

**Meeting Date:** 7/21/2015

**Report Type:** Consent

**Report ID:** 2015-00646

**Title:** Highway Safety Improvement Program (Cycle 7) Grant Applications

**Location:** Citywide

**Recommendation:** Pass a Resolution authorizing the City Manager or his designee to submit Highway Safety Improvement Program grant applications.

**Contact:** Mahesh Bhatt, Associate Engineer, (916) 808-5956; and Hector Barron, City Traffic Engineer, (916) 808-2669

**Presenter:** None

**Department:** Public Works Department

**Division:** Transportation Division

**Dept ID:** 15001911

**Attachments:**

1-Description/Analysis

2-Background

3-Resolution

4-Exhibits A1-A8

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**City Attorney Review**

Approved as to Form

Gerald Hicks

7/14/2015 4:07:18 PM

**Approvals/Acknowledgements**

Department Director or Designee: Jerry Way - 7/2/2015 2:36:11 PM

## Description/Analysis

**Issue:** The California Department of Transportation (Caltrans) has announced the Cycle 7 call for projects for the federal Highway Safety Improvement Program (HSIP) funds. The application due date for this call for projects is July 31, 2015. City Council approval is required to submit the applications for grant funding.

**Policy Considerations:** Funding the projects identified in the Background section of this report is consistent with the City's General Plan goal to promote and support economic vitality by investing in infrastructure development to support sustainable growth.

**Economic Impacts:** None

### Environmental Considerations:

**California Environmental Quality Act (CEQA):** This activity involves submitting HSIP grant applications. Since submitting grant applications does not have a potential for causing significant effects on the environment, it is not subject to CEQA pursuant to CEQA Guidelines Section 15061(b)(3). Any projects funded with the subject grant will undergo appropriate environmental review.

**Sustainability:** The projects identified for HSIP grant applications are consistent with the City's Sustainability Master Plan and are aimed at addressing the goals and targets set forth in the Transportation Infrastructure and Air Quality Focus Areas by improving and optimizing transportation infrastructure.

**Commission/Committee Action:** None.

**Rationale for Recommendation:** Staff routinely evaluates the City's roadway network as part of proactive safety management to review traffic operations and identify potential safety improvement projects. The projects recommended for HSIP grant applications are consistent with Caltrans' guidelines and criteria for the subject grant, and represent the most competitive candidate projects. The Background section of this report summarizes Caltrans' guidelines and criteria pertaining to selection of the projects for the HSIP grant funding.

Obtaining grant funding for the recommended projects will provide an opportunity to enhance overall traffic safety and operation, citywide.

**Financial Considerations:** The estimated combined cost of the proposed projects is approximately \$13.88 million; the total cost may vary marginally in the final applications depending on the final scope of individual projects. The anticipated local match is approximately 11%. If the requested grant is awarded by the State, the required match will be provided from local transportation funds. Staff will return to Council to appropriate funding and create Capital Improvement Projects (CIPs). There are no General Funds planned or allocated for these projects.

**Local Business Enterprise (LBE):** Not applicable, as no goods or services are being procured with this action.

## Background

The California Department of Transportation (Caltrans) has announced Cycle 7 Call for Projects for the Highway Safety Improvement Program (HSIP). This Call for Projects is targeted for approximately \$150 million of federal HSIP funds based on the estimated programming capacity in the 2015 Federal Statewide Transportation Improvement Program (FSTIP). At present it is anticipated that the maximum funding an agency can receive for HSIP Cycle 7 is \$10 million.

Caltrans' Guidelines and Criteria: The guidelines for the HSIP grant require that federal funds be expended on safety projects that can be designed and constructed expeditiously. For a project to be eligible for HSIP grant, a specific safety problem must be identified and the proposed countermeasure(s) must substantially address the condition. Additionally, the projects should not require the acquisition of significant right of way, nor should they require extensive environmental review and mitigation. All proposed projects will be evaluated based on the Benefit/Cost (B/C) ratios. The B/C ratio of a project is a quantitative measure commonly used in prioritizing safety improvement projects and countermeasures. It expresses benefits in monetary terms by estimating the number of crashes avoided as a result of the countermeasure, the monetary value of each avoided crash, and the cost of implementing the countermeasure. The minimum B/C ratio for a project to be eligible for local HSIP funding is 5.0. All proposed projects will be prioritized in descending order, statewide, by the calculated B/C ratios. Projects with highest B/C ratios will be selected for funding.

Recommended Projects: Given the competition among agencies across the state for HSIP grant, the candidate projects need to be competitive in order to increase the probability of getting funded. The Transportation Division of the Department of Public Works routinely evaluates the City's roadway network as part of proactive safety management to review traffic operations and identify potential improvements. The projects identified in the following table meet the above mentioned guidelines and criteria for the HSIP grant, and represent the most competitive candidate projects to apply for the subject grant.

### Projects Recommended for HSIP Grant Applications

<b>Project Name</b>	<b>Benefit/Cost (B/C) Ratio</b>	<b>Grant Amount Requested</b>
(1) Install Rectangular Rapid Flashing Beacons (RRFBs) at eleven locations at uncontrolled pedestrian crossings.	41.05	\$0.56 million
(2) Provide advanced dilemma zone detection for high speed approaches at six intersections including	24.83	\$0.51 million

Project Name	Benefit/Cost (B/C) Ratio	Grant Amount Requested
upgrades to pedestrian and vehicle signal heads.		
(3) Install/upgrade vehicle and pedestrian signal heads; and install emergency vehicle pre-emption systems for various intersections.	20.90	\$3.77 million
(4) Add street lighting on: Freeport Blvd from Meadowview Rd to Florin Rd; Meadowview Rd from Amherst St to 24th St; and Rio Linda Blvd from North Ave to Claire Ave.	16.92	\$2.23 million
(5) Install Pedestrian Hybrid Beacons (PHBs) at nine locations at uncontrolled pedestrian crossings.	11.20	\$1.80 million
(6) Convert traffic signals from pedestal-mounted to mast arm-mounted at seven intersections.	10.11	\$1.35 million
(7) Improve traffic signal timing, coordination, and phasing on Stockton Blvd from Alhambra Blvd to Lemon Hill Ave.	7.75	\$1.06 million
(8) Improve traffic signal timing, coordination, and phasing; convert signals from pedestal-mounted to mast arm-mounted; and provide advanced dilemma zone detection on Florin Rd from 24 <sup>th</sup> St to South Land Park Dr.	6.01	\$2.60 million
<b>Total Grant Amount Requested</b>		<b>\$13.88 million</b>

The maximum funding an agency can receive for HSIP Cycle 7 is anticipated to be \$10 million. However, the requested grant amount is higher than \$10 million. This request is based on an anticipation to take advantage from the potential surplus federal funding in the event that Caltrans does not receive adequate number of qualifying and competitive applications, statewide.

## **RESOLUTION NO.**

Adopted by the Sacramento City Council

### **AUTHORIZATION TO APPLY FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (CYCLE 7) GRANT**

#### **BACKGROUND**

- A. The California Department of Transportation (Caltrans) has announced Cycle 7 call for projects for the federal Highway Safety Improvement Program (HSIP) funds.
- B. Staff routinely evaluates the City's roadway network as part of proactive safety management to review traffic operations and identify potential safety improvement projects. The projects recommended in the previous section of this report for HSIP grant applications are consistent with Caltrans' guidelines and criteria for the subject grant, and represent the most competitive candidate projects.
- C. The estimated cost of the proposed projects is approximately \$13.88 million; the total cost may vary marginally in the final applications depending on the final scope of individual projects. The anticipated local match is approximately 11%. If the requested grant is awarded by the State, the required match will be provided from local transportation funds.

#### **BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:**

- Section 1. The City Manager or his designee is authorized to submit the applications for the following projects for HSIP grant (Cycle 7):
- (1) Install Rectangular Rapid Flashing Beacons (RRFBs) at eleven locations at uncontrolled pedestrian crossings.
  - (2) Provide advanced dilemma zone detection for high speed approaches at six intersections including upgrades to pedestrian and vehicle signal heads.
  - (3) Install/upgrade vehicle and pedestrian signal heads; and install emergency vehicle pre-emption systems for various intersections.
  - (4) Add street lighting on: Freeport Blvd from Meadowview Rd to Florin Rd; Meadowview Rd from Amherst St to 24<sup>th</sup> St; and Rio Linda Blvd from North Ave to Claire Ave.

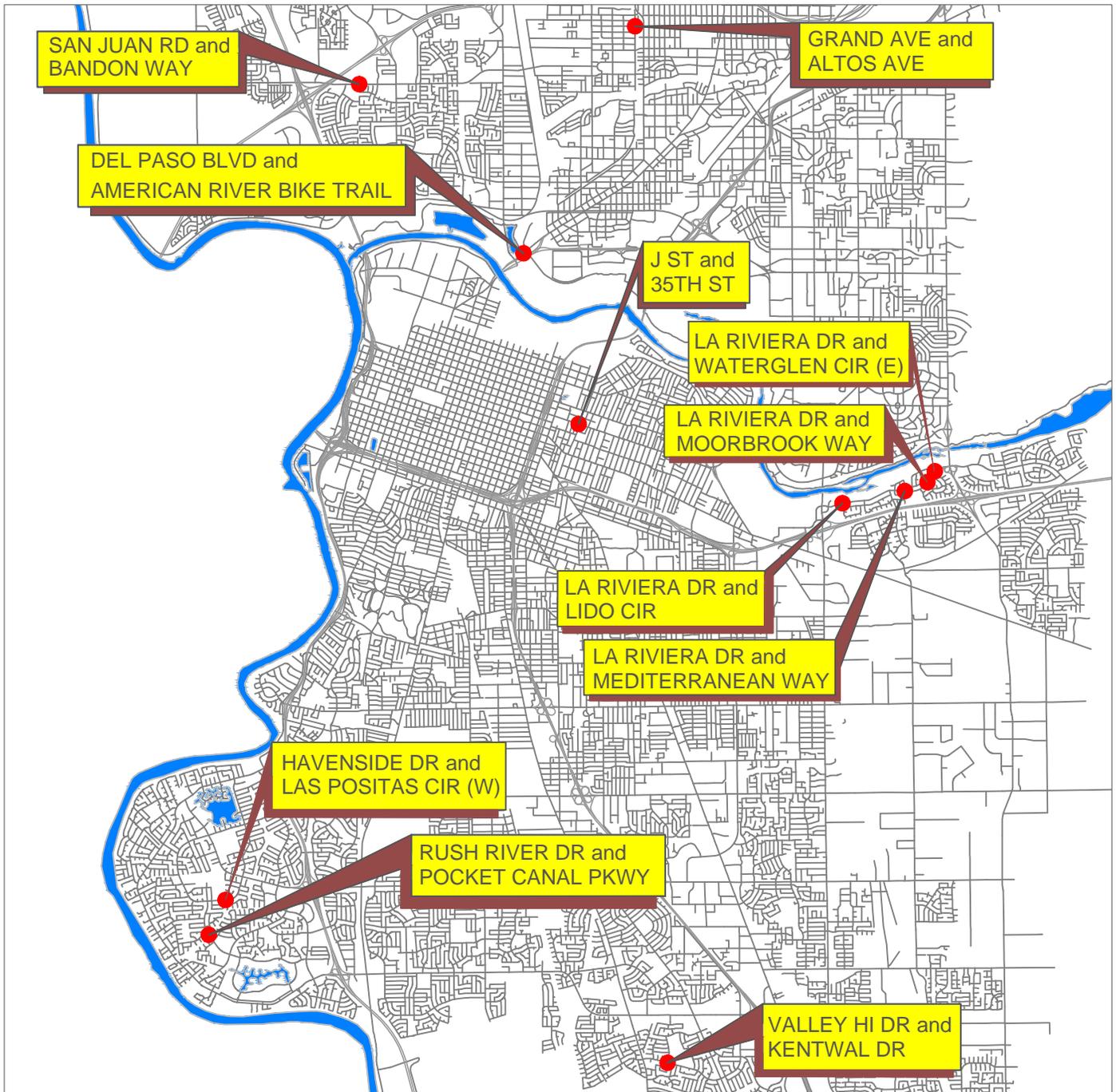
- (5) Install Pedestrian Hybrid Beacons (PHBs) at nine locations at uncontrolled pedestrian crossings.
- (6) Convert traffic signals from pedestal-mounted to mast arm-mounted at seven intersections.
- (7) Improve traffic signal timing, coordination, and phasing on Stockton Blvd from Alhambra Blvd to Lemon Hill Ave.
- (8) Improve traffic signal timing, coordination, and phasing; convert signals from pedestal-mounted to mast arm-mounted; and provide advanced dilemma zone detection on Florin Rd from 24<sup>th</sup> St to South Land Park Dr.

Section 2. Exhibits A1 - A8 are incorporated into and made part of this Resolution.

**Table of Contents:**

Exhibit A1:	Location Map for: Installing Rectangular Rapid Flashing Beacons (RRFBs) at eleven locations at uncontrolled pedestrian crossings.
Exhibit A2:	Location Map for: Providing advanced dilemma zone detection at six intersections including upgrades to pedestrian and vehicle signal heads.
Exhibit A3:	Location Map for: Installing/upgrading vehicle and pedestrian signal heads; and installing emergency vehicle pre-emption systems for various intersections.
Exhibit A4:	Location Map for: Adding street lighting on Freeport Blvd, Meadowview Rd, and Rio Linda Blvd.
Exhibit A5:	Location Map for: Installing Pedestrian Hybrid Beacons at nine locations at uncontrolled pedestrian crossings.
Exhibit A6:	Location Map for: Converting traffic signals from pedestal-mounted to mast arm-mounted at five intersections.
Exhibit A7:	Location Map for improving traffic signal timing, coordination, and phasing on Stockton Blvd.
Exhibit A8:	Location Map for: Improving traffic signal timing, coordination; converting signals from pedestal to mast arm-mounted; and providing advanced dilemma zone detection on Florin Rd.

Location Map for:  
Installing Rectangular Rapid Flashing Beacons and  
Pedestrian Islands at Uncontrolled Pedestrian Crossings  
(Application No. - 1)

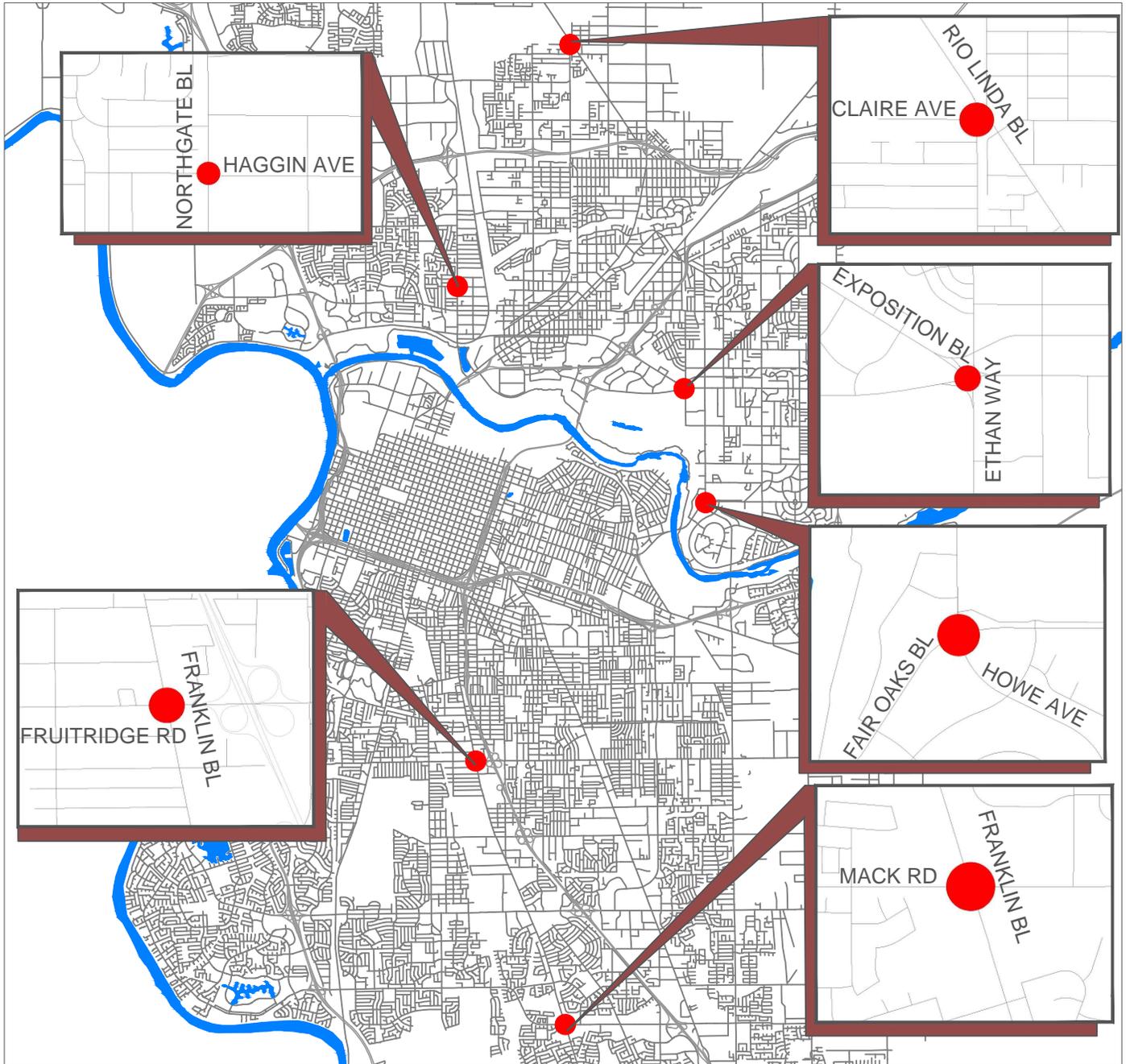


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**LEGEND:**  
● Rapid Flashing Beacons and Pedestrian Islands Locations



Location Map for:  
Providing Advanced Dilemma Zone Detection  
(Application No. - 2)



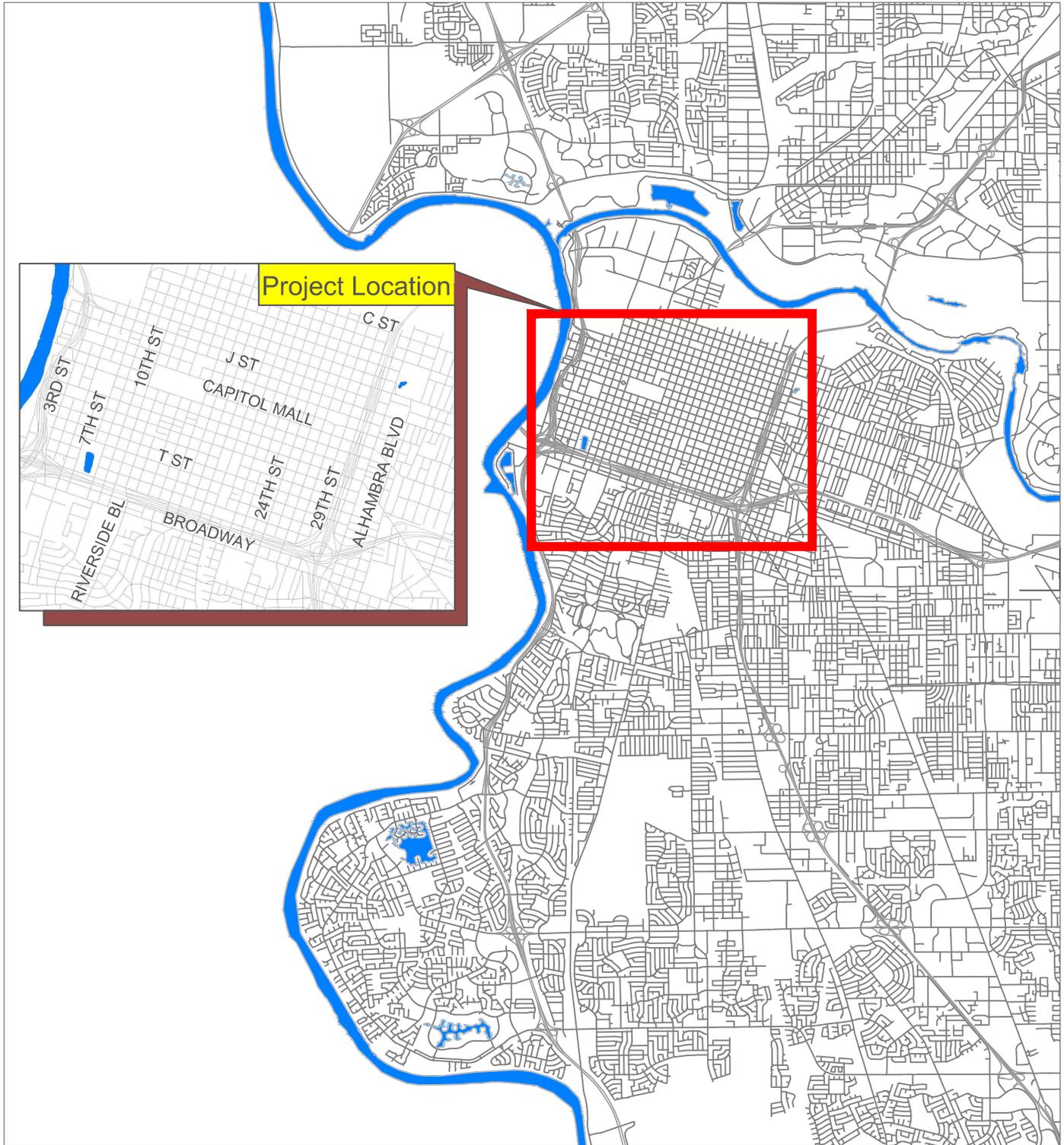
**Legend:**

- Intersections with Proposed Advanced Dilemma Zone Detections



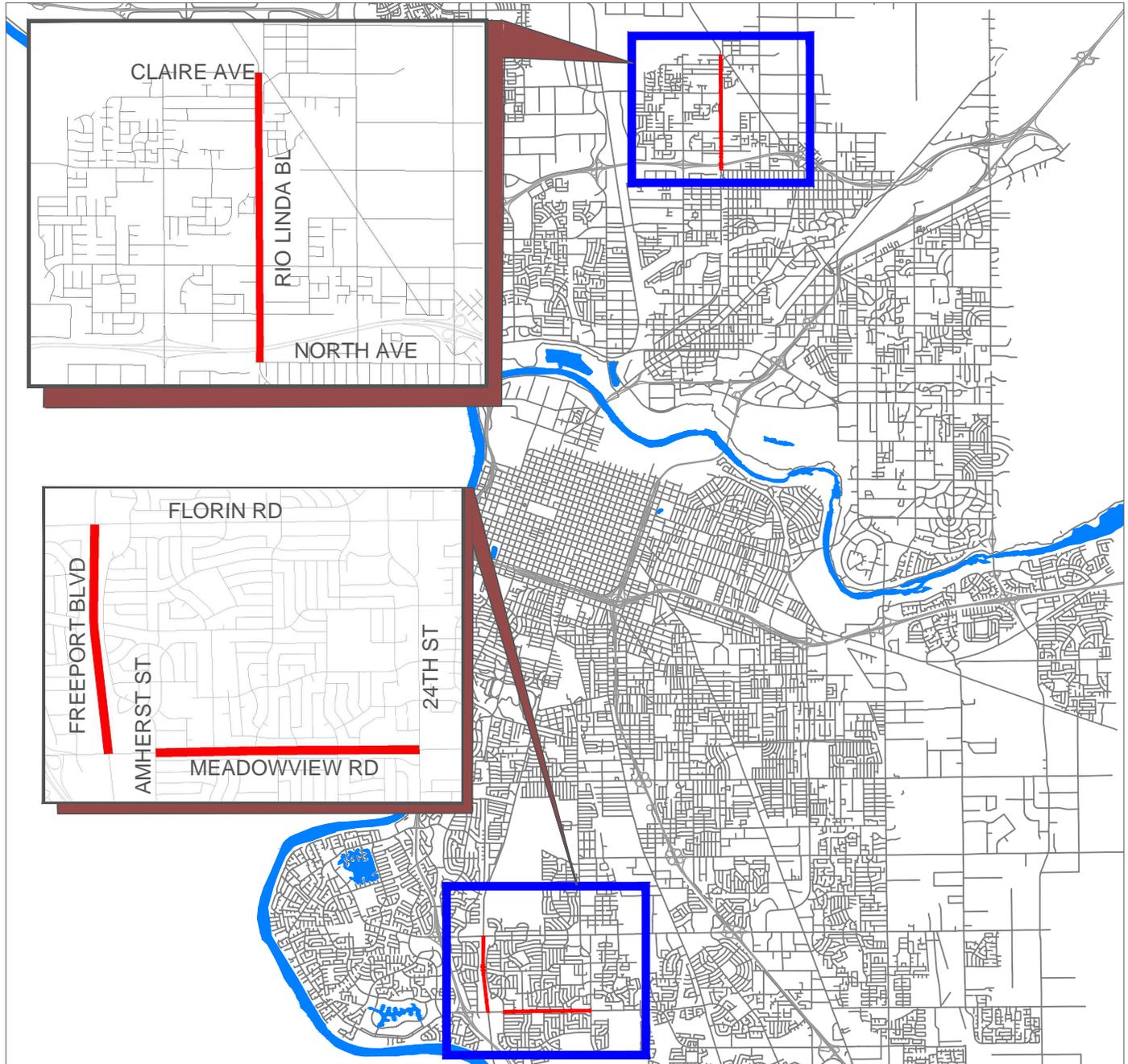
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Location Map for:  
Providing Safety Improvements for Traffic Signals  
(Signal Hardware, Emergency Vehicle Pre-emption System,  
and Pedestrian Countdown Signal Heads)  
(Application No. - 3)

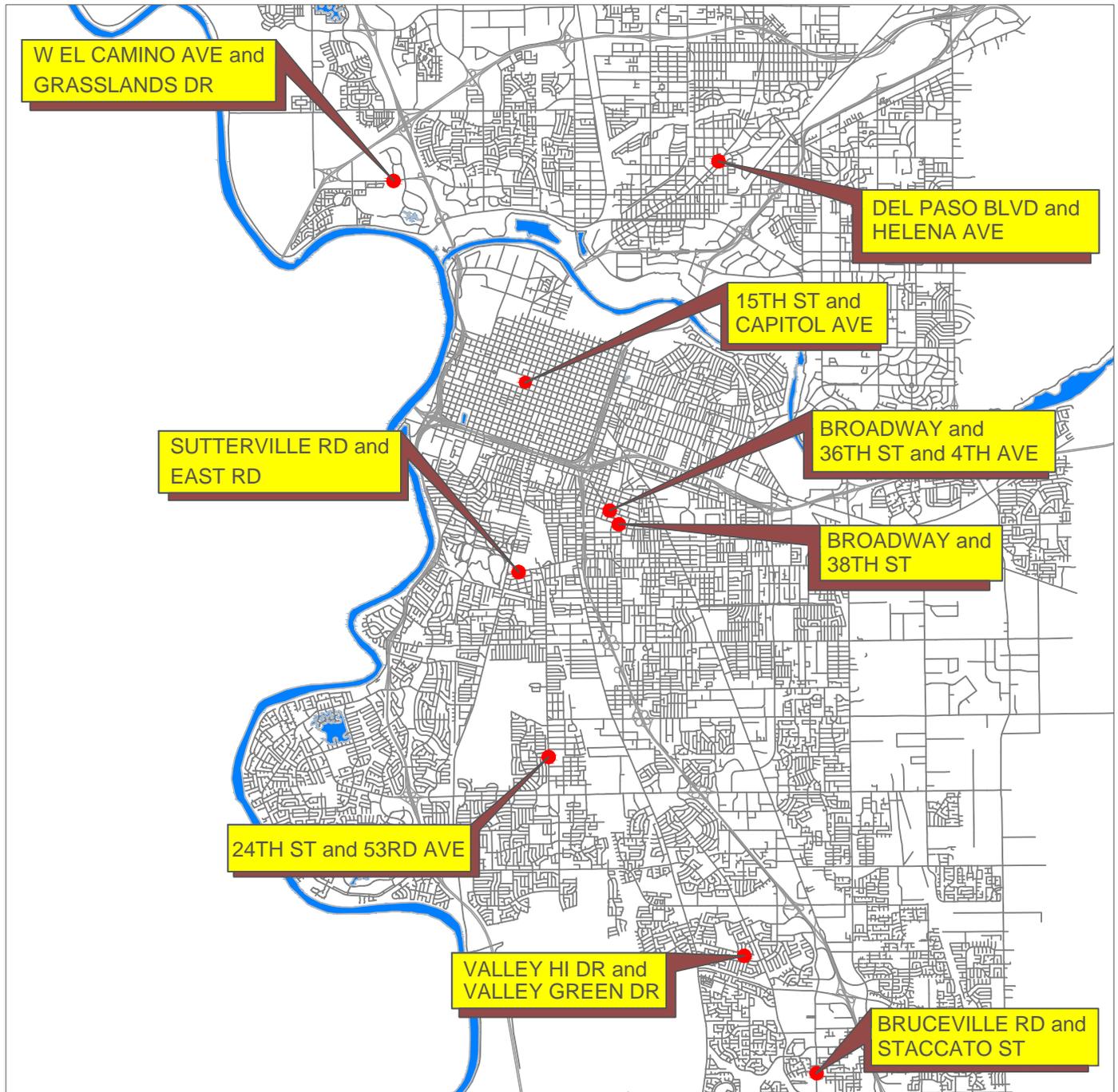


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Location Map for:  
**Providing Street Lighting**  
(Application No. - 4)



Location Map for:  
Installing Pedestrian Hybrid Beacons at Uncontrolled  
Pedestrian Crossings  
(Application No. - 5)

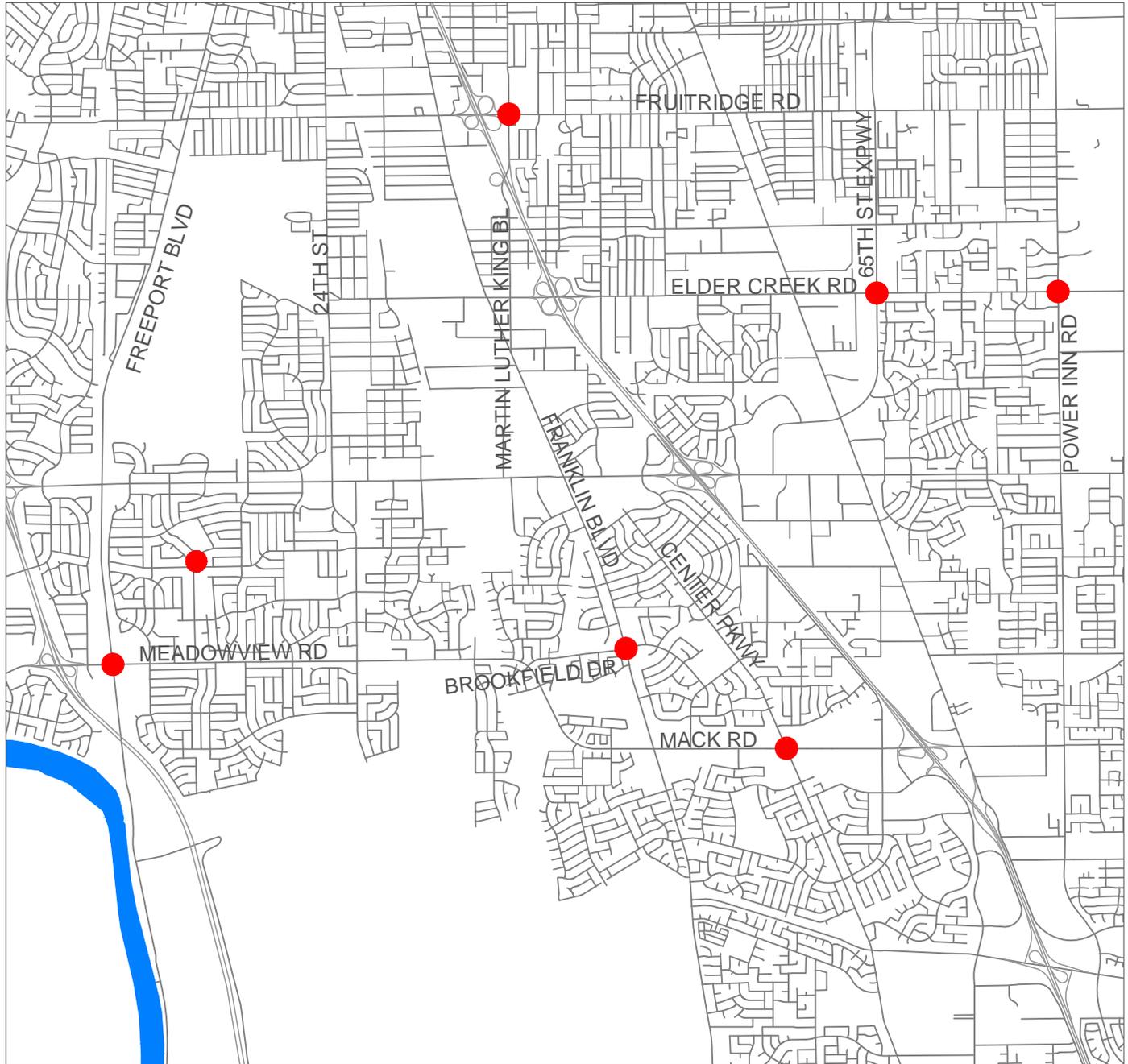


**LEGEND:**  
 Pedestrian Hybrid Beacon Locations



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Location Map for:  
**Converting Signal Heads From Pedestal-Mounted to  
Mast-Arm Mounted  
(Application No. - 6)**

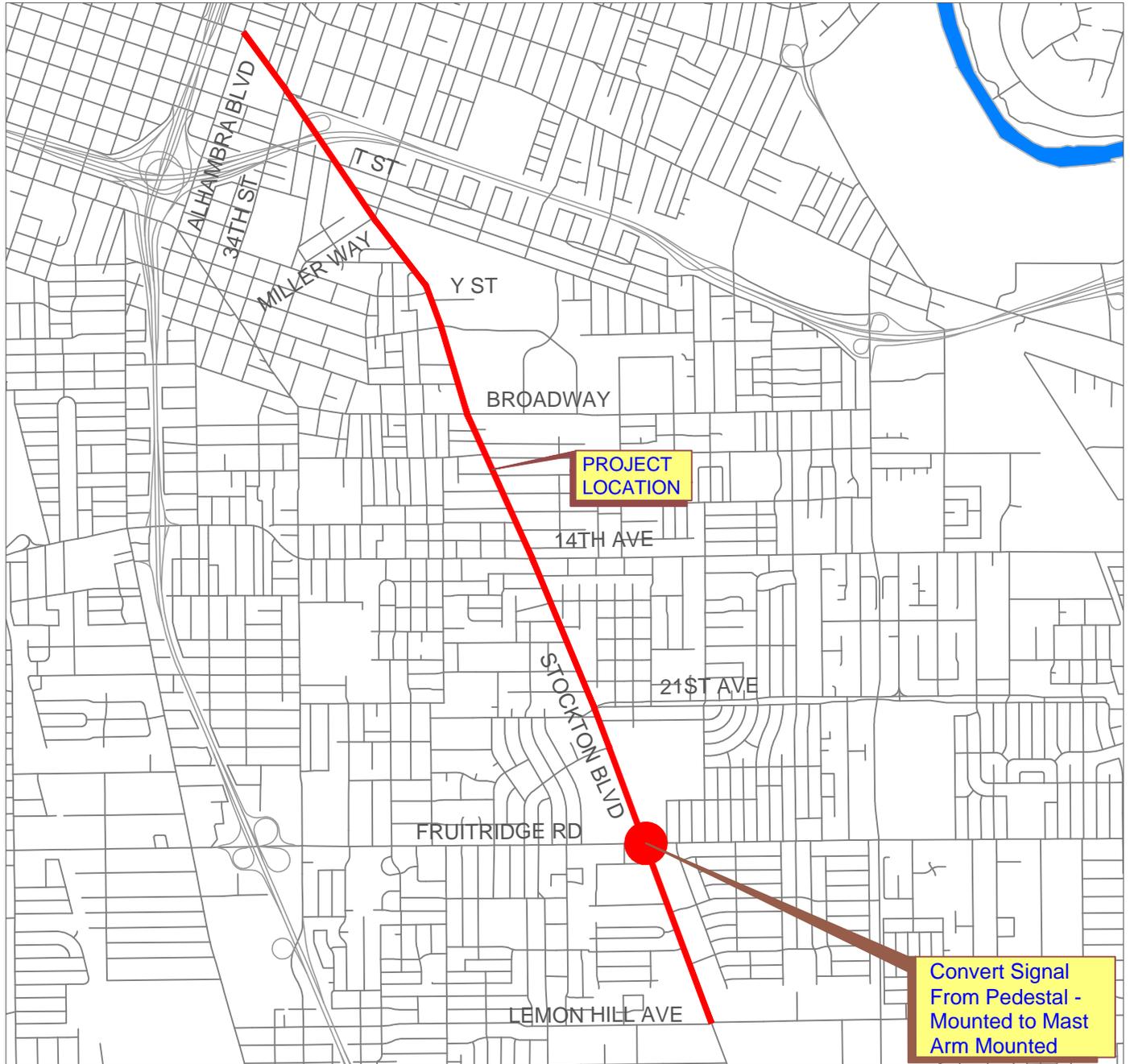


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**Legend:**  
● Pedestal to Mast-Arm Mounted Conversion Locations

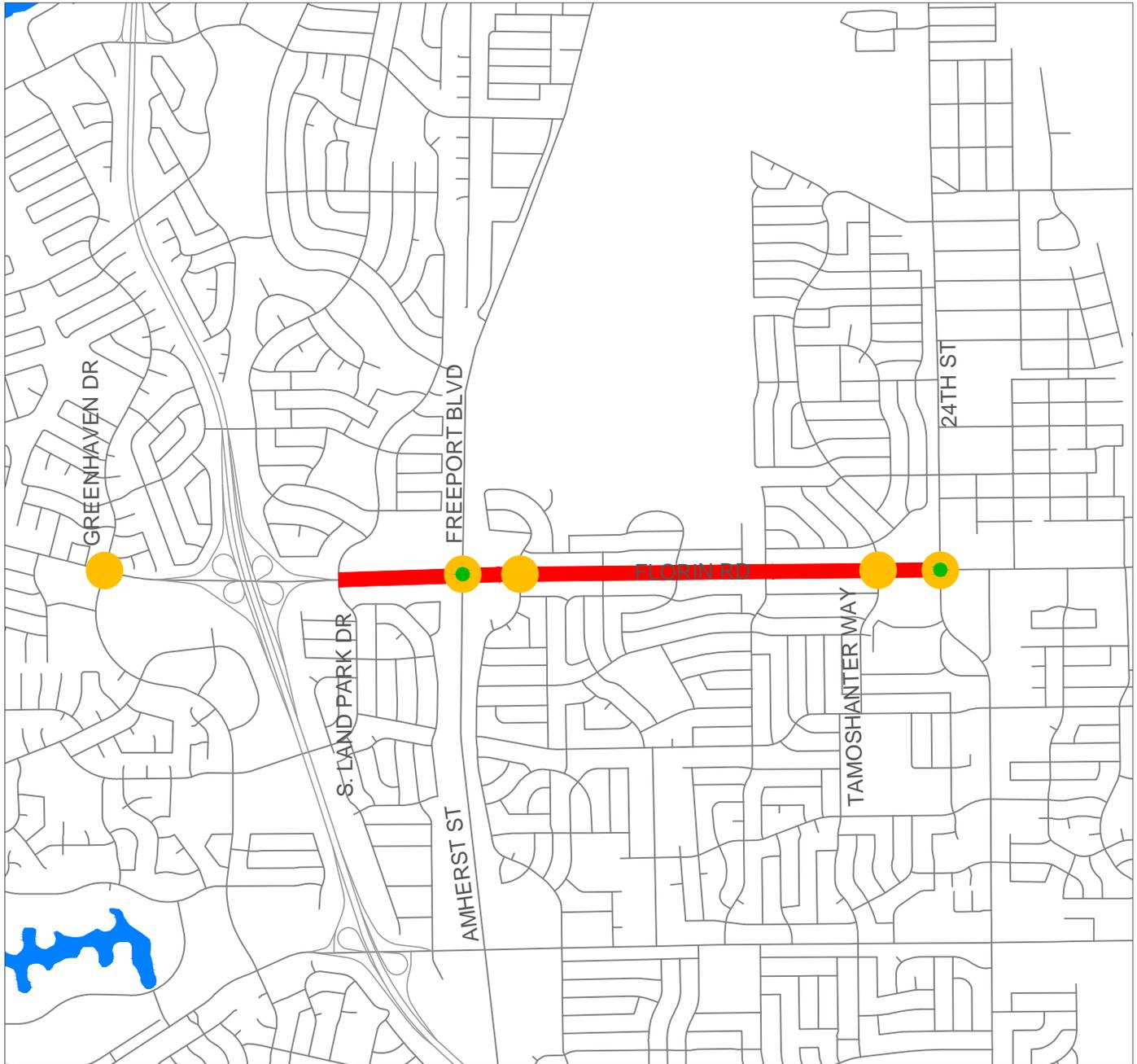


Location Map for:  
Improving Signal Timing (Coordination, Phases, etc.)  
(Application No. - 7)



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Location Map for:  
Safety Improvements along Florin Rd Corridor (Improve Signal  
Timing (Coordination, Phases, etc.), and Convert Signals from  
Pedestal to Mast-Arm Mounted)  
Application No. - 8



Legend:

- Signal Timing Including Coordination Improvement
- Pedestal to Mast Arm - Mounted Conversion Locations
- Dilemma Zone Detection Location



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