

HONGLONG (HONG) LI, PH.D, PROFESSIONAL ENGINEER, CIVIL

Key Qualifications

I have had considerable experiences in preparing traffic studies for developments, EIS, infrastructure projects in helping the clients to deliver projects in the State of Hawaii. I have worked with all four counties and Hawaii State Department of Transportation on many projects and are very familiar with their standards and expectations.

I have also provided expert witness reports on several legal cases on traffic and transportation issues and have been deposed several times. The cases range from traffic accidents, road maintenance fee dispute, and transportation greenhouse gas and carbon emissions.

I have been working as a personal service contractor in the Office of Director at Department of Transportation Services (DTS) City and County of Honolulu since 2014. Previously, I worked as a senior supervising engineer with Parsons Brinckerhoff (PB, now WSP) and served as the manager of the Honolulu Office's transportation planning and traffic engineering department.

In addition, I have also taught the undergraduate level and graduate level transportation planning and traffic safety courses at University of Hawaii at Manoa Civil and Environmental Engineering Department in the past.

I have 16 publications on transportation policies, Civil Rights Title VI/environmental justice, transportation technologies, transportation planning, and public transit in Institute of Traffic Engineers (ITE), National Association of City Transportation Official (NACTO), American Society of Civil Engineers (ASCE), Transportation Research Board (TRB) conferences and journals.

Years of Experience

26, Professional Engineer (10938.C) Hawaii, since 2003

Professional Affiliations

Institute of Transportation Engineers, Hawaii Section Director, 2012 to 2013;
Institute of Transportation Engineers, Hawaii Section President, 2010 - 2012;
Institute of Transportation Engineers, Hawaii Section Vice President, 2009-2010;

Employment

2012 – Present, LISS TranTech LLC. Principal Engineer
11/2014 – Present, Office of Director, Department of Transportation Services, City and County of Honolulu, Honolulu, Hawaii. Rail Station Access Improvement Program Manager
11/2007-10/2014, Parsons Brinckerhoff (PB, now WSP), Honolulu, Hawaii. Transportation Planning/Traffic Engineering Manager
8/2005-11/2007, Parsons Brinckerhoff (PB), Honolulu, Hawaii. Senior Transportation Engineer
6/2004-7/2005, Lyons Associates, Inc, Honolulu, Hawaii. Transportation Planning Manager
1/2001-6/2004, Lyons Associates, Inc, Honolulu, Hawaii. Transportation Planner
8/1998-1/2001, University of Hawaii at Moana Civil and Environmental Engineering, Honolulu, Hawaii. Research Assistant

Education

Ph.D., Civil and Environmental Engineering, University of Hawaii at Manoa, Honolulu, Hawaii.
May 2001. Concentration: Transportation Engineering.
M.S., Transportation Engineering, College of Transportation, Southeast University, Nanjing City, Jiangsu Province, China, May, 1998.
B.S., Traffic Engineering, Xian Highway University, Xi'an City, Shanxi Province, China, May 1995.

Maui Project Experiences

2023-2024 Traffic Study for HECO Power Plant in Central Maui, Maui, Hawaii: transportation lead responsible for the traffic analysis report in EIS and basis of design report for the proposed HECO power plant on Pulehu Road.

2009-2014 Kihei Upcountry Maui Highway Design, Maui, Hawaii: transportation lead responsible for the traffic analysis report in EIS and basis of design report for the proposed Kihei Upcountry Highway.

2008-2014 Paia Bypass Road EIS, Maui, Hawaii: Project Manager for the transportation analysis report for the proposed Paia Bypass EIS. The scope of work involves data collection, existing and future conditions analysis, and alternative analysis.

2010-2014 Maui Research and Technology Park EIS, Maui, Hawaii: Project Manager for the transportation analysis report for the proposed project EIS. The scope of work involves data collection, existing and future conditions analysis, and documentations.

2008-2013 Kehalani Mauka, Maui, Hawaii: Project Manager. Scope of work includes developing Traffic Impact Analysis Report and Signal Designs

2010-2012 Wakea and Hina Intersection Improvements, Maui, County of Maui Public Works. Project Manager for the traffic study and design of the intersection in County of Maui

2009-2010 Maui Urban Traffic Signal Prioritization Study, Maui. County of Maui Public Works. Project Manager for the traffic report prioritizing improvements for a number of intersections in County of Maui

2008-2011 Maui Lani Shopping Center, Maui, Hawaii: Project Manager. Scope of work includes developing Traffic Impact Analysis Report and Pedestrian Safety/Circulation Study

2002-2005 Traffic Congestion Evaluation on the Islands of Maui and Hawaii, State Hawaii Department of Transportation: Project Manager to develop optimal traffic signal plan significantly mitigates the level of congestion on two corridors.

Other Project Experiences**Transit/Rail**

- 11/2014-Present Honolulu Rail Transit Project Rail Station Access Program – Program Manager for the City and County of Honolulu, develop and implement multimodal transportation connection with 21 rail stations. Facilitate transit oriented development with public and private land owners.
- 1/2009-11/2014 Honolulu Rail Transit Project General Engineering Consulting (GEC) Contract Phase 1 and Phase 2 – Transportation Lead for General Engineering Consultant, review transportation circulation and planning study, review TMP reports, review Maintenance of Traffic plans, coordinate with third parties, and facilitate permit process.
- 1/2009-5/2014 Honolulu Rail Transit Project West Oahu Farrington Highway (WOFH) Guideway Design Build Contract – Transportation Management Plan (TMP) Lead for General

Engineering Consultant, review TMP reports, review Maintenance of Traffic plans, coordinate with third parties, and facilitate permit process.

- 1/2009-5/2014 Honolulu Rail Transit Project Kamehameha Highway Guideway (KHG) Design Build Contract – Transportation Management Plan (TMP) Lead for General Engineering Consultant, review TMP reports, review Maintenance of Traffic plans, coordinate with third parties, and facilitate permit process.
- 1/2009-5/2014 Honolulu Rail Transit Project Maintenance and Storage Facility (MSF) Design Build Contract – Transportation Management Plan (TMP) Lead for General Engineering Consultant, review TMP reports, review Maintenance of Traffic plans, coordinate with third parties, and facilitate permit process.
- 1/2009-5/2014 Honolulu Rail Transit Project– Transportation Management Plan (TMP) Lead for General Engineering Consultant, review TMP reports for stations, Airport and City Center, and other design-bid-build contracts, review Maintenance of Traffic plans, coordinate with third parties, and facilitate permit process.
- 1/2009-5/2014 Honolulu High Capacity Transit Corridor Project Final Environmental Impact Statement/Preliminary Engineering (FEIS/PE), Honolulu, Hawaii: transportation engineer and discipline leader responsible for traffic data collection, review/QC the FEIS Transportation Technical Report, review/QC the Transit Mitigation Plan and intelligent transportation systems (ITS) plans, assist in public presentations, calibration of the Travel Demand Forecast Model, technical report writing, and traffic management plan (TMP) lead in general engineering consulting for the West Oahu Farrington Highway Segment.
- 1/2007-5/2009 Honolulu High Capacity Transit Corridor Project, Alternatives Analysis/Draft Environmental Impact Statement (AA/DEIS), Honolulu, Hawaii: senior traffic engineer responsible for the AA data collection, quality control (QC) review for the Transportation Technical Report, assist in public presentations, and calibration of the travel demand forecast model.

Transportation Planning

- 1/2007-5/2008 Ewa Regional Roadway Connectivity Study, Honolulu, Hawaii: Project Manager. The scope of work includes: Identify Missing Links and Constraints; Recommend connectivity standards; Prepare a prioritized list and implementation timeframe; Coordination with major stakeholders.
- 1/2007-5/2008 Kuakini Highway Widening Environmental Assessment (EA), Kailua-Kona, Hawaii: transportation lead responsible for the traffic analysis required for an EA that evaluated two alternatives and featured an assessment of dense archaeological resources in the project area. The EA and associated Section 106 process made preservation and protection recommendations for the historic resources.
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- 1/2007-5/2008 Honolulu International Airport Master Plan Update, Honolulu, Hawaii: project manager responsible for the transportation evaluation for groundside parking, terminal road traffic, and airport roadway circulation.
- 11/2007-present Nani Kailua Road Extension Makai Phase I Environmental Document, Island of Hawaii, Hawaii: senior transportation engineer providing advice on micro-simulation for existing and horizon year traffic analysis.
- 1/2006-5/2008 Waimea Circulation Plan, Island of Hawaii, Hawaii: senior transportation engineer responsible for prioritizing the projects committed in the Waimea Area and developing a phased transportation plan in conjunction with the major local stakeholders.

- 1/2008-5/2009 Iwakuni Marine Corps Air Station Transportation Master Plan, Iwakuni, Japan. Principle in Charge, quality assurance and quality control of transportation planning process and study.
- 4/2008-present Natural Energy Laboratory of Hawaii Authority (NELHA) Airport Connector Road Traffic Analysis, Hawaii, Hawaii: traffic lead for the traffic scope of work that involves data collection, volume projection, traffic analysis, and basis of design.
- 1/2008-5/2010 Lowe's Iwilei Development, Honolulu, Hawaii: Project Manager for Traffic Impact Analysis Report
- 1/2008-5/2009 University of Hawaii West Oahu Campus, Oahu, Hawaii: Project Manager. Traffic Analysis Report for University of Hawaii West Oahu Campus Master Plan.
- 1/2008-5/2011 Victoria Ward Villages, Honolulu, Hawaii: Project Manager. Scope of work includes developing Traffic Impact Analysis Report, Pedestrian Safety/Circulation Study, Signal Designs, Temporary Traffic Management Plan
- 1/2008-present Debartolo Development Alii Makana, Kapolei, Hawaii: Project Manager: Developed Traffic Impact Analysis Report for the planned commercial development in East Kapolei.
- 1/2008-5/2009 Royal Kunia Phase II, Oahu, Hawaii: Project Manager: Developed Traffic Impact Analysis Report for the planned Royal Kunia Phase II in Kunia.
- 3/2008-5/2009 Waiawa Ridge Development Traffic Analysis, Oahu, Hawaii: Traffic Task Lead. Scope of work includes developing cast-sharing strategy based on traffic analysis
- 1/2006-5/2010 Ewa by Gentry, Ewa, Hawaii: Project Manager. Scope of work includes developing Traffic Impact Analysis Report, Signal Designs, Signal Warrant Study
- 1/2003-5/2005 Refinement of Civil Right Title VI and Environmental Justice Monitoring Plan, Oahu, Hawaii: deputy project manager for the project. The purpose of project was to assess transportation equity in the transportation plans. The scope of the project included the following: refine and update title vi & environmental justice populations; update the travel demand forecasting model; refine and update performance measures: accessibility, mobility, safety, population policy, equity, and public involvement; refine the GIS analysis tool; development of methodology for evaluating existing programs; evaluation and assessment of existing programs; documentation and training.
- 11/2002-5/2004 Paratransit System Study on the Island of Hawaii, Hawaii: project manager for the project. The purpose of the project was to develop a rural paratransit plan for two districts of Hawaii County. The scope of work included establishing a steering committee; data collection; develop database of public transportation and paratransit services and needs; assessing the benefits of a coordinated public transportation and paratransit system; developing alternative and assess effectiveness of coordinated public transportation and paratransit system.
- 4/2003-8/2005 Statewide Scenic Byway Program, State Hawaii Department of Transportation: project manager for the development of a process for scenic byways designation through an extensive public outreach program; identification of four top priority corridor for designation and subsequent protection and enhancement; develop grading criteria for designating a scenic byway that includes consideration of intrinsic quality and additional factors such as safety and maintenance; and develop a Corridor Management Plan Guideline to provide a clear understanding and expectation of proposed route and the community responsibility to preserve and enhance them.

Traffic Engineering

- 5/2007-12/2011 Kamehameha Highway Improvement, Center Drive to Waihona Street, Oahu, Hawaii: deputy project manager responsible for identifying capital improvement projects; prioritizing the projects; and proposing interim congestion mitigation projects including signal optimization, contraflow, and intersection improvements. The project took a context sensitive approach in developing the projects
- 1/2008-5/2009 Nimitz Highway Flyover, Oahu, Hawaii: senior transportation engineer responsible for traffic analysis, and micro-simulation for the existing condition and the proposed alternatives.
- 1/2002-5/2005 Traffic Congestion Evaluation on the Islands of Maui and Hawaii, State Hawaii Department of Transportation: Project Manager - these twin projects have the similar scope of work at two different locations. The projects were to optimize a heavily traveled corridor consisting of 12 intersections at each island. The data collection were conducted to calibrate the model and to facility before and after comparison. A data collecting crew as many as 14 persons were operated. The data collected included speed/travel time profile by using GPS devices, turning movement counts, and 24-hour volume counts. Synchro/SimTraffic was used to optimize the coordinated signal plan. The optimal plan significantly mitigates the level of congestion on two corridors.
- 1/2003-5/2004 Bus Bay Improvements at various bus routes, City and County of Honolulu: Traffic Engineer - More than 50 bus stops were surveyed and a bus bay feasibility study was conducted. A decision-making matrix considering stop utilization, traffic interference, signal safety, cost, etc. was developed to rank the priority of all bus bay candidates. As a result of the report, six bus bay improvements were determined and design services were also provided.
- 1/2001-5/2003 Traffic Calming Studies at Various Locations, City and County of Honolulu, Hawaii: traffic engineer for the project which responded to the outcry from the community suffering speeding and cut-through traffic. The traffic engineers recorded and classified traffic patterns at the sites and provided detailed analysis and recommendations for traffic calming.
- 9/2001-5/2004 Traffic Safety Improvement at the Intersection of Kuilima and Kamekameka Highway, Oahu, Hawaii: traffic engineer for the project which was initiated from the high-crash rate at the intersection. The alternatives to improve safety, such as replacement of bridge, lane addition, signalization, and lane reconfiguration were proposed and evaluated.
- 1/2002-5/2004 Kaukonahua Road Traffic Safety Improvements, City and County of Honolulu, Hawaii: traffic engineer for the project which was to improve traffic safety along a winding 10-mile stretch of a highway. Completed project tasks include: traffic operations report, conceptual plans, construction cost estimate and environmental assessment.
- 1/1999-5/2000 Investigation of Limited Ramp Closures along the H-1 Freeway, Oahu, Hawaii: research assistant for the project is to identify potential ramps on the most central segment of the H-1 freeway between Koko Head Avenue and Middle Street which, if closed would cause a significant improvement of the flow conditions on the freeway without causing major congestion on adjacent city streets. Freeway and network simulation by computer is used to 1) assess existing conditions, 2) identify ramps whose closure will yield major benefits to the freeway flow, and 3) select ramps whose closure will be both beneficial to freeway flow and not significantly detrimental to flow conditions on city streets.
- 1/1999-12/2000 Evaluation of the Effects of Experimental Closure of the Bingham Street off-ramp, Honolulu, Hawaii: research assistant for the project. The Hawaii Department of Transportation (HDOT) closed the Bingham St. off-ramp throughout October 2000 in response to complaints by residents about speeding and other adverse effects caused by off-ramp vehicular traffic. The objective of the experimental closure is to ascertain whether a permanent closure is feasible. The evaluation consists of analysis and before-after comparisons of volume patterns, speeds, queues, and residents' and motorists' perceptions.

Traffic (Pedestrian) Safety

- 1/2008-5/2008 CEE 696 Traffic Safety, Department of Civil and Environmental Engineering, University of Hawaii, Honolulu, Hawaii: instructor for the course which covered roadway design principles for safety, crash analysis methodologies, and traffic safety measures to improve the safety and livability of urban areas. Work zone safety and Intelligent Transportation System (ITS) safety applications were also discussed. Several case studies excerpted from real projects were introduced.
- 1/2001-5/2003 Traffic Calming Studies at Various Locations, City and County of Honolulu, Hawaii: traffic Traffic Calming Studies at Various Locations, City and County of Honolulu, Hawaii: traffic engineer for the project which responded to the outcry from the community suffering speeding and cut-through traffic. Data of traffic patterns at the sites was recorded and classified, then a detailed analysis and recommendations for traffic calming was completed. Upon approval of the reports and design analysis, it is anticipated that detail design and construction documents will be prepared.
- 1/1999-12/2000 Evaluation of LightGuard© Flashing Lights at Pedestrian Crossings, State Hawaii Department of Transportation: research assistant for the project. The Hawaii Department of Transportation (HDOT) installed experimental flashing lights at an unsignalized pedestrian crossing along Pali Highway in response to recent pedestrian fatalities. The purpose of the lights was to increase the awareness of the motorists on their responsibility to yield to pedestrians in crosswalks. The lights are activated by pedestrians using push-buttons akin to those at signalized intersections. LightGuard are in-pavement LED devices that light in the direction of on-coming traffic. A detailed evaluation of the effects of LightGuard on pedestrian safety was conducted.