

Crowell Road/Main Street

Route 28 Intersection Project

Town of Chatham, Massachusetts



PROPOSED ALTERNATIVES DISCUSSION

February 11, 2010



Agenda

- Introduction – 7:00 PM
- Project Overview – 7:10 PM
- MassDOT Planning Process – 7:15 PM
- Key Points from Jan. 7 Meeting – 7:20 PM
- Transportation Evaluation Criteria – 7:30
- Conceptual Improvements – 7:45 PM
- Closing Remarks – 9:00 PM



Project Team

- Town of Chatham
 - Terry Whalen – Town Planner
 - Jeff Colby – Dept of Public Works
 - Paul Lagg – GIS Coordinator
- FST Project Team
 - Doug Prentiss, P.E., PTOE
 - Sarah Weimer



Main Street(Route 28)/Crowell Road/Depot Road/Queen Anne Road





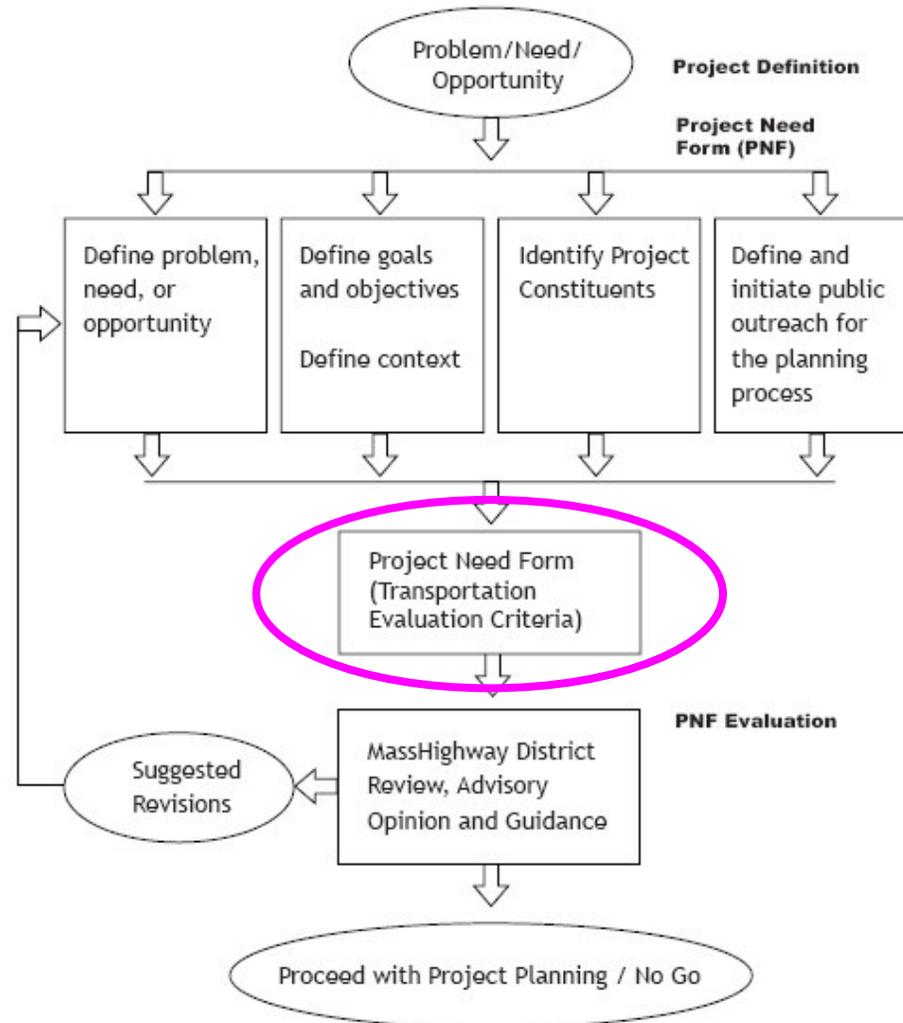
Project Objective

- To improve the operating conditions at this key intersection and enhance safety for all users including vehicles (cars, busses and trucks), pedestrians and bicyclists.
- Develop a unified vision for traffic improvements for this intersection.





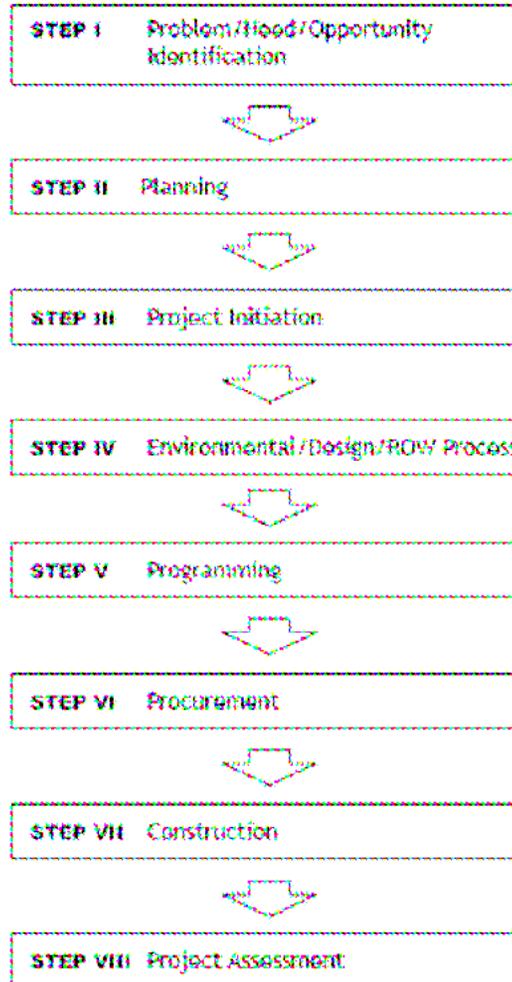
MassDOT Planning Process





MassDOT Planning Process

PROCESS



OUTCOMES

1. Project Need Form (PNF)
2. Project Planning Report (if necessary)
3. Project Initiation Form (PIF)
3. Identification of Appropriate Funding
3. Definition of Appropriate Next Steps
3. Project Review Committee Action
4. Plans, Specs and Estimates (PSE)
4. Environmental Studies and Permits
4. Right-of-Way Plans
4. Permits
5. Regional and State TIP
5. Programming of Funds
6. Construction Bids and Contractor Selection
7. Built Project



Key Summary Points

----From January 7 Workshop

- Add Crosswalks and sidewalks
- Consider handicap requirements
- Consider Roundabout
- Eliminate conflicts (playing chicken)
- Provide exclusive turn lanes
- Provide lane transitions
- Improve signal phasing and timing
- Slow traffic down
- Consider emergency vehicle access

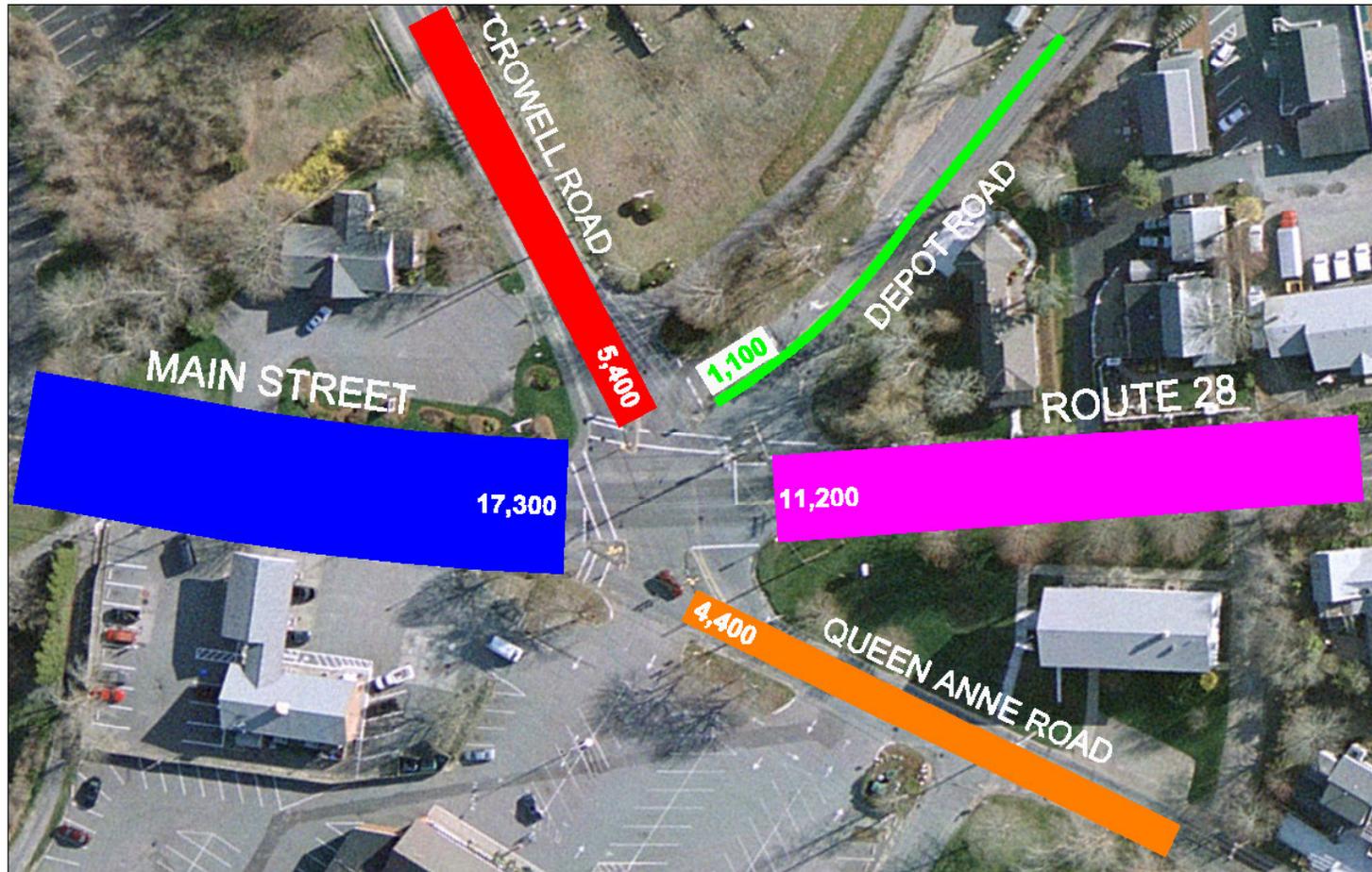


Transportation Evaluation Criteria

- 24- Hour Summer Traffic Volumes
- Peak Hour Traffic Volumes
- Peak Hour Bicycle Volumes
- Peak Hour Pedestrian Volumes

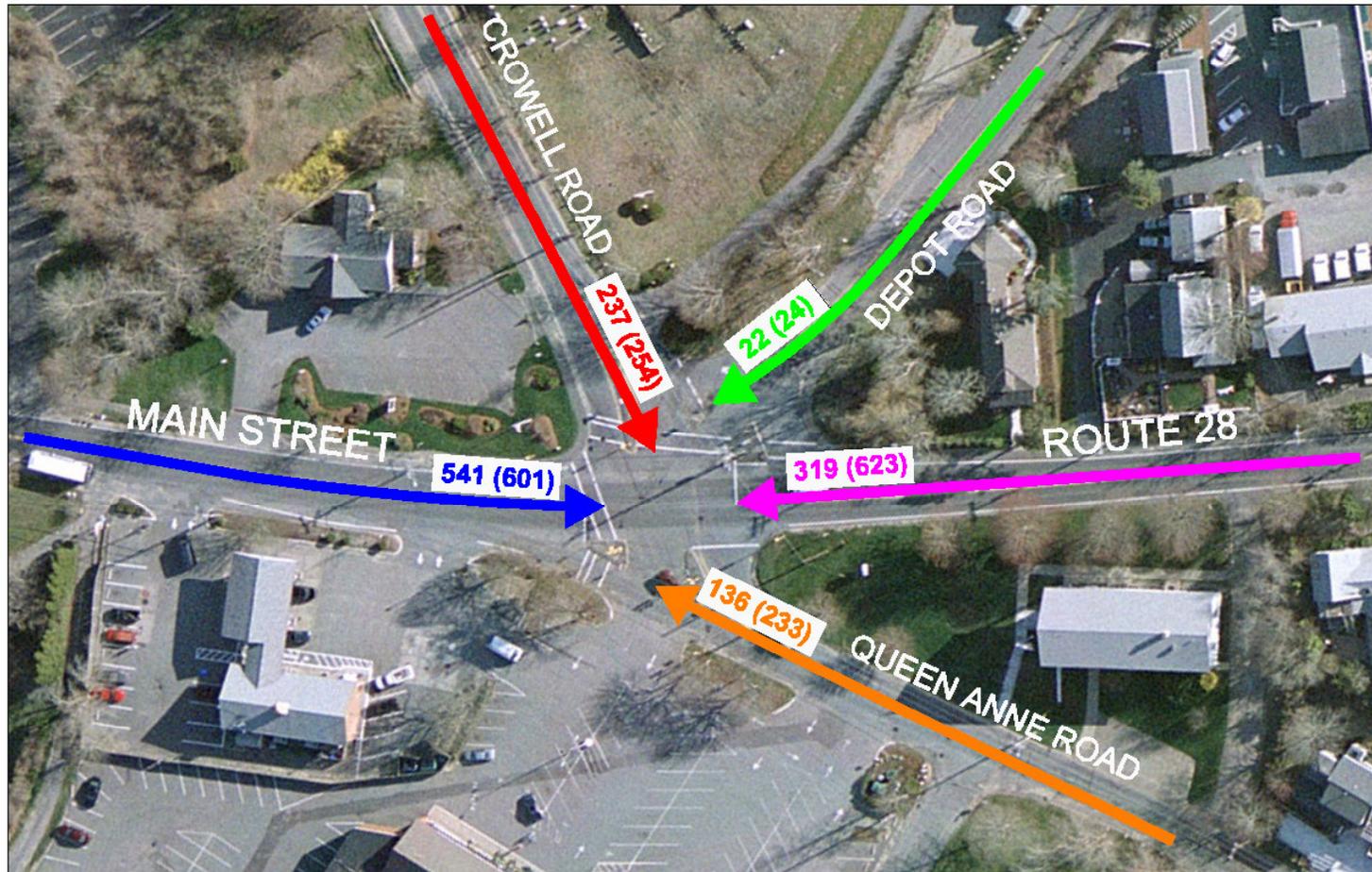


24-Hour Summer Traffic Volumes



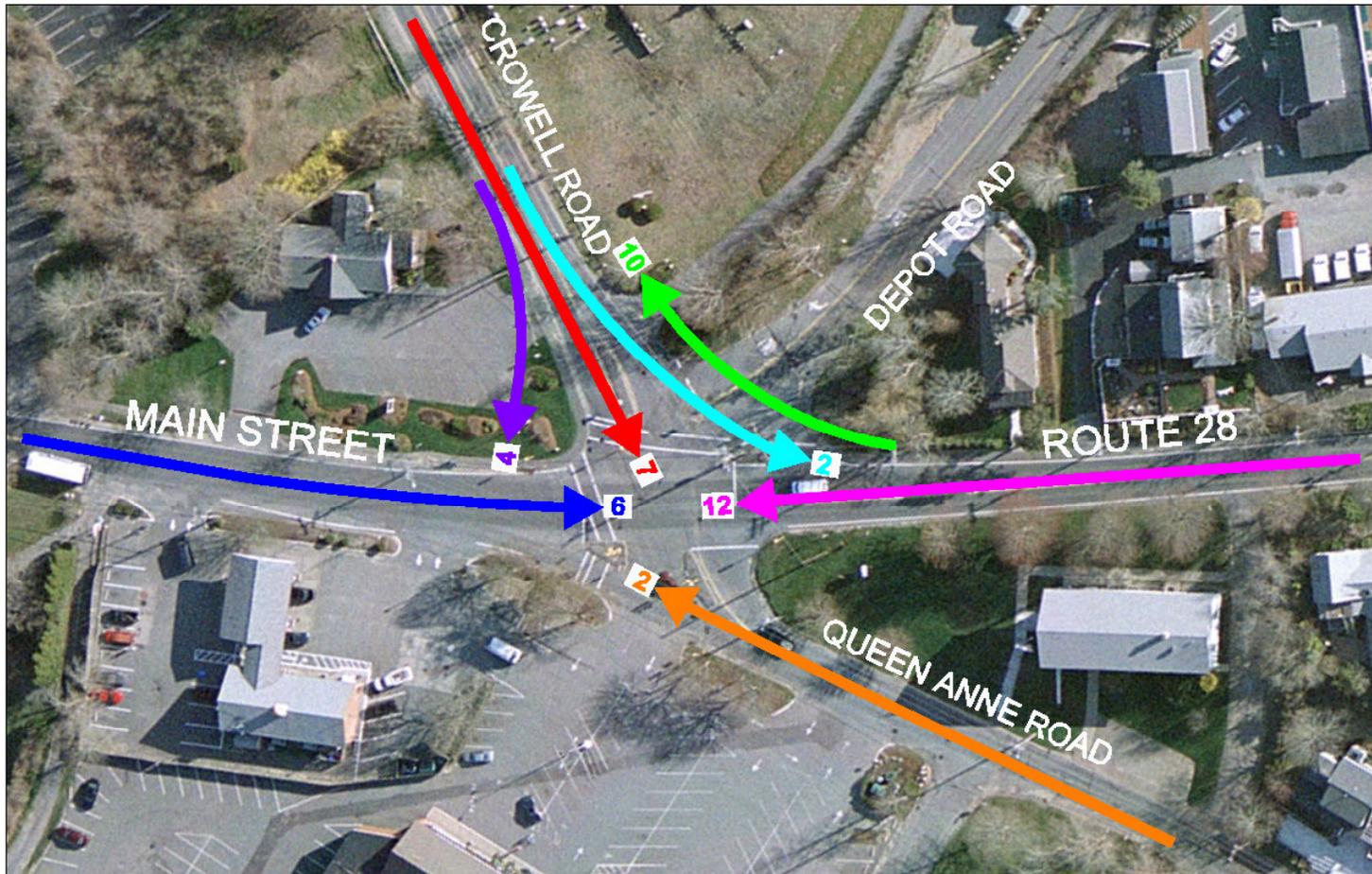


Peak Hour Traffic Volumes



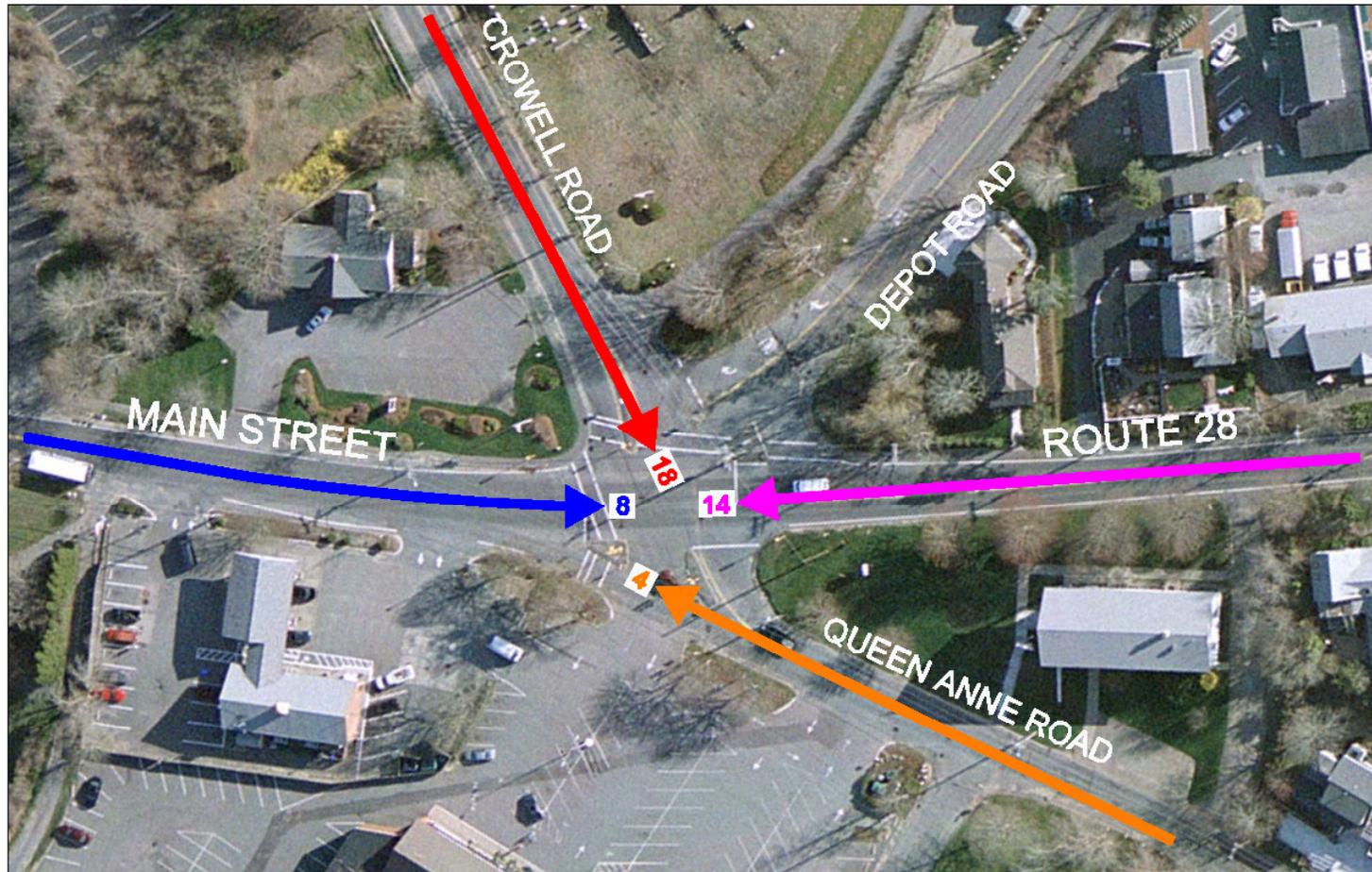


Peak Hour Bicycle Volumes





Peak Hour Pedestrian Volumes



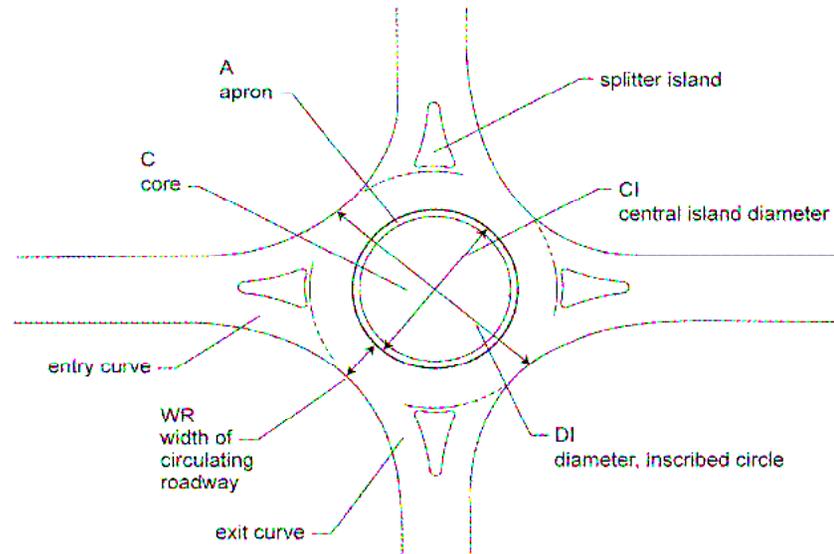


Design Criteria

- *Project Development and Design Guide* - MassHighway (now MassDOT);
- *Traffic Calming –State of the Practice* - Institute of Transportation Engineers;
- *Proposed Recommended Practice for Context Sensitive solutions;* - Institute of Transportation Engineers;
- *Manual on Uniform Traffic Control Devices;* - US DOT/Institute of Transportation Engineers
- *A Policy on Geometric Design of Streets and Highways* - American Association of State Highway and Transportation Officials



Roundabout Design Requirements



Circle Dimensions (feet)

Functional Class	Design Vehicle	Diameter, Inscribed Circle (DI, feet)	Width, Circulating Roadway (WR, feet)	Central Island		
				Core (C, feet)	Apron (A, feet)	Total (CI, feet)
Major Street						
Arterial	Tractor/Trailer (WB -50)	100-130	29-35	55-95	5-10	65-100
Collector	Single Unit Truck (SU)	80-100	17-21	50-80	5-10	60-85
Local	Passenger Car (P)	45-80	16	25-60	3-5	30-65

Note: The design vehicle should be the largest vehicle expected to be accommodated on the street
 Source Roundabouts: An Informational Guide, FHWA June 2000.

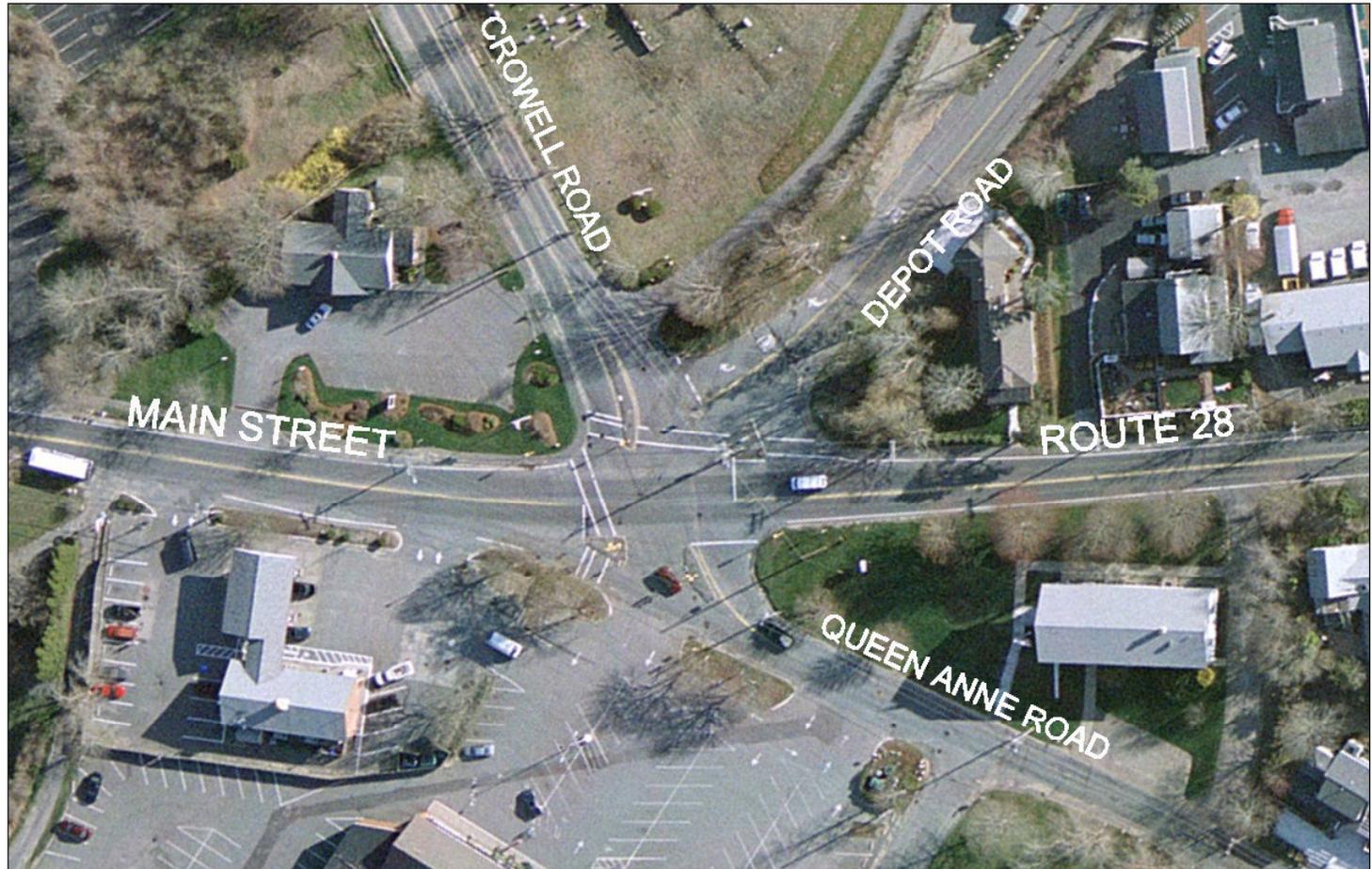


Intersection Alternatives Considered

- Roundabout Design
- Upgraded Traffic Signals
- Unsignalized – i.e. Stop Signs
- No Build – Do Nothing

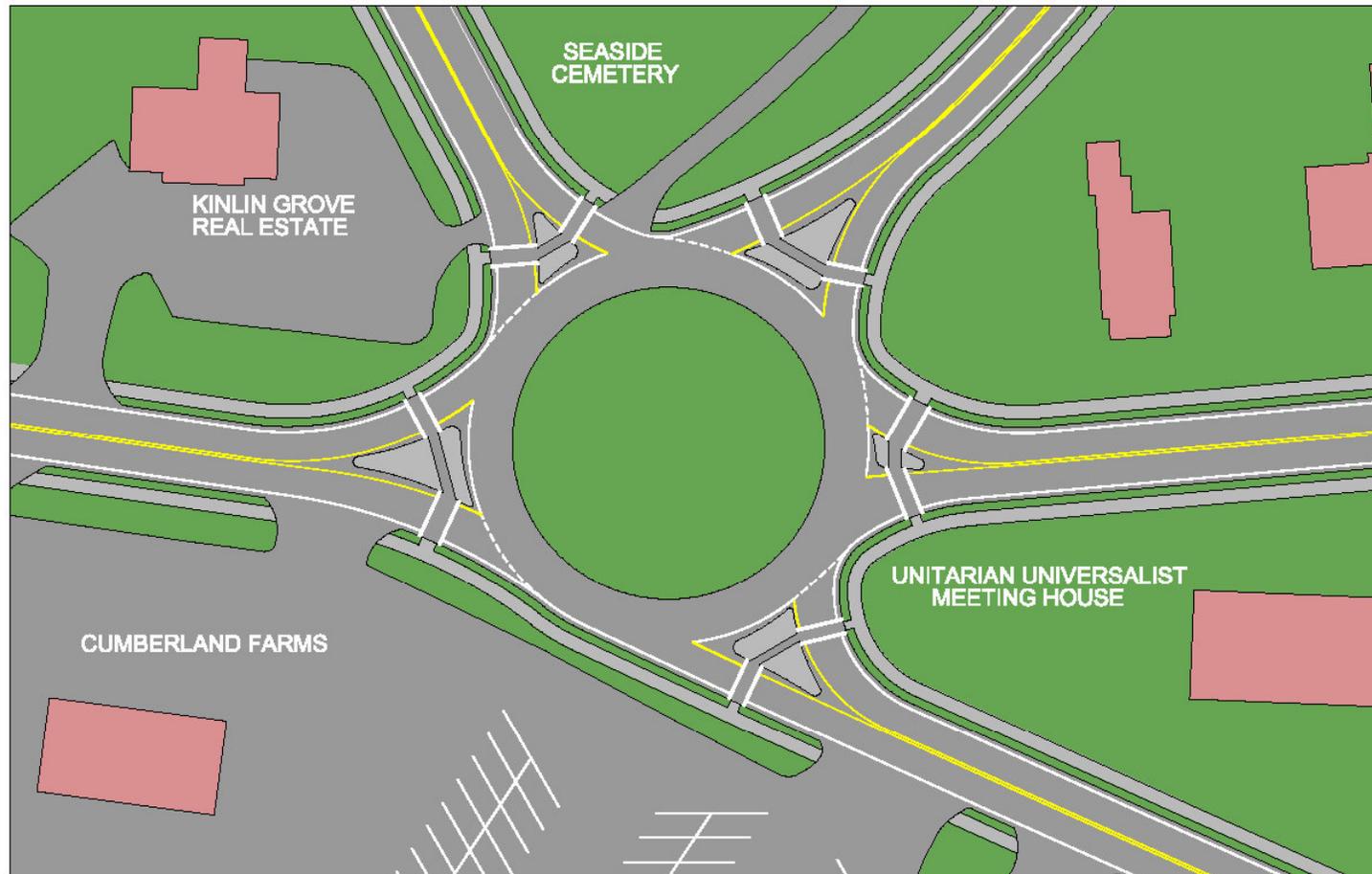


Existing Conditions



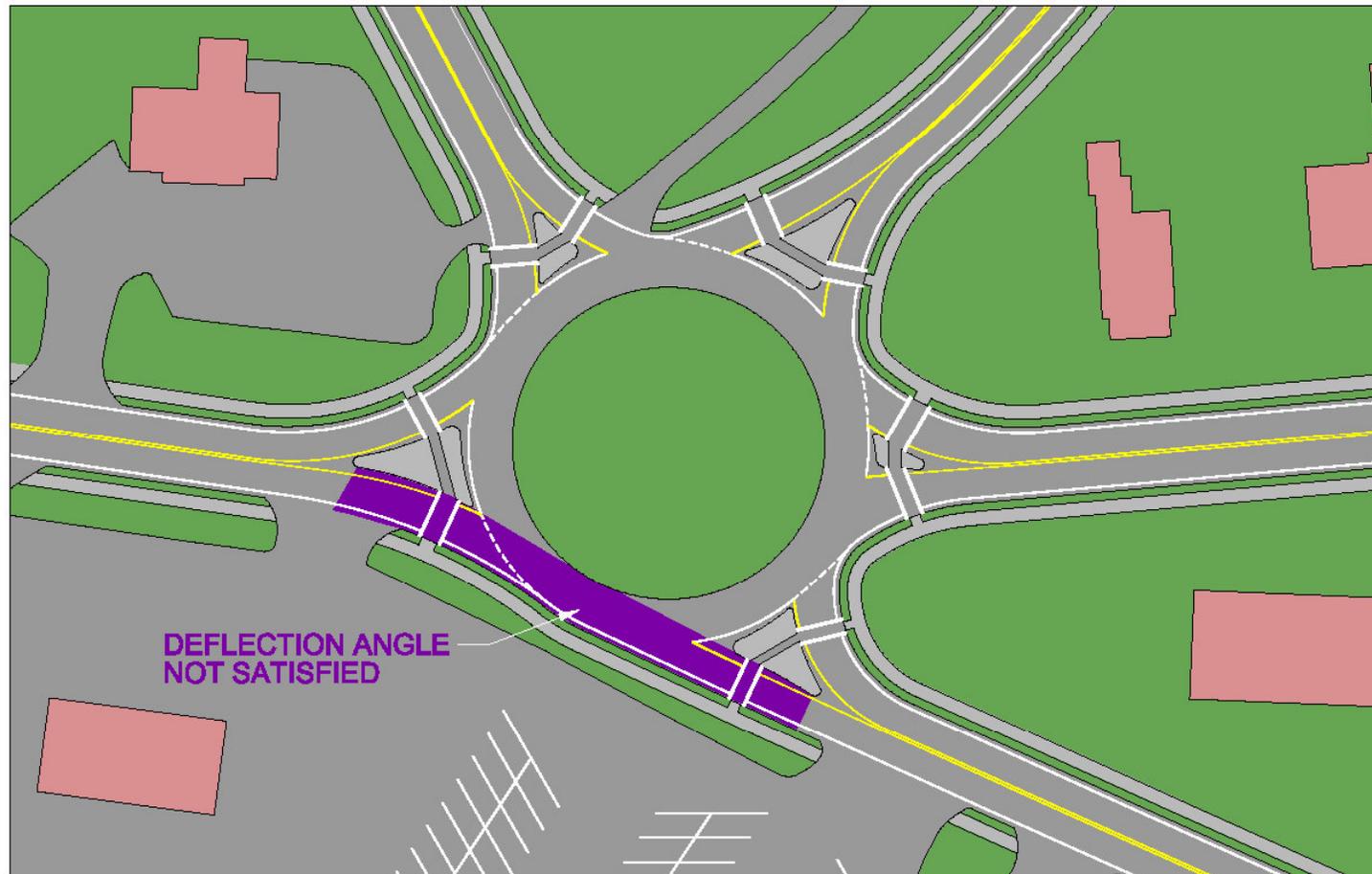


Roundabout Alternative 1



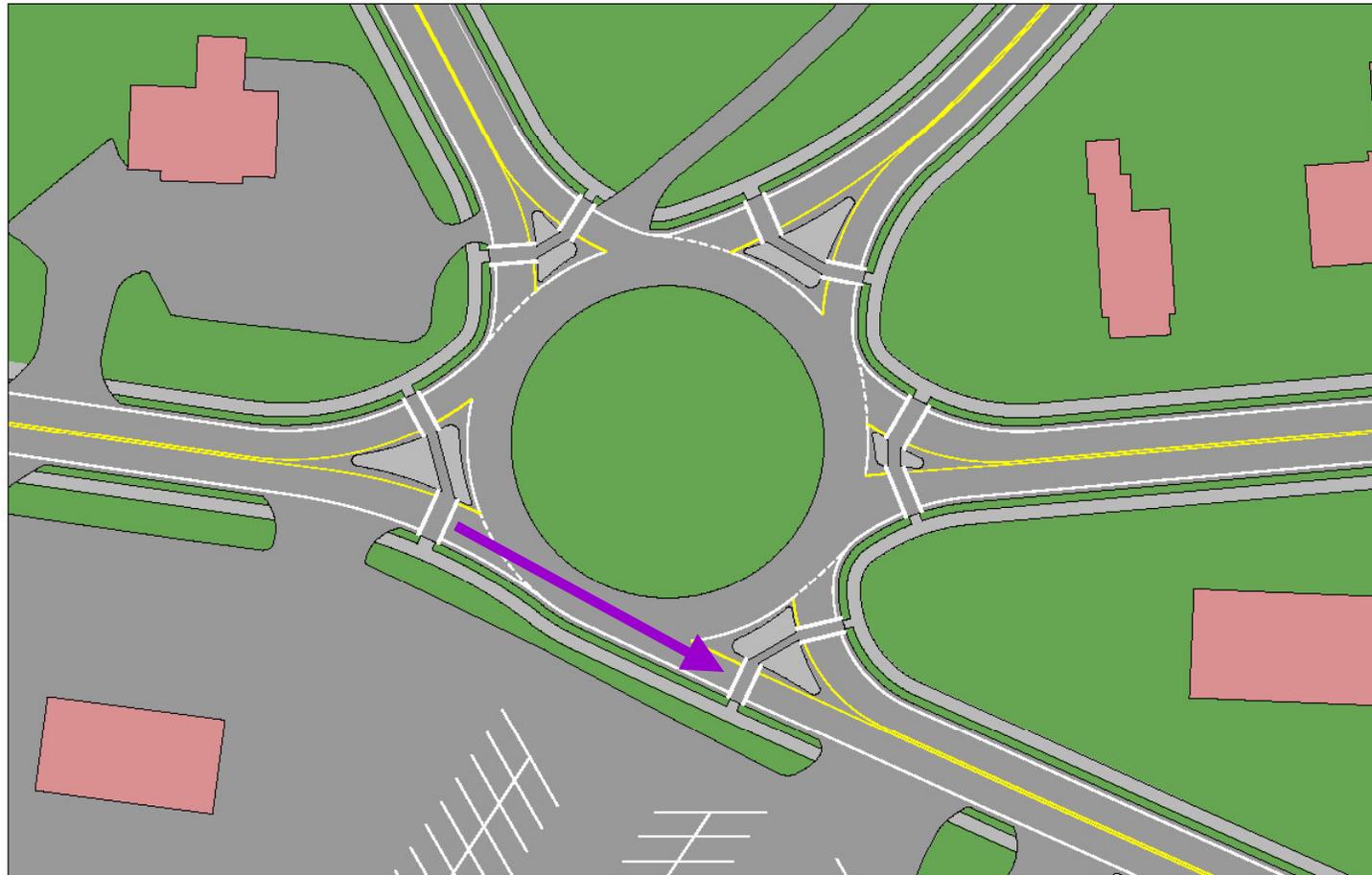


Roundabout Alternative 1





Roundabout Alternative 1

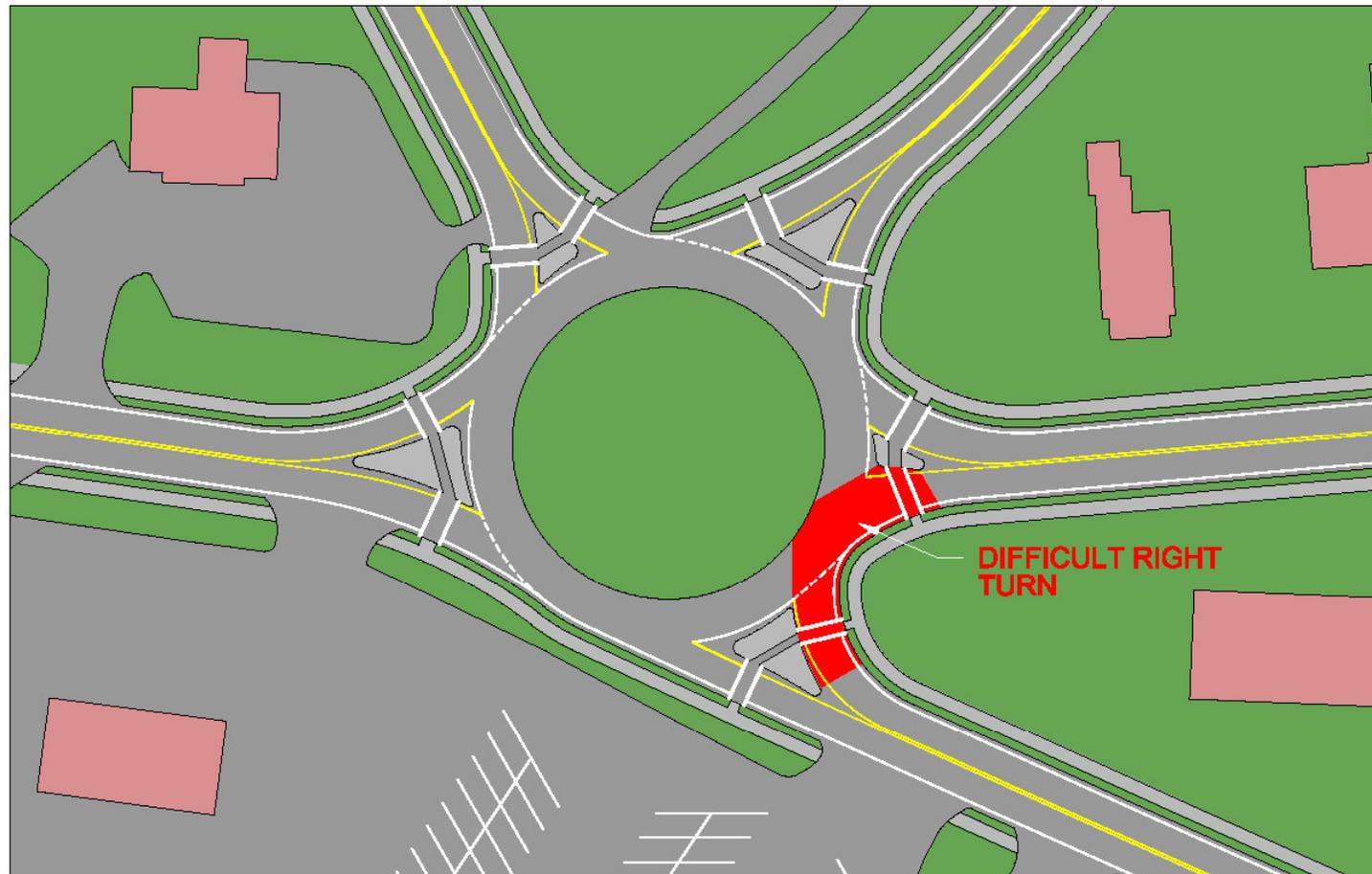


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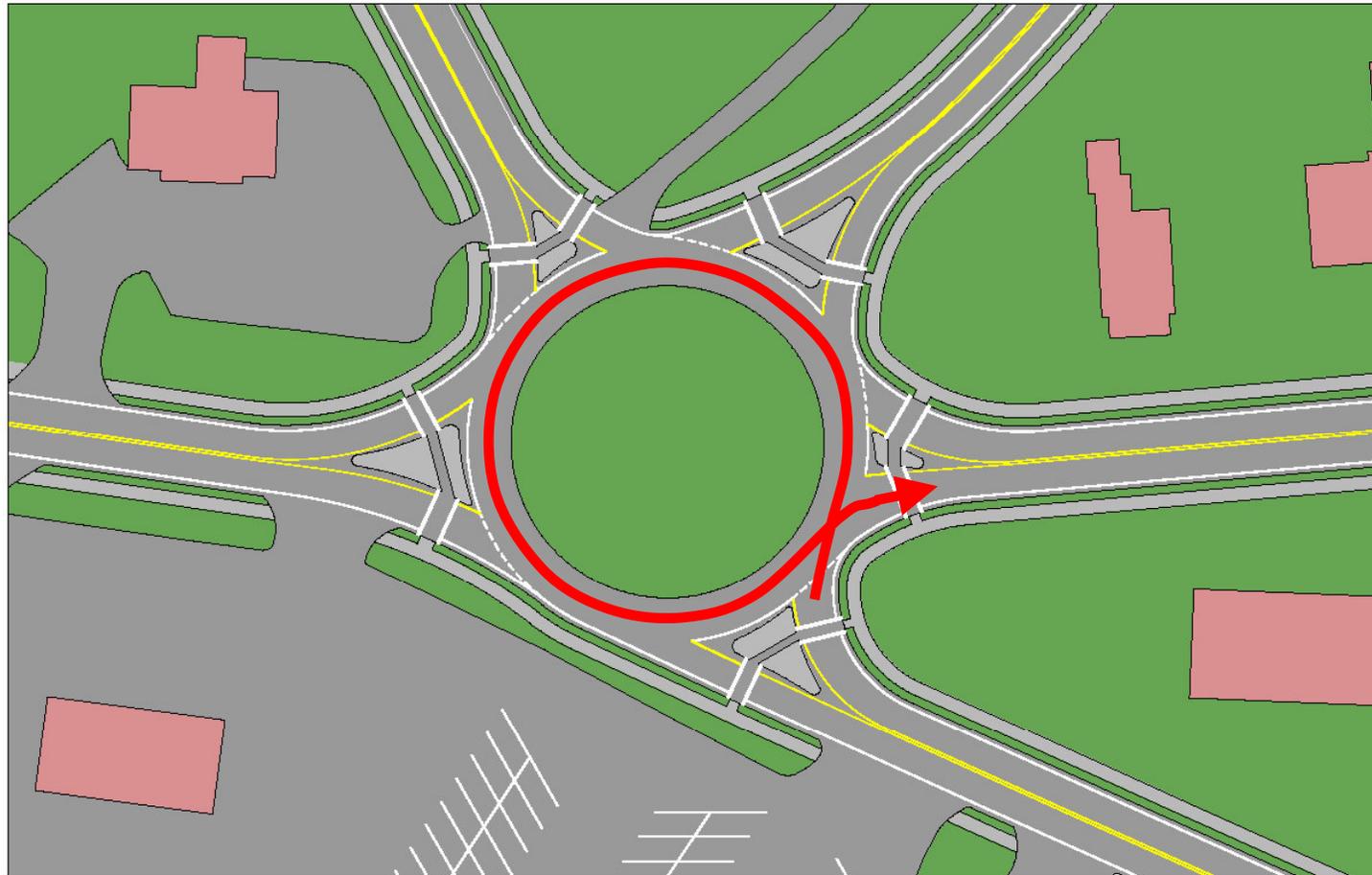


Roundabout Alternative 1





Roundabout Alternative 1

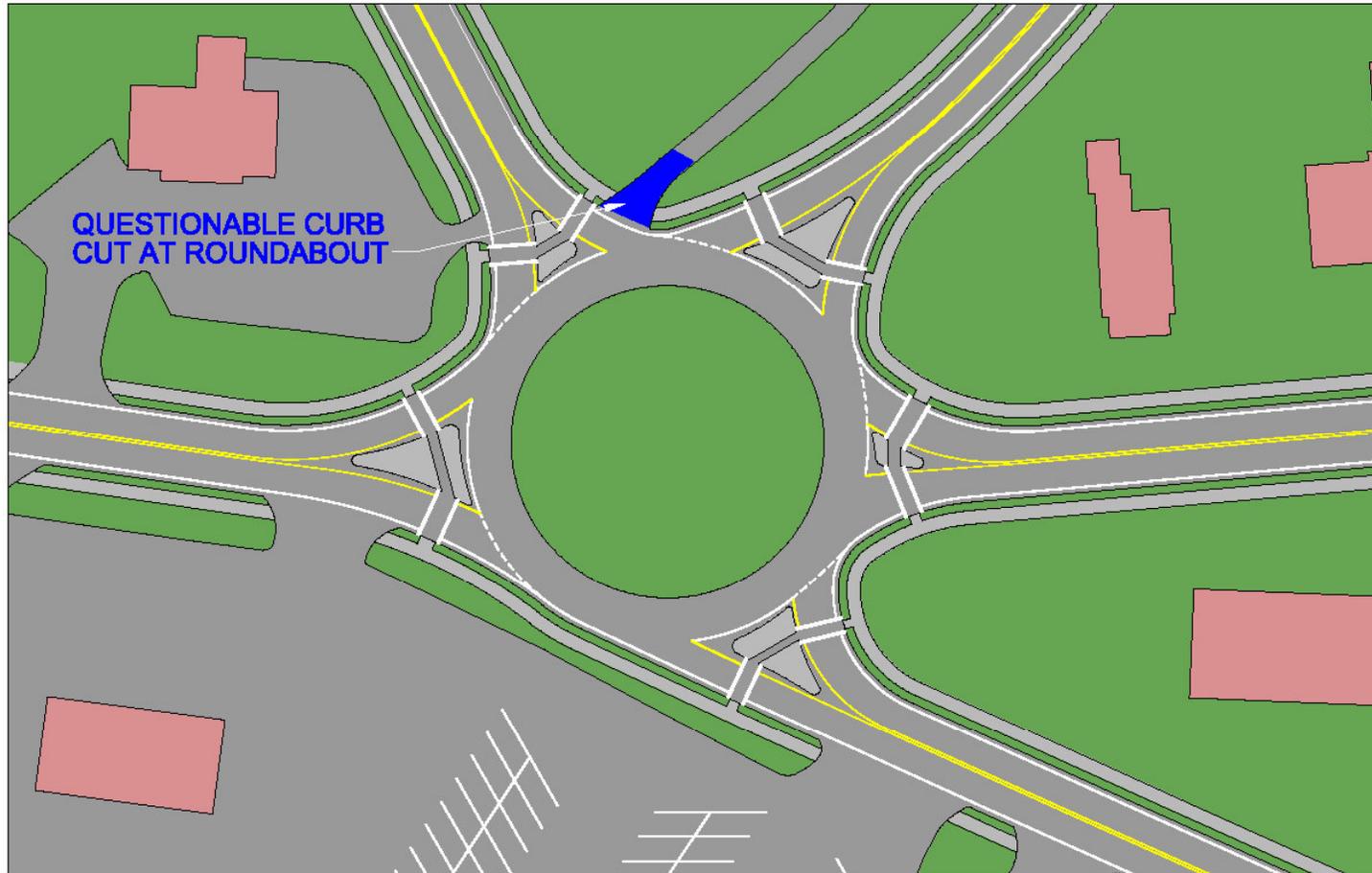


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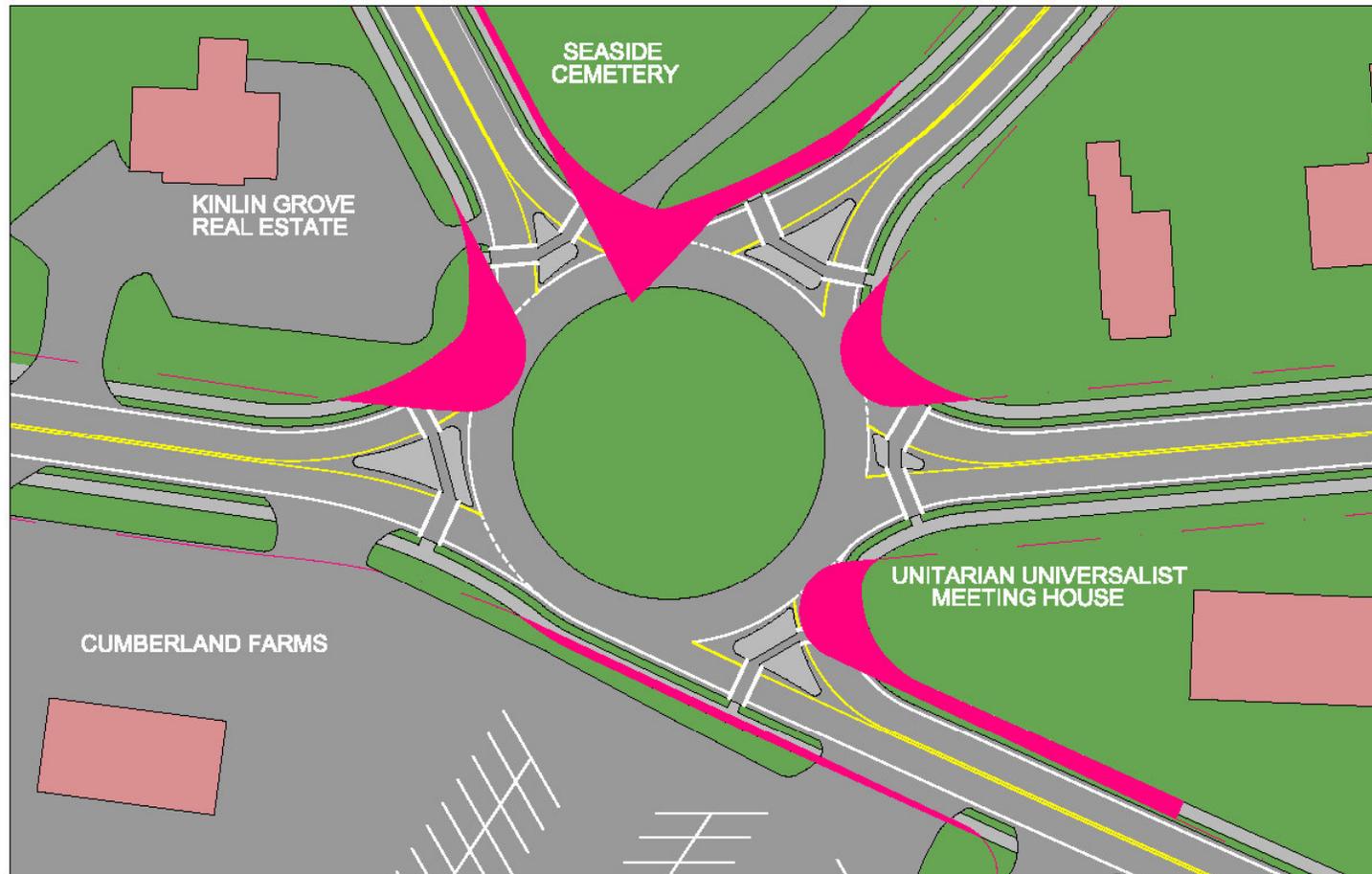


Roundabout Alternative 1



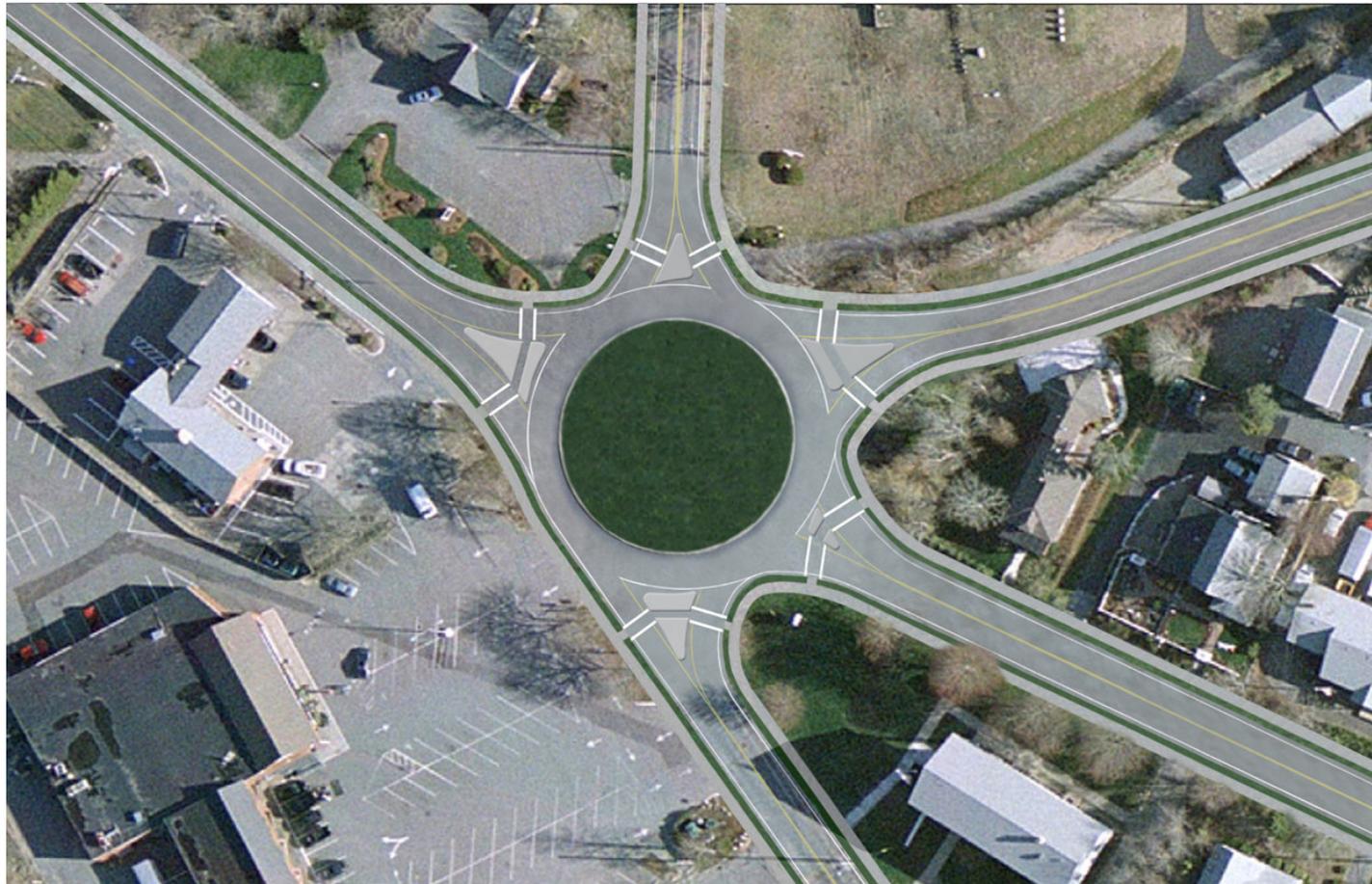


Roundabout Alternative 1 (with encroachments)





Roundabout Alternative 1



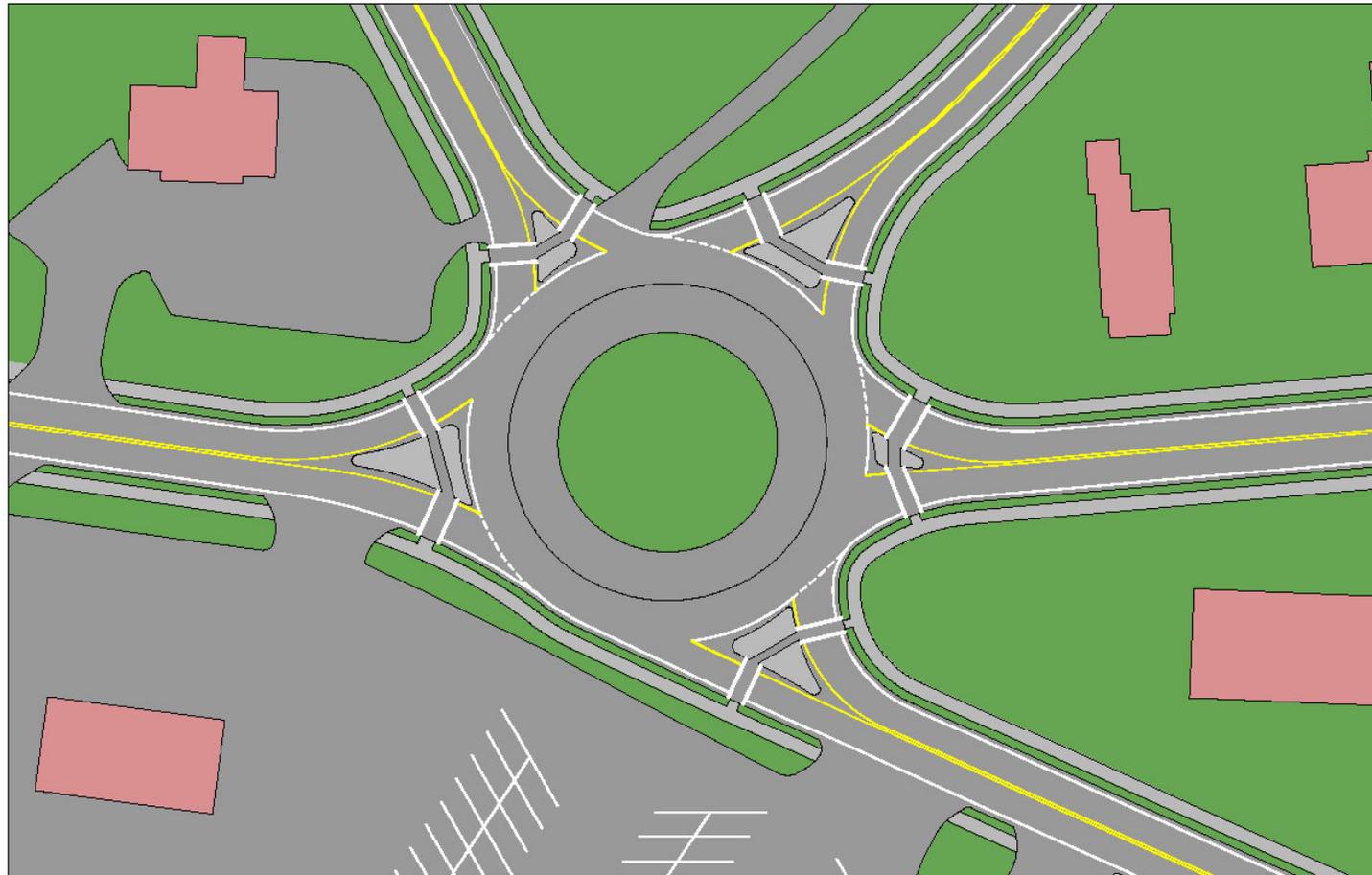
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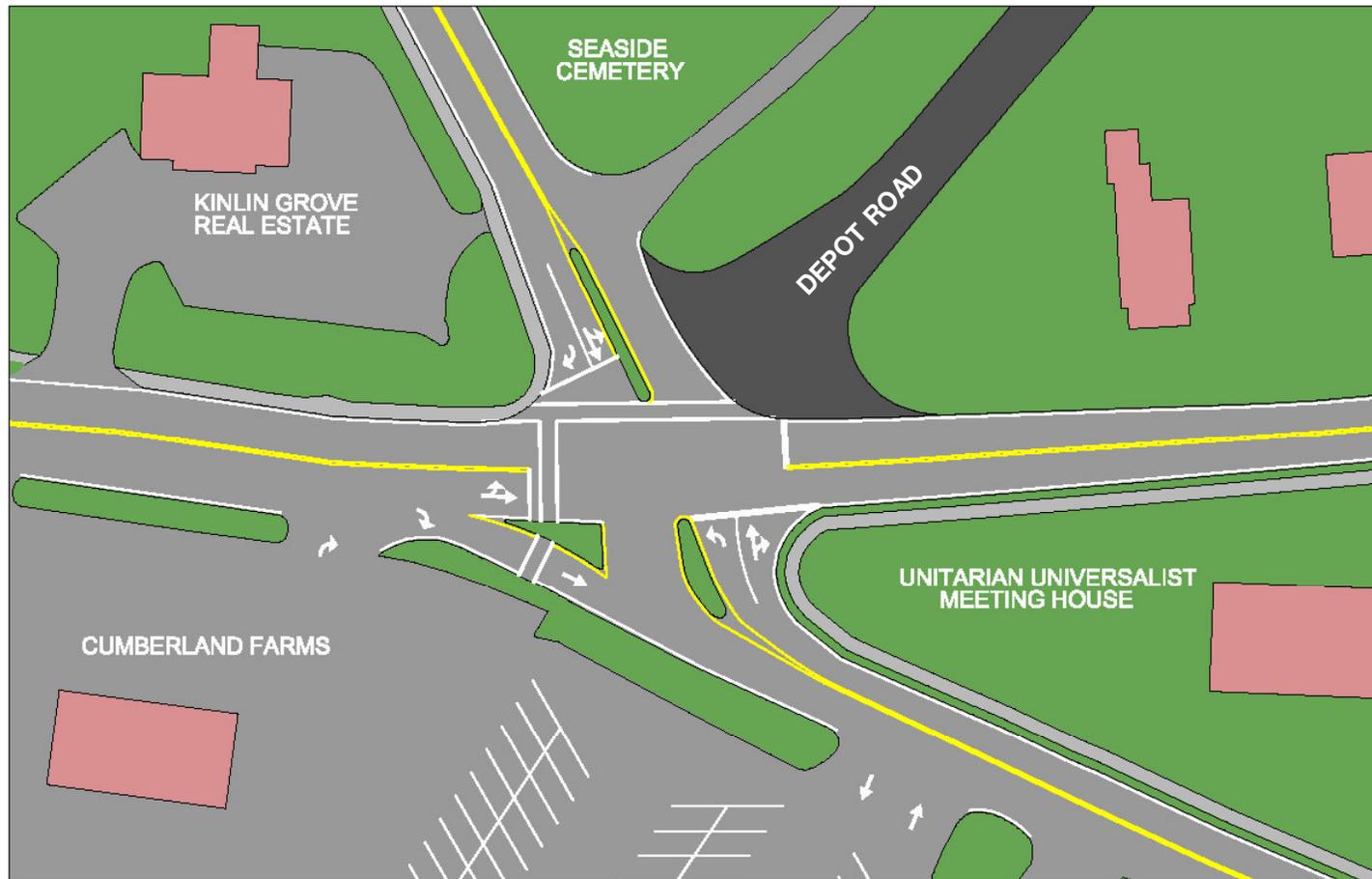
Roundabout Alternative 2

(With Smaller Radii)



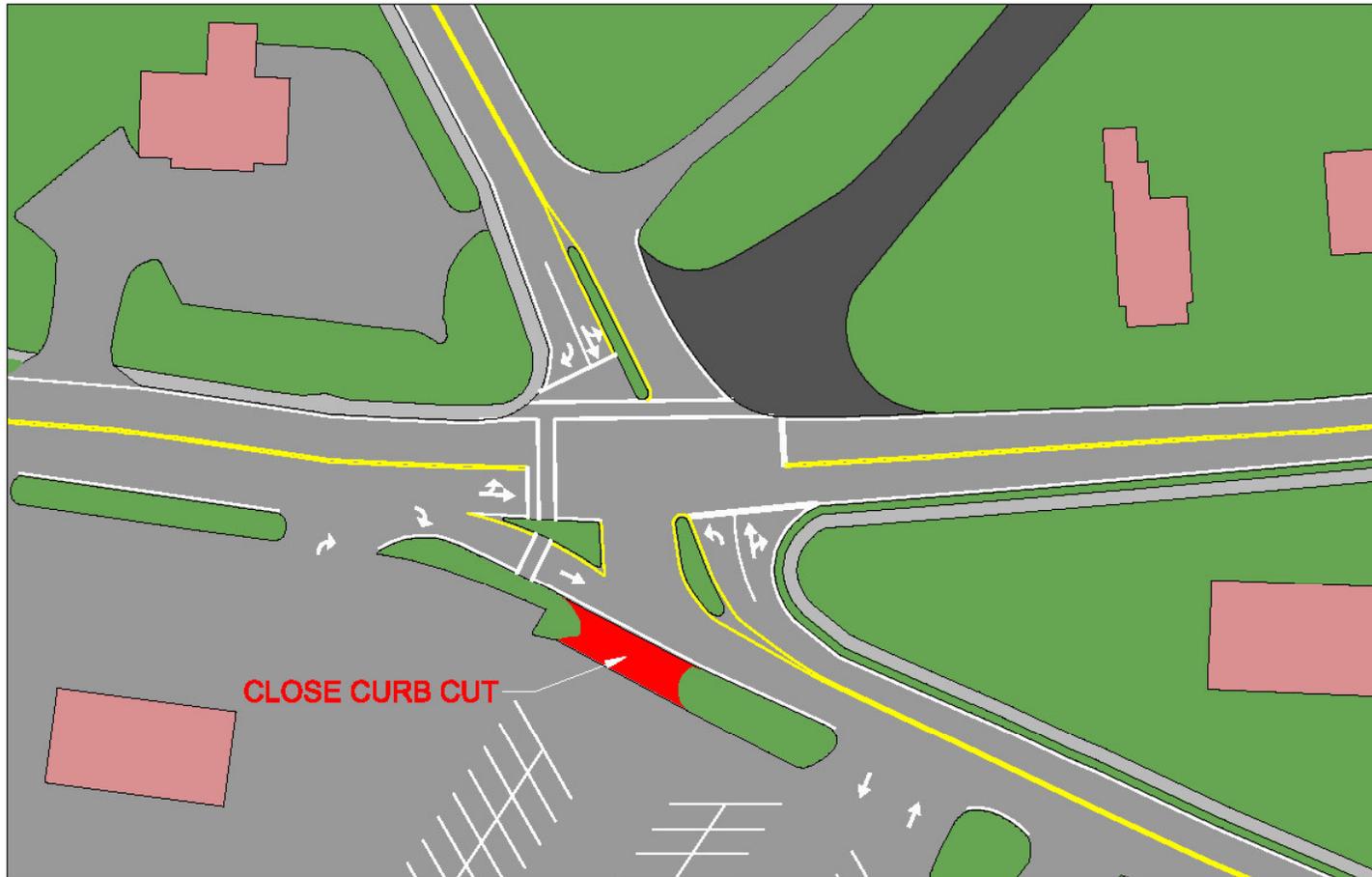


Upgraded Signal Alternative 1



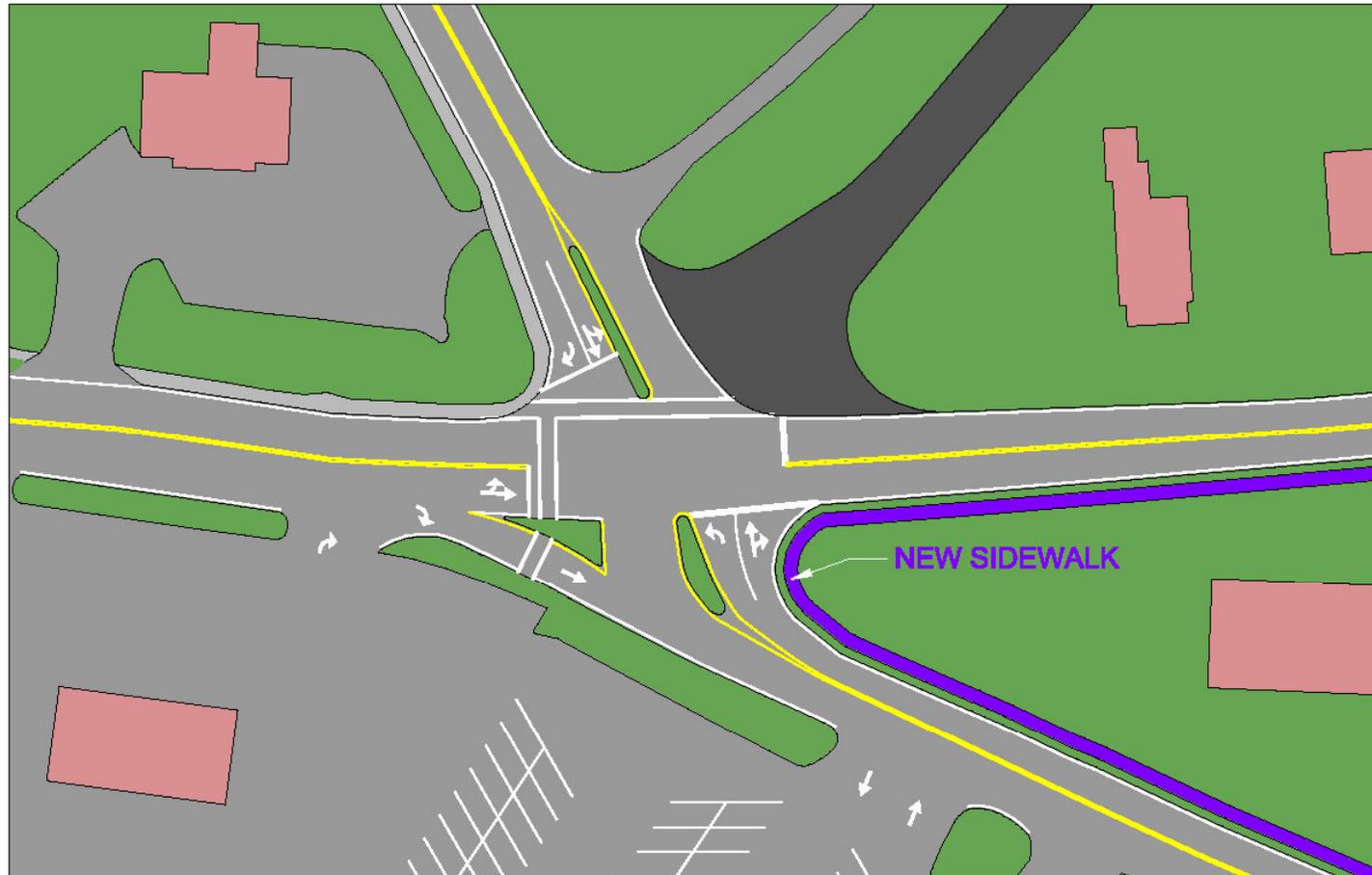


Upgraded Signal Alternative 1



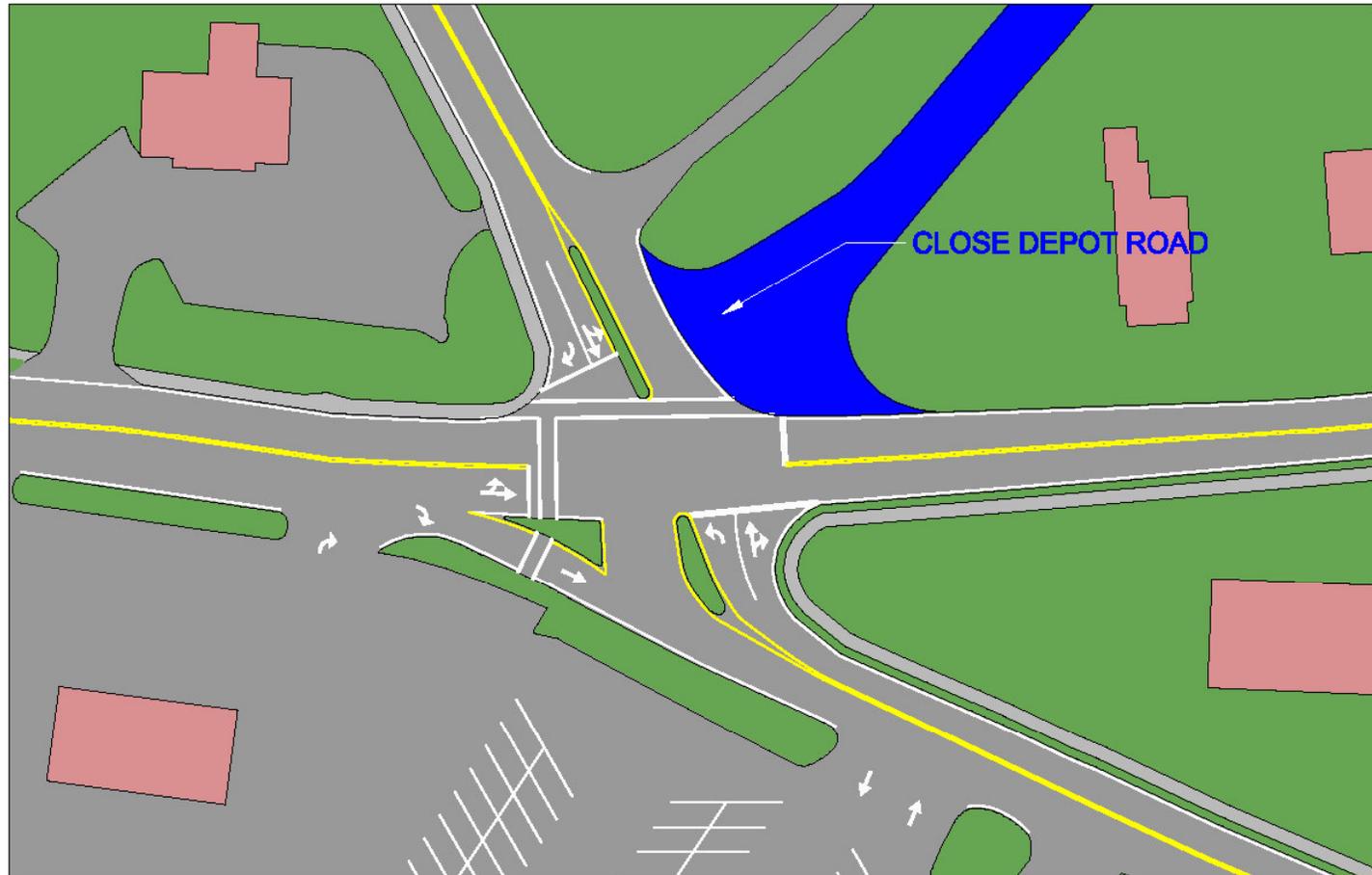


Upgraded Signal Alternative 1





Upgraded Signal Alternative 1

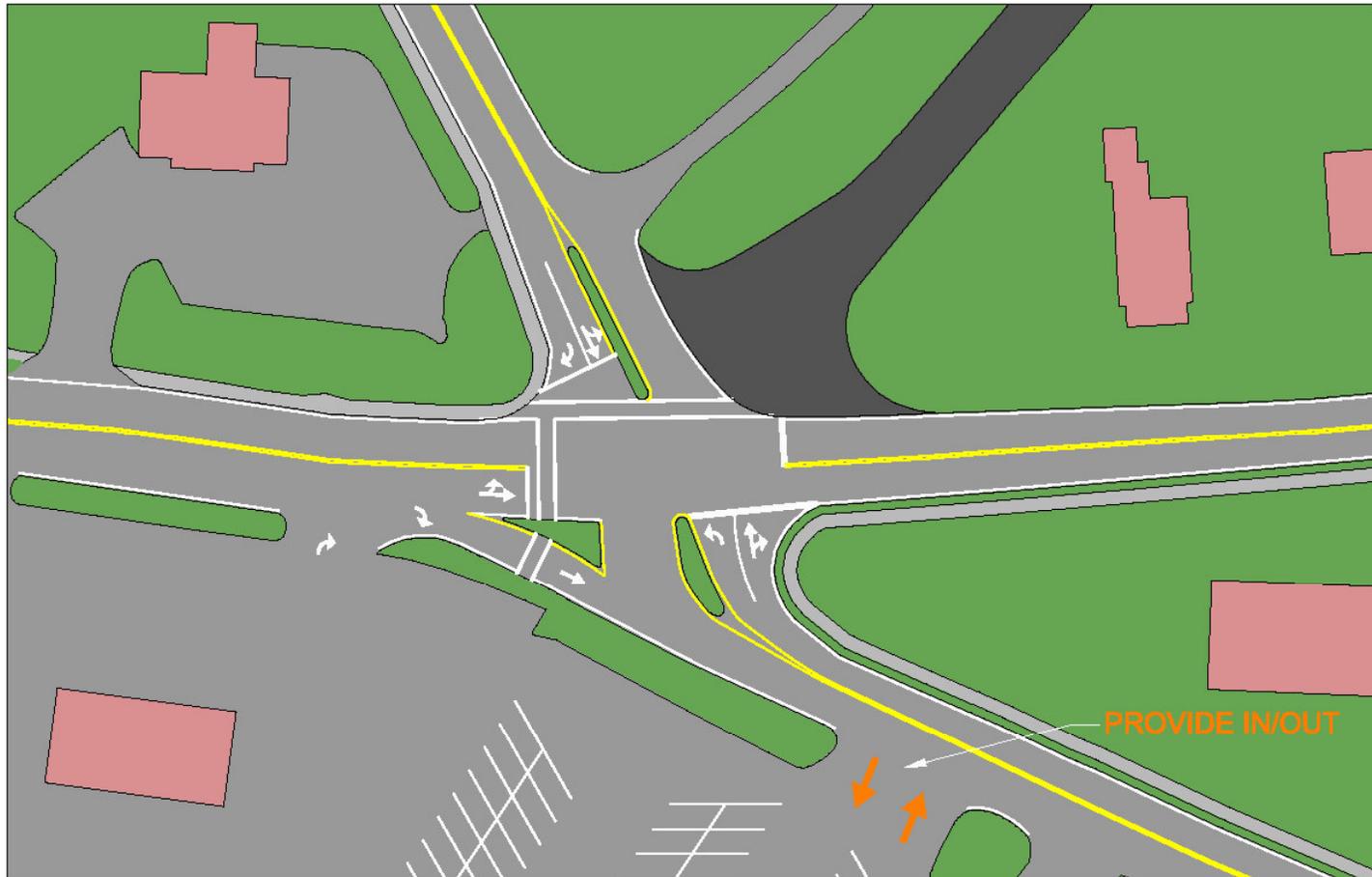


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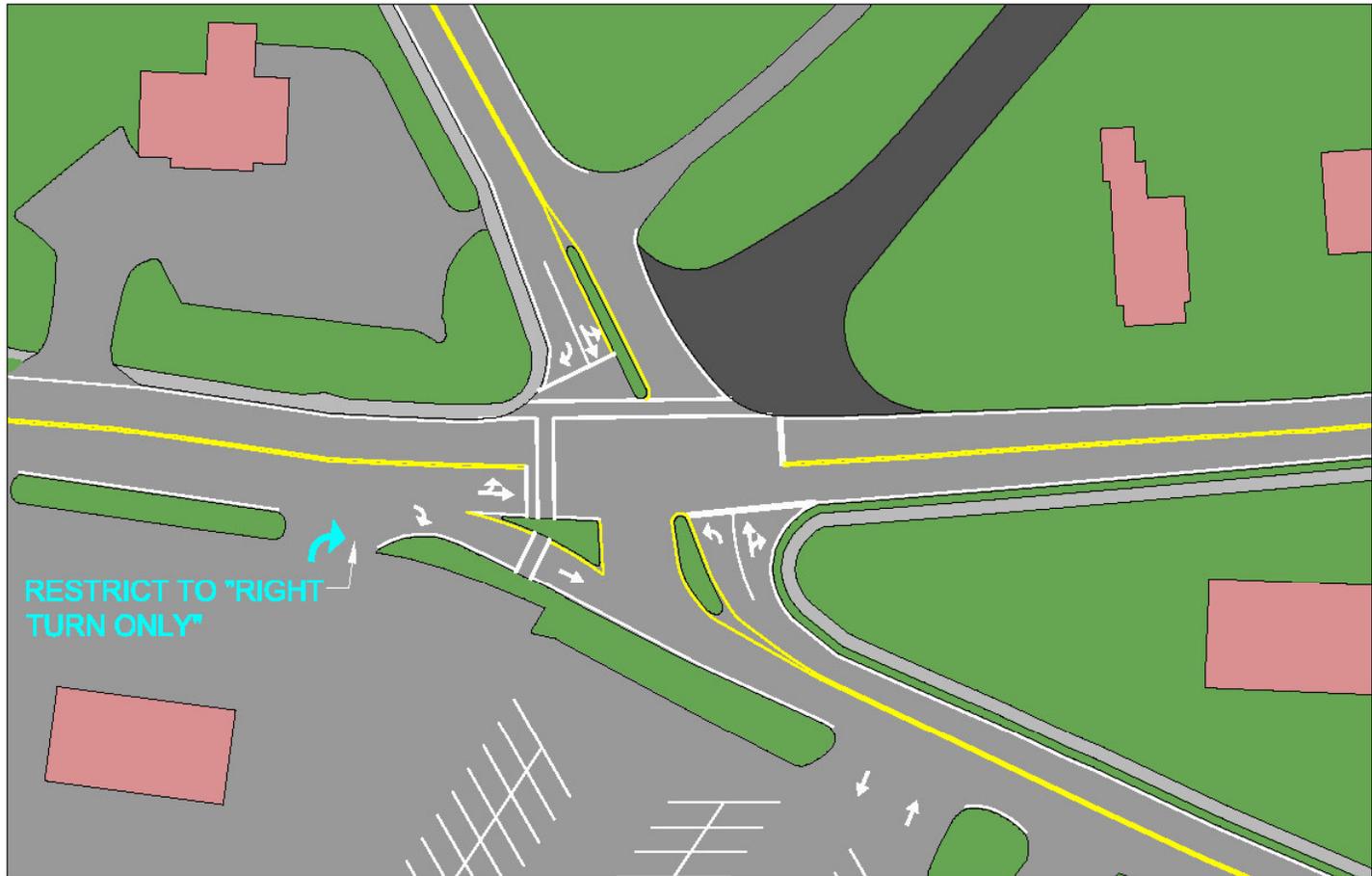


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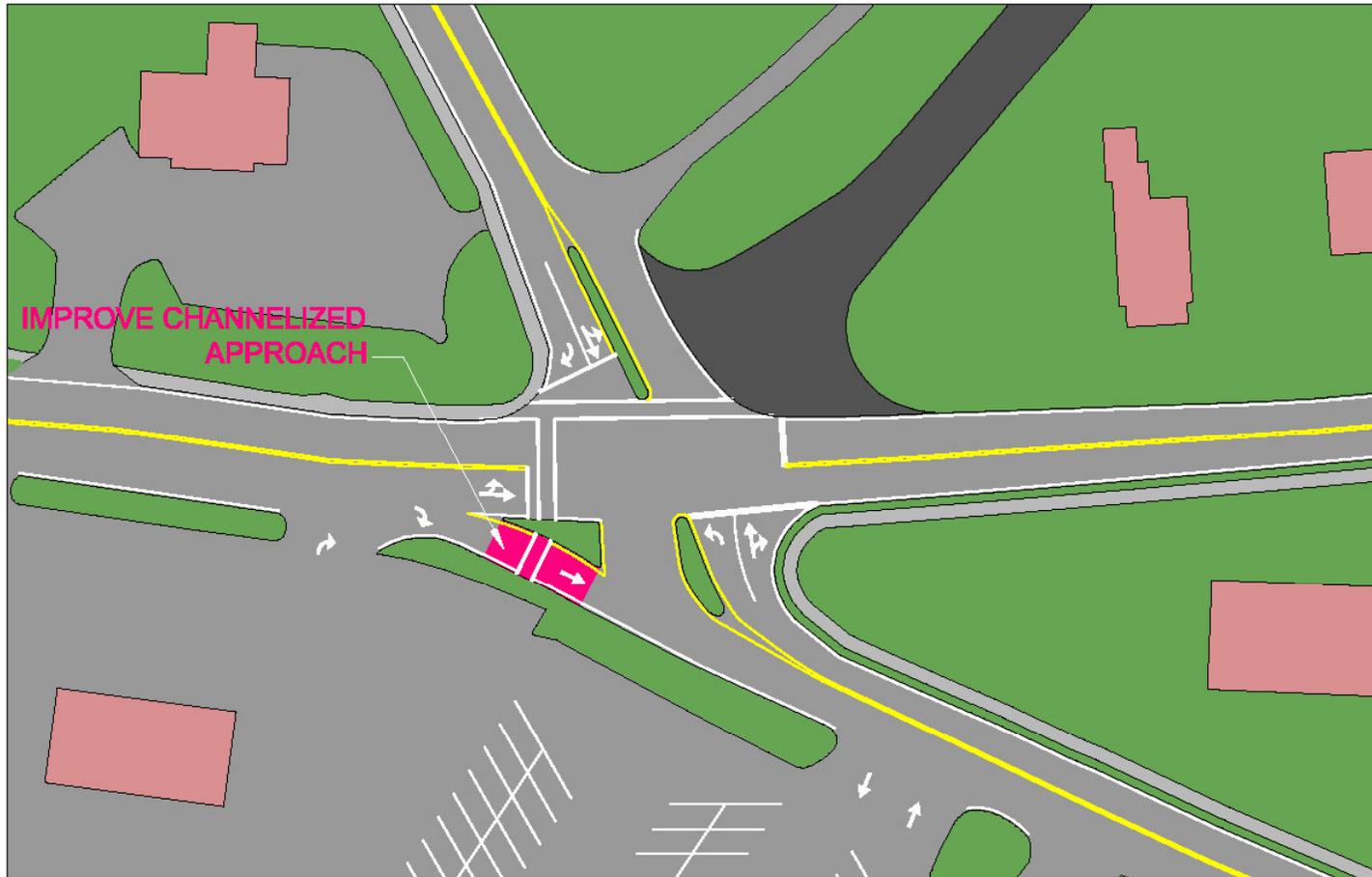


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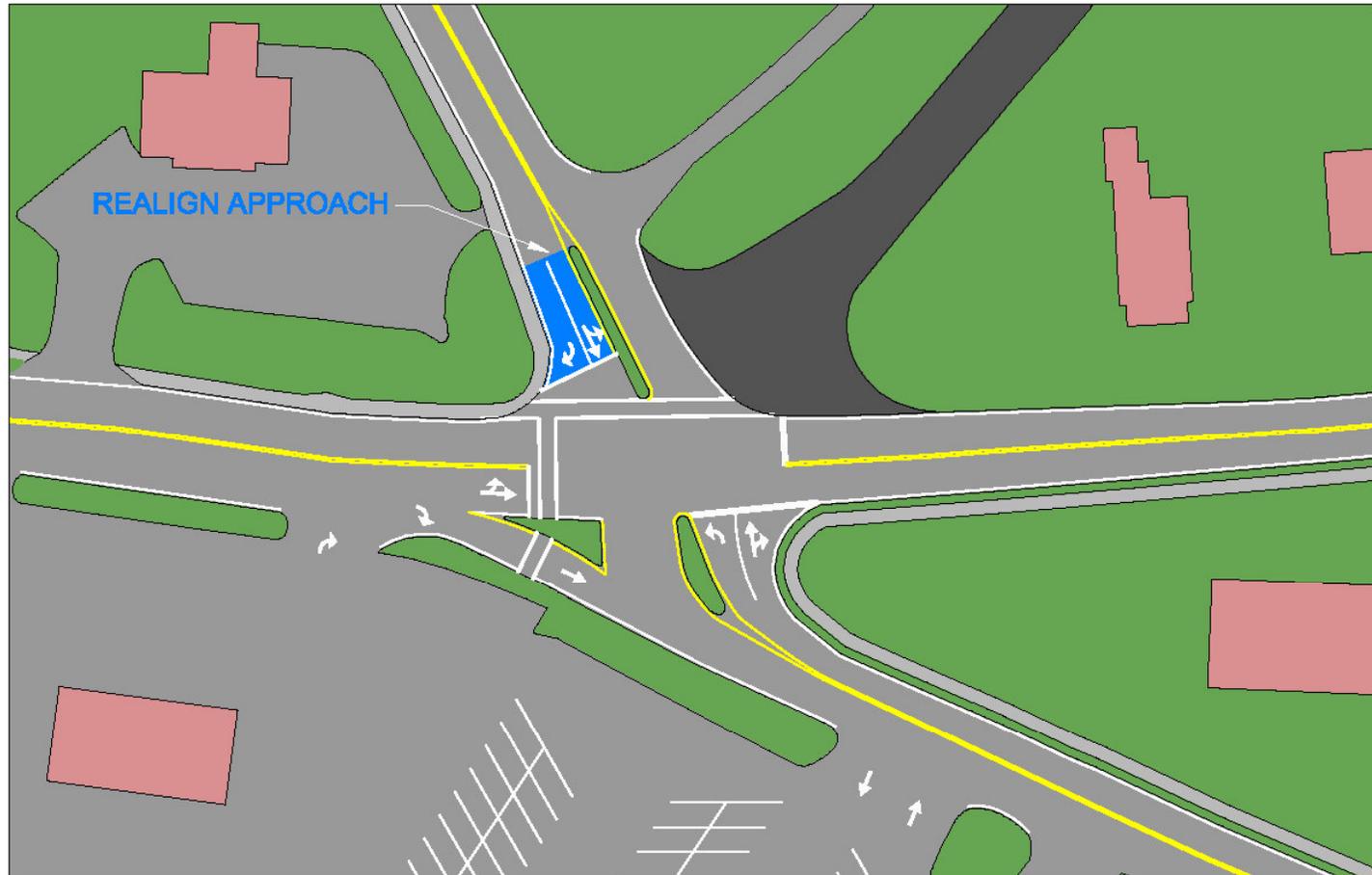


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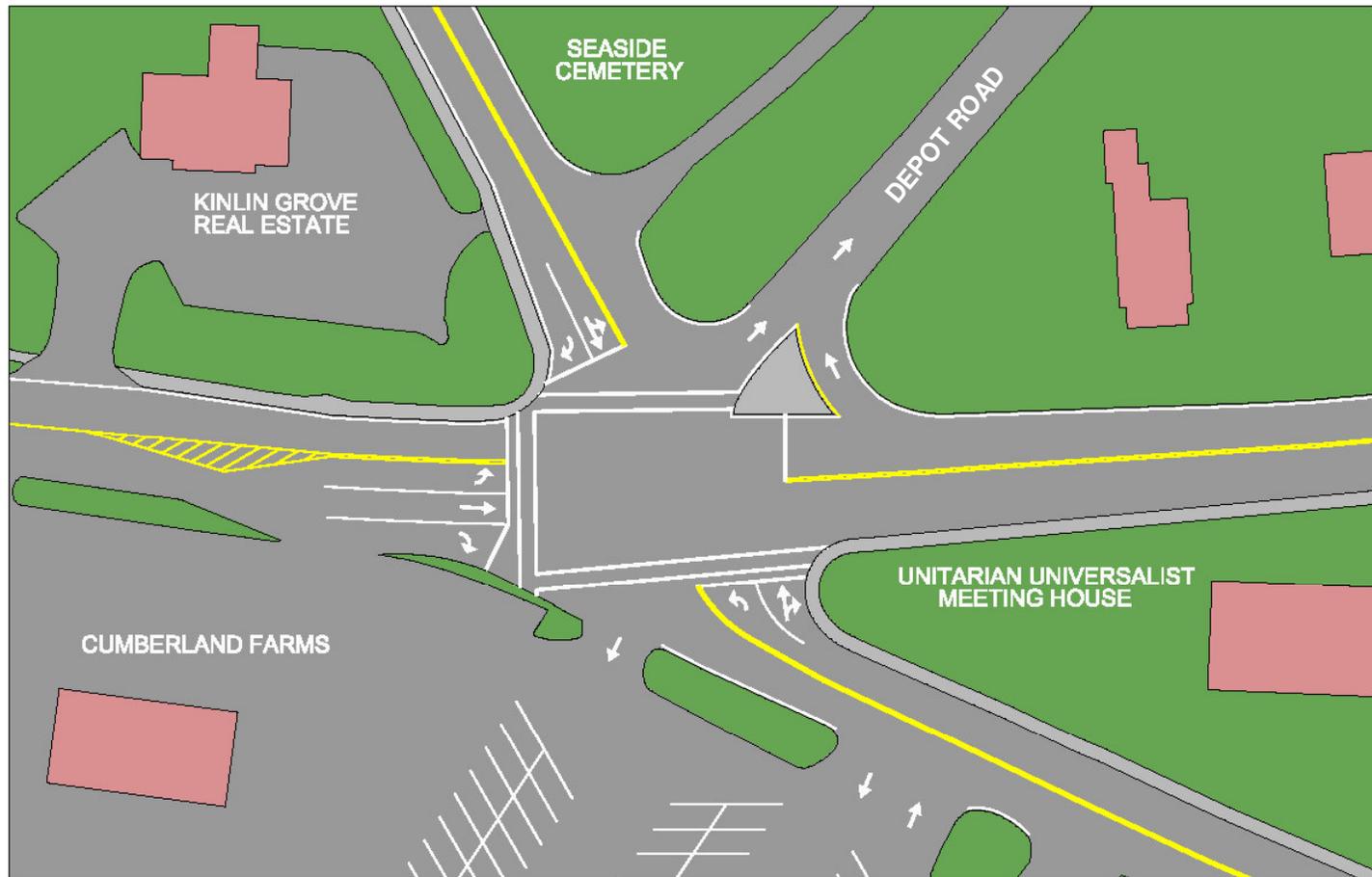


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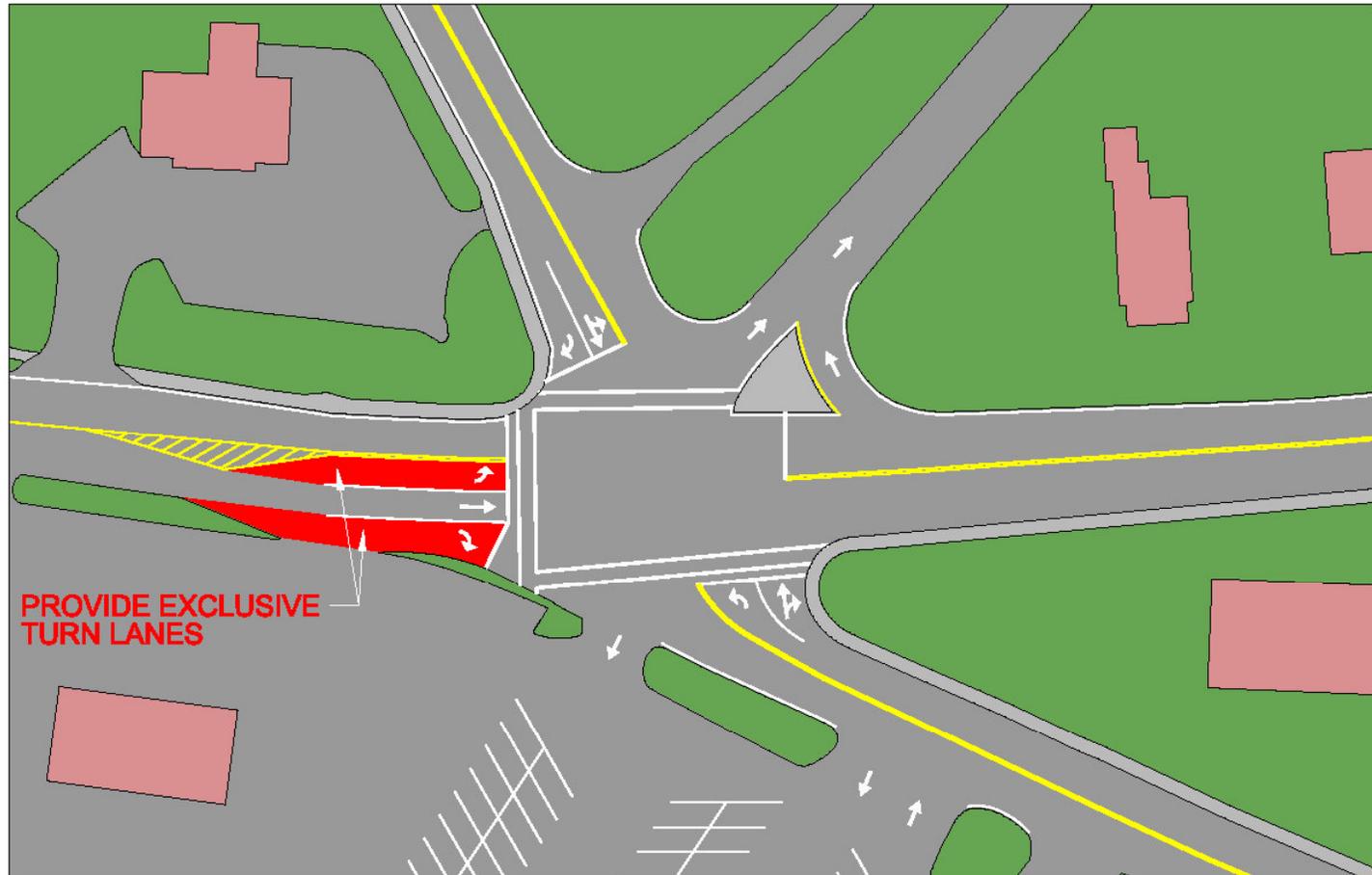


Upgraded Signal Alternative 2



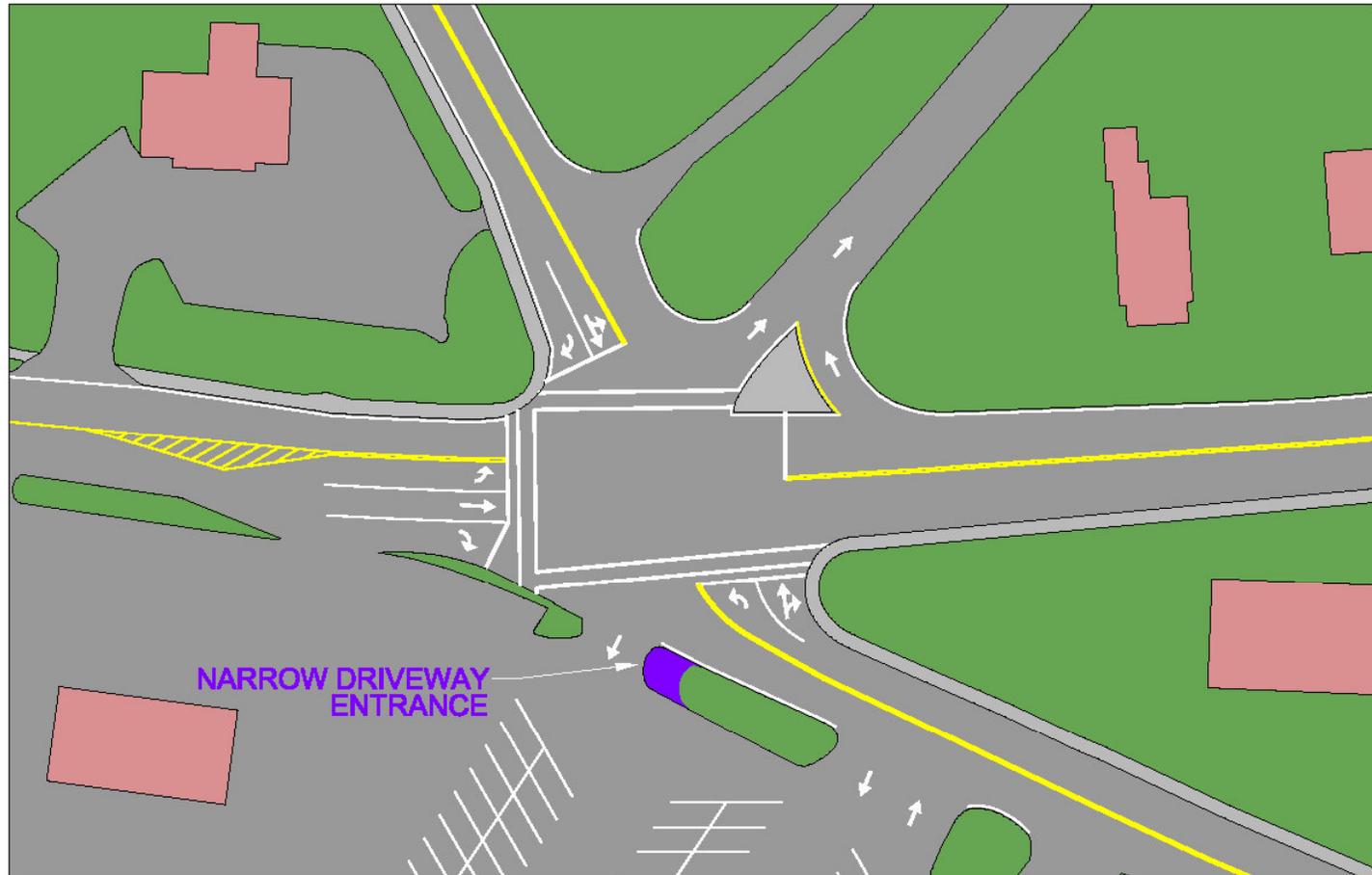


Upgraded Signal Alternative 2



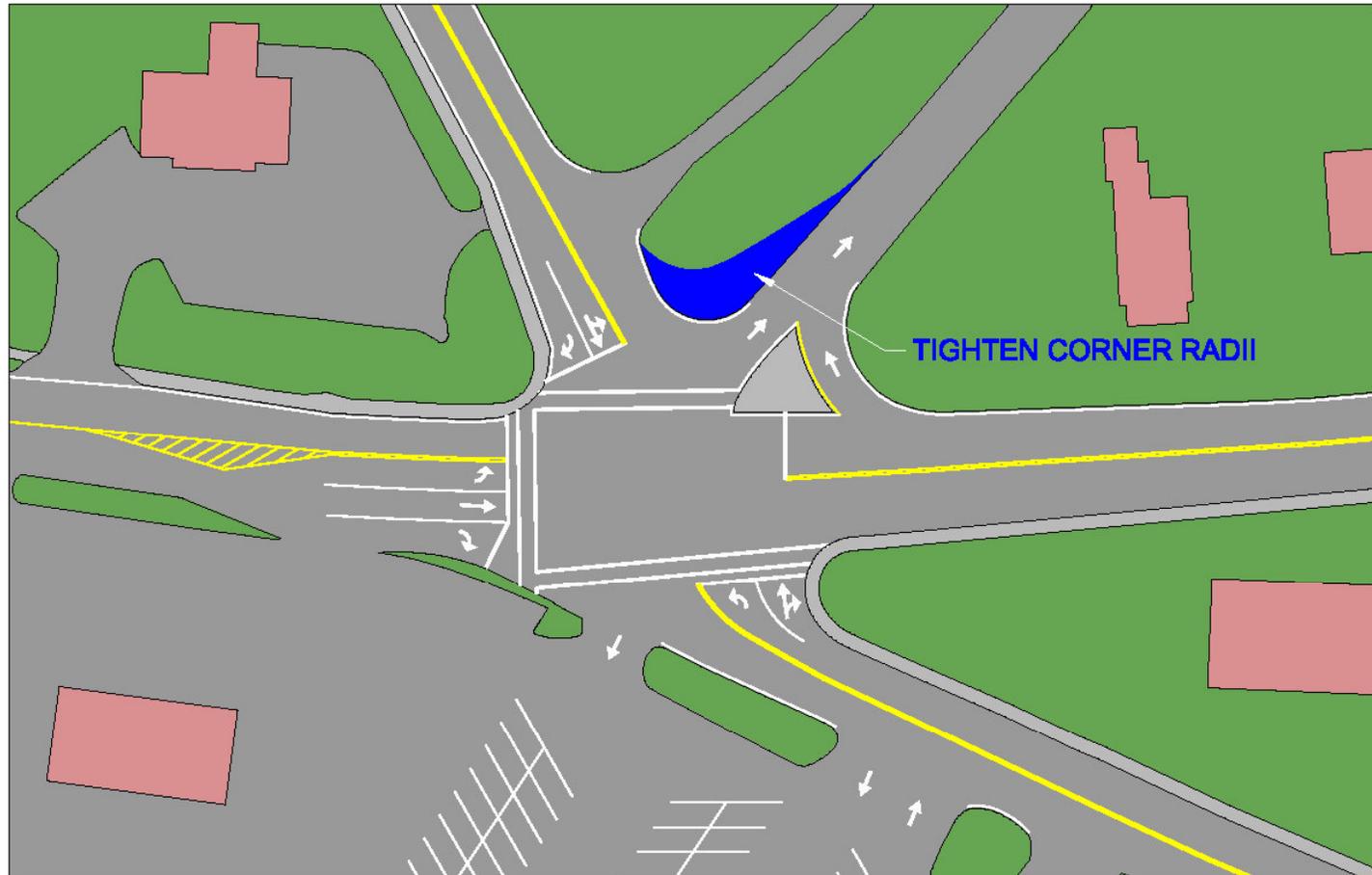


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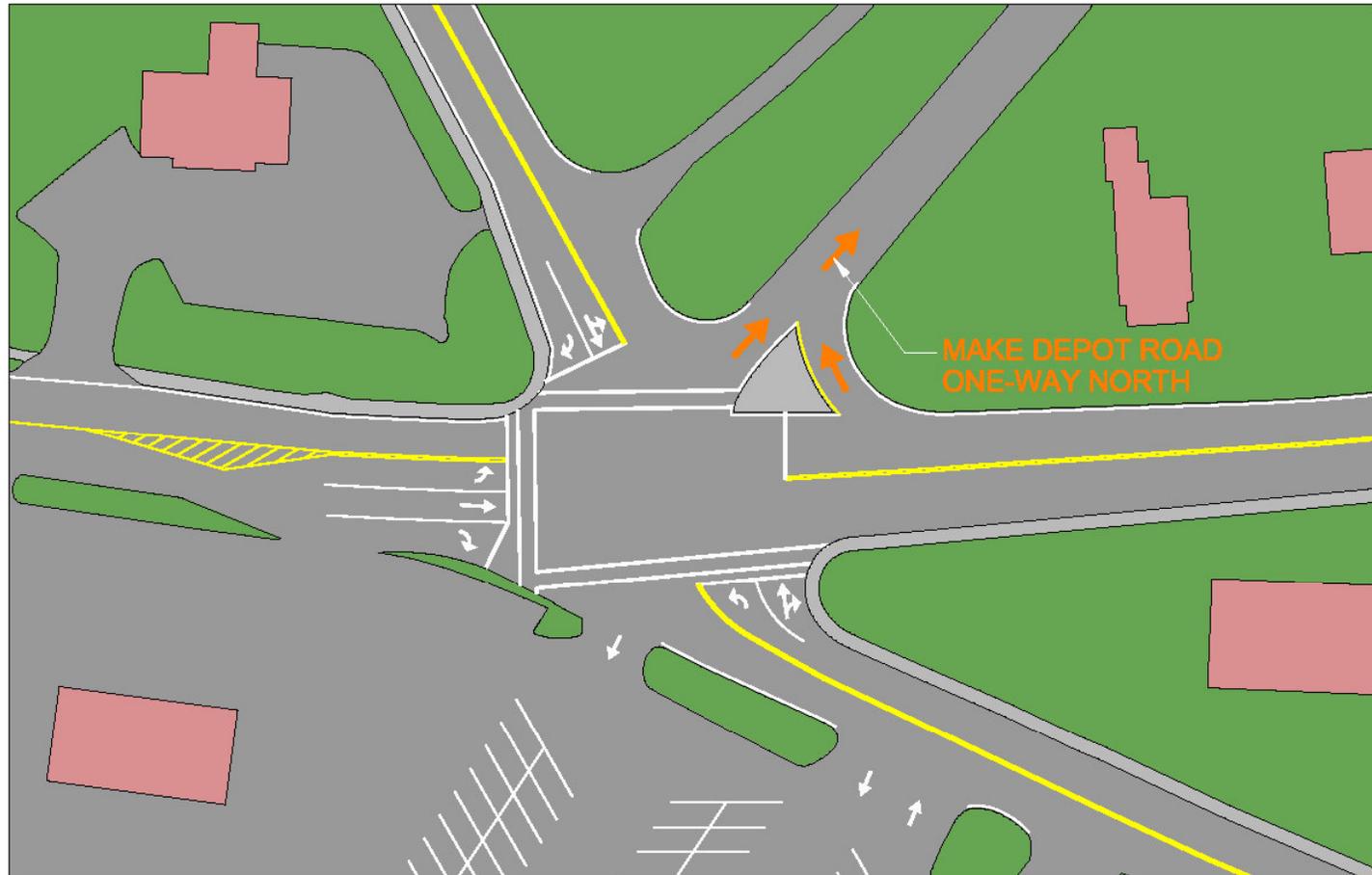


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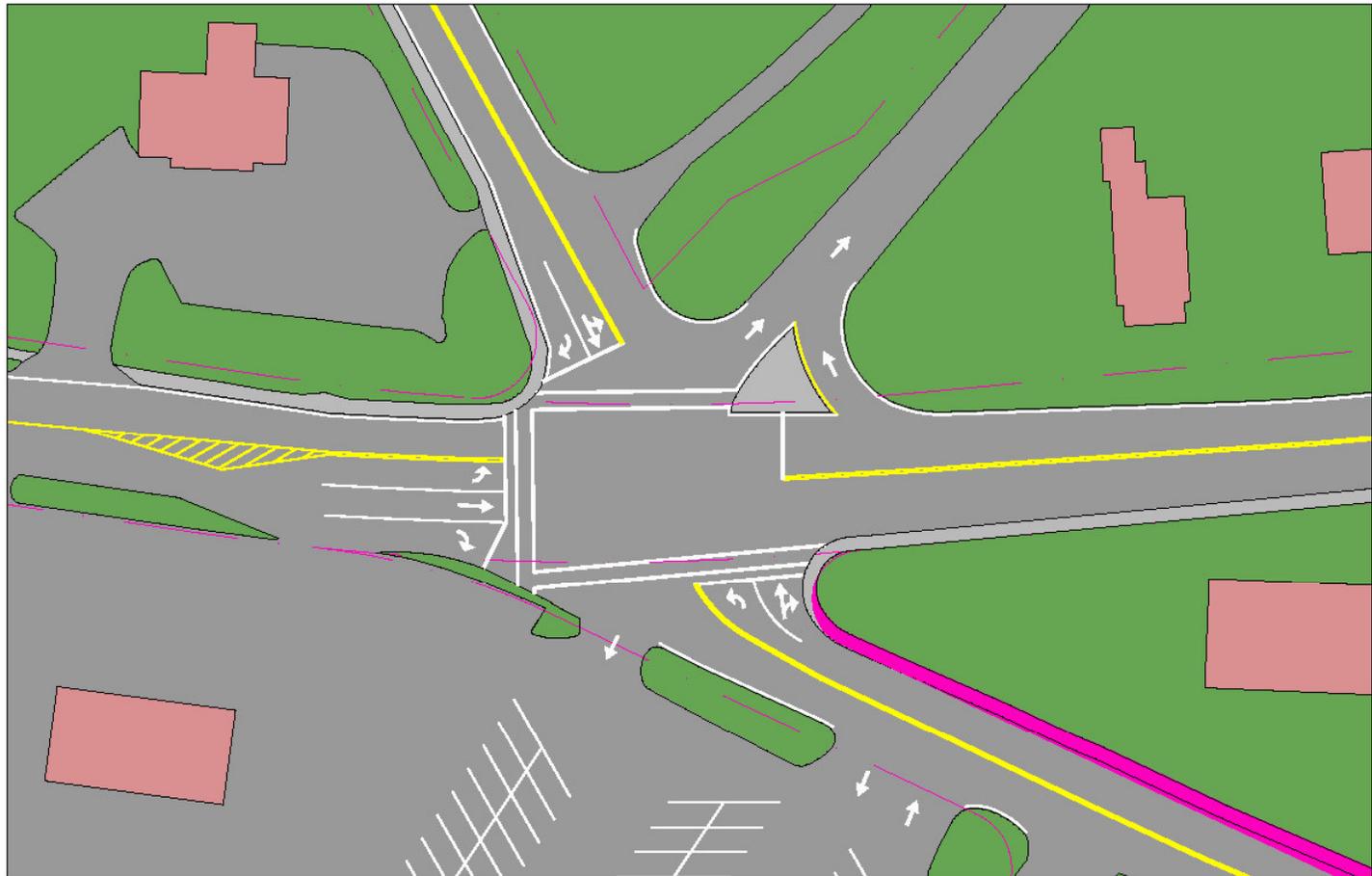


Upgraded Signal Alternative 2





Upgraded Signal Alternative 2 (with encroachments)



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Contact Information

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