

REVIEW OPTIONS AND CONSIDER IMPROVEMENTS TO ROUNDBOUT AT BROOKHURST BLVD AND GOLDEN SPIKE TRAIL

CITY COUNCIL REGULAR MEETING

ITEM: 5.3| AUGUST 8, 2022

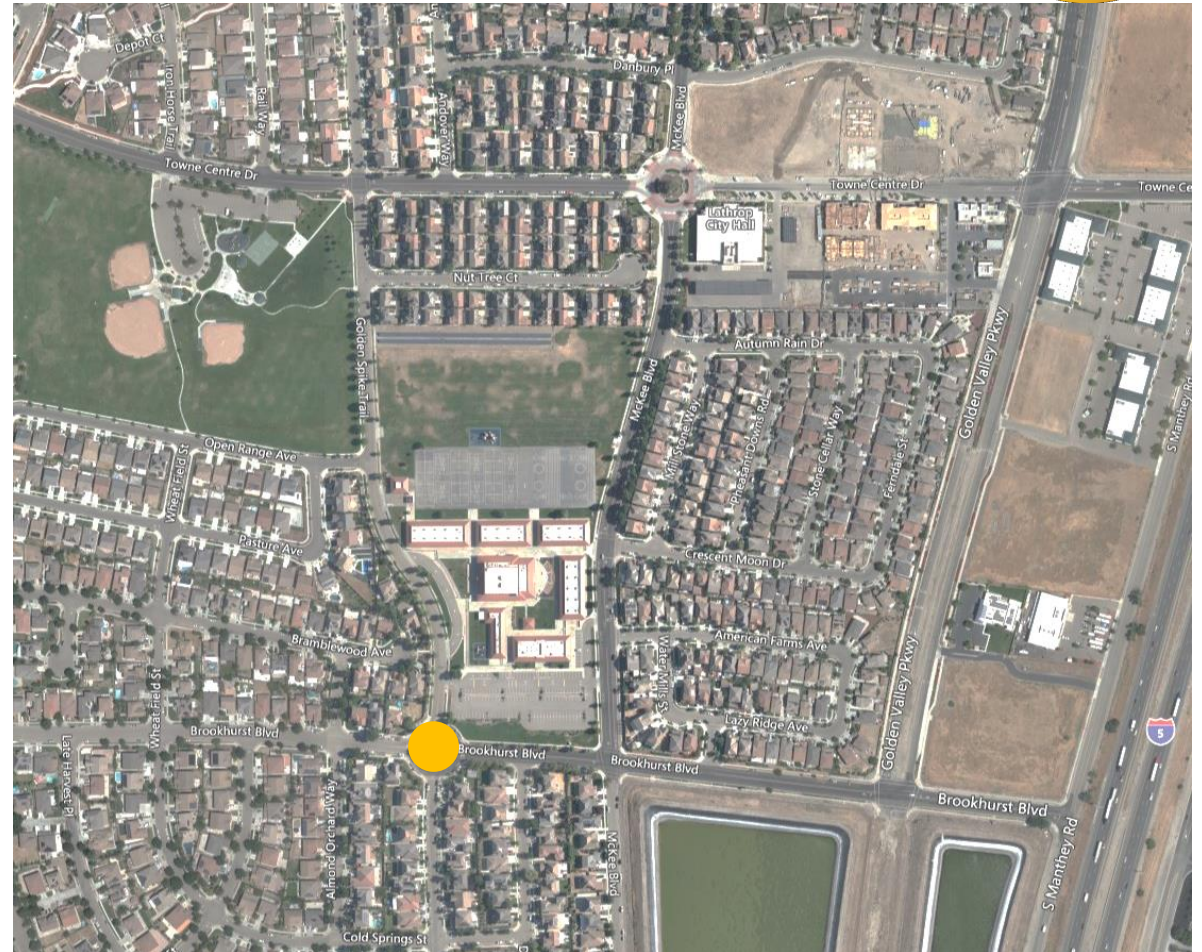


BACKGROUND:



During the July 2022 City Council meeting, Council requested staff to:

- ❑ Reevaluate the Brookhurst Blvd and Golden Spike Trail Roundabout design
- ❑ Present alternative solutions to the previously approved design



EXISTING DESIGN:



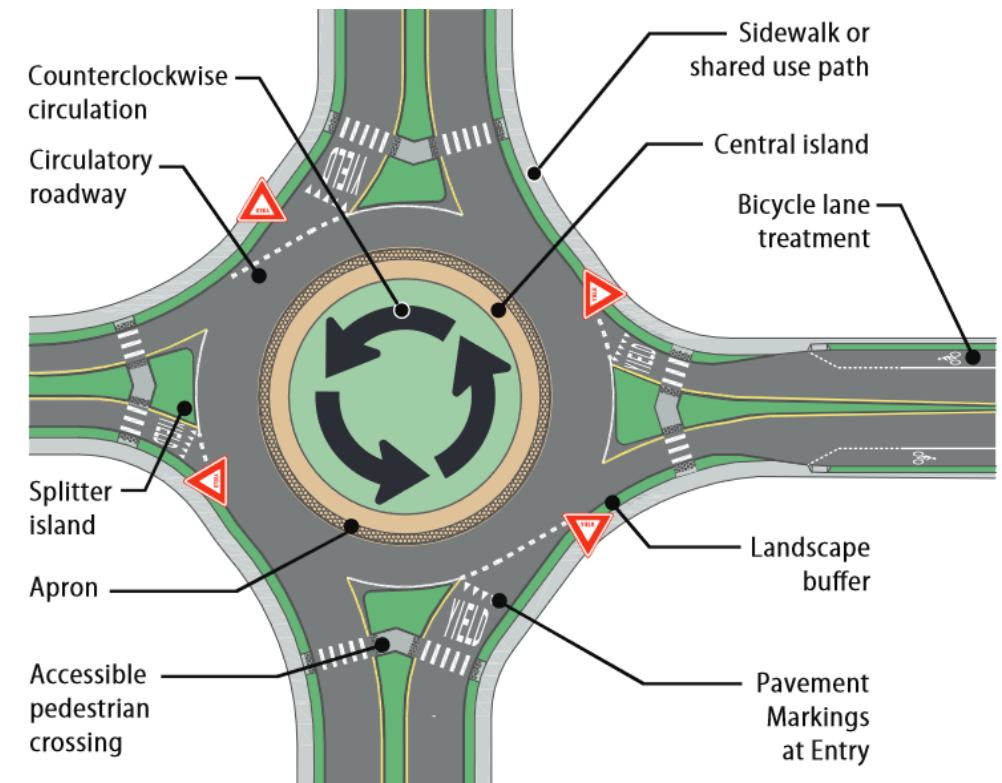
- Designed in 2005 prior to code standards and guidance for roundabout geometry
- Curbs form a circle and the crosswalks are within the roundabout
- Minimal channelization for vehicles and multiple decisions made at a single point when entering the roundabout



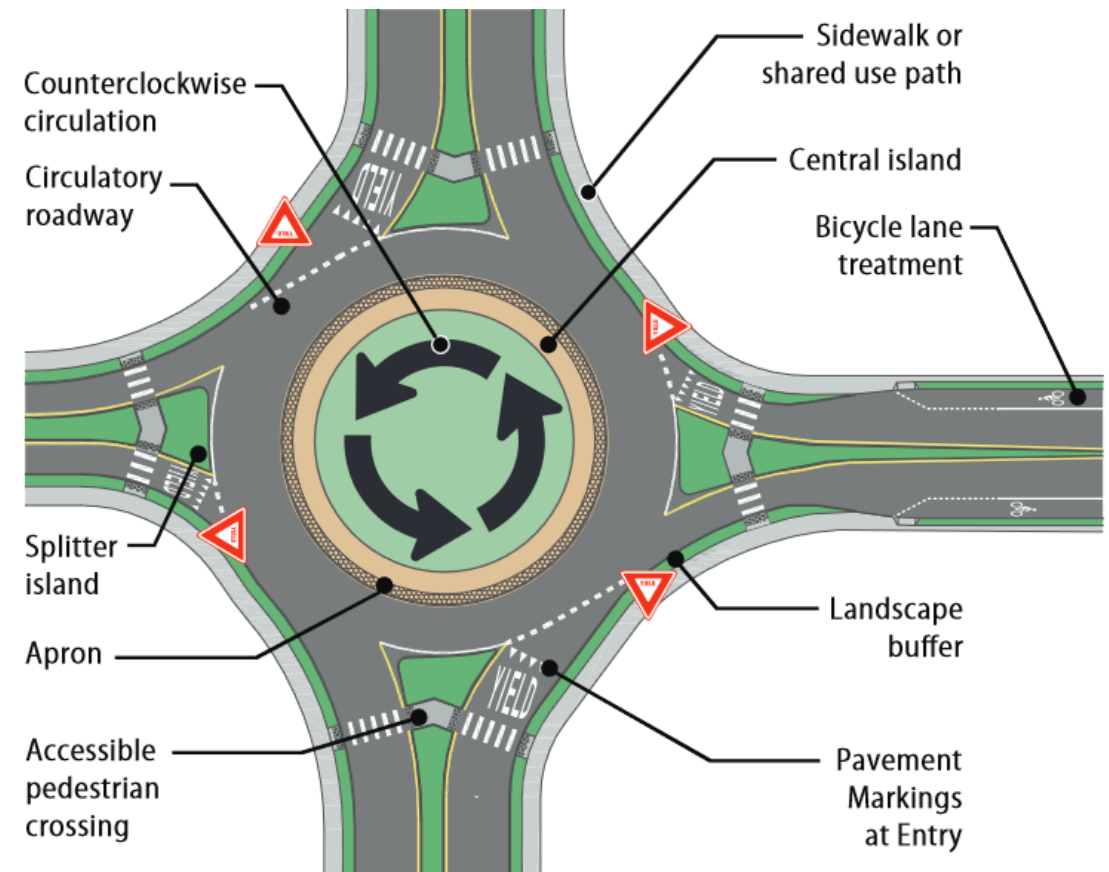
MODERN ROUNDABOUT DESIGN:



- The Federal Highway Administration, Caltrans Highway Design Manual and Manual on Uniform Traffic Control Devices published standards for design of roundabouts
- **Benefits of modern roundabout design:**
 - Increase pedestrian safety
 - Promote lower speeds and traffic calming
 - Reduce conflict points and limit number of decisions at a single point
 - Improved operational performance and capacity



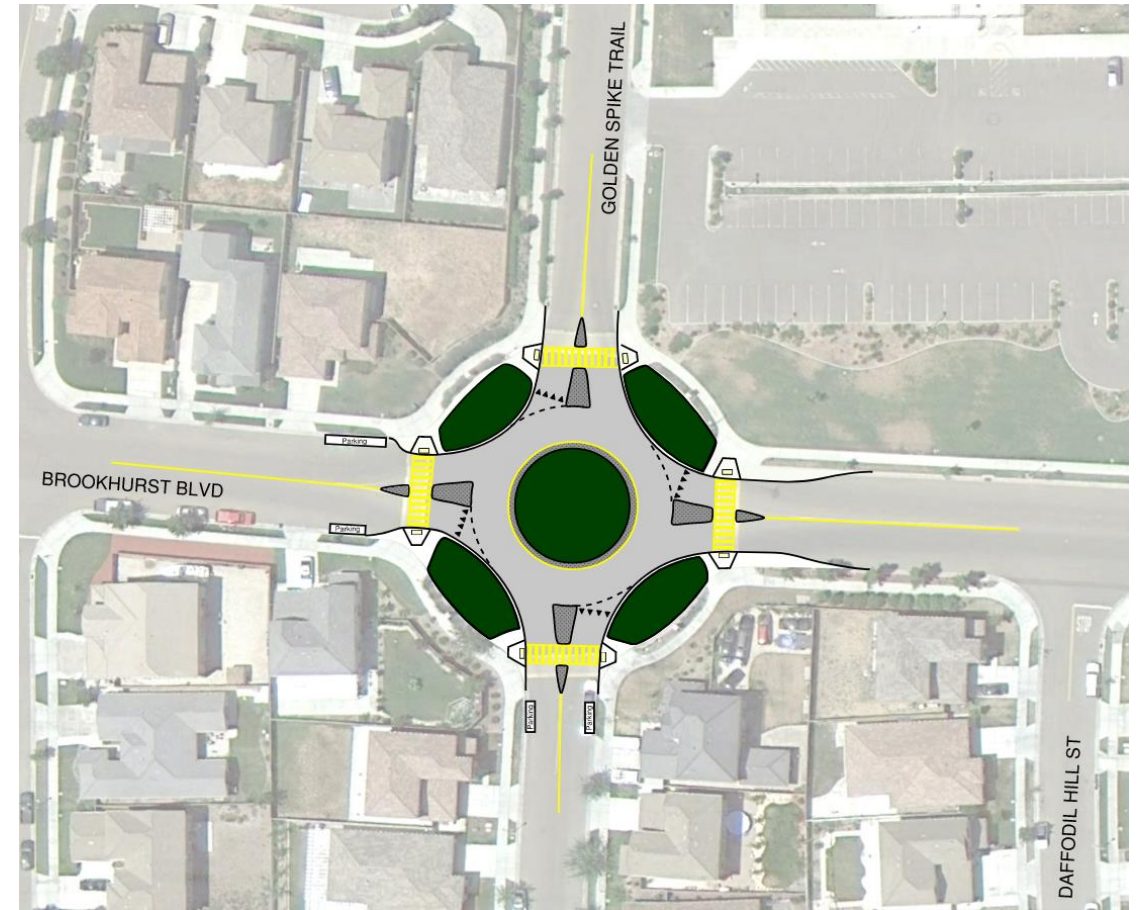
COMPARISON OF EXISTING AND MODERN DESIGN:



OPTION I – REDUCE CENTRAL ISLAND:



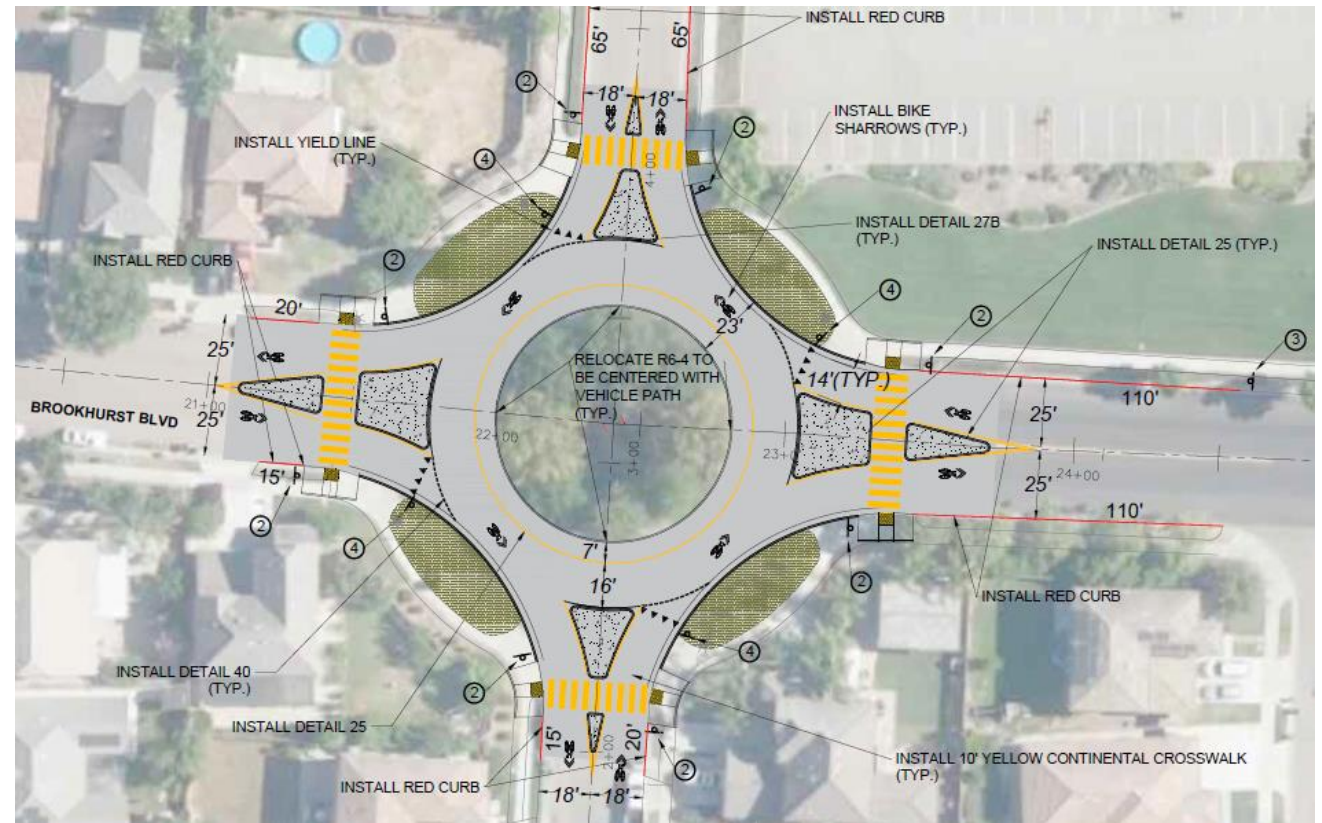
- Achieves modern roundabout design while maintaining existing street parking
- Increases pedestrian safety
- Maintains existing intersection capacity
- \$400,000 + CIP PS 22-41 original cost



OPTION 2 – PROCEED WITH ORIGINAL DESIGN:



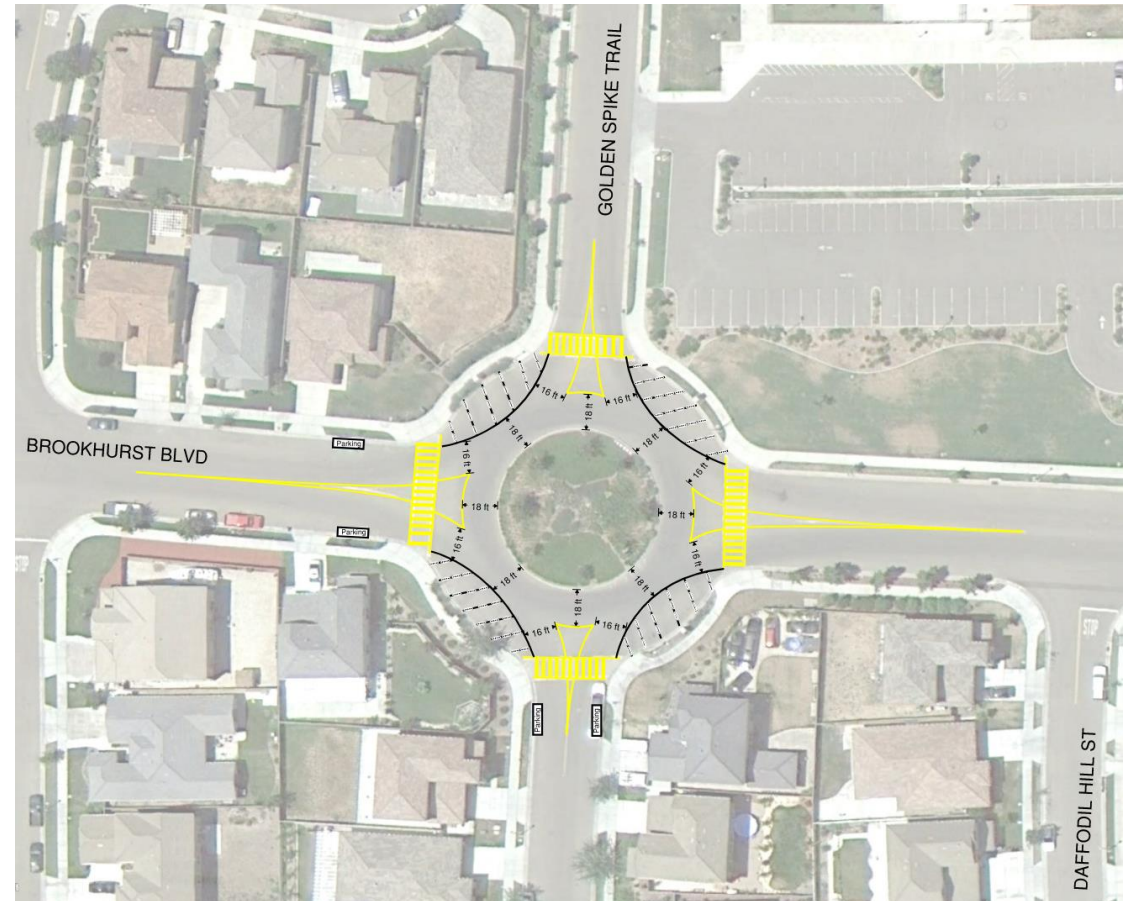
- Achieves modern roundabout design
- Increases pedestrian safety
- Maintains existing intersection capacity
- Eliminates some existing street parking
- CIP PS 22-41 original cost



OPTION 3 – INSTALL DELINEATORS:



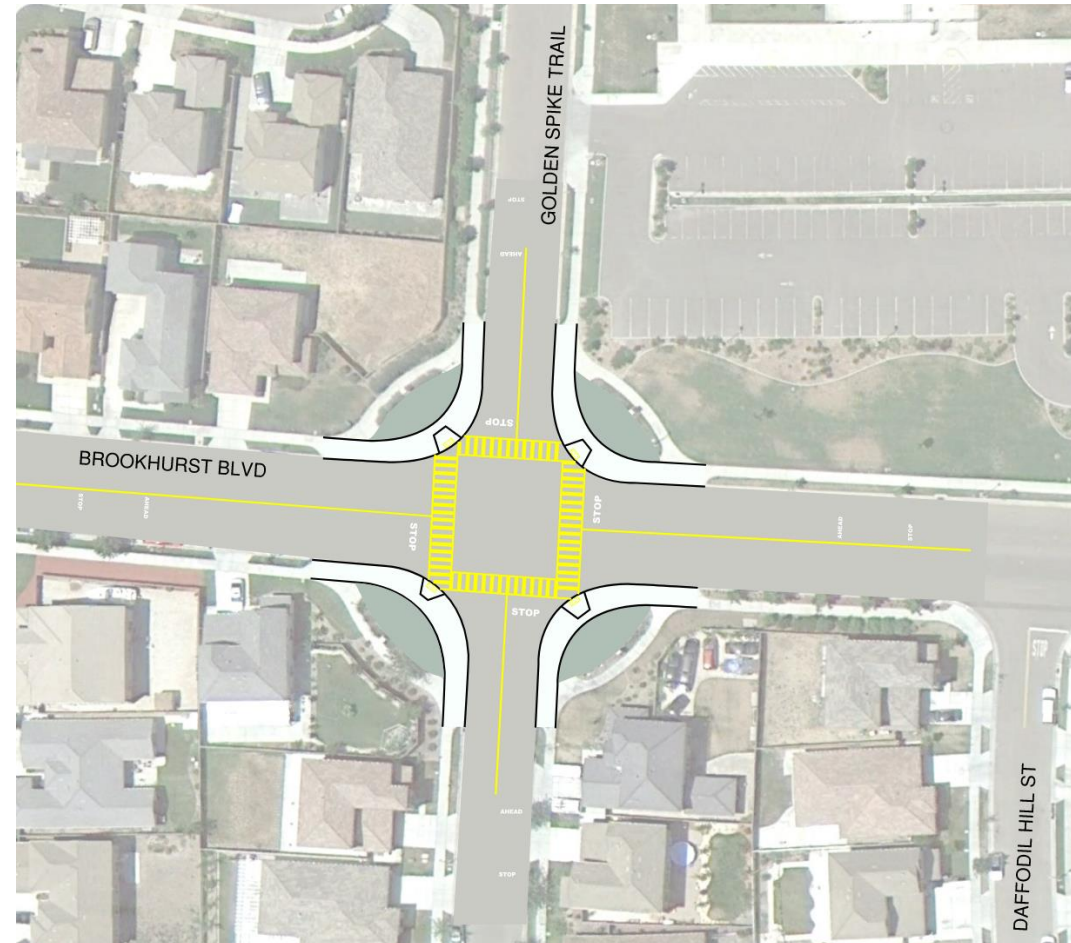
- Striping has been installed as an interim and immediate improvement
- Adding delineators would provide physical channelization of vehicles



OPTION 4 – CONVERT TO ALL-WAY STOP:



- Increases pedestrian safety
- Removal of central island
- Reconstruction of all corners
- Reduces intersection capacity and increases traffic delays
- Impacts underground utilities and street drainage
- Approximate cost is \$1,500,000



RECOMMENDATION:



- Staff recommends that Council considers **Option I** as it provides a modern roundabout design that would reduce vehicle speeds, increase pedestrian safety, maintain intersection capacity and not impact or eliminate existing street parking.