



CITY COUNCIL AGENDA REPORT

MEETING DATE: 12/6/2022

DEPARTMENT: Public Works

SUBJECT:

CITYWIDE STREET NAME SIGN PROJECT UPDATE

RECOMMENDED ACTION(S):

1. Approve the design of neighborhood street name signs and direct staff to proceed with the solicitation of bids for the Citywide Street Name Sign Project.
 2. Provide direction regarding adding the replacement of Traffic Signal Street Name Signs to the Citywide Street Name Sign Project.
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EXECUTIVE SUMMARY:

The City's Strategic Business Plan ("Strategic Plan") includes a priority for City attractiveness, which includes investing and maintaining public facilities, infrastructure, and natural resources to enhance the visual character of the city and support attractive neighborhoods. Following the adoption of the Strategic Plan in 2020, staff introduced the Citywide Street Name Sign Project through the 2021-2023 Capital Improvement Program. Redesigning the City's street name signs was identified by initiative #14 of the City's Strategic Plan. The purpose of this project is to redesign the City's street name signs in an attractive way that promotes driver legibility and comports to the standards established by the California Manual on Traffic Control Devices ("CA MUTCD").

Since the passage of the Strategic Plan, staff worked internally to create a street name sign design that incorporates new aesthetic features while comporting to necessary standards. This new sign design is both more attractive and cost-effective than the current sign design, as signs produced with the new design would be easier to manufacture, use less material, and are mounted with more common hardware. The proposed design would change from the standard County of Orange green background to a much more reflective blue background with the black and white image of the City logo. The black and white image is proposed instead of a color image to reduce the effects of the color fading quickly from sunlight exposure. Both roadway street name signs and overhead traffic signal street name signs could be updated with this project.

Staff recommends the City Council approve the street sign design and direct staff to proceed with soliciting bids for the implementation of the proposed

neighborhood street name signs citywide. Staff also seeks direction regarding replacement of Traffic Signal Street Name signs.

BACKGROUND:

On June 15, 2021, the City Council approved the City's Strategic Plan. The Strategic Plan includes the major goals established by the City Council and a series of initiatives that facilitate progress towards each goal. As part of Strategic Plan, the second priority area is attractiveness, which consists of investing and maintaining public facilities, infrastructure, and natural resources to enhance the visual character of the City and support quality neighborhoods. Strategic Plan initiative #14 identified the desire to replace and refresh the City's street name signs. Initiative #14 identified a total budget of \$300,000 for Fiscal Years 2021-22 and 2022-23 to cover the costs of updating the City's street name signs.

DISCUSSION:

Neighborhood Street Name Signs

The City of Lake Forest was incorporated as a city in 1991 from the County of Orange ("the County"). Since being incorporated, the City inherited the County standard street name signs, which is shown below:

Image 1: Standard County of Orange Street Name Sign



As shown in Image 1 above, the County standard street name sign is a hollow-extruded aluminum box type of sign with a green background, white text, and

little to no retroreflective properties (which is the sheeting on the background of the sign that provides better visibility and illumination in low-light conditions). The CA MUTCD governs what is required for street name signs. In 2004, the CA MUTCD was revised to meet Federal standards regarding retro-reflectivity requirements, text height and size, use of upper-case and lower-case letters, removal of all caps text, and introduced alternative background colors and pictographs for street name signs.

Over the years, the City has replaced some of the deteriorated signs, but the cost to replace the extruded box type of sign has increased. The extra material to manufacture the sign, the specialized mounting brackets, and the requirements from the CA MUTCD has made it costly to continue with this type of street name sign. Therefore, staff identified a more modern, cost-efficient street name sign type known as a “flat blade” (shown below) that will reduce the costs of the signs, make them easier to replace, utilize commonly sourced mounting hardware, and meet the CA MUTCD requirements. The proposed new street name sign includes the City’s logo and a blue background color as shown in Image 2 below.

Traditionally, unincorporated Orange County uses a green background, with most cities using a blue background. The City of Irvine uses a brown background. A change in sign colors for the City would distinguish Lake Forest from the surrounding agencies, such as Laguna Hills and Mission Viejo, which both use the older green County standard street name signs.

Image 2: Proposed Street Name Sign



Traffic Signal Street Name Signs

In addition to approximately 2,300 street name signs along roadways, the City has 345 internally illuminated street name signs (“IISNS”) that are mounted on the overhead traffic signal arms. These signs currently have a green background with no City logo. For consistency citywide, staff recommends replacing the traffic signal overhead street name signs with an updated sign type and design as part of the Citywide Street Name Sign project. The current IISNS in the City consists of Type A sign frames that use fluorescent light bulbs or slim sign frames that have LED lighting on the edges. Each type of existing IISNS is shown below.

Image 3: IISNS Type A Frame with Fluorescent Bulbs



Image 4: IISNS Slim Frame with LED Edge Lit



Replacing the fluorescent light bulbs is difficult, as the industry has moved away from the inefficient lighting technology and local hardware stores no longer stock these bulbs with consistency. The slim frame with LED edge lighting is more efficient, but is also more expensive to procure and replace as one of these signs is estimated to cost \$4,000 (which include labor and installation). The City only has a handful of the slim frame with LED edge lighting signs, so staff believes it is prudent to keep the frame and update the street name sign and background with the new design as the cost to do so is estimated at \$1,000 per sign panel replacement.

This proposed project would replace all the IISNS that utilizes the Type A frame and fluorescent bulbs to a new highly reflective non-illuminated street name sign. Based on recent bid results from the City of Santa Ana, the estimated replacement cost is \$1,500 per sign replacement (which include labor and installation). The State of California (Caltrans) and other nearby cities (for example, Fountain Valley, Rancho Santa Margarita, Santa Ana) standardized the use of non-illuminated street name signs (referred to as reflectorized street name signs) to reduce energy costs, maintenance costs, and improve overall traffic safety. The removal of electrical components and lighting components reduces the need for monthly inspections and routine maintenance of the equipment. With the change to the reflectorized street name sign for traffic signals, the reflective sheeting is more visible than the IISNS and reduces the energy usage and maintenance cost. An example of nighttime visibility is shown below.

Image 5: Reflective Street Name Sign Example



Based upon a review of recent quotes, inflation-driven increases for materials and labor, the engineer's estimate for replacement is:

- Neighborhood street name signs - \$360,000
- Traffic signal reflectorized street name signs - \$520,000

If the traffic signal reflectorized street name signs were added to the project, the estimated cost is approximately \$880,000. The City currently spends approximately \$38,000 per year maintaining the IISNS with the Type A frame and fluorescent bulbs. The City could expect to save approximately \$380,000 over the next ten years with the new sign types.

As part of the 2021-2023 Capital Improvement Program Budget, the City Council previously approved the use of \$300,000 for the implementation of the Citywide Street Name Sign project. Staff would propose a budget adjustment at the time of contract award once an actual cost is known.

Staff recommends the City Council approve the design of the new street signs and direct staff to solicit bids for the installation of the signs citywide. The project will start in the southwest Lake Forest area and proceed east as directed by City Council. Staff is also seeking direction on the addition of traffic signal street name sign replacement to the project.

FISCAL IMPACT:

There is minimal fiscal impact associated with the recommended action.

ATTACHMENTS:

None.

Initiated By: Tran Tran, Traffic Engineering Manager

Submitted By: Thomas E. Wheeler, P.E., Director of Public Works/City Engineer

Approved By: Debra Rose, City Manager