REVIEW AND CONSIDER TRAFFIC SAFETY ENHANCEMENT OPTIONS FOR RIVER ISLANDS PARKWAY AT THE INTERSECTIONS OF BOSCH AVENUE AND IMPERIAL DRIVE, CIP PS 24-07

CITY COUNCIL REGULAR MEETING | OCTOBER 9, 2023 | ITEM: 5.5



RIVER ISLANDS PARKWAY BACKGROUND:

- Posted Speed Limit = 40 MPH
- Designed as a Major Arterial conveying 1961 vehicles per hour at buildout
- Designed with 10 traffic signals and one roundabout
- All traffic control devices have been modelled for buildout of the River Islands Development



BOSCH AVENUE BACKGROUND:

- Currently Two-Way Stop Control
 - Current condition matches ultimate configuration
- Advanced intersection warning signs and cross traffic warning signs added in 2021
- Adjacent intersection conditions
 - Traffic signal at Sidwell Drive to be installed in 6 months
 - Roundabout at Norbeck Drive installed
- No reported collisions
- Staff has received complaints from residents regarding the safety of vehicles turning onto River Islands Parkway from Bosch Avenue





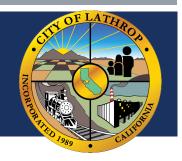
IMPERIAL DRIVE BACKGROUND:

- Currently Two-Way Stop Control
 - □ Current condition matches ultimate configuration
- River Islands Parkway stop control removed and crosswalk enhancements installed two weeks ago
- Adjacent intersection conditions
 - Traffic signals at Somerston Parkway and Dell'Osso Drive installed and turned on two weeks ago
- One reported collision, may be due to change in traffic control conditions
- Staff has received complaints from residents regarding the safety of pedestrians crossing River Islands Parkway at Imperial Drive

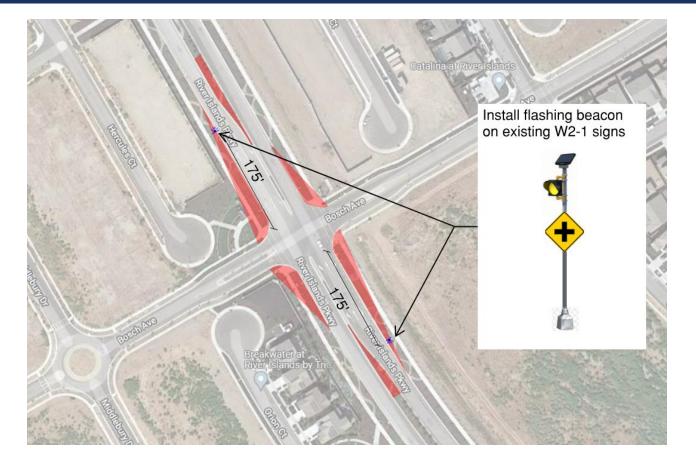




BOSCH AVENUE OPTION I: FLASHING BEACONS & LANDSCAPE REDUCTION



5



Recommended: Adding flashing beacons will enhance the visibility of intersection to drivers on River Islands. Landscape reduction will improve the sight distance for drivers turning left from Bosch Avenue

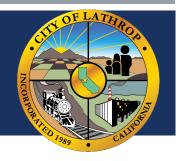
BOSCH AVENUE OPTION 2: PROHIBIT LEFT TURNS DURING PEAK HOURS





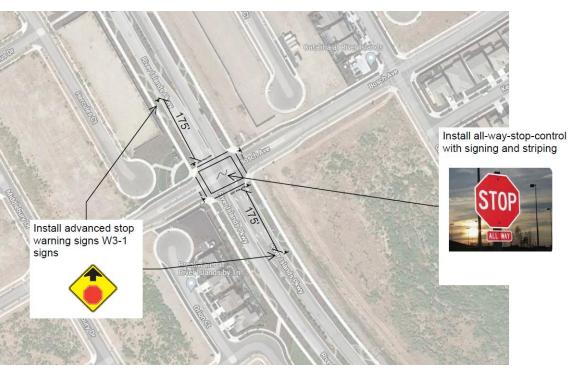
Recommended: Prohibiting left turns from Bosch Avenue to River Islands Parkway from 6 AM – 9 AM and 3 PM – 6 PM will encourage residents to use the adjacent stop controlled or roundabout intersections during the peak traffic hours to ensure safe egress from the neighborhood

BOSCH AVENUE OPTION 3: ALL WAY STOP CONTROL

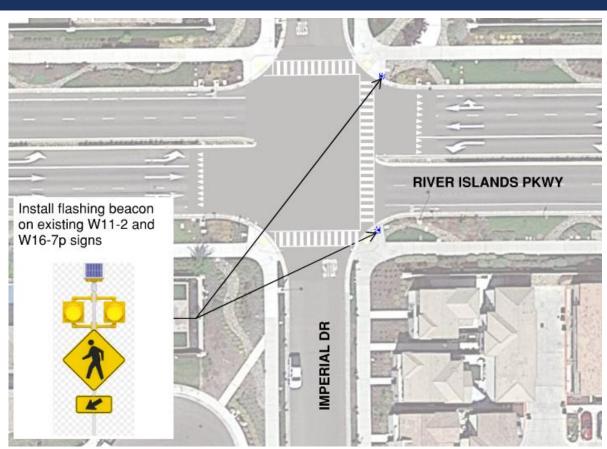


Not Recommended:

- MUTCD Multi-Way Stop Applications criteria is not met
- Currently no reported collisions at this intersection and All-Way Stop Control can increase collisions on the major road (River Islands Parkway)
- In the future, All-Way Stop Control could cause traffic delays of 1.5 minutes on River Islands Parkway and the intersection may operate at an unacceptable LOS F

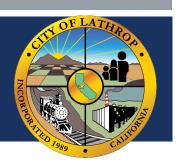


IMPERIAL DRIVE OPTION I: PEDESTRIAN ACTIVATED FLASHING BEACONS



Recommended: The flashing lights will provide an enhanced warning to vehicles that a pedestrian is crossing River Islands Parkway while maintaining the flow of traffic necessary for the proper function of the adjacent traffic signals

IMPERIAL DRIVE OPTION 2: PEDESTRIAN HYBRID BEACON



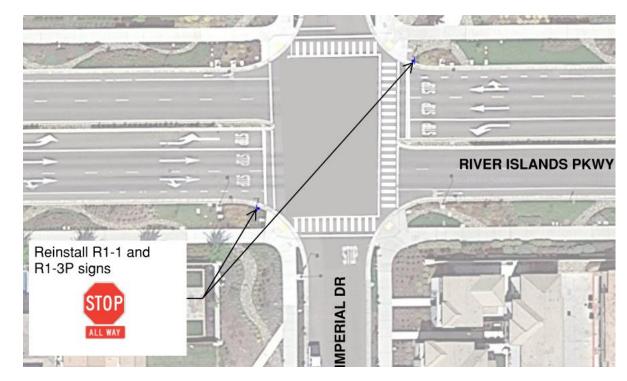


Recommended: The Pedestrian Hybrid Beacon is a pedestrian activated signal and will stop traffic on River Islands Parkway with a red light. Once the pedestrian has cleared the intersection, the light will go dark to allow traffic on River Islands Parkway to flow as needed to maintain the proper function of the adjacent traffic signals

IMPERIAL DRIVE OPTION 3: ALL WAY STOP CONTROL

Not Recommended:

- MUTCD Multi-Way Stop Applications criteria is not met
- All-Way Stop Control will negatively affect the operation of the adjacent signals on River Islands Parkway at Dell'Osso Drive and Somerston Parkway
- In the future, All-Way Stop Control could cause traffic delays of 9 minutes on River Islands Parkway and the intersection may operate at an unacceptable LOS F



RECOMMENDATION:

Bosch Avenue

STAFF RECOMMENDS **OPTION I and/or OPTION 2:**

- Option I: Yellow Flashing Beacons and Sight Distance Improvement
- Option 2: Prohibit Left Turns During Peak Hours

Imperial Drive

STAFF RECOMMENDS **OPTION I and/or OPTION 2**:

Option I: Yellow Flashing Beacons

Option 2: Pedestrian Hybrid Beacon

