

WELCOME

Bristol Road Extension Project **Public Meeting**

11/05/2025

INTRODUCTIONS



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



TPD Design Team

- Brett Grove, P.E., Design Team Project Manager
- David High, P.E., Design Team Assistant Project Manager
- Joe Platt, P.E., Design Team Traffic Analyst Lead
- Rick Campell, P.E., Design Team Rail Consultant (*Benesch*)



AGENDA

Project Purpose and Needs

Project History & Overview

Final Selected Alternative

Traffic Analysis

Proposed Project Improvements

Temporary Traffic Control & Construction Staging

Project Schedule and Funding

Questions



PROJECT PURPOSE & NEEDS

Project Needs

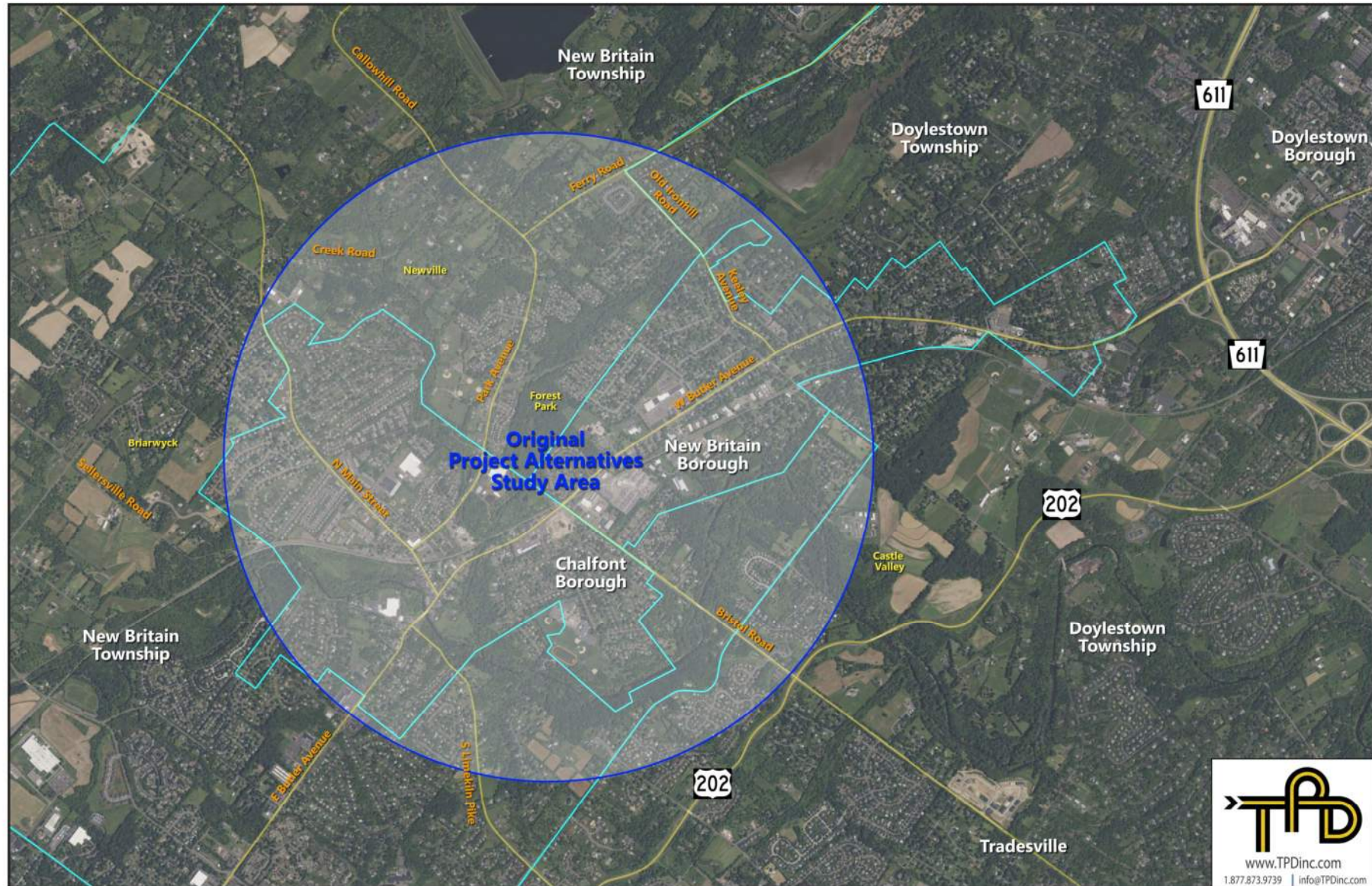
- Peak-hour congestion:
 - High traffic volumes coupled with a lack of existing local roadway network.
 - Problematic roadway geometry.
 - Accidents resulting in complete road closures.

Project Purpose

- Reduce traffic congestion
- Improve transportation system mobility for:
 - Traveling public
 - Emergency services
 - Future traffic volumes
- Improve roadway design deficiencies



PROJECT OVERVIEW

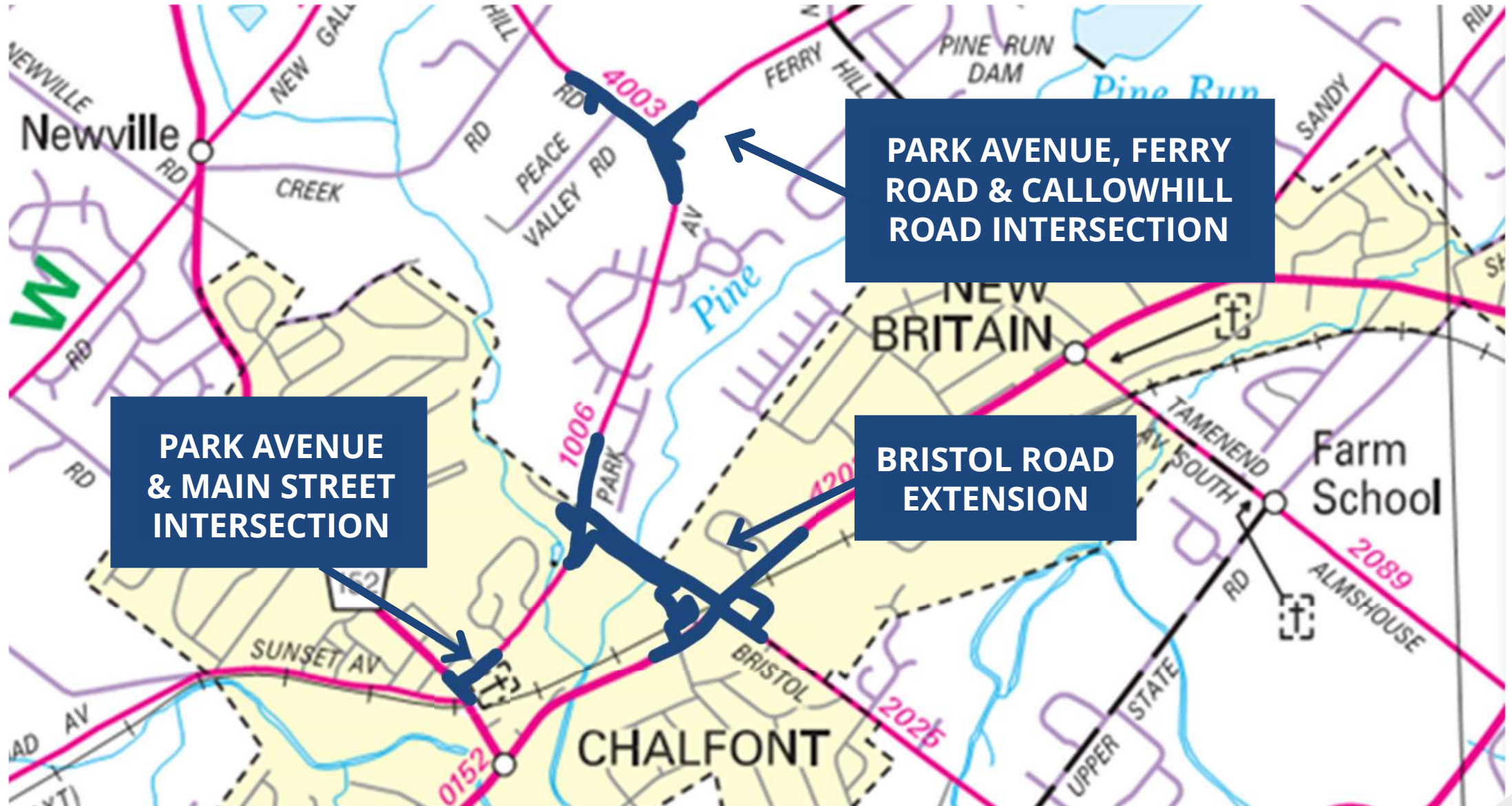


COMMUNITY INPUT & ALTERNATIVES

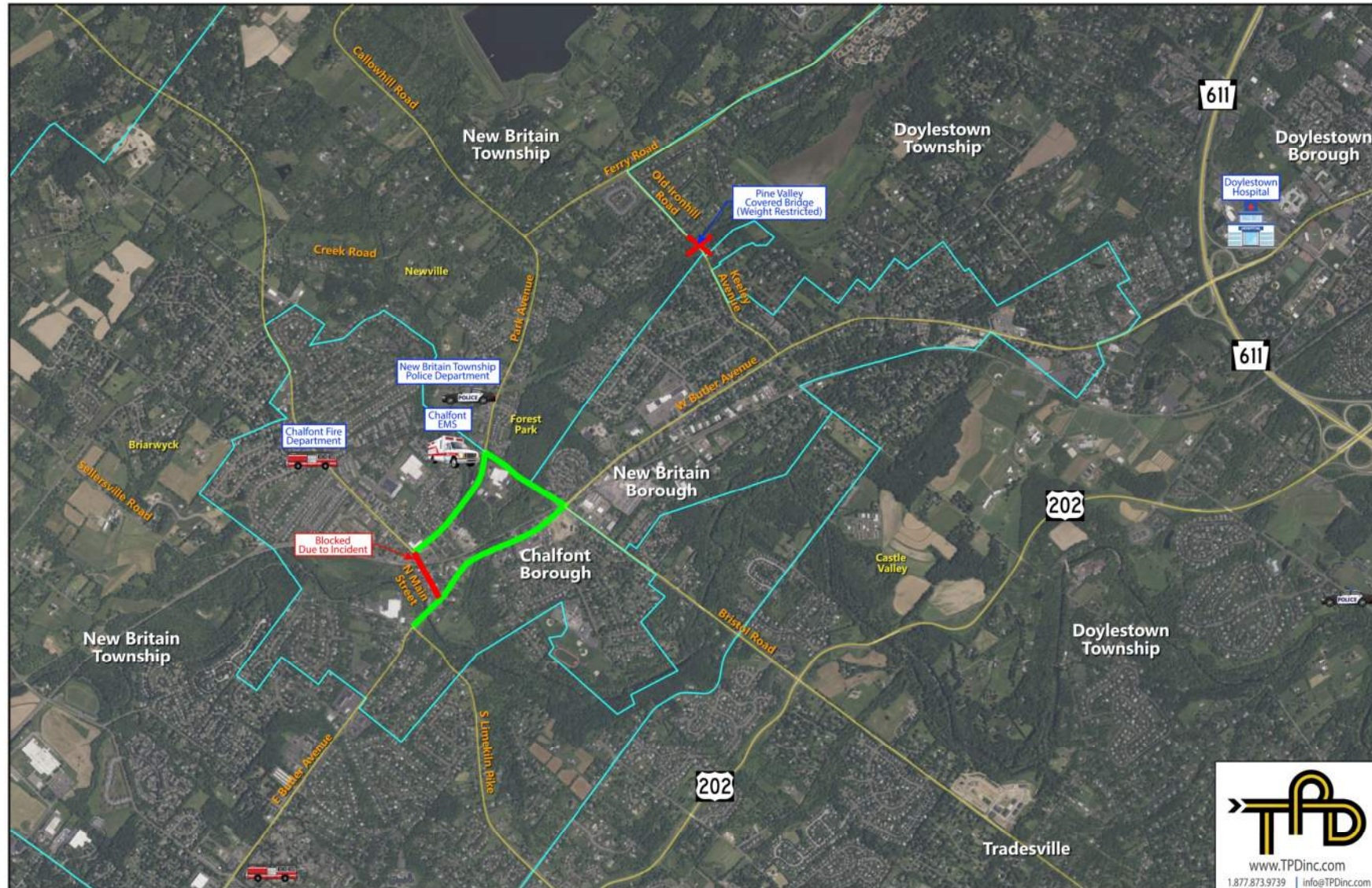
- Planning efforts began in 2017
- More than 20 alternatives studied
- We spoke with the community
 - Residents
 - Officials
 - Special Interest Groups
 - Property Owners
- 3 municipalities, New Britain Borough, New Britain Township, and Chalfont Borough all signed resolutions in favor of the Bristol Road Extension.



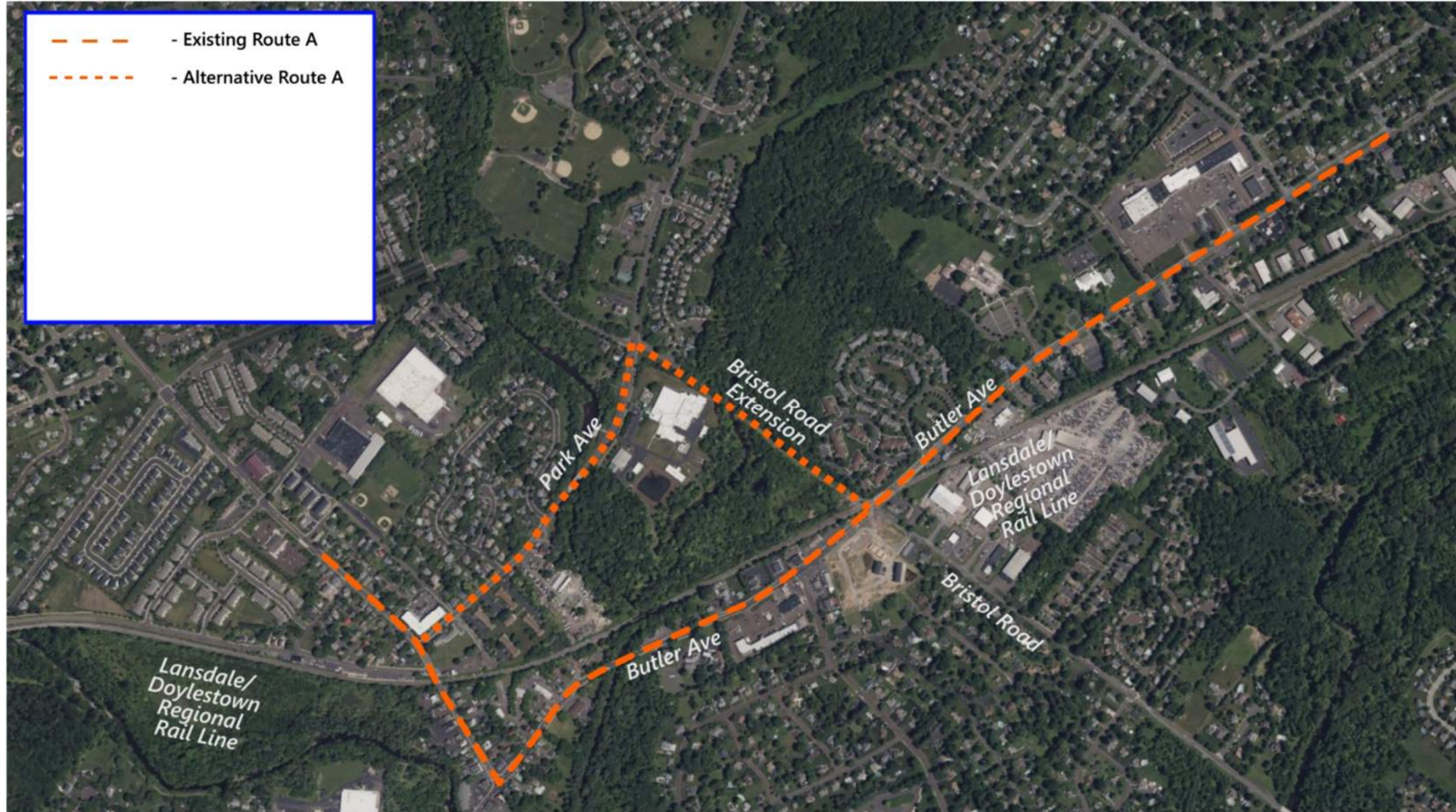
PROJECT IMPROVEMENTS



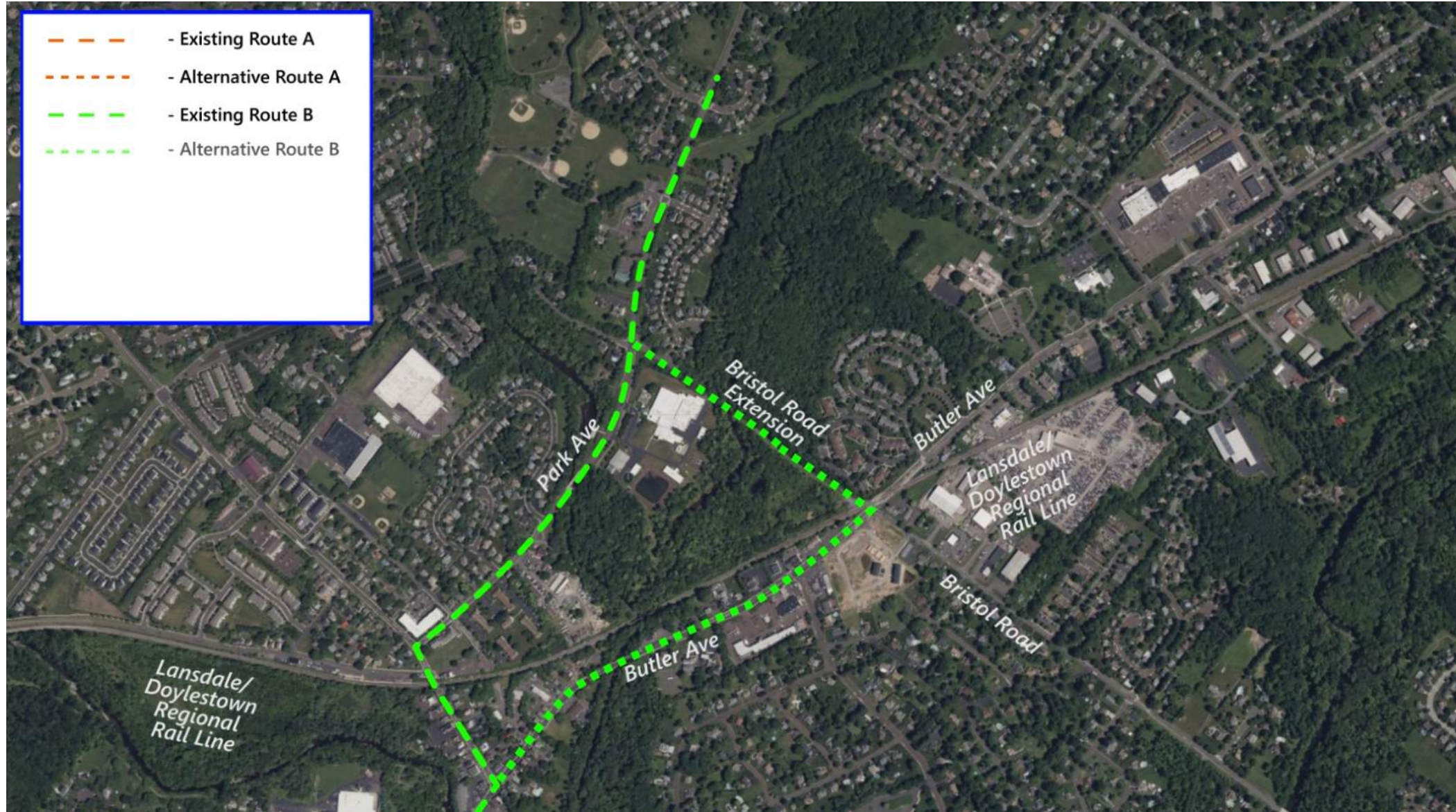
EMERGENCY SERVICE CONSIDERATIONS



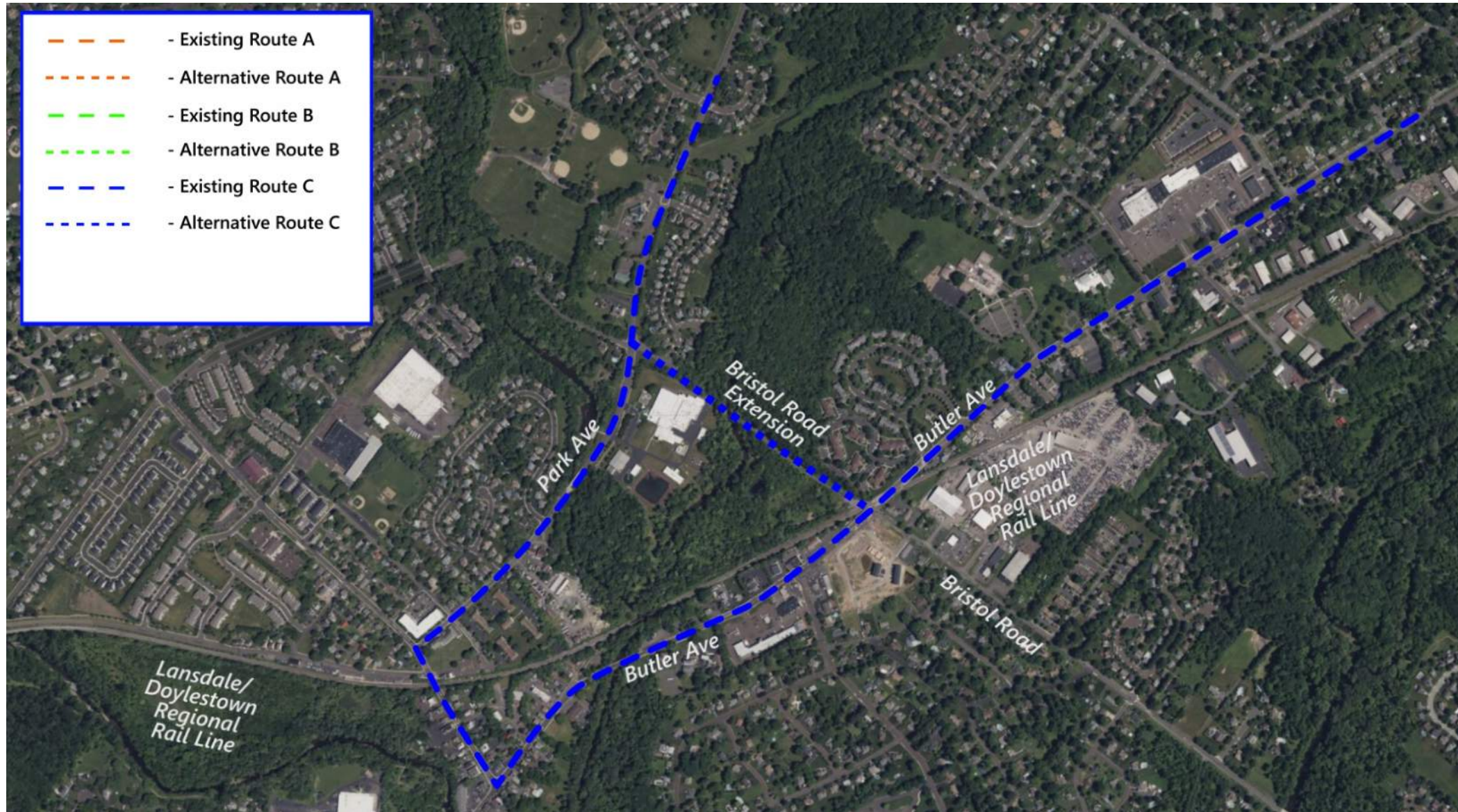
TRAFFIC ANALYSIS



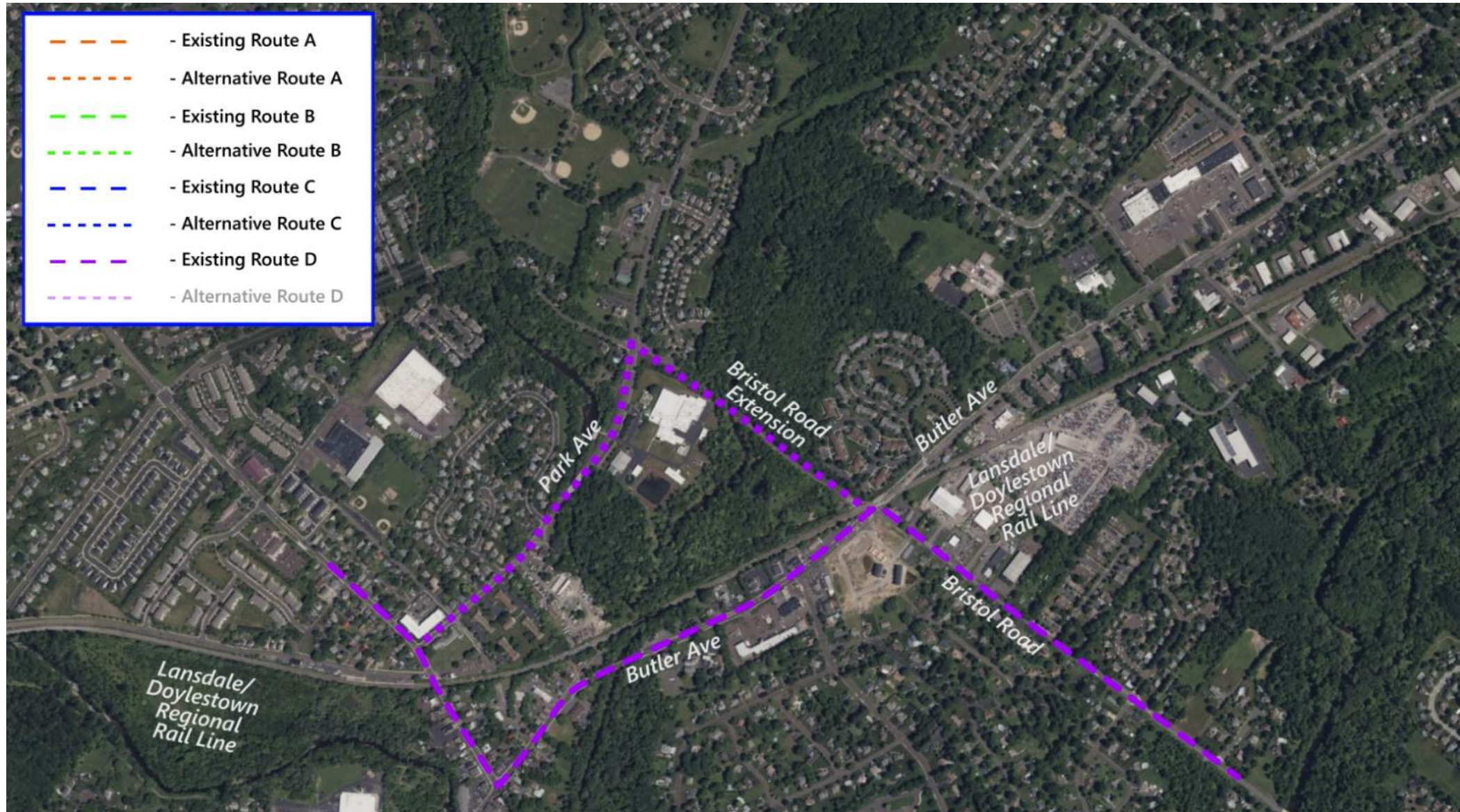
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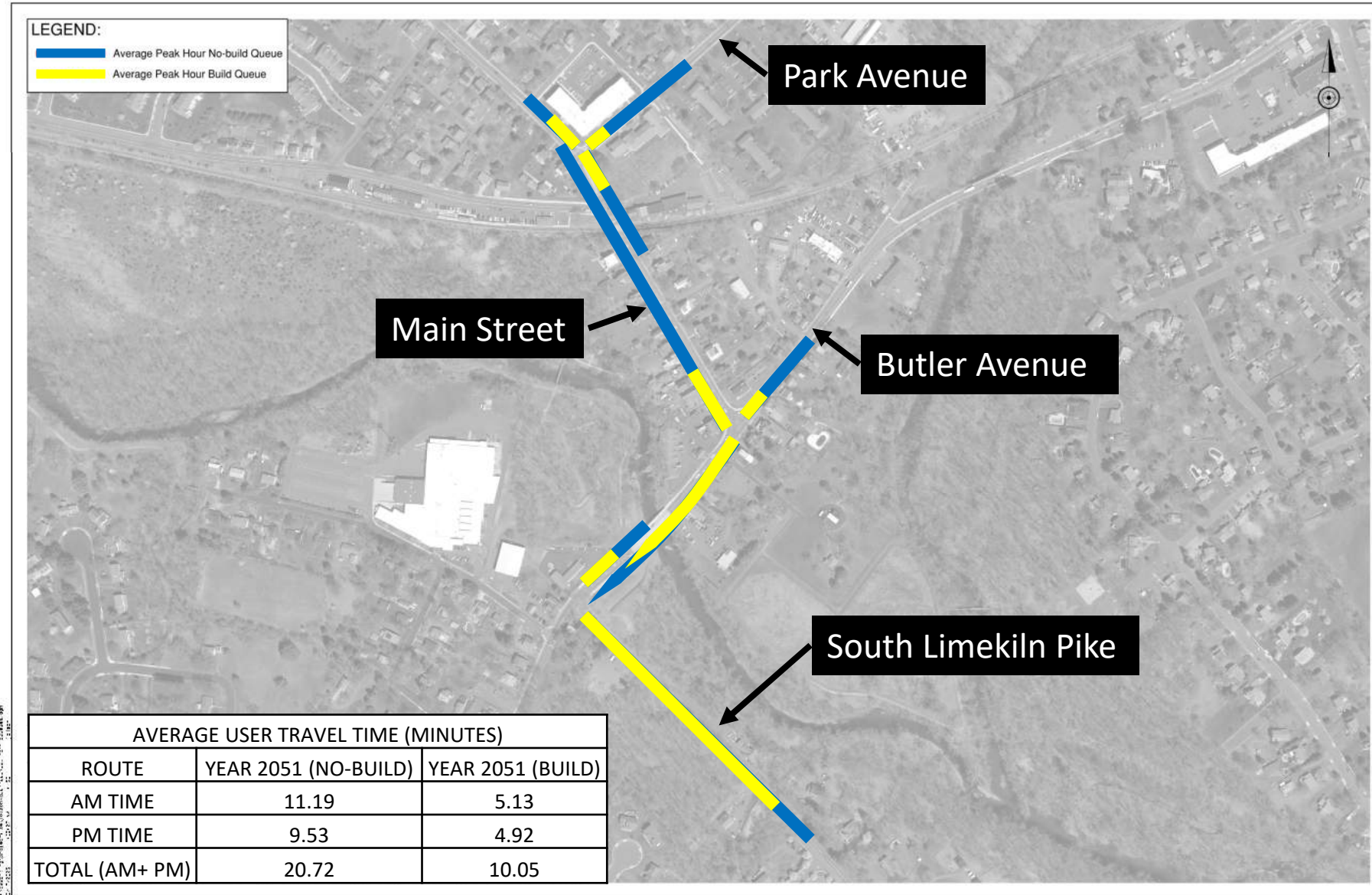
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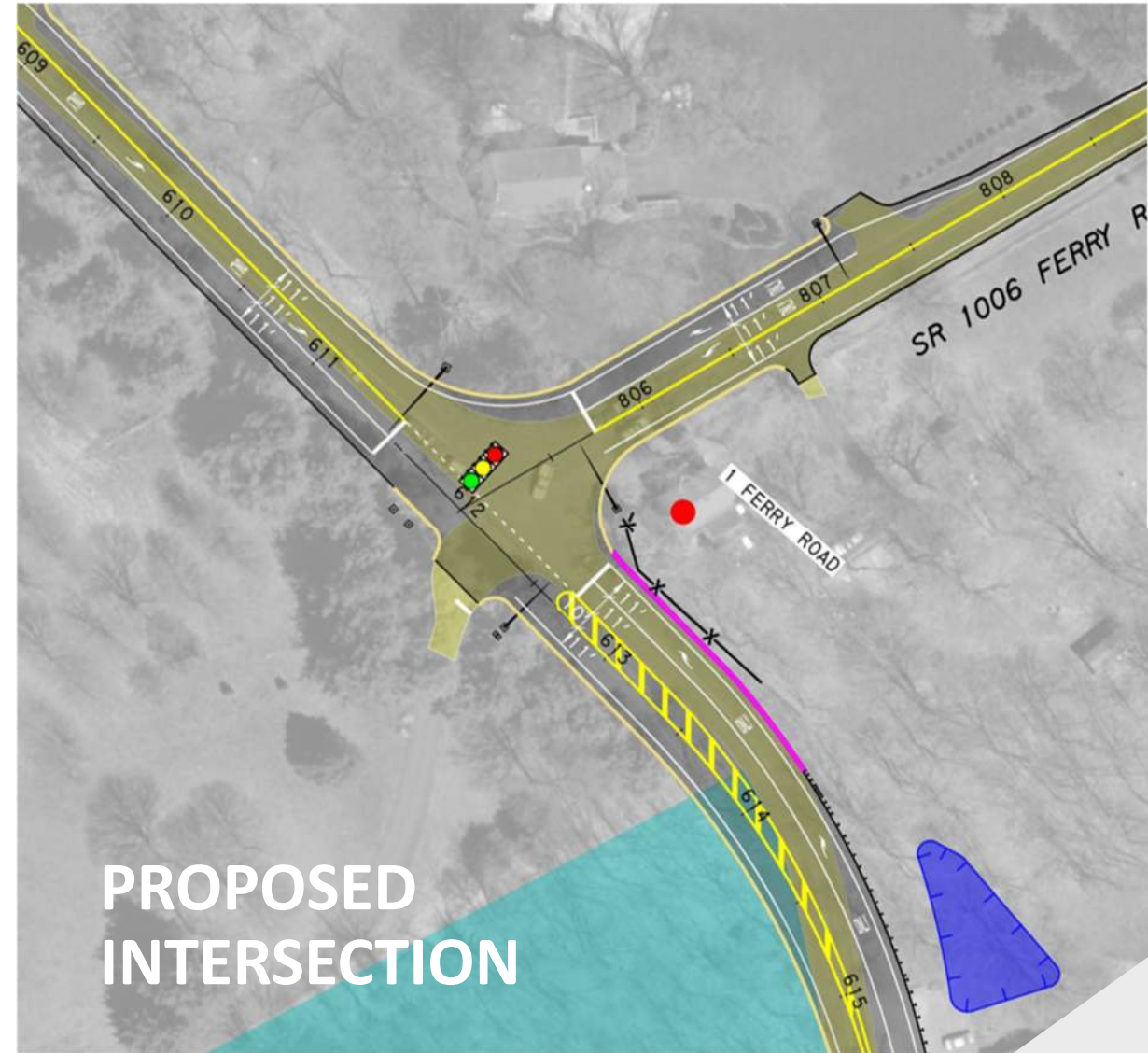
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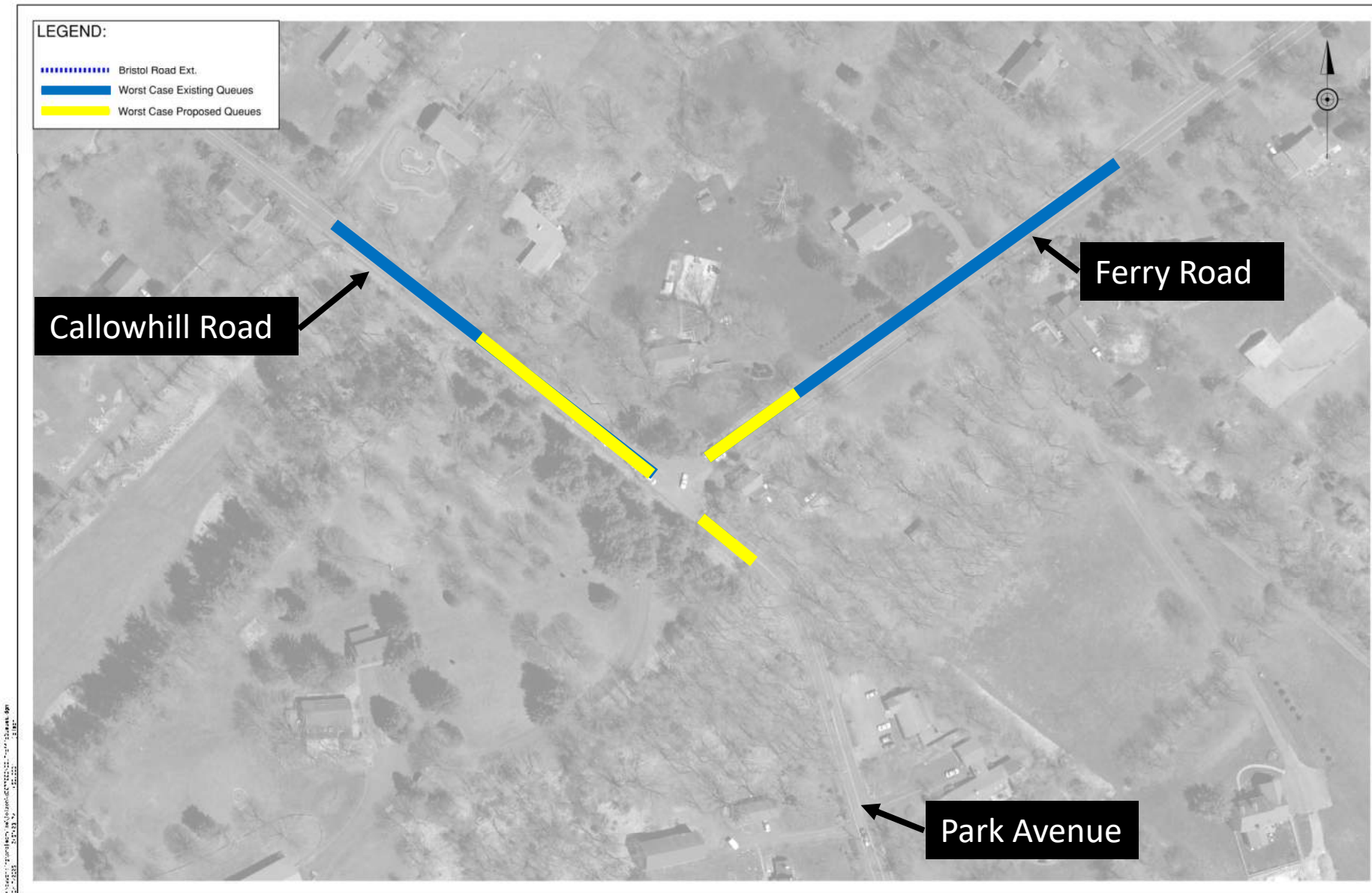
TRAFFIC QUEUES COMPARISON



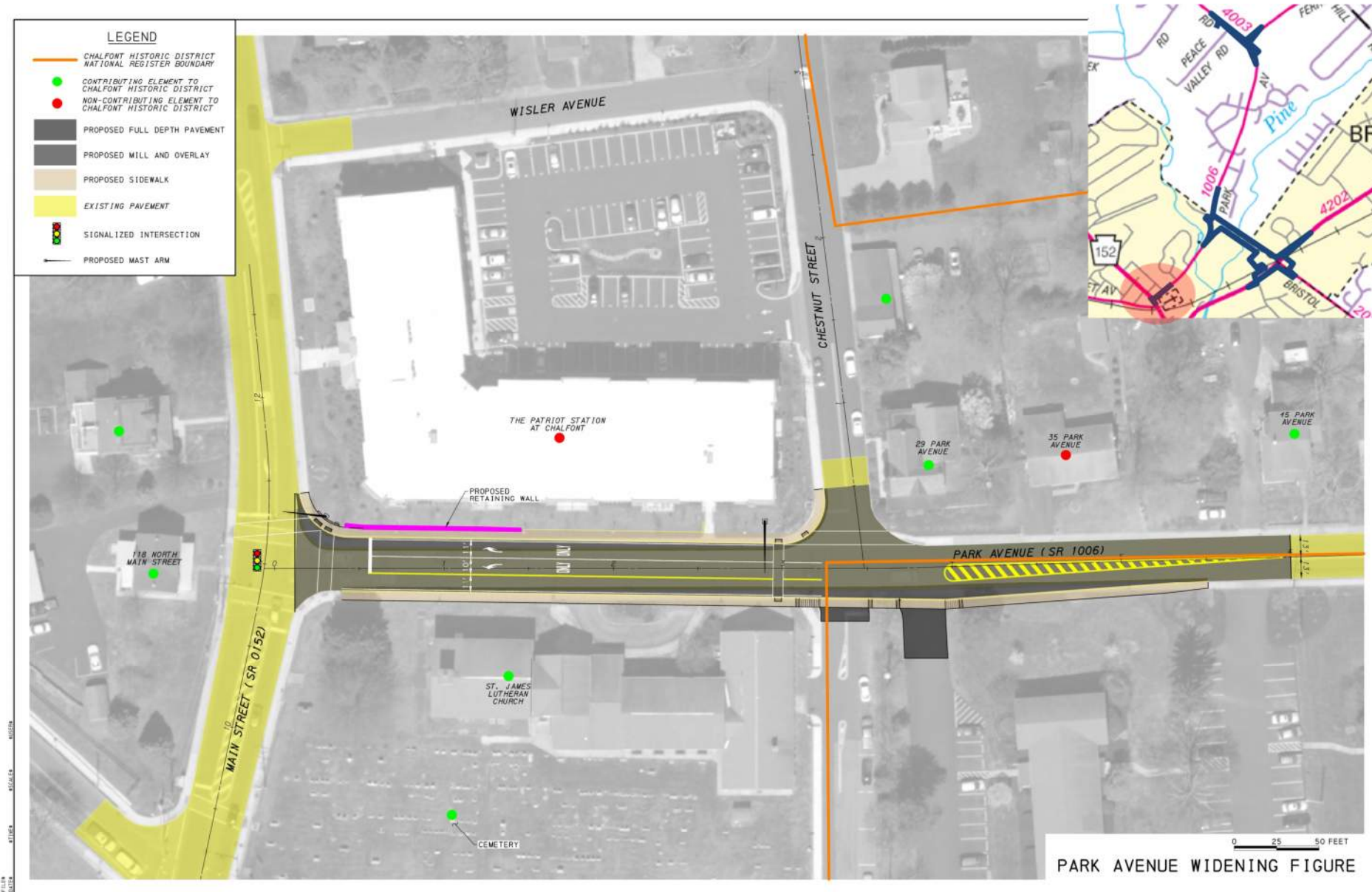
PFC TRAFFIC ANALYSIS



TRAFFIC QUEUES COMPARISON



PARK & MAIN INTERSECTION



PARK & MAIN INTERSECTION

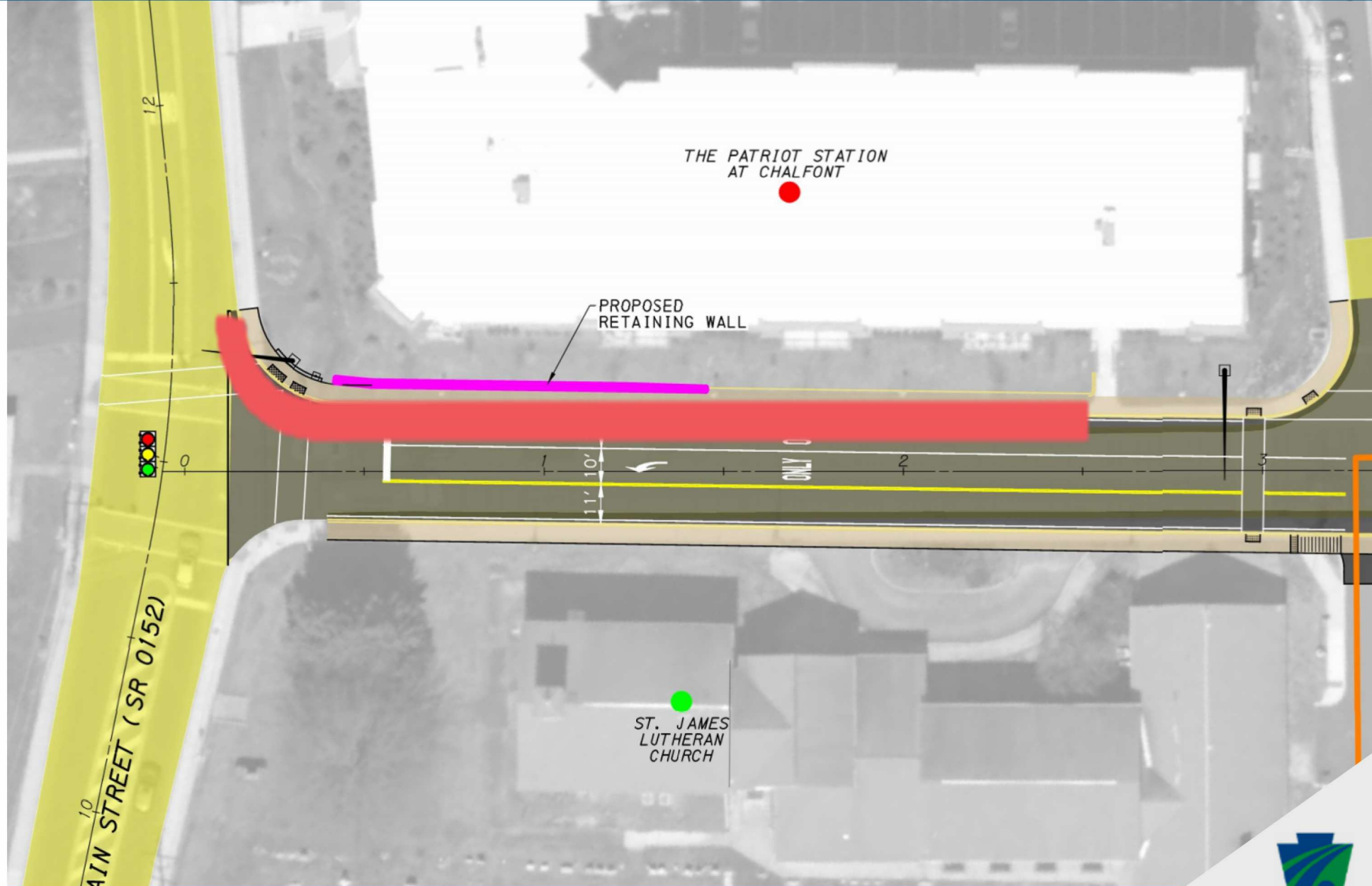


PARK & MAIN INTERSECTION



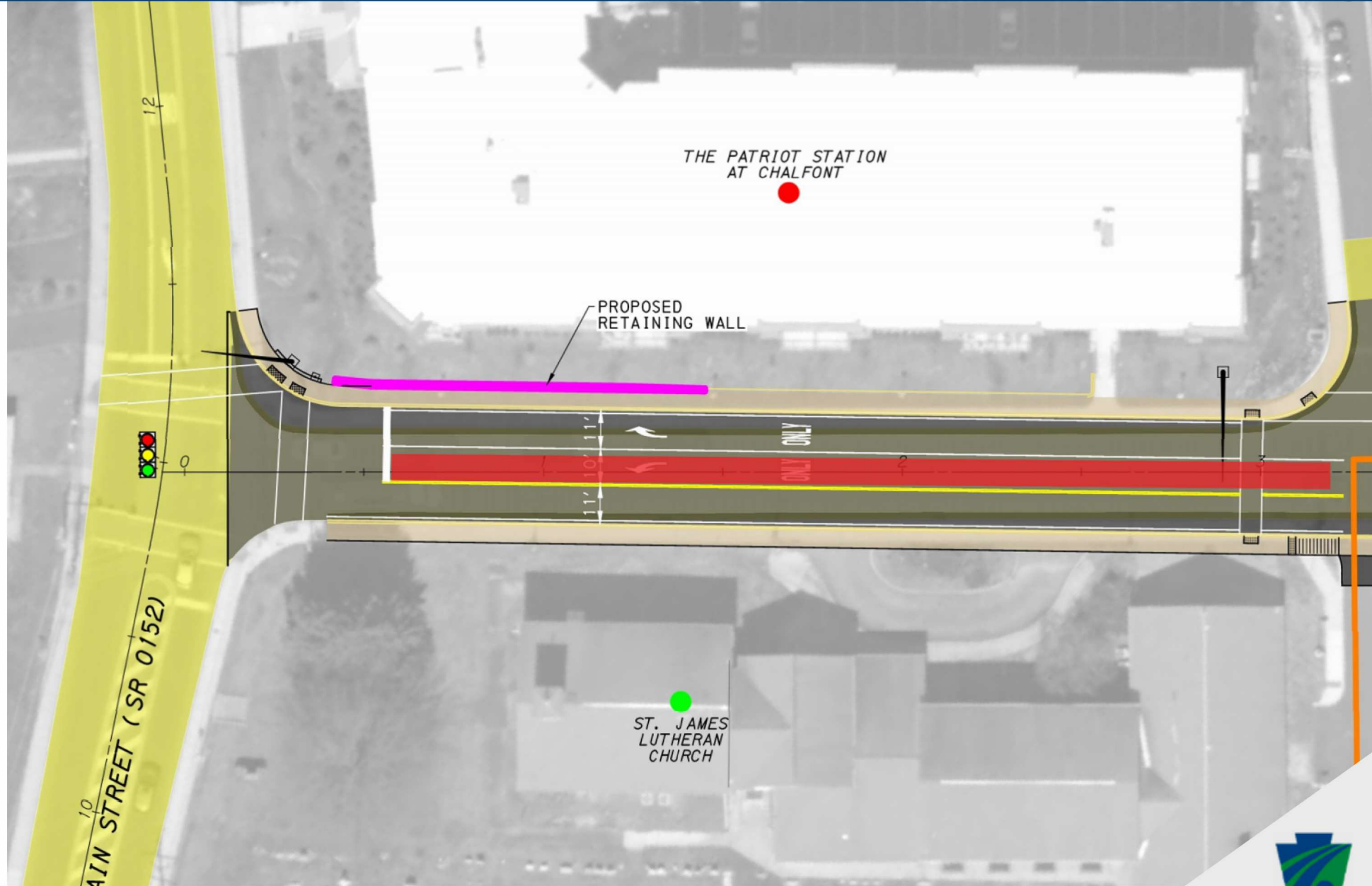
PARK & MAIN INTERSECTION

- Minor Widening



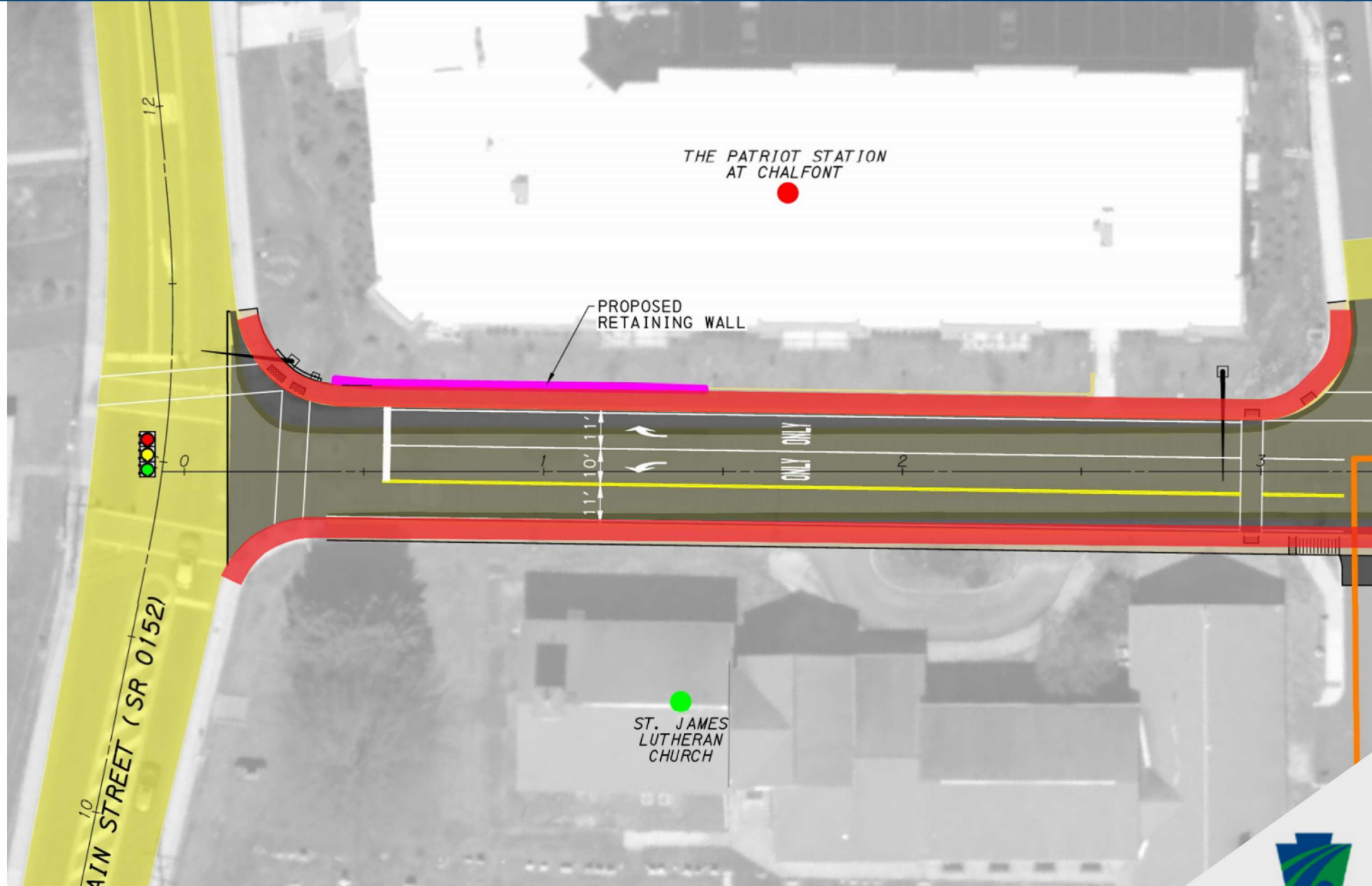
PARK & MAIN INTERSECTION

- Minor Widening
- Addition of a Left Turn Lane



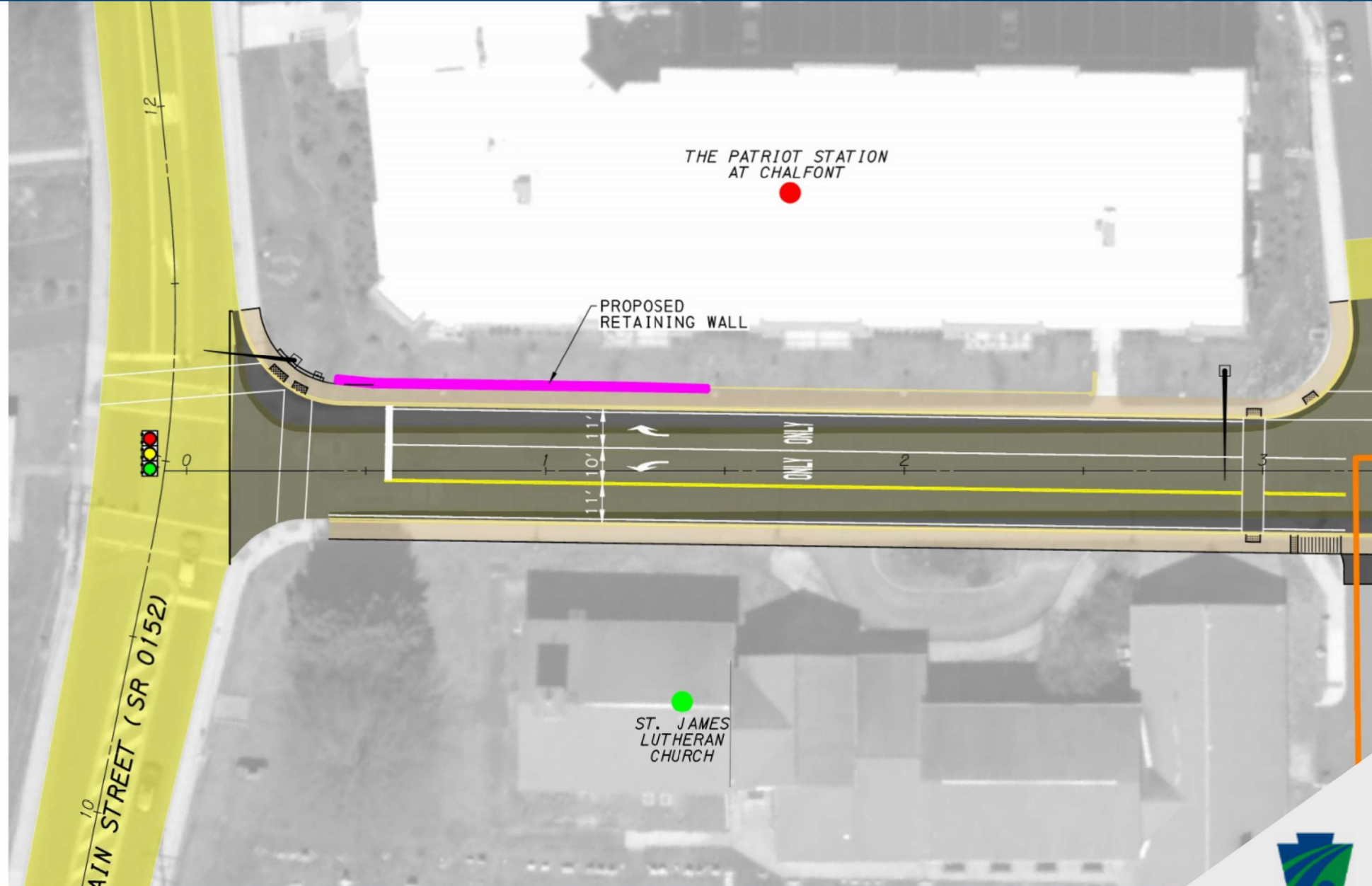
PARK & MAIN INTERSECTION

- Minor Widening
- Addition of a Left Turn Lane
- Existing Sidewalks, ADA Curb Ramp Configurations, & Private Driveway Adjustments

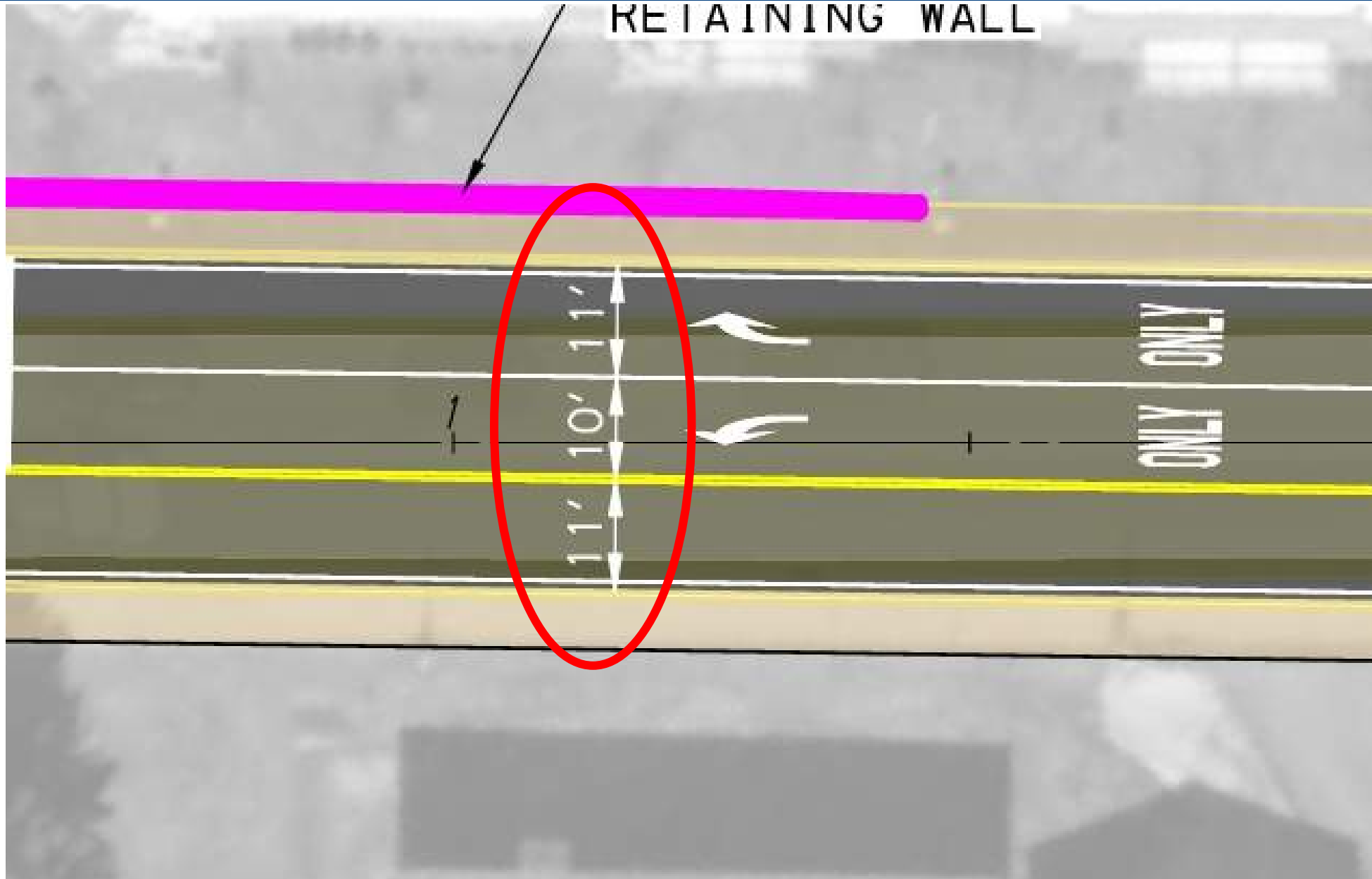


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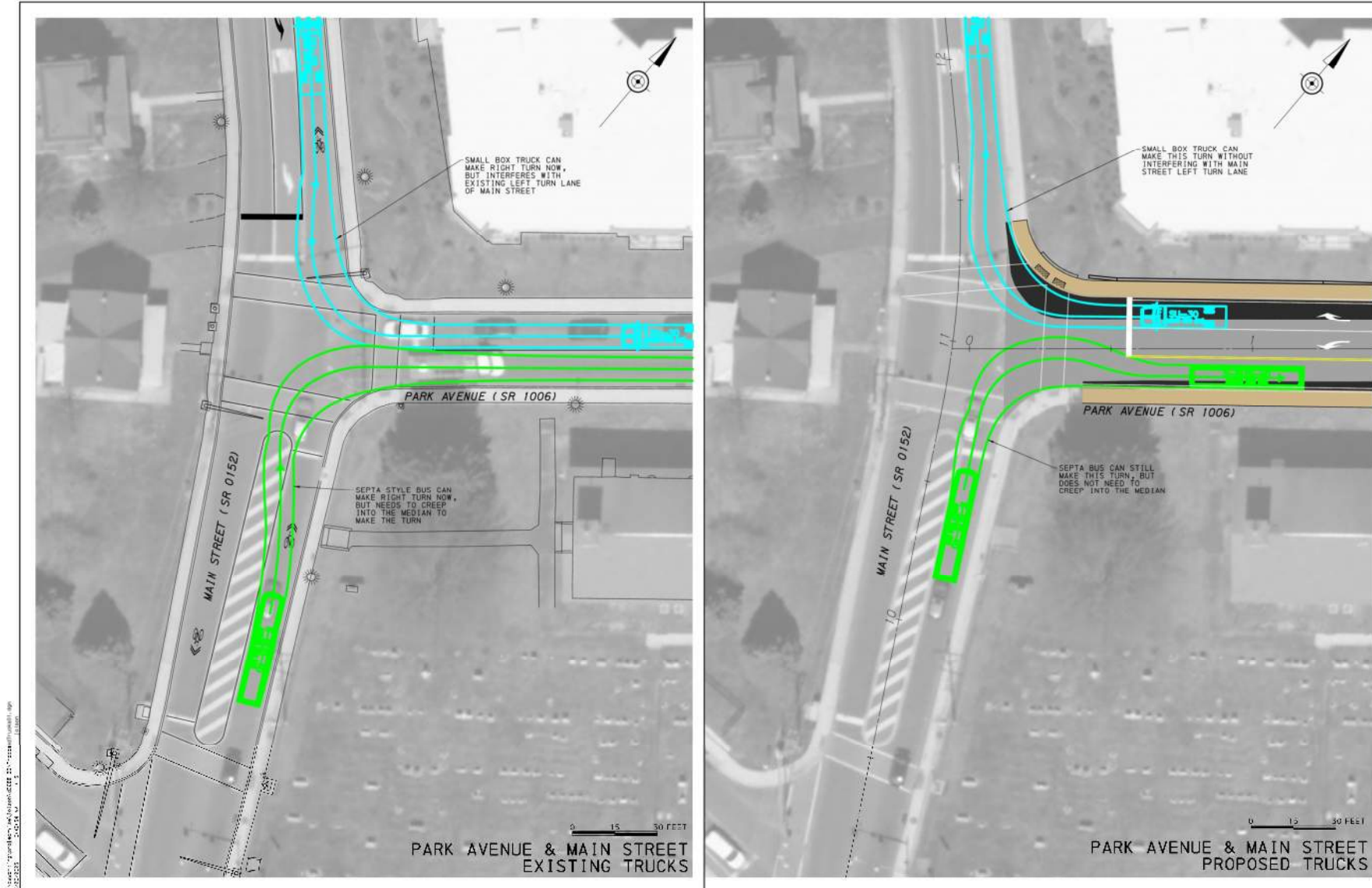
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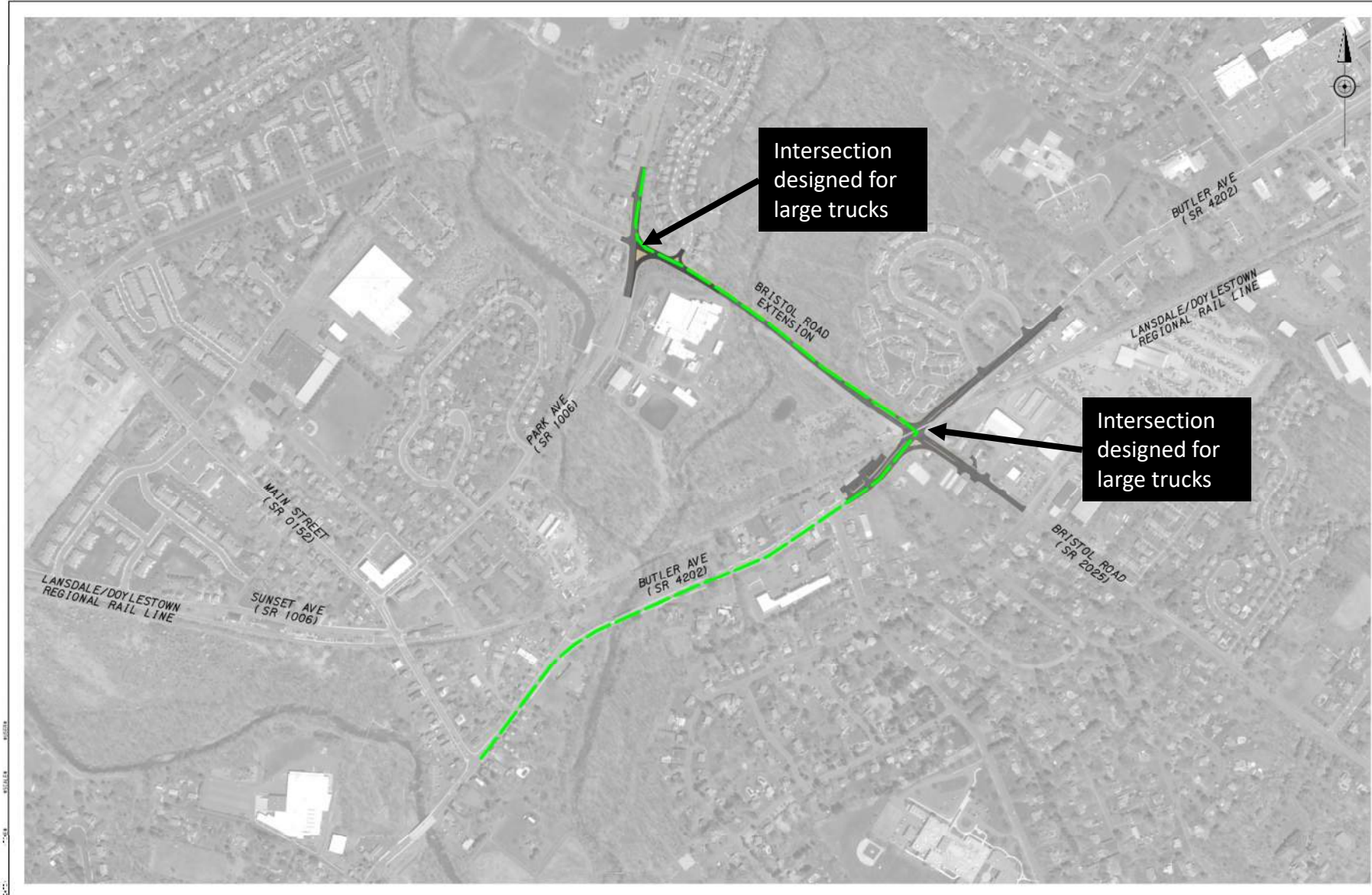
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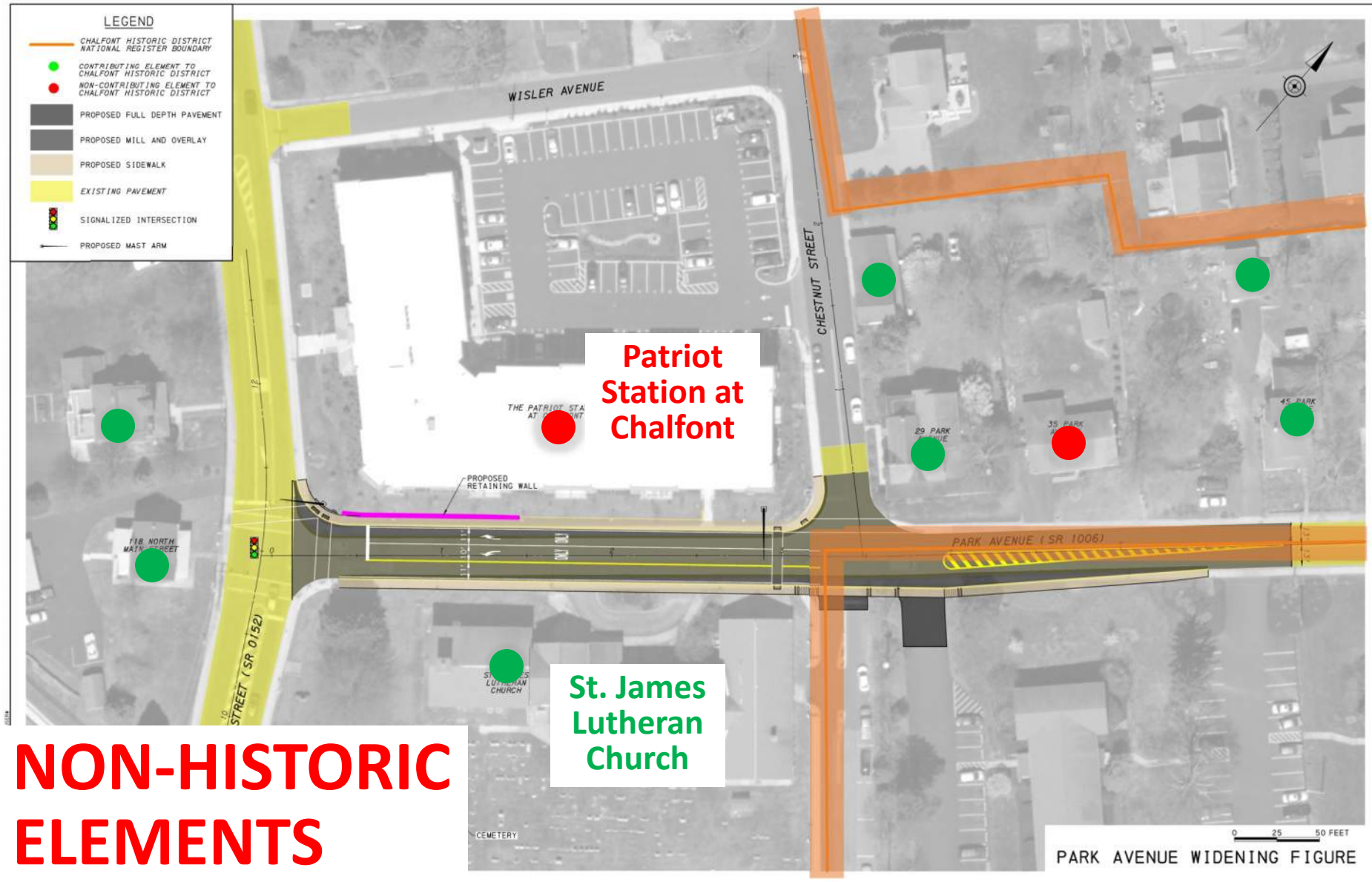
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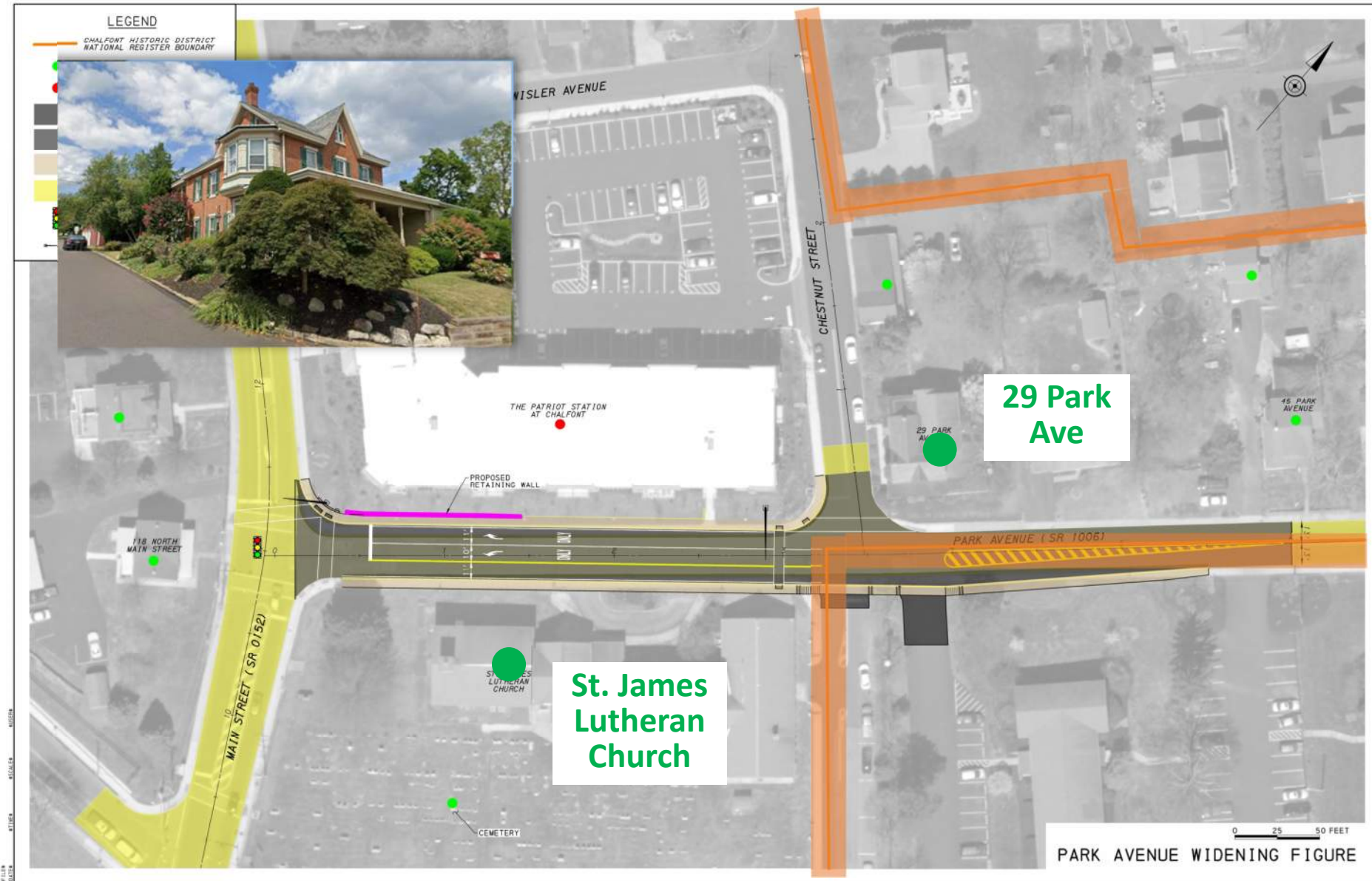
PARK & MAIN INTERSECTION



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PARK, FERRY & CALLOWHILL INTERSECTION

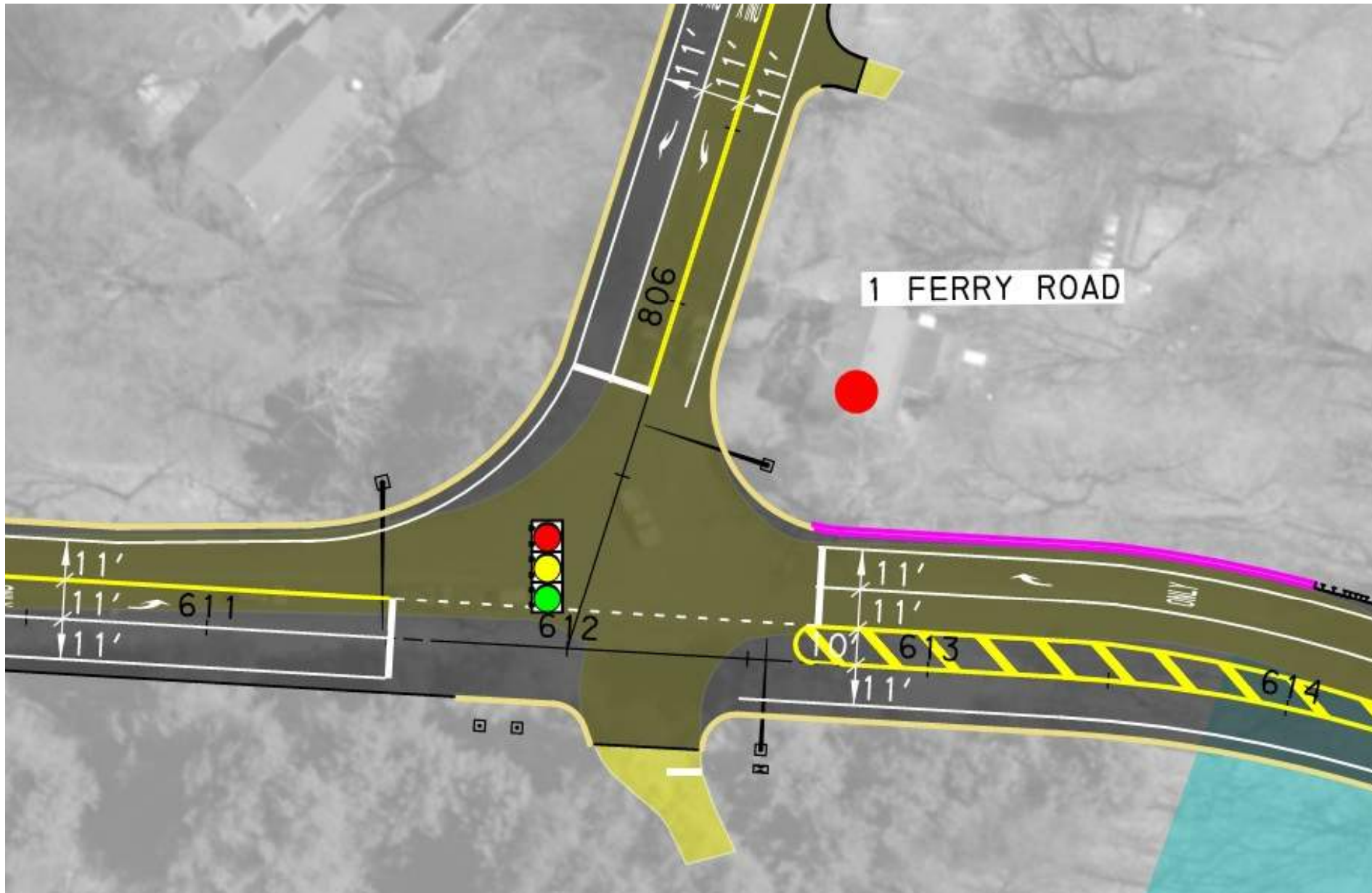


PARK, FERRY & CALLOWHILL INTERSECTION

- New Layout:
 - Keeps the road mostly on their existing alignments
 - Minimizes shoulder widths where space is tight
 - Improves traffic flow, minimize impacts on key properties, and mitigates current safety concerns



PARK, FERRY & CALLOWHILL INTERSECTION



PARK, FERRY & CALLOWHILL INTERSECTION



- Signal Ahead Warning Sign



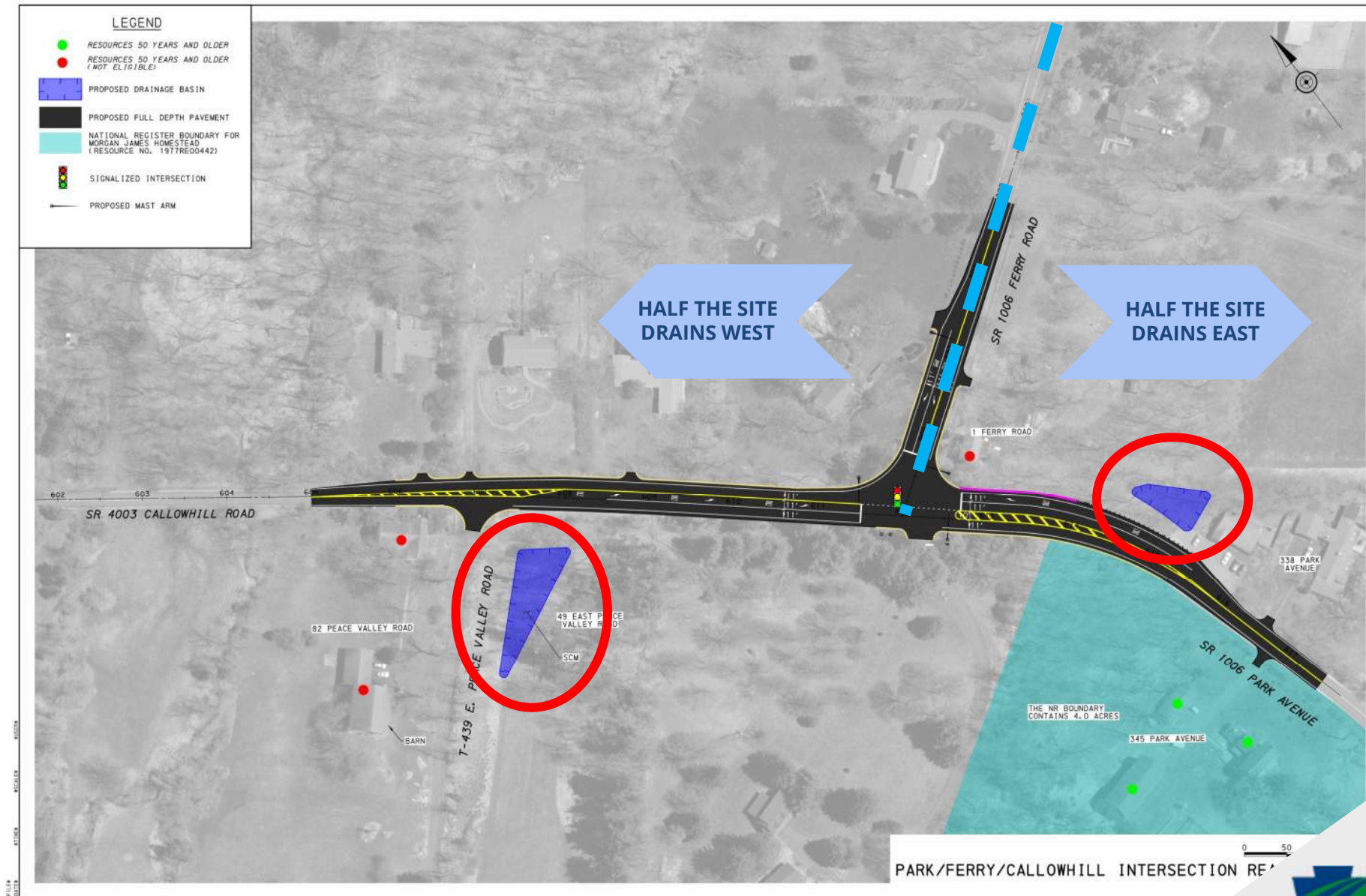
PARK, FERRY & CALLOWHILL INTERSECTION

- Stormwater Management
 - Increasing pavement width, also increasing rain water runoff
 - 2 stormwater basins
 - One on the northeast side
 - One on the southwest side



PARK, FERRY & CALLOWHILL INTERSECTION

- Why two basins?
 - Ferry Road acts as a watershed divide
 - Half the site drains east, other half drains west

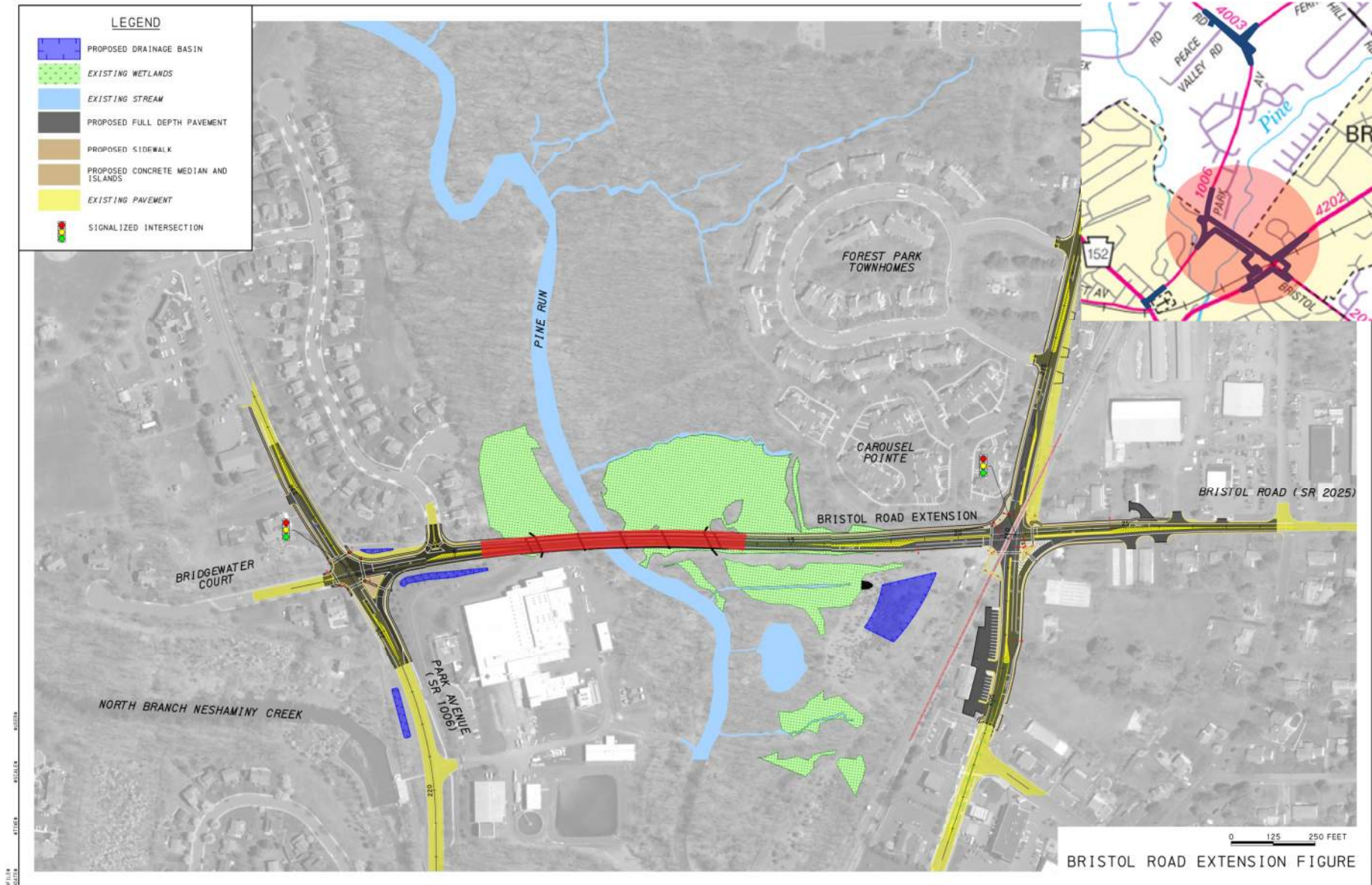


PARK, FERRY & CALLOWHILL INTERSECTION

- Smoother Curves
- Graded Embankments
- Cleared Vegetation
- Wider Road
- Maintain Viewshed



BRISTOL ROAD EXTENSION



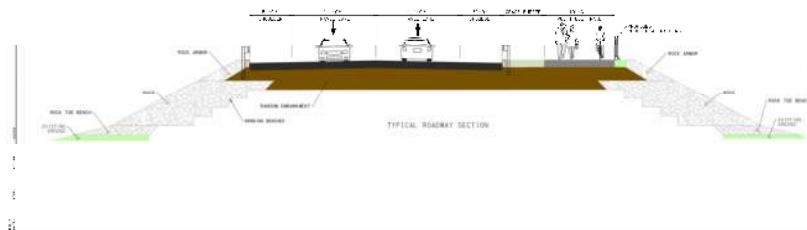
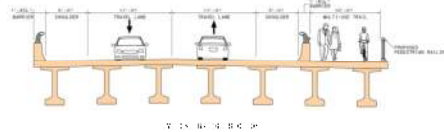
BRISTOL ROAD EXTENSION

- New five span bridge will be about 500 feet in total length
- Floodplain elevation does not increase from current levels
- Avoids costly easements and reduces the flood risk for nearby properties
- Raised the bridge profile to ensure the bottom of the structure clears the 100-year flood elevation



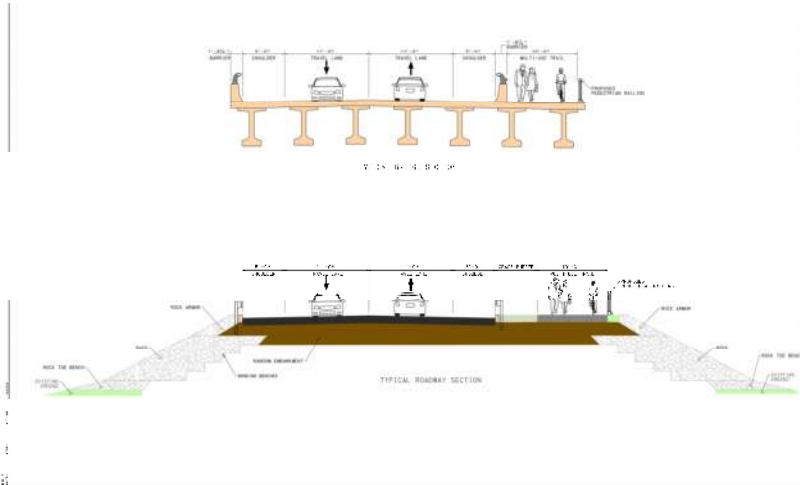
BRISTOL ROAD EXTENSION

- Use rock armoring for steeper slopes to reduce wetland impacts
- Rock armoring also reduces project costs by eliminating need for retaining walls

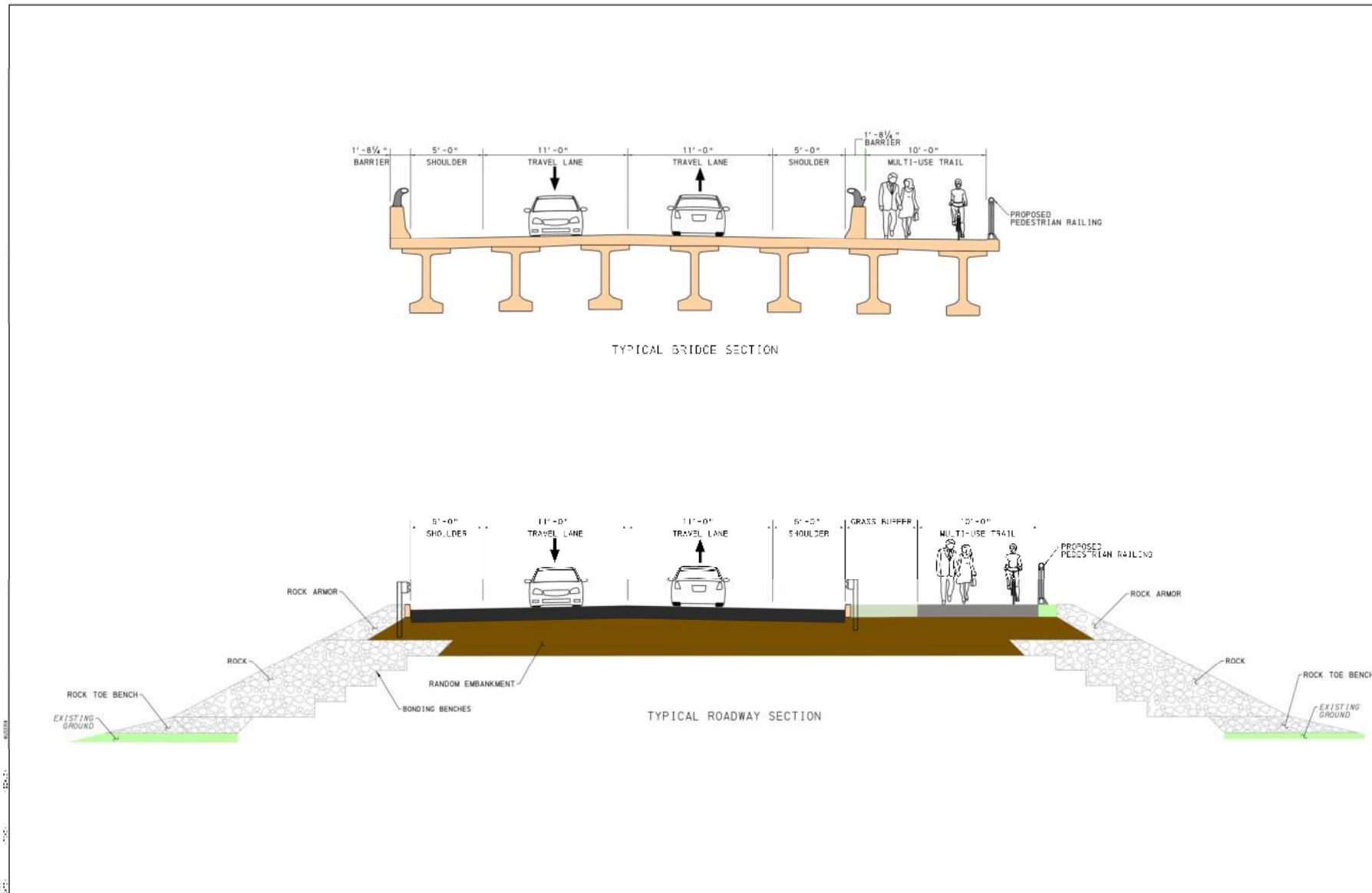


BRISTOL ROAD EXTENSION

- North Side of the bridge will have a 10-foot-wide multi-use trail
- Connects with the local trail network
- Protected by guide rail on the side of the roadway and pedestrian fencing in areas with steep slopes directly adjacent

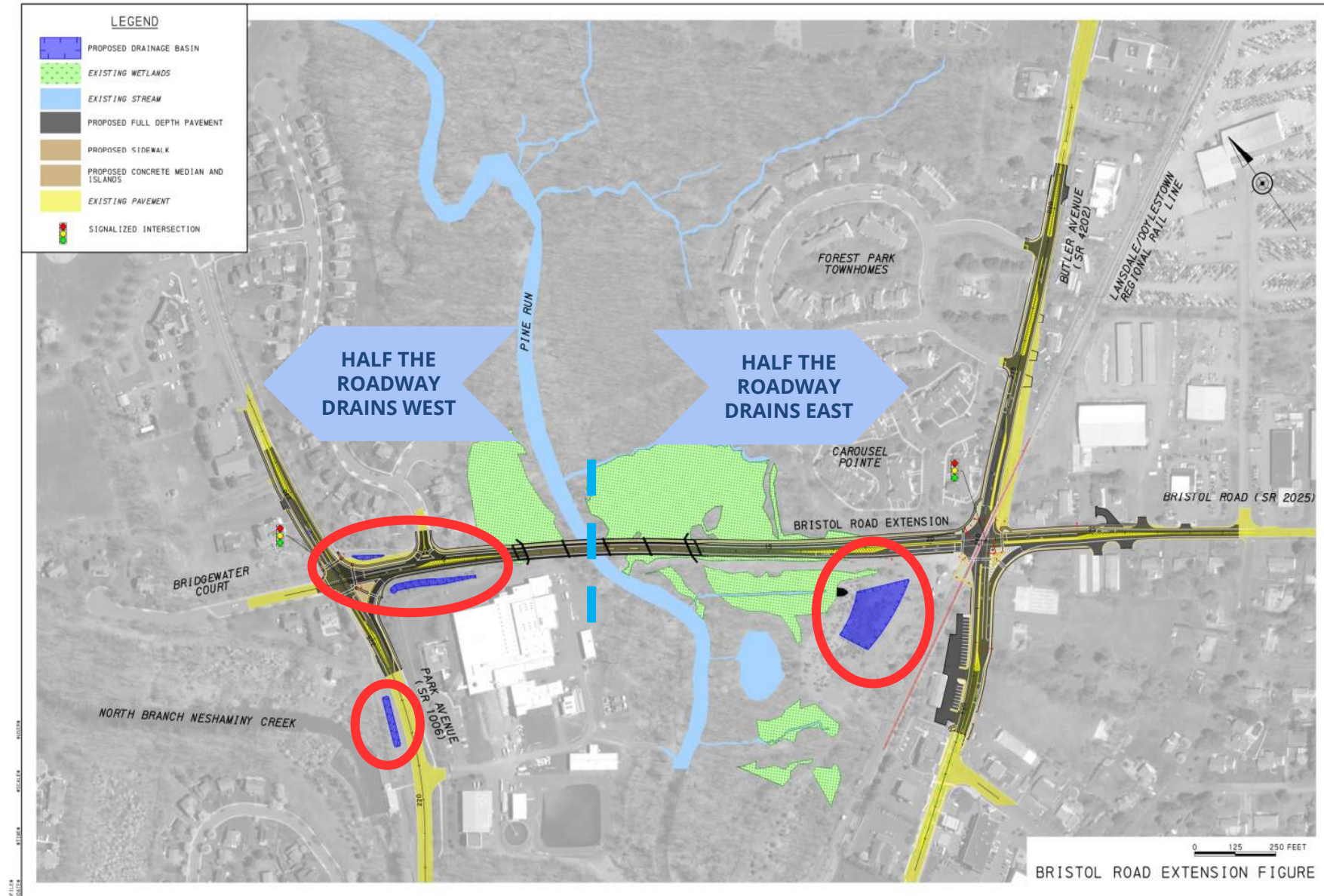


BRISTOL ROAD EXTENSION



STORMWATER MANAGEMENT WEST OF THE INTERSECTION

- Large stormwater basin needed at southwest corner of Bristol Butler intersection
- This basin needs to be large considering new roadway requires large footprint of additional pavement increasing runoff
- Basins designed to meet permitting standards and mitigate excess runoff
- Basins needed on east and west side of the extension due to highpoint in roadway profile on bridge

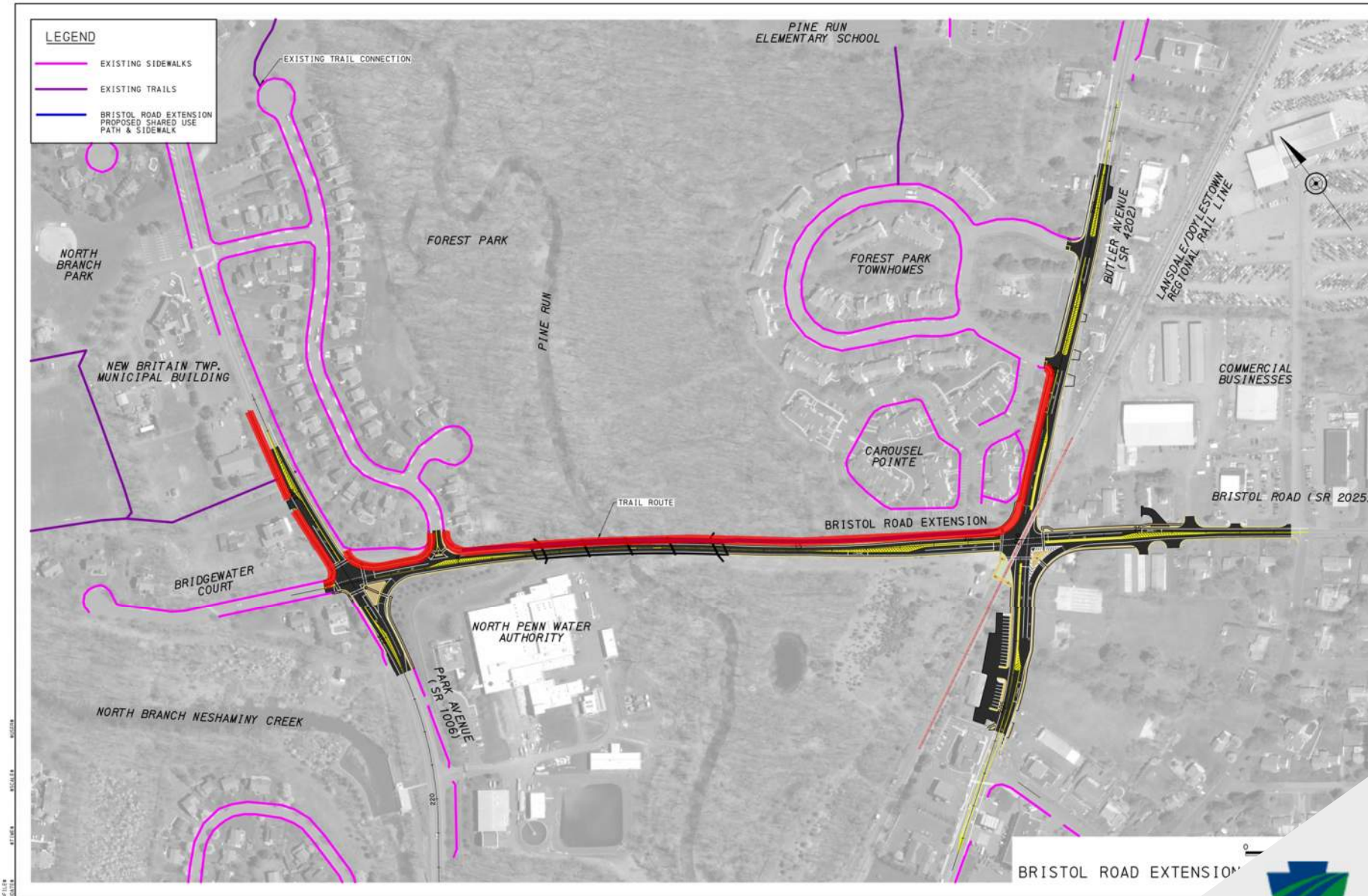


STORMWATER MANAGEMENT WEST OF THE INTERSECTION



BRISTOL ROAD EXTENSION

- The road extension and associated multi-use trail both provide a vital vehicular and trail network connection
- Pedestrian generators near Butler and Park Ave are now directly connected
- Additionally the new Bristol Connection to Park creates a signalized pedestrian crossing which is safe and connects a missing link of sidewalk west of Park Ave to provide safer travels to North Branch Park



BRISTOL ROAD EXTENSION



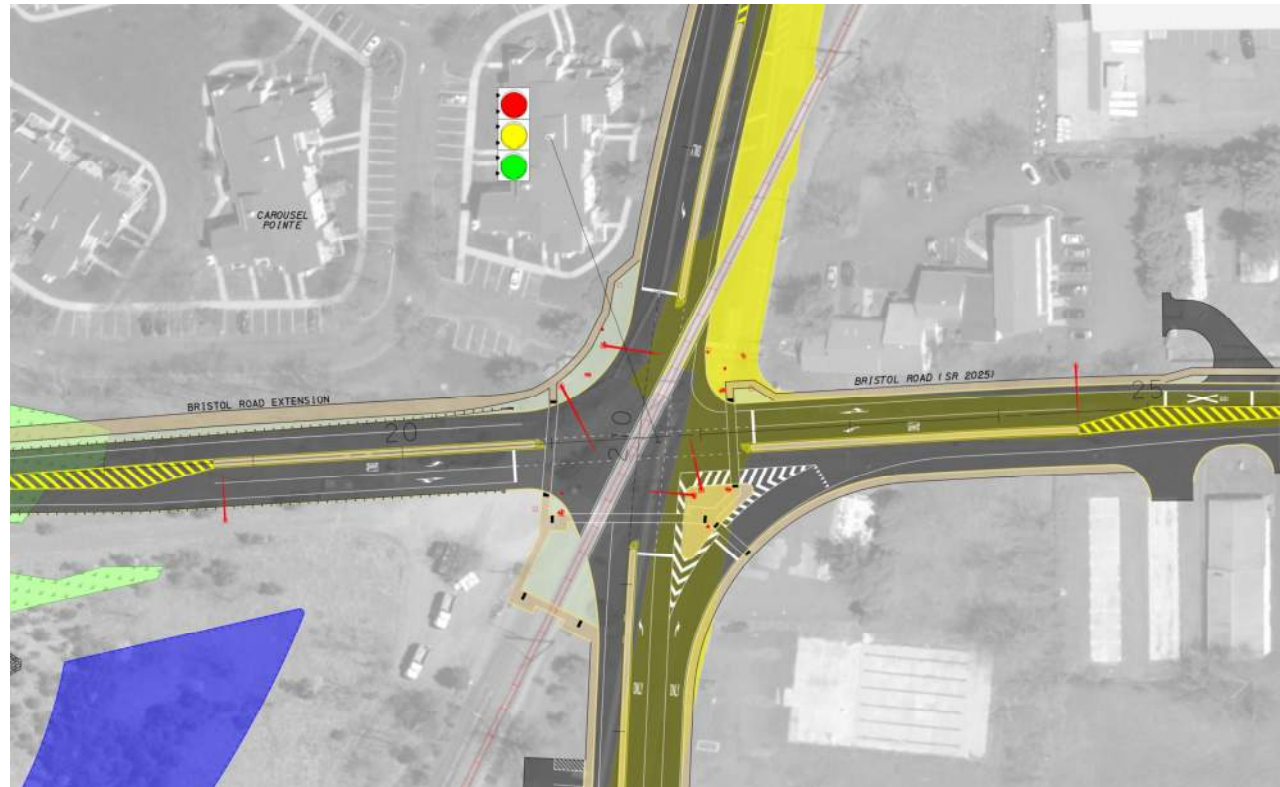
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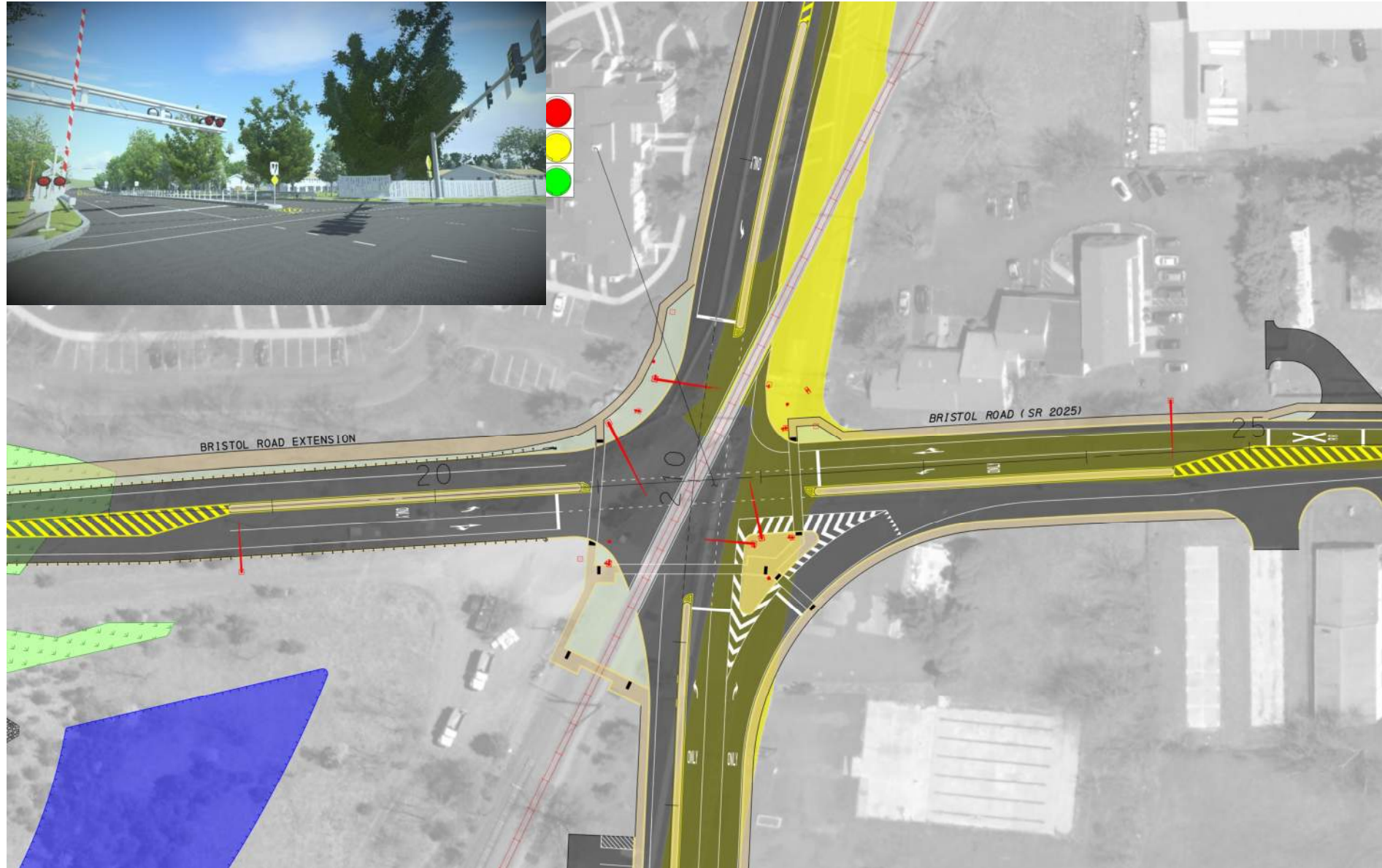
BRISTOL & BUTLER INTERSECTION



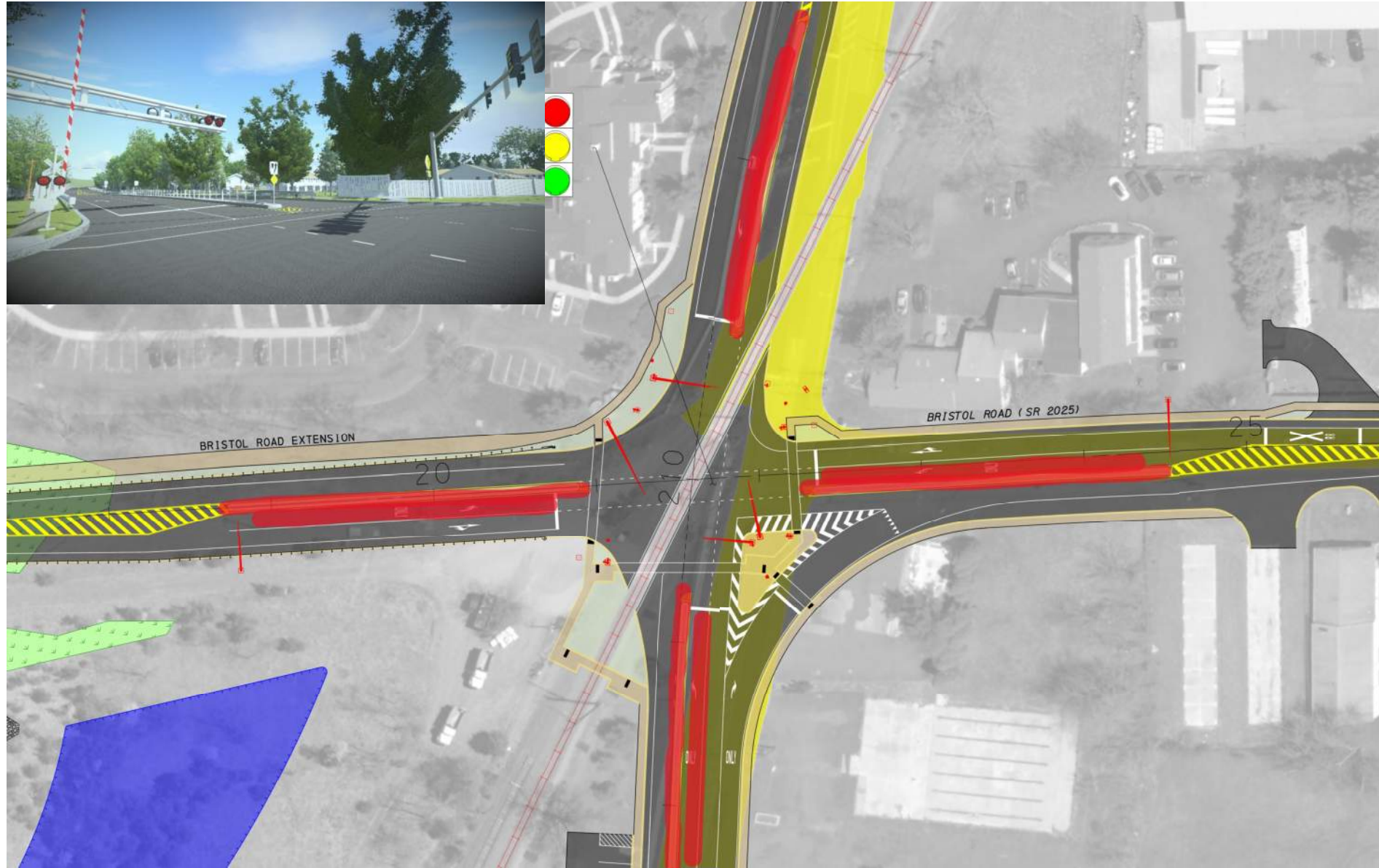
BRISTOL & BUTLER INTERSECTION



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BRISTOL & BUTLER INTERSECTION



TRAIN SIGNAL OPERATIONS: HOW IT WORKS



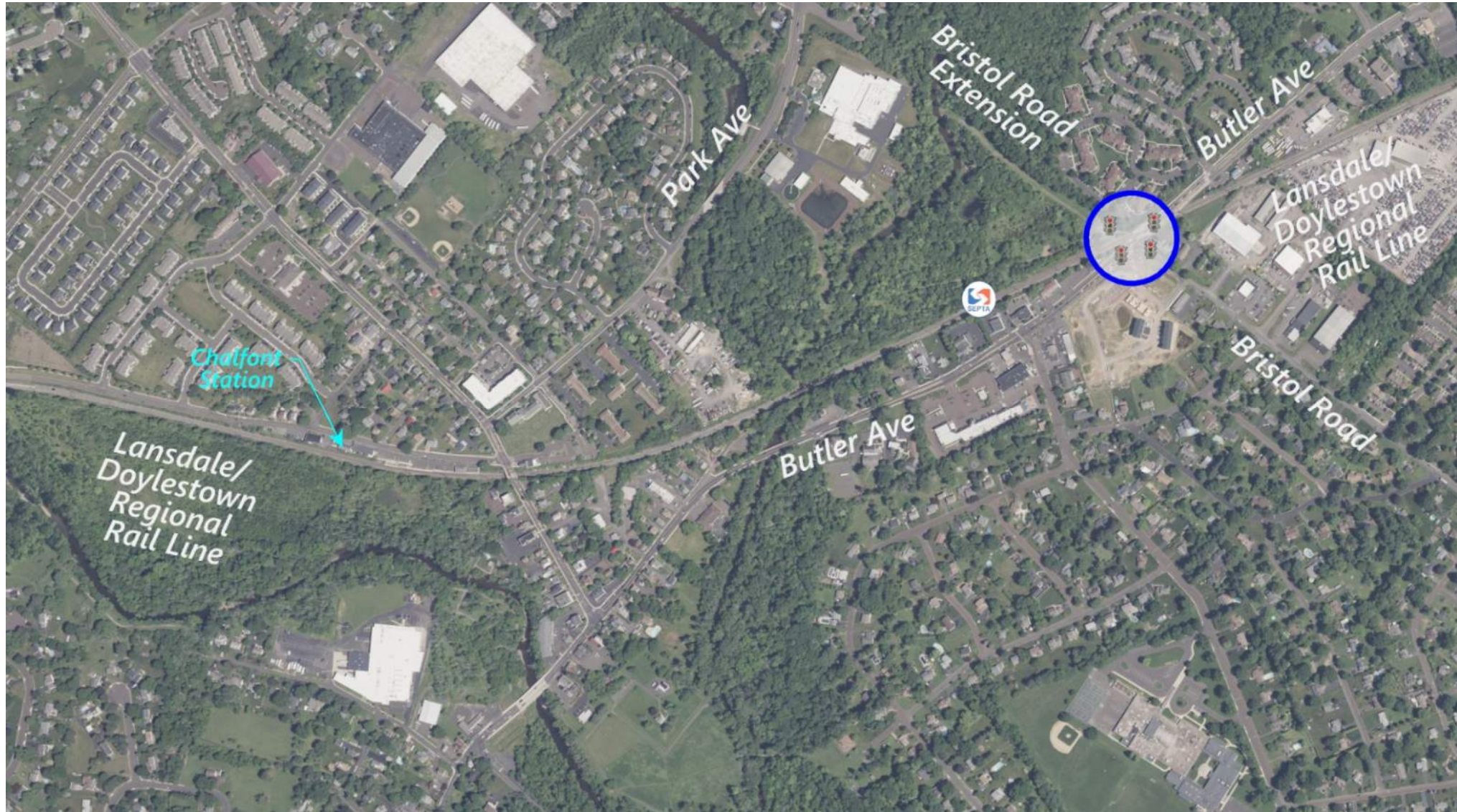
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TRAIN SIGNAL OPERATIONS: HOW IT WORKS



View from Bristol Road Extension Looking Eastward

TRAIN SIGNAL OPERATIONS: HOW IT WORKS



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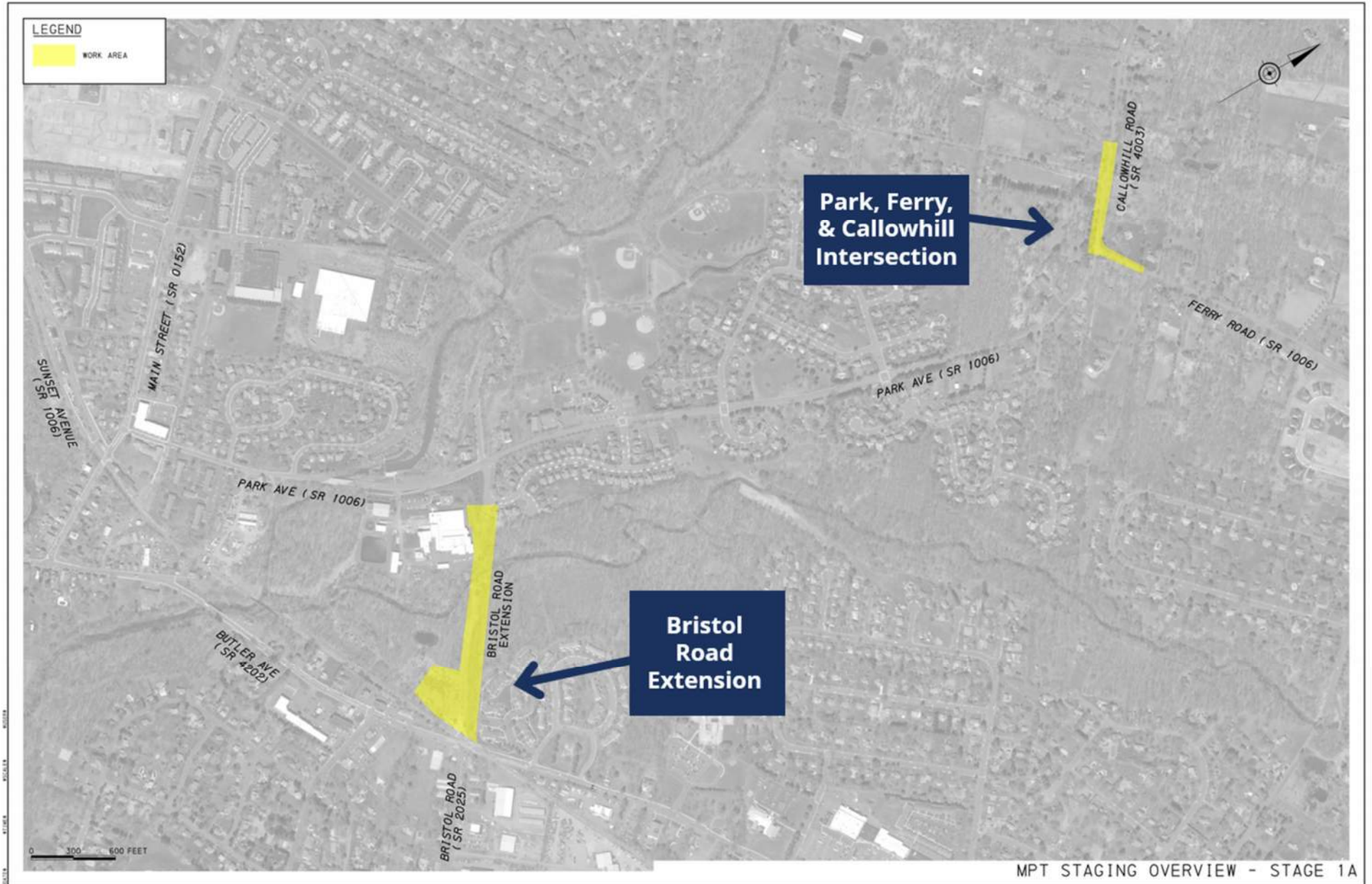
TRAIN SIGNAL OPERATIONS: HOW IT WORKS



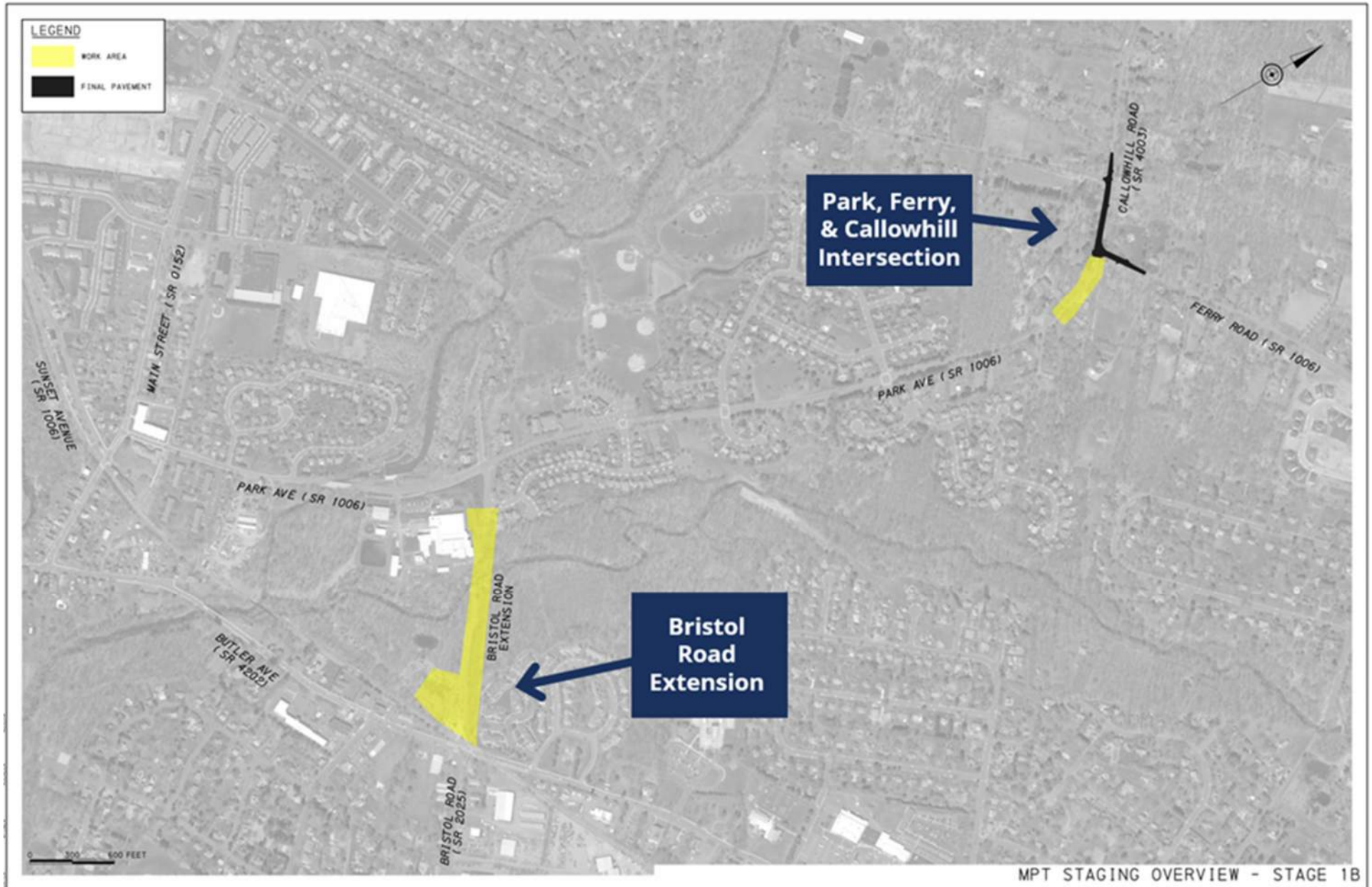
TRAIN SIGNAL OPERATIONS: HOW IT WORKS



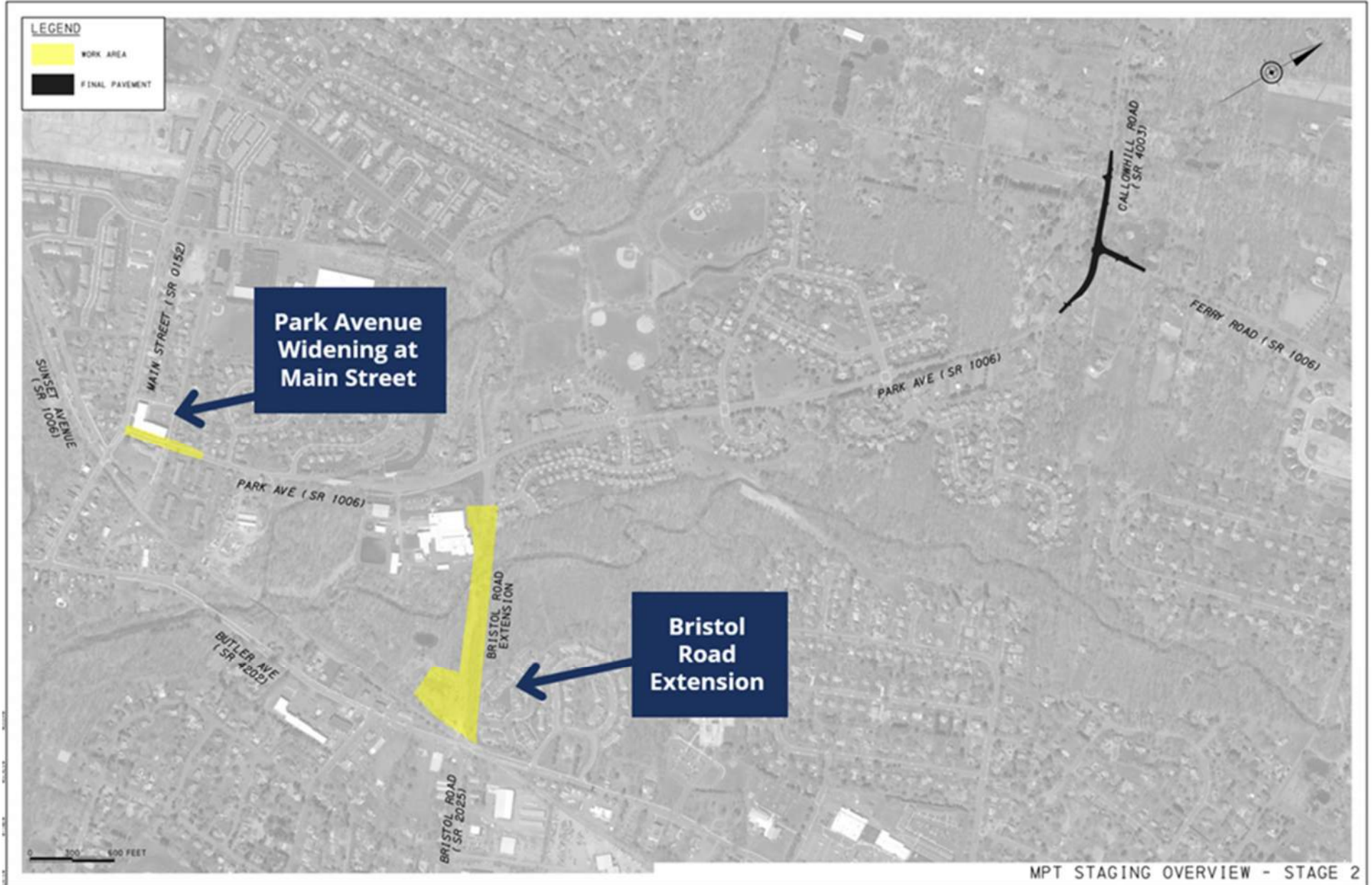
TEMPORARY TRAFFIC CONTROL & CONSTRUCTION STAGING



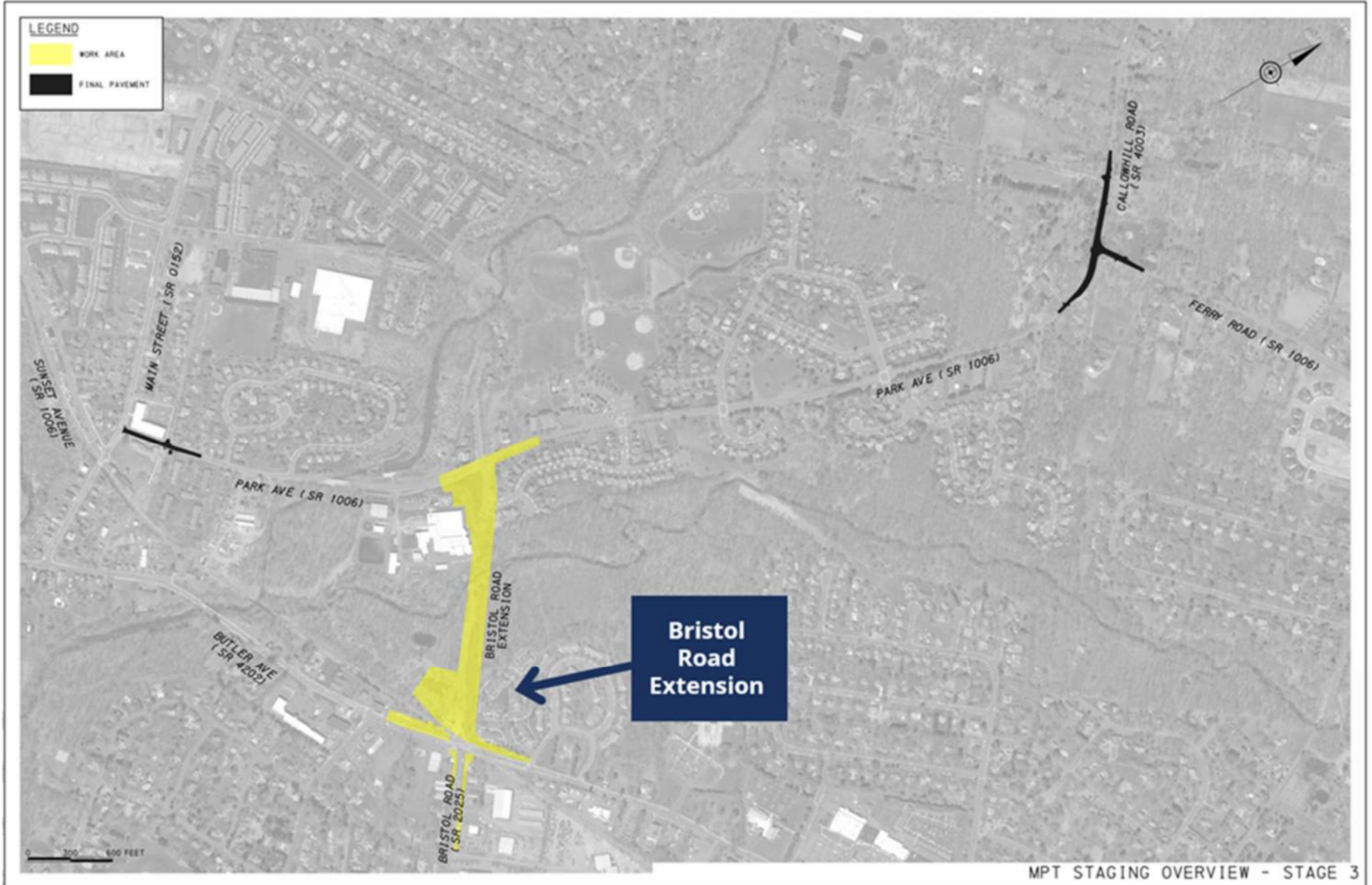
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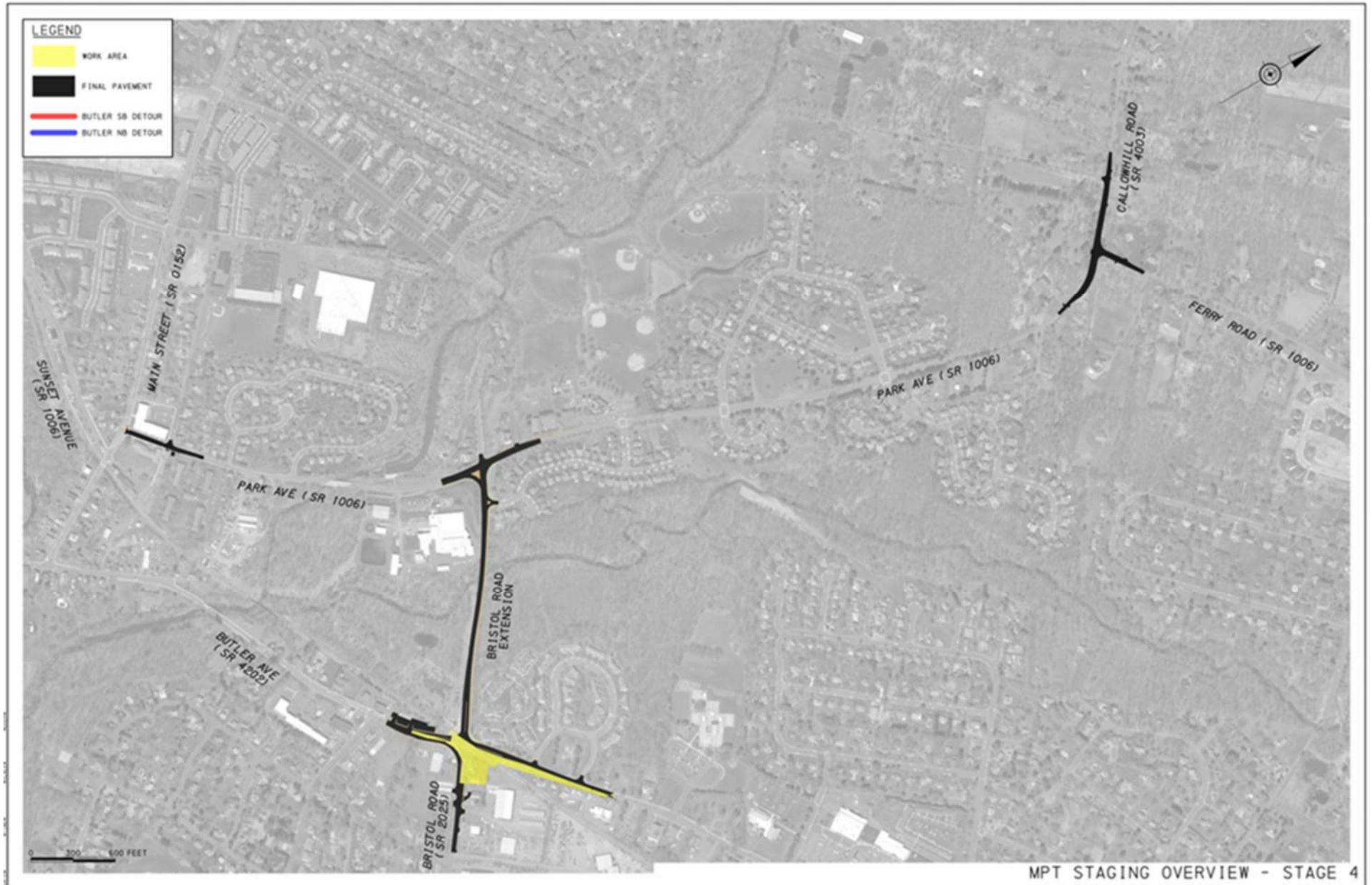
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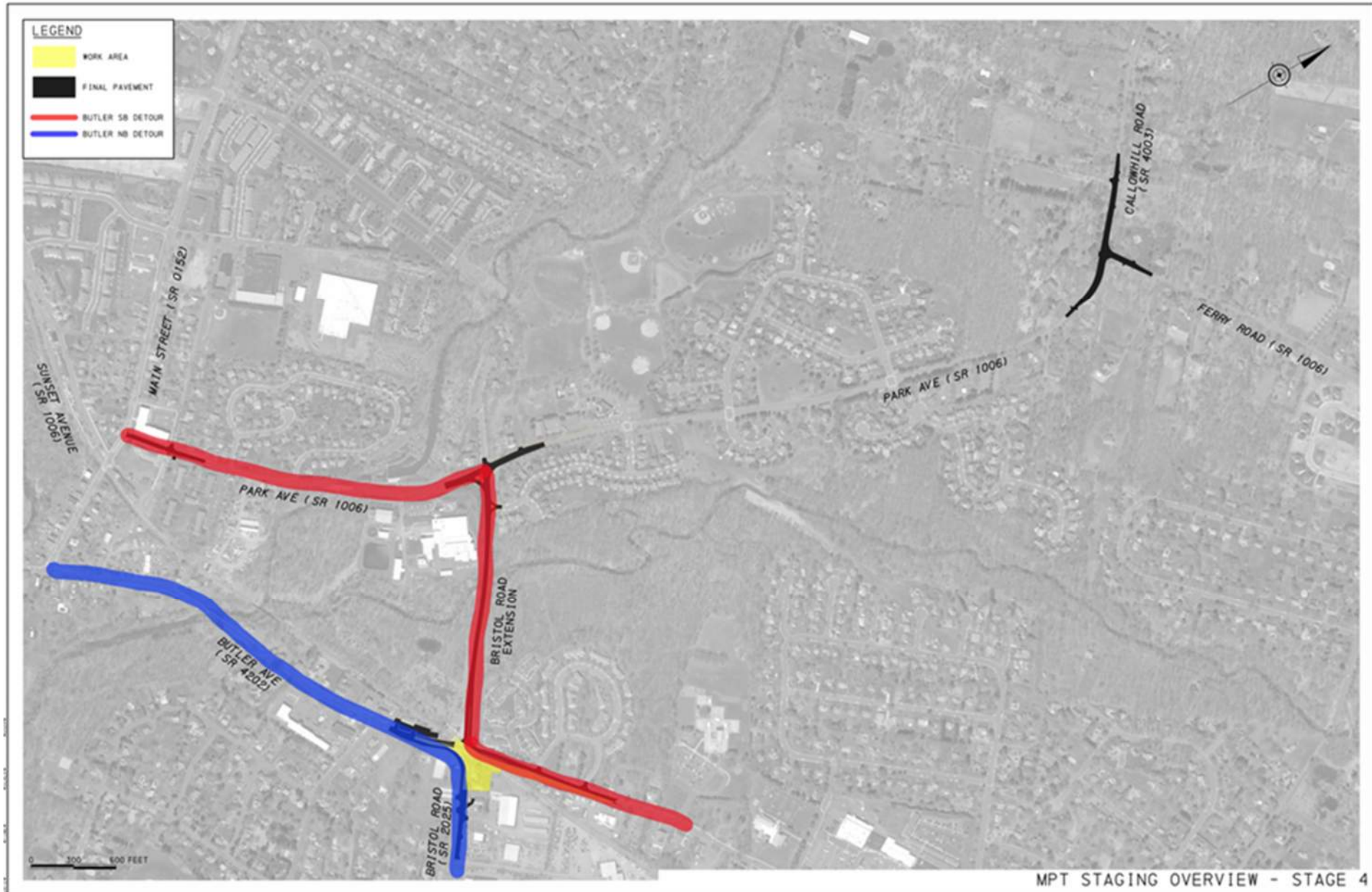
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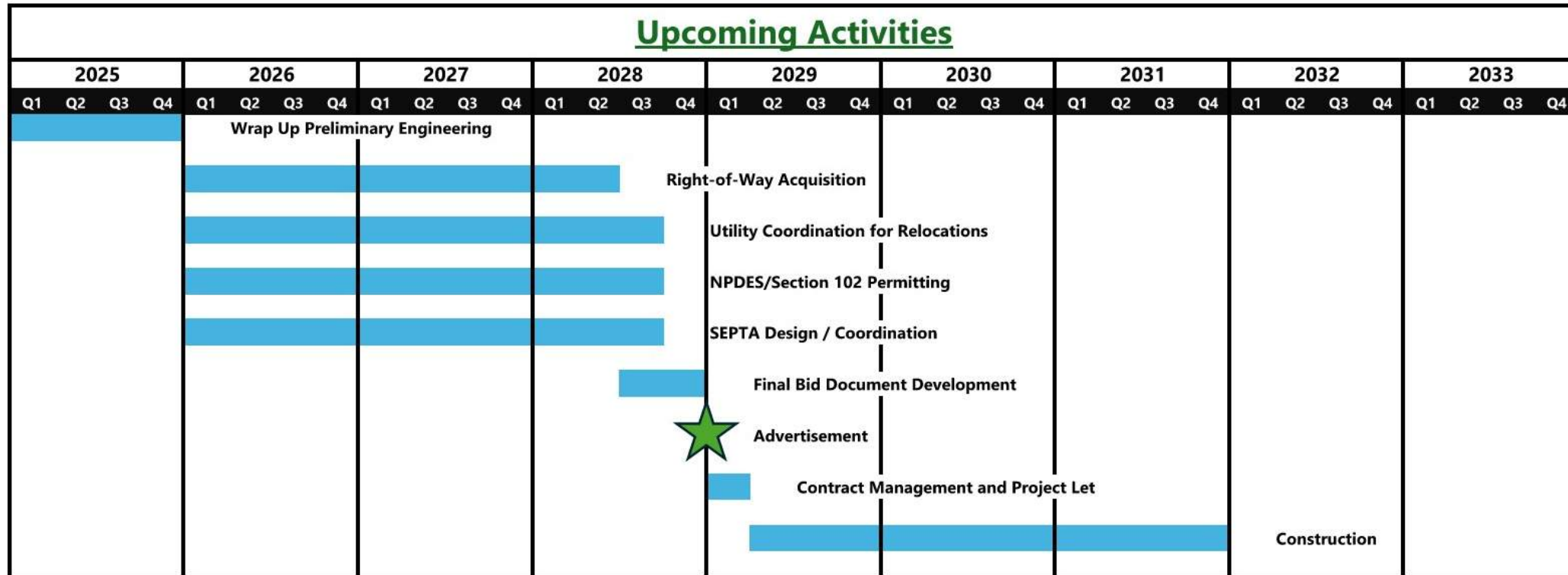


WHERE WE ARE NOW & WHAT'S NEXT

- Preliminary engineering phase of the project is almost complete
 - Project layout is mostly set
 - Feedback received so far has been incorporated into the design
 - Environmental issues have been studied
- Next, we move into final design
 - This is the detailed design phase of the project
 - Property right-of-way coordination begins
 - Additional permitting related to outside agencies, such as the DEP and Bucks County Conservation District will continue



WHERE WE ARE NOW & WHAT'S NEXT



This project reflects

- A design that meets the project purpose and need
- Design adjustments incorporating community and external agency requests
- Longterm multi-modal needs



BRE DRIVE THROUGH SIMULATION



QUESTIONS?

THANK YOU

Contact Information

Consultant Project Manager, Nathan Parrish, P.E.
c-nparrish@pa.gov

For project website, visit:

<https://bit.ly/bristolroadextension>

To comment, visit:

<https://bit.ly/BristolRoadExtensionComments>



Upcoming In-Person Meeting:

November 13 @ 6:30PM

Unami Middle School