

# **TSPLOST 2026 PROJECT SUBMISSION**



**TRANSPORTATION AND PUBLIC WORKS  
DEPARTMENT**



# **INTERSECTION IMPROVEMENT PROGRAM**



# INTERSECTION IMPROVEMENT PROGRAM

## *Summary of need:*

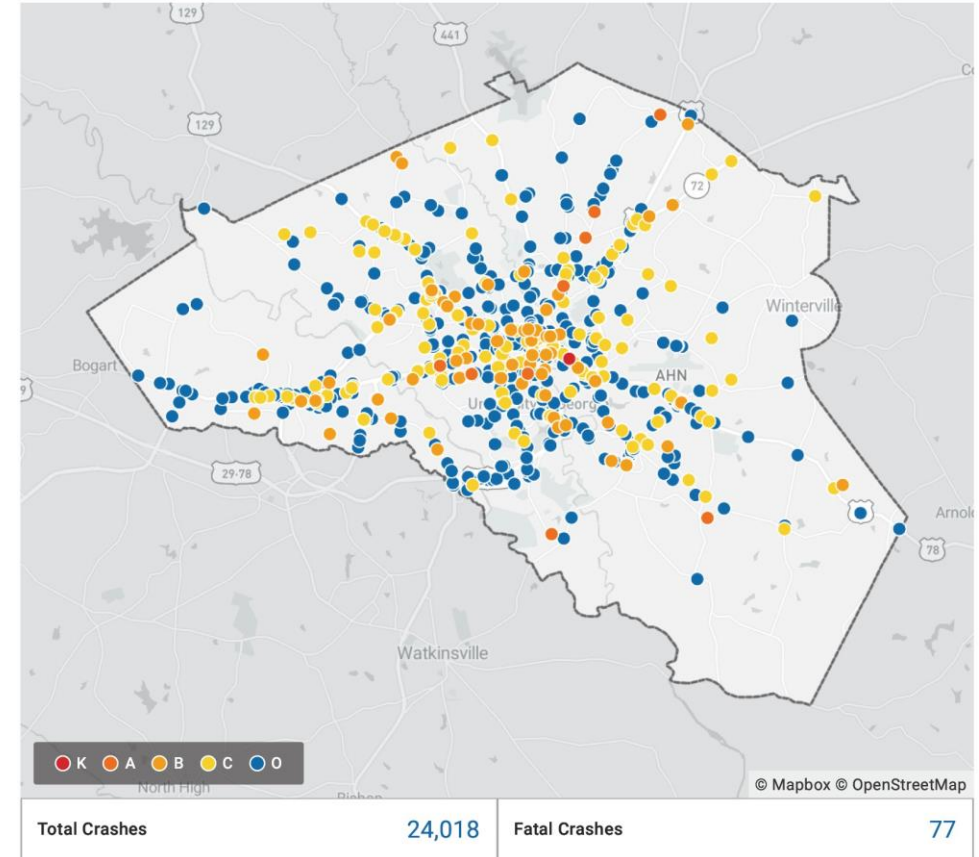
- Intersections are high-risk conflict points where vehicle, pedestrian, and bicycle movements converge.
- Current safety challenges include poor visibility, outdated signals, improper signal timing, and lack of pedestrian infrastructure.
- Proactive intersection improvements can **significantly reduce crashes, improve mobility, and enhance multimodal access.**



# INTERSECTION IMPROVEMENT PROGRAM

## *Summary of need:*

- Approximately 61% of all traffic fatalities in Georgia occur at or adjacent to intersections. In Athens, that number is 66%.
- Approximately 66% of all traffic crashes in Georgia occur at or adjacent to intersections. In Athens, that number is almost 73%.
- In Athens-Clarke County (ACC), from 2019-2023, 17,470 crashes occurred at or near intersections, resulting in 212 serious injuries and 51 fatalities.



Crash Type	Total Crashes	Athens-Clarke County	Region	State
Intersection Related	17,470	72.74%	66.03%	66.35%

# INTERSECTION IMPROVEMENT PROGRAM

## *Project Description:*

- This program funds the design and construction of intersection safety and operational improvements across ACC.
- A new prioritization matrix will be developed to systematically rank high-risk intersections based on crash data, congestion, and multimodal accessibility.
- The program will support:
  - Already approved projects approaching construction.
  - Newly identified high-priority intersections requiring upgrades.
- Aligns with ACC's commitment to Vision Zero and the Local Road Safety Plan.



# INTERSECTION IMPROVEMENT PROGRAM

## *Possible Project Elements:*

- **Signal Upgrades** (Enhanced timing, adaptive signals, and visibility improvements)
- **Roundabouts** (Replacing high-crash intersections with safer, more efficient roundabouts)
- **Geometric Modifications** (Realigning intersections for safer vehicle movement)
- **Pedestrian and Bicycle Safety Features** (High-visibility crosswalks, pedestrian refuge islands, bike lanes)
- **Smart Intersection Technology** (Connected vehicle infrastructure, real-time traffic monitoring)





# INTERSECTION IMPROVEMENT PROGRAM

## Prioritization Methodology:

- Develop a weighted scoring system incorporating:
  - Crash frequency and severity (pedestrian, cyclist, vehicle-involved crashes).
  - Traffic congestion and operational efficiency.
  - Equity factors (historically underserved areas and vulnerable populations).
  - Multimodal access (proximity to transit, bike lanes, and pedestrian crossings).
- Incorporate real-time data analysis for dynamic updates.
- Engage community stakeholders to refine prioritization criteria.

Criteria	Methodology	Weight	Notes
Safety/Crash Rate	GDOT/HSM Rating $((5 * \text{Excess FI}) + [\text{Excess PDO}])$ combined with Severity Index over Volume $((12 * F) + [3 * I] + [1 * \text{PDO}]) / (\text{Volume per million vehicles})$	40%	GDOT Formula 3-year counts [2012-2014] Excess FI = Fatalities and Injuries above and beyond expected amount Excess PDO = Property Damage Only crashes above and beyond expected amount U.S. DoT Formula 5-year counts [2013-2017] of the following) F=Fatality I=Injuries PDO=Property Damage Only Volume= number of entering vehicles pulled from GDOT 3-year counts [2012-2014] / 1,000,000
Current Service/Highway Sufficiency Rating	Highway Capacity Manual Formula	15%	Synchro
Corridors with current traffic volume capacity issues	Volume-to-Capacity Ratio >1	7.5%	Synchro (current condition)
Corridors with future projected traffic volume capacity issues	Volume-to-Capacity Ratio >1	7.5%	Synchro (20 Year Projection)
Included in TIP or LRTP	Binary Yes/No	5%	
Project Concept Includes Active Transportation Enhancements	Binary Yes/No	10%	
Project is on ACC Bus Route	Binary Yes/No	10%	
Economic Impact/Opportunities		5%	Is the location either: 1) in the ATL Corridor; 2) in the Lexington Corridor; 3) in an Opportunity Zone; 4) or has at least three corners of its intersection as operating commercial and one corner as non-operational/other use
		<b>Total</b>	<b>100%</b>

# INTERSECTION IMPROVEMENT PROGRAM

## *Budget / Program*

### *Deliverables:*

- Creation of the Prioritization matrix
- Implementation of 2-3 major intersection improvements within the next 5 years
- Provides local grant match for existing and upcoming intersection projects

Project Costs (round to thousand)	Amount
1. Land Acquisition / ROW / Easement:	\$980,000
2. Design Fees: (Minimum of 12% of Construction costs for new construction)	\$1,176,000
3. Miscellaneous Fees: (Minimum of 3% of Construction costs – used for permitting, etc. Utilize minimum of 10% if land acquisition is necessary)	\$490,000
4. Construction: (Provide a detailed cost estimate of this component)	\$9,800,000
5. Construction Contingency: (Calculate at 10% of the Construction line item. If additional Construction Contingency is needed, use one of the “Other” below)	\$980,000
6. Acquisition of Capital Equipment:	
7. Testing: (Minimum of 3% of construction costs for project whose construction component if over \$1 million and 5% for those whose construction component between \$1 million and \$500,000 and 10% of construction costs for projects less than \$500,000.	\$294,000
8. Project Management: (Calculate at 4% of total budget line items above)	\$549,000
9. Project Contingency: (Calculate at 10% of the total budget line items above. If additional Project Contingency is needed, use one of the “Other” below)	\$1,427,000
10. Public Art: (Calculate at 1% of the Construction line item)	\$98,000
11. Other (describe): Smart Systems Integration	\$200,000
12. Other (describe): Public Outreach/Education	\$150,000
<b>Project Subtotal:</b>	\$16,144,000
14. Program Management (Calculate at 2% of Project Subtotal):	\$323,000
<b>TSPLOST 2026 Project Total:</b>	<b>\$16,467,000</b>



# INTERSECTION IMPROVEMENT PROGRAM

## *Community Impact:*

- Reduction in intersection-related crashes, injuries, and fatalities
- Safer conditions for all users, including pedestrians and cyclists
- Improved traffic flow and reduced congestion
- Enhanced emergency response times



# INTERSECTION IMPROVEMENT PROGRAM

## *Impacts of Not Funding:*

- Continued **high crash rates and safety risks** at major intersections.
- Increasing **traffic congestion and delays** due to outdated infrastructure.
- Missed opportunities for **federal and state safety funding**.
- **Disproportionate safety impacts** on pedestrians, cyclists, and underserved areas.
- Higher long-term costs due to **reactive, rather than proactive, infrastructure fixes**.
- Greater **burden on the general fund and property taxes**. General funds would only provide limited funding to address local issues on a smaller scale.

# INTERSECTION IMPROVEMENT PROGRAM

## *Equity Considerations:*

- Prioritizes **high-crash, high-need intersections** based on data-driven analysis.
- Focuses on areas with **historically underserved communities** and multimodal users.
- Enhances safe **pedestrian and bicycle crossings** in key corridors.
- Aligns with Vision Zero's **commitment to equitable transportation safety improvements**.
- Incorporating complete streets aspects into intersection improvements will enhance ACC's pedestrian and bicycle networks and will fill critical gaps within the Athens in Motion Network while providing connectivity benefits to Transit users as well.



# INTERSECTION IMPROVEMENT PROGRAM

## *M&C Strategic Commitments:*

- ✓ **Goal Area 1; Section D:** Drive community transformation with a focus on creating spaces that are respectful and welcoming
- ✓ **Goal Area 1; Section E:** Support & Promote healthy lifestyle: moving, eating, forming healthy relationships, physical and psychological care
- ✓ **Goal Area 5; Section A:** Improve, expand, and maintain sidewalks, shared-use paths, and bike facilities to provide greater opportunities for residents to use active transportation safely
- ❑ **Goal Area 5; Section B:** Pursue inter-city travel options to connect Athens with other cities
- ✓ **Goal Area 5; Section C:** Expand multi-modal Transit access to reduce auto dependency and provide greater mobility for Athens residents
- ✓ **Goal Area 5; Section D:** Create more usable and aesthetically pleasing corridor connections between residential and commercial areas
- ✓ **Goal Area 5; Section E:** Enhance safety for all modes of transportation
- ✓ **Goal Area 6; Section A:** Develop well-planned new infrastructure according to future land use values and framework
- ✓ **Goal Area 6; Section B:** Ensure equitable access to infrastructure to enhance safety and identity
- ✓ **Goal Area 6; Section C:** Provides adequate funding for maintenance of existing and newly constructed infrastructure
- ✓ **Goal Area 6; Section D:** Follow through on commitment to 100% Clean and Renewable Energy resolution
- ✓ **Goal Area 6; Section E:** Address ecosystem health, infrastructure sustainability, and resilience

# Thank you

**ATHENS-CLARKE COUNTY**