

WELCOME

Lancaster Avenue and Remington Road
Traffic Safety Project
Public Meeting

DECEMBER 3, 2024

INTRODUCTIONS



- Nathan Parrish, P.E., Consultant Project Manager



- Michael P. Mastaglio, P.E., PTOE, Project Manager



- Dawn Dayawon, P.E.,
Project Engineer

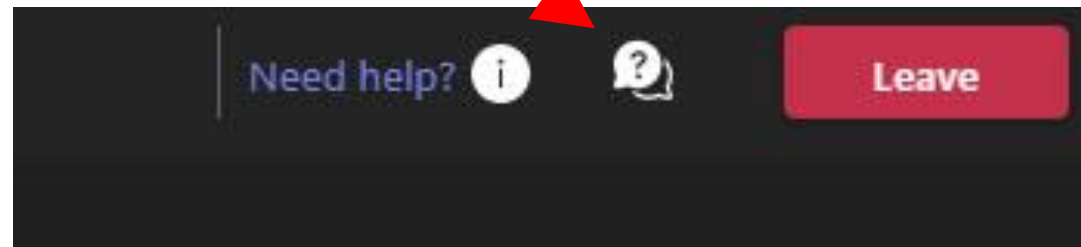


- Andrew Gould, P.E.,
Project Engineer



QUESTIONS?

Questions can be submitted by clicking on the Q&A feature located at the top of your screen



Please note the slide number in your question



AGENDA

Project Selection & Project Overview

Existing Conditions & Community Context

Project Purpose and Need

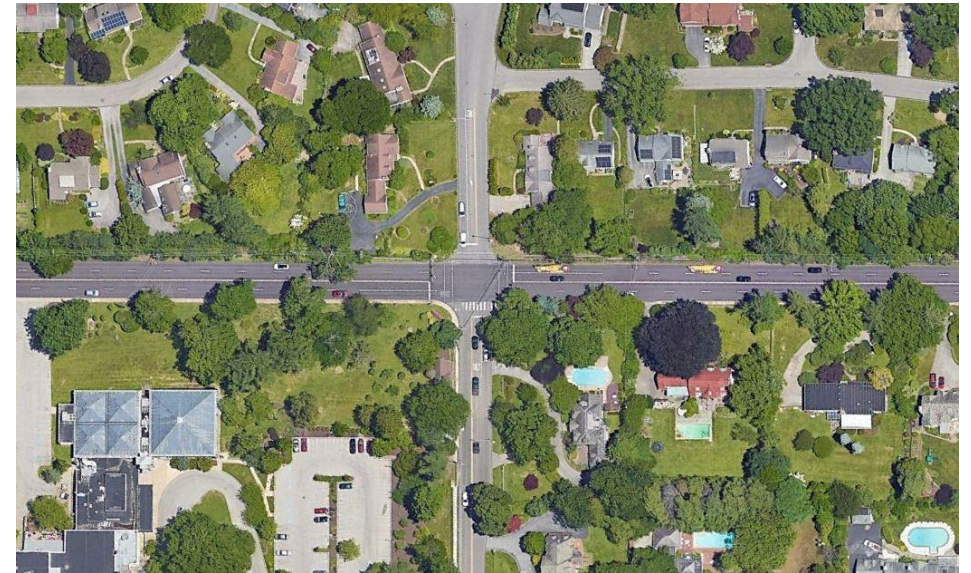
Intersection Control Evaluation (ICE)

Safety Improvements

Proposed Design

Project Schedule

Questions



PROJECT SELECTION

Highway Safety Improvement Program (HSIP)

- Achieve a significant reduction in traffic fatalities and serious injuries
- Requires a data-driven, strategic approach to improving highway safety with a focus on performance



U.S. Department of Transportation
Federal Highway Administration

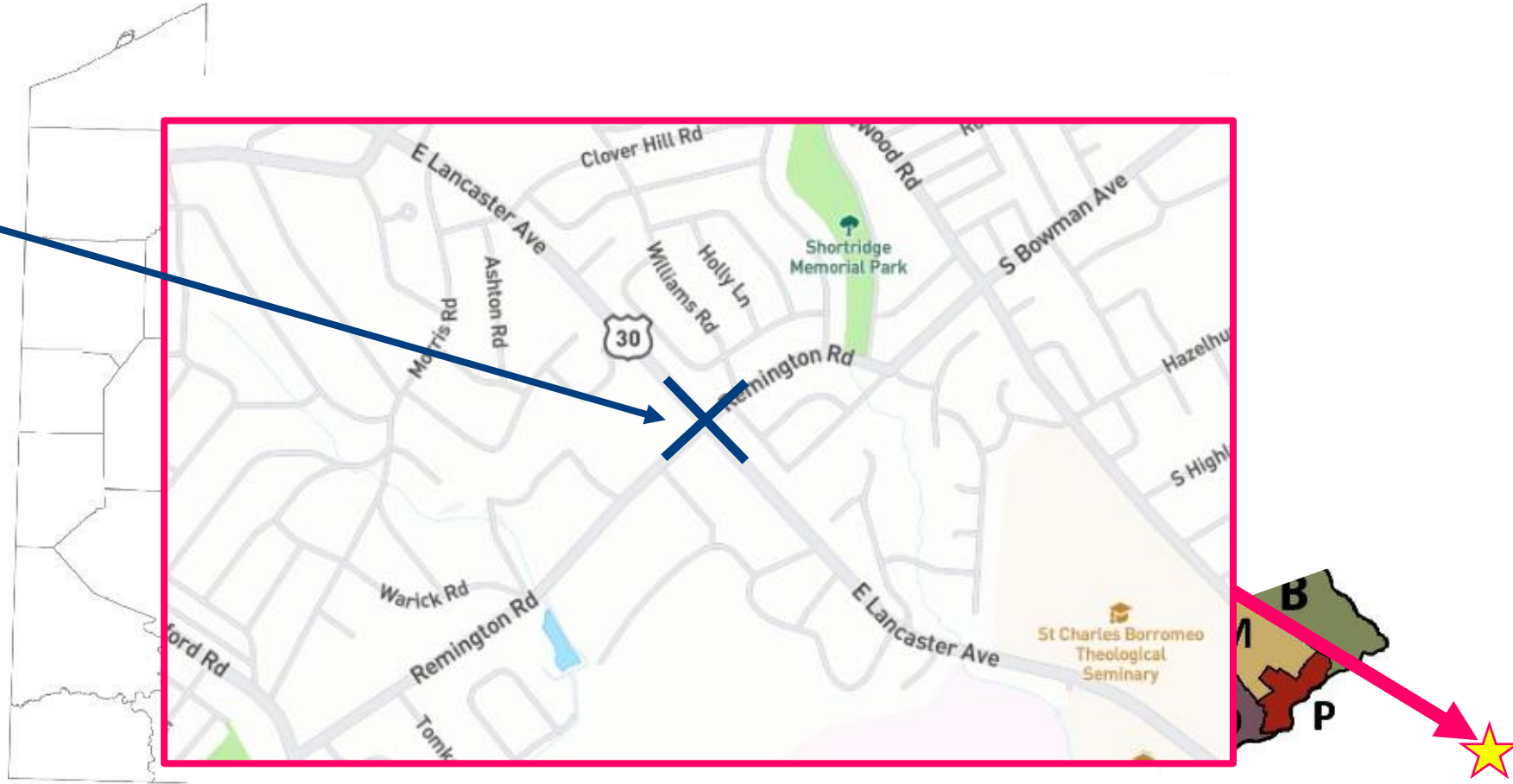


Highway Safety Improvement Program
Data Driven Decisions



PROJECT OVERVIEW

Project Location



TRICT 6-0



COMMUNITY CONTEXT

Lower Merion High School

Temple Beth Hillel-Beth El

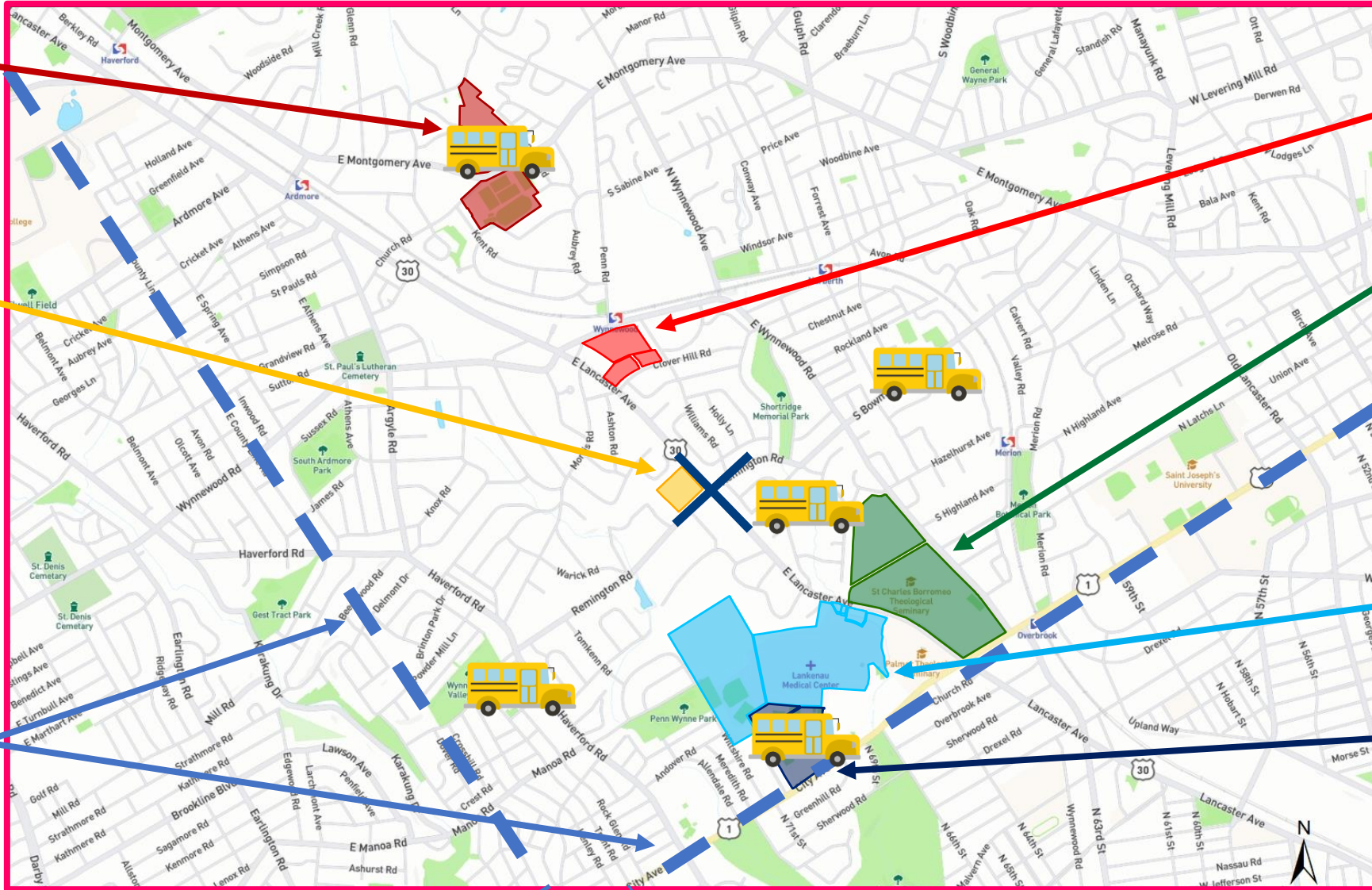
Montgomery County Boundary

Wynnwood Shopping Center

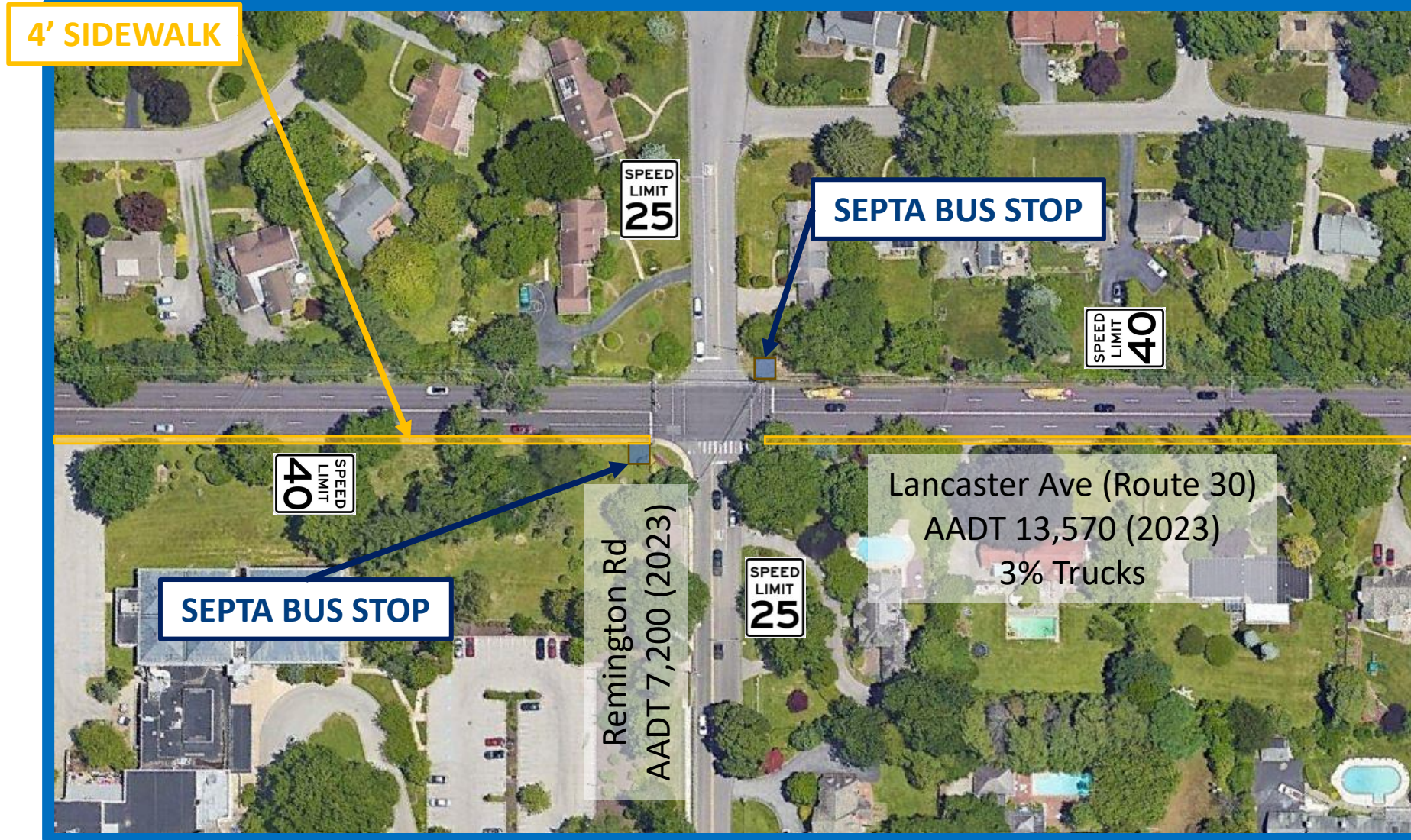
St Charles Borromeo Seminary

Lankeneau Hospital

Friends' Central School



EXISTING CONDITIONS



EXISTING CONDITIONS



Image provided by Urban Engineers, Inc.

Lancaster Avenue (Route 30)



PROJECT PURPOSE AND NEED

Purpose:

- Reduce the number and severity of crashes. Improve intersection operations.

Need:

- 2019-2023 – **83** reportable crashes
 - 51 injury crashes (including **1 fatality**)
 - 69% angle crashes
 - >80% during the daylight/dry conditions
 - 75% due to improper/careless turns



INTERSECTION CONTROL EVALUATION (ICE)



PennDOT reviewed alternatives including:

- No Build
- Split Phasing
- Road Restriping (4-lane)
- Prohibit Left Turns

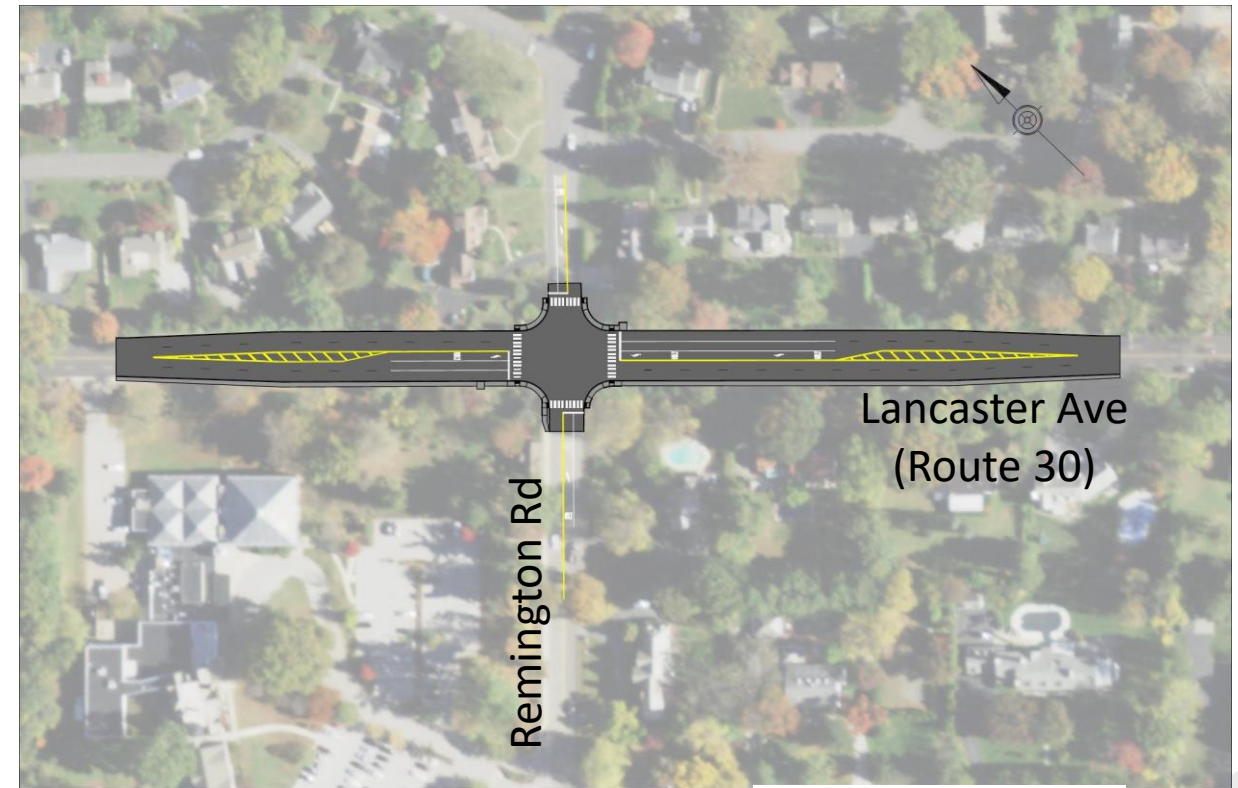
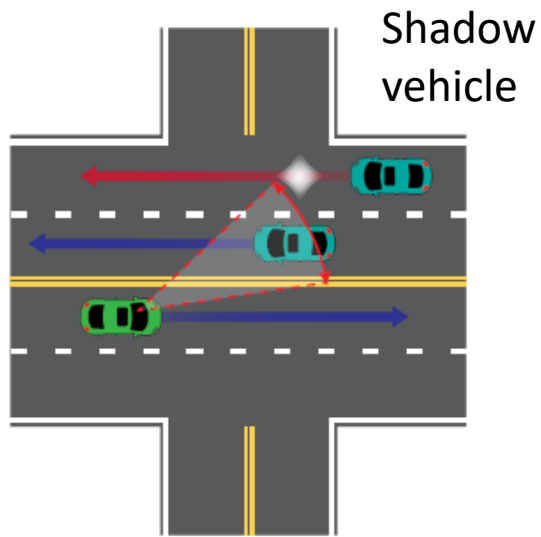
- **5-Lane Section**
- **Hybrid Roundabout**

**2 ALTERNATIVES MET
PURPOSE AND NEED
CRITERIA**

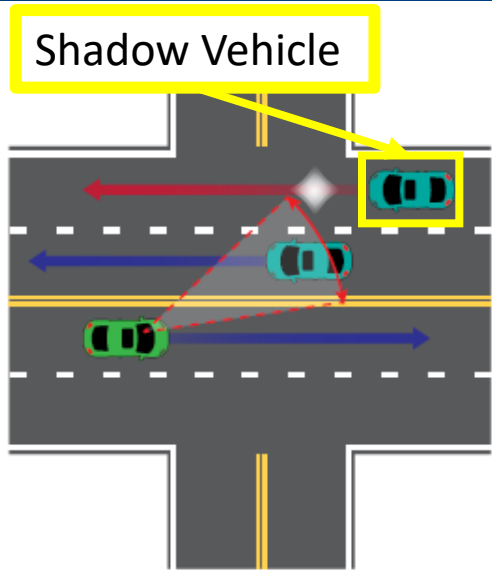


5-LANE SECTION ALTERNATIVE

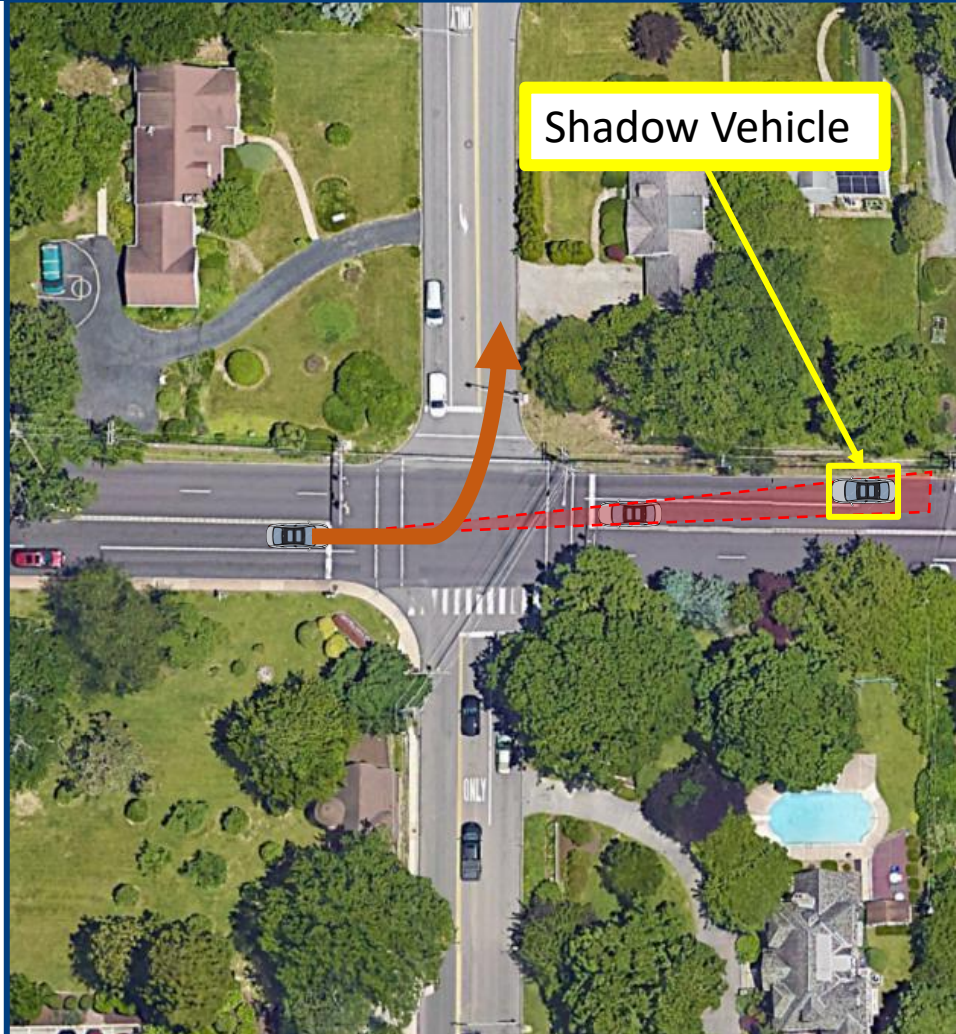
- Addresses Safety Concern
 - Would improve safety through addition of left turn lanes
 - Eliminates “shadow” by lining up left turn lanes



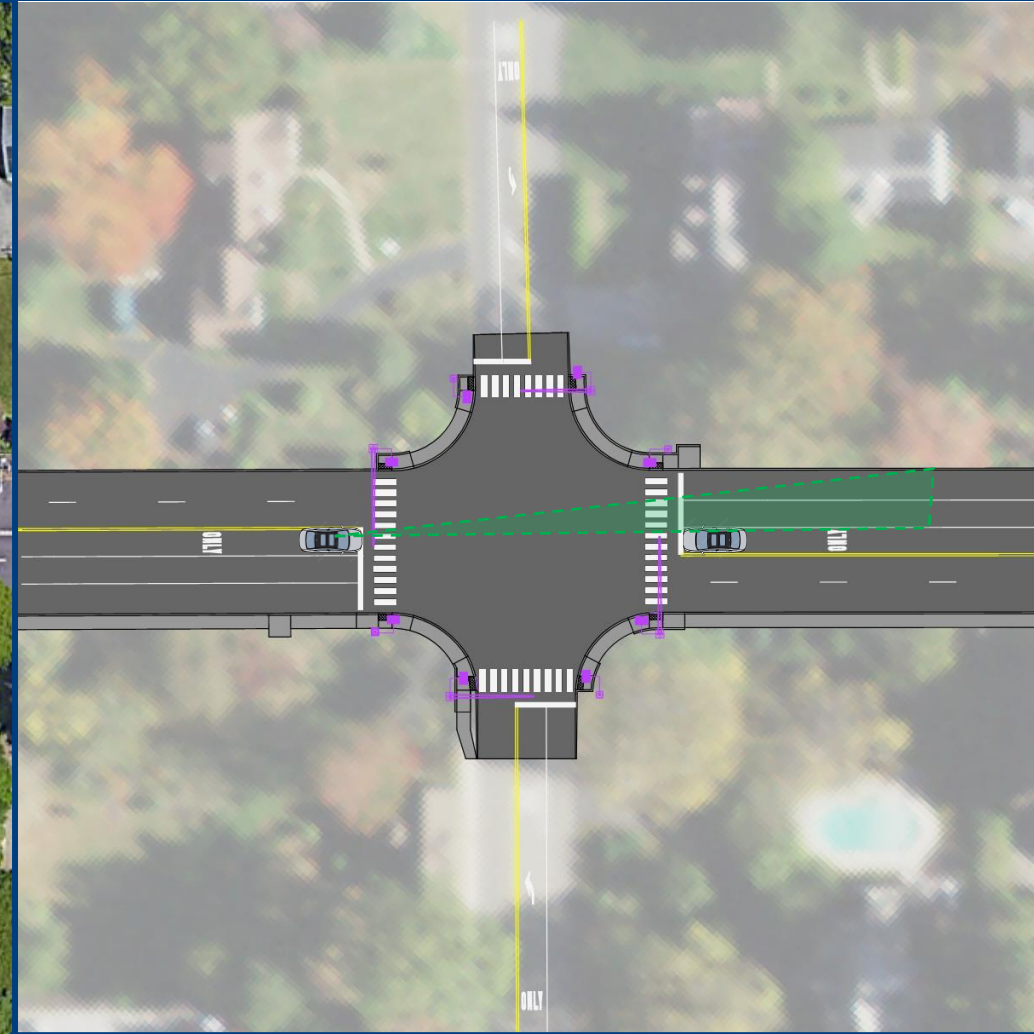
VEHICLE SHADOWING



Shadow Vehicle
restricts sight line of
opposing thru traffic



Existing



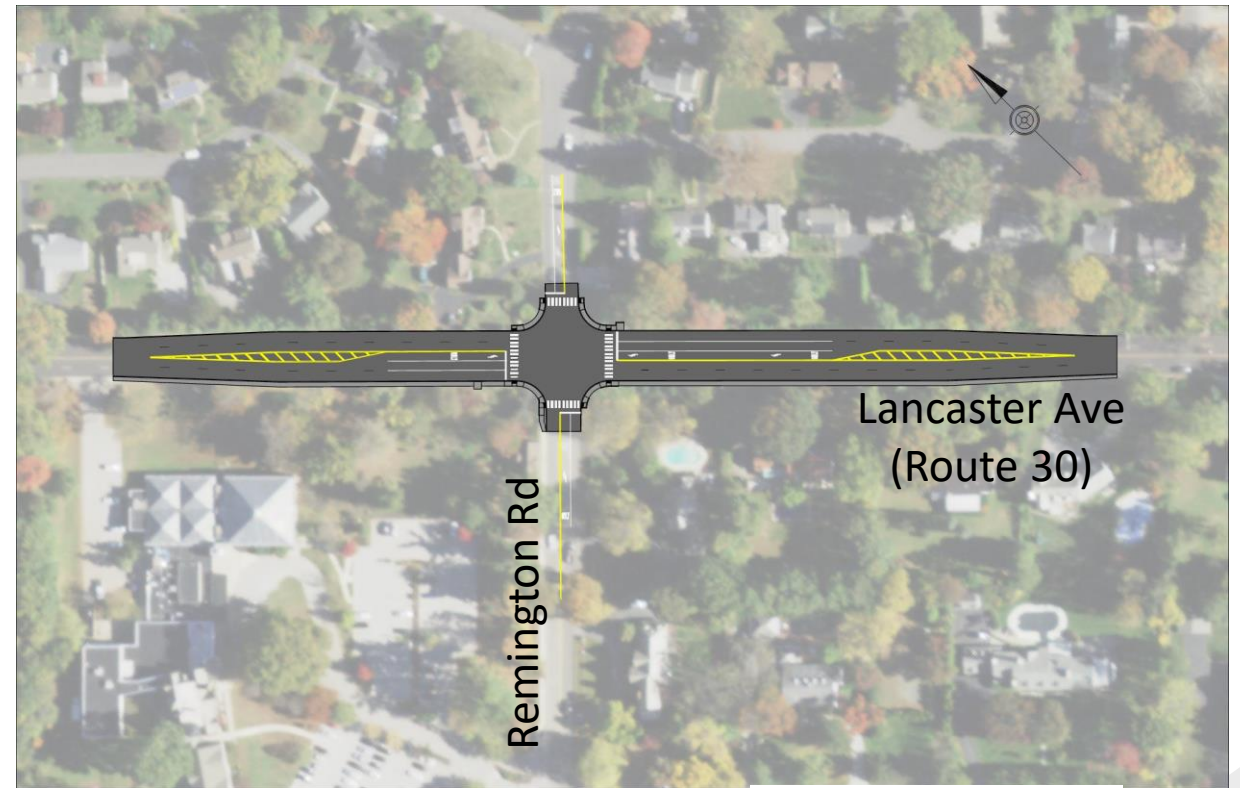
Proposed



5-LANE SECTION ALTERNATIVE

- Addresses Safety Concern
 - Would improve safety through addition of left turn lanes
 - Eliminates “shadow” by lining up left turn lanes
- Maintain/Improve Operations
 - Delay during 2048 design year (seconds of delay)

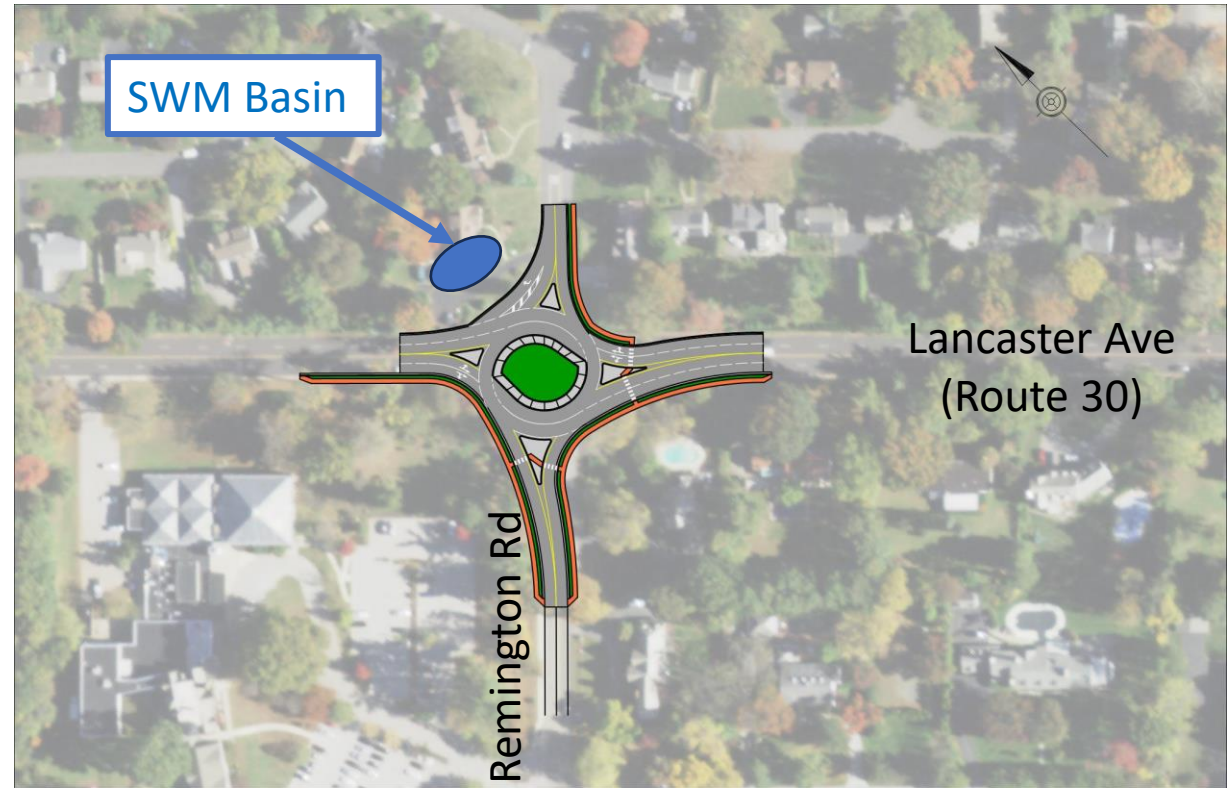
Approach	AM (2048)		PM (2048)	
	No Build	5-Lane	No Build	5-Lane
EB →	24	26	18	22
WB ←	16	17	10	11
NB ↑	55	33	51	37
SB ↓	34	27	66	43



HYBRID ROUNDABOUT ALTERNATIVE

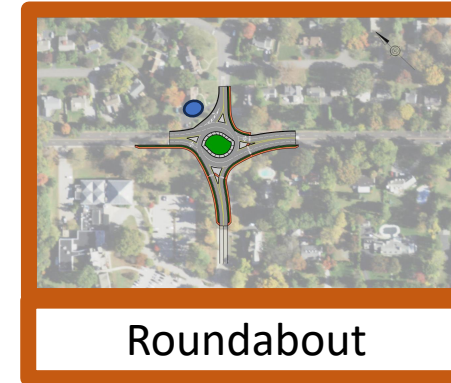
- Addresses Safety Concern
 - Would improve safety at intersection by eliminating conflict points
 - Slows speeds at intersection
- Maintain/Improve Operations
 - Delay during 2048 design year (seconds of delay)

Approach	AM (2048)		PM (2048)	
	No Build	Round-about	No Build	Round-about
EB →	24	15	18	10
WB ←	16	9	10	15
NB ↑	55	19	51	22
SB ↓	34	73	66	16



HIGHWAY SAFETY MANUAL (HSM) ANALYSIS

- Federal HSIP funding requires benefit/cost analysis to secure construction funding.
- 5 Lane Section vs. Roundabout
 - Significantly less impacts
 - Similar Safety Benefit



Summary of Predicted Crash Performance - Alternative Analysis



Source: PennDOT Highway Safety Manual (HSM) Tool B



INTERSECTION CONTROL EVALUATION (ICE)

PennDOT narrowed alternatives down and addressed these in more detail

Alternative	Addresses Safety Concern	Maintains/Improves Operations	Environmental Resource Impacts	ROW Impacts	Planning Level Cost Estimate
5-Lane Section	Yes	Yes	Minor	Minor	\$1.9 M
Hybrid Roundabout	Yes	Yes	Moderate	Major***	\$3.7 M

***would require a total property take for stormwater management facility



SAFETY IMPROVEMENTS

- Widen Lancaster Avenue to include a left-turn lane
- Upgrade signal equipment
 - Install pedestrian countdown timers
 - Implement Leading Pedestrian Interval (LPI)
 - Install Retroreflective Backplates
- Widen sidewalks from 4' to 5'
- Install bus boarding platforms
- ADA Ramps



Reduction in overall crashes



34%

Reduction in Fatal/Injury crashes



34%



SAFETY IMPROVEMENTS

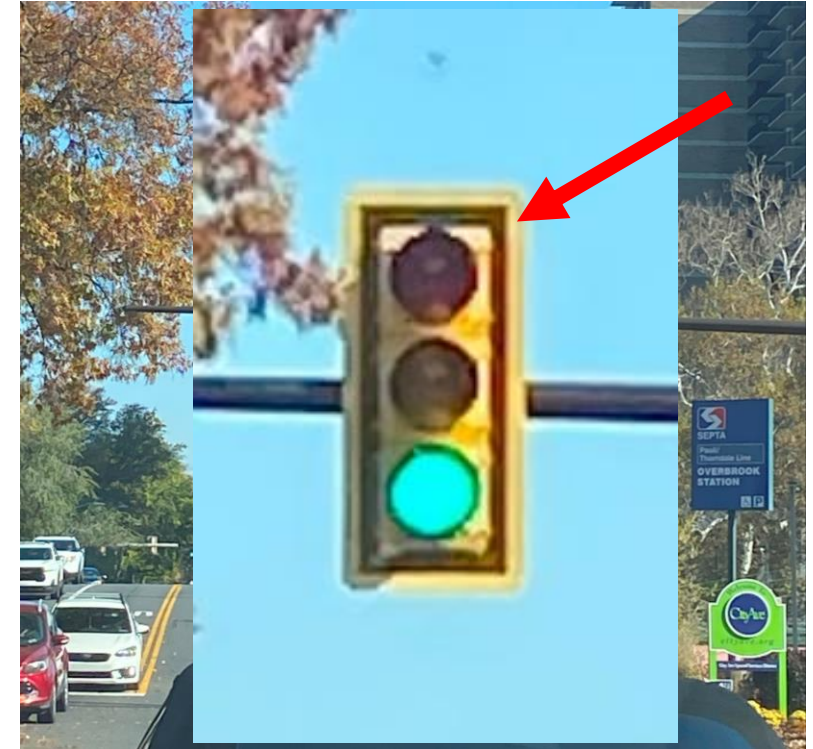
Signal Upgrades



Accessible Pedestrian Signal
(APS) Push Button



Pedestrian Countdown Timer



Retroreflective Backplates



SAFETY IMPROVEMENTS

Signal Upgrades – Example

Retroreflective
Backplates



Safety Benefits:
15%
reduction in total crashes.¹

Source FHWA

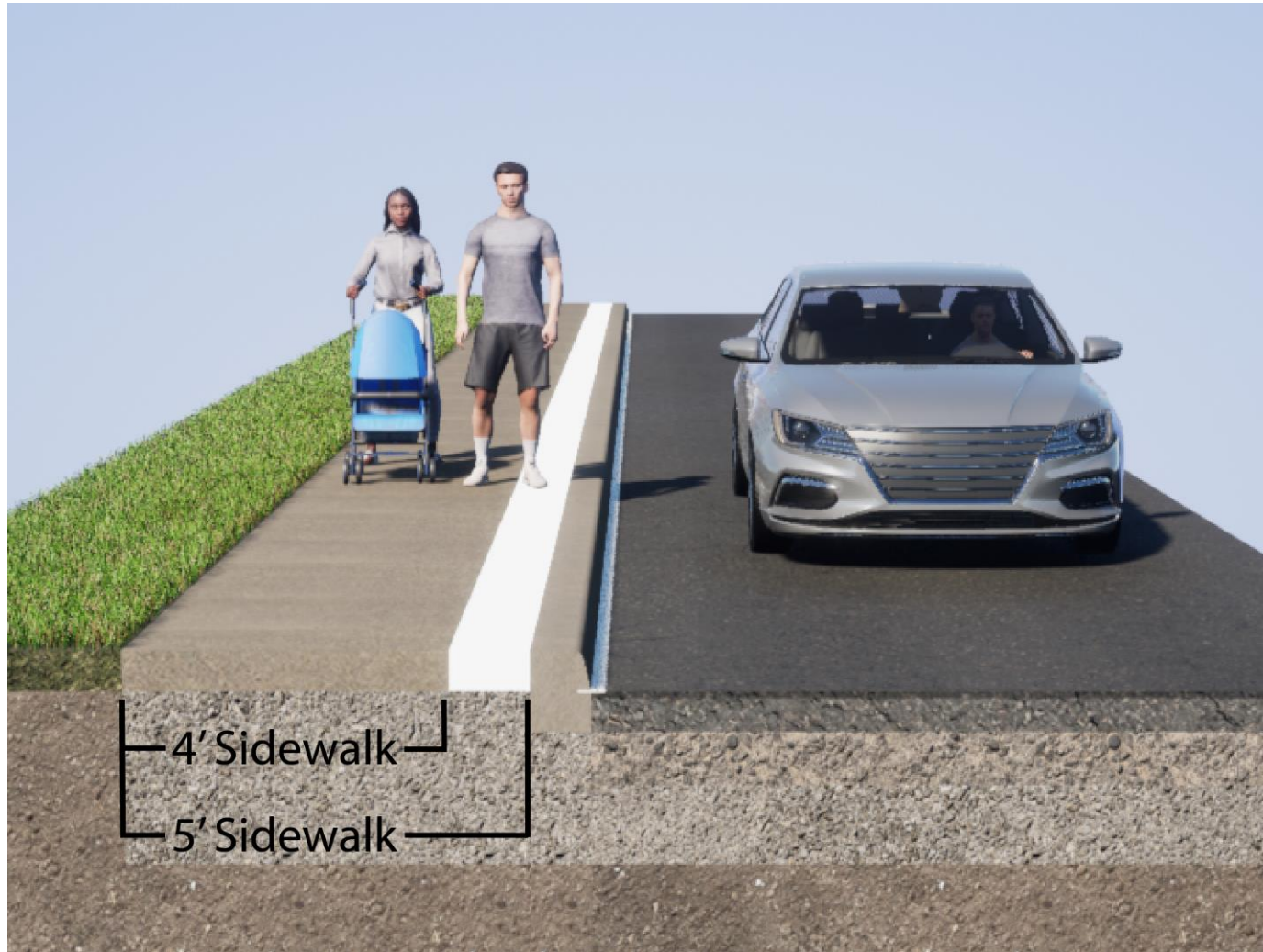


Pedestrian
Countdown Timers



SAFETY IMPROVEMENTS

Widening Sidewalks



SAFETY IMPROVEMENTS

Leading Pedestrian Interval (LPI)

- 1 Pedestrian countdown timer
- 2 Red light turn restrictions
- 3 Signage reinforcing yield to pedestrians

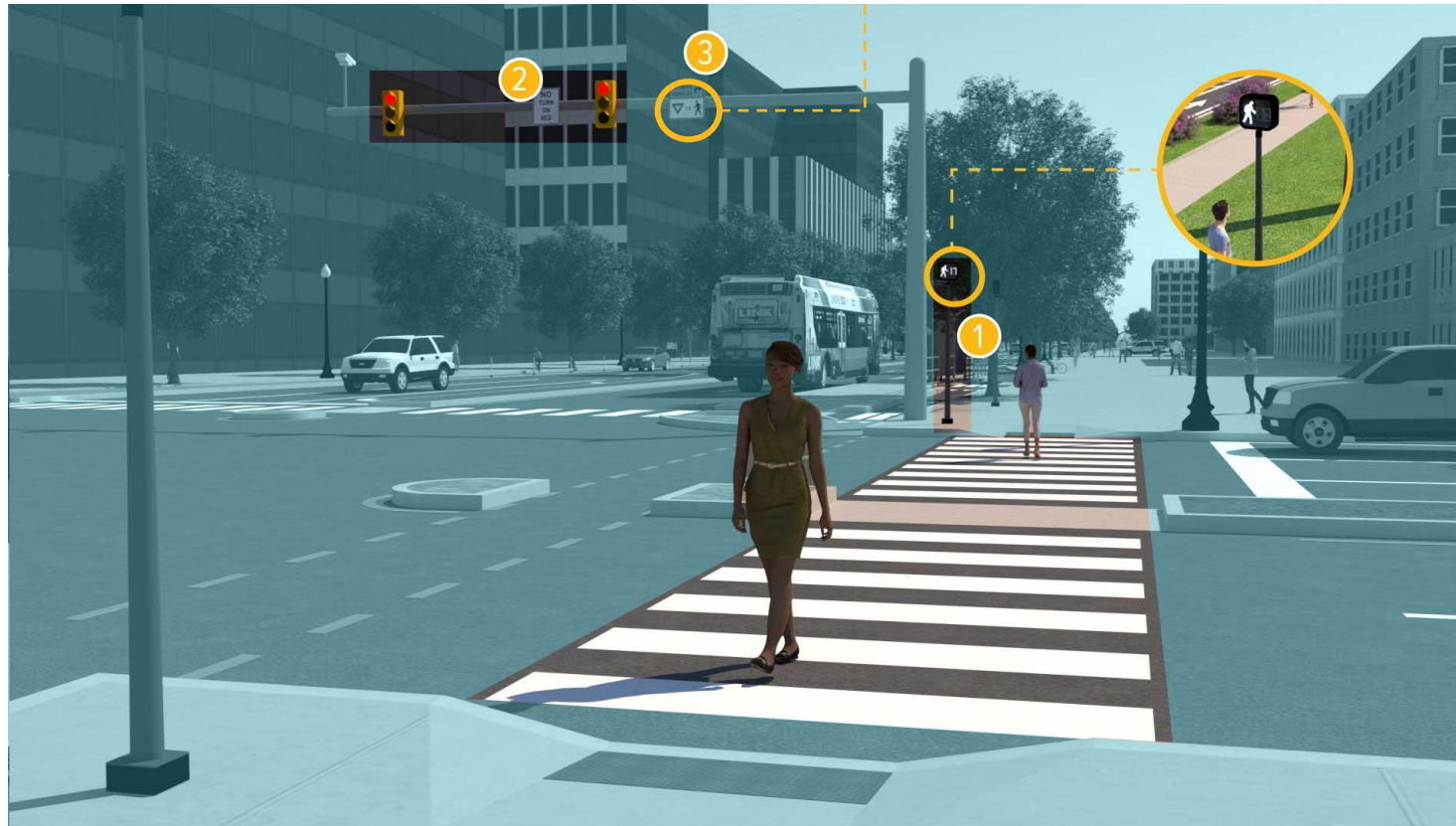


Image provided by Maryland Department of Transportation



Safety Benefits:
13%
reduction in pedestrian-vehicle
crashes at intersections.²

Source FHWA



SAFETY IMPROVEMENTS

Dedicated Left-Turn Lane



Image provided by Google

Lancaster Avenue (Route 30) & Ardmore Ave (Route 3042)



Safety Benefits:

Left-Turn Lane

28-48%
reduction in total crashes.¹

Source FHWA



EXISTING CONDITIONS



Image provided by Urban Engineers, Inc.



PROPOSED DESIGN



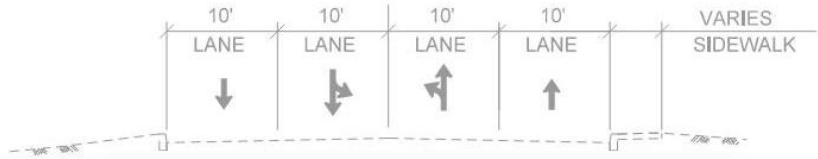
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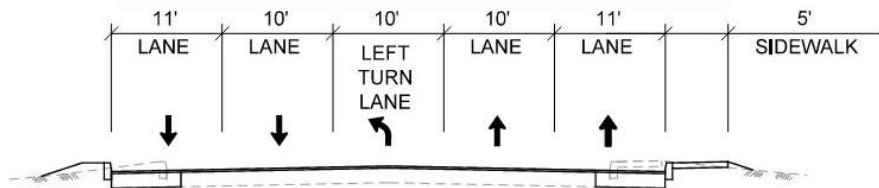
PROPOSED DESIGN



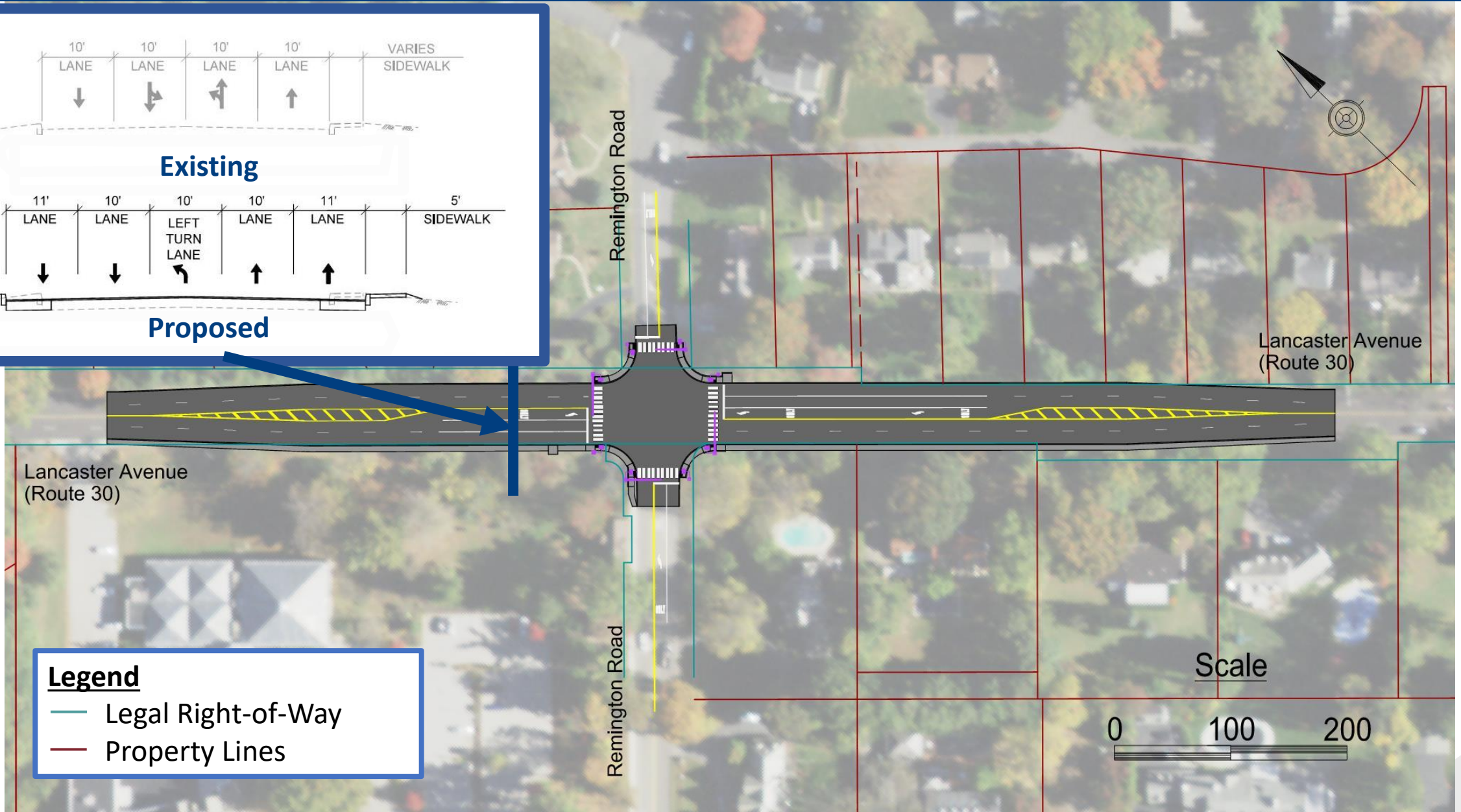
PROPOSED DESIGN



Existing



Proposed



Lancaster Avenue (Route 30)

Lancaster Avenue (Route 30)

Remington Road

Remington Road

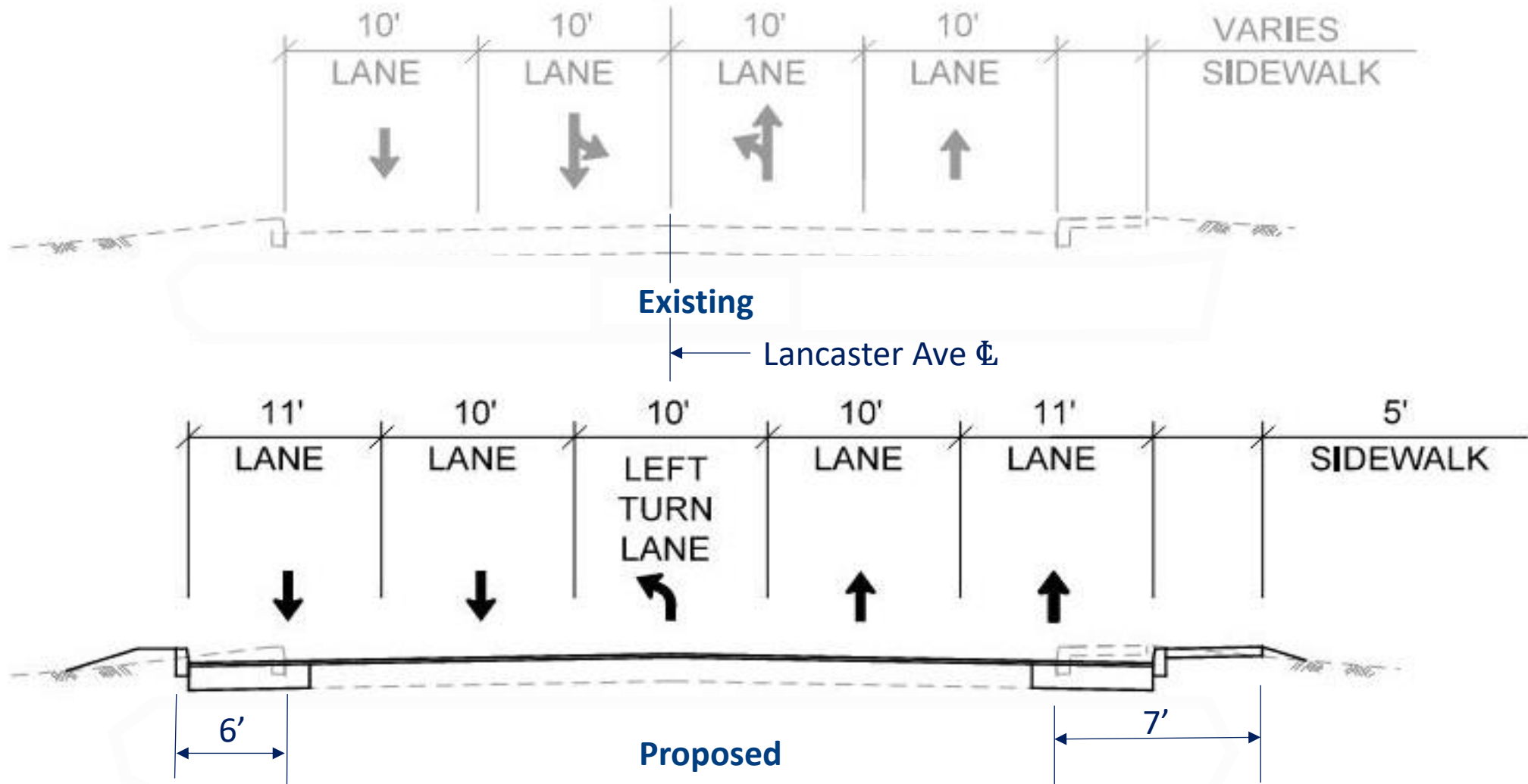
Legend

- Legal Right-of-Way
- Property Lines

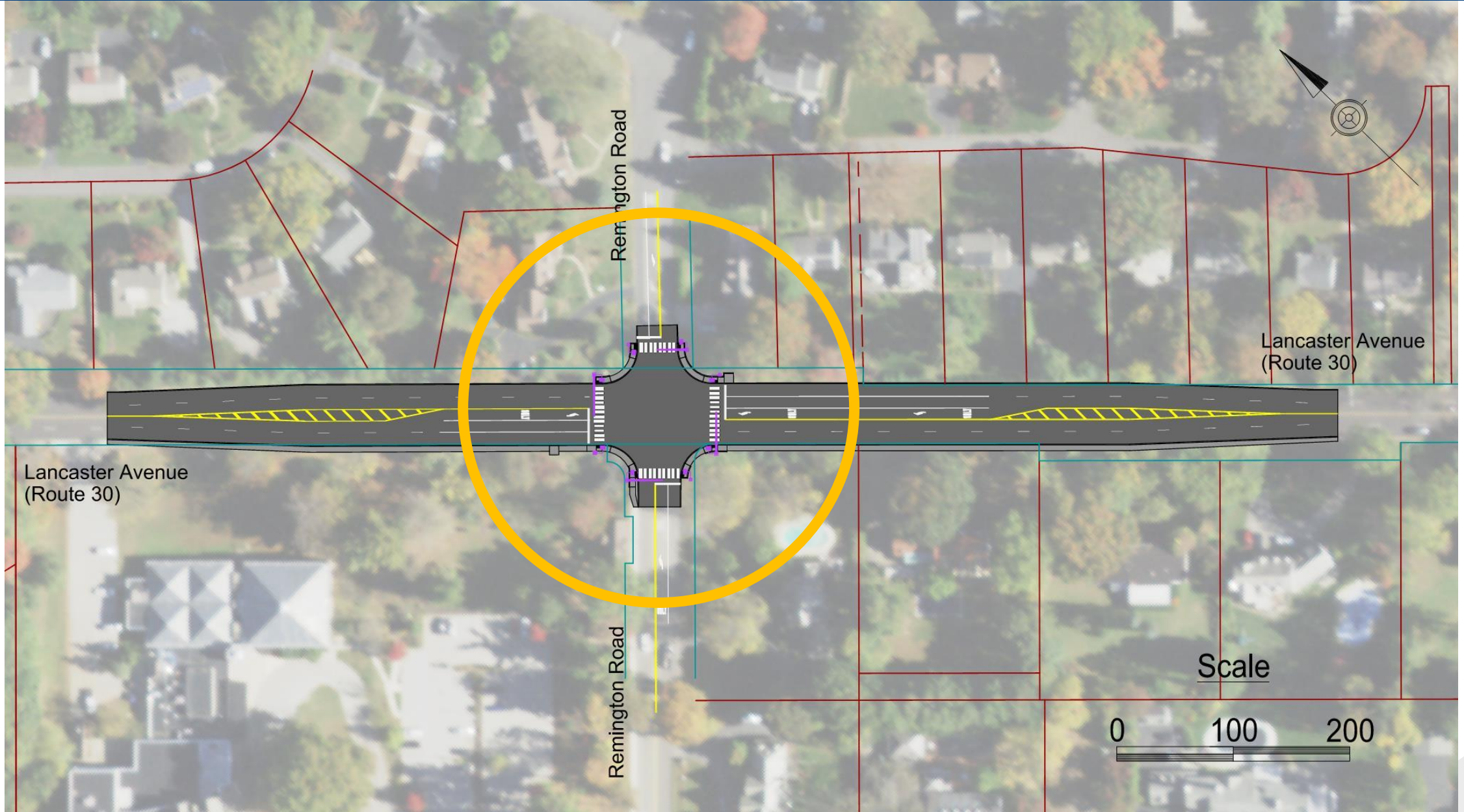
Scale



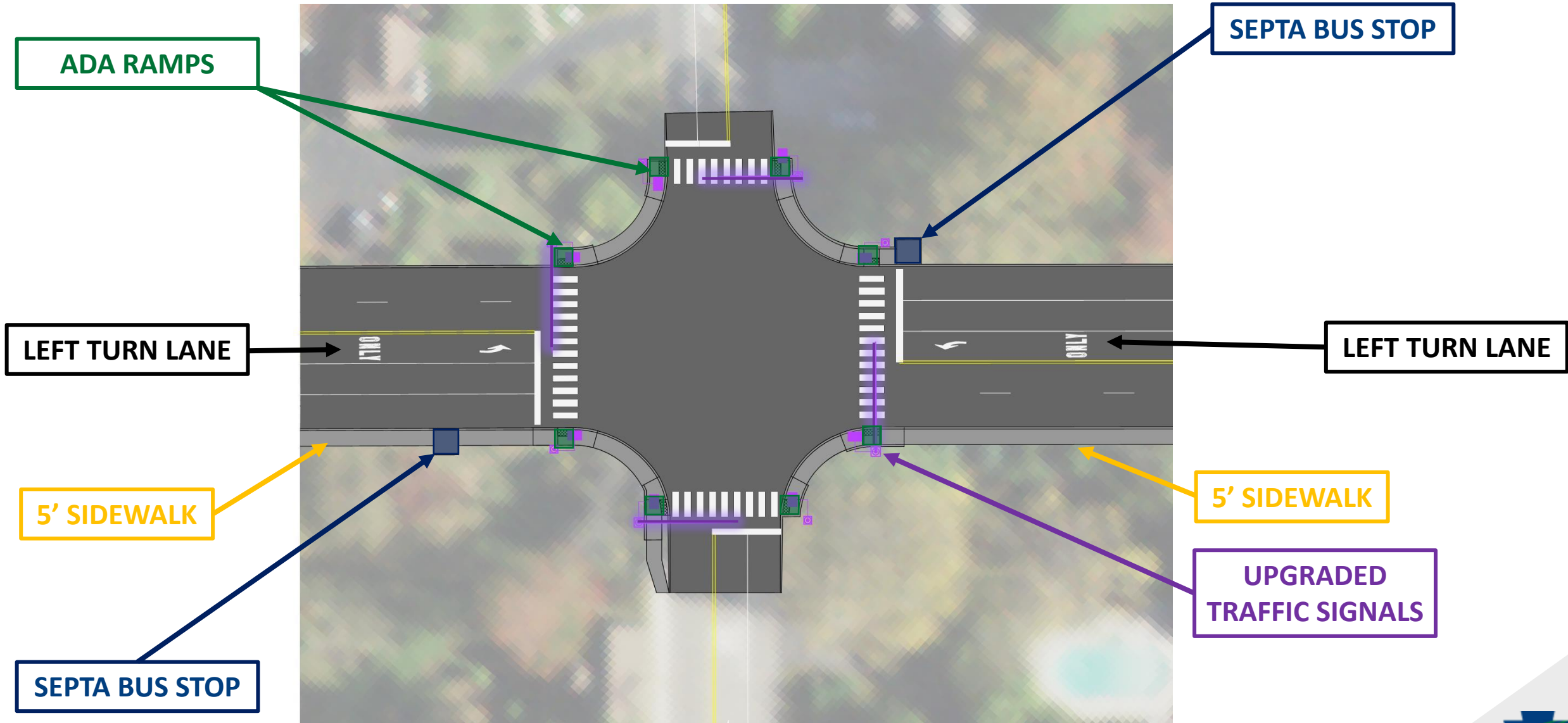
PROPOSED DESIGN



PROPOSED DESIGN

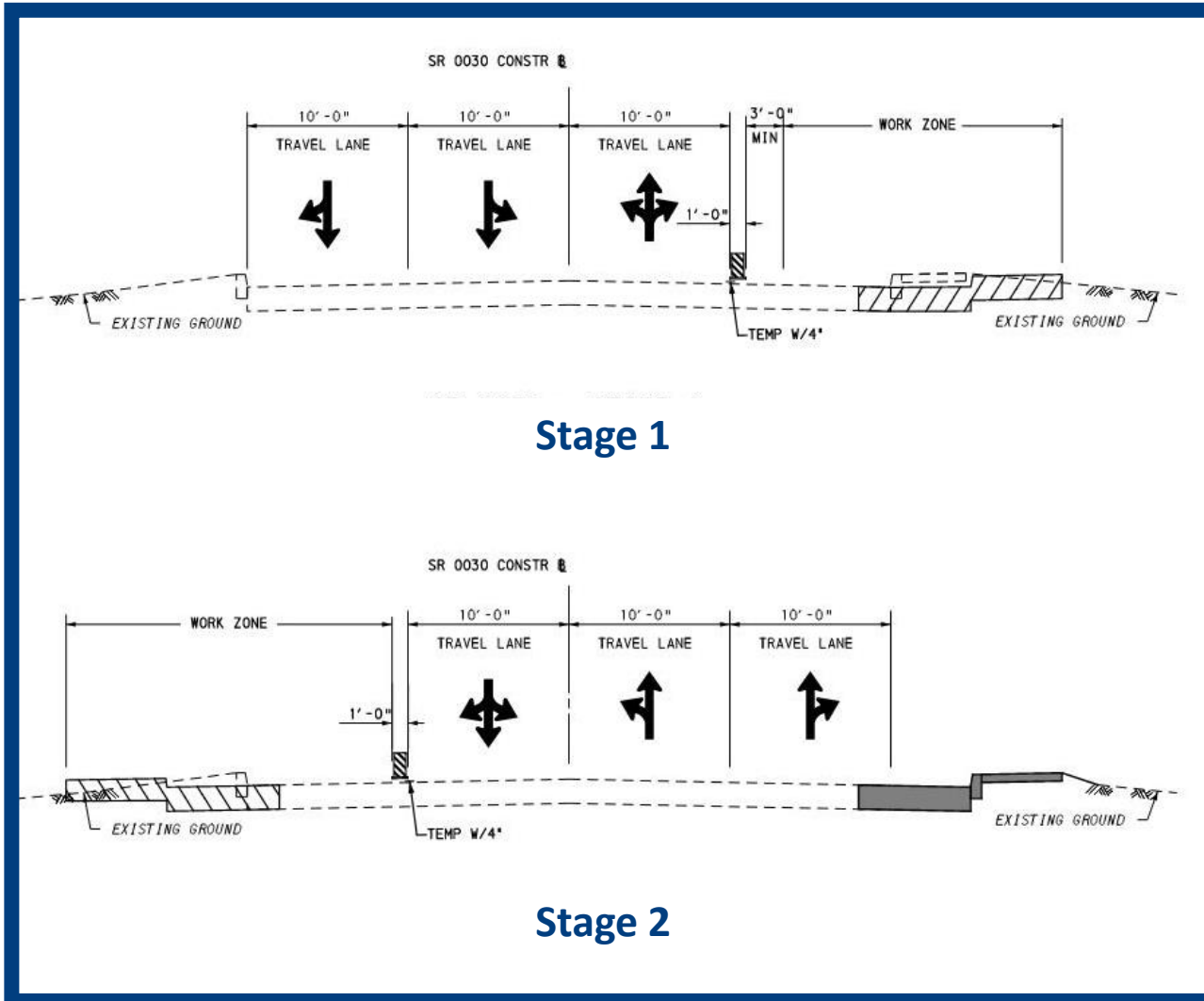


PROPOSED DESIGN



TRAFFIC CONTROL

Lancaster Ave (Route 30)

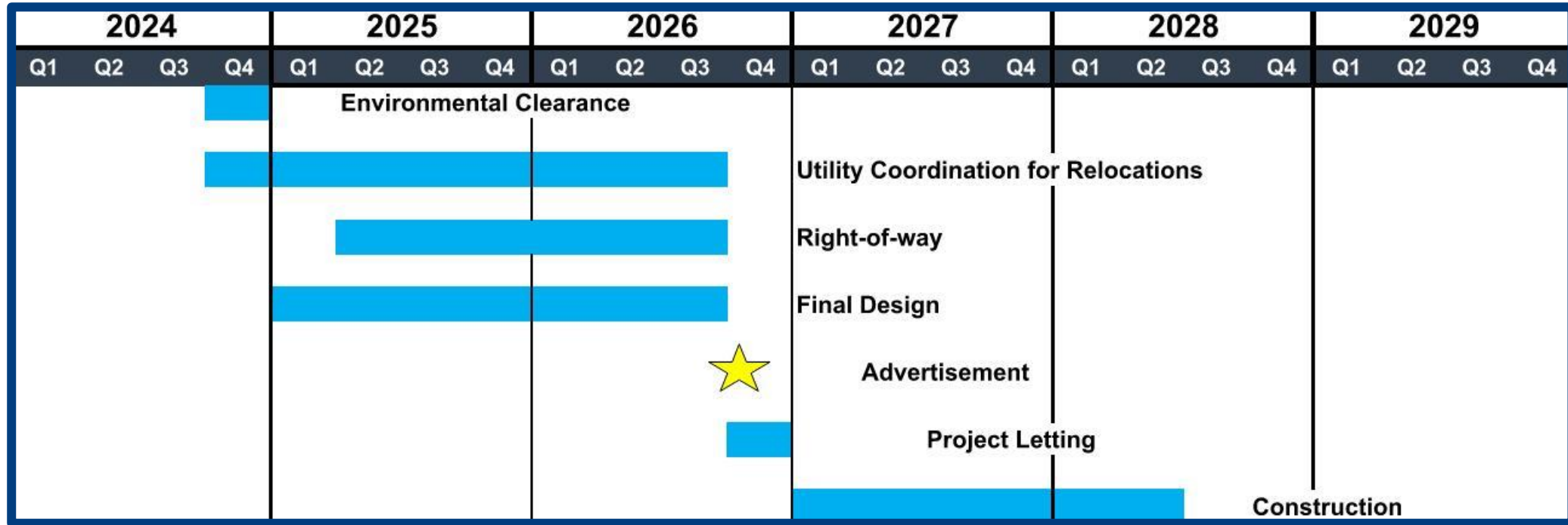


2-Stage Construction

- Partial full-depth construction
- One-direction lane reduction per stage
- Mill-and-Overlay remaining areas
- No detours



PROJECT SCHEDULE



QUESTIONS?

THANK YOU

Contact Information

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To comment, visit:

<https://bit.ly/4dMQNnG>



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