# WATERFRONT DISTRICT PARKING MANAGEMENT PLAN

JULY 26, 2018





# WATERFRONT DISTRICT PARKING MANAGEMENT PLAN

Prepared for: The City of Hercules

July 26, 2018

P18-0673-OK

FEHR / PEERS

# Fehr / Peers

July 26, 2018

Robert Reber, AICP, Planning/Project Manager City of Hercules 111 Civic Drive Hercules, CA 94547

# Subject:Proposal for Professional Services for the City of Hercules Waterfront DistrictParking Management Plan

Dear Mr. Reber:

Fehr & Peers and Watry Design, Inc. are excited about the opportunity to work with the City of Hercules to create a Parking Management Plan for the City's Waterfront District. Our team brings an exceptional level of parking management, design, and finance expertise and experience to this project, as well as experience working within Hercules. Fehr & Peers has completed parking and circulation plans for numerous jurisdictions throughout California and the Bay Area, including cities in Contra Costa and Alameda Counties. We also have extensive experience developing multimodal access, traffic, parking, and transportation-demand management plans for different types of development in Contra Costa County cities. We are thrilled to include Watry Design, Inc. on our team, which has delivered over 1,200 parking projects on-time and on-budget throughout the Western United States.

Our team is uniquely qualified to provide the City with a detailed, specific, and data-driven Parking Management Plan that will serve as the Waterfront District's "parking blueprints" and enable the City to achieve its community development goals for both private development within the Waterfront District as well as the planned Regional Intermodal Transportation Center (RITC). Our approach to this project includes the following key elements:

- A rigorous, data-driven estimate of parking demand for the district in a variety of scenarios, accounting for multimodal access, mix of uses, phased construction and occupancy, and current trends in mobility;
- An assessment of site options for situating and constructing parking to serve publicly-shared uses and new transit facilities, which will also consider estimated costs for construction and long-term operations and maintenance, as well as proposed methods of financing such as the potential establishment and operation of a Public Parking District;
- Development of a set of policies, strategies, and tools to manage anticipated parking supply to meet the parking demand of residents, employees, customers, visitors, and transit users in the Waterfront District;
- Design guidelines and criteria that can be used by city staff to evaluate private development plans and proposals for consistency with the overall Parking Management Plan;

The final Parking Management Plan will be specific, detailed, actionable, and based on rigorous, data-driven analysis, enabling the City to efficiently and effectively manage Waterfront parking demand, review development proposals and plans, and prepare for long-term strategic challenges. The PMP will also

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address methods for financing parking facility construction and long-term maintenance and operations, including formation and operation of a Public Parking District.

Our team will be led by Rob Rees, PE as Principal-in-Charge and Kara Vuicich, AICP as Project Manager, and they are joined by Michelle Wendler, AIA, Principal with Watry Design, Inc. Rob has over 30 years of diverse experience representing the wide range of transportation planning and engineering services Fehr & Peers provides and has worked extensively in Contra Costa County cities. Kara is an experienced project manager who played a key role in developing the City of Berkeley's Downtown Parking and Transportation Demand Management (TDM) Study, and who is currently working with the City of Walnut Creek on a TDM Strategics Plan that integrates parking management with improved mobility options and TDM strategies and programs. Michelle has worked has worked extensively with parking structure design, construction documents, and construction administration for nearly 30 years, and has extensive experience working with multiple stakeholders, agencies and large groups to gain consensus. Her extensive parking experience includes an impressive portfolio of parking design and parking studies for municipal clients such as the City of Vallejo and Santa Cruz Harbor.

We look forward to working with the City of Hercules, and to further discussing and finalizing our proposed scope of work, fee, and schedule to ensure it meets the City's needs. Should you have any questions, please contact Kara Vuicich at (510) 587-9432 or at <u>k.vuicich@fehrandpeers.com</u>.

Sincerely,

FEHR & PEERS

Robert Rees, PE (C49620) Principal

P18-0673-OK

Our mission is to empower every employee to develop effective and innovative transportation solutions that

improve communities

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# **1. Firm/Team Overview**

## **About Fehr & Peers**

Fehr & Peers is a multimodal transportation planning and engineering firm headquartered in Walnut Creek, serving Contra Costa County with four offices throughout the Bay Area. We use the latest research and innovative technology to engage and improve communities through our projects, using our knowledge to develop implementable plans and policies that address the needs of all transportation system users.

Fehr & Peers develops strong client relationships by following our core values:

- **Professional integrity and honesty:** We emphasize quality over quantity
- **Responsive and hard-working:** We emphasize service over sales
- **Problem-solving, can-do attitude:** We emphasize solutions over process

## **We Are Parking Experts**

Fehr & Peers has prepared hundreds of parking studies and plans for public, private, and institutional clients throughout the western United States. We frequently perform:

- Parking Supply/Inventory Evaluations
- Parking Demand Analyses
- Shared Parking and Parking Variance Evaluations
- Parking Garage Access and Circulation Analyses
- Parking Pricing Strategies and Overall Parking Management Plans
- On-Street Parking Design and Management Strategies
- Special Event Parking Plans

We provide innovative yet practical solutions to complex parking situations, frequently drawing on our expertise in travel demand forecasting, traffic operations and simulation, traffic calming, and traffic engineering design in our studies. We focus on vehicular access as well as the safety and convenience of pedestrians and bicyclists.

#### **Unique State-of-the-Art Technologies**

We are often called upon to use state-of-the-art technologies to evaluate unusual parking situations. Examples include:

- GIS to determine spatial parking demand based on various walk-time contours.
- Micro-simulation at parking garage accesses to model the interactions of automobiles, pedestrians, and bicyclists.

#### **Parking Demand/Revenue Models**

We have considerable experience in the development of models that predict parking demand based on a variety of independent variables (e.g., building square footage). These models are used to calculate the required parking supply. We also develop parking revenue forecasting models: these models are used to forecast the likely effects of potential base parking rates and discount schemes, and to formulate optimum pricing strategies.



# WATRY DESIGN, INC.

Architects • Engineers • Parking Planners

Watry Design, Inc. is dedicated to making our clients look good. We take their problems and issues on as our own and team with them to find the best possible solution for their parking needs. This client-centered philosophy along with an unmatched passion for parking form Watry Design's guiding vision.

Using a unique process developed over the firm's forty plus year design legacy, our architects, structural engineers and planners are empowered to provide their professional expertise in every aspect of the design. This gives our clients the collective knowledge and experience of our entire staff. Our collaborative methodology enables us to provide well-integrated solutions for satisfied clients.

**Incorporated in 2000, Watry Design, Inc. is the successor organization of Watry Design Group which was founded in 1975.** The new corporation was created when a group of long time employees purchased the net assets of the original firm and most importantly retained all the staff. Led by a team of Principals, Watry Design has delivered over 1,200 parking projects on-time and on-budget throughout the Western United States. We offer innovative parking consulting and design services at all stages of the parking lifecycle.

Whether you need to assess your current parking conditions or evaluate the potential of one site or a whole campus, our team can assist you in utilizing today's parking best practices to shape your parking facility's future. We can right-size your parking, evaluate future adaptive reuse, and assist you with considering automated and/or valet solutions to densify your parking.

Our team designs above and below grade structures, as well as structured parking as a component of larger buildings and developments. We leverage the best innovation and technology the industry has to offer. From integrating photovoltaics to the latest in EV, PGS & PARCS, our team develops highly efficient new and replacement parking solutions.

## **Parking Operations & Management Studies**

As the parking needs of your stakeholders grow and change many factors must be carefully assessed. Watry Design offers a suite of services to assist you with your operational and management needs. Whether it's time to analyze your current program or conduct an asset valuation, we can tailor our services to meet your specific needs. Having previously worked with the City of Hercules to study parking solutions for the Waterfront, we have an in-depth understanding of the considerations and challenges posed by this project.

## **Proposed Project Team**

Our team is made up of dedicated transportation planning and engineering professionals who bring significant parking planning and design experience and expertise to this project.

**Rob Rees, PE will serve as Principal in Charge.** He is a Principal in Fehr & Peers' Oakland office, a registered Civil Engineer and Traffic Engineer in California, and a registered Professional Traffic Operations Engineer (PTOE) with 30-plus years of experience. Rob applies his wide range of experiences in transportation planning and engineering to develop transportation systems that meet community needs and values. With each project Rob brings a deep understanding of modal interactions and transportation safety with the technical understanding of civil engineering practices.

**Kara Vuicich, AICP will serve as Project Manager.** Kara is an experienced transportation planner whose 17-year career has included work for public agencies including the Alameda County Transportation Commission and the City of Berkeley. In her previous position with the City of Berkeley she managed numerous transportation programs and projects focused on parking, transit, and TDM. Currently, Kara is leading a consultant team to create a comprehensive transportation demand management (TDM) strategic plan for the City of Walnut Creek with the overall objective of improving mobility and access within the city through transit service improvements, parking management, expanded mobility options, and transportation demand management programs and policies.

Mackenzie Watten, Senior Transportation Engineer at Fehr & Peers, will serve as a technical advisor. He has contributed substantially to a wide variety of studies including parking studies, smart growth planning, transportation impact analysis, travel demand modeling, climate action plans, and environmental impact assessments. Mackenzie has worked extensively on developing analysis techniques to accurately evaluate impacts of parking in various environments from transitoriented to greenfield development.

Lee Reis and Stasa Zivojnovic will serve as Fehr & Peers' project planners. Lee has served as the project manager for several parking analyses, including evaluations of special event and large-scale construction impacts. Stasa is a transportation engineer who has focused on freight and data analysis for the past three years, and who is currently providing analytical support for a transportation impact analysis for the proposed Sycamore Crossing mixed-use development in the City of Hercules. Michelle Wendler, AIA, is a Principal with Watry Design, Inc., and will serve as the team's expert for parking facility design, construction and financing. Michelle has worked extensively with parking structure design, construction documents and construction administration since 1989.

In addition, she tirelessly strives to ensure the firm's designs work within the context of their environment and are something everyone can be proud of. Michelle has extensive experience working with multiple stakeholders, agencies and large groups to gain consensus. Her extensive parking experience includes an impressive portfolio of parking design and parking studies for municipal clients such as the City of Vallejo and Santa Cruz Harbor. She serves on the Advisory Council for the International Parking Institute and is an active participant in industry associations, a powerful speaker and compelling advocate for parking.

# 2. Project Understanding & Approach

## **Project Understanding**

The City of Hercules and private developers have already invested significant time and resources developing an approach for parking provision and management to meet the needs of residents, visitors, workers, and transit passengers and furthers the City's community development and urban design goals. However, the saying "the devil is in the details" is very much applicable here. Now that Waterfront District development is underway the City needs a detailed and specific set of actions it can take as the various phases of the District are built out, including the planned Regional Intermodal Transportation Center (RITC). Parking needs and specific management and funding approaches are likely to change over time as different portions of the District are built out and as additional transportation infrastructure and services are added. Furthermore, design criteria needs to be coordinated with and complement the overall approach to parking provision and management, so staff can effectively review design plans submitted by private developers. The City is also seeks assistance developing a detailed plan to provide parking for the future RITC.

To meet these needs the Fehr & Peers team will prepare a Parking Management Plan (PMP) for the entire Hercules Waterfront District. Fehr & Peers will estimate parking demand for the district in a variety of scenarios, accounting for multimodal access, mix of uses, phased construction and occupancy, and current trends in mobility. These parking demand forecasts will inform an assessment of site options for situating and constructing parking to serve publicly-shared uses and new transit facilities, consider estimated costs for construction and long-term operations and maintenance, as well as proposed methods of financing including the potential establishment and operation of a Public Parking District. In addition, our team will build on previous work to develop a set of policies, strategies, and tools to manage anticipated parking supply to meet the parking demand of residents, employees, customers, visitors, and transit users in the Waterfront District.

The final product of the PMP will include an analysis of scenarios of anticipated parking demand throughout the phased development of the Waterfront District, recommendations for the number of public parking spaces that should be made available, opportunities for public-private sharing of parking, and the identification of a detailed set of policies, strategies, and tools to manage parking supply and demand in the Waterfront District. Recommended actions will be specific, detailed, actionable, and based on rigorous, data-driven analysis, enabling the City to efficiently and effectively manage Waterfront parking demand, review development proposals and plans, and prepare for long-term strategic challenges. The PMP will also address methods for financing parking facility construction and long-term maintenance and operations, including formation and operation of a Public Parking District.

# Task 1. Kick-off Meeting and Ongoing Project Management

The Fehr & Peers team will refine and finalize the work plan, budget, and schedule, as well as manage day-to-day operations for the contract. In addition to regularly scheduled meetings, routine communication and close coordination with City staff will be critical to help the project progress smoothly, on-time, and within budget.

Team leaders will meet with City of Hercules staff to review and revise the project approach, work plan, budget, and schedule for the Waterfront District Parking Management Plan and gather data from City staff. The meeting will also provide an opportunity to discuss performance measures used to evaluate the contract outcomes and to establish communication protocols that last throughout the project, setting a schedule for two additional in-person meetings.

The additional in-person meetings will be used to discuss findings and seek input on major deliverables. We will also schedule bi-weekly phone calls with City staff to provide updates on work activity and milestones, and to discuss upcoming deliverables and meetings. Fehr & Peers will provide agendas and minutes for the meetings.

Monthly progress reports will be provided with every invoice. The reports will outline tasks accomplished and deliverables provided in the monthly billing cycle. Invoices will be submitted in a format approved by the City of Hercules.

#### Deliverables

- Preparation for and attendance at the project kick-off meeting.
- Final project work plan, budget, and schedule.
- Two in-person meetings, including meeting agendas and minutes.
- Bi-weekly progress meeting phone calls.
- Monthly project invoices and progress reports.

## Task 2. Review and Assess Existing Studies, Data, Plans, and Standards

Fehr & Peers will work with City staff to identify the existing studies, plans, and standards related to parking in and around the Hercules Waterfront. Plans and standards regarding both on-street and off-street parking will be analyzed, as will a consideration of the relationship between public and private facilities.

Supporting data will be collected from City staff at the kick-off meeting (Task 1) and in subsequent communications, as needed. If additional data collection is required or desired, it may be undertaken as part of Optional Task 7. An in-person meeting with the private developer and the consultant team will be set up to gather additional project-related information, such as phasing and development plans.

#### Deliverables

- One information-gathering meeting with the private developer.
- An analysis and assessment of existing parking-related studies, data, plans, and standards (to be incorporated into the technical memorandum under Task 4).

# Task 3. Develop Future Parking Demand Scenarios

Fehr & Peers will develop future parking demand scenarios that account for project-specific considerations such as multimodal access to the site, the project's mix of uses, and the phased construction timeline, as well as more universal considerations related to current and emerging trends in mobility and parking. Based on the interaction between project-specific and universal characteristics, up to three scenarios for analysis will be developed that track parking demand throughout the construction of the project. A technical memorandum summarizing the methodology and results of this analysis will be submitted to City staff for comment and review.

#### Task 3.1 Develop Future Parking and Mobility Scenarios

Fehr & Peers will analyze current and emerging trends in mobility, with a focus on how those trends affect the types and quantities of parking demand for anticipated land uses within the Waterfront District in cities similar to Hercules. Factors affecting parking demand—including multimodal access—will be identified, and the analysis will develop scenarios based on varying levels and speeds of the adoption of these trends to evaluate a range of potential future outcomes. A base case scenario that incorporates expected rates of change in mobility patterns will be created in addition to fast-change and slow-change scenarios.

### Task 3.2 Develop Project Phasing Scenarios

Fehr & Peers will use information gathered from City staff and the private developer in Task 2 to develop project makeup and phasing scenarios. Land use types and rates of development will affect the quantity and type of parking demand in any given year of the development of the project. A base case scenario that

incorporates expected land uses and phasing will be developed in addition to potential scenarios that would require more or less parking than anticipated.

#### Task 3.3 Estimate Future Parking Demand

Fehr & Peers will develop up to three scenarios estimating future parking demand at multiple points in the development process of the Waterfront District based on the scenarios developed in Tasks 3.1 and 3.2. The scenarios will include an expected base case in addition to reasonable scenarios that would result in higher or lower parking demand than expected. The scenarios will provide estimates of parking demand at up to three points in time—two in the middle of the Waterfront District development process and one at its expected completion.

# Task 3.4 Draft Anticipated Parking Conditions Technical Memorandum

Fehr & Peers will draft a technical memorandum detailing the methodology and results of the future parking demand scenario development and evaluation. The memorandum will describe the anticipated future mobility conditions and assess the types and quantities of anticipated parking demand. The memorandum will be submitted to City staff for comment and review.

#### Deliverables

 One technical memorandum analyzing anticipated parking conditions and scenarios throughout the phased development of the Waterfront District, to be submitted to City staff for comment and review; one round of revisions based on a consolidated set of comments.

# Task 4. Develop Parking Management Strategies, Policies, and Tools

Informed by the parking demand analysis performed in Task 3, Fehr & Peers will develop a list of parking management strategies, policies, and tools to manage and meet that demand. Those potential strategies, policies, and tools will then be assessed for their applicability and effectiveness in the context of the Waterfront District. Parking supply management will also be analyzed, particularly in terms of site options for situating and constructing parking facilities serving publicly-shared uses and the establishment and operation of a Public Parking District. These analyses will lead to the development of preliminary recommendations for a comprehensive parking management program. A technical memorandum summarizing the methodology, findings, and preliminary recommendations will be submitted to City staff for comment and review.

### Task 4.1 Assess Overall Parking Supply and Demand

Fehr & Peers will refer to the memorandum developed in Task 3 to assess anticipated parking demand in the Waterfront District at various points in the development process, as well as analyze the likely amount of parking supplied by development projects. The balance of parking demand and supply will inform the magnitude of effects needed from the parking management program to ensure optimal access to the Waterfront District.

## Task 4.2 Inventory Potential Parking Management Policies, Strategies, and Tools

Fehr & Peers will construct an inventory of potential parking management policies, strategies, and tools that may be applied to the Waterfront District. This inventory will consider the parking concerns surrounding both private on-site parking and public on-street parking for residents, employees, customers, visitors, and transit users in the Waterfront District. Potential considerations to manage parking supply and demand include, but are not limited to, parking pricing, time limits, desired vacancy rates, parking governance, and uses of parking revenue. Potential features and considerations of a Public Parking District and residential parking permit program will also be included.

For each policy and strategy, potential implementation tools—such as real-time wireless monitoring, variable messaging, mobile communications, electronic payment, in-vehicle parking meters, GPS guidance, and car sharing—will also be included in the inventory.

# Task 4.3 Assess Applicability and Effectiveness of Potential Policies, Strategies, and Tools

Fehr & Peers will assess the policies, strategies, and tools inventoried in Task 4.2 with respect to their level of applicability and effectiveness in the specific context of the Waterfront District. The assessment of effectiveness will be data-driven and drawn from existing research into how to most efficiently utilize parking supply while reducing parking demand. From this analysis, Fehr & Peers will develop a quantitative estimate of the impact of each policy, strategy, and tool on parking demand and parking utilization/effective parking supply.

## Task 4.4 Assess Site Options for Situating and Constructing Parking Serving Publicly-Shared Uses

This task will be led by Watry Design, who will identify and evaluate up to three site options for situating and constructing parking to serve publicly-shared uses.

Each identified option will include a site plan, typical floor plans, and a single-line section, as appropriate. In addition, the consultant team will develop specific criteria the City can provide to developers and use to review and evaluate development plans and applications for consistency with the PMP.

## Task 4.5 Develop Recommendations for Parking Management Program, Public Parking District, and Residential Parking Program

Fehr & Peers will develop preliminary recommendations for a parking management program, public parking district, and (if applicable) a residential parking program, to be summarized in a technical memorandum submitted to City staff for comment and review. Recommendations will include the number of public parking spaces that should be made available, opportunities for public-private sharing of parking, parking demand and supply management policies, strategies, and tools, a framework for the formation and operation of a Public Parking District, and best practices for ongoing monitoring of parking demand. In addition to outlining the preliminary recommendations, the memorandum will also present the site options for the construction of publicly-serving parking, design criteria for parking facilities within private development, as well as the methodology and findings used to inform the development of the recommendations. Figures and maps will be included to complement the presentation of the findings, recommendations, and parking site plans.

#### Deliverables

 One technical memorandum—including figures and maps—summarizing the methodology, findings, preliminary recommendations, and potential public parking locations and site plans, to be submitted to City staff for comment and review; one round of revisions based on consolidated comments.

## Task 5. Develop Cost Estimates and Financing Approach

Watry Design will estimate the costs of establishing, operating, and maintaining a Public Parking District and its facilities, including City staff time and construction costs of the proposed site options for the public parking facilities. The methodology and findings of these estimates, along with proposed methods for financing construction and long-term maintenance and operations, will be summarized in a technical memorandum to be presented to City staff for comment and review.  One technical memorandum estimating the costs of—and proposed financing methods for—establishing, constructing, operating, and maintaining a Public Parking District and its facilities, to be submitted to City staff for comment and review; one round of revisions based on consolidated comments.

## Task 6. Draft and Final Parking Management Plan

Fehr & Peers will prepare a draft Parking Management Plan documenting the project approach, methodology, findings, and recommendations for review by City staff. The draft Parking Management Plan will highlight the processes and results from previous project tasks including anticipated parking supply and demand based on scenarios throughout the phased development of the Waterfront District, analysis of and recommendations for parking management policies, strategies, and tools, a framework for the formation and operation of a Public Parking District, and the estimated costs and methods of financing the construction, operations, and maintenance of the proposed District and its facilities. The draft plan will incorporate comments received from City staff on the technical memorandums developed for Tasks 3, 4, and 5. High-quality maps and graphics will be created to complement the report narrative and make it accessible to non-technical readers. Fehr & Peers will then finalize the Parking Management Plan, integrating feedback received on the draft plan from City staff.

#### Deliverables

- Draft and final Waterfront District Parking Management Plan, including figures and maps; one round of revisions based on consolidated comments incorporated into the final report.
- Two hard copies and an electronic copy of the draft and final Waterfront District Parking Management Plan.

# Task 7. Optional Task for Additional Data Collection

As an optional task, Fehr and Peers will collect additional data about current parking conditions in the City of Hercules and nearby areas similar to the Waterfront District. The additional parking data would inform parking demand estimates for the project and allow the analysis to be further tailored to the specific conditions in Hercules and the Waterfront District.

#### Deliverables

• Data collection of parking conditions in the City of Hercules and nearby areas similar to the Waterfront District.

# Task 8. Optional Task to Attend and Present Findings at City Council Meeting

As an optional task, Fehr & Peers will present the findings and recommendations of the Parking Management Plan to the City Council at a public meeting. Fehr & Peers will develop a presentation summarizing the project process, highlighting key concerns and findings, and laying out the recommendations.

#### Deliverables

• Presentation at a public City Council meeting summarizing project approach, methodology, findings, and recommendations.

## **Proposed Project Schedule**

		20	18		2019													
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	Мау	June	July							
Task 1																		
Task 2																		
Task 3																		
Task 4																		
Task 5																		
Task 6																		
Task 7																		
Task 8																		

The following project schedule anticipates completion of the PMP by July 2019.

# **3. Project Qualifications**

# Hercules Bayfront Project and Hercules Block Q & R

Fehr & Peers was retained to collaborate with various transit agencies serving the Bayfront Project in Hercules, California. Through this effort we verified rail, ferry, and bus transit ridership and established the parking supply to serve the expected ridership. Fehr & Peers also collaborated with the bus transit operator to quantify the bus bays needed to support service to the site's transit center and developed bus routing through the project site.

Fehr & Peers then completed a traffic analysis for the Block Q and R development site within the Hercules Bayfront Project. In collaboration with the Hercules Bayfront developer and the City of Hercules, Fehr & Peers planned the site access and parking layout for various blocks within the development site. For each block, work focused on vehicle trip generation, intersection and driveway analyses, and review of parking garage access and circulation. The analysis for Block Q and R also addressed A Street vehicle operations and parking garage circulation and access.



Holly Smyth, AICP City of Hercules Planning Director 111 Civic Drive, Hercules CA 94547 (510) 799-8251 direct, 510-799-8249 fax hsmyth@ci.hercules.ca.us Michael Roberts, PE Public Works Director/City Engineer City of Hercules 111 Civic Drive Hercules, CA 94519 (510)799-8241 MikeRoberts@ci.hercules.ca.us

# Berkeley Special Event Permit Overlay Zone Parking Analysis

During football game days at the University of California, Berkeley there is a spike in parking demand for on-street spaces within existing Residential Preferential Parking (RPP) zones near the football stadium. The City of Berkeley is considering implementing a Special Event Permit overlay zone to manage game day visitor parking in the vicinity of the stadium and was interested in the level of parking demand and existing prices for formal and informal parking near the stadium on game days. For this project, Fehr & Peers conducted an occupancy survey of on-street spaces to establish the baseline parking occupancy, and occupancy under football game day conditions. We then compared game day and non-game day occupancy within existing Residential Preferential Parking (RPP) zones to estimate additional game day parking demand. Lastly, we surveyed formal and informal parking prices to understand willingness to pay, and then recommended parking permit capacity and price ranges for a game day parking permit program.



Brian Liang Transportation Planner City of Berkeley 510-981-6332 BLiang@cityofberkeley.info

## **Pittsburg Center BART Station Parking**

Fehr & Peers conducted a comprehensive review of the regulatory and planning context related to parking and access around the new eBART Pittsburg Center station. This included studies and planning documents completed by BART as well as by the City of Pittsburg. Prior to the opening of the Pittsburg Center station, the on-street and off-street parking facilities within the 1/2-mile study area were inventoried to understand existing parking resources. This baseline assessment will also serve as a way to measure potential impacts on the parking supply after the opening of the station. Fehr & Peers also conducted an initial occupancy survey of on-street and off-street spaces to establish the baseline parking occupancy within the study area.

Multimodal access to the future Pittsburg BART Center station was also considered to help reduce the parking demand near the station by encouraging nearby residents to walk, bike, or take transit to the station. The existing transit and non-motorized transportation options within the study area have been summarized in



eBART Pittsburg Center Station Parking Analysis

the study as a foundation from which to identify improvements for creating safe, inviting corridors to and from the station.

Using information from local stakeholders such as Tri Delta Transit, BART, community residents, and City staff, and after consideration of potential parking-related effects from the opening of the Pittsburg Center Station, a range of parking management strategies were identified. The strategies were sorted into three types: (A) managing existing parking facilities, (B) increasing the parking supply, and (C) encouraging non-vehicular access through improvements to other modes. Each strategy was defined by the type of area in which it could be applied, and key characteristics of each strategy were noted such as relative cost and timeframe.



Paul Reinders Senior Civil Engineer P.O. Box 1518 Pittsburg, CA 94565 preinders@ci.pittsburg.ca.us

## **Walnut Creek Downtown Parking Review**

Fehr & Peers has been monitoring parking conditions and recommending modifications to parking operations in downtown Walnut Creek since 2002. Our latest effort in 2013 consisted of conducting on-street and off-street occupancy counts, reviewing the City's parking management strategies and goals, and evaluating emerging parking technologies that could facilitate current and potential strategies and goals.

Fehr & Peers recommended parking strategies including changes to pricing policy to reach desired parking occupancy rates for both short-term and long-term users while reducing cruising for parking. In 2014 Fehr & Peers updated the 2013 study to include additional areas adjacent to downtown and develop an online web map interface to display the occupancy data more effectively with the public at http://www.walnut-creek.org/local-attractions/parking-data/.



Carla Hansen Assistant to the City Manager 1666 North Main Street Walnut Creek, CA 94596 hansen@walnutcreek.org 925-943-5899 x2108

## **Downtown Pleasanton Parking Strategy and Implementation Plan**

Fehr & Peers developed a Downtown Parking Strategy and Implementation Plan for the City of Pleasanton. The City has experienced high levels of parking demand within the downtown area over the past few years. With limited on-street parking spaces available on Main Street, the majority of downtown parking is located in either public or private parking lots behind the Main Street corridor. With prospective changes in land uses over the next five to twenty years there was a need to manage and strategically increase the parking supply to retain the existing customer base and attract future customers. The goal of the study was to describe the existing travel and parking behaviors within the downtown core and identify near- and long-term solutions to align parking supply and demand.

Parking demand and supply management strategies that could be implemented in the immediate, near-term, and long-term conditions were identified as well as the expected resource commitment. Strategies included ways to manage and increase the parking supply within the downtown area including enhancing time restrictions, providing pedestrian-oriented and vehicle-oriented wayfinding signage, increasing visible long-term bicycle parking, and establishing a Parking Benefit District.



Gerry Beaudin Director of Community Development City of Pleasanton 925-931-5600 gbeaudin@cityofpleasanton.gov

# **Other Relevant Experience**

## **City of Hercules Projects**

Fehr & Peers has worked with City of Hercules staff on numerous projects since 2005 including Hilltown Project TIA, Hercules New Town Center EIR, Hercules Bayfront EIR, and Hercules Safeway TIA at Sycamore Crossing Site. The majority of Fehr & Peers' experience in Hercules is developing transportation impact studies for a variety of developments throughout the central and western areas of the City. The projects also include transit ridership analysis and evaluation of parking supply in addition to the evaluation of site access. Currently, Fehr & Peers is working on the Sycamore Crossing Project TIA and Hercules Safeway TIA at the Market Hall

Site. As part of these projects, Fehr & Peers conducted off-street parking assessments based on the City's Zoning Ordinance, designed intersection improvements, and evaluated tandem parking for proposed residential development.

## **Downtown Martinez Parking Study**

Fehr & Peers conducted a robust data collection effort to identify on- and offstreet parking demand, parking duration through license plate surveys, and parking intrusion into adjacent neighborhoods. The purpose of the study is to assess changes in overall parking profiles with the construction of a new County Administration Center and supporting parking structure. As part of the on-going project, Fehr & Peers will identify additional strategies that can be implemented to better manage parking demand around the various civic uses vital to Contra Costa County.

## Parking Management Plan for Downtown Pleasant Hill Center

To develop the Downtown Pleasant Hill Center Parking Management Plan, Fehr & Peers analyzed existing parking conditions and projected future parking demand for the Center. Based on this analysis, the Plan allows the Downtown Pleasant Hill Center to accommodate additional outdoor seating options without the need to build more parking spaces by encouraging the use of alternative transportation modes, managing parking locations, increasing enforcement of time limits, and identifying potential shared parking options with nearby facilities.

# 4. Cost Proposal

#### Fehr & Peers Fee Proposal for Hercules Waterfront District Parking Management Plan

	Fehr & Peers (Prime)											Watry D	esign (Su	b)									
	Kara Vuicich,	Robert Rees,	Mackenzie	Lee Reis,	Stasa	Graphic	Admin	1				Principal	Project	Assistant	Senior	Staff						Total	
	PM	PIC	Watten	Planner/Engr	Zivojnovic,	/ GIS		Labor		Direct			Manager	Project	Designer	Designer	Labor	Labor	Direct			labor	
			Sr Engineer	ш	Planner/Eng	r		Hours	abor Costs	Costs	Subtotal			Manager			Hours	Costs	Costs	Subtotal	Mark-Up	Hours	Total Costs
Tasks	\$200	\$335	\$135	5 \$150	) \$14	5 \$15	0 \$130	)				\$275	\$195	\$185	5 \$165	5 \$155	5						
Task 1 - Kick-off Meeting and Ongoing Project Management																							
1.0 Kick-off Meeting and Ongoing Project Management	32	4		2	2	4		5 47	\$9,270	\$650	\$9,920						0	\$0	\$0	\$0	\$0	47	\$9,920
Task 2 - Review and Assess Existing Studies, Data, Plans, and Standards										1													
2.0 Review and Assess Existing Studies, Data, Plans, and Standards	4	1				8		2 15	\$2,555	\$180	\$2,735	5					0	\$0	\$0	\$0	\$0	15	\$2,735
Task 3 - Develop Future Parking Demand Scenarios									· · · ·														
3.1 Develop Future Parking and Mobility Scenarios	8	1		4 8	3 1	2		4 37	\$5,935	\$420	\$6,355	5					0	\$0	\$0	\$C	\$0	37	\$6,355
3.2 Develop Project Phasing Scenarios	6	2		2 6	5	6	:	3 25	\$4,300	\$300	\$4,600	)					0	\$0	\$0	\$0	\$0	25	\$4,600
3.3 Estimate Potential Future Parking Demand	6	2		4 8	3 2	4		6 50	\$7,870	\$550	\$8,420	)					0	\$0	\$0	\$C	\$0	50	\$8,420
3.4 Draft Anticipated Parking Conditions Technical Memorandum	6	3		2 8	3 2	4 1	0	7 60	\$9,565	\$670	\$10,235	5					0	\$0	\$0	\$0	\$0	60	\$10,235
Task 4 - Develop Parking Management Strategies, Policies, and Tools		·																					
4.1 Assess Overall Parking Supply and Demand	2	1		2	2	8		2 15	\$2,455	\$170	\$2,625	5					0	\$0	\$0	\$0	\$0	15	\$2,625
4.2 Inventory Potential Parking Management Policies, Strategies, and Tools	4	1		8	3	8	;	3 24	\$3,885	\$270	\$4,155	5 2	2				2	\$550	\$0	\$550	\$55	26	\$4,760
4.3 Assess Applicability and Effectiveness of Potential Policies, Strategies, and Tools	6	1		12	2 1	2	4	4 35	\$5,595	\$390	\$5,985	5 2	2 4				6	\$1,330	\$0	\$1,330	\$133	41	\$7,448
4.4 Assess Site Options for Situating and Constructing Parking Serving Publicly-Shared Uses	4	3			1			1 8	\$1,935	\$140	\$2,075	5 30	40	20	10	15	5 115	\$23,725	\$1,000	\$24,725	\$2,473	123	\$29,273
4.5 Develop Recommendations for Parking Management Program, Public Parking District, and	1				1																		
Residential Parking Permit Program	8	2		20	2	4 1	0 8	3 72	\$11,290	\$790	\$12,080						0	\$0	\$0	\$C	\$0	72	\$12,080
Task 5 - Develop Cost Estimates and Financing Approach		·																					
5.0 Develop Cost Estimates and Financing Approach	4	1						1 6	\$1,265	\$90	\$1,355	5 15	5 35	20	)		70	\$14,650	\$0	\$14,650	\$1,465	76	\$17,470
Task 6 - Draft and Final Parking Management Plan																							
6.0 Draft and Final Parking Management Plan	20	3		20	3	2 2	4 12	2 111	\$17,805	\$1,250	\$19,055	2	2 4				6	\$1,330	\$0	\$1,330	\$133	117	\$20,518
Total for all Tasks	110	25	12	2 94	1 16	2 4	4 58	B 505	\$83,725	\$5,870	\$89,595	5 51	83	40	0 10	0 15	5 199	\$41,585	\$1,000	\$42,585	\$4,259	704	\$136,439

Optional Tasks																_	_		
Optional Task A - Additional Data Collection																			
A.1 Additional Data Collection	2	1	2	16		3	24	\$3,745	\$2,000	\$5,745			0	\$0	\$0	\$0	\$0	24	\$5,745
Optional Task B - Attend and Present Findings at City Council Meeting																			
B.1 Attend and Present Findings at City Council Meeting	8	4	2	4	6	3	27	\$5,110	\$0	\$5,110			0	\$0	\$0	\$0	\$0	27	\$5,110

#### Notes:

Actual billing rate at the time of service may vary depending on the final staffing plan at the time the project starts; the overall fee will not be exceeded. Mileage is billed at the IRS rate plus 10% handling fee

All other direct and subconsultant expenses are billed with 10% handling fee

Other direct costs such as computer, communications, and reproduction charges are billed as a percentage of labor Rates and staff are subject to change at any time, without notice, and within the total budget shown

# **5.** Resumes



# Rob Rees

Principal

#### <u>about</u>

Rob, a Principal in the Oakland office, is a registered Civil Engineer and Traffic Engineer in California and a registered Professional Traffic Operations Engineer (PTOE) with 31 years of experience. His versatility is reflected in the variety of services Fehr & Peers provides. Rob applies his wide range of experiences in transportation planning and engineering to develop transportation systems that meet community needs and values. With each project Rob brings a deep understanding of modal interactions and transportation safety with the technical understanding of civil engineering practices. Rob is also currently leading the company-wide Multimodal Safety Group.

Rob's breadth of experience is illustrated by his on-going work representing Oakland on the East Bay BRT Project. Since 2009 Rob has been working with the City of Oakland to evaluate AC Transit's bus rapid transit project. To date work included conceptual engineering design to reflect the city's values including a careful balance of auto, transit, pedestrian, and bicycle modes. Efforts also included public outreach meetings, public hearings, and numerous oneon-one meetings with merchants along the corridor. Rob assisted the City with final design review, and is now assisting the City with construction support for this project.

### education

Bachelor of Science in Civil Engineering, University of California, Davis, 1987

### affiliations

Institute of Transportation Engineers (ITE)

### registrations

Licensed Civil Engineer, State of California (#49620) Licensed Traffic Engineer, State of California (#2053) Licensed Professional Traffic Operations Engineer (#309)

#### expertise

- Active Transportation Planning and Engineering
- Multi-modal Operations and Simulation
- Parking and TDM Planning
- Conceptual Design and Cost Estimating
- Transportation and Land Use Planning
- Transit Planning and Operations
- Roadway and Pedestrian Lighting
- Signing & Pavement Delineation

### selected publications & presentations

A Policy for Accommodating and Prioritizing Pedestrians at Signalized Intersections, TRB 2016 Compendium of Papers

Evaluation of Green Shared Lane Markings on an Urban Arterial in Oakland, CA, TRB 2015 Compendium of Papers

Smart Growth Parking Requirements Review, ITE Journal, December 2010

### example project experience

#### Oakland Bus Rapid Transit Project (Oakland, CA)

This project proposal came to the city for consideration. While it was presented as a major transit investment, it did not recognize that the transit user is a pedestrian. Working with the City and decision makers the project was redesigned to incorporate wider sidewalks, bike lanes, curb extensions, increased pedestrian crossing opportunities



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Principal

with medians, and increased traffic controls. The median transit stations were redesigned to incorporate pedestrian signal control for safe access, high visibility crosswalks with medians at unsignalized crossings were also provided. Bike lanes were incorporated into the corridor and the use of alternative striping treatments including green bike lanes were established through transit stops where buses and bicyclists might conflict.

Collaboration with the City continued into final design where we provided design support to the City including review of the traffic signal and communication plans as well as the signing and pavement delineation plans. Subsequent to final design we assisted the City with construction support including review of traffic control plans, RFIs and submittals, as well as locating traffic signal equipment in the field. This project is currently under construction. Community engagement has been a central theme throughout this work with many one-on-one merchant meetings to communicate the project's impacts and collaborate on localized parking and access solutions to minimize community impacts.

#### West Oakland BART Station Access/Parking Study

Kara managed an Access/Parking Study for a proposed high-density, mixed-use TOD project at the West Oakland BART Station. The study identified, evaluated, and prioritized strategies to leverage BART, City of Oakland and project developer assets to support easy access by foot, bicycle, public and private transit as well as private vehicle to the West Oakland BART Station and proposed development. The Study included an analysis of potential parking demand and the effects of BART parking removal.

#### **Special Event Permit Overlay Zone Parking Analysis** (Berkeley, CA)

Lee was the project manager for an evaluation of the recommended number of parking permits and potential price of a football game day special event permit overlay zone in the City of Berkeley. Lee coordinated data collection and analysis on a game day and non-game day, and developed the recommended number of permits so that residents would be able to park in their assigned zones on game days.

#### International BRT Corridor Parking Management (Oakland, CA)

Lee was the project manager for a parking inventory and occupancy study in the City of Oakland. Lee coordinated data collection for over 2,500 block faces and evaluated parking availability near Bus Rapid Transit (BRT) construction zones to recommend next steps for community outreach and minimizing construction impacts.

#### Livermore Downtown Parking Study (Livermore, CA)

Mackenzie served as project engineer for this study occurring in conjunction with an EIR for a large performing arts theater located in downtown Livermore. The project required a large data collection effort of ten people collecting data for nine hours on two days. This existing parking data was then used to create a parking demand model to develop future parking conditions.

#### **Downtown Walnut Creek Parking Review (Walnut** Creek, CA)

Fehr & Peers has been monitoring parking conditions and recommending modifications to parking operations in downtown Walnut Creek since 2002. Mackenzie was lead engineer of a 2013 effort to conduct on-street and offstreet occupancy counts, review the City's parking management strategies and goals, and evaluate emerging parking technologies that could facilitate current and potential strategies and goals. Fehr & Peers recommended parking strategies including changes to pricing policy to reach desired parking occupancy rates for both short-term and long-term users, while reducing cruising for parking. Fehr & Peers updated the study to include an online web map interface to display the occupancy data more effectively with the public.

#### Telegraph Avenue Complete Street (Oakland, CA)

Fehr & Peers started this project as a planning study to identify potential complete streets treatments along the entire length of Telegraph Avenue through Oakland. Recommendations included pedestrian crossing enhancements, vehicle lane reduction, buffered bike lanes, cycle tracks, transit islands, and transit priority systems. Fehr & Peers provided operational analysis, parking supply and demand analysis, pedestrian and bicycle level of traffic stress evaluation, concept design and cost estimation, and public meeting support.



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# Kara Vuicich, AICP

Associate

#### <u>about</u>

Kara is an experienced transportation planner whose 17year career has included work for public agencies, including the Alameda County Transportation Commission and the City of Berkeley. In her previous position with the City of Berkeley, she managed numerous transportation programs and projects focused on parking, transit, and TDM. More recently, Kara managed a number of transit, land use, TDM, and social equity projects for the Alameda County Transportation Commission, working extensively with local jurisdictions and transit operators throughout Alameda County as well as with regional and other countywide transportation agencies in the Bay Area.

### education

Master of City and Regional Planning, University of California, Berkeley, 2001

Bachelor of Arts, Environmental Chemistry, University of California, San Diego, 1997

#### registrations

American Institute of Certified Planners #021129

#### expertise

- Parking demand estimation and management
- Multi-modal Transportation Planning and Project Evaluation
- TDM Planning and Program Administration
- Transit Access Planning and Design

## affiliations

American Institute of Certified Planners American Planning Association WTS Association of Pedestrian and Bicycle Professionals SPUR

### project experience

#### City of Walnut Creek Transportation Demand Management Strategic Plan

Kara is leading a consultant team to create a comprehensive strategic plan for the City of Walnut Creek with the overall objective of improving mobility and access within the city through transit service improvements, parking management, expanded mobility options, and transportation demand management programs and policies.

#### West Oakland BART Station Access/Parking Study

Kara managed an Access/Parking Study for a proposed high-density, mixed-use TOD project at the West Oakland BART Station. The study identified, evaluated and prioritized strategies to leverage BART, City of Oakland and project developer assets to support easy access by foot, bicycle, public and private transit as well as private vehicle to the West Oakland BART Station and proposed development. The Study also included an analysis of potential parking demand and the effects of BART parking removal.

#### **Caltrain Station Management Toolbox**

Kara managed development of a data-driven tool that supports proactive, process-oriented decision-making for station access and TOD at Caltrain stations. The Toolbox



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# Kara Vuicich, AICP

Associate

provides Caltrain with a systematic framework for evaluating the effects of different access investments, including potential TOD proposals, on Caltrain's ridership, financial, environmental, and equity goals and objectives.

#### Millbrae BART TOD Access and Circulation Plan

As project manager, Kara tiered off of Fehr & Peers work on the Millbrae Station Area Specific Plan and Master EIR to prepare an interim Access and Circulation Plan to address multi-modal station access needs on the east side of the Millbrae Station. The plan assembled and analyzed additional modal access data and identified access improvements for pedestrians, bicycles, public and private shuttles, park-n-ride facilities, and passenger drop-off space on the east side of the Millbrae Station.

# Alameda Countywide Transit Plan (Alameda County, CA)

As a Senior Transportation Planner with Alameda CTC, Kara played a key role managing Alameda County's first Countywide Transit Plan in coordination with AC Transit's development of a Major Corridors Study. The Countywide Transit Plan will establish a long-term vision for transit service in Alameda County as well as goals, objectives and performance measures to be incorporated into programming efforts and the Countywide Transportation Plan.

#### Sustainable Communities Technical Assistance Program (Bay Area, CA)

As a Senior Transportation Planner with Alameda CTC, Kara developed and implemented the Sustainable Communities Technical Assistance Program for over \$4 million of PDA planning and implementation funds. She developed evaluation criteria, application materials, and worked with project sponsors to refine proposed projects. She also conducted procurement activities, including contract negotiations. In this role she oversaw six consultant contracts and served as project manager for the Downtown Oakland Circulation Study and the Tri-Valley Integrated Transit/Park and Ride Study.

# South I-25 Urban Corridor Last Mile Study (Denver, CO)

While working with Nelson\Nygaard, Kara completed an analysis of last half-mile access solutions for six light rail stations in the South I-25 Corridor in the Denver metropolitan area. Recommendations included capital



#### Downtown Parking and Transportation Demand Management Study (Berkeley, CA)

As a planner in the City's Public Works Transportation Division, Kara developed a comprehensive set of recommendations for effectively managing parking and travel demand in Downtown Berkeley to support implementation of the Downtown Area Plan, including zoning changes.

#### Berkeley Transportation Action Plan (Berkeley, CA)

As a planner in the City's Public Works Transportation Division, Kara co-wrote a successful regional Climate Initiatives grant application for \$2M to implement a pilot program that combined demand-based parking pricing with strategic TDM outreach and incentives in three commercial districts. She managed initial project implementation in conjunction with an additional \$1.8M grant to implement a value-priced parking pilot program for the City and UC Berkeley.

#### Downtown Berkeley BART Plaza and Transit Area Improvements (Berkeley, CA)

Kara served as the City's project manager for an initial community planning process for conceptual designs and a subsequent consultant contract for development of 35%-level designs. She also wrote a successful Transportation for Livable Communities grant application for \$1.8M to fund additional design work and construction.



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# Mackenzie Watten

Senior Transportation Engineer

### <u>about</u>

Mackenzie joined Fehr & Peers with a degree in civil engineering with a focus on transportation from the University of California, Berkeley. At Fehr & Peers, he has contributed substantially to a wide variety of studies, including parking studies, smart growth planning, transportation impact analysis, travel demand modeling, climate action plans, and environmental impact assessments. Mackenzie has worked extensively on developing analysis techniques to accurately evaluate impacts of parking in various environments from transit oriented to greenfield development.

### education

B.S. in Civil Engineering, University of California, Berkeley, 2009

### **registrations**

Engineer-In-Training (EIT) - State of California

#### expertise

- Parking Impact Analysis
- Traffic Impact Analysis
- Travel Demand Forecasting
- Climate Action Plans
- Traffic Engineering
- Smart Growth Planning

## publications & presentations

Parking Strategies for Smart Growth – Planning Tools for the San Diego Region (co-authored), SANDAG, 2010.

# *Trip Generation for Smart Growth – Planning Tools for the San Diego Region* (co-authored), SANDAG, 2010.

*Smart Growth Parking Requirements Review* (co-authored with Richard Lee and Rob Rees), ITE *Journal*, December 2010.

## project experience

#### SANDAG Smart Growth Trip Generation and Parking Demand Guidelines (San Diego, CA)

Mackenzie contributed to a regional investigation of trip and parking generation rates for smart growth development throughout the San Diego Association of Governments (SANDAG) region. The study quantified the reduction in vehicle trips and parking required at smart growth developments due to intensity and mix of uses, transit availability, demand management, urban design, pedestrian amenities, occupant characteristics, and proximity to employment. Mackenzie served as project engineer for the project. In this capacity he researched helped to write the memorandum that provided guidance on parking rates and parking management strategies for smart growth developments. This research was published by both SANDAG and the Institute of Transportation Engineers.

#### Livermore Downtown Parking Study (Livermore, CA)

Mackenzie served as project engineer for the downtown parking study occurring in conjunction with an EIR for a large performing arts theater located in downtown Livermore. The project required a large data collection effort of ten people collecting data for nine hours on two days. This existing parking data was then used to create a parking demand model to develop future parking conditions.

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# Mackenzie Watten

Senior Transportation Engineer

#### Downtown Walnut Creek Parking Review (Walnut Creek, CA)

Fehr & Peers has been monitoring parking conditions and recommending modifications to parking operations in downtown Walnut Creek since 2002. Mackenzie was lead engineer of a 2013 effort to conduct on-street and offstreet occupancy counts, review the City's parking management strategies and goals, and evaluate emerging parking technologies that could facilitate current and potential strategies and goals. Fehr & Peers recommended parking strategies including changes to pricing policy to reach desired parking occupancy rates for both short-term and long-term users, while reducing cruising for parking. Fehr & Peers updated the study to include an online web map interface to display the occupancy data more effectively with the public.

#### tripsDC (Washington DC)

Mackenzie helped to investigate the trip generation characteristics of 60 mixed (residential, commercial, and hotel) developments in urban Washington DC. Statistical methods were used to estimate trip generation based on each sites "7D" characteristics: density, diversity, design, destination accessibility, distance from transit, development scale, and demographics. The innovative portion of this project found a statistical relationship between parking supply and vehicle trip generation - the more parking supply provided, the higher the vehicle trip generation. The statistical relationships were validated through comparison to traffic counts conducted at the sites. The resulting tripsDC method is intended to provide improved methods to those presently offered in the Institute of Transportation Engineers (ITE) Trip Generation Handbook - specifically in hyper-urban environments such as Washington DC.



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# Lee Reis

## Transportation Planner/Engineer

### <u>about</u>

Lee joined Fehr & Peers full-time in 2017 after interning in the summer of 2016 and completing his MS/MCP dual degree in Transportation Engineering and City Planning at UC Berkeley. While at Berkeley, his capstone project was a study of separated bicycle facility designs and he was the lead graduate researcher on a study of cost escalations in megaproject contracts. Lee has served as the project manager for several parking analyses, including evaluations of special event and large-scale construction impacts.

### education

Master of Science/Master of City Planning in Transportation Engineering and Transportation Planning and Policy, University of California, Berkeley, 2016 Bachelor of Science in Applied Mathematics, Minor in Mechanical Engineering, University of Rochester, 2009

## professional affiliations

Young Professionals in Transportation (Board Chair)

### expertise

- SQL Database Reporting and Analysis
- Python Programming Language
- GIS analysis

## publications and presentations

• Safety Efficacy Confidence Levels for Bicycle Treatments. International Cycling Safety Conference, 2017, Davis, CA.

## project experience

# Special Event Permit Overlay Zone Parking Analysis (Berkeley, CA)

Lee was the project manager for an evaluation of the recommended number of parking permits and potential price of a football game day special event permit overlay zone in the City of Berkeley. Lee coordinated data collection and analysis on a game day and non-game day, and developed the recommended number of permits so that residents would be able to park in their assigned zones on game days.

# International BRT Corridor Parking Management (Oakland, CA)

Lee was the project manager for a parking inventory and occupancy study in the City of Oakland. Lee coordinated data collection for over 2,500 block faces and evaluated parking availability near Bus Rapid Transit (BRT) construction zones to recommend next steps for community outreach and minimizing construction impacts.

#### Irvington BART Station Site Plan, Station Area Plan, and CEQA Screening (Fremont, CA)

Fehr & Peers is working on the transportation elements of the station site plan, station area plan, and CEQA documents for the proposed new Irvington BART station in Fremont. As part of this project, Fehr & Peers has developed ridership forecasts, recommendations for access improvements, and a station TDM plan.

# SFMTA Comprehensive Bicycle Crash Analysis (San Francisco, CA)

Lee was the project planner for this comprehensive analysis of bicycle crashes in the City of San Francisco. Lee performed bicycle crash database cleaning, researched the safety outcomes of specific infrastructure designs, and developed a framework for analyzing the collision data.



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# Stasa Zivojnovic, EIT

Transportation Engineer/Planner

### <u>about</u>

Stasa Zivojnovic, EIT, is a hardworking and dedicated transportation engineer, who has focused on freight and data analysis for the past three years. She believes it is important to extract insights from data to be able to tell a clear and powerful story of where things are now, and where they could be, in pursuit of well-functioning freight systems.

Prior to joining Fehr & Peers, Stasa partnered with numerous agencies to do just that. By aggregating and analyzing freight data, she created easy-to-digest overviews of conditions and needs, from which stakeholders could clearly understand challenges and opportunities to make more proactive, informed decisions.

At Fehr & Peers, Stasa is able to draw on and contribute to the firm's collective freight expertise through participation in Fehr and Peers' internal Data Science and Freight Initiative groups. These two internally funded research and development groups are comprised of staff just like Stasa, who are passionate about helping to advance the state-ofthe-practice in these areas.

### education

Master of Civil Engineering, Transportation Engineering, University of Texas at Austin, 2015

Bachelor of Science, Civil Engineering, University of California, Berkeley, 2013

## professional registration

Engineer in Training (EIT) Certified

# Fehr / Peers

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### <u>expertise</u>

- Programming (Python, R, Matlab)
- Spatial Analysis (ArcGIS)
- Communication (Excel, Word, PowerPoint)

## project experience

#### Sycamore Crossing TIA Update

Stasa is currently providing analytical support for a transportation impact analysis for the proposed Sycamore Crossing mixed-use development in the City of Hercules. The update includes a Residential Parking White Paper, focusing on tandem parking and its application for the Sycamore Crossing Project. Stasa is responsible for researching parking rules and regulations for the City of Hercules and other relevant agencies.

#### Alameda County Rail Strategy Study

The study identified existing and future rail volumes and conditions to pinpoint challenges and potential solutions. The study also recognized rail crossings with the greatest impacts to their communities. Stasa was responsible for the current conditions analysis of the rail system along with grade crossing analysis and prioritization. Work included creating a database of rail crossings and respective current and future attributes, as well as calculating monetary values for the crossings impact based on safety, emission, and delay. Stasa was also responsible for portions of the administrative work, including scheduling meetings, meeting notes, budget monitoring, and invoices.

### Michelle Wendler, AIA Principal



#### Education

Bachelor of Architecture California Polytechnic State University, San Luis Obispo, CA

#### Registrations

Architect (#25066), CA (5/24/94) NCARB Certified (#45897), (2/96)

#### Affiliations

American Institute of Architects International Parking Institute Advisory Council: Sustainability Committee California Public Parking Association Design Build Institute of America Women in Parking Board of Directors Parksmart (formerly the Green Parking Council) US Green Building Council

## 25+ years in parking design

# WATRY DESIGN EXPERTISE

Michelle, a Principal with Watry Design, Inc., has worked extensively with parking structure design, construction documents and construction administration since 1989. "Our goal is to make our clients look good. We take our clients' problems and issues as our own and we team with them to find the best possible solutions," says Michelle.

In addition, she tirelessly strives to ensure that the firm's designs work within the context of their environment and are something that everyone can be proud of. Michelle has extensive experience working with multiple stake holders, agencies and large groups to gain consensus. Her extensive parking experience includes an impressive portfolio of parking design and parking studies for municipal clients such as the City of Vallejo and Santa Cruz Harbor. She serves on the Advisory Council for the International Parking Institute and is an active participant in industry associations, a powerful speaker and compelling advocate for parking.

#### **Relevant Projects**

City of Vallejo Waterfront Parking Management & PARCS Plan, CA Santa Cruz Harbor Parking Management Plan, CA City of Manhattan Beach Master Plan, CA San Mateo County Government Center Master Plan, CA City of Beverly Hills In-Lieu Parking Study, CA City of Santa Barbara Operations & PARCS Study, CA Union City Station District Parking Study, CA City of Palo Alto Lot D Parking Structure, CA City of Palo Alto Public Safety Building Study & Parking Structure, CA Covina Downtown Parking Structure, Covina, CA Napa 5th Street Parking Structure, Napa, CA Temecula Civic Center Parking Structure, Temecula, CA City of Palo Alto Lots R & S/L Parking Structures, CA City of Fresno Convention Center Parking Structure, CA City of Riverside Parking Structure #6, CA City of San Rafael Parking Structure, CA City of South San Francisco Miller Avenue Parking Structure, CA City of Mountain View Parking Structure, CA Douglas County Parking Structure, Stateline, NV River/Front Parking Structure PARCS, Santa Cruz, CA Palm & Nipomo Parking Structure, San Luis Obispo, CA Capitola Village Parking Study, CA Livermore Downtown Parking Study, CA City of Santa Cruz Parking Structure Feasibility Study, CA Downtown Truckee Parking Structure Study Covina Downtown II Parking Study, CA Riverside Fox Theater Garage, CA City of San Mateo Parking Structure Feasibility Study, CA City of Brentwood Feasibility Study, CA Wailuku Parking Structure Feasibility Study, Maui, HI Town of Los Gatos Feasibility Study, CA Downtown Palo Alto Feasibility Study, CA Sonoma County Government Center Parking Site Analysis Study, CA City of Pleasant Hill Parking Structure, CA City of Sparks Parking Structure, NV North of Bayshore Parking Study, Santa Clara, CA Downtown Palo Alto Parking Structure Feasibility Study, CA City of Hayward Lot 2 Parking Structure Study, CA City of Chico Parking Structure Feasibility Study, CA City of Menlo Park Parking Study, CA