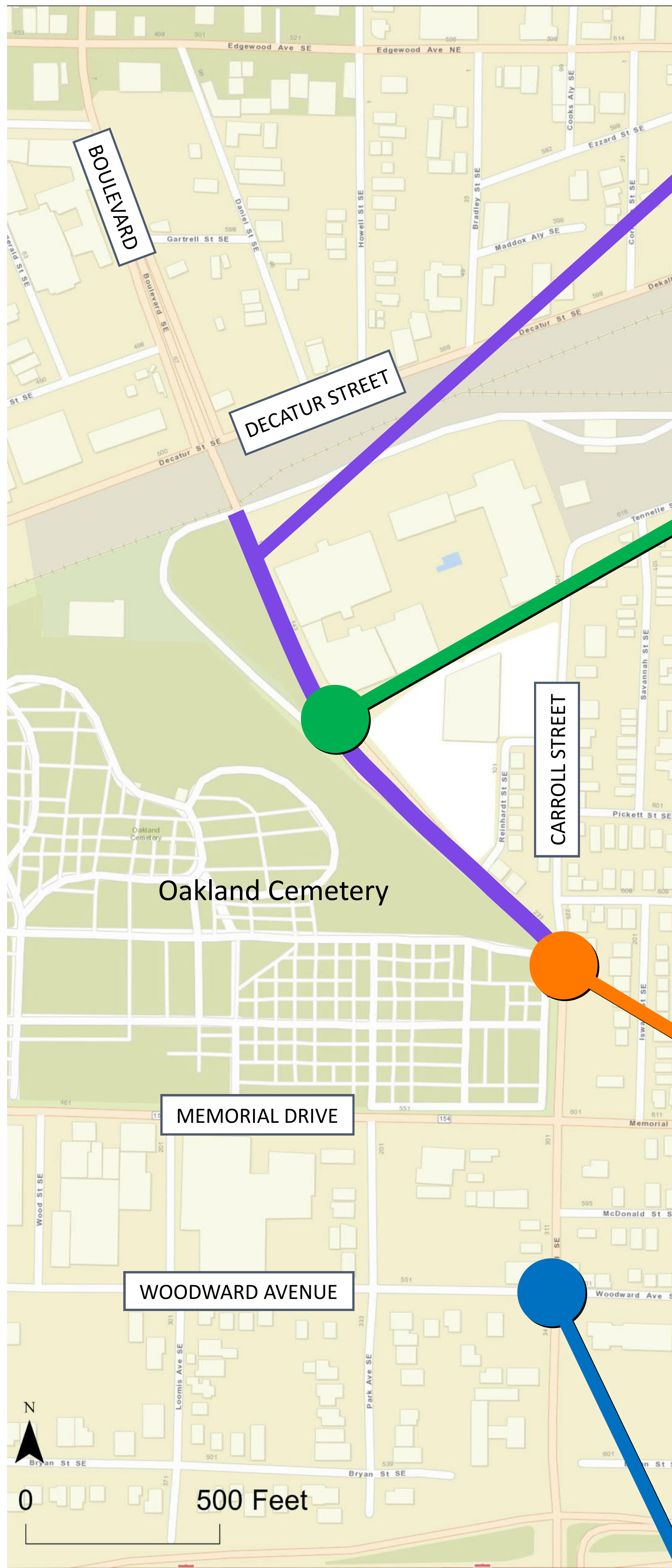


# Monroe Drive / Boulevard Complete Streets: Improvement Opportunities



## Decatur Street to Woodward Ave

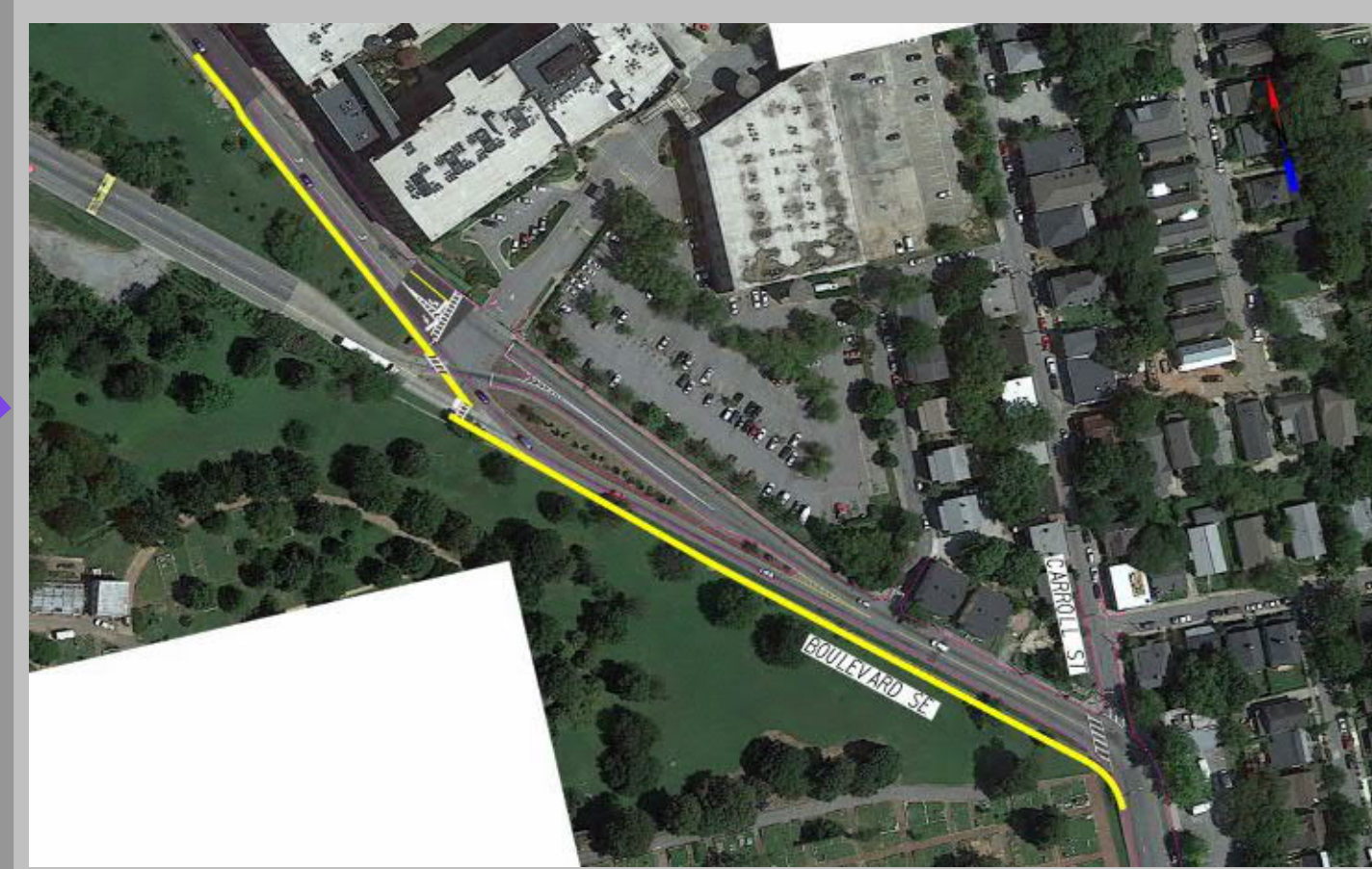


### Preliminary Design Concepts

### Benefits & Impacts

### Comments and Concerns Addressed

#### Boulevard between Carroll Street to Decatur Street Sidewalk Extension



#### Alternative Modes:

- Fills sidewalk gap between Oakland Cemetery and Decatur Street bridge

#### Safety:

- Enhanced pedestrian safety through decreased crossing distances and minimized crossings at unsignalized locations\*

#### Performance:

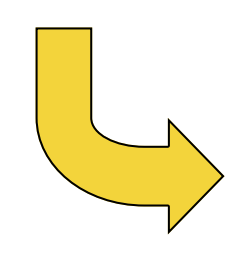
- No impact to vehicle travel times or delay

#### Constructability:

- Plausible within existing right-of-way

#### BOULEVARD FROM CARROLL STREET TO DEKALB AVENUE

- Northeast side of Oakland Cemetery needs a sidewalk continuing up to the Boulevard tunnel (Public Comment)
- Continue sidewalk on south side of DeKalb Avenue crossing Boulevard (Transit Oriented Atlanta)
- Add a sidewalk along the northeast wall of the cemetery (west side of Boulevard), connecting the existing sidewalk that ends at Carroll St. with the CSX underpass and stairwell (Boulevard Road Safety Audit)



Installation of a left turn flashing yellow arrow (FYA) signal phase on Boulevard at Fulton Cotton Mill Lofts driveway

#### Safety:

- Potential increase in the chance of a vehicle-pedestrian crash by 12.4%\*\*\*

#### Performance:

- Decrease in southbound delay

#### Constructability:

- Plausible within existing right-of-way

#### BOULEVARD AT CARROLL STREET

- Install crosswalk lights to help vehicles notice pedestrians at crossings (Public Comment)
- Create safer pedestrian crossings (Public Comment)
- Improve the pedestrian crossing at the intersection of Boulevard and Carroll Street (Public Comment)
- Traffic signal/RRFB at Carroll Street and Boulevard (Transit Oriented Atlanta)
- The Boulevard Road Safety Audit recommends that the existing crosswalk be moved approximately 100 feet to the southeast, where visibility is improved (Boulevard Road Safety Audit Report)

#### Boulevard at Carroll Street Pedestrian Crossing and Upgrade Flashing Beacons



#### Alternative Modes:

- Larger refuge on west side of Boulevard
- Increased visibility at crossing

#### Safety:

- Enhanced pedestrian safety due to increased visibility
- Potential to reduce angle collisions by 5%\*\*

#### Performance:

- No impacts to vehicle travel times and delays

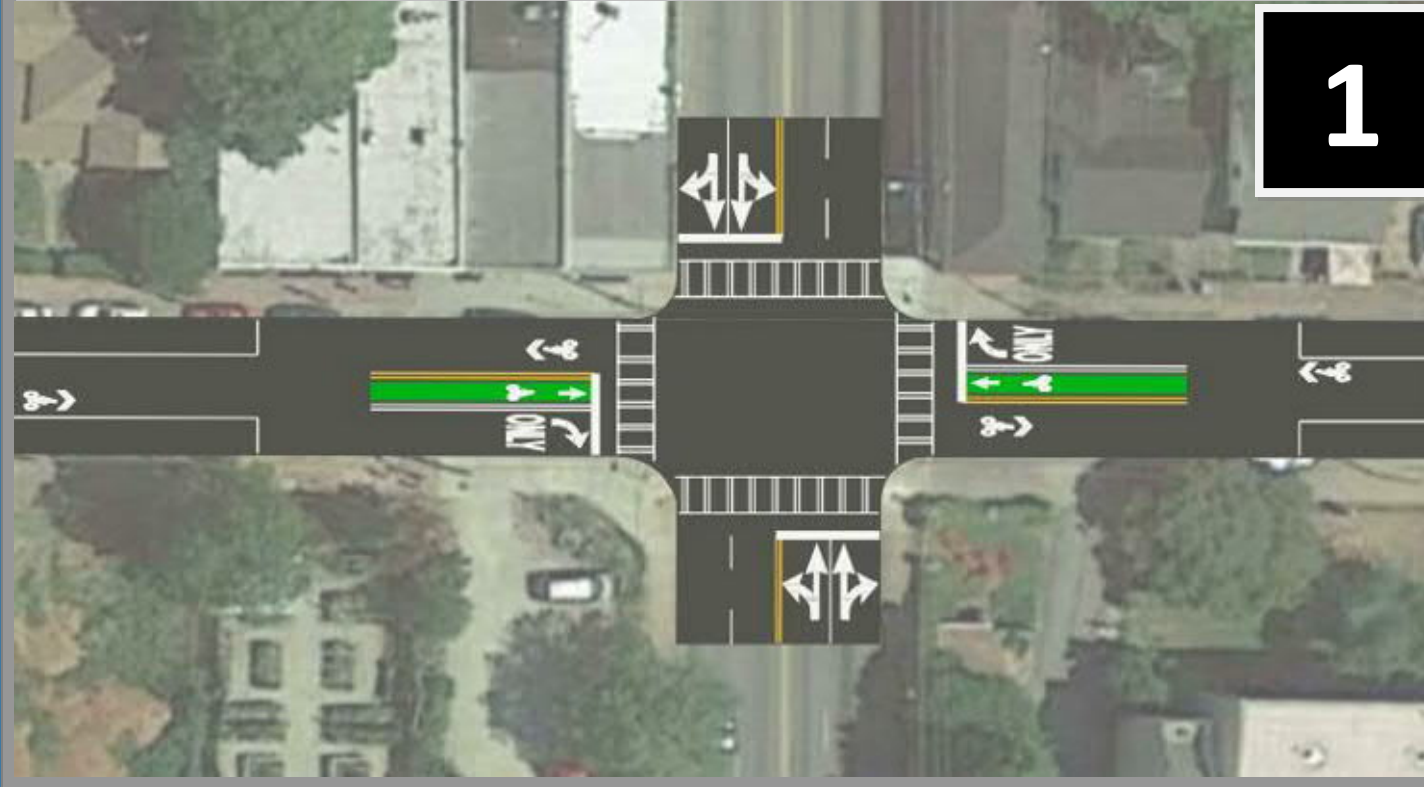
#### Constructability:

- Plausible within existing right-of-way

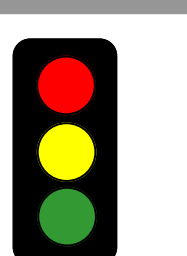
#### BOULEVARD AT WOODWARD AVENUE

- On-street parking makes it dangerous for cars turning off of the side streets due to limited visibility (Public Comment)
- The intersection of Boulevard and Woodward Avenue needs a traffic signal or stop sign (Public Comment)
- Traffic impact study for the installation of a Pedestrian Hybrid Beacon (PHB) or full traffic control signal to provide a safe Boulevard crossing along the Woodward Avenue neighborhood greenway (Boulevard Safety Audit Report)
- Woodward Avenue is identified as a future "Bicycle Boulevard", which would provide bicyclists with a wider east-west route. This would emphasize free movement of bicycles and calmed vehicle traffic and provide an alternative to Memorial Drive. Another recommendation of the plan is for a pedestrian hybrid beacon at the intersection of Boulevard and Woodward Avenue. (BeltLine Master Plan: Subarea 4)

#### Boulevard at Woodward Avenue Bicycle Signal



1



Construction of a conventional traffic signal for the Boulevard at Woodward Avenue intersection

2

#### Alternative Modes:

- Protected bike crossing along Woodward Avenue
- Reduced vehicle access to Woodward Avenue (bike route)

#### Safety:

- Increased bicycle safety due to minimized exposure to vehicles, decreased number of conflict points, and the provision of a protected bicycle signal phase
- Potential to reduce the number of pedestrian crashes by 69%\*\*\*\*

#### Performance:

- Minimal impacts to north-south travel times and delays
- Bicycles will be required to wait up to one minute on average for the signal

#### Constructability:

- Plausible within existing right-of-way

\* Boulevard Road Safety Audit Report, pg. 2

\*\* Highway Safety Manual (AASHTO, 2010)

\*\*\* Safety Effectiveness of Flashing Yellow Arrow: Evaluation of 222 Signalized Intersections in North Carolina (Simpson, C.L. and S.A. Troy, 2015)

\*\*\*\* A Full Bayes Multivariate Intervention Model with Random Parameters Among Matched Pairs for Before-After Safety Evaluation (El-Basyouny and Sayed, 2011)