LEAGUE OF CALIFORNIA CITIES℠

Save California Streets Coalition's OUTSTANDING LOCAL STREETS AND ROADS AWARDS PROGRAM

PREPARED BY: Michael Baker INTERNATIONAL

PROJECT DESCRIPTION

Michael Baker International was engaged with the City of Oakland as their On-Call Consultant to deliver pavement projects. For this project, Michael Baker oversaw pavement services (including design review and recommendations), pavement training, supplemental topographic survey, curb ramp design, parking meter inventory, bus pad design, revised signing and striping, updated cost estimates, wayfinding, ACTC coordination, pavement coring and additional construction support for Telegraph Avenue.

Gallagher & Burke provided grading and paving. Chrisp Company provided striping. TDW Construction provided iron adjustments. AJW provided minor concrete work. Columbia Electric provided traffic signal work.

DESCRIPTION OF THE FIRM'S CONTRIBUTION TO THE PROJECT:

Telegraph Avenue had a problem. The 4.5-mile street begins in the historic downtown district of Oakland, Calif., and ends at the southern edge of the University of California, Berkeley. Between 42nd and 52nd Streets, the busy corridor is home to numerous businesses, shops, restaurants and residences within the Temescal District commercial area and sees heavy auto, bike and foot traffic daily, making it a center of community life. However, the area was plagued with tight streets, huge dents that pockmarked the length of the corridor and a long history of tragic crashes, making conditions unsafe for pedestrians, bikers and drivers alike. By 2017, the City of Oakland had assessed the area to be an 18 out of 100 in its road ratings, with zero representing a road that is entirely unpaved and 100 assigned to freshly paved streets. After a decade of shelved plans to improve conditions on Telegraph Avenue coupled with conflicting opinions from key stakeholders on the future of the avenue, a change was needed.

Telegraph Avenue was transformed through an innovative combination of a road diet – or reduction in travel lanes or width of the road to achieve systemic improvements – and implementation of complete streets – or streets that designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. The major improvements on Telegraph Avenue between 42nd and 52nd Streets consisted consist of improving intersection design, installing crosswalk enhancements, bulb-outs, median refuges, Americans with Disability Act (ADA) compliant curb ramps and Rectangular Rapid Flashing Beacons (RRFBs) and a road diet with bicycle lanes.

ORIGINAL OR INNOVATIVE APPLICATION OF NEW OR EXISTING TECHNIQUES

The funding of the project was exceptionally innovative: the safety enhancements were incorporated into routine pavement maintenance work that was funded by a major infrastructure bond. This proved to be a cost-effective way to safely deliver safety improvements and is a funding method that will be utilized for future projects.

Lane conversions are important tools for reducing speeding and allocating space for other uses on Oakland streets. Lane conversions are also a primary tool for improving uncontrolled crosswalks, reducing pedestrian exposure by reducing the number of travel lanes that a person must cross in order to cross the street. These changes are also performed to reallocate roadway space for continuous bikeways, which gives both people driving and biking a comfortable place to travel on the street. Telegraph Avenue was in great need of these lane conversions to increase safety and corridor efficiency and the team innovatively combined two seemingly-conflicting ideas: a road diet – or reduction in travel lanes or width of the road to achieve systemic improvements – and implementation of complete streets – or streets that designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

The transformation of Telegraph Avenue was performed in phases and a pilot program had been implemented for the Telegraph Avenue Complete Streets Program. The goals of this program were to improve the safety and accessibility for all users; make the street more comfortable and enjoyable for people walking and biking; and balance the needs and convenience of all users. The strategies implemented to achieve these goals included designing safer streets to provide safe and attractive options for all street users; building great streets to create economic value and neighborhood vitality; and reducing delay and speeding to allow for faster, safer travel. By 2017, metrics indicated the changes had the desired impact on safety: for the first time in five years, no pedestrian crosswalk collisions were reported within the project zone. In a survey, sixty-three percent of pedestrians and seventy-nine percent of bicyclists said they felt safer in the area. The team took the lessons learned from this early pilot program and implemented them into the recently redesigned and repaved section between 42nd and 52nd Streets.

Maintaining ADA compliance was a major consideration throughout the project. This included the slope of the platforms being accessible to all.

FUTURE VALUE TO THE ENGINEERING PROFESSION & PUBLIC PERCEPTION

The project sets a new precedent for complete streets in the area. The final product accounts for high volumes of bicyclists and new bus boarding islands. The team took into consideration concerns for disability parking and distance to the curb, so the parking was designed to facilitate easy access to the curb for those needing special accommodations.

The bus platforms utilized are relatively new for the area and while innovative, could potentially be confusing to the blind community. The project team has been working with the local blind community to provide informational sessions on how to use these islands.

Through outreach, surveys, and stakeholder meetings, the team connected with more than 1,500 people and spent more than 40 hours in community engagement efforts since spring 2018. These extensive efforts ensured that the finished product would have a positive perception by the public. Methods of community engagement included in-person and online surveys, community meetings, stakeholder meetings, presentations to neighborhood associations, mobile workshops and communication through digital platforms including the City website, OakDOT Twitter and e-mail to subscribers. Additionally, a notice of public hearing was filed with the Oakland Tribune for an open house event.

In coordination with the Temescal Business Improvement District, the team also conducted door-to door business survey reaching 71 percent of merchants along the corridor and received information from 52 percent of merchants on their operations, customer activities and their most important needs on Telegraph Avenue. Broader community engagement followed two phases of outreach and surveying.

Phase 1 presented data on current traffic safety issues on Telegraph Avenue and asked residents and visitors to prioritize safety improvements along the corridor. This survey received 875 responses. Bicycle safety, walking safety, and unsafe vehicle speeds were the three top concerns respectively. Approximately 81 percent of respondents said they would like to see bicycle safety improvements and 77 percent of respondents supported pedestrian safety improvements. All feedback from the public was incorporated into the design and the bicycle safety, walking safety and unsafe vehicle speeds were addressed in the final project.

SOCIAL, ECONOMIC, AND SUSTAINABLE DESIGN CONSIDERATIONS

The Telegraph Avenue project had three distinct goals: improve safety and accessibility for all users; make the street more comfortable and enjoyable for people walking and biking; and balance the needs and convenience of all users. With many diverse stakeholders, the team needed to consider not only the needs of pedestrians, bicyclists, drivers and bus riders, but also residents and businesses. To ensure that any proposed solution.

In spring 2018, a survey was conducted that asked respondents to identify their top priorities for street improvement elements. This survey led to the design criteria of the project: safety, equity, community input and corridor vibrancy. Based on these criteria, staff developed two concepts for continuous bikeways in the Temescal neighborhood. Within the 10-block project area, both concepts would require the conversion of travel lanes. The key difference between the two concepts was that one would provide a protected bikeway, and the other would provide a buffered bikeway.

With buffered bike lanes, the bike lane is positioned to the left of parked cars and to the right of travel lanes, with an extra width of striped buffer added between the bike lane and travel lane.
With protected bikeways, the bike lane is positioned to the left of a sidewalk curb and to the right of parked cars or other vertical separation. The two concepts were presented at community meetings, stakeholder meetings, on the Department of Transportation's DOT website, through project email lists and through a second online survey that received 1,498 responses.

The combination of road diet and complete streets reduces speed, and thereby reduces fatal injury crashes, while also allowing for convenient, affordable and safer alternative forms of transportation. Safe places to bike and walk can also help reduce environmental impacts associated with transportation.and residential neighborhoods. The overcrossings are also compliant with the Americans with Disabilities Act, allowing everyone to use them.

COMPLEXITY

The protected bikeway concept selected was largely met with community support; however, there were several concerns that were raised that the design team worked to address. These included:

- **Concern**: Right turning vehicle conflicts with the curbside bike lanes.
- **Solution**: Lengthened the "sight lines" of the travel lane at side street intersections and placed additional bollards in the clear zone to ensure vehicles do not park in the safety zones.

- **Concern**: Lane conversion will prohibit creating a plaza at Shattuck Avenue.
- **Solution**: Incorporated Shattuck Avenue between Telegraph Ave and 46th Street into the project and established this segment as a community plaza, to be programmed with activities and maintained by the Telegraph-Temescal Business Improvement District.

- **Concern**: A lane conversion may slow down buses.
- **Solution**: Relocated bus stops to safer and more convenient locations, which reflects AC Transit's Rapid Corridor improvement plan. Provided bus boarding islands at stops, to ensure buses can get back into traffic without delay. Provided a bus queue jump lane to prioritize AC Transit between 51st and 52nd on Telegraph.

- **Concern**: A lane conversion may slow down traffic.
- **Solution**: Maintained two northbound travel lanes on Telegraph Avenue between Temescal Plaza and 51st Street to accommodate northbound vehicle volumes. Left turns were prohibited from Telegraph Avenue onto 51st Street.

- **Concern**: Loss of parking.
- **Solution**: Maintained net-zero loss of metered parking by adding new locations of metered parking. Additionally, managed curb space by designating new commercial loading zones, passenger pick-up/drop-off areas and new blue zones for drivers and passengers with disabilities.

- **Concern**: Protected bike lanes make it difficult for people with disabilities to exit vehicles and access the curb.
- **Solution**: Incorporated a wider parking lane to accommodate ramp deployment. Incorporated additional mid-block curb ramps to ensure a curb cut is available within 200 feet of any parked vehicle.

- **Concern**: Having to park near the travel lane.
- **Solution**: Incorporated a buffered parking lane so that drivers have more room to exit vehicles and more room between the parked car and the bike lane. The design provided 4 more feet in width for each parking stall than currently exists on Telegraph Avenue in the KONO district.

As a busy corridor, Telegraph Avenue needed to stay open to traffic throughout construction. The team worked with the contractor to create innovative staging that ensured the street would not see any closures. The pavement was laid before the concrete sidewalk to ensure that business could remain open and then the outside lanes were completed and reopened to traffic before moving to the inner lanes.

EXCEEDING OWNER/CLIENT NEEDS

The project exceeded client needs. The complex project included detailed work that needed to reflect a community vision and Michael Baker helped to make this vision a reality. The striping and boarding island design were particularly intricate, and the client felt that the finished project was exemplary, even noting that the design team had "put its heart and soul into giving us what we needed." The project goals to improve the safety and accessibility for all users; make the street more comfortable and enjoyable for people walking and biking; and balance the needs and convenience of all users were met on-time and on-budget.

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