AUGUST 30, 2024

REQUEST FOR QUALIFICATIONS NO. 24-002

TECHNICAL PROPOSAL

City of Hermosa Beach

On-Call Transportation Planning and Traffic Engineering Services

SUBMITTED TO:

CITY OF HERMOSA BEACH

Department of Public Works
1315 Valley Drive
Hermosa Beach, CA 90254

SUBMITTED BY:

FEHR & PEERS

100 Oceangate, Suite 1425
Long Beach, CA 90802
(562) 294-5848

1. Cover Letter

Fehr & Peers is pleased to submit this proposal for on-call transportation planning and traffic engineering services for the City of Hermosa Beach Department of Public Works. We have sincerely appreciated the opportunity to serve the City of Hermosa Beach over the most recent on-call contract cycle and are thrilled with the opportunity to continue our service to the City.

While Fehr & Peers is not submitting on the separate portion of the RFP requesting an in-house part-time contract traffic engineer role, we can provide traffic engineering staff augmentation services as needed for specific task orders.

Based on the anticipated services described in the Request for Qualifications (RFQ), we have enlisted a team of our internal expert task leads with extensive experience in the City of Hermosa Beach and Southern California to provide the full range of transportation planning and traffic engineering services requested.

FEHR & PEERS OFFERS SEVERAL DISTINCT ADVANTAGES FOR FULFILLING THE ON-CALL TRANSPORTATION PLANNING & ENGINEERING NEEDS OF THE CITY:

- **Experienced project leadership team to support Hermosa Beach Public Works.** Michael Kennedy, Principal and Office Leader for our Long Beach office will continue to serve as overall contract manager as he has under the most recent contract cycle. Michael has worked on projects in the South Bay, including Hermosa Beach and the other Beach Cities, for nearly two decades. His work spans General Plans, CEQA transportation impact analyses, parking studies, and traffic engineering design. He has served in similar roles for other local clients, such as the City of Long Beach and LA Metro. Working with Michael, Sean Reseigh will continue to serve the City of Hermosa Beach as project manager for multiple task orders, spanning data analytics, transportation planning and design. Claude Strayer, PE, will continue to serve the City as engineer of record for any projects affecting the design of roadways, spanning conceptual design, through to construction documents.

  As the largest firm in California exclusively focused on transportation planning and engineering, we have the staff capacity locally, including 14 in Long Beach 35 in Los Angeles, and nearly 400 employees nationwide to meet the City's on-call needs as they are released. We have served in an on-call capacity for a variety of cities in Los Angeles County, including the Cities of Hermosa Beach, Santa Monica, Long Beach, Beverly Hills, Rancho Palos Verdes and several others and have the technical capabilities to handle all transportation planning and traffic engineer tasks effectively and efficiently.
- **Local relationships and experience.** Fehr & Peers has extensive experience working in the City of Hermosa Beach, including on 15 projects over the last 10 years. Beyond the city, we have worked extensively with other Beach Cities, including Redondo and Manhattan Beach, the South Bay Cities COG, Carson, and Metro on multiple projects affecting transportation choices in the South Bay. This experience lends itself to a deep understanding of the local community context and values. Based on longstanding relationships within the community, we are committed and qualified to help the City achieve its mobility goals.
- **National safety experts.** We have partnered with over 90 cities and counties across California to develop multimodal safety plans and grant applications (including Vision Zero Plans, Local Road Safety Plans, and Systemic Safety Analysis Reports) and have been trained by FHWA in the LRSP and Safe Streets For All (SS4A) processes. We worked with the FHWA Office of Safety as they established policies and a national brand for the Safe System Approach and an associated revamp of Highway Safety Improvement Programs (HSIP). Fehr & Peers is currently supporting over 15 public agencies to complete Comprehensive Safety Action Plans (CSAP), and we have firsthand experience working with several national, state, and neighboring jurisdictions on data-driven, systemic safety efforts.

- **Companywide research & development groups focused on Complete Streets and Engineering.** We have a dedicated Complete Streets Discipline Group, led by Kendra Rowley, and an Engineering Discipline Group, led by Claude Strayer, which oversees internal research and development on guidance for multimodal corridor design, including tradeoffs and considerations for Class IV design, bicycle signal and intersection modifications, bus boarding islands, and protected intersections. Additionally, our Southern California Engineering Design Team meets regularly to host design charettes and share best practices.

We have reviewed the Professional Services Agreement and are including our requested contract modifications. We look forward to discussing this proposal and refining our approach to ensure it meets the City's needs. Please contact me with any questions.

Sincerely,

FEHR & PEERS

Michael Kennedy, AICP, LEED AP
Principal & Authorized Representative
Primary Point of Contact
100 Oceangate, Suite 1425
Long Beach, CA 90802
(562) 304-9277
m.kennedy@fehrandpeers.com

Sean Reseigh
Task Order Manager
(562) 294-5295
s.reseigh@fehrandpeers.com

Claude Strayer, PE, RSP1
Engineer of Record
(619) 758-3015
c.strayer@fehrandpeers.com

SUBMITTING ORGANIZATION

Fehr & Peers
100 Oceangate, Suite 1425
Long Beach, CA 90802

SUBMITTAL FOR

City of Hermosa Beach
Request for Qualifications
Transportation Planning and Traffic Engineering Services

ADDENDA

We acknowledge receipt of Addendum 1.

PRIMARY CONTACT & AUTHORIZED REPRESENTATIVE

Michael Kennedy, AICP
Principal & Authorized Representative

(562) 304-9277
m.kennedy@fehrandpeers.com

2. Firm Profile

ABOUT FEHR & PEERS

At Fehr & Peers, we are passionate about transforming transportation consulting through innovation and creativity. We derive inspiration by partnering with communities to understand and shape local transportation futures objectively tailored to diverse needs. Since 1985, clients have trusted us to help them overcome barriers and uncertainty by combining our advanced expertise with curiosity, humility, and initiative to deliver implementable, data-driven solutions that reinforce community values. From the most straightforward to the most complex, we actively listen to client and community needs and handle every project with diligence and focus.

We differentiate ourselves by investing in research and development, including emerging data sources and analysis methodologies, to anticipate needs, explore the unknown, and collaboratively imagine a better future. Our culture of applied innovation generates an appetite for new and better ways of approaching problems, motivates us to explore emerging transportation concepts and mobility trends, and inspires us to develop new analytical tools and techniques.

We purposefully maintain a focus on transportation consulting, serving client needs including the following:

- Active Transportation
- Communications & Engagement
- Safety
- Transportation Engineering
- Land Use & Transportation
- Climate & Resilience
- Parking
- Data Science
- Transit Planning
- Emerging Technologies
- Equity in Transportation
- Transportation Forecasting & Operations
- Freight

Primary Point of Contact

Official Name: Michael Kennedy
Address: 100 Oceangate, Suite 1425, Long Beach, CA 90802
Email: m.kennedy@fehrandpeers.com
Telephone Number: (562) 304-9277

Firm Information

Type of Business Entity: S-Corporation

Federal Employer ID No.: 68-0065540

Ownership: Fehr & Peers is the parent company of Left Lane Advisors.

Number of years in business under present business name: 38 years

Number of years of experience Fehr & Peers has had in providing required services for the City of Hermosa Beach On-Call: 38 years

Failures or refusals to complete a contract

If the term "failure" in this context means failure to complete any work due to a termination of a contract for cause, or due to our faults, Fehr & Peers has not had a client terminate a contract with us for cause or due to our faults, and we have not refused to complete our services under a contract. Fehr & Peers has not completed our work under a contract for several different clients' projects in which the client terminated our contract for convenience prior to completion of our services because the client lost funding, or the client pursued a different approach or methodology for the client's project.

3. Organizational Chart

Our dedicated team has been carefully selected to offer the City of Hermosa Beach high-quality solutions and project deliverables.

CITY OF HERMOSA BEACH

Michael Kennedy, AICP, LEED AP
Principal-in-charge

Sean Reseigh
Task Order Manager

Claude Strayer, PE, RSP1
Engineer of Record
PS&E

Kendra Rowley, PE
Complete Streets Planning and Design Lead

Emily Finkel, RSP1
Safety Lead

Miguel Nunez, AICP
Parking Lead

Diwu Zhou, PE, RSP1
Traffic Operations Lead

After contract execution, Fehr & Peers will not substitute key personnel or subconsultants without prior written approval by the City

Our 2023 Client Survey Results

Clients said we met and exceeded expectations:

97% value 98% quality 98% service

100% say they would use us again.

4. Bios of Key Staff

Michael Kennedy, AICP, LEED AP

Principal-in-Charge/Contract Manager

CEQA Lead

- 17 years of experience
- MA, Urban and Regional Planning
- BA, Music

Michael Kennedy is a Principal with Fehr & Peers and Office Leader for our Long Beach office that serves clients in the South Bay and Gateway Cities regions. Michael's practice areas include project management for CEQA transportation impact analyses, General Plans, parking studies, and transit and active transportation planning and design. He has worked in the South Bay for nearly two decades with work spanning these practice areas. Michael is Fehr & Peers' Principal in Charge for our on-call contract with the City of Hermosa Beach, our on-call contract with the City of Long Beach, focusing on the delivery of PS&E for multiple bikeway corridors, developing a data strategy for the Department of Public Works, and updating the City's collision analysis/roadway safety planning. He has worked on mobility planning / traffic engineering design projects across many coastal communities including the Cities of Hermosa Beach, Redondo Beach, Manhattan Beach, Los Angeles, Dana Point, and Marina del Rey (County of Los Angeles).

Claude Strayer, PE, RSP1

Engineer-of-Record/PS&E

- 14 years of experience
- BS, Civil Engineering

Claude Strayer has a range of transportation experience with the design of traffic signals, bicycle facilities, signing and striping plans, safe routes to school improvements, pedestrian facilities, wayfinding and the public involvement process. He has led teams of designers on a variety of other transportation engineering projects such as temporary traffic control, roadway and sidewalk design, and lighting. He also has experience performing traffic analysis as well as studies with respect to parking, circulation and school zone safety.

Sean Reseigh

Project Manager/Data Analytics

- 6 years of experience
- MS, Geographic Information Science
- BA, Natural Resources

Sean Reseigh is a transportation planner in the Long Beach office who specializes in geospatial analysis, data science, and data visualization, with a focus on safety. He has worked on over a dozen Local Road Safety Plans, Vision Zero Plans, and Systemic Safety Analysis Reports across California and in the South and lead multiple county- and citywide data inventory projects with the goal of enhancing access to accurate location-based bike and pedestrian infrastructure, and traffic signal assets. Although his abilities are technical in nature and revolve around data science, he also has a refined proficiency in engaging with project and community stakeholders on how data-driven decision making is vital to improving a connected, safe, dynamic, equitable, and accessible transportation system.

Kendra Rowley, PE

Complete Streets Lead

- 14 years of experience
- BS, Civil Engineering

Kendra Rowley is an associate transportation engineer with over fourteen years of transportation planning and engineering experience in the state of California. Kendra manages a diverse range of projects from the design of multimodal safety improvements along complex corridors to the preparation of signal design plans for development projects. Specializing in complete streets planning and design, Kendra leads the Fehr & Peers Complete Streets Design companywide practice area. She recently led the firm's efforts to research the safety efficacy of the innovative bicycle design tools in many of the national design manuals and guidebooks, including the NACTO Bicycle Design Guide.

Emily Finkel, RSP1

Safety Lead

- 10 years of experience
- MA, Planning
- BS, Business Administration

Emily Finkel is a Senior Associate in the Long Beach office of Fehr & Peers and a senior leader of the Fehr & Peers Safety Discipline Group. She has managed more than a dozen recent safety planning projects throughout California and the Southwest, including Vision Zero, Local Road Safety Plans, and Systemic Safety Analysis Reports. Emily has supported several safety planning clients in successfully securing millions of dollars for safety improvements through the Caltrans HSIP and USDOT SS4A grant programs. Emily has worked throughout the South Bay, including projects in Carson, Gardena and El Segundo, and for the South Bay Cities COG. She teaches transportation planning analysis in the graduate Urban Planning program at USC.

Diwu Zhou, PE, RSP1

Traffic Operations Lead

- 8 years of experience
- MS, Transportation Engineering
- BS, Civil Engineering

Diwu Zhou is a transportation engineer in the Fehr & Peers Long Beach office who specializes in safety planning, big data, and traffic operations analysis. Diwu is passionate about balancing the often-conflicting needs of mobility and safety and is well suited to provide clients with advice and recommendations backed by research, data, and analysis through his intimate knowledge of traffic operations and design, safety best practices, and big data. Diwu is committed to being at the forefront of safety best practices and innovations and serves as a key member of the firm's Traffic Operations and Transportation Equity Technical Initiatives. Diwu also has a broad background in transportation planning through his experience with transportation impact studies, safe routes to school assessments, citywide and countywide planning studies, multimodal traffic simulations, and community outreach.

Miguel Núñez, AICP

Parking Lead

- 17 years of experience
- MA, Planning
- BS, Political Science

Miguel Núñez is a Principal in the Fehr & Peers Long Beach office. He has over 17 years of experience in transportation planning, specializing in areas of expertise in pedestrian and bicycle planning, complete streets, and multimodal planning. Miguel managed Fehr & Peers efforts on the I-710 Livability Initiative, the Downey Active Transportation Plan, the People St Evaluation effort, the Huntington Park Complete Streets Plan, and General Plans for the Cities of Cudahy, Whittier, and Carson, all focused on implementable improvements and strategies for enhancing mobility and safety for all road users. Through his experience working on projects with a multimodal emphasis, complex and controversial traffic impact studies, and numerous regional transportation plans, Miguel has helped a wide range of communities expand transport options for their stakeholders. He has managed pedestrian safety assessments throughout California and presents at industry conferences on emerging and innovative multimodal practices.

Full staff resumes provided in Appendix.

5. Relevant Experience and References

Key Hermosa Beach Experience

PLAN Hermosa EIR, Addendum EIR & LCP

Fehr & Peers assisted the City of Hermosa Beach with the development and environmental analysis of the General Plan and Coastal Land Use Plan. We were responsible for transportation policy and multi-modal transportation modeling. Fehr & Peers prepared a background report summarizing existing mobility conditions, which included an inventory of transportation facilities (roadway, parking, transit, pedestrian, bicycle), and a summary of their current operation. Because mobile source greenhouse gas emissions (GHG) make up a large portion of the City's total GHG output, innovative mobility policies are a vital component of the General Plan Update. The goals, objectives, and policies of the Mobility Element reflect the requirements of the 2008 California Complete Streets Act (AB 1358), as well as the City's growing interest in transportation mode alternatives. We provided input to the project team on transportation goals, policies, and standards and developed a roadway classification system and prototypical street cross sections that support the City's mobility goals and policies. Fehr & Peers also identified enhancements to the bicycle, pedestrian, and alternative vehicle network for inclusion in the Mobility Element. Our tasks included developing strategies and policies to address the management of parking resources in the City, the need to increase parking supply to support economic vitality, and methods to efficiently increase parking supply. Fehr & Peers prepared a transportation impact study in support of the preparation of the Environmental Impact Report (EIR) for the General Plan Update. We gathered parking utilization rates and analyzing parking operations in the coastal zone as part of the Local Coastal Plan update, including using cellphone based "Big Data" sources to understand travel patterns to and from the coastal zone.

PLAN Hermosa Addendum EIR

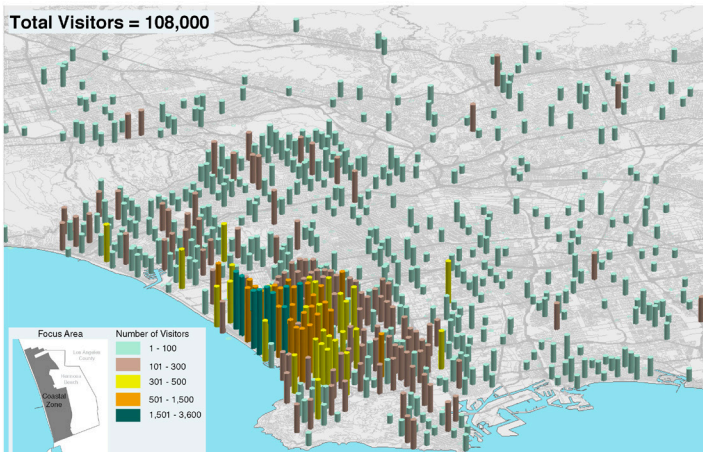
To support the implementation of zoning changes for the City's Housing Element, Fehr & Peers prepared an updated transportation impact analysis following the methodologies of the PLAN Hermosa EIR, including updating the travel demand model to account for the Housing Element associated zoning changes. We prepared vehicle miles traveled and segment volume forecasts to make a consistency finding for the Housing Element and the PLAN Hermosa EIR.

Traffic Count Monitoring for Mobility/ Outdoor Dining Pilots

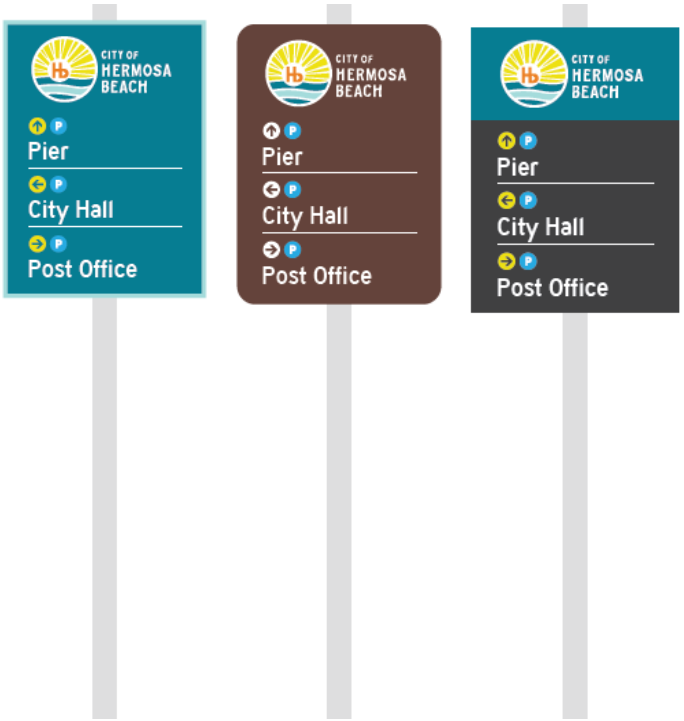
Using a combination of roadway traffic, pedestrian and bicycle counts, and cellphone based big data travel data, Fehr & Peers has conducted multiple years of annual monitoring of the City's pilot mobility projects and outdoor dining program. In addition to evaluating how travel patterns in and out of Downtown Hermosa Beach changed related to these pilot projects, we also evaluated how established travel patterns were disrupted due to the COVID-19 pandemic. Fehr & Peers prepared CEQA related evaluations of the pilot projects to support their continued implementation.

Wayfinding Design

Fehr & Peers is supporting the design and implementation of wayfinding signage in the City of Hermosa Beach for gateway, wayfinding and marquee signs. Fehr & Peers developed design alternatives using the City's branding guidelines and prepared engineering plans for sign siting and cost estimates.



PLAN Hermosa



Hermosa Wayfinding Design

Downtown Hermosa Beach Traffic Counts

City of Long Beach Public Works Transportation On-Call

(2021-Ongoing)

Fehr & Peers is prime for the City of Long Beach Public Works Transportation & Mobility on-call contract.

We are providing a wide range of services spanning PS&E complete streets design work, staff augmentation support services detailed traffic operations & simulation, citywide safety analyses, and the development of a data management strategy for the Public Works Department. Key projects led under this contract include:

Clark Avenue Complete Streets PS&E

Fehr & Peers is leading the preparation of construction documents for signing, striping, and signal modification plans for the construction of a 2.7 mile multi-modal connection linking Cal State Long Beach's Beachside Campus housing and other student housing in the area to both Long Beach City College on Clark Avenue, and Cal State Long Beach's main campus via Atherton Street.

Fehr & Peers's services include conceptual design for civil related complete streets elements such as curb extensions, bus boarding islands, and protected intersection medians. The civil design elements will be taken into full PS&E by City staff.

The proposed protected bike facility includes a mix of two way and one way facilities, with the crossover using bike signals at a protected intersection at Willow Street and Clark Avenue. Beyond the two-way section, which will feature raised medians, the facility will use the City's quick-build concrete raised separators.

As part of our evaluation of design options for the corridor, Fehr & Peers advanced multiple concepts for complex six-legged intersection at the Clark/Stearns/Los Coyotes intersection including the development of a "peanut" roundabout concept.

Fehr & Peers conducted a traffic operational analysis to determine how lane repurposing will affect travel time on the corridor. As part of the evaluation of the roundabout, Fehr & Peers is developing a Vissim simulation model to test configuration options including the roundabout and protected intersection options using signal phasing. Fehr & Peers will prepare a project fact sheet with renderings and operations data to highlight the benefits and tradeoffs associated with the project for use in community outreach.

Cherry Avenue Protected Bicycle Facility Design PS&E (Long Beach)

To support the implementation of protected bikeways in the City of Long Beach per the City's Bicycle Master Plan, Fehr & Peers is leading the preparation of signing, striping, and signal modification plans for a 1.5 mile protected bikeway on Cherry Avenue between Spring Street and Carson Street. While Cherry Avenue is identified as an 8 to 80s corridor in the Bicycle Master Plan, it is also a truck corridor and provides important access to a major logistics/aerospace manufacturing facilities. Fehr & Peers' design balances the need for cyclists and trucks on the same corridor.

Orange Ave Backbone Bikeway and Street Improvement Project PS&E Public Works Plan Check Staff Augmentation Services

Fehr & Peers served as extension of staff on behalf of Long Beach Public Works to conduct plan check review for the Orange Avenue Bikeway and Street Improvement Project PS&E. We reviewed the signing, striping, and signal modification plans and corresponding specifications and cost estimates in accordance with City of Long Beach standard plans, the Manual on Uniform Traffic Control Devices, and relevant guidelines and best practices for the implementation of protected bicycle facilities.

Safer Streets Long Beach High Injury Network Update

Fehr & Peers updated the City of Long Beach high injury network and collision trend summaries from the Safe Streets Long Beach plan using the most recently available collision data. Fehr & Peers incorporated a proactive approach to safety by performing a systemic risk analysis to understand key roadway and contextual factors present in the most common and severe collision types in the city. The results of the analysis were summarized in an online interactive data dashboard to allow the City of Long Beach to visually display and summarize collisions based on roadway and contextual factors in order to proactively plan and prioritize safety counter measures.

Long Beach Public Works Data Strategy

Fehr & Peers is supporting Long Beach Public Works in developing a data strategy document for recommending strategic approaches and guidance for collecting, managing, visualizing, and deploying data. Fehr & Peers conducted a data inventory to source metadata about commonly used transportation datasets within Public Works, and developed a data catalog that is designed to convey a one-page snapshot of the data's use cases, type, and who to contact for additional guidance. Additionally, Fehr & Peers developed a Living Strategy document that outlines key actions for the Public Works to monitor progress towards sustainable data strategy and management.

City of Santa Monica On-Call

(2019-Ongoing)

Fehr & Peers has served as a transportation consultant for the City for over 20 years.

Fehr & Peers has a 20-year history working with the City of Santa Monica and has been part of significant planning and engineering efforts, such as the Land Use & Transportation Element (LUCE) and the Colorado Esplanade. We also prepared the transportation study for the recent Housing Element Update that utilized the City's travel demand forecasting model that was originally developed by Fehr & Peers as part of the LUCE and are part of the team working with Big Blue Bus on updating transit service routes and frequencies.

Most recently, Fehr & Peers has had a contract for **as-needed professional design services** with the City of Santa Monica since 2020. As part of this contract, we have been issued the following work orders:

Project Management Support

Fehr & Peers assisted SaMoDOT in overseeing the following capital improvement projects: Olympic Boulevard and 26th Street and Wilshire Boulevard Safety Study Phase II. Each of these projects required a 100% PSE design package that was being completed by a consultant team and Fehr & Peers assisted the City in the initial phases of these efforts by providing project management support.

Traffic Assessment

Fehr & Peers prepared a traffic assessment for SaMoDOT to provide transportation data for multiple corridors in the City in support of the following transportation projects: Wilshire Safety Improvements Phase 1; Ocean Avenue Repaving; MANGo: Michigan Avenue – 20th Street Connector Bike Path. We retained AimTD to collect the requested traffic count data at 21 roadway segments and 23 intersections in Fall 2022. We then compiled the traffic count data into two deliverables including tables, charts, and figures that presented the 2022 data collection results and compared traffic volumes to historic levels on Ocean Avenue and Michigan Avenue.

Broadway Protected Bikeway

Fehr & Peers is currently preparing the engineering design plans for new protected bikeways on Broadway. The design will include development of red curb guidance at driveways and intersections, material selection for the vertical protection, low-cost signal timing adjustments to achieve a more comfortable experience for bicyclists, and elements of protected intersections where feasible. Multiple RRFBs will also be included in the design to enhance pedestrian access along the corridor.

Harvard Street Preferential Parking Study

Fehr & Peers prepared the Harvard Street Preferential Parking Study for SaMoDOT. This study required a substantial parking data collection effort and our team collected the required parking data including the parking inventory for each block of the study area and a detailed parking occupancy survey for a weekday and weekend day. The data collected was presented through tables, charts, and figures for use by the City.

Michigan Avenue Neighborhood Greenway Traffic Assessment

Fehr & Peers prepared a traffic assessment for SaMoDOT to provide transportation data for two corridors in the City in support of the following transportation projects: Michigan Avenue Neighborhood Greenway and Safe Routes to Santa Monica High School. Our team collected traffic count and speed data in May and June 2023, compiled the traffic count data, and completed a historic comparative analysis.

Santa Monica WOR Engineering & Traffic Survey

Fehr & Peers is currently preparing an Engineering and Traffic Survey (E&TS). The goal of this study is to establish enforceable speed limits throughout the City pursuant to Section 22358 of the California Vehicle Code (CVC). This study will allow the City to enforce speed limits and account for recent legislation changes under California Assembly Bill (AB) 321 and AB 43. An extensive data collection effort was conducted for over 200 roadway segments in the City to obtain speed data and daily traffic volumes. The data collection findings will be used to recommend potential speed limits through data analysis as defined by CVC Section 627 and the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD).

We Are Making Changes to the **Broadway Corridor**

PROJECT GOALS

Reduce Speed | Visibility and Comfort at Intersections | Mobility for Bikes and Scooters

FROM 5TH TO 26TH

Separated Bike Lanes with Concrete Buffers

Creates comfortable, connected networks to make bicycling more attractive and accessible to people of all ages and abilities.

Yield Signage

Increases driver awareness of the presence of bicyclists and pedestrians.

Bike Boxes

Provides a dedicated space for bikes to wait in front of vehicles, giving them a "head start" while waiting to make a left turn at a red light.

Leading Pedestrian Intervals

Reduces conflicts and improves visibility of pedestrians crossing the street by giving them a "head start" when crossing at a signal.

City of Santa Monica

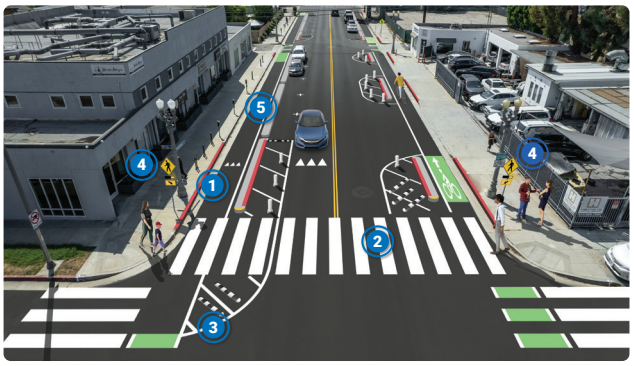
To learn more, visit
santamonica.gov/broadway-safety-project
Funded in part by Metro, a partner in the community.

We Are Making Changes to the **Broadway Corridor**

PROJECT GOALS

Reduce Speed | Visibility and Comfort at Intersections | Mobility for Bikes and Scooters

FROM 5TH TO 26TH



1 Daylighting (Red Curb)

Longer red curbs, also known as "daylighting"will be added to remove obstructions and improve visibility for vehicles exiting side streets, alleys, and driveways.

2 High Visibility Crosswalks

Several new crossings will be added, using a high-visibility striping pattern, to improve visibility for people crossing the street and improve access to destinations.

3 Corner Traffic Calming Wedges

Narrows the street at intersections to encourage slower, more careful turning movements when crossing the bikeway. This will also shorten crossing distances for pedestrians.

4 Pedestrian Beacons

Enhances the visibility of a marked crosswalk and alerts drivers to where pedestrians are crossing the street.

5 Separated Bike Lanes with Concrete Buffers

Creates comfortable, connected networks to make bicycling more attractive and accessible to people of all ages and abilities.

City of Santa Monica

To learn more, visit
santamonica.gov/Broadway-Safety-Project
Funded in part by Metro, a partner in the community.

Projected & Redistributed Parking Occupancy – Mid-day Weekday

Occupancy with spaces lost to the Broadway Bikeway (demand redistributed)

- < 20%
- 20% to 40%
- 40% to 60%
- 60% to 80%
- 80% to 90%
- 90% to 100%
- > 100%
- No Parking, Construction Zone, Permit Only Zone

Note: the projected parking occupancy redistributes the demand displaced due to the Broadway Bikeway within 1 block of their original parking location.

Key Finding:

During the mid-day weekday peak-period, there will be enough spaces in the larger study area to accommodate all the projected demand within 1 block.

City of Beverly Hills On-Call Traffic Engineering Services

(2012-Ongoing)

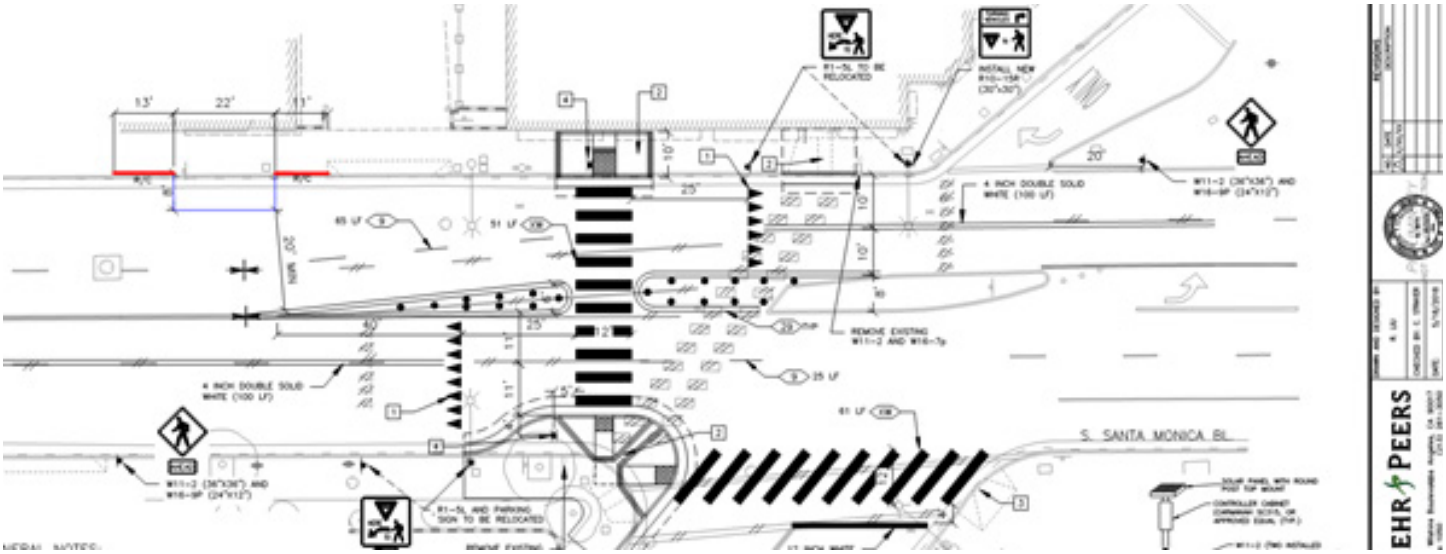
Fehr & Peers has served all aspects of the transportation needs for the City of Beverly Hills as their on-call traffic engineering consultant for multiple contract terms, spanning over 15 years.

We have directly prepared dozens of transportation impact studies for a wide variety of projects in the City, including mixed use, hotel, office, and retail projects, and have peer review studies prepared by other consultants.

We assist the City in a wide range of studies, including an in-depth assessment of safety and operations at complex intersections, the development of a Transportation Division Procedures Manual for internal use, and have provided numerous conceptual design drawings, signing & striping plans, and traffic signal plans for construction. Other assignments included reviewing development project site plans, developing locations for the new bikeshare stations, assessment and implementation of a pilot project to convert traditional crosswalks to continental crossings, evaluated existing and proposed crosswalks to identify appropriate treatments/enhancements, and studied traffic-related concerns submitted by residents and business owners.

We have also prepared plan check comments for temporary traffic control plans associated with the Metro Purple Line Extension Subway Project. Additionally, we prepared neighborhood traffic management plans, and detailed studies to enhance safety on a residential street that suffered from truck collisions and speeding. We frequently present our findings at transportation commission, planning commission, and city council, and are savvy to the political dynamics that staff face as they seek to implement projects in the City. Recently, we have designed and implemented the following projects:

- **Enhanced Pedestrian Crossing** at South Santa Monica Boulevard and Lasky Drive, which incorporated rectangular-rapid flashing beacons (RRFB), a curb extension to shorten crossing distances and new high visibility crosswalk striping.
- **A midblock crosswalk** on 3rd Street between Foothill Road and Maple Drive. This newly installed crosswalk connects street parking and office uses to a post office, providing a safe and convenient crossing for patrons.
- **The conversion of Canon Drive to a cul-de-sac** at Wilshire Boulevard due to Metro Purple Line construction. This cul-de-sac allowed for subway construction access while accommodating various parking and loading needs for businesses along Canon Drive.
- **Subsequent pandemic-related modifications to the Canon Drive cul-de-sac** to accommodate in-street outdoor dining. The cul-de-sac was reduced to allow for limited loading access, while repurposing the remaining space to accommodate outdoor seating for area restaurants.
- **The restriping of Dayton Way** for two-way traffic flow in Downtown Beverly Hills in response to Metro Purple Line construction street closures. Two-way operations on Dayton Way allowed for increased access to businesses and parking without needing to circle other streets.
- **A new traffic signal** at Crescent Drive and Clifton Way to accommodate the diversion of traffic due to the Canon Drive closure. This converted an existing all-way stop-controlled intersection to a fully signalized, four-way traffic signal and provided signalized pedestrian crossings.
- **Traffic circles and narrowing treatments** along Loma Vista Drive in the Trousdale Estates neighborhood to calm traffic and slow speeds in an area with steep grades.
- **A traffic signal modification** at Olympic Blvd./S. Beverly Drive/S Beverwil Drive which incorporated new poles with longer mast arms to allow for flashing yellow left-turn arrows for vehicles on Olympic Boulevard. This project also included an upgrade to the existing signal controller.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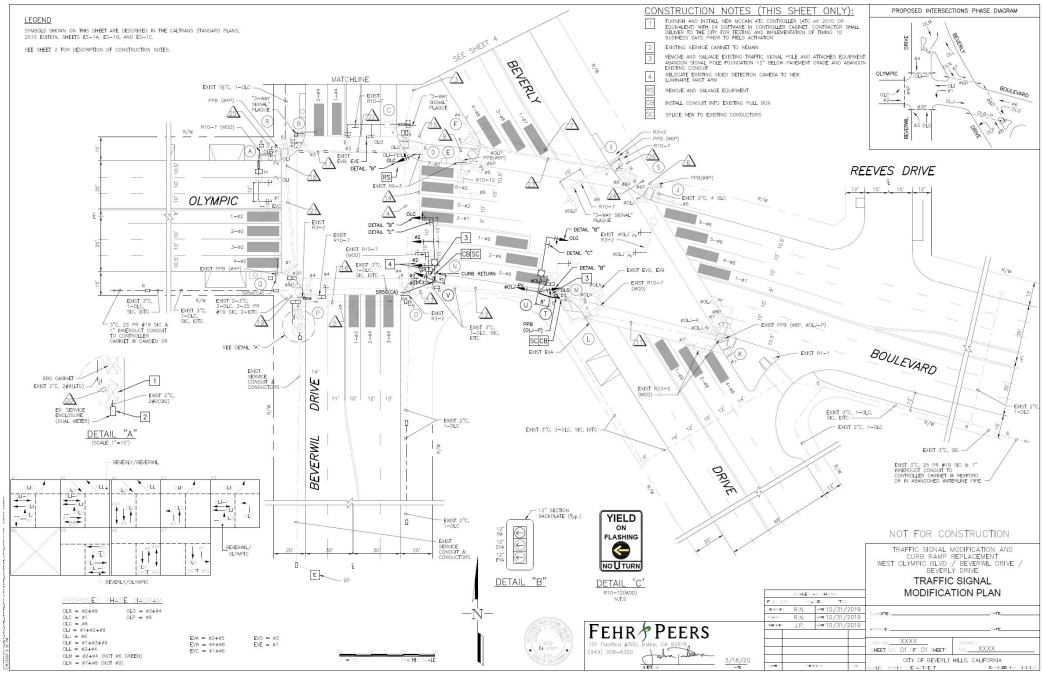

LEGEND
CONSTRUCTION NOTES (THIS SHEET ONLY):
PROPOSED INTERSECTIONS PHASE DIAGRAM
OLYMPIC
BEVERLY
REEVES DRIVE
BOULEVARD
BEVERWIL DRIVE
DETAIL "A"
DETAIL "B"
DETAIL "C"
YIELD ON FLASHING NO U TURN
NOT FOR CONSTRUCTION
TRAFFIC SIGNAL MODIFICATION AND CURB RAMP REPLACEMENT
WEST OLYMPIC BLVD / BEVERWIL DRIVE / BEVERLY DRIVE
TRAFFIC SIGNAL MODIFICATION PLAN
FEHR PEERS

Development of conceptual plans and alternatives for corridor revitalization projects, neighborhood traffic management, bikeway improvements, and other long-term capital improvements.

Fehr & Peers has conducted planning and design for hundreds of corridors in California and has navigated conversations on detailed design decisions, priorities, and tradeoffs on each of them.

Fehr & Peers staff currently serve as the chair of the ITE Complete Streets Council, and in board and committee roles on the TRB Pedestrian and Bicycle Research Committees, and the Association of Pedestrian and Bicycle Professionals (APBP). Complete streets have become a major area of our practice, and as standards for the design of pedestrian-and bicycle friendly intersections and streets evolve, the need for evaluating new complete streets in a consistent manner grows. To support our clients by delivering best practices and innovations on complete streets design projects, we have a dedicated internally funded Complete Streets Discipline Group, that oversees internal research and development on guidance for multimodal corridor design, including tradeoffs and considerations for Class IV design, bicycle facility signal and intersection modifications, bus boarding islands, and protected intersections. Additionally, our Southern California engineering design team meets regularly to host design charettes and share best practices.

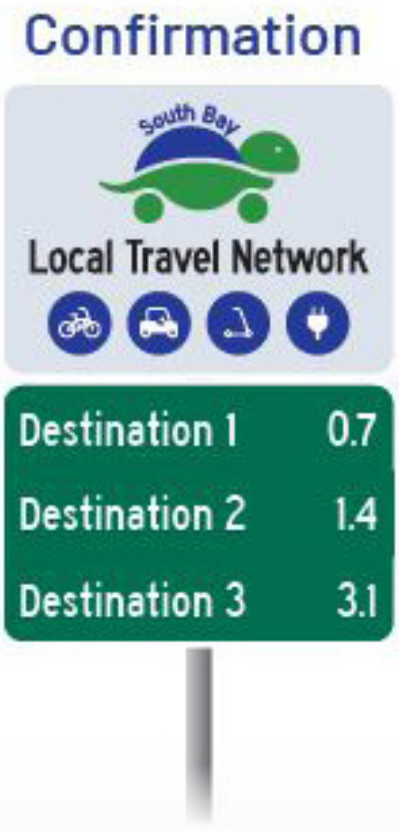
Fehr & Peers is a nationally recognized leader in the areas of traffic calming and neighborhood traffic management. Implementing traffic calming often begins with stakeholder engagement to understand priorities and balance input from affected residents, agency staff, and the wider public interests represented by elected officials. Other major components can include developing traffic calming policies and guides, including pilot programs; applying policies or best practices to specific corridors; and developing designs for traffic calming implementation. Key to developing plans to manage neighborhood traffic management is consensus building within the community. Our outreach, engagement, and education strategies are detailed in a section that follows.

Underlying all of our conceptual planning and studies, is our expertise and focus on multi-modal safety. Our plans directly respond to the unique needs of each community we serve, moving best practices forward with technical innovation and an inclusive approach. An actionable plan with clear goals, time frame, and leadership is key to achieving measurable improvements to safety outcomes. Fehr & Peers has worked with communities to develop implementation-oriented safety programs that focus on translating safety analysis and planning into action through designing feasible and effective projects, building local support, developing citywide policies that promote safety in all roadway design decisions, and identifying funding for implementation. To help cities achieve their safety goals, Fehr & Peers developed a critical resource in partnership with the Institute of Transportation Engineers (ITE), “Core Elements for Vision Zero Communities.” This resource helps communities set priorities, work toward tangible results in promoting safety, and benchmark their progress relative to best practices through all of their long-term capital investments in transportation and mobility.

SBCCOG Local Travel Network Implementation

2022-Ongoing

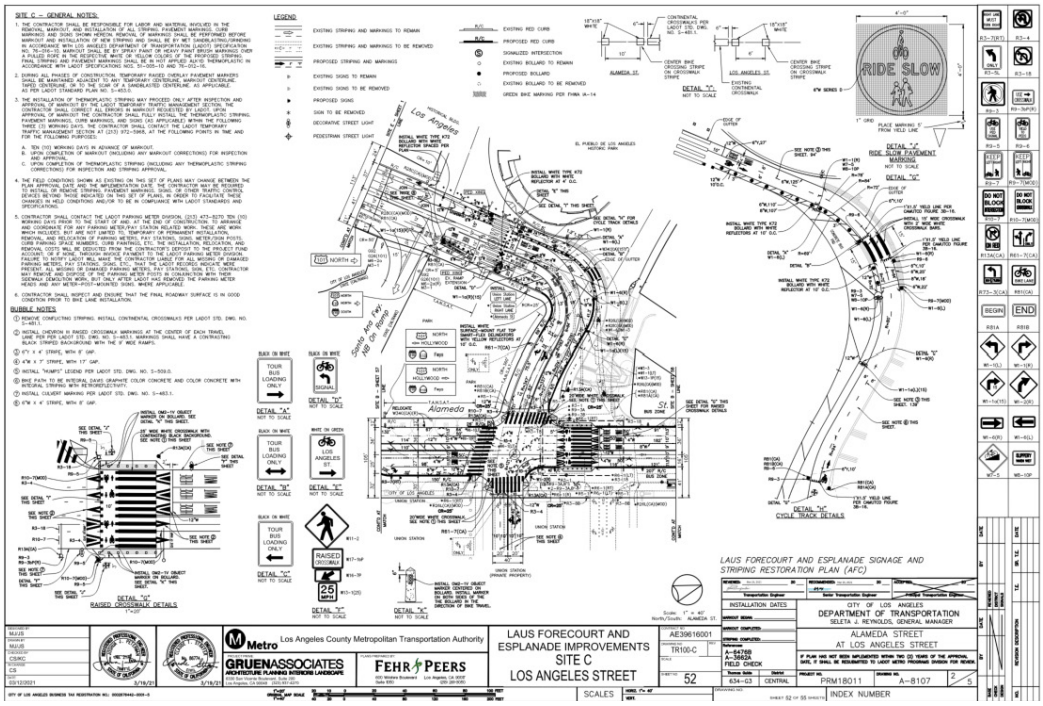
Fehr & Peers has supported SBCCOG for several years in the development of their "Local Travel Network," (LTN) a comprehensive travel network throughout the South Bay region for low-speed zero emission modes. This project focuses on development of branding, wayfinding signage, pavement markings, and other supportive amenities, for implementation of the network in several South Bay cities. Through a collaborative process with each of the local jurisdictions, Fehr & Peers is developing a unique visual identity for the LTN. We are also developing design guidance and cost estimates for implementation of signage and markings along the network. These materials will be used by each jurisdiction in Measure M grant applications to secure funding for implementation of the network. This project also focuses on a data-driven approach to identifying safety improvements, as well as parking-related amenities along the network. We are also developing a master NEV Plan that can be adopted by each local jurisdiction to meet state requirements. Fehr & Peers also supported the City of El Segundo with pilot LTN implementation in late 2023.



LA Metro Alameda Complete Streets

2018-2021

Fehr & Peers prepared the plans, specifications and cost estimates (PS&E) for signal modifications, traffic signal interconnect, and signing and striping for the Alameda Esplanade and Los Angeles Crossing in front of Union Station in LA, a project funded by two separate ATP grants. The project includes a substantial reconfiguration of the driveway at Union Station, as well as lane repurposing on Alameda Street to provide wider sidewalks, and off-street bike paths and shared use paths. The bike path crossings include signal protection to enhance pedestrian and bicycle safety, as well as a raised crossing on Alameda Street, a first for the City of Los Angeles on a busy arterial and truck corridor. The engineering design plans for traffic signals, signal interconnect, and signing and striping were prepared for LA Metro for submittal to the Los Angeles Department of Transportation, who approved the construction drawings. The project also included a separate Caltrans plan submittal and a Design Standard Design Document (DSDD) for non standard elements that were ultimately approved by Caltrans.



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Develop final design plans, specifications, and cost estimates for transportation-related projects and assist the City during construction as required.

Fehr & Peers has unique expertise in providing transportation engineering services from early conceptual design through construction documents and field implementation. We integrate our design and construction experience with our knowledge of planning and operations to provide clients with a unique combination of creative, yet practical solutions that address the needs of all travel modes.

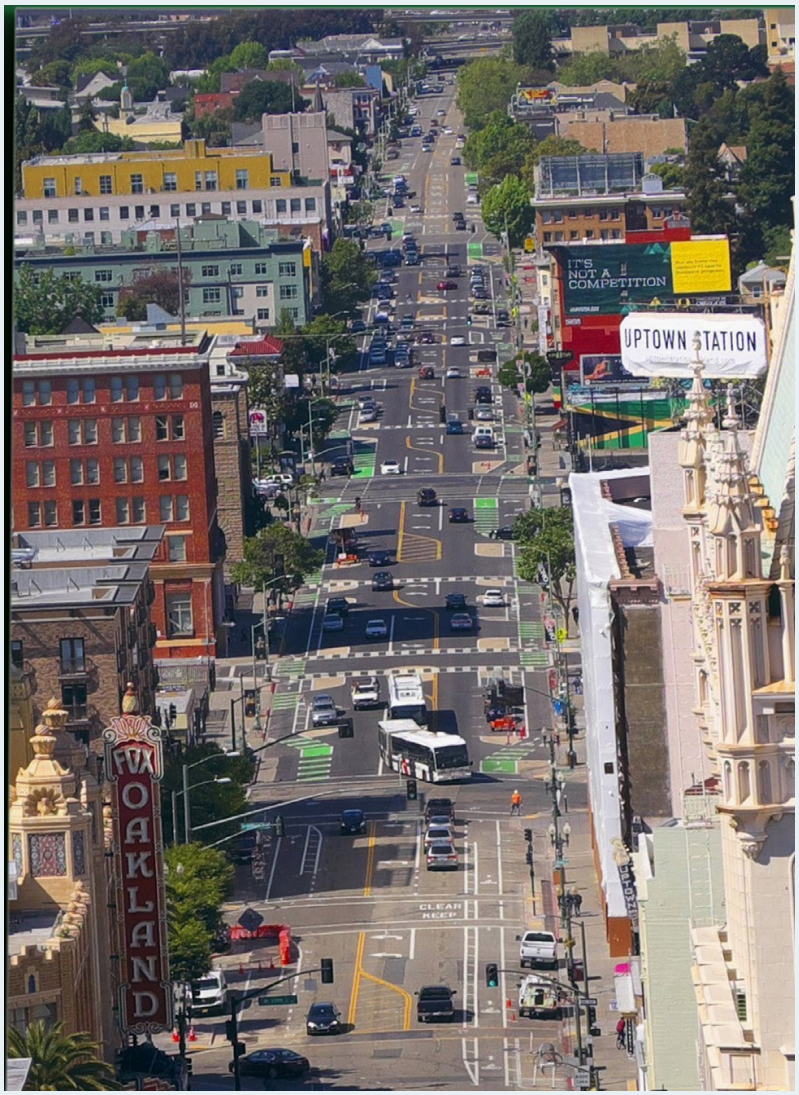
This comprehensive approach to transportation engineering is an obvious benefit to clients looking to make cost-effective decisions and develop biddable projects with minimal questions during construction. We are experts in applying the California Manual on Uniform Traffic Control Devices (MUTCD), are well versed in the latest updates to the Federal MUTCD that will affect the CA MUTCD within the next two years, as well as the latest Public Right-of-Way Accessibility Guidelines (PROWAG). We have completed PS&E plans for many cities throughout Los Angeles County, as well as directly for Caltrans. We know the challenges of gaining approvals from Caltrans and are well versed in preparing plans to minimize non-standard elements to reduce or eliminate the need for a Design Decision process with Caltrans in the Encroachment Permit phase.

Our engineering design services include:

- **Signing, Striping, Signal & Street Lighting Design** - Fehr & Peers delivers street designs that range from concept plans to construction documents. We provide designs addressing geometric design, traffic controls, lighting and more. We have extensive experience designing innovative bikeways and safety-focus pedestrian facilities that address the needs and context of the community. We ensure when infrastructure is designed that all users are in mind.
- **Intelligent Transportation Systems** - We have design numerous traffic signal systems throughout California with ITS elements, transit signal priority, emergency vehicle preemption, complex signal interconnects, and other aspects of sophisticated signal design.
- **Intersection Reconfiguration** - When planning intersection reconfigurations, Fehr & Peers's in-house expertise in multimodal operations and design addresses the needs and safety of all users. We pay special attention to preventing conflicts between motorists, pedestrians, and bicyclists at complex intersections. We use multi-modal transportation simulations to operationally test the design options and understand the benefits and the tradeoffs to all transportation modes.
- **Bicycle Facility Design** - Fehr & Peers frequently prepares conceptual and construction documents for bicycle facility design ranging from Class I to Class IV facilities. Our design prioritizes safety, ease of use and comfort for people of all ages and abilities. Fehr & Peers has helped plan and design projects for protected bikeways, bicycle boulevards, protected bicycle lanes, separated bikeways, raised cycle tracks, recreational paths, protected intersections and more.
- **Pedestrian Crossing & Facility Design** - Fehr & Peers has extensive experience in pedestrian crossing and facility design. We understand the evolution of crossing treatments, guidance and travel behavior and their impact on pedestrian interaction with the built environment is critical to addressing quality of life challenges and meeting expectations for those who walk. We offer crossing solutions and design for large-scale projects with variable roadway characteristics, controls, and contexts to smaller local areas.
- **Roundabout Layout & Design** - From geometric layout, signage and striping, operational analysis and construction staging we help create the right roundabout. We add significant value when completing a roundabout design where we can utilize our expertise in complete streets to implement solutions that accommodate all modes. Fehr & Peers also offers services to peer review a roundabout design.

- **Traffic Control Plans / Construction Support** – Fehr & Peers has prepared numerous traffic control plans from private development projects to complex transit corridor and roadway and active transportation improvement projects requiring multiple phases of construction. We also provide bid support services and field supervision during construction for elements of projects that Fehr & Peers designs.

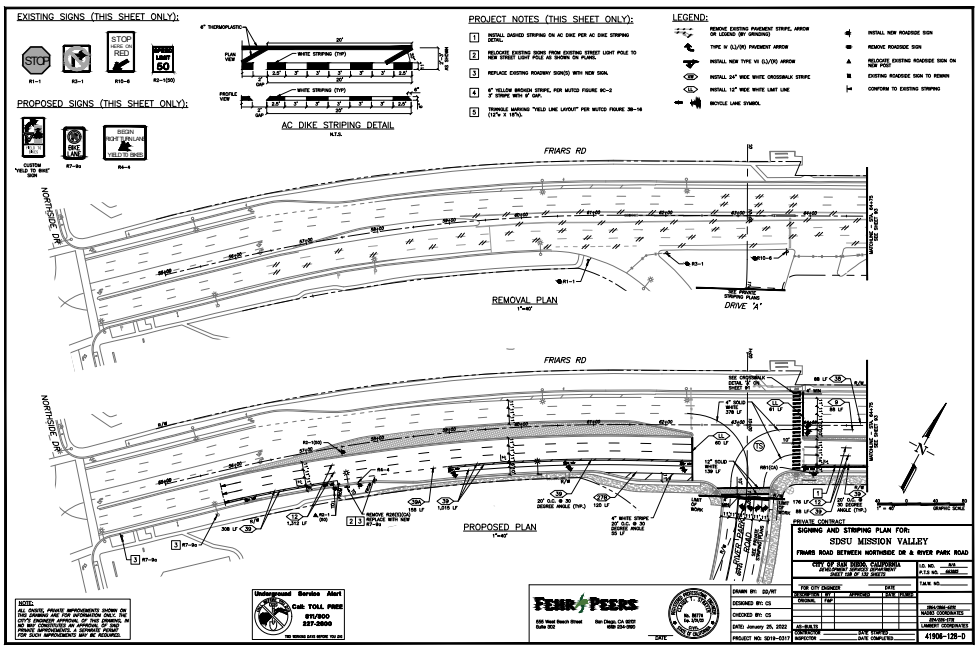
Fehr & Peers Built Examples



San Diego State University Mission Valley Campus PS&E

2019-Ongoing

Fehr & Peers handled the transportation planning analysis and design services for the SDSU Mission Valley campus at the SDCCU (formerly Qualcomm) Stadium site. Our work included assisting with the site planning and development of the overall mobility network, which involved multimodal facilities and design of two multilane roundabouts. This included the preparation of the Transportation Impact Analysis (TIA) for the environmental document that included the traffic operations analysis (i.e., level of service at intersections, on roadways, and on freeway facilities). We are currently working at the final design level of the design including roadway signing and striping and traffic signals PS&E for both on and off-site traffic engineering improvements.



San Fernando Boulevard Reconfiguration Pilot Project

2022-Ongoing

Fehr & Peers worked with the City of Burbank to develop 100% PS&E and a before/after study for a complete streets pilot in the downtown segment of San Fernando Boulevard. The project's objectives are to improve pedestrian safety, implement dynamic curbspace management strategies to manage commercial and passenger loading, and provide additional spaces for landscaping and public art. Fehr & Peers helped the City develop several alternatives for the corridor, including a full closure and several variations of a one-way configuration. As part of alternatives development, Fehr & Peers developed and applied an evaluation framework inclusive of metrics such as yield compliance at midblock crosswalks, auto speeds, pedestrian and bicycle use, and loading activity.

Preparation of studies, recommendations, and regulatory changes to assist in the expansion of transportation choices.

Fehr & Peers specializes in providing multimodal transportation planning and engineering services. We emphasize the development of creative, cost-effective, and implementation-oriented solutions to planning and design challenges associated with all modes of transportation, including bicycling, walking, transit, and cars.

From active transportation plans to complete streets planning to innovative bicycle design, bikeshare business models, and multi-modal safety implementation, Fehr & Peers strives to enhance circulation, increase safety, and provide feasible and fundable solutions for our clients. We are passionate about transportation because we know how solid planning and innovative transportation solutions can benefit people where they live and work.

As a full-service multimodal transportation planning and engineering firm, Fehr & Peers offers clients insight and expertise with all matters relating to transportation, including land use and transportation planning, travel demand forecasting, multimodal operations and simulation, bicycle and pedestrian planning, and much more. Our deep bench of internal experts provides a full suite of in-house services on each project.

We employ our experience in using a wide range of advanced tools, data sources, and vendors to provide accurate, data-driven performance metrics that are subsequently transformed into visually compelling summaries for clients. Using our own internally developed innovative tools and other cutting-edge resources, we can customize approaches and answers to even the most unique and challenging questions.

Fehr & Peers began helping early-adopter Vision Zero cities develop their action plans in 2013, building on prior decades of safety experience. Over the past decade, we have worked with nearly 100 jurisdictions in California alone on multi-modal safety planning. Most recently, we have been pioneering work with both Caltrans and FHWA in their adoption of the Safe System Approach. Fehr & Peers has also worked with dozens of clients on corridor and intersection design efforts to implement countermeasures at high-priority locations. Additionally, we have worked extensively on safety plan education and outreach efforts, including those with a focus on connecting with underserved communities through Community Based Organizations (CBOs).

Fehr & Peers has worked on the design of complete streets and active transportation facilities in many challenging locations, where all modes come together and need to be accommodated. Our planning and design process starts with close coordination with agency partners to understand the end goals of the project and the agency's design standards and requirements. We often conduct design charrettes with our team to develop possible concepts, followed by thorough engineering analysis to evaluate curb radii, lane widths, and other important design elements. When appropriate, we use multimodal transportation simulation to operationally test the design options and understand the benefits and the tradeoffs to all transportation modes. We share these multimodal findings with our agency partners and discuss how to engage in meaningful conversations with community stakeholders to solicit their ideas and responses to design options. Our team is well versed in the state of the practice designs for complete streets and pedestrian and bicycle facilities both nationally and internationally, but our approach is deeply grounded in understanding the specific community context and using that knowledge to craft tailored solutions that are constructible and implementable.

Metro MAT

2023-Ongoing

Fehr & Peers, as a subconsultant, worked to complete First/Last Mile (FLM) conceptual plans for the Aviation/LAX C-Line Station, Culver City E-Line Station, and high bus ridership intersection at Western Avenue & Slauson Avenue. Our staff were responsible for existing conditions data collection, developing public engagement materials, supporting public engagement events, and developing 15% conceptual designs. The development of existing conditions included evaluating high-speed corridors, existing and planned bicycle facilities, collision locations, and identification of existing challenges and opportunities. The project includes application of Metro's FLM which provides approaches for identifying the primary and secondary pathway networks and an improvement toolbox for enhancing station area access. The identification of challenges and project ideas was a combination of technical analysis, application of Metro's FLM toolbox, and extensive stakeholder engagement. In particular, walk audits, community charrettes, pop-ups, and presentations at existing community meeting occurred for each station area. Activities included pop-ups at the stations or nearby farmers markets, walks with stakeholders to observe and identify local conditions and behavior, and community charrettes that allowed participants to identify desired improvements for improved station access. Through an iterative and community-based approach to soliciting input, the project developed 15% plans that have community and agency support and can seamlessly move into the implementation process with the City of Los Angeles.

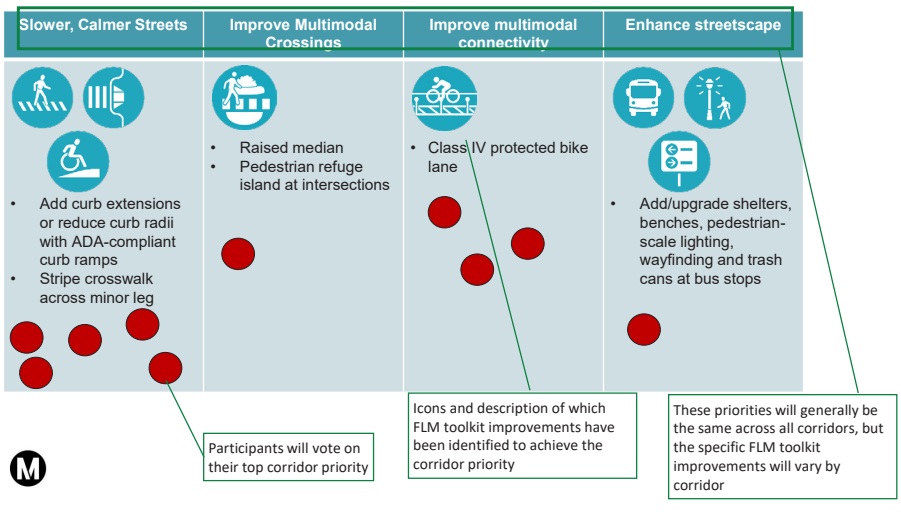
Corridor Assignments

> Participants will start at one of seven tables, organized by routes A-G, shown below:

Activity 2: Prioritize Set of Improvements & Corridors

What is your corridor priority for National Boulevard?

Due to funding, right-of-way, and other constraints, a subset of projects can be selected for design and implementation.

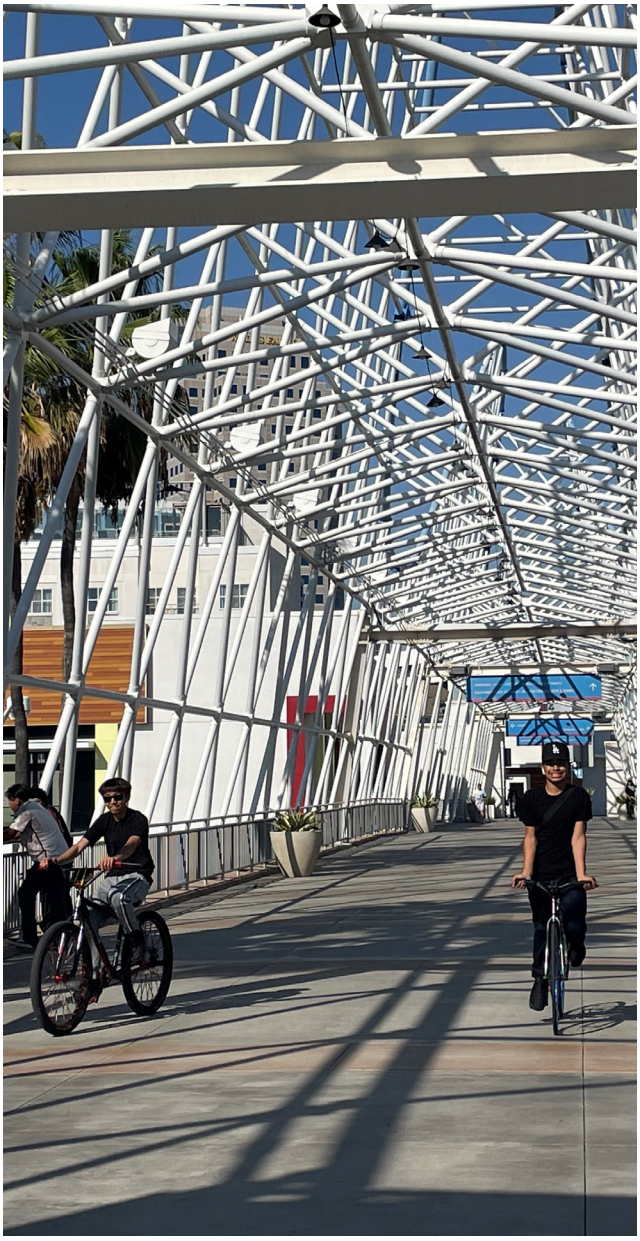


Downtown (PD-30) and Shoreline (PD-6) Specific/Visioning Plans

2023-Ongoing

Fehr & Peers, as part of two multidisciplinary teams, is leading the development of mobility and parking policies, strategies, and project concepts for both the Downtown Specific Plan (PD-30) and the Shoreline (PD-6) Visioning Plan. We are also leading the CEQA transportation impact studies for both plans. The Downtown Specific Plan update and its accompanying environmental impact report (EIR), will plan for and environmentally clear the next phase of Downtown's growth. Fehr & Peers' mobility and transportation work will support continued growth of Downtown, multi-modal safety (leveraging Fehr & Peers' recent work documenting the City's collision history), improve connections from Downtown and the Metro A Line to the ocean, and evolve parking management strategies in light of statewide legislation. Fehr & Peers will lead the EIR transportation impact study, leverage the latest generation SCAG activity-base travel demand model for the analysis.

Similarly, the Downtown Shoreline Village Plan update will adapt the plan to the next decade+ of growth. Fehr & Peers will play the same role as under PD-30, including mobility concept development and CEQA clearance, with particular emphasis on mobility and transportation connections between the two plan areas, and enhancing flexibility and adaptability within the street network to serve important events (e.g. Olympics, Grand Prix) while better serving day to day mobility needs.




LOS ANGI
WEST SHORELINE
GOLDEN AV
MAINE AV
DAISY AV
MAGNOLIA AV
CHESTNUT AV
CEDAR AV
PACIFIC AV
PINE AV
4th ST
3rd ST
LONG BEACH BL
ELM AV
LINDEN AV
ATLANTIC AV
LIME AV
OLIVE AV
ALAMITOS AV
151
191
192
WEST BROADWAY
1st ST
Transit Mall
111
112
113
142
121
WEST OCEAN BL
Coastal Zone Area
21
22
23
61
121
37
SEASIDE WAY
EAST SHORELINE DR
Metro A Line Route
Metro Bus Route
LADOT Transit Route
Long Beach Transit Route

Preparation of studies, recommendation, and regulatory changes to provide for the effective management of the City's parking resources and implementation of parking programs.

Fehr & Peers has prepared hundreds of parking studies for public and private sector clients with the goal of providing the best empirically grounded data to make the best decisions about allocating finite resources, be it financial or land resources to parking.

We are continually conducting research to better understand how changing travel behavior has affected parking demand to provide our clients with the best advice on parking capacity targets and rates, to "right-size" the amount of parking. We prepare Parking Management Plans (PMPs) to maximize the efficiency of scarce parking resources. We are well-versed in the latest parking technologies regarding revenue control and mechanical systems.

Our parking designs including signing and striping plans for surface parking lots, structures, and garages, including pedestrian and bicycle pathways through parking facilities, Americans with Disabilities Act (ADA) parking and access considerations, and driveway and loading considerations including testing with multiple design vehicles.

For complex parking areas with heavy pedestrian activity or other multi-modal conflicts, such as transit station areas, Fehr & Peers will employ Vissim microsimulation to understand the considerations needed to plan and design parking facilities that minimize safety and operational concerns.

We also stay current on the evolving regulatory framework for parking within the State of California, as multiple state bills influence how much control local cities may influence required off-street parking ratios based on given land uses such as affordable housing, development projects near high-capacity transit, residential in commercial zones and more.

Further discussion of our approach to parking studies for private development projects is detailed below in the section on our private development and CEQA practice areas.

Artesia-Aviation Corridor Area Plan

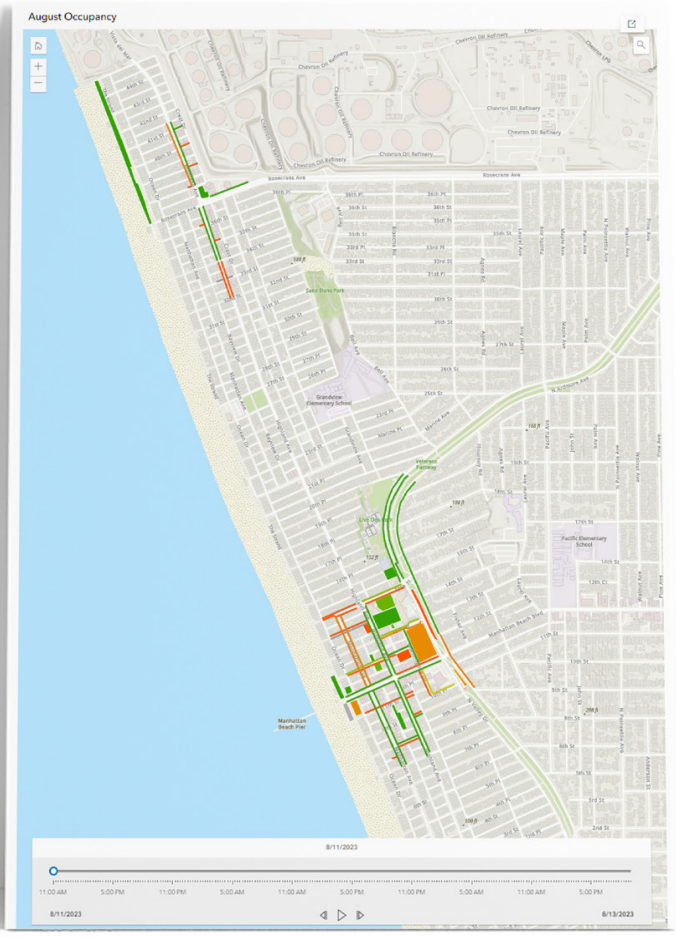
2021-2023

As a component of Fehr & Peers's work on PLAN Redondo (General Plan Update), Fehr & Peers led the development of mobility and parking management strategies for the Artesia-Aviation Corridors. Building on prior parking data collection, Fehr & Peers developed a shared-parking model to be used to estimate future parking needs on the corridor and to develop off-street parking ratios appropriate to the City's organic development vision. Because of narrow parcel depth on the corridor, off-street parking ratios have hindered investment in the corridor. Fehr & Peers developed and evaluated mobility strategies for the corridor to enhance pedestrian, bicycle, e-scooter, and transit connections, as well as curbspace management while being sensitive to the needs of adjacent residential neighborhoods. Given the long-term timeline for the corridor area plan, the mobility strategies and corresponding parking implementation will balance current needs with expected future changes that will occur from the construction of the Metro Green Line Extension, growing usage of shared ride hailing services, and a future with autonomous vehicles. Fehr & Peers conducted an evaluation of optimal parcels that can provide the most efficient parking structure layouts and best serve the district. The Parking implementation Plan details the policy framework for administering a district parking management strategy and flexible parking standards to facilitate the City's vision for the corridor. Fehr & Peers led multiple community workshops and public hearings to gather input on the process, culminating in a transportation impact analysis as part of the environmental clearance for the AACAP and parking implementation plan.

Manhattan Beach Outdoor Dining Parking Study

2023-Ongoing

Fehr & Peers is leading the analysis needed to support the City of Manhattan Beach's Outdoor Dining Program Development Study. Fehr & Peers is conducting an existing conditions parking study to understand parking utilization patterns in Downtown Manhattan Beach and its adjacent residential neighborhoods. We have collected over 48 hours of parking occupancy and utilization data across dozens of on-street segments and over ten off-street garages—in addition to this, we analyzed and distilled the data in an ArcGIS StoryMap to clearly summarize and display the most important findings and time-of-day patterns. We also engaged with stakeholders and residents to ensure our findings were accurate based on their local knowledge and experiences. With these findings, we will project future conditions with the increase of permanent outdoor dining, and recommend strategies to balance parking demand with parking management strategies to achieve the goals of increasing outdoor dining while minimizing impacts to parking in the coastal zone and in local neighborhoods.



Development and implementation of transportation education, engagement, and other awareness initiatives (i.e. Safe Routes to School, Bike Safety, Distracted Driving, etc.).

Fehr & Peers has extensive experience developing and leading transportation engagement, education and awareness initiatives, spanning all types of outreach efforts, including print and digital material development, social media outreach and all types of in-person engagement activities.

Relationships, communications, and events that foster input and collaboration with all stakeholders in a planning process are critical to the success of any transportation project. Engagement can and should happen at every stage of the transportation planning process, from visioning to construction and operation. It helps planners and engineers understand what everyday street and system users experience, what they would like to see, and where to invest resources. It ensures we are planning with - not around - the community. When done right, it can generate greater project acceptance and a sense of local pride. Community engagement is also an opportunity to collaborate with community members who have been historically excluded from, or remained on the margins of, decision-making in the past.

Key elements of Fehr & Peers' recommended strategies include:

- **Safety education**—This is an effective strategy went implementing new transportation programs and infrastructure. Public messaging campaigns can incorporate reminders about how to safely share the roadway with other modes and educate motorists on best practices for driving in the presence of pedestrians, bicyclists, and people on micromobility devices. Other strategies to consider include micromobility-oriented safety classes, especially those geared towards new riders, "rodeos," and community informational sessions. Fehr & Peers has developed community-oriented flyers, guides, fact sheets and educational courses for adults and children, including for use within school settings.

  The Manhattan Beach Police Department and the nonprofit Bike LA conducted a successful micromobility oriented safety programs geared towards new riders of e-bike safety which represents a proactive approach to improving traffic safety.

- **Walk audits**—Engaging City staff and/or neighborhood volunteers to conduct a walk audit can supplement transportation data and analysis with more detailed assessments of conditions along streets where infrastructure is planned. ArcGIS Quick Capture and Survey123 are commonly used mobile survey tools that Fehr & Peers implements that can be used to document observations from the walk audit.

- **Social Media**—Project related social media accounts (Tik Tok, Instagram, Facebook, X) dedicated to documenting and sharing updates about projects are important ways to communicate with community members both sharing information and receiving feedback. Fehr & Peers has prepared social media content and compiled and summarized community responses for multiple projects.

- **Bike audits/community rides**—Opportunities to ride on streets where projects are planned with a community group can make first-time riders or micromobility users feel more comfortable and spark interest among non-micromobility users. Organized tours and scavenger hunts can promote awareness of destinations that can be reached via streets with key transportation infrastructure projects. Partnering with schools to set up a bike bus is another effective strategy to engage with local schools to gain feedback and educate riders about safety.

- **Partnering with businesses**—Engaging with local businesses on streets where projects are planned, is another effective strategy to communicate and educate the community about upcoming projects, whether through storefront signage and resources such as pamphlets. These efforts can raise awareness of key projects and can be framed to businesses as a way to attract more customers. Fehr & Peers's creative studio has designed numerous project fact sheets, pamphlets and posters that are visually compelling and intuitive to understand.

ENGAGE EQUITABLY

Prioritize meaningful participation from underrepresented communities by reflecting the community's history and demographic context in the outreach plan. Define equity at the outset of the project and ensure that materials, activities, and venues are accessible and inviting regardless of race, ethnicity, language, ability, gender, sexual orientation, or financial means. Often this means finding local partners who are already entrenched in that community's particular needs and strengths.

DEVELOP A DIALOG

Outreach is approached as a two-way and ongoing dialog rather than a one-time transaction. The dialog is shaped around the client's goals for community engagement and should set clear expectations about the public's role in affecting project outcomes. Interactive tools and meeting formats aid in expanding the dialog. Participants should have a clear understanding of how their feedback was used in decision-making and should feel ownership of the final outcome at the conclusion of the process.

COMMUNICATE EFFECTIVELY

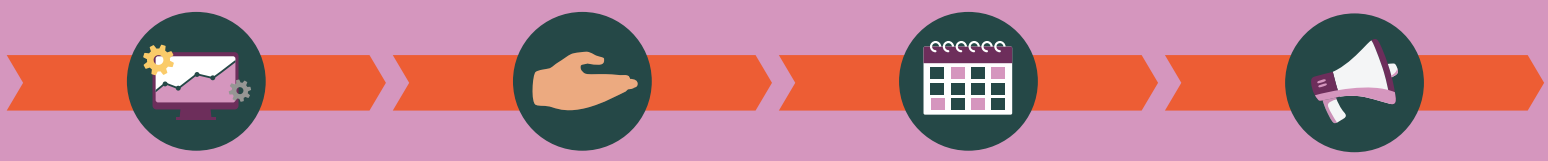
Many transportation metrics and engineering design solutions can be complex. Communicating ideas succinctly and effectively is essential for public understanding. Effective outreach incorporates high-quality visuals, straight-forward language, and asking targeted questions. This includes involving bilingual staff to involve participants who speak a different language.

MEET PEOPLE WHERE THEY ARE

Reach a broad cross-section of people as they go about their daily lives. This approach allows for participation from community members who have limited time in their schedule, who do not have a means of transportation to a central meeting location, and who may be distrustful of traditional meeting formats and city officials to participate in a space where they feel comfortable. On past projects, we used this strategy at shopping centers, food banks, and bus stops, as well as at pre-scheduled outdoor concerts, neighborhood bike rides, and block parties.

OUR ROLE IN COMMUNITY ENGAGEMENT

Relationships, communications, and events that foster input and collaboration with all stakeholders in a planning process. Engagement can and should happen at every stage of the transportation planning process, from visioning to construction and operation.



TECHNICAL SUPPORT

Produce collateral, messaging, and tools to support engagement while the client or engagement lead takes center stage .

ENGAGEMENT SUPPORT

Help develop the engagement strategy and provide in-person support to the client or engagement lead.

LOCAL TEAM FACILITATOR

Recruit local CBOs and leaders to form an engagement team. We coordinate but take a back seat to the locals.

BOOTS ON THE GROUND

Plan and run the events, determine logistics, have face-to-face conversations, and generally run the show.

LADOT Vision Zero Safety Analysis

2016-Ongoing

Fehr & Peers has been working with LADOT since 2016 to implement Mayor Garcetti's Executive Directive 10: Vision Zero, to eliminate traffic fatalities and severe injuries among all roadway users.

Technical Analysis. We led a robust, data-driven effort to identify the driving causes of traffic injuries and match efficient and cost-effective engineering countermeasures to address the safety challenges. We analyzed the collision data and environmental factors to create "collision profiles" which describe the "who, where, when, and how" of collisions. Fehr & Peers conducted an extensive review of pedestrian and bicycle safety treatments to determine what countermeasures would be most effective at addressing the collision profiles.

Action Plan Building. On our work for the Technical Analysis, Fehr & Peers supported the team to create the City's first Vision Zero Action Plan. Next, LADOT enlisted Fehr & Peers to support the City's first large-scale Vision Zero initiative to engage and inform the public. Our thorough review of the conceptual designs synthesized emerging best practices with LADOT standards, and our recommendations highlighted operational considerations, trade-offs among road users, and the benefits and drawbacks of project alternatives. Fehr & Peers worked as an extension of LADOT staff to coordinate, promote, and deliver public workshops and presentations to community groups.

Photos from Vision Zero Dignity-Infused Community Engagement

DICE. The Dignity-Infused Planning approach shifts the traditional transportation planning process into one that integrates the voices and experiences of community residents at every stage of a project's life cycle. The two-year scope of work marks important progress toward integrating community residents into LADOT's implementation of Vision Zero. Fehr & Peers strategizes to employ an intentional, holistic, and dignity-infused process that not only engages residents at every step, but creates formal avenues for participation in the Vision Zero process. Through community street teams, the formation of Resident Advisory Councils, and innovative business and faith-based engagement strategies, the project team works to shift how the City engages everyday residents. Fehr & Peers, project partners, community-based organizations, and even the local elotero (corn vendor) teamed up to talk to residents, listen to their needs along Avalon, and invite them to engage with us and provide their feedback regarding potential safety improvements to South LA.

Oxnard Safe Routes to School

2022-Ongoing

Fehr & Peers is developing Safe Routes to School (SRTS) plans for 25 schools in Oxnard. This effort builds on the first phase of the City's SRTS program, which covered 26 schools. The SRTS program includes walkability assessments, educational programming, and coordination with stakeholders, such as school districts, principals, school outreach specialists, campus supervisors, City of Oxnard Public Information Office, and City of Oxnard Police Department. Each school's SRTS plan will include key issues and walk audit observations, collision and citation trends, infrastructure and programmatic recommendations, suggested key routes to school, and before/after project counts.

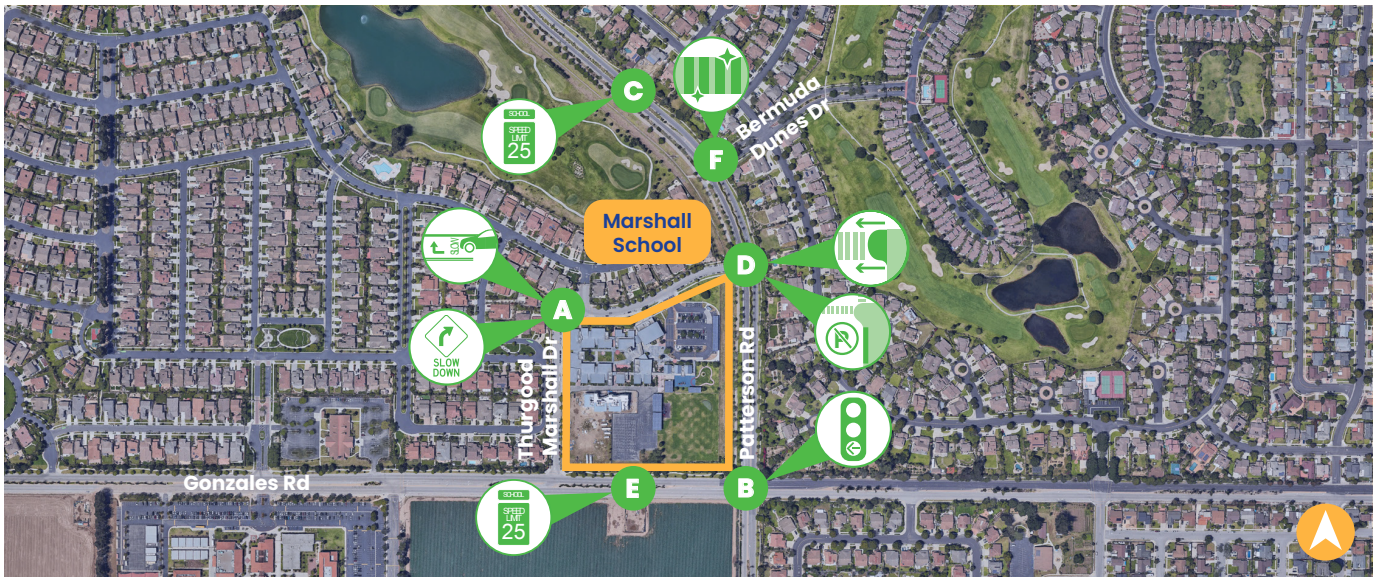
Our Safe Routes to School work for Oxnard builds on recent collaborations with the City on their Sustainable Transportation Plan and their Local Road Safety Plan (managed by Emily Finkel).

Marshall School (TK-8)

Marshall is a school in a residential area of Oxnard. Large arterials and a disconnected street grid limit walking mode share. Recommendations focus on reducing vehicle speeds at school hours and improving crosswalk connections to nearby neighborhoods.

QUICK ACTION

- **SCHOOL STAFF:** Instruct students to avoid wrong-way biking, especially on higher-speed arterials such as Patterson Road and Gonzales Road.
- **PARENTS/GUARDIANS/STUDENTS:** Avoid double-parking on Marshall. Try shifting your drop-off arrival time by 5 minutes in each direction to avoid peak congestion periods.



Plan/project review of private development projects and prepare or peer review traffic and/or parking studies for California Environmental Quality Act documents.

Preparation of Traffic Studies

Fehr & Peers has conducted thousands of transportation impact analyses for CEQA documents spanning most communities throughout Los Angeles County, California and beyond. We have prepared or peer reviewed 10+ CEQA transportation impact analyses (TIAs) in Hermosa Beach alone. Our studies span all types of planning projects such as general plan updates (PLAN Hermosa, PLAN Redondo EIR) land use projects including residential complexes, large tech-company campuses, mixed-use developments, hospitals, universities, schools, retail centers, office developments and many more. Our work can include both level of service (LOS) analyses and vehicle miles traveled (VMT), adhering to the evolution of CEQA practice that occurred as a result of Senate Bill 743 and the shift to VMT impact analyses. Our TIAs are multimodal, emphasize site plan and access review, and consider safety, as well as trip generation calculations, travel demand or traffic forecasting of proposed roadways; VMT calculations and TDM strategies, roadway improvements or intersection improvement projects; consideration of multimodal safety; active transportation access; site plan review and access considerations; and diversion of traffic due to substantial long-term construction projects. Our motivation to be the best transportation planning and engineering firm results in our extensive involvement in the development and interpretation of legal and policy thresholds that establish the defensibility of environmental documents.

Instrumental to Fehr & Peers's practice for CEQA documents is to get trip generation right. For years, typical practice in the field would underestimate the trip reduction benefit of mixed-use developments, as well as urbanized areas such as Los Angeles County. Unlike other firms, we internally finance our own leading-edge research on key topics related to land use and transportation integration to give our clients the best possible information and recommendations. Much of this research centers around quantifying the effects of various built environment factors on trip generation and mode choice. This work has been assembled into our web-based MainStreet tool, which provides an accurate and comprehensive estimate of trip generation for both suburban and urban conditions. MainStreet implements the latest MXD methodology that we have validated through direct data collection at many mixed-use developments throughout the nation.

When it comes to CEQA transportation impact mitigation, TDM strategies have been used for over 30 years to reduce commute trips, but the field has long struggled with having enough reliable data to allow planners to confidently answer questions about the real-world effectiveness of most measures. Quantifying the efficacy of individual and combined vehicle trip reduction measures has never been more critical as CEQA-based transportation analyses in California move away from an operations-based (i.e., level of service) approach to one that is focused on vehicle miles of travel (VMT) per SB 743 legislation. Even before this paradigm shift became law, Fehr & Peers was developing the TDM+ quick-response tool that evolved out of our technical analysis of greenhouse gas mitigation measures for the California Air Resource Board (CARB) Zero Carbon Buildings Study, and prior work for the California Air Pollution Control Officers Association (CAPCOA).

Preparation of Parking Studies for Development Projects

Major components of this work include existing conditions data collection; analysis of peak parking demand and demand rates, hourly variation in demand, parking turnover rates, and other relevant metrics; and recommended solutions for parking demand management.

We were among the early firms involved in the development of the Urban Land Institute Shared Parking model, and regularly employ the shared parking analysis tool to ensure that parking is provided to serve expected demand and not oversupplied, which can encourage driving, leading to environmental impacts and negative quality of life outcomes.

Our parking studies provide recommendations for the appropriate level of parking supply to serve expected parking demand from development projects to minimize spillover parking into neighborhoods will not over supplying parking that can induce additional VMT.

Peer Reviews for Traffic & Parking Studies

As a peer reviewer to support City of Hermosa Beach staff, we bring the latest practices and deep understanding of the regulatory framework to our review of studies. We have been instrumental in developing CEQA transportation impact study guidelines for many local cities, such as the City of Redondo Beach, Gardena, Los Angeles, Los Angeles County, and many others, as they implemented VMT impact analysis approaches to comply with SB 743. Few firms have Fehr & Peers's expertise in travel demand forecasting models, including the Southern California Association of Government's (SCAG) latest Activity Based Model (ABM) which is the appropriate tool for analyzing VMT impact analysis for most citywide plans and large-scale development projects. We are well versed in all of the technical analyses needed to review applicant transportation impact studies in the appropriate technical depth.

As we discuss above under our parking experience, we have prepared numerous parking studies of all types, so have the technical depth to review any parking study from demand estimation to parking layout. We supported the City of Hermosa Beach by peer reviewing the Strand Hotel EIR and parking study.

Beach Cities Health District EIR

2020 - Ongoing

The Beach Cities Health District (BCHD) developed a new campus plan for their Redondo Beach campus. The Healthy Living Campus Plan will help BCHD support their broader mission of providing services that enhance the health and wellbeing of the communities they serve, including assisted living, fitness, aquatics, a wellness center, and other educational and health facilities. Our work to support the campus plan included an evaluation of the parking needed to serve the site, the design of new vehicle access points to the campus and the interface with pedestrian and bicycle facilities, and the evaluation of transportation impacts for the project's environmental impact report. Our work on the EIR, included the evaluation of vehicle miles traveled and safety. Separately from the EIR, we prepared an evaluation of the project's effects on the operations of intersections and roadways adjacent to campus.

6500, 6615, 6700 Pacific Coast Highway

2021 - Ongoing

Fehr & Peers led the development of the mobility strategies and the CEQA transportation impact analysis for the Southeast Area Specific Plan (SEASP). Through that work, Fehr & Peers developed a trip budget methodology for the City to utilize to tier future development projects off of the specific plan's environmental document.

Fehr & Peers recently conducted analyses for three mixed use development projects in the SEASP area. We applied our Main Street Trip Generation Tool to quantify the external vehicle trips of the proposed projects, reflecting the mixed-use nature of the district and the methodology laid out in the SEASP.

Fehr & Peers is also preparing design plans for protected bicycle facilities and construction period traffic control plans for the 6500 PCH project, with submittals to the City of Long Beach Public Works and Caltrans.

References

AGENCY CONTACT	SERVICES PROVIDED & CONTRACT VALUE	FIRM PERSONNEL
City of Long Beach Paul van Dyk City Traffic Engineer City of Long Beach Public Works (562) 570-6675 Paul.VanDyk@longbeach.gov	**Public Works Transportation On-Call** › Clark Avenue Complete Streets PS&E › Cherry Ave Class IV PS&E › Atlantic Ave Class IV PS&E › High Injury Network Update › Public Works Data Strategy **Contract Value:** $500,000	**Fehr & Peers,** Prime Consultant › Michael Kennedy, Principal in Charge › Claude Strayer, Engineer of Record › Emily Finkel, Senior Associate, Contract Manager › Diwu Zhou, Associate & Traffic Operations Lead › Sean Reseigh, Senior Planner & Data Analytics Lead
City of Santa Monica Jacqui Swartz Senior Transportation Planner City of Santa Monica (310) 458-2201 Jacqui.Swartz@santamonica.gov	**On-Call Transportation Planning & Engineering** › Olympic Boulevard and 26th Street › Wilshire Boulevard Safety Study Phase II › Wilshire Safety Improvements Phase 1 › Ocean Avenue Repaving › MANGo: Michigan Avenue – 20th Street Connector Bike Path › Broadway Protected Bikeway › Harvard Street Preferential Parking Study › Michigan Avenue Neighborhood Greenway Traffic Assessment › Santa Monica WOR Engineering & Traffic Survey **Contract Value:** $450,000	**Fehr & Peers,** Prime Consultant › Claude Strayer PE, Engineer of Record › Kendra Rowley PE, Engineer
City of Beverly Hills Daren Grilley, PE, PTOE City Engineer 310.285.2557 DGrilley@beverlyhills.org	**On-Call Traffic Engineering Services** › Pedestrian Crossing Design Enhancements › Transportation Division Procedures Manual › Dayton Way Restriping › Canon Drive cul-de-sac conversion › Crescent Drive and Clifton Way Traffic Signal › Olympic Blvd./S. Beverly Drive/S. Beverwil Dr. **Contract Value:** $800,000	**Fehr & Peers,** Prime Consultant › Claude Strayer PE, Engineer of Record › Kendra Rowley PE, Engineer

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6. Project Management Plan

Fehr & Peers's project management tools and techniques ensure that assignments under the on-call contract will be completed on schedule and on budget.

Fehr & Peers has the management and technical resources that are necessary to successfully provide on-call services as outlined in the RFP.

- **A broad range of traffic engineering expertise and experience** so that virtually any traffic engineering design or planning issue can be addressed
- **Adequate staffing and redundancy in skills** so that projects can be initiated and completed in a timely manner
- **Knowledge of City standards** that ensures consistency with other projects and facilitates internal review and bidding
- **Established procedures** for developing scopes of work, schedules, budgets, and quality control for on-call tasks
- **Internal management controls**, including accounting, project management, and quality assurance that provide timely information to clients on schedule and budget and ensure the highest quality of products
- **Availability of state-of-the-art software tools** for the design, analysis, and presentation of projects.

CLEAR & ONGOING COMMUNICATION

Our team meets with the client early in the planning or design process to review and discuss desired project outcomes, critical design issues (e.g., utility conflicts, service requirements, etc.), and other key insights that could influence the process. This close coordination with the client enables us to develop deliverables that are consistent with client expectations, minimizing comments and rework.

EXPERIENCED PROJECT TEAM

Fehr & Peers contract manager, Michael Kennedy, brings a depth of experience to ensure that tasks are being initiated and completed at the right times throughout the project. Michael will check-in with the internal and external project team frequently to ensure that all of the project partners are able to meet reasonable deadlines throughout the project.

ABILITY TO RESPOND & ADAPT

We know that projects can encounter challenges, including changes in scope of work, delays in reviews, and data collection. Our philosophy is that it is essential to the success of the project to raise issues immediately, regardless of the complexity. We will develop a method of resolution with the City and work toward that resolution as quickly as possible. Deep listening and effective communication, be it visual, written, digital, or in a mix of languages, infuses all our work within the consulting team, with City of Hermosa Beach staff and partner agencies, and during all project activities.

ON-SCHEDULE & ON-BUDGET PERFORMANCE

Fehr & Peers employs staff loading procedures on a weekly, monthly, and quarterly basis to ensure that demand for staff time does not exceed supply. We can host regular check-in meetings throughout the project, to ensure that relevant staff have the opportunity to voice their input and contribute to the process. This is an effective approach to gain internal support, ensure alignment with existing work, and daylight opportunities to improve the approach before continuing with the scope of work. These meetings also help to keep the project on schedule, punctuating the work with intentional status updates, key moments for soliciting feedback, and presentation of findings internally with the client.

STAFF CAPACITY

With 47 transportation planning and engineering staff in the Los Angeles region and 382 staff firm-wide, we are able to share staff across offices, where necessary, to apply specific expertise or to address staff demand/ supply imbalances.

QUALITY AND COST CONTROL

Fehr & Peers uses state-of-the- industry accounting software to track project budgets. Using Deltek VantagePoint, our project manager can instantly generate project budget reports. We check these weekly to ensure that project tasks are being completed efficiently and that the budget will be met for each task and at the end of the project.

All work products will be reviewed by Fehr & Peers QA/ QC personnel that already review our deliverables for other similar projects, ensuring all deliverables meet our high standard for quality.

CONTRACT MANAGER

Michael Kennedy, AICP, LEED AP will serve as the Principal-in-Charge and contract manager for the City throughout project duration, and will oversee all tasks and subconsultants and ensure responsiveness and quality.

Michael brings over 17 years of successful project management experience, including several recent local on-call contracts.

> “Michael is very helpful when responding to client needs. He is also very accurate providing scope/cost and project timeframes”

Gino Ruzi, ICF
LA Metro CEQA/NEPA On-Call

7. Required Forms

6. Required Forms

6.1 Certification of Qualifications

RFQ #: 24-002

The undersigned hereby submits its statement of qualifications and agrees to be bound by the terms and conditions of this Request for Qualifications ("RFQ").

1. Proposer declares and warrants that no elected or appointed official, officer or employee of the City has been or shall be compensated, directly or indirectly, in connection with this statement of qualifications or any work connected with this statement of qualifications. Should any agreement be approved in connection with this RFQ, Proposer declares and warrants that no elected or appointed official, officer or employee of the City, during the term of his/her service with the City shall have any direct interest in that agreement, or obtain any present, anticipated or future material benefit arising therefrom.

2. By submitting the response to this request, Proposer agrees, if selected to furnish services to the City in accordance with this RFQ.

3. Proposer has carefully reviewed its statement of qualifications and understands and agrees that the City is not responsible for any errors or omissions on the part of the Proposer and that the Proposer is responsible for them.

4. It is understood and agreed that the City reserves the right to accept or reject any or all statement of qualifications and to waive any informality or irregularity in any statement of qualifications received by the City.

5. The statement of qualifications response includes all of the commentary, figures and data required by the RFQ.

6. The statement of qualifications shall be valid for 90 days from the date of submittal.

7. Proposer acknowledges that the City may issue addendums related to this RFQ and that the proposer has reviewed the following addendums which have been issued:

   Addendum: 1 - Deadline Extended

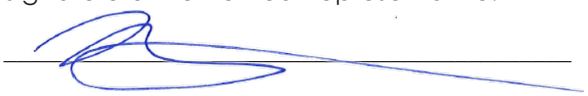
   Addendum: _____

   Addendum: _____

   Addendum: _____

8. Proposer further acknowledges the provisions of any addendums issued have been incorporated into their statement of qualifications.

Signature of Authorized Representative:



Printed Name and Title:

Michael Kennedy, Principal-in-Charge

6.2 Non-Collusion Affidavit

RFQ #: 24-002

The undersigned declares states and certifies that:

1. This statement of qualifications is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation.

2. This statement of qualifications is genuine and not collusive or sham.

3. I have not directly or indirectly induced or solicited any other Proposer to put in a false or sham statement of qualifications and I have not directly or indirectly colluded, conspired, connived, or agreed with any other Proposer or anyone else to put in a sham statement of qualifications or to refrain from submitting to this RFQ.

4. I have not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the rate schedule price or to fix any overhead, profit or cost element of the rate schedule price or to secure any advantage against the City of Hermosa Beach or of anyone interested in the proposed contract.

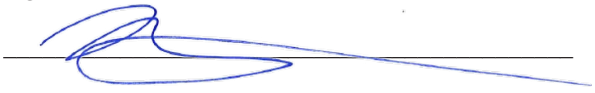
5. All statements contained in the statement of qualifications and related documents are true.

6. I have not directly or indirectly submitted the rate schedule price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any person, corporation, partnership, company, association, organization, RFQ depository, or to any member or agent thereof, to effectuate a collusive or sham statement of qualifications.

7. I have not entered into any arrangement or agreement with any City of Hermosa Beach public officer in connection with this statement of qualifications .

8. I understand collusive bidding is a violation of State and Federal law and can result in fines, prison sentences, and civil damage awards.

Signature of Authorized Representative:



Printed Name and Title:

Michael Kennedy, Principal-in-Charge

6.3 Compliance with Insurance Requirements

RFQ #: 24-002

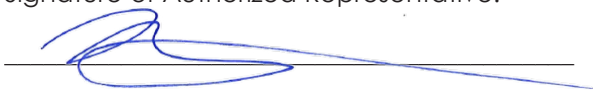
The selected consultant will be expected to comply with the City s insurance requirements contained within this Request for Qualifications ("RFQ").

The undersigned declares states and certifies that:

1. Proposer agrees, acknowledges and is fully aware of the insurance requirements as specified in the RFQ.

2. If selected, proposer agrees to accept all conditions and requirements as contained therein.

Signature of Authorized Representative:



Printed Name and Title:

Michael Kennedy, Principal-in-Charge

6.4 Acknowledgement of Professional Services Agreement

RFQ #: 24-002

The selected consultant will be expected to comply with and sign the City s Professional Services Agreement. Proposers shall identify and/or indicate any exceptions to the Sample Professional Services Agreement included as Attachment 1. The City Attorney or their designee retains the discretion to accept or reject proposed exceptions or modifications to the City s Professional Services Agreement.

1. Proposer agrees, acknowledges and is fully aware of the conditions specified in the City's Sample Professional Services Agreement.

2. Proposer agrees to accept all conditions and requirements as contained therein with exceptions noted as follows:

   Please see appendix for Fehr & Peers requested contract exceptions to the City of Hermosa Beach Professional Services Agreement

Signature of Authorized Representative:

Printed Name and Title:

Michael Kennedy, Principal-in-Charge

FEHR PEERS

August 30, 2024

Suja Lowenthal, City Manager
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, CA 90254

Subject: Mandatory COVID-19 Vaccination for City of Hermosa Beach Consultants

Dear Ms. Lowenthal:

Per this letter, Fehr & Peers certifies that all of its officers, agents, employees, subcontractors, representatives and volunteers servicing the City of Hermosa Beach on-site within the City pursuant to the City of Hermosa Beach On-Call dated August 30th, 2024, are or will be fully vaccinated or covered by an approved medical or religious exemption prior to the implementation of the scope of work located within the above referenced agreement.

Respectfully,

FEHR & PEERS

Michael Kennedy, AICP, LEED AP
Principal-in-Charge

Appendix

Requested Contract Exceptions

Resumes

REQUESTED CONTRACT EXCEPTIONS

If selected, Fehr & Peers requests consideration of the following contract modifications.

1. RECITALS. Section D.

Changes Requested: "The City desires to contract with the Consultant to perform the services as described in Exhibit A~~, Request for Qualifications, and Exhibit B, Statement of Qualifications of~~ attached hereto and incorporated hereby into this Agreement."

Reason for Changes: After the award of the contract, it is possible that the Consultant's scope of work may be further refined and modified during the contract negotiation stage and may not be in perfect alignment with the scope of work information in the City's RFQ or the Consultant's Statement of Qualifications submitted in response to the City's RFQ. Furthermore, the stricken language does not explain whether Exhibit A (the City's RFQ) or Exhibit B (the Consultant's Statement of Qualifications) prevails in the event of a conflict. This could make the overall scope unclear if the Consultant is responsible for performing the services as described in both Exhibits A and B. It would be far clearer if there is just one Exhibit that defines the Consultant's scope overall and reflects the final agreement between the parties as to what that scope entails after all discussions, adjustments, and refinements to the scope have taken place.

2. CONSIDERATION AND COMPENSATION. Section 1, Paragraph 1

Changes Requested: "As partial consideration, CONSULTANT agrees to perform the work listed in the SCOPE OF SERVICES, attached and described in Exhibit A ~~and Exhibit B~~."

Reason for Changes: Please see our changes and reasoning above for Section D of the Recitals.

3. SCOPE OF SERVICES. Section 2

Changes Requested:

"CONSULTANT will perform the services and activities set forth in the SCOPE OF SERVICE attached hereto as Exhibit A ~~and Exhibit B~~ and incorporated herein by this reference.

Except as herein otherwise expressly specified to be furnished by CITY, CONSULTANT will~~, in a professional manner,~~ furnish all of the labor, technical, administrative, professional and other personnel, all supplies and materials, equipment, printing, vehicles, transportation, office space, and facilities necessary ~~or proper~~ to perform and complete the work and provide the professional services required of CONSULTANT by this Agreement. CONSULTANT will perform its services exercising that degree of care, skill, and diligence ordinarily exercised by professionals performing similar services in the same or similar locale and under similar circumstances to that of CONSULTANT under this Agreement."

Reason for Changes: We are providing the legal definition of the prevailing, professional standard of care consultants are supposed to meet in their professional services.

4. FAMILIARITY WITH WORK. Section 5

Changes Requested: "By executing this Agreement, and consistent with the standard of care set forth in Section 2 above, CONSULTANT represents that CONSULTANT has (a) ~~thoroughly investigated and~~ reasonably considered the scope of services to be performed; (b) ~~carefully~~ reasonably considered how the services should be performed; and (c) reasonably understands the facilities, difficulties, and restrictions attending performance of the services under this Agreement."

Reason for Changes: It is, of course, impossible for any consultant to thoroughly investigate and fully understand the work and the existing conditions, especially at the initial contract stage prior to the start of performance of services.

5. INSURANCE REQUIREMENTS. Section 17.B., Paragraph 1

Changes Requested:

"Endorsements. Each general liability, automobile liability and professional liability insurance policy shall be issued by a financially responsible insurance company or companies admitted and authorized to do business in the State of California, or which is approved in writing by City, and shall be endorsed as follows. CONSULTANT also agrees to require all contractors, and subcontractors to do likewise.

1. The CITY, its elected or appointed officers, officials, employees, agents, and volunteers are to be covered as additional insureds as to CONSULTANT's general liability and automobile liability insurance policies with respect to liability arising out of work performed by or on behalf of the CONSULTANT, including materials, parts, or equipment furnished in connection with such work or operations.

2. CONSULTANT's general liability and automobile liability insurance policies ~~This policy~~ shall be considered primary insurance as respects the CITY, its elected or appointed officers, officials, employees, agents, and volunteers. Any insurance maintained by the CITY, including any self-insured retention the CITY may have, shall be considered excess insurance only and shall not contribute with this policy.

3. CONSULTANT's general liability and automobile liability insurance policies ~~This insurance~~ shall act for each insured and additional insured as though a separate policy had been written for each, except with respect to the limits of liability of the insuring company.

4. The insurer waives all rights of subrogation against the CITY, its elected or appointed officers, officials, employees, or agents, except as to CONSULTANT's professional liability insurance policy.

5. a~~A~~ny failure to comply with reporting provisions of ~~the~~ CONSULTANT's general liability and automobile liability insurance policies shall not affect coverage provided to the City, its elected or appointed officers, officials, employees, agents, or volunteers.

6. The insurance provided by this policy shall not be suspended, voided, canceled, or reduced in coverage or in limits except after thirty (30) days written notice has been received by the CITY."

Reason for Changes: Some of the Subsections in Section 17.B. of the Agreement only apply to certain types of insurance policies. The edits above are to clarify which policies are applicable for each requirement.

6. OWNERSHIP OF DOCUMENTS. Section 28

Changes Requested: "It is understood and agreed that the City shall own all documents and other work product of the Consultant, except the Consultant's notes and workpapers, which pertain to the work performed under this Agreement ("Work Product"). ~~The City shall have the sole right to use such materials in its discretion and without further compensation to the Consultant, but any re-use of such documents by the City on any other project without prior written consent of the Consultant shall be at the sole risk of the City.~~ However, notwithstanding the foregoing, or any provision to the contrary herein, intellectual property owned or created by any third party other than CONSULTANT, its subconsultants, or City ("Third-Party Content"), and inventions, improvements, discoveries, methodologies, models, formats, software, algorithms, processes, procedures, designs, specifications, findings, and other intellectual properties developed, gathered, compiled or produced by CONSULTANT or its subconsultants prior to or independently of their performance of this Agreement ("Background IP"), including such Third-Party Content or Background IP that CONSULTANT or its subconsultants may employ in their performance of this Agreement, or may incorporate into any part of the Work Product, shall not be the property of City. CONSULTANT, or its subconsultants as applicable, shall retain all rights, titles, and interests, including but not limited to all ownership and intellectual property rights, in all such Background IP. CONSULTANT, and its subconsultants as applicable, grant City an irrevocable, non-exclusive, non-transferable, royalty-free license in perpetuity to use, reproduce, prepare derivative works based upon, distribute, disclose, derive from, perform, and display such Background IP, but only as an inseparable part of, and only for the purpose intended by creation of, the Work Product. In the event the Work Product contains, or incorporates, any Third-Party Content, or derivative work based on such Third-Party Content, or any compilation that includes such Third-Party Content, CONSULTANT shall secure all licenses to any such Third-Party Content, but only as an inseparable part of the Work Product, where such licenses are necessary for City to utilize and enjoy CONSULTANT's services and the Work Product for their intended purposes. Any use of CONSULTANT's Work Product for any other project or purpose not authorized in writing by CONSULTANT, any modifications to the Work Product made by anyone other than CONSULTANT, and any use of incomplete Work Product ("Unauthorized Uses") shall be at City's sole risk, and CONSULTANT shall bear no liability for City's Unauthorized Uses of the Work Product. City agrees to indemnify, defend and hold CONSULTANT and its officers, agents and employees harmless from any claims, losses, damages, costs, including without limitation attorneys' fees, arising out of any such Unauthorized Uses of the Work Product by City."

Reasons for Changes: First, we may use or integrate some of our own pre-existing intellectual properties into our work product, which we believe will enhance our services and further the goals of our clients' projects. However, we cannot take the risk of losing our rights to our intellectual properties. The only alternative would be to not use any of them. Second, we may have to use third-party content, such as big data provided by third-party data providers, for which we may receive only a limited-use license and not ownership. It is often necessary for such third-party providers to retain ownership of such data for the uses of other clients or purposes. In such cases, we will secure a license for the City to such content if it is incorporated into our deliverables.

EDUCATION

- Leadership Long Beach Institute Class of 2022
- Master of Urban & Regional Planning California State Polytechnic University
- Bachelor of Arts, Music, Wesleyan University

REGISTRATIONS

- American Institute of Certified Planners (AICP)

AFFILIATIONS

- American Institute of Certified Planners
- Leadership in Energy & Environmental Design Accredited Professional (LEED AP

EXPERTISE

- Transportation Impact Analysis
- Long Range Planning
- Travel Models and Demand Forecasting
- Traffic Simulation/Operations
- Shared Parking / Parking Data Analysis
- Parking Management
- Active Transportation Planning & Design
- Campus and Institutional Planning
- Traffic Calming

Michael Kennedy, AICP, LEED AP

Principal-in-Charge

Principal | 17 Years of Experience

Michael Kennedy is a Principal with Fehr & Peers and Office Leader for our Long Beach office that serves clients in the South Bay and Gateway Cities regions. Michael's practice areas include project management for CEQA transportation impact analyses, General Plans, parking studies, and transit and active transportation planning and design. He has worked in the South Bay for nearly two decades with work spanning these practice areas. Michael is Fehr & Peers' Principal in Charge for our on-call contract with the City of Hermosa Beach, our on-call contract with the City of Long Beach, focusing on the delivery of PS&E for multiple bikeway corridors, developing a data strategy for the Department of Public Works, and updating the City's collision analysis/roadway safety planning. He has worked on mobility planning / traffic engineering design projects across many coastal communities including the Cities of Hermosa Beach, Redondo Beach, Manhattan Beach, Los Angeles, Dana Point, and Marina del Rey (County of Los Angeles).

On-Call Contract Project Management Experience

On-Call Transportation Planning & Traffic Engineering Services (Hermosa Beach, CA)

Fehr & Peers is serving the City of Hermosa Beach on multiple on-call transportation planning & traffic engineering task orders spanning CEQA transportation impact analyses, monitoring evolving travel demand patterns in the City, and traffic engineering design. Michael is Principal in Charge of the on-call contract. In this current on-call cycle, we have completed the following task orders:

- **PLAN Hermosa Addendum EIR** - To support the implementation of zoning changes for the City's Housing Element, Fehr & Peers prepared an updated transportation impact analysis following the methodologies of the PLAN Hermosa EIR, including updating the travel demand model to account for the Housing Element associated zoning changes. We prepared vehicle miles traveled and segment volume forecasts to make a consistency finding for the Housing Element and the PLAN Hermosa EIR.
- **Wayfinding Design** - Fehr & Peers is supporting the design and implementation of wayfinding signage in the City of Hermosa Beach for gateway, wayfinding and marquee signs. Fehr & Peers developed design alternatives using the City's branding guidelines and prepared engineering plans for sign siting and cost estimates
- **Traffic Count Monitoring for Mobility/Outdoor Dining Pilots** – Using a combination of roadway traffic, pedestrian and bicycle counts, and cellphone based big data travel data, Fehr & Peers has conducted multiple years of annual monitoring of the City's pilot mobility projects and outdoor dining program. In addition to evaluating how travel patterns in and out of Downtown Hermosa Beach changed related to these pilot projects, we also evaluated how established travel patterns were disrupted due to the COVID-19 pandemic. Fehr & Peers prepared CEQA related evaluations of the pilot projects to support their continued implementation.

Public Works Transportation On-Call Contract (Long Beach, CA)

Fehr & Peers is prime for the City of Long Beach Public Works Transportation & Mobility on-call contract. We are preparing construction documents for complete streets projects on three major arterial corridors in the City (Clark Avenue, Atlantic Avenue and Cherry Avenue). Other task orders include updating the City's collision database to reflect the most recent five-year data set of collisions. Our analysis identifies the key corridors and intersections in the City with a high number of collisions, and summarizes collision types, victims, and other metrics in an interactive data dashboard that can be used to target crash reduction factors and infrastructure projects to enhance safety. Fehr & Peers is also developing a data strategy for the Public Works department to help them make use of all of the City's data sources to enhance project planning, development and delivery. Michael is overall contract manager, and project manager for all PS&E task orders.

CEQA/NEPA On-Call Contract (Los Angeles Metro)

Fehr & Peers is serving as a traffic task lead as a subconsultant on multiple cycles of LA Metro's CEQA/NEPA On-Call Contract. Fehr & Peers' work includes preparation of transportation impact studies for addendum EIRs, construction period traffic handling analysis, and other services. Our recent work on this contract includes CEQA/NEPA clearance for multiple LA2028 Olympics related transportation projects, addendum EIR work for the Union Station Forecourt and Esplanade project, and multiple construction related task orders for the Purple Line Extension. Michael is Project Manager.

Select South Bay Experience

Artesia Aviation Corridor Area Plan Parking Implementation Plan (Redondo Beach, CA)

As a component of Fehr & Peers' work on PLAN Redondo (General Plan Update) Fehr & Peers led the development of mobility and parking management strategies for the Artesia-Aviation Corridors. Building on existing parking data collection and analysis, Fehr & Peers developed a shared-parking model to be used to estimate future parking needs on the corridor and to develop off-street parking ratios appropriate to the City's organic development vision. Because of narrow parcel depth on the corridor, off-street parking ratios may act to hinder investment in the corridor, so this will be a key strategy to balance mobility needs and redevelopment. Fehr & Peers developed and evaluated mobility strategies for the corridor to enhance pedestrian, bicycle, e-scooter, transit connections, as well as curbspace management. The Parking implementation plan detailed the policy framework for administering a district parking management strategy and flexible parking standards to facilitate the city's vision for the corridor. Fehr & Peers led multiple community workshops and public hearings to gather inputs on the process, and our work will culminate in a transportation impact analysis as part of the environmental clearance for the AACAP and parking implementation plan. Michael was project manager / Principal in Charge.

PLAN Redondo General Plan Update & EIR (Redondo Beach, CA)

A community's land use pattern can have a dramatic effect on how people travel. Are services like shopping, restaurants, and open space close to residential areas, or do they require a longer drive? As a subconsultant, Fehr & Peers is working with the City of Redondo Beach on the update to the City's Land Use Element to analyze how transportation performance will be affected by the City's land use vision, in order to identify how land use decisions can help reduce vehicle trips and limit increases to traffic congestion. Fehr & Peers prepared the transportation impact analysis for the EIR including the VMT impact analysis and we developed a citywide traffic model to analyze nearly every intersection in the City for level of service and vehicle queueing associated with different land use scenarios. Fehr & Peers also prepared a transportation evaluation of the potential effects of the City's Accessory Dwelling Unit ordinance update. Michael is the Project Manager.

Beach Cities Health District Campus Plan & EIR (Redondo Beach, CA)

The Beach Cities Health District (BCHD) developed a new plan for their Redondo Beach campus to support their broader mission of enhancing the health and wellbeing of the communities they serve. Fehr & Peers' work included an evaluation of the parking needed to serve the site, the design of new vehicle access points to the campus and the interface with pedestrian and bicycle facilities, and the evaluation of transportation impacts for the project's environmental impact report, including the evaluation of vehicle miles traveled and safety. We also evaluated the operations of intersections and roadways adjacent to campus. Michael was the Project Manager.

Sean Reseigh

Project Manager

Senior Planner | 6 Years of Experience

Sean is a transportation planner in the Long Beach office who specializes in geospatial analysis, data science, and data visualization, with a focus on safety. He has worked on over a dozen Local Road Safety Plans, Vision Zero Plans, and Systemic Safety Analysis Reports across California and in the South and lead multiple county- and citywide data inventory projects with the goal of enhancing access to accurate location-based bike and pedestrian infrastructure, and traffic signal assets. Although his abilities are technical in nature and revolve around data science, he also has a refined proficiency in engaging with project and community stakeholders on how data-driven decision making is vital to improving a connected, safe, dynamic, equitable, and accessible transportation system.

EDUCATION

- Master of Geographic Information Science, California State University Long Beach
- Bachelor of Arts, Natural Resources and Environmental Management, University of Hawai`i at Manoa

EXPERTISE

- Active Transportation Planning
- Bicycle and Pedestrian Planning
- First-Last mile planning
- Field Inventory projects
- Systemic Safety Planning
- Safe Routes to School Planning
- GIS database procurement and management
- Big Data Analysis

PRESENTATIONS

- *Ensuring ADA Compliance of Sidewalks*, 2022 Esri User Conference

Project Experience

Hermosa Beach Traffic Count Monitoring for Mobility/Outdoor Dining Pilots (Hermosa Beach, CA)

Fehr & Peers supported the City in assessing vehicle, pedestrian, and bicycle volume and speed data to compare pre- and post-mobility pilot implementation in Downtown Hermosa Beach. Multiple data sources and methodologies were used to assess changes in data, particularly because the COVID 19 pandemic occurred during this data monitoring and pilot project implementation. Cell-phone based big data from StreetLight Data and Replica Data, and traditional counts were used in conjunction to understand the level of mobility impact from 2019 to 2023 in the Downtown and the Vista School areas. Impact involved assessment of potential changes in overall activity in the two areas, volume and speed on key roadways, and traffic diversion and trip distribution for visitors of the Downtown areas. Sean was the Project Manager on this effort.

Hermosa Beach Wayfinding, Gateway, and Marquee Signage (Hermosa Beach, CA)

Fehr & Peers is supporting the City in designing updated sign design alternatives for the City's gateway, wayfinding, and marquee signs. Each design alternative was designed to scale, conveyed standards for colors, topography, iconography, materials, and mounting, and adopted the City's style guide. Each design alternative drew inspiration from the current sign branding across the City, as well as from neighboring cities. Additionally, Fehr & Peers determined engineering-level sign siting locations, and developed plan-view aerial image overlays for each location. To supplement this effort, a sign inventory was also conducted to develop a GIS-based database of wayfinding sign locations and attributes across the City. Sean was the Project Manager on this effort.

Long Beach Public Works Data Strategy (Long Beach, CA)

Fehr & Peers is supporting Long Beach Public Works in developing a data strategy document for recommending strategic approaches and guidance for collecting, managing, visualizing, and deploying data. For this project, data is classified as any document or file containing useful information for transportation decision making. Fehr & Peers conducted a data inventory to source metadata about commonly used transportation datasets within Public Works, and developed a data catalog that is designed to convey a one-page snapshot of the data's use cases, type, and who to contact for additional guidance. Additionally, Fehr & Peers developed a Living

Strategy document that outlines key actions for the Public Works to monitor progress towards sustainable data strategy and management. Sean is the Project Manager on this effort.

Los Angeles County Traffic Safety Guidelines Update (Los Angeles County, CA)

Fehr & Peers is supporting Los Angeles County Public Works in updating guidelines and policies for recommending traffic safety infrastructure, and provide resources to staff, including standard drawings and plans, to incorporate traffic safety improvements in future projects. The resulting guidelines will utilize and institutionalize the principles of the Safe System approach with the goal proactively eliminating traffic-related fatalities and severe injuries on County-maintained roadways. Fehr & Peers is developing a visually compelling design guide with updated roadway treatment guidelines and standards, safety benefits, application guidance, and treatment renderings. Sean is the Project Manager for this effort.

Los Angeles Vision Zero 2.0 Technical Analysis (Los Angeles, CA)

Fehr & Peers supported LADOT in a comprehensive update to their initial Vision Zero technical analysis, originally completed 2015-2017. With several Vision Zero projects having been implemented five or more years ago, LADOT and Fehr & Peers will partner to evaluate successes and failures, reestablish priorities, and double down on what is proven to work best in improving road safety. The state of the practice has evolved since Los Angeles adopted Vision Zero in 2015, and Fehr & Peers will bring new industry innovations and best practices, such as systemic safe analysis, big data and near-miss analysis, and the Safe System approach, to the forefront of LA's Vision Zero program. This project provides an opportunity to assess LA's progress, and once again provide a national best practice model in Vision Zero analysis methods based on a systemic approach. Sean was the Data Science lead on this project and has led the development and deployment of the high injury network (HIN) and prioritization methodologies used to update and expand on the technical analysis completed in 2017.

El Paso Vision Zero Plan (El Paso, TX)

Fehr & Peers led the systemic safety analysis for El Paso's first Vision Zero Plan. Fehr & Peers's role on the team was to conduct the data discovery and data collection, perform crash data analysis and develop the High-Injury Network (HIN), prepare collision profiles with crash reduction costs, prioritize locations for immediate attention, as well as prepare a predictive safety model that would help identify risky locations based on crash history, land use and roadway characteristics. Fehr & Peers also prepared the web-based Data Dashboard on the Esri Enterprise GIS Platform. Sean was the technical analysis lead on this effort.

OCTA Mobility Hubs (Orange County, CA)

Fehr & Peers was hired as part of a larger team to lead the technical tasks associated with the Regional Mobility Hubs Study for OCTA. As a first step, we helped provide various definitions of mobility hubs in order to help OCTA pinpoint the most appropriate strategies for Orange County. We then developed a suitability web map that incorporated five mobility hub demand profiles to help capture demand potential from commuters, tourists, students, and entertainment seekers. Our final step was to develop and execute a methodology for estimating potential mode shift using regional travel demand model outputs and unique time/cost calculations for the different mobility hub services provided within proposed service areas. Sean was an analyst on this project.

Los Angeles Metro Green Line Extension (Los Angeles, CA)

Fehr & Peers is leading the preparation of the transportation impacts chapter of the project's EIR. In support of alignment design, Fehr & Peers is evaluating roadway operations and the effect of Light Rail Transit operations on grade crossings through the development and analysis of a Vissim microsimulation model. Additionally, Fehr & Peers conducted an emergency response assessment to analyze potential travel time effects on emergency vehicle response times with the proposed at-grade crossings. Sean was an analyst on this project.

Claude Strayer, PE, RSP1

Engineer-of-Record

Principal | 14 Years of Experience

Claude has a range of transportation experience with the design of traffic signals, bicycle facilities, signing and striping plans, safe routes to school improvements, pedestrian facilities, wayfinding and the public involvement process. He has led teams of designers on a variety of other transportation engineering projects such as temporary traffic control, roadway and sidewalk design, and lighting. He also has experience performing traffic analysis as well as studies with respect to parking, circulation and school zone safety.

EDUCATION

- Bachelor of Science in Civil Engineering, Northeastern University

REGISTRATIONS

- Civil Engineer, California (#86774)
- Road Safety Professional 1

AFFILIATIONS

- Institute of Transportation Engineers (ITE), Member
- ITE Pedestrian & Bicycle Standing Committee, Executive Committee Member

EXPERTISE

- Bikeway Design
- Complete Streets Planning & Design
- Signing & Striping
- Street Lighting
- Traffic Calming
- Traffic Signal Modification

Project Experience

Clark Avenue Separated Bikeway Design PS&E (Long Beach)

Fehr & Peers is leading the preparation of signing, striping, and signal modification plans for the construction of a 2.7 mile separated bikeway on Clark Avenue between Anaheim Street and Monlaco Road. The design includes complete streets elements such as bus boarding islands and protected intersections, and a roundabout is being studied at a complex six-legged intersection. Clark Avenue will provide a multi-modal connection between Cal State Long Beach's Beachside Campus housing and other student housing in the area, to both Long Beach City College on Clark Avenue, and Cal State Long Beach's main campus via Atherton Street. The protected bike facility includes a mix of two way and one-way facilities, with the crossover using bike signals at a protected intersection at Willow Street and Clark Avenue. Beyond the two-way section, which will feature raised medians, the facility will use the City's quick-build concrete raised separators. Fehr & Peers conducted a traffic operational analysis to determine how lane repurposing will affect travel time on the corridor. As part of the evaluation of the roundabout, Fehr & Peers is developing a Vissim simulation model to test configuration options. Fehr & Peers will prepare a project fact sheet with renderings and operations data to highlight the benefits and tradeoffs associated with the project for use in community outreach. Claude is the Engineer of Record.

Cherry Avenue Separated Bikeway Design (Long Beach)

To support the implementation of protected bikeways in the City of Long Beach per the City's Bicycle Master Plan, Fehr & Peers is leading the preparation of signing, striping, and signal modification plans for a 1.5 mile protected bikeway on Cherry Avenue between Spring Street and Carson Street. While Cherry Avenue is identified as an 8 to 80s corridor in the Bicycle Master Plan, it is also a truck corridor and provides important access to a major logistics/aerospace manufacturing facilities developed by Goodman. Fehr & Peers' design will balance the need for cyclists and trucks on the same corridor. Particular design focus will be paid to the connections between the Class IV bicycle facility on Cherry Avenue with the Wardlow Road protected bicycle facility developed as part of the Goodman project, while still maintaining primary access for large trucks on Wardlow Road. Fehr & Peers will also leverage the best practice guide that we authored for ITE Recommended Design Guidelines to Accommodate Pedestrians and Bicycles at Interchanges to guide the design of the protected bicycle facility at the Cherry Avenue ramps of the I-405 freeway. Claude is the Engineer of Record.

3rd and Broadway Class IV Bikeway Upgrades (Long Beach)

Fehr & Peers was brought on to assist with the permanent buildout of protected bicycle lanes along Broadway and 3rd Street in Downtown Long Beach associated with the Broadway Block development project. Tasks include a signing & striping plan and a signal modification plan. This project provides an opportunity to upgrade existing Class IV bikeways with curbs and a bicycle signal at an at-grade intersection with the LA Metro A Line. Claude was the Engineer of Record.

Alameda Complete Streets Project (Union Station Esplanade) (Los Angeles)

Fehr & Peers prepared the plans, specifications and cost estimates (PS&E) for signal modifications, traffic signal interconnect, and signing and striping for the Alameda Esplanade and Los Angeles Crossing in front of Union Station in LA, a project funded by two separate ATP grants. The project includes a substantial reconfiguration of the driveway at Union Station, as well as lane repurposing on Alameda Street to provide wider sidewalks, and off-street bike paths and shared use paths. The bike path crossings include signal protection to enhance pedestrian and bicycle safety, as well as a raised crossing on Alameda Street, a first for the City of Los Angeles on a busy arterial and truck corridor. The engineering design plans for traffic signals, signal interconnect, and signing and striping were prepared for LA Metro for submittal to the Los Angeles Department of Transportation, who approved the construction drawings. The project also included a separate Caltrans plan submittal and a Design Standard Design Document (DSDD) for non standard elements that were ultimately approved by Caltrans. Claude was the Engineer of Record.

San Diego State University Mission Valley Campus (San Diego)

Fehr & Peers handled the transportation planning analysis and design services for the SDSU Mission Valley campus at the SDCCU (formerly Qualcomm) Stadium site. This included assisting with the site planning and development of the overall mobility network, which involved multimodal facilities and design of two multilane roundabouts. This included the preparation of the Transportation Impact Analysis (TIA) for the environmental document that included the traffic operations analysis (i.e., level of service at intersections, on roadways, and on freeway facilities). We are currently working at the final design level of the design including roadway signing and striping and traffic signals PS&E for both on and off-site traffic engineering improvements. Our work includes design of signing and striping for on-site roadways, lighting design, a roundabout and signal design for both interior signalized intersections and modifications for perimeter streets to the new development. Claude is Engineer of Record.

Temple Hills Traffic Calming (Laguna Beach, CA)

Fehr & Peers evaluated Traffic Calming measures for residential streets with a significant grade in Laguna Beach. We recommended treatments
for the city's consideration, and they have been advanced to the design phase. Claude is the Project Manager for the design and cost estimation of these recommended traffic calming treatments. Claude served as Project Manager.

City of Beverly Hills On-Call Traffic Engineering Design (Beverly Hills, CA)

Fehr & Peers serves the City of Beverly Hills with an on-call contract for traffic engineering services. We have assisted the City in a wide range of tasks, including an in-depth assessment of safety and operations at a complex intersection, which included presentations to the City Council and Traffic and Parking Commission; development of a Transportation Division Procedures Manual for internal use; review of site plans for the new bikeshare stations; assessment and implementation of a pilot. Claude served as task lead.

LA County Museum of Art Traffic Engineering Design (Los Angeles, CA)

Project Manager. Fehr & Peers is providing traffic engineering design services for LACMA. The project includes a new structure spanning Wilshire Boulevard, an array of on-site improvements, and roadway widening to improve pedestrian access to the new museum facility. Fehr & Peers provided services including street lighting design, signing and striping, and traffic signal design.

North-Park Mid-City Bikeways (San Diego)

Fehr & Peers completed the planning, specifications and estimates (PS&E) for 11 traffic signal modifications along the Meade, Georgia, and Landis bikeways in the North Park-Mid City area of San Diego, as well as the wayfinding design for the Meade and Landis bikeways. The signal modifications included the preparation of 100% plans that addressed the planned removal of separate left-turn lanes at numerous intersections, the installation of curb extensions/bendouts, and modifications to signal phasing. Claude was the Engineer of Record.

Kendra Rowley, PE

Complete Streets Planning & Design Lead

Associate | 14 Years of Experience

Kendra is an associate transportation engineer with over fourteen years of transportation planning and engineering experience in the state of California. Kendra manages a diverse range of projects from the design of multimodal safety improvements along complex corridors to the preparation of signal design plans for development projects. Specializing in complete streets planning and design, Kendra leads the Fehr & Peers Complete Streets Design companywide practice area. She recently led the firm's efforts to research the safety efficacy of the innovative bicycle design tools in many of the national design manuals and guidebooks, including the NACTO Bicycle Design Guide.

EDUCATION

- Bachelor of Science in Civil Engineering, California Polytechnic State University at San Luis Obispo

REGISTRATIONS

- Civil Engineer, California (#83376)

AFFILIATIONS

- Association of Pedestrian and Bicycle Professionals (APBP)
- Institute of Transportation Engineers (ITE)

EXPERTISE

- Bicycle and Pedestrian Planning and Design
- Conceptual Design and Cost Estimation
- Complete Streets Evaluation
- Traffic Calming

Project Experience

City of Santa Monica Broadway Protected Bikeway PS&E

Engineering Lead. Kendra is leading the development of construction plans for the extension of the Broadway Protected Bikeway corridor in Santa Monica. The project is a key milestone in advancing the City's 2020 Bike Action Plan Amendment, building on the momentum of a successful pilot project for the facility between 16th Street and 21st Street. With the highest bicycle ridership of any continuous east-west corridor in the city, extending the protected lanes on Broadway to 5th Street and to 26th Street will complete a high-demand spine of the city's protected bikeway network. The design includes development of red curb guidance at driveways and intersections, material selection for the vertical separation and traffic calming elements at intersections, low-cost signal timing adjustments to achieve a more comfortable experience for bicyclists, and elements of protected intersections where feasible. Multiple RRFBs will also be included to enhance pedestrian access along the corridor.

City of West Hollywood Fountain Avenue Protected Bikeway Study & Design

Engineering Lead. Fehr & Peers is assisting the City of West Hollywood to develop a protected bikeway vision for Fountain Avenue, a critical and iconic east-west corridor in the City. The work has included working with the City to identify design constraints, challenges, and trade-offs for each alternative that reflect City goals and objectives of climate resiliency, safety and comfort, capacity, and community will. Together with the City, the team conducted a series of Bike Working Groups, facilitated discussions with City Council and Transportation Commission, and hosted a public workshop and online survey with 1400+ responses. In November 2021, City Council voted unanimously to move forward with the alternative that includes sidewalk widening and a Class IV protected bikeway, which will be the first of its kind in West Hollywood. Kendra is also serving as engineer of record as the design has progressed into the first phase of PS&E for a quick-build installation. The first phase will test out new design elements with lower cost materials and no substantial changes to existing curb and gutter, allowing the city to evaluate the design with a before/after study before progressing with the final phase of design. The quick-build design process includes material selection decisions, design plan layouts, considerations for trash pickup along the bikeway, and the selection of safety countermeasures at intersections. The final design will include a full suite of streetscape improvements to realize the vision of a neighborhood-serving corridor.

City of Los Angeles (LABOE) Pre-Planning and Pre-Design Services for Complete Streets Projects

Engineering Lead. Kendra led the development of design concepts for transportation enhancements along the corridors of Culver Boulevard, La Brea Avenue, and Highland Avenue as part of the Bureau of Engineering Complete Streets Program. Identified as high priority based on collision history and need for repair, the corridors were assessed for safety improvements such as enhanced crosswalks, alternative cross-sections to accommodate wider sidewalks or bicycle facilities, geometric enhancements to reduce conflicts at intersections, and traffic signal improvements to add protected turn phasing and bicycle signals. In addition to reviewing collision patterns, the team also led Road Safety Audits to identify improvements with stakeholders and to review accessibility issues. The design concepts were paired with a Pre-Design Report, which included a summary of existing plans, an ADA Assessment Report with recommended curb ramp upgrades, accessibility improvements, and cost estimates.

City of West Glendale Complete Streets Network

Conceptual Design Lead. The project focuses on providing robust first-mile/last-mile active transportation connections to the proposed Bus Rapid Transit on Glenoaks Boulevard and better connecting the commercial district to multi-use paths in the surrounding area. Kendra brought her expertise in Class IV facility design to this project by helping the City think through the multimodal benefits, safety considerations, and operational trade-offs of building a truly complete street on Glenoaks Boulevard, Western Avenue, Flower Street, and Sonora Avenue. Detailed concepts were paired with traffic operations assessments and cost estimates.

SDSU Mission Valley Campus Planning and Design

Engineering Lead. Fehr & Peers handled the transportation planning analysis and design services for the planned SDSU Mission Valley campus at the SDCCU (formerly Qualcomm) Stadium site. This included assisting with the site planning and development of the overall mobility network, which involved multimodal facilities and design of two multilane roundabouts. This included the preparation of the Transportation Impact Analysis (TIA) for the environmental document that included the traffic operations analysis (i.e., level of service at intersections, on roadways, and on freeway facilities). We are currently working at the final design level of the design including roadway signing and striping and traffic signals PS&E for both on and off-site improvements.

Harbour Way Grant Application Support & PS&E

Building off Fehr & Peers' historical work on planning studies, including the Richmond Pedestrian Plan, Bicycle Master Plan, South Richmond Transportation Connectivity Plan, Iron Triangle Yellow Brick Road Neighborhood Plan, and the Rumrill/13th Street Complete Streets Study, Fehr & Peers assisted the City of Richmond with synthesizing the various proposals for Harbour Way into a single cohesive concept to provide bicycle and pedestrian connections along this important 2 mile corridor that connects multiple employment centers to the new Richmond Ferry Terminal. Fehr & Peers provided 65% design plans and cost estimating support for the improvements, which include a road diet, Class II buffered bike lanes, and a two-way Class IV facility, as the City prepared a Transformative Climate Communities grant to secure funding for the Harbour Way project. With grant funding in hand, the City pursued installation of the first phase for the Class IV facility in 2021, which will connect the Bay Trail along Cutting Boulevard to the Ferry Terminal via Hoffman Boulevard and Harbour Way. Kendra managed the team to finalize the PS&E package for the project, which includes two signal modifications, signing and striping plans, and traffic operations analysis to support a Caltrans encroachment permit. To comply with the grant requirements, construction was on a "quick-build" timeline, slated to be complete by the end of 2024.

AC Transit Rapid Corridors & Dana Street Bikeway Pilot PS&E (Oakland and Berkeley, CA)

Fehr & Peers was part of the team that assisted in the evaluation and improvement of AC Transit's bus transit performance on Telegraph Avenue and West Grand Avenue corridors in Oakland and Berkeley, CA. Fehr & Peers developed recommendations for bus stop spacing and relocation strategies, prepared parking impact illustrations, and discussed them with the public, City Transportation Committees and City Councils. Fehr & Peers also led the design for the Dana Street Pilot PS&E, which will install a two-way cycle track on the west side of Dana Street with a bus boarding island just south of Haste Street.

City of Berkeley Bancroft Complete Streets Corridor and PS&E (Berkeley, CA)

Project Manager. Kendra managed the team that developed 100% design plans for an award-winning complete streets project on Bancroft Way between Dana Street and Fulton Street, through the evaluation of multiple alternatives.

Emily Finkel, RSP1

Safety Lead

Senior Associate | 14 Years of Experience

Emily Finkel is a Senior Associate in the Long Beach office of Fehr & Peers and a senior leader of the Fehr & Peers Safety Discipline Group. She has managed more than a dozen recent safety planning projects throughout California and the Southwest, including Vision Zero, Local Road Safety Plans, and Systemic Safety Analysis Reports. Emily has supported several safety planning clients in successfully securing millions of dollars for safety improvements through the Caltrans HSIP and USDOT SS4A grant programs. Emily has worked throughout the South Bay, including projects in Carson, Gardena and El Segundo, and for the South Bay Cities COG. She teaches transportation planning analysis in the graduate Urban Planning program at USC.

EDUCATION

- Master of Planning, University of Southern California
- Bachelor of Science, Business Administration, Northeastern University

PRESENTATIONS AND PUBLICATIONS

- *Institutionalizing the Safe System Approach in Local Road Safety Plans* ITE Technical Brief (2023), presented at ITE Spring Conference (2022) and national ITE webinar (2023)
- *A Safe System Approach to Speed Limit Setting* Caltrans Technical Report (2023)
- *California Statewide Guidance on High Injury Networks* - a report of the CA SHSP Pedestrian Challenge Area Committee (2021)
- *Integrating the Safe System Approach with the Highway Safety Improvement Program* – FHWA report (2020)
- *Shifting the Paradigm: Innovative Approaches to Equitable Road User Safety* – APBP Conference (2019)
- *Implementing Vision Zero: Getting from Policy to Practice* – American Planning Association California Conference (2018)

Project Experience

SBCCOG Local Travel Network

Fehr & Peers has supported SBCCOG for several years in the development of their "Local Travel Network," (LTN) a comprehensive travel network throughout the South Bay region for low-speed zero emission modes. This project focuses on development of branding, wayfinding signage, pavement markings, and other supportive amenities, for implementation of the network in several South Bay cities. Through a collaborative process with each of the local jurisdictions, Fehr & Peers developed a unique visual identity for the LTN. We also developed design guidance and cost estimates for implementation of signage and markings along the network. These materials were used by jurisdictions in Measure M grant applications to secure funding for implementation of the network. This project also focuses on a data-driven approach to identifying safety improvements, as well as parking-related amenities along the network. We are also developing a master NEV Plan that can be adopted by each local jurisdiction to meet state requirements. Emily was the Project Manager for this effort.

El Segundo Local Travel Network Pilot

Fehr & Peers developed plans and engineering designs to support the City of El Segundo in the implementation of the first phase of the Local Travel Network. Work included wayfinding sign design and fabrication support, sign placement and installation support, and engineering design for NEV parking spaces. The wayfinding signs draw from the South Bay Cities Council of Government branded wayfinding "playbook", created by Fehr & Peers, featuring the SBCCOG LTN "turtle" icon and destination-confirmation supplemental signs. Emily was the Associate-In-Charge for this effort.

Long Beach Vision Zero Technical Analysis Update (Long Beach, CA)

Fehr & Peers is updating the City of Long Beach high injury network and collision trend summaries from the Safe Streets Long Beach plan using the latest 2017-2021 data. Fehr & Peers is also incorporating a proactive approach to safety by performing a systemic risk analysis to understand key roadway and contextual factors present in the most common and severe collision types in the city. The results of the analysis will be summarized in an online data dashboard to allow the City of Long Beach to visually display and summarize collisions based on roadway and contextual factors. Emily is the Associate-In-Charge for this effort.

Los Angeles Vision Zero 2.0 Technical Analysis (Los Angeles, CA)

Los Angeles was one of the first national leaders in adopting a Vision Zero goal in 2015. Now, LADOT will be one of the first agencies to usher in an era of "Vision Zero 2.0" in refining and improving their program. Fehr & Peers is supporting LADOT in a comprehensive update to their initial Vision Zero technical analysis, originally completed 2015-2017. With several Vision Zero projects having been implemented five or more years ago, LADOT and Fehr & Peers will partner to evaluate successes and failures, reestablish priorities, and double down on what is proven to work best in improving road safety. The state of the practice has evolved since Los Angeles adopted Vision Zero in 2015, and Fehr & Peers will bring new industry innovations and best practices, such as systemic safe analysis, big data and near-miss analysis, and the Safe System approach, to the forefront of LA's Vision Zero program. Emily is the project manager for this effort, and has supported various outreach and technical analysis efforts over several years for this project.

Additional Vision Zero experience:

- City of El Paso, TX Vision Zero Action Plan
- City of Sacramento Vision Zero Action Plan
- City of Burbank Vision Zero Action Plan (currently underway)

SS4A-Funded Comprehensive Safety Action Plans

Mesa, AZ: Fehr & Peers is part of the team supporting the City of Mesa with the development of a Comprehensive Safety Action Plan, funded through the SS4A grant program. Fehr & Peers is leading systemic data analysis, with a focus on risk factor identification and equity. Emily serves as the Project Manager for this effort.

Additional CSAPs underway (Emily serves as Associate-In-Charge):

- Laguna Beach, CA
- Unincorporated Orange County, CA

San Bernardino County Local Road Safety Plan

Fehr & Peers developed the San Bernardino County's Local Road Safety Plan (LRSP) focused on County maintained roadway within unincorporated San Bernardino County. This Local Road Safety Plan applied a dual-pronged approach: 1) identifying priority systemic safety improvement projects based on high-risk roadway features that are correlated with fatal and severe collision types, and 2) reviewing collision trends to develop behavioral countermeasures. This project incorporated the Safe System approach, shifting from the traditional goal to reduce overall vehicle collisions towards the goal of reducing overall kinetic energy and thereby reducing the number of fatal and severe collisions. Through this plan, Fehr & Peers developed HSIP grant applications for the County, which resulted in $10 million dollars of funding for implementation. Emily was the Associate-In-Charge for this effort.

Additional LRSPs/SSARs completed:

- City of San Jacinto (PM)
- City of Oxnard (PM)
- City of Westminster (PM)
- City of Montclair (PM)
- City of Irvine (Associate-In-Charge)
- City of Moreno Valley (PM)
- OCTA (DPM)
- City of Lancaster (PM)

Irvine Sustainable Mobility Plan

The Sustainable Mobility Plan builds on the recommendations from other plans and describes the City of Irvine's firm commitment to implement sustainable mobility projects. Fehr & Peers led the development of the SMP by evaluating the near-term feasibility of previously planned projects; identifying potential opportunities for new and improved transportation options including protected bikeways and mobility hubs; and providing a concise list of actions for immediate and long-term implementation. The study aims to increase the use of transit, walking, and bicycling and to help reduce vehicle miles traveled and associated emissions.

CSU Dominguez Hills Master Plan (Carson, CA)

Fehr & Peers was part of a team that prepared an updated Master Plan for CSU Dominguez Hills. We analyzed existing traffic, parking and access conditions, and then forecast future needs for transportation facilities to support the anticipated growth in students and adjacent development. Working with the team, we developed circulation alternatives, conducted trip generation and turning analysis, and evaluated concepts to support the environmental clearance process.

Miguel Núñez, AICP

Parking Lead

Principal | 16 Years of Experience

Miguel Núñez has over 17 years of experience in transportation planning, specializing in areas of expertise in pedestrian and bicycle planning, complete streets, and multimodal planning. Miguel managed Fehr & Peers efforts on the I-710 Livability Initiative, the Downey Active Transportation Plan, the People St Evaluation effort, the Huntington Park Complete Streets Plan, and General Plans for the Cities of Cudahy, Whittier, and Carson, all focused on implementable improvements and strategies for enhancing mobility and safety for all road users. Through his experience working on projects with a multimodal emphasis, complex and controversial traffic impact studies, and numerous regional transportation plans, Miguel has helped a wide range of communities expand transport options for their stakeholders. He has managed pedestrian safety assessments throughout California and presents at industry conferences on emerging and innovative multimodal practices.

EDUCATION

- Master of Arts, Urban Planning, University of California, Los Angeles
- Bachelor of Arts, Political Science, University of California Los Angeles

REGISTRATIONS

- American Institute of Certified Planners (AICP)

EXPERTISE

- Transit Planning
- Long-range Multimodal Transportation Planning
- Parking Studies
- Bicycle and Pedestrian Planning
- Multimodal Corridor Planning
- Land Use and Transportation
- Multi-ethnic Community Engagement
- Traffic Analysis

Project Experience

Manhattan Beach Outdoor Dining Parking Study (Manhattan Beach, CA)

Fehr & Peers is leading the analysis needed to support the City of Manhattan Beach's Outdoor Dining Program Development Study. Fehr & Peers is conducting an existing conditions parking study to understand parking utilization patterns in Downtown Manhattan Beach and its adjacent residential neighborhoods. We have collected over 48 hours of parking occupancy and utilization data across dozens of on-street segments and over ten off-street garages—in addition to this, we analyzed and distilled the data in an ArcGIS StoryMap to clearly summarize and display the most important findings and time-of-day patterns. We also engaged with stakeholders and residents to ensure our findings were accurate based on their local knowledge and experiences. With these findings, we will project future conditions with the increase of permanent outdoor dining, and recommend strategies to balance parking demand with parking management strategies to achieve the goals of increasing outdoor dining while minimizing impacts to parking in the coastal zone and in local neighborhoods.. Miguel is the Principal-in-Charge.

City of Cudahy General Plan (Cudahy, CA)

Fehr & Peers assisted a team with the Circulation Element of the General Plan for the City of Cudahy. We documented and analyzed existing station area transportation conditions through a review of circulation patterns and available data from previous and ongoing projects. Our work in this task was focused on analysis of opportunities and constraints associated with potential multimodal transportation improvements and included an assessment of existing active transportation (walking and bicycling) patterns and vehicular circulation. Fehr & Peers also supported the team in the mobility components of the CEQA checklist. The Circulation Element involves classification of the street system and updated goals, policies, and implementation actions consistent with the community's values and desired transportation conditions and analysis of intersections and street segments. Fehr & Peers worked with the team to develop a Circulation Element and analysis that was both legally defensible and reflective of current changes in statewide legislation. The effort included a forecast of future transportation conditions using a regional or sketch level transportation analysis model, a background technical report, and an evaluation of future conditions with and without the proposed project. Miguel was the Project Manager.

Downtown (PD-30) & Shoreline (PD-6) Specific/ Visioning Plans (Long Beach, CA)

Fehr & Peers, as part of two multidisciplinary teams is leading the development of mobility and parking policies, strategies, and project concepts for both the Downtown Specific Plan (PD-30) and the Shoreline (PD-6) Visioning Plan. We are also leading the CEQA transportation impact studies for both plans. The Downtown Specific Plan update and its accompanying environmental impact report (EIR), will plan for and environmentally clear the next phase of Downtown's growth. Fehr & Peers' mobility and transportation work will support continued growth of Downtown, multi-modal safety (leveraging Fehr & Peers' recent work documenting the City's collision history), improve connections from Downtown and the Metro A Line to the ocean, and evolve parking management strategies in light of statewide legislation. Fehr & Peers will lead the EIR transportation impact study, leverage the latest generation SCAG activity-base travel demand model for the analysis. Similarly, the Downtown Shoreline Village Plan update will adapt the plan to the next decade+ of growth. Fehr & Peers will play the same role as under PD-30, including mobility concept development and CEQA clearance, with particular emphasis on mobility and transportation connections between the two plan areas, and enhancing flexibility and adaptability within the street network to serve important events (e.g. Olympics, Grand Prix) while better serving day to day mobility needs.

Azusa TOD Parking Study (Azusa, CA)

Fehr & Peers was part of a team working on the City of Azusa TOD General Plan/Development Code Update and Specific Plan Project. Fehr & Peers used empiric and relevant background data to develop an analysis of the existing transportation network and access conditions within a ¼-mile of the future Gold Line Alameda Avenue Station and the Citrus Avenue Station TOD areas. The analysis considered multimodal transit service needs at the stations, documenting existing bus service, pedestrian access, and bicycle facilities. Fehr & Peers qualitatively reviewed access and mobility conditions and potential constraints at the five TOD opportunity sites in the Alameda Avenue Station TOD area, and the opportunity site in the Citrus Avenue Station TOD area. We also conducted a parking analysis of the study area. For the Specific Plan, based on the analysis of existing mobility conditions, and an evaluation of mobility changes associated with the introduction of the Metro Gold Line, Fehr & Peers developed a recommended mobility strategy for the TOD station areas. Finally, a CEQA-compliant environmental analysis was performed for environmental clearance of the proposed Specific Plan. This project won an Economic Planning and Development Award of Merit from the Los Angeles chapter of the APA in June 2016. Miguel was the Project Manager.

Carson General Plan and SB743 Implementation

Fehr & Peers is assisting the team with the Carson 2040 General Plan Update. This project is underway and the team is working to complete the Circulation Element and CEQA analysis, with particular attention to reducing vehicle miles traveled (VMT), enhancing multi-modal transportation and facilitating goods movement in the City of Carson. Through the development of analysis tools and utilization of the regional travel model, Fehr & Peers is identifying the future roadway network to serve future anticipated development provided by the project team. Due to the varied nature of land uses, neighborhoods, travel patterns, and individual preferences for travel, Fehr & Peers is also developing a set of policy and project recommendations for active transportation networks and goods movement that are intended to advance quality of life through mobility options, increased opportunities for physical activity, increasing access to services and goods, and helping reduce the impact of vehicle travel to the environment and infrastructure.

City of Whittier SB743 Implementation (Whitter, CA)

Fehr & Peers assisted the team with the Envision Whittier General Plan Update. The team worked to complete the Circulation Element and CEQA analysis, with an emphasis on leveraging the future L Line (formerly Gold Line) Station, capturing opportunities to make travel more efficient with new development reducing vehicle miles traveled (VMT), enhancing multi-modal transportation and facilitating the movement of people in the City of Whittier. This project applied the regional travel demand model to inform travel, LOS, and air quality analysis inputs. Anticipated outcomes include implementation of an SB743 compliant transportation analysis framework, enhanced multimodal networks, and strategic identification of opportunities to coordinate land use and transportation infrastructure near the L Line Station and local employment centers. Miguel served as Project Manager.

Parking Needs for Superior Courts in California (Los Angeles, CA)

Fehr & Peers conducted a study of parking needs for Superior Courts in California. The study involved data collection and analysis of occupancy, duration and person trips. The questionnaires were concerned with analyzing parking needs leading to guidelines for planning future projects parking requirements for the public, jurors and employees at California Superior Courts. As part of the study, Fehr & Peers analyzed parking needs at courthouses in Long Beach, Santa Clarita, Lancaster, Burbank, Murrietta, and Vista.

Diwu Zhou, PE, RSP1

Traffic Operations Lead

Associate Transportation Engineer | 8 Years of Experience

Diwu is a transportation engineer who specializes in safety planning, big data, and traffic operations analysis. Diwu is passionate about balancing the often-conflicting needs of mobility and safety and is well suited to provide clients with advice and recommendations backed by research, data, and analysis through his intimate knowledge of traffic operations and design, safety best practices, and big data. Diwu is committed to being at the forefront of safety best practices and innovations and serves as a key member of the firm's Traffic Operations and Transportation Equity Technical Initiatives. Diwu also has a broad background in transportation planning through his experience with transportation impact studies, safe routes to school assessments, citywide and countywide planning studies, multimodal traffic simulations, and community outreach.

EDUCATION

- Masters of Science, Transportation Engineering, University of California, Berkeley
- Bachelors of Science, Civil Engineering, University of Texas at Austin

LICENSES

- Civil Engineer, California (PE #89029)
- Road Safety Professional 1 (#635)

AFFILIATIONS

- Vice-Chair of the Transportation Safety Council, ITE National
- Member, Transportation Research Board (TRB), and Committee Member, Intermodal Freight Transport Committee (AT045)

EXPERTISE

- Traffic Operations and Microsimulation
- Multimodal Safety
- Big Data Analysis

Project Experience

Clark Avenue Protected Bikeway (Long Beach, CA)

The City of Long Beach is evaluating the installation of Class I cycle tracks along Clark Avenue between the Pacific Coast Highway and Willow Street and Class IV bikeways along Clark Avenue between Willow Street and Monlaco Road. Fehr & Peers is supporting the City by conducting a traffic impact assessment to evaluate the impacts of a road diet necessary to accommodate the bicycle facilities and by developing signing and striping plans. The six-legged intersection of Clark Avenue/Los Coyotes Diagonal/Sterns Street was evaluated using the microsimulation software VISSIM, where various design alternatives were evaluated, including a protected signal and a six-legged peanut-shaped roundabout. Diwu served as the Technical Project Manager for this project and was responsible for Quality Control/Quality Assurance.

City of Redondo Beach General Plan Update (Redondo Beach, CA)

As a subconsultant, Fehr & Peers is working with the City of Redondo Beach on the update to the City's Land Use Element to analyze how transportation performance will be affected by the City's land use vision, in order to identify how land use decisions can help reduce vehicle trips and limit increases to traffic congestion. Fehr & Peers will evaluate vehicle trip generation based on different land use mixes and will analyze the vehicle miles traveled changes of the land use element update in the project's environmental impact report. The City of Redondo Beach is updating their General Plan and Fehr & Peers is responsible for updating the Circulation Element. As a part of the effort, Fehr & Peers developed a Citywide Synchro network for the City. Diwu served as the Technical Project Manager and was responsible for Quality Control/Quality Assurance.

Aviation Boulevard Improvements (Redondo Beach and Manhattan Beach, CA)

The City of Redondo Beach, in cooperation with the City of Manhattan Beach, is evaluating pedestrian and bicycle crossing enhancements on Aviation Boulevard between Manhattan Beach Boulevard and Artesia Boulevard. Other than the signalized intersections on the two ends of the corridor, the traffic signal at 2nd Street/Robinson Street is the only midblock crossing location. 2nd Street/

Robinson Street is located approximately 0.5 mile south of Manhattan Beach Boulevard and 0.5 mile north of Artesia Boulevard. This Project will evaluate two additional midblock crossing locations using Synchro and produce 30 percent design plans. Diwu is the project manager.

LA Metro Green Line Extension (Torrance, CA)

Metro's C Line (formerly Green Line) light rail is programmed to extend from its current terminus in north Redondo Beach 4.5 miles south to the new Torrance Transit Center. Fehr & Peers, as part of a team, supported the environmental and conceptual engineering analysis of multiple project alternatives following either an existing active freight rail right-of-way or along the median of Hawthorne Boulevard. Each alignment has significant technical and community considerations including safety, traffic congestion, pedestrian and bicycle access, as well as coordination with three cities and Caltrans. Fehr & Peers has helped the team navigate many trade-offs through VISSIM analysis of the train and traffic operations and at-grade crossings, conceptual design of pedestrian improvements to access stations, conceptual re-routing of buses to connect with the new line and assessing construction impacts on the community. Diwu was the lead analyst.

LA Metro G Line BRT Improvements Project (Los Angeles, CA)

LA Metro, in cooperation with LADOT has begun a progressive design build process to construct improvements on the G Line (Orange) bus rapid transit route. The G Line is one of two Metro Linear bus routes that has dedicated lanes on the freeways and surface streets. It serves the Los Angeles valley from North Hollywood Red Line station to Chatsworth. Fehr & Peers evaluated the project's traffic impact for the Proof of Concept, which demonstrates how the project will achieve the target operational performance requirements. Fehr & Peers used the microsimulation software, VISSIM, to capture and evaluate the traffic characteristics of BRT operations such as transit signal priority/preemption, gating technologies, transit signal priority, transit reservicing, bus platooning, cloud-based bus detection, friction between BRT and general travel lanes, queuing spillback effects, signal coordination and optimization, ped and bike multi-modal operations, etc. The final traffic impact analysis report will summarize the data collection, traffic forecasting approach and future year traffic demand forecasts, gating technology descriptions, intersection geometric or signal improvements, traffic operations analysis results for before and after conditions at 53 study intersections, construction and detouring analysis, and project performance results. Diwu was the Deputy Project Manager for this effort.

Onni-Christie Mixed Use TIA (Emeryville, CA)

Fehr & Peers is working with the City of Emeryville to conduct a transportation impact assessment for what will be the tallest building in the East Bay. Fehr & Peers calibrated a multimodal traffic simulation network that modeled the extensive bicycle network near the project site in VISSIM. Additionally, to support future improvements identified by the City of Emeryville, Fehr & Peers evaluated modifications to the Christie/Shellmound loop, inclusive of a bus-only lane, transit signal priority, bus-bike transitions, signal synchronization, and pedestrian accessibility enhancements. The Christie/Shellmound loop is located adjacent to the project site and provides access to the Bay Street Shopping Mall. Diwu was the lead analyst.

City of Pittsburg Railroad Avenue Complete Streets (Pittsburg, CA)

Fehr & Peers evaluated Railroad Avenue within the vicinity of the newly opened BART station to identify potential multimodal safety and access improvements. As part of this project, Fehr & Peers conducted a safety evaluation by evaluating recent collision reports and performing a near-miss analysis. Fehr & Peers provided recommended improvements to address identified safety concerns, which were vetted through microsimulation operational analysis, and provided recommended programmatic solutions for reducing single occupant vehicle travel in the project area. Selected improvements were laid out in a conceptual plan. Diwu was the lead analyst.

Park Boulevard Road Diet (Oakland, CA)

The Park Boulevard corridor between State Route 13 and I-580 in Oakland serves a diverse range of users but lacked dedicated bicycle facilities. Fehr & Peers developed a conceptual plan and used microsimulation (SimTraffic) to determine the impacts of a road diet in order to install dedicated bike lanes. Two major alternatives were considered, one requiring reconfiguration of roadway geometry at a signalized intersection along the corridor. Operations analysis was performed for both options to compare multimodal impacts. Diwu was the lead analyst.

City of Pleasanton Model Development (Pleasanton, CA)

Fehr & Peers worked with the City of Pleasanton to update their travel forecasting model and citywide traffic operations Synchro model to assess intersection operations under existing, near-term and long-term conditions. As part of the travel behavior model development, Fehr & Peers updated the user interface as well as post-processing tools to simplify the development of turning movement forecasts. A vehicle miles of travel post processer was also developed. Diwu was the lead analyst.