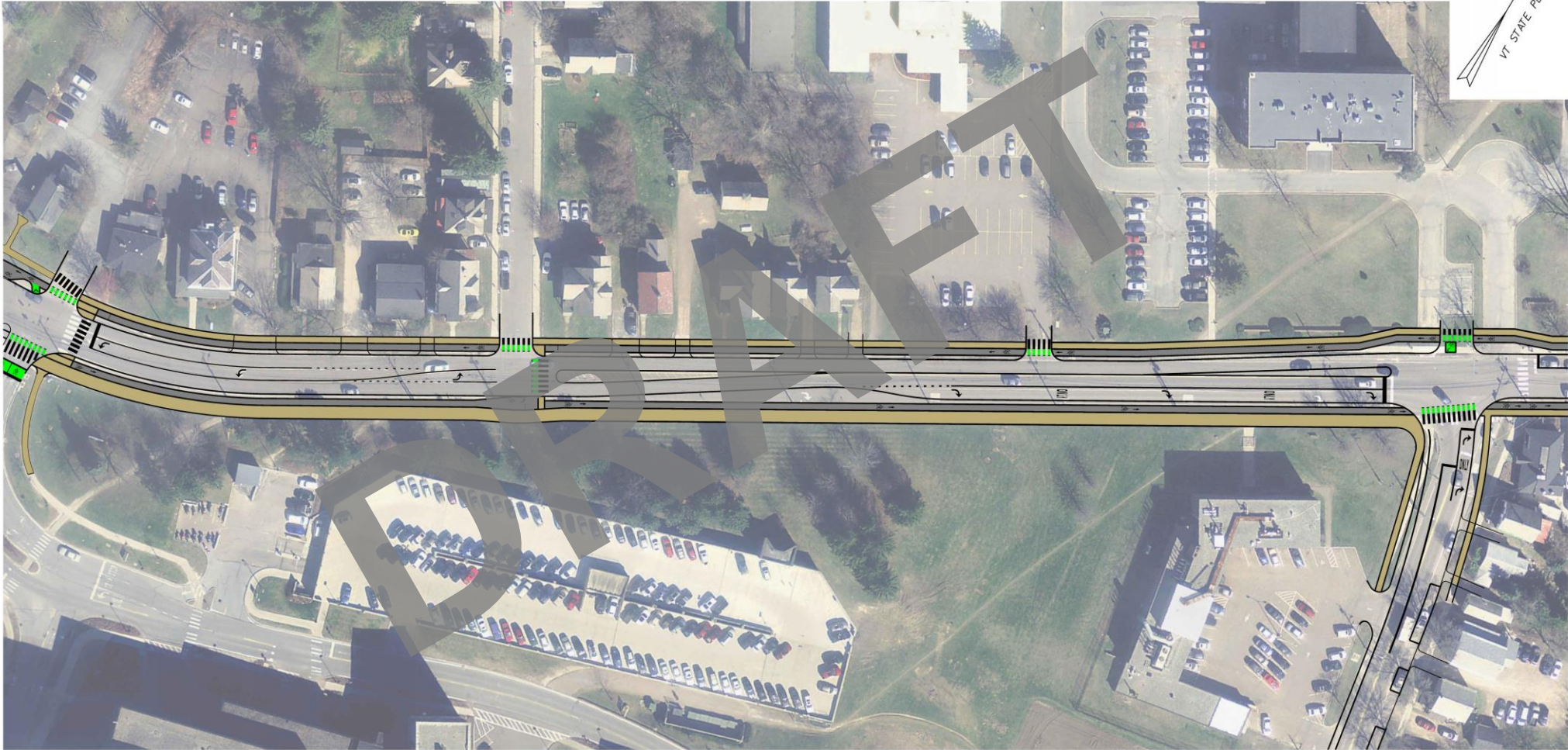
# Corridor Concept 4 shown with Intersection Alternative 2



PROJECT NAME:	COLCHESTER AVE	PLOT DATE:	3/19/2020
PROJECT NUMBER:	58278.00	DRAWN BY:	-----
FILE NAME:	z58278_bdr_concept+.4.dgn	DESIGNED BY:	-----
PROJECT LEADER:	-----	CHECKED BY:	-----
CONCEPT 4		SHEET	6 OF 20



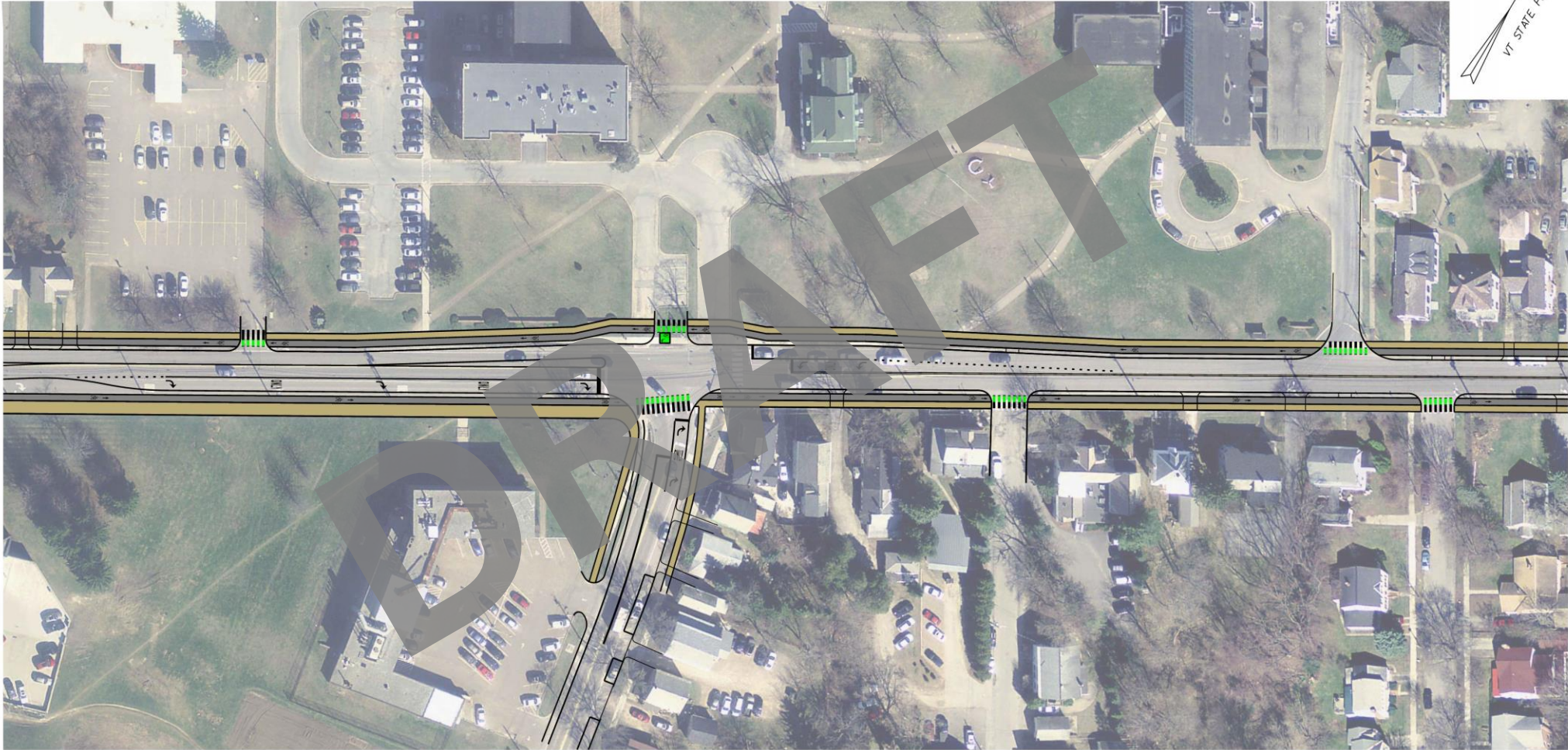
# Corridor Concept 4 shown with Intersection Alternative 2



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PROJECT LEADER:	-----	SHEET	7 OF 20
DESIGNED BY:	-----		
CONCEPT 4			



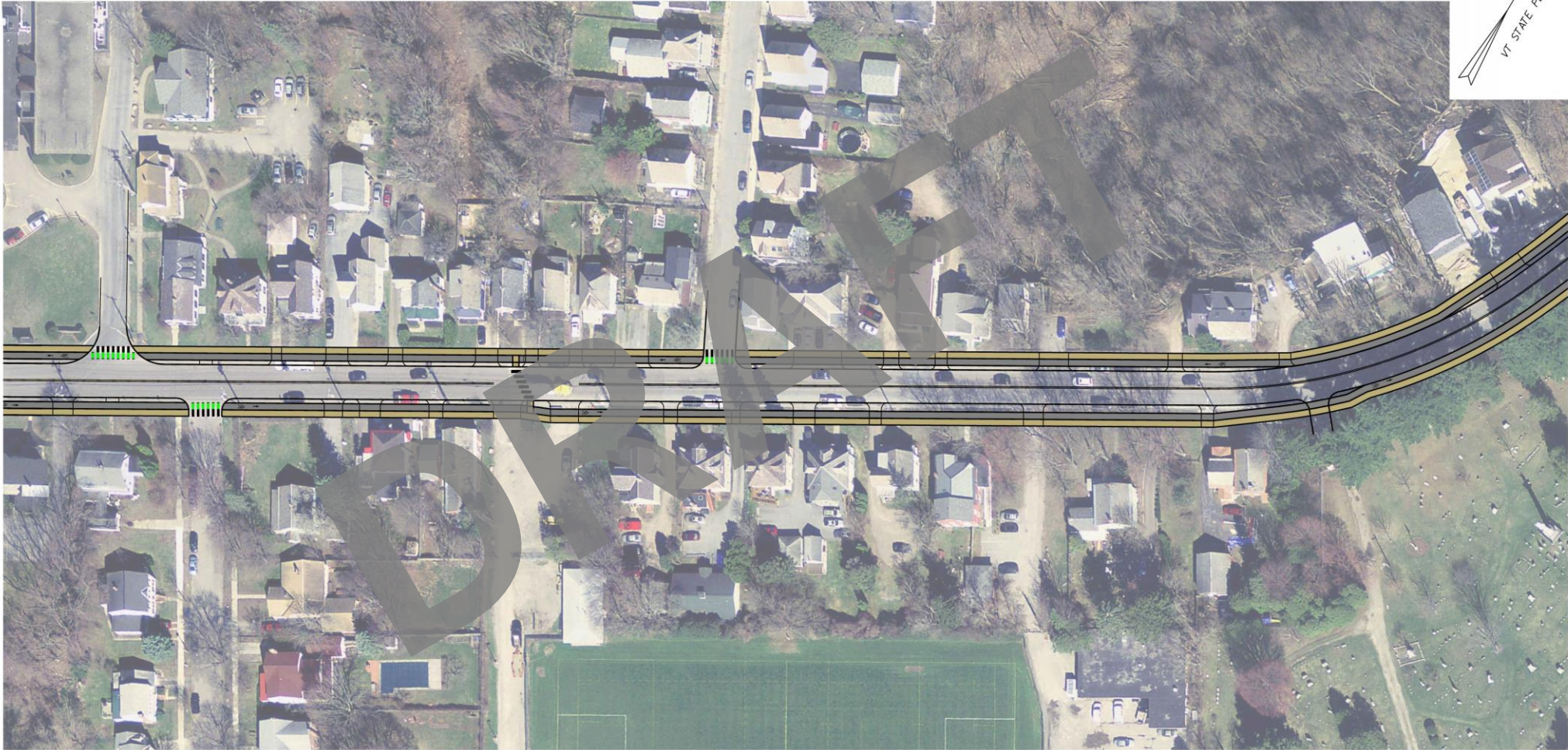
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CONCEPT 4			



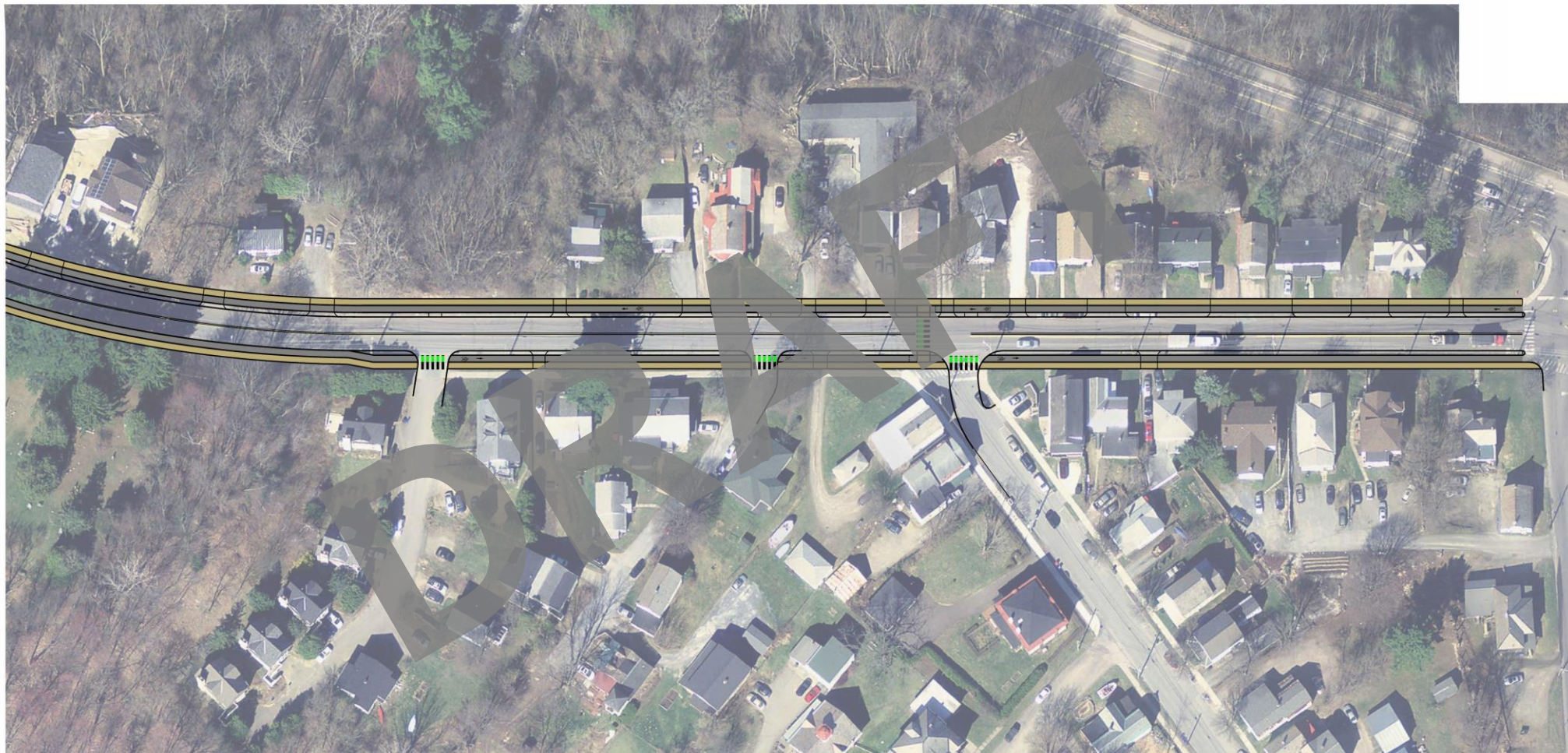
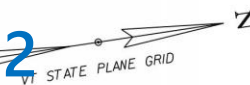
# Corridor Concept 4 shown with Intersection Alternative 2



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PROJECT LEADER:	-----	SHEET	9 OF 20
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CONCEPT 4			



# Corridor Concept 4 shown with Intersection Alternative 2



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PROJECT NAME:	COLCHESTER AVE	PLOT DATE:	3/19/2020
PROJECT NUMBER:	58278.00	DRAWN BY:	-----
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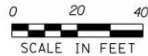
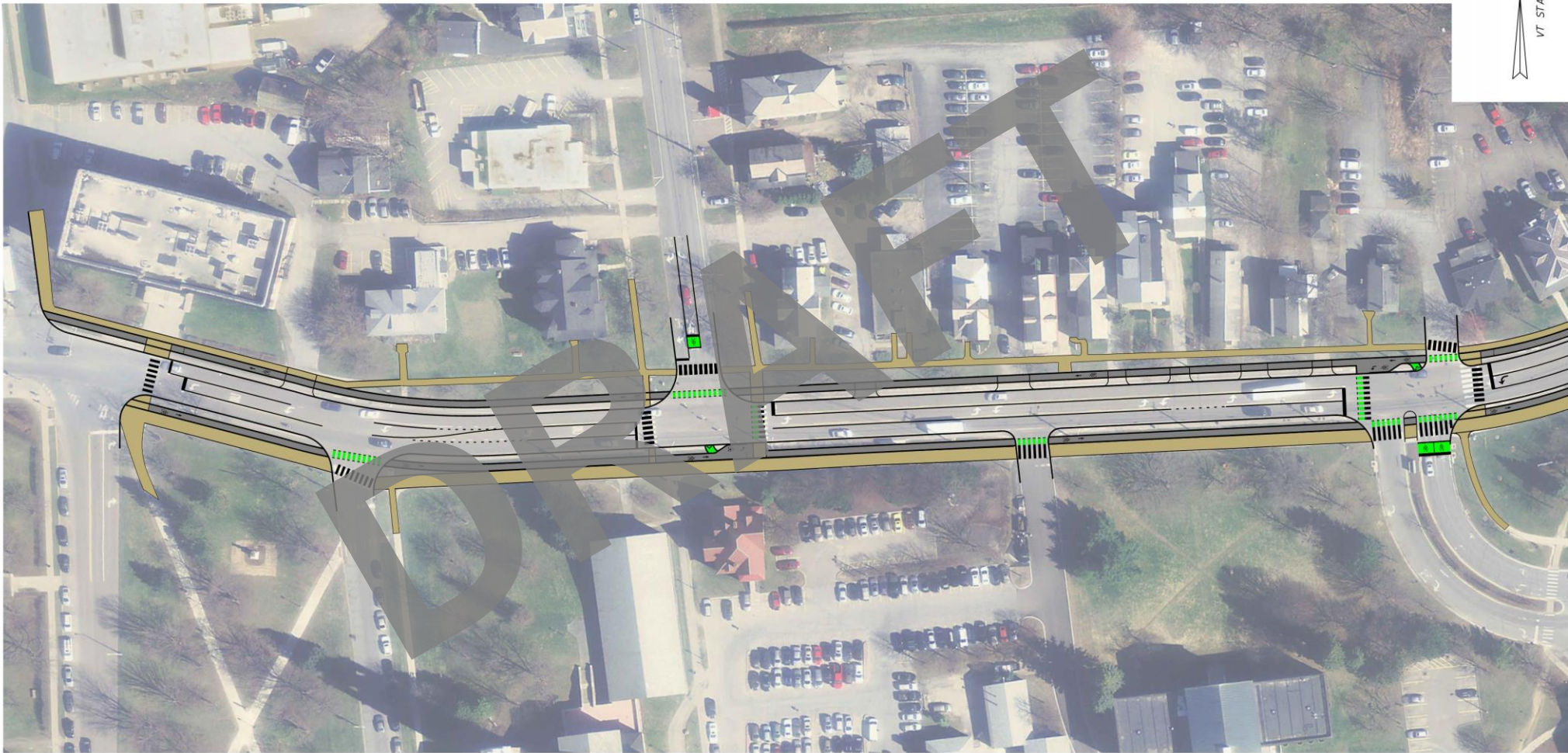
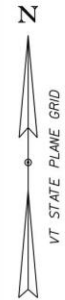
# Alternatives Presentation

Corridor Concepts	East Ave Intersection Alternatives
<b>Concept 2</b> Separated Bike Lanes within Curb	<b>Alternative 1</b> Equipment and Striping Signalized Intersection
<b>Concept 4</b> Raised, Separated Bike Lanes	<b>Alternative 2</b> Bike Separated Signalized Intersection
<b>Concept 4A</b> Raised, Separated Bike Lanes with Enhancements	<b>Alternative 2A</b> Bike Lane thru Signalized Intersection
<b>Concept 6</b> Shared Use Paths	<b>Alternative 3</b> Roundabout





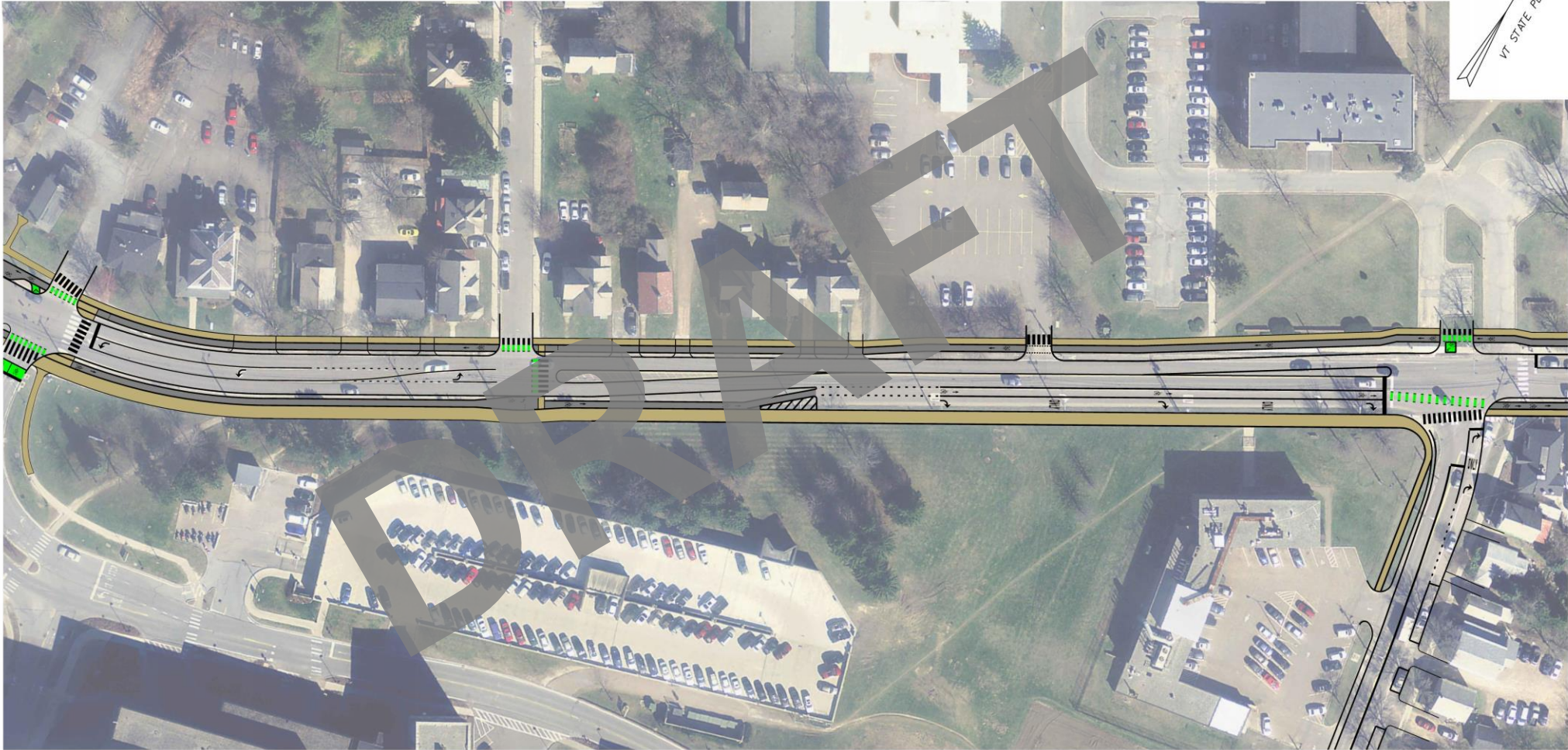
# Corridor Concept 4A shown with Intersection Alternative 2A



PROJECT NAME:	COLCHESTER AVE	PLOT DATE:	3/19/2020
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CONCEPT 4A		SHEET	II OF 20



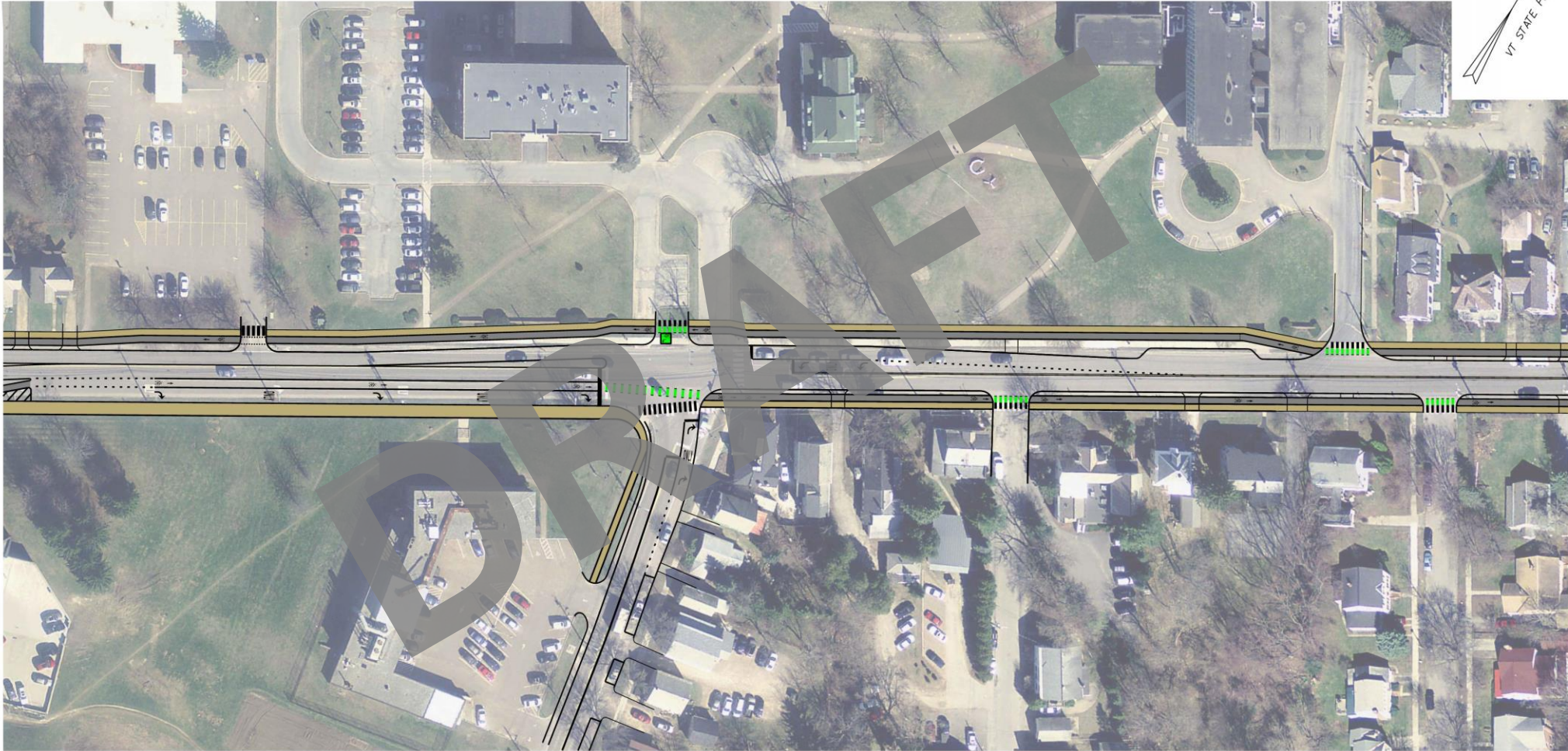
# Corridor Concept 4A shown with Intersection Alternative 2A



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PROJECT LEADER:	-----	SHEET	12 OF 20
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CONCEPT 4A			



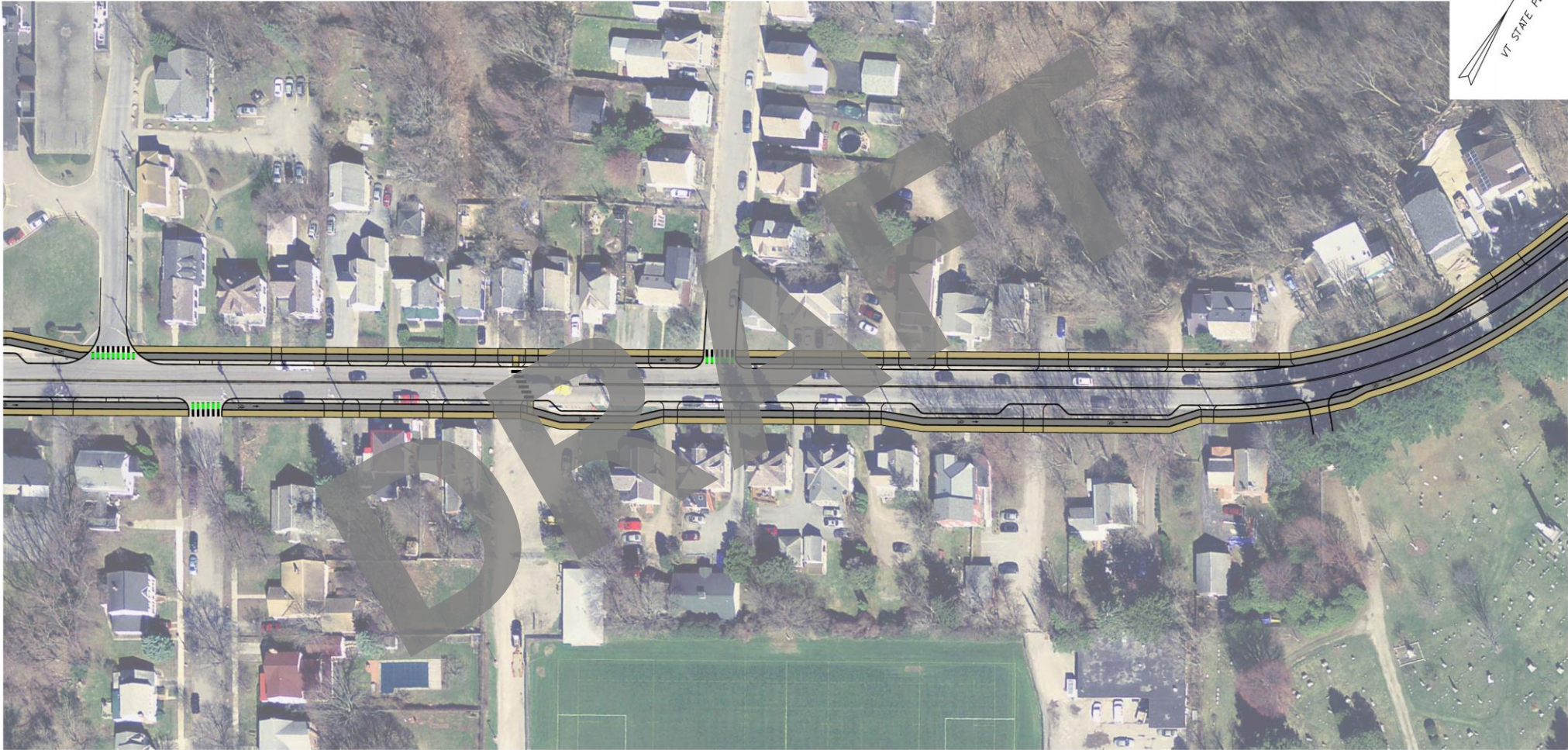
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PROJECT LEADER:	-----	SHEET	13 OF 20
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CONCEPT 4A			



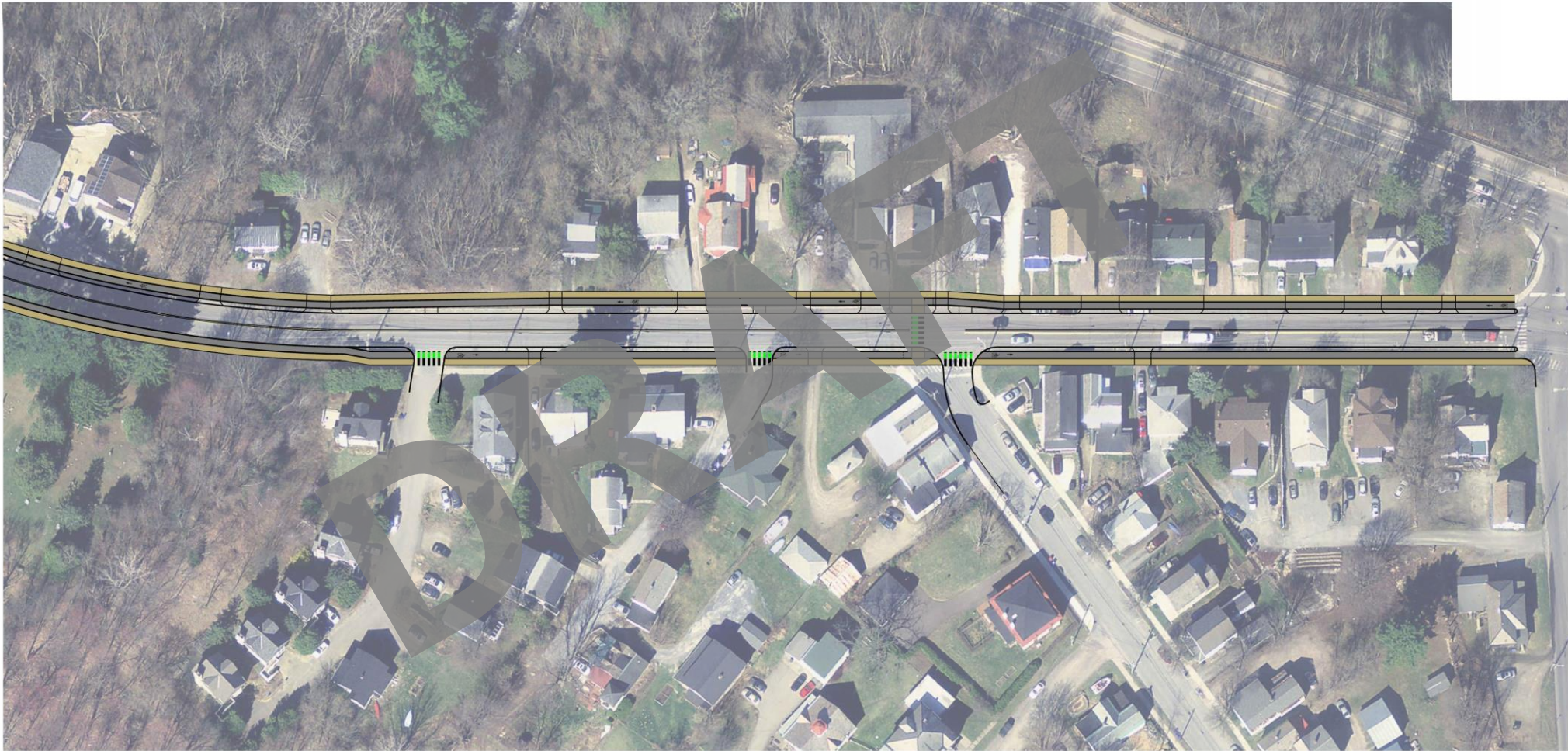
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DESIGNED BY:	-----		
CONCEPT 4A			



# Corridor Concept 4A shown with Intersection Alternative 2A



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PROJECT NUMBER: 58278.00	
FILE NAME: z58278_bdr_concept_4A.dgn	PLOT DATE: 3/19/2020
PROJECT LEADER: -----	DRAWN BY: -----
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CONCEPT 4A	SHEET 15 OF 20

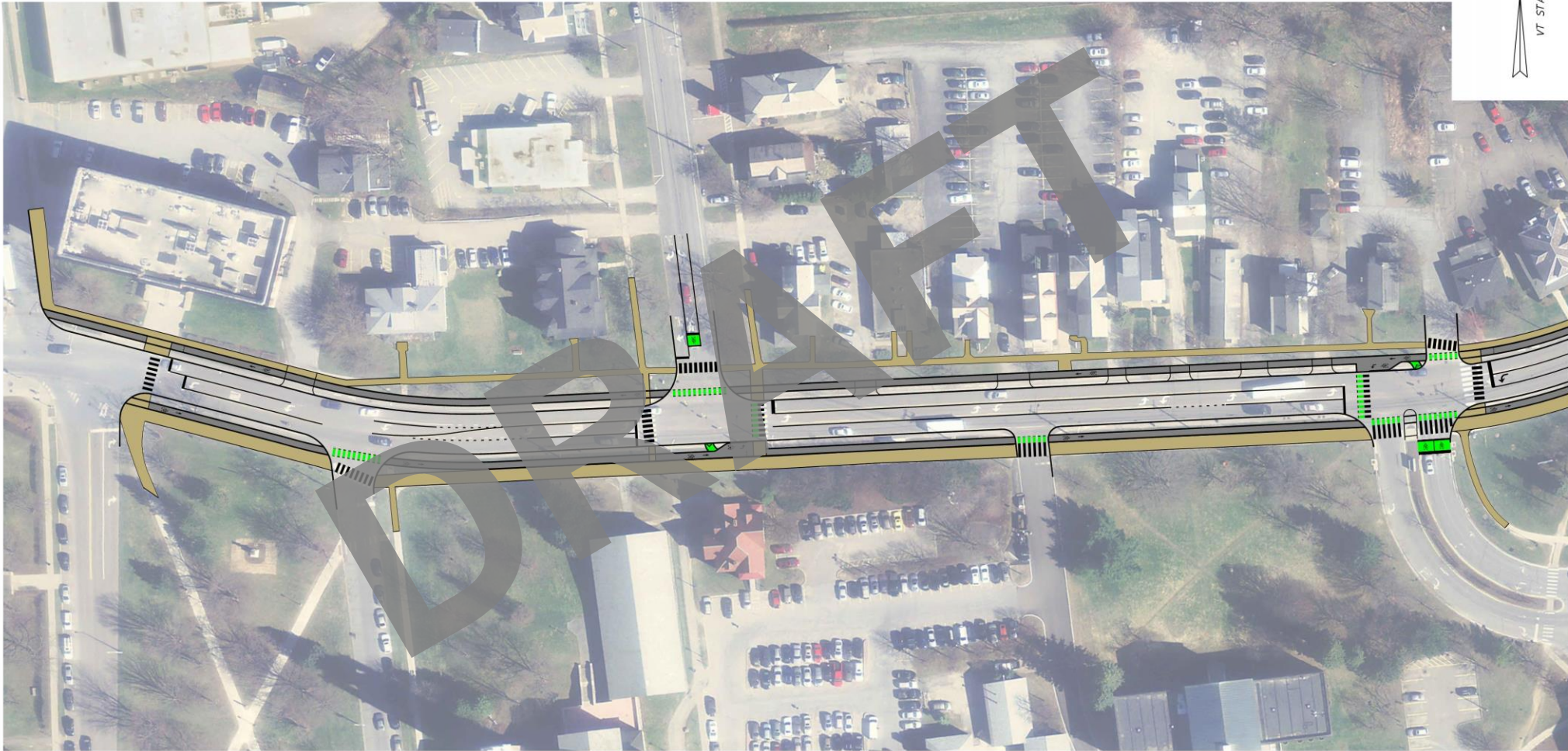
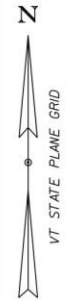


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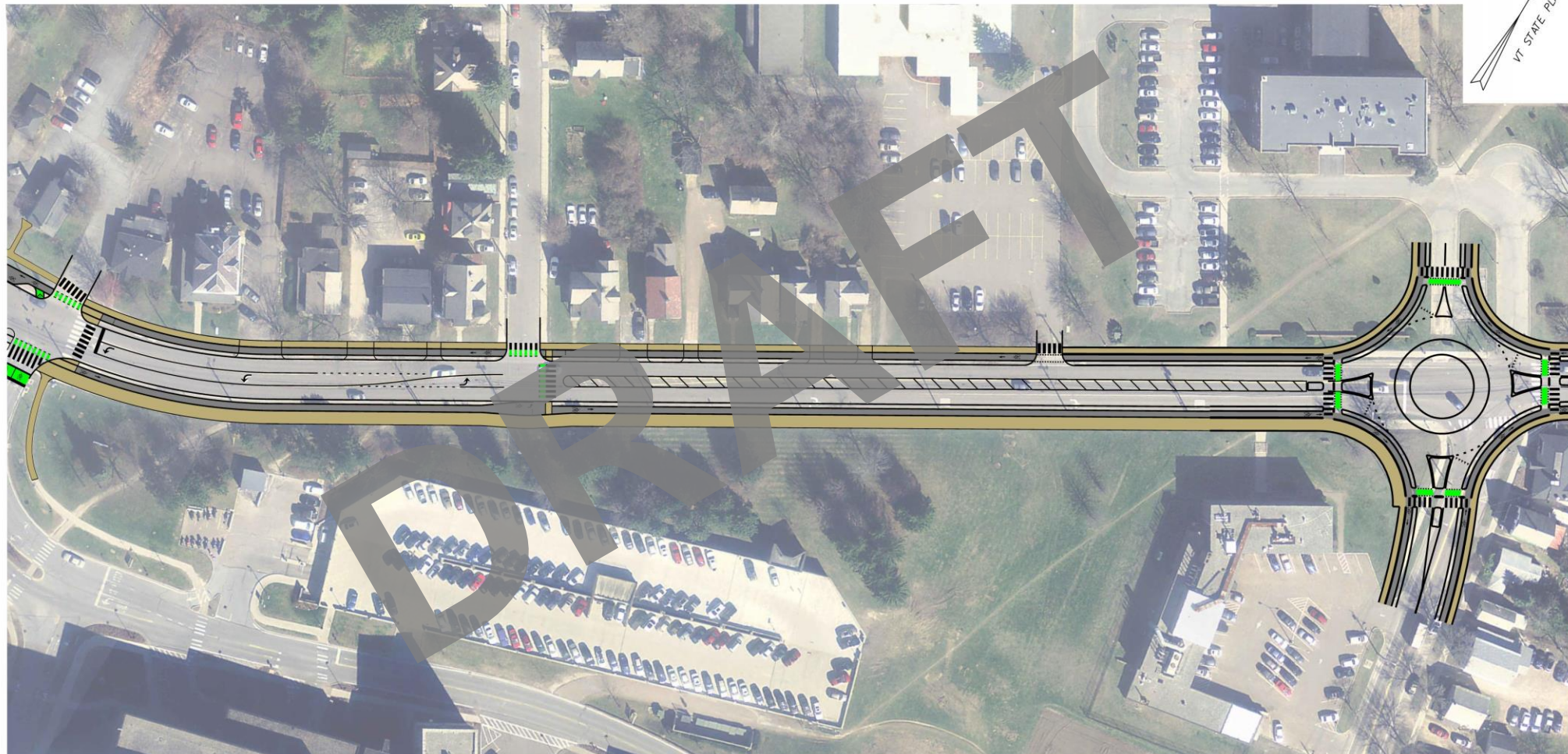
# Corridor Concept 6 shown with Intersection Alternative 3



PROJECT NAME:	COLCHESTER AVE	PLOT DATE:	3/19/2020
PROJECT NUMBER:	58278.00	DRAWN BY:	-----
FILE NAME:	z58278_bdr_concept+.6.dgn	CHECKED BY:	-----
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CONCEPT 6			



## Corridor Concept 6 shown with Intersection Alternative 3



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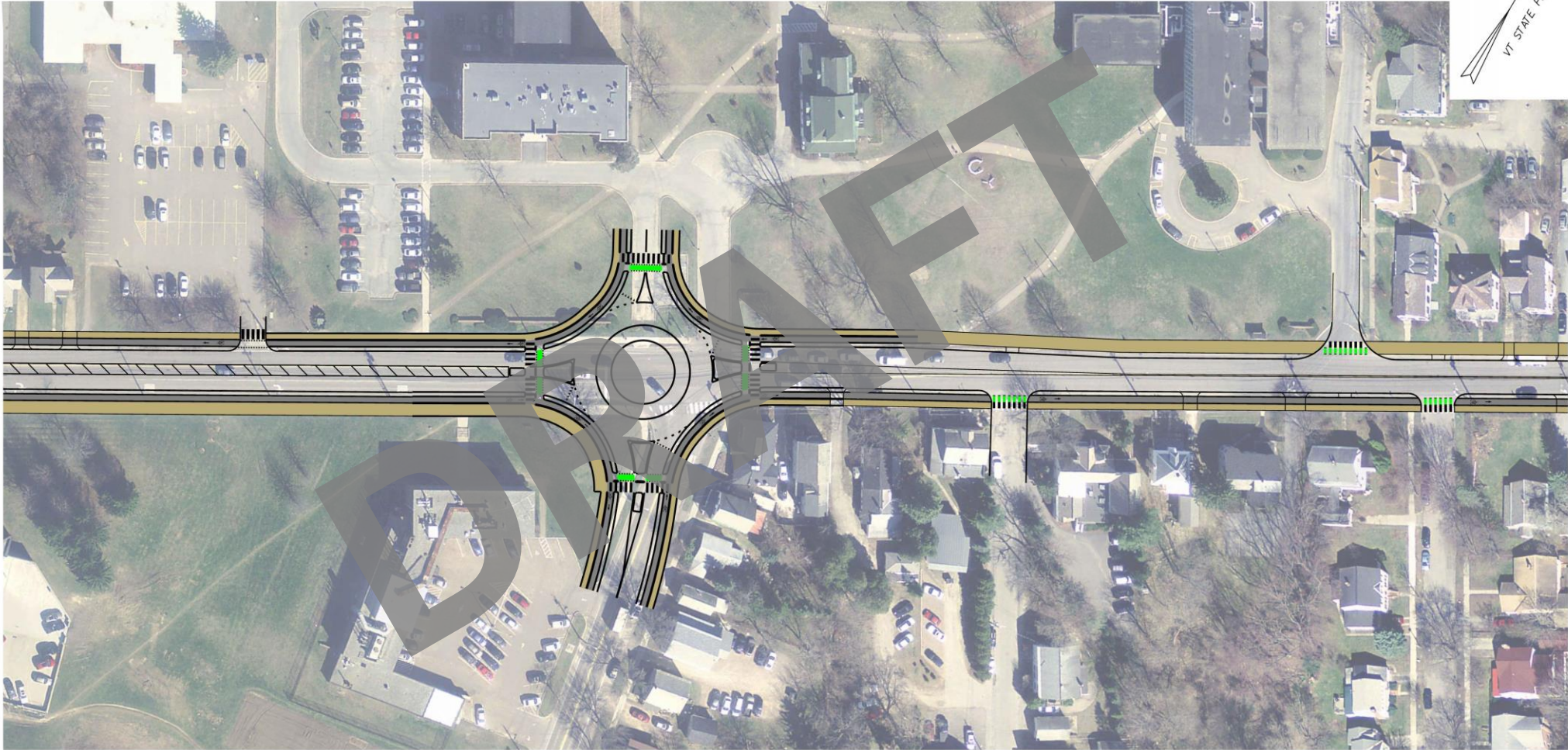
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PROJECT NUMBER: 58278.00

FILE NAME: z58278\_bdr\_concept.6.dgn  
PROJECT LEADER: -----  
DESIGNED BY: -----  
CONCEPT 6

PLOT DATE: 3/19/2020  
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SHEET 17 OF 20



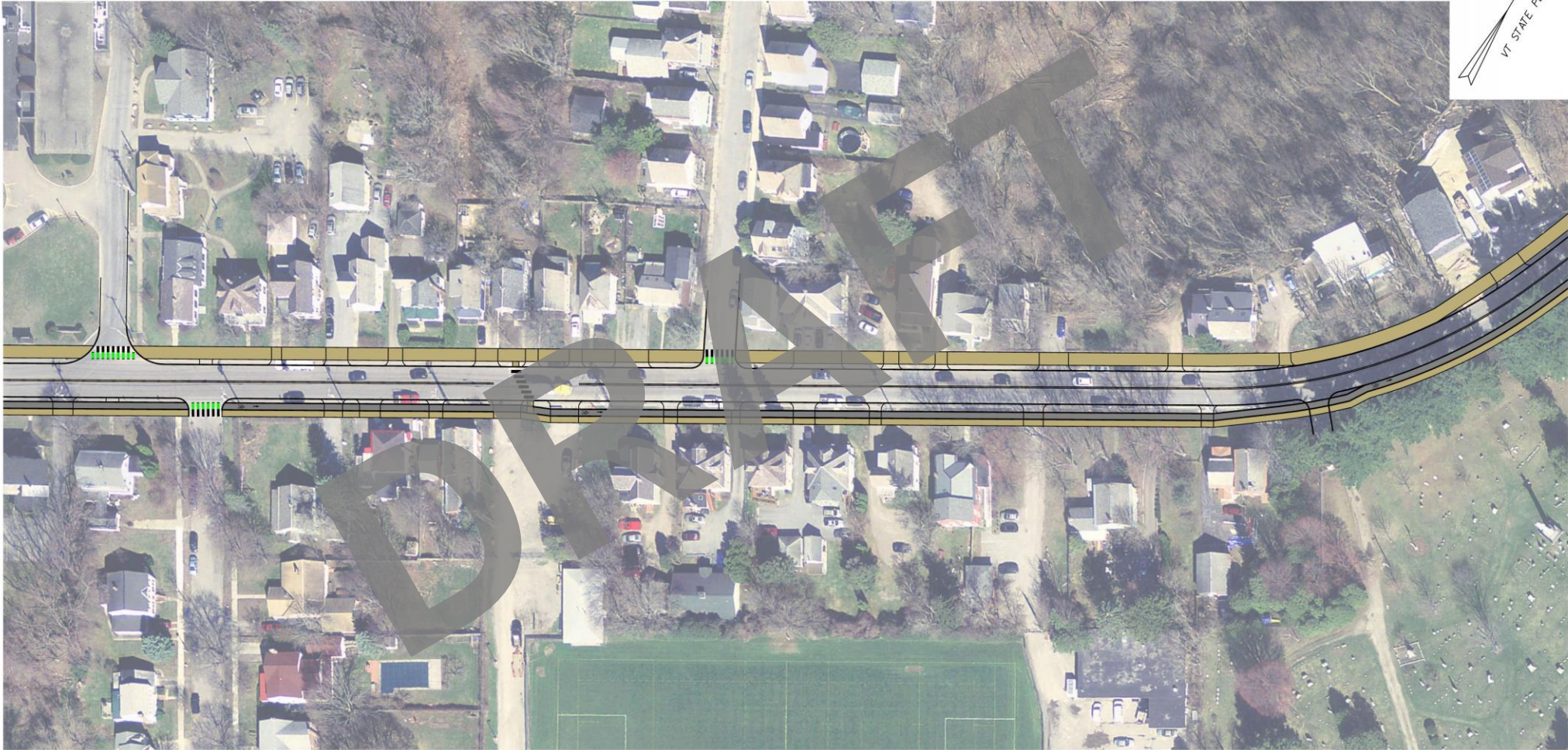
# Corridor Concept 6 shown with Intersection Alternative 3



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CONCEPT	6		



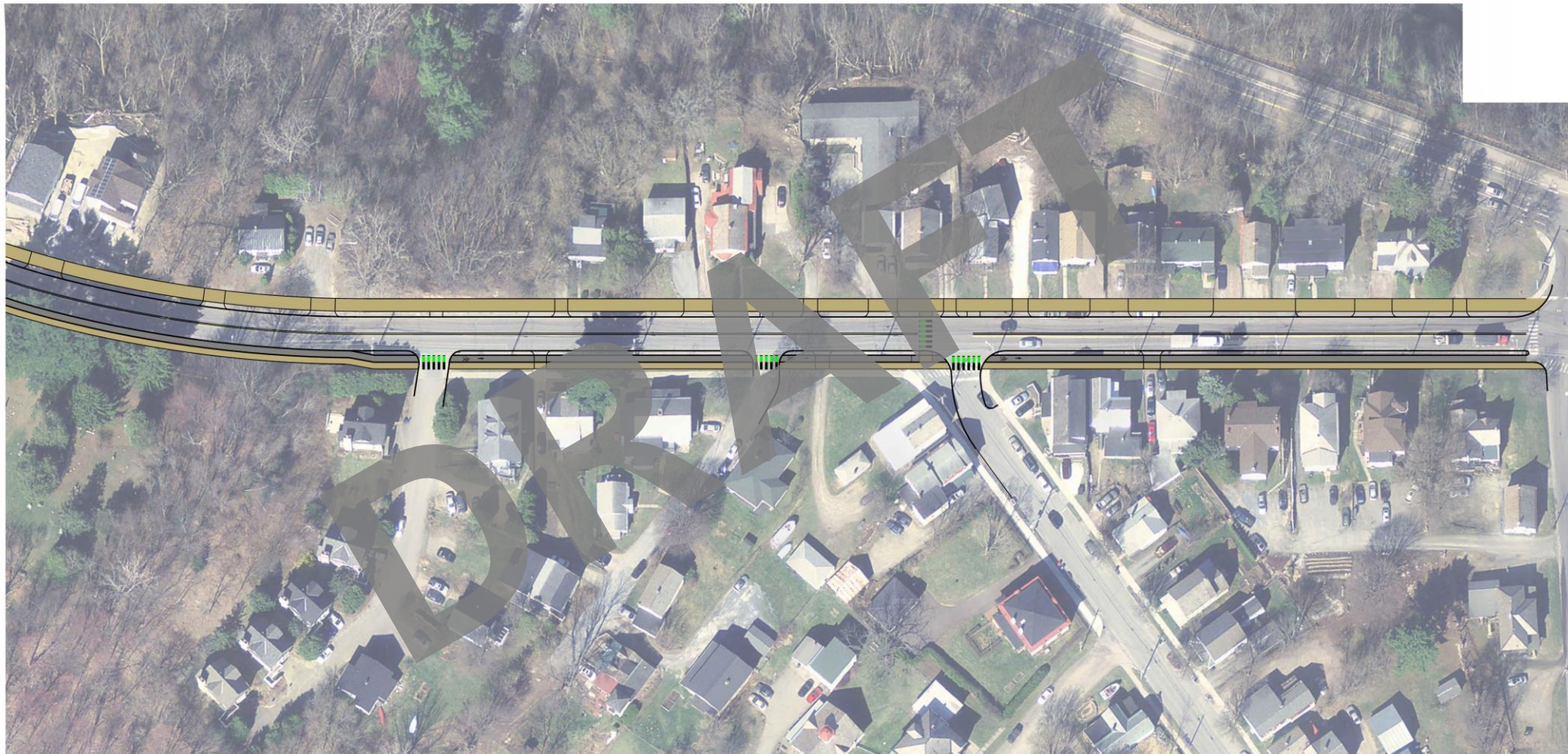
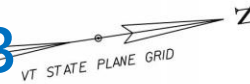
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PROJECT LEADER:	-----	SHEET	19 OF 20
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CONCEPT 6			



# Corridor Concept 6 shown with Intersection Alternative 3



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PROJECT NAME:	COLCHESTER AVE	PLOT DATE:	3/19/2020
PROJECT NUMBER:	58278.00	DRAWN BY:	-----
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PROJECT LEADER:	-----	SHEET	20 OF 20
DESIGNED BY:	-----		
CONCEPT 6			

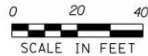
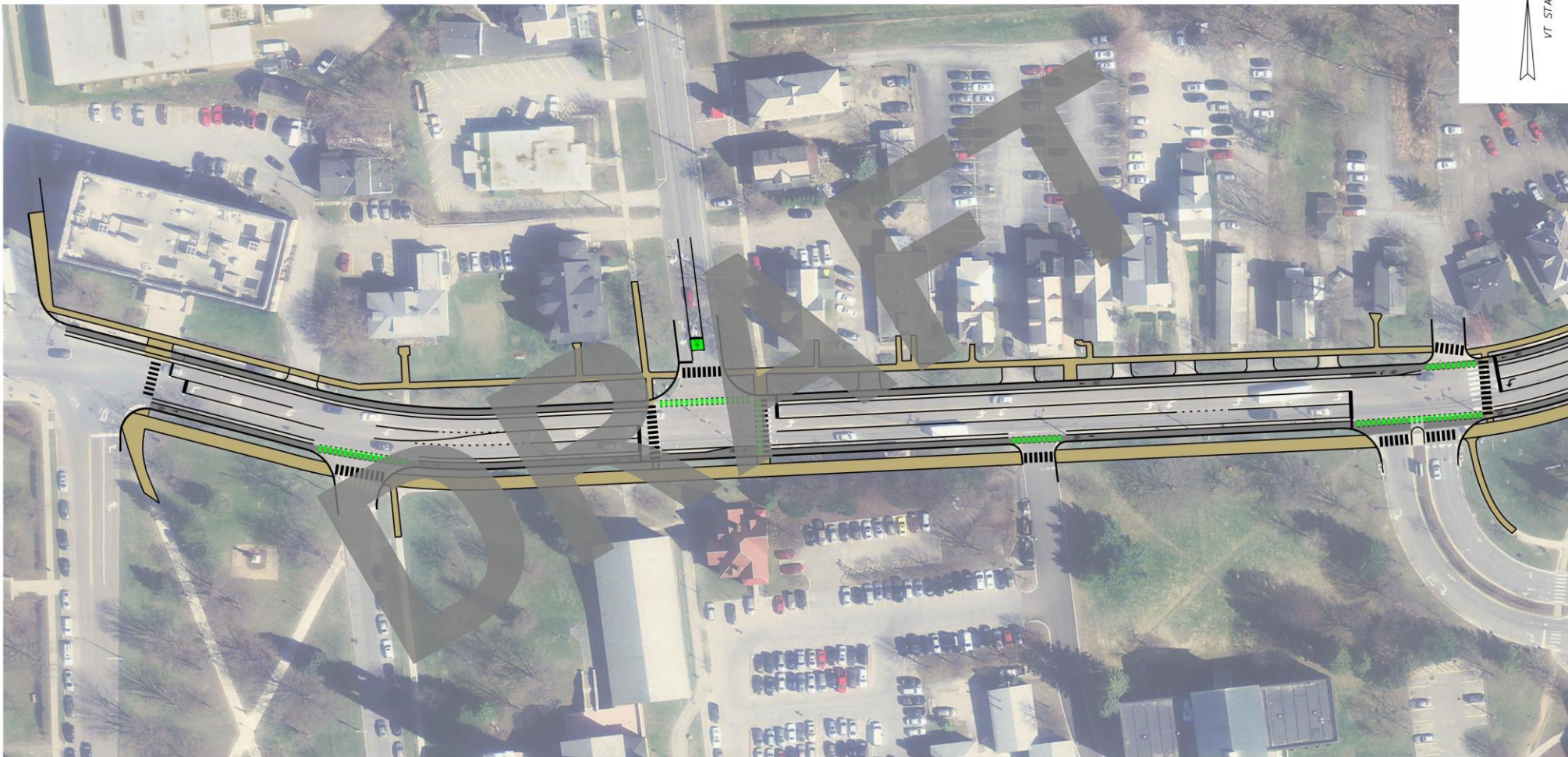
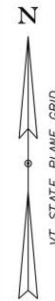
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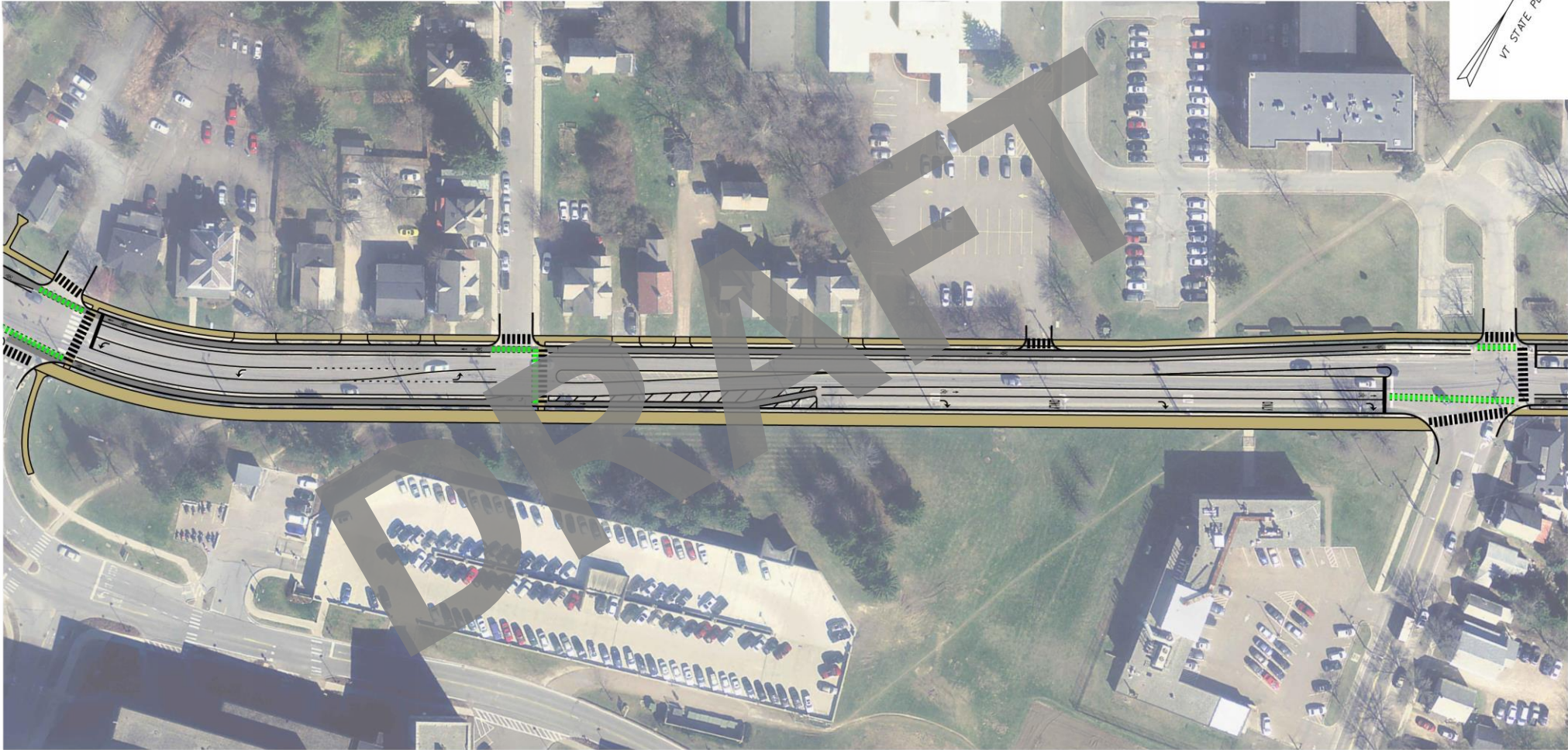
# Corridor Concept 2 shown with Intersection Alternative 1



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PROJECT NUMBER:	58278.00	DRAWN BY:	-----
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PROJECT LEADER:	-----	SHEET	1 OF 20
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CONCEPT 2			



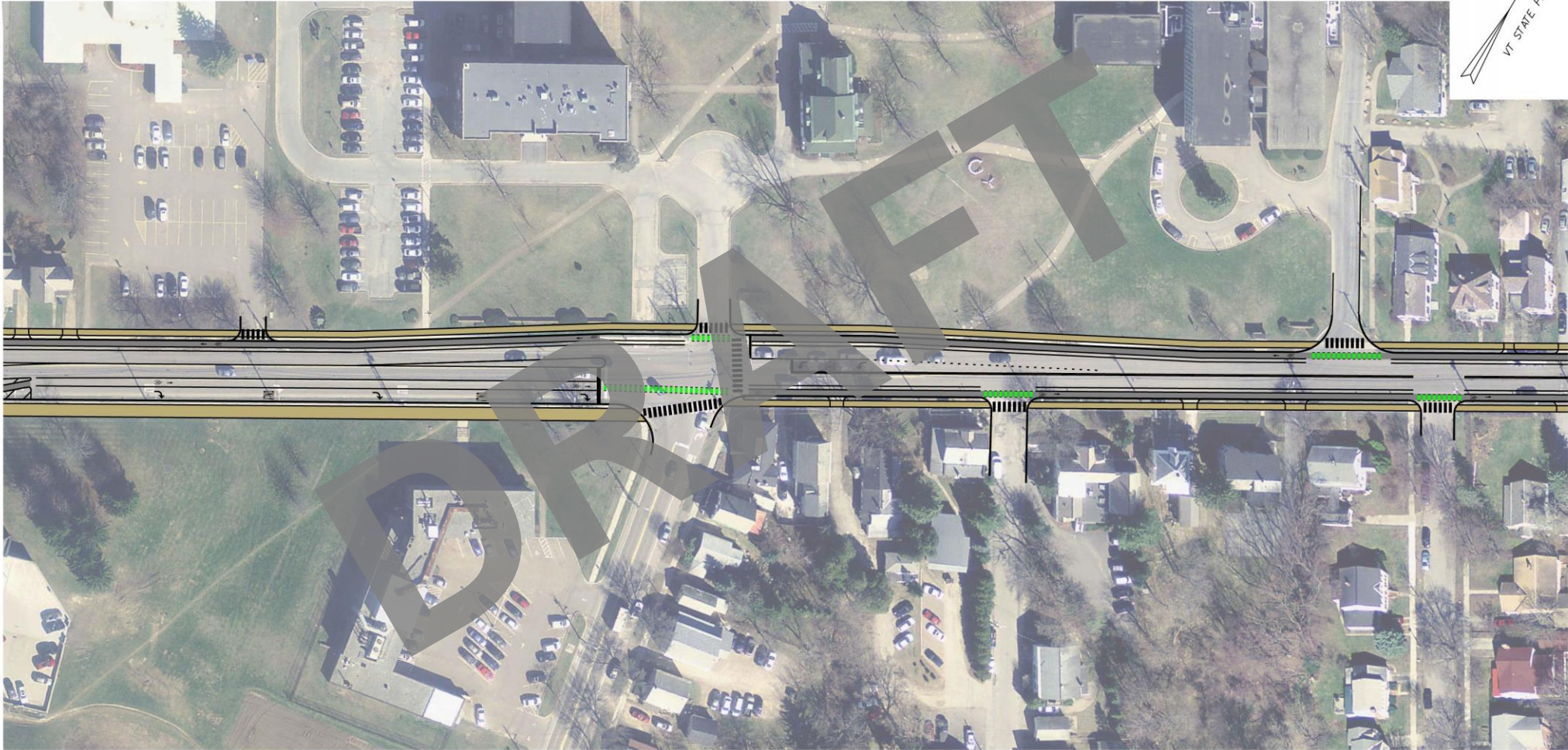
# Corridor Concept 2 shown with Intersection Alternative 1



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PROJECT LEADER:	-----	SHEET	2 OF 20
DESIGNED BY:	-----		
CONCEPT 2			



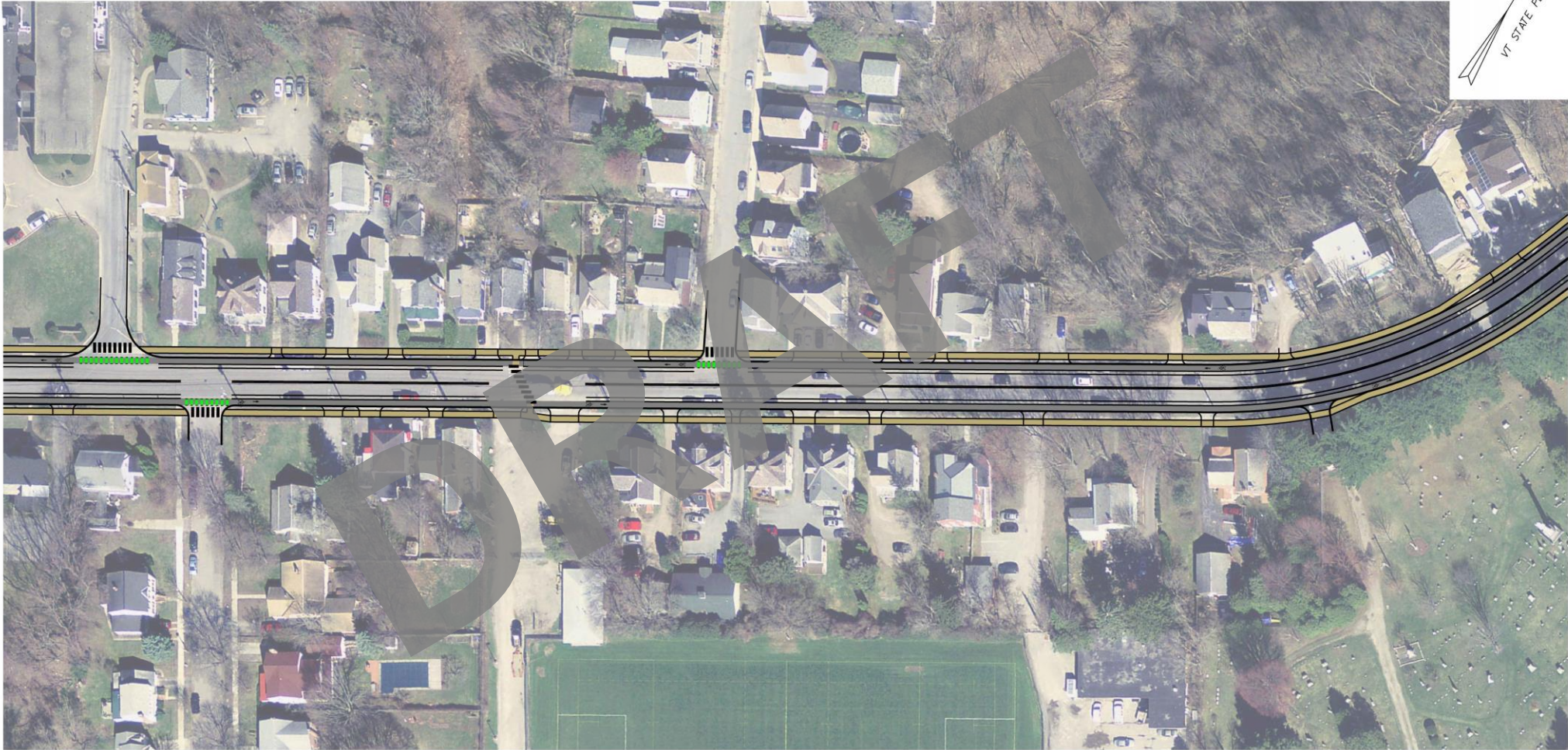
# Corridor Concept 2 shown with Intersection Alternative 1



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PROJECT LEADER:	-----	SHEET	3 OF 20
DESIGNED BY:	-----		
CONCEPT 2			



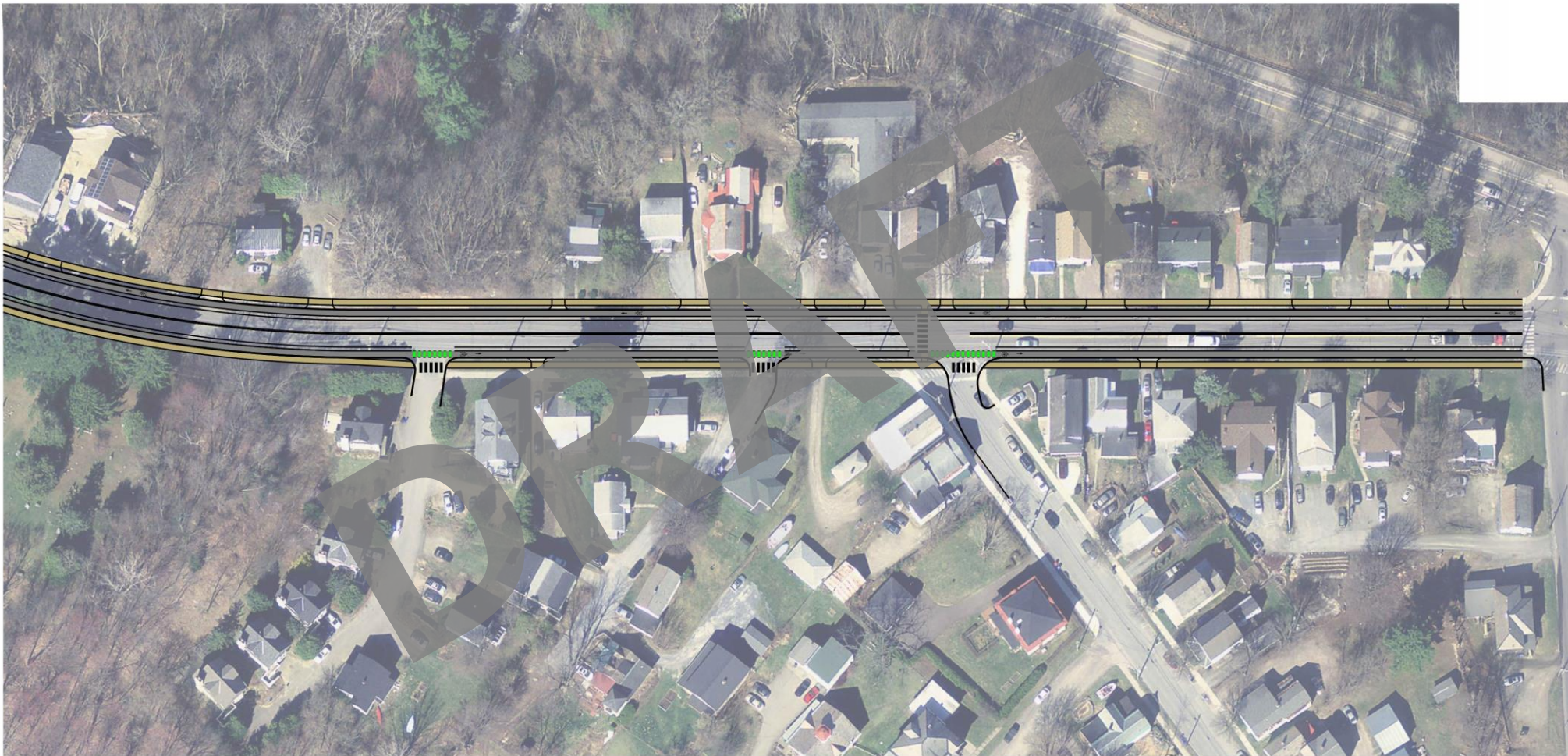
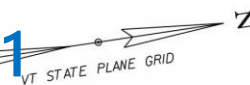
# Corridor Concept 2 shown with Intersection Alternative 1



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PROJECT LEADER:	-----	SHEET	4 OF 20
DESIGNED BY:	-----		
CONCEPT 2			



# Corridor Concept 2 shown with Intersection Alternative 1



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PROJECT NAME: COLCHESTER AVE  
PROJECT NUMBER: 58278.00

FILE NAME: z58278\_bdr\_concept.2.dgn  
PROJECT LEADER: -----  
DESIGNED BY: -----  
CONCEPT 2

PLOT DATE: 3/19/2020  
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SHEET 5 OF 20



Preliminary Alternative Evaluation		Colchester Avenue Corridor				
		Concept 0 No Build	Concept 2 Protected Bike Lanes	Concept 4 Raised and Separated Bike Lanes	Concept 4A Raised and Separated Bike Lanes	Concept 6 Shared Use Path and Separated Bike Lanes
Costs	Costs					
	Total (Not Including ROW)	\$0	\$\$	\$\$\$	\$\$\$	\$\$\$
Engineering	Safety					
	Bicycle Safety	-	Improved <i>Cyclists in separated facility</i>	Improved <i>Cyclists in separated facility</i>	Improved <i>Cyclists in separated facility</i>	Improved <i>Cyclists in separated facility or shared use path</i>
	Pedestrian Safety	-	Improved <i>Pedestrians in separated facility</i>	Improved <i>Pedestrians in separated facility</i>	Improved <i>Pedestrians in separated facility</i>	No Change/Slightly Worse <i>Cyclists and Pedestrians in shared path on North side at east end of project.</i>
	Vehicle Safety	-	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>
	Impacts					
	Utility Impacts	-	Major Impacts	Major Impacts	Major Impacts	Major Impacts
	ROW Impacts	-	No Impacts	No Impacts	Slight Impacts	No Impacts
	Constructability	-	Major Effort	Major Effort	Major Effort	Major Effort
	Parking	-	Elimination of On-Street Parking (Colchester Ave)	Elimination of On-Street Parking (Colchester Ave)	Maintains Some On-Street Parking (Colchester Ave)	Elimination of On-Street Parking (Colchester Ave)
	Trees	-	Moderate Impacts to Existing; Some Tree Belt Opportunity	Moderate Impacts to Existing; Some Tree Belt Opportunity	Major Impacts to Existing; Increased Tree Belt Opportunity	Moderate Impacts to Existing; Some Tree Belt Opportunity
	Natural Resources	-				
	Historical	-	No Impacts	No Impacts	No Impacts	No Impacts
	Wetlands	-	No Impacts	No Impacts	No Impacts	No Impacts
	Stormwater Accommodations	None	Accommodations <i>(Description)</i>	Accommodations <i>(Description)</i>	Accommodations <i>(Description)</i>	Accommodations <i>(Description)</i>
	Community Character	-				
	Aesthetics	No Change	No Change	No Change	No Change	No Change
	Satisfies Purpose & Need	No	Yes	Yes	Yes+ +	Yes

Preliminary Alternative Evaluation		Colchester Avenue / East Avenue Intersection				
		Alternative 0 No Build	Alternative 1 Equipment and Striping Upgrade	Alternative 2 Bike Through Intersection	Alternative 2A Separated Bike	Alternative 3 Roundabout
Costs	Costs					
	Total (Not Including ROW)	\$0	\$	\$\$\$	\$\$\$	\$\$\$\$
Engineering	Safety					
	Bicycle Safety	-	<b>Slightly Improved</b> <i>Bike Lanes provided westbound through signal</i>	<b>Slightly Improved</b> <i>Cyclists have to travel between thru and right turn lanes, but protected</i>	<b>Improved</b> <i>Bikes provided protected lane and phase - no turn conflicts</i>	<b>Slightly Improved</b> <i>Bikes only conflict with single movement at time, but not fully protected; fewer conflict points</i>
	Pedestrian Safety	-	<b>Improved</b> <i>Protected Crossings with less delay with vehicular phasing</i>	<b>Improved</b> <i>Protected Crossings with less delay with vehicular phasing</i>	<b>Improved</b> <i>Protected Crossings with less delay with vehicular phasing</i>	<b>Slightly Improved</b> <i>Allow additional cross locations, but unsignalized; shorter crossings with lower speed vehicles; fewer conflict points</i>
	Vehicle Safety	-	<b>Slightly Improved</b> <i>by separating users, proper equipment</i>	<b>Slightly Improved</b> <i>by separating users, proper equipment</i>	<b>Improved</b> <i>by fully separating users, proper equipment</i>	<b>Improved</b> <i>Lower vehicle speeds and fewer conflict points</i>
	Impacts	-				
	Utility Impacts	-	Major Impacts	Major Impacts	Major Impacts	Major Impacts
	ROW Impacts	-	Minor Impacts	Minor Impacts	Minor Impacts	Minor Impacts
	Constructability	-	Minor Effort	Major Effort	Major Effort	Major Effort
	Parking	-	Existing Parking Maintained (East Ave)	Slight Reduction (East Ave)	Slight Reduction (East Ave)	Slight Reduction (East Ave)
	Trees	-	No Impacts	Minor Impacts to Existing	Minor Impacts To Existing	Minor Impacts to Existing
	Natural Resources	-				
	Historical	-	No Impacts	No Impacts	No Impacts	No Impacts
	Wetlands	-	No Impacts	No Impacts	No Impacts	No Impacts
	Stormwater Accommodations	None	<b>Accommodations</b> <i>(Description)</i>	<b>Accommodations</b> <i>(Description)</i>	<b>Accommodations</b> <i>(Description)</i>	<b>Accommodations</b> <i>(Description)</i>
	Community Character	-				
	Aesthetics	No Change	No Change	No Change	No Change	No Change
	Satisfies Purpose & Need	No	Yes	Yes	Yes	Yes



# Alternative Presentation to the Public

- **Advisory Committee Feedback**





# Next Steps

- Alternatives Presentation Public Meeting
- Alternatives Refinement
- Advisory Committee Meeting #3





# Stay Connected with the Colchester Avenue: Bikeways, Parking, and Intersection Safety Study!

Project Website:

<http://bit.ly/colchester-ave>

Contact Info:

Jason Charest, CCRPC

802.861.0127

[jcharest@ccrpcvt.org](mailto:jcharest@ccrpcvt.org)







Questions?  
Comments?

