

A RESOLUTION AUTHORIZING EXECUTION OF INTERGOVERNMENTAL AGREEMENT BY AND BETWEEN THE CITY OF COMMERCE CITY AND THE COLORADO DEPARTMENT OF TRANSPORTATION REGARDING FUNDING TO UPGRADE THE DETECTION SYSTEMS AND PROVIDE DILEMMA ZONE AND RED PROTECTION AT 12 SIGNALIZED INTERSECTIONS

December 4, 2023 City Council Meeting

Purpose

- Highway Safety Improvement Project (HSIP) grant applied for by City and awarded by CDOT
- Upgrade vehicle detection system and provide dilemma zone and red protection safety improvements at 12 signalized intersections
 - Hwy 2/Rosemary Street/Quebec Parkway
 - Hwy 2/E. 112th Ave.
 - E. 104th Ave./Revere Street
 - E. 104th Ave./Potomac Street
 - E. 104th Ave./King Soopers (west of Chambers Road)
 - E. 104th Ave./Chambers Road
 - E. 104th Ave./Landmark Drive
 - E. 104th Ave./Reunion Parkway
 - Quebec Parkway/E. 72nd Ave.
 - Quebec Parkway/E. 64th Ave./Prairie Parkway
 - Quebec Parkway/E. 60th Ave.
 - Quebec Parkway/E. 58th Ave.
- Focused on high volume intersections with records of broadside and rear end collisions

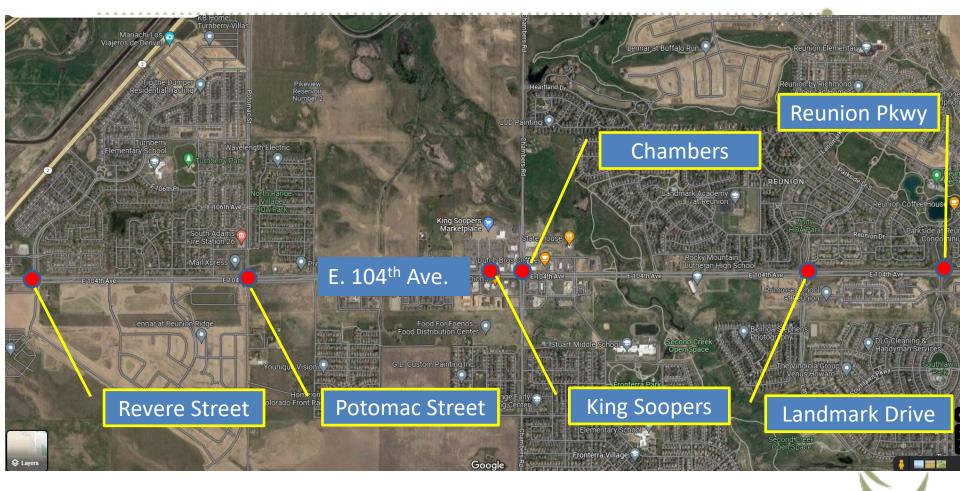


Purpose – continued

- Dilemma Zone Protection Allows the signal controller to extend the green interval until an approaching vehicle proceeds to the intersection before the signal phase transition. The dilemma zone is the area in which it may be difficult for a driver to decide whether to stop or proceed through an intersection at the onset of the yellow signal indication.
- Red Protect Allows the delayed start of an opposing green signal when the detection indicates that a vehicle is traveling at a speed on the approach that is not likely to stop and will not clear the intersection before the end of the red clearance. The red protection is implemented through speed-sensitive radar detection to monitor every vehicle approaching an intersection in the detection zone.



Project Map - A



Project Map - B







Project Map - C





IGA Funding

- IGA Funding
 - \$453,600 FHWA
 - \$50,400 CCC
 - \$504,000 Total Project Cost



Next Steps

- Approve IGA (Q4 2023)
- Develop Project Specifications and Contract (early 2024)
- Issue Request for Bids (mid 2024)
- Award Contract (late 2024)
- Install traffic signal detection equipment (Q4 2025)





Questions?