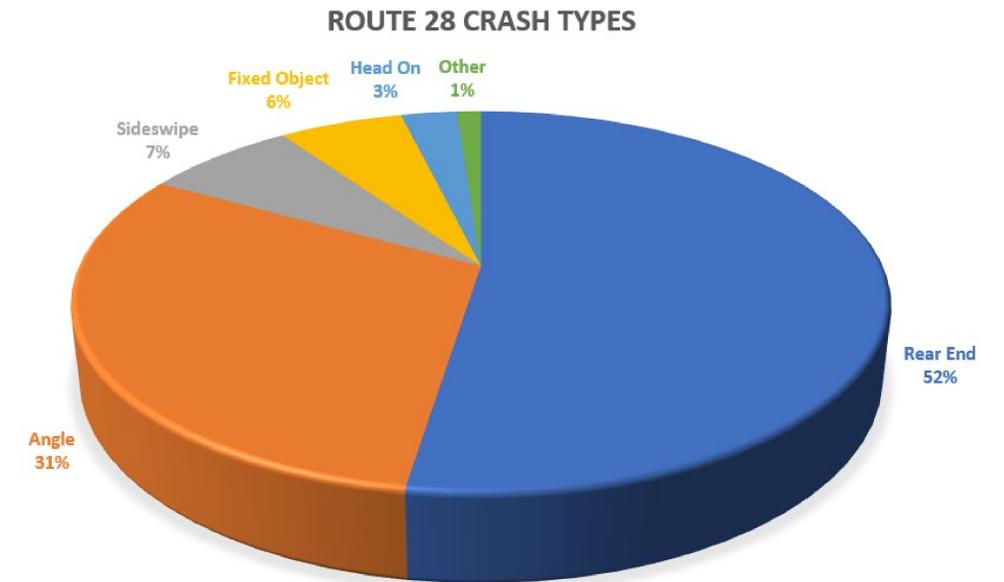
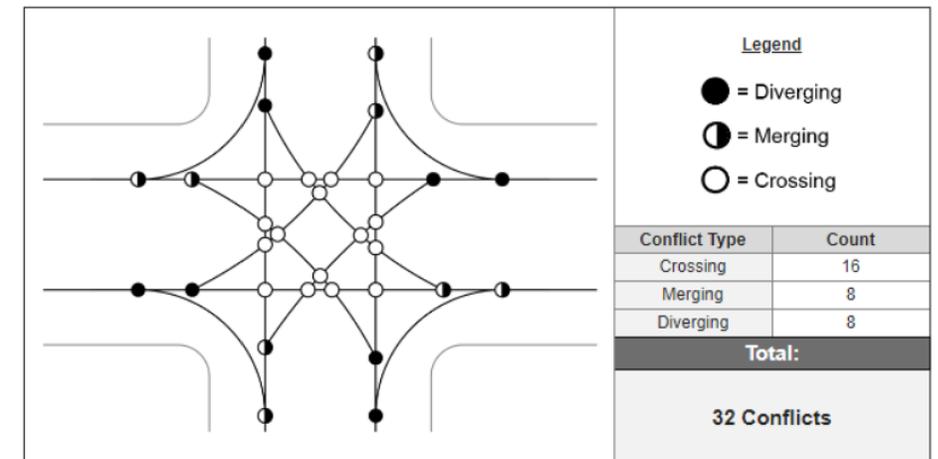


Safety & Operational Benefits

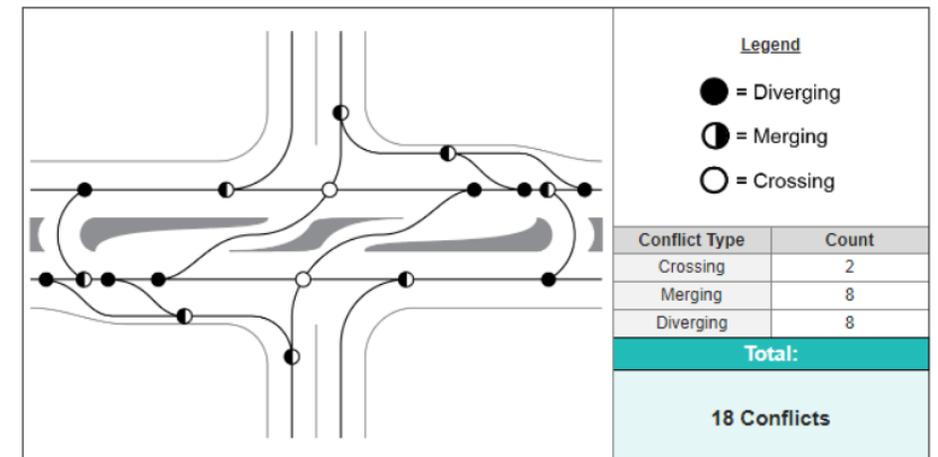
- **Projected Safety Benefits and Crash Reduction**
 - Option 1 – Spot Improvements – Intersection reductions of 5-10%, Corridor reduction of 2-5%
 - Option 2 – Reduction at Intersections of 15-20%, Corridor wide reduction of 7-14%
 - Option 3 – Full corridor reduction of 40-50%
- **Operational Benefits**
 - Option 1 – 30-40% Reduction in Future 2030 AM Peak Travel Times, 10-20% Reduction in PM Peak Travel Time
 - Options 2 & 3 – 40-50% Reduction in Future 2030 AM Peak Travel Times, 20-25% Reduction in PM Peak Travel Times



Conventional Intersection: Conflict Points



RCUT: Conflict Points



Additional Intersection Alternatives

- **Roundabouts at Select Intersections**

- Costs \$7-10 million per intersection
- Operational Analysis shows expected to increase delays in critical directions during peak hours



- **Left Turn Flyover**

- Costs \$20-30 Million
- Only has minor reductions in delay versus Options 1-3



Next Steps

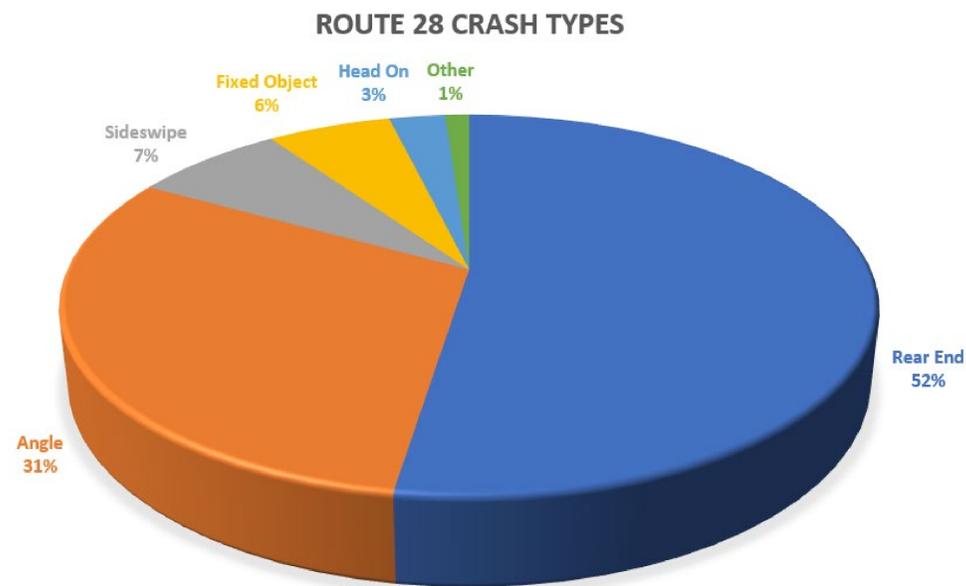
- **Public provides comments and feedback on alternatives online by smart phone or computer by following link located on the Centreville Road Study website**



- **Comment Period Closes – Monday, December 2, 2019**
- **Final Draft of Report – To Be Determined**
- **Study Completion and Availability on Study Website – Winter 2019**
- **Study website for ongoing information:**
 - http://www.virginiadot.org/projects/northernvirginia/centreville_rd_study.asp

Safety & Operational Benefits

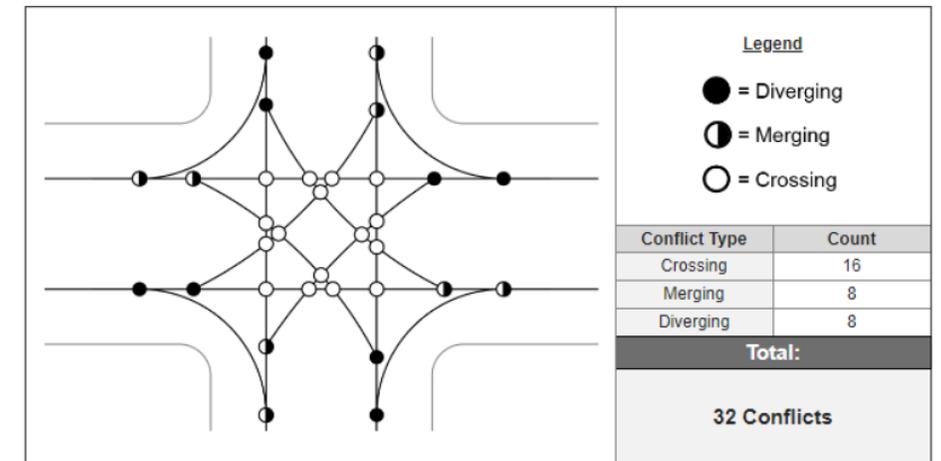
- **Projected Safety Benefits and Crash Reduction**
 - Option 2 – Reduction at Intersections of 15-20%, Corridor wide reduction of 7-14%
 - Option 3 – Full corridor reduction of 40-50%



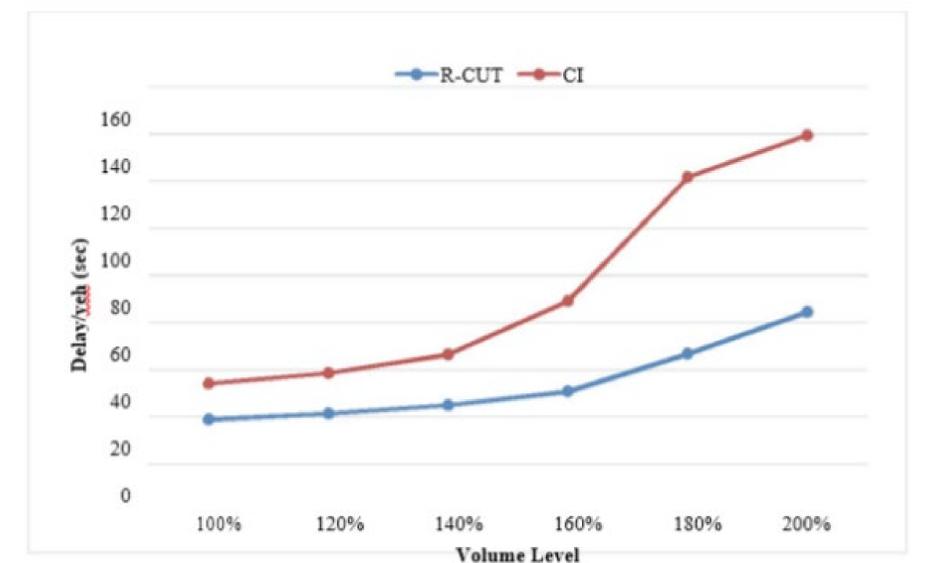
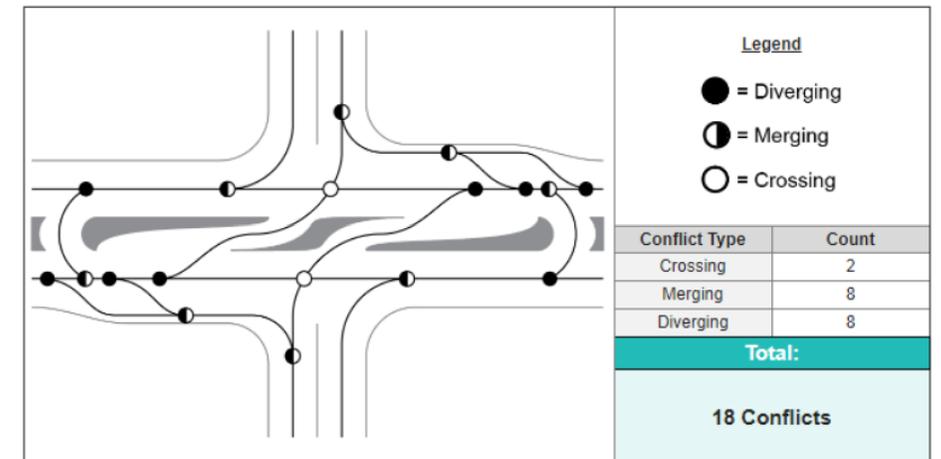
- **Operational Benefits**

- Option 1 – 30-40% Reduction in Future 2030 AM Peak Travel Times, 10-20% Reduction in PM Peak Travel Time
- Options 2 & 3 – 40-50% Reduction in Future 2030 AM Peak Travel Times, 20-25% Reduction in PM Peak Travel Times

Conventional Intersection: Conflict Points



RCUT: Conflict Points



(b) Volume Level versus Delay per vehicle

Hatem A.S., Essam R., Hassan T.A. Assessment of Different Intersection Designs to Accommodate Left Turns Through Indirect Maneuvers. Civil Eng Res J. 2018; 6(3): 555689