

Liza X. Ríos Berríos

Associate - Puerto Rico Office Leader

Liza has more than 11 years of experience as a transportation consultant where she has developed in several disciplines of transportation and project management of several project with international team. Her main area of expertise is modeling, both in micro simulation and macro-simulation.

Liza has worked on public and private sector projects in Puerto Rico, Mexico, Abu Dhabi, Brazil, Panama and Colombia. Early in her career, Liza focused on road impact studies focusing on micro-simulation. She has worked on projects focused on transportation plans, such as mobility master plans, plans focused on non-motorized modes and strategic plans. She has also collaborated in infrastructure projects, elaborating demand and revenue forecast studies; and revenue forecast with non-conventional toll collection systems. She has lead modeling project, design analysis and traffic impact studies, traffic congestion management and project related to public transport.

Currently Liza has authority to act on behalf of Steer San Juan office.

Relevant skills

Project Management: I have experience managing projects of various sizes with wide ranging budgets.

Modelling: I have worked with modeling on projects in Puerto Rico, Mexico, Abu Dhabi and Brazil. I manage various transportation modeling packages including Vissim, Viswalk and S-Paramics, Emme, CUBE, and HCS. I can manage every stage of the process of modeling from data collection to validating the model, and obtaining the results required for every type of project, especially Levels of Service (LOS), following the HCM method. I also have worked with pedestrian modeling on projects in Bogotá

Data Collection & Analysis: I have experience supervising and analyzing traffic data including travel time surveys, traffic signal data collection, OD surveys and users' preferences surveys. I applied these skills for projects in Puerto Rico, México and Panamá.

Transport Assessment: I have involved in various transport assessment projects that supported in the development of different kind of transport focuses, impact traffic studies, access control, trip generation, pedestrian and signalized intersection, revenue and demand forecast.

Transport Planning: Applying transport planning skills collaborating with major projects mainly in Puerto Rico including the San Juan Integrated Multimodal Transportation Plan, Complete Streets Plan and Design Guidelines in Puerto Rico, Comprehensive Bicycle and Pedestrian Plan for Puerto Rico, 2045 Long Range Transportation Plan and currently managing Bayamón Strategic Transportation Plan

Qualifications

University of Puerto Rico
BS Civil Engineering
2009

Years of experience

11+ Consultancy
2 Research

Languages

Spanish – Native
English – Intermediate

Projects summary

	Project	Client	Year/Location	Role
Planning	Bayamón Strategic Transportation Plan	Municipality of Bayamón	On-going, Puerto Rico	Project Manager, Traffic Expert
	Complete Street Priorization Analysis	Puerto Rico Highways and Transportation Authority (PRHTA)	On-going, Puerto Rico	Project Manager, Traffic Expert
	Short Range Strategic Transit Plan	Municipality of Vega Baja	2018, Puerto Rico	Technical Support
	2045 PR Long Range Multimodal Transportation Plan	Puerto Rico Highways and Transportation Authority (PRHTA)	2017, Puerto Rico	Technical Support, Traffic Expert, Modelling Support
	Complete Streets Plan and Design Guidelines	Puerto Rico Highways and Transportation Authority (PRHTA)	2016, Puerto Rico	Deputy Project manger
	Comprehensive Bicycle and Pedestrian Plan	Puerto Rico Highways and Transportation Authority (PRHTA)	2016, Puerto Rico	Deputy Project manger
	Comprehensive Transportation Plan for the Municipality of San Juan	Municipality of San Juan	2015, Puerto Rico	Technical Support
Modelling	23196801: PR30/PR26/PR2 Potential Tolling Analysis	Puerto Rico Highways & Transportation Authority	2018, Puerto Rico	Modeler
	23141401: Dynamic Tolloed Flyover	Puerto Rico Highways & Transportation Authority	2017, Puerto Rico	Modeler
	22615502: Hatillo-Aguadilla Corridor Analysis Update	Puerto Rico Infrastructure Financing Authority	2015, Puerto Rico	Modeler
	22839501: PR-52 DTL Update	Metrics Engineers	2015, Puerto Rico	Modeler

Hatillo-Aguadilla Corridor Analysis Update	AFI	2014, Puerto Rico	Modeller
PR-22 Auxiliary Lane over La Plata Bridge	Metropista	2013, Puerto Rico	Modeler/PM
Cidade da Copa	Odebrecht/AEG/OAS	2011, Brazil	Modeler
Movilidad Pedregal 24	Delegación Miguel Hidalgo / SEDUVI Consortium	2011, Mexico	Modeler
Abu Dhabi Metro Study	Abu Dhabi Department of Transportation	2011, Abu Dhabi	Modeler
Picacho Traffic and Access Study	Confidential	2011, México	Modeler
22834601: Comprehensive Bicycle & Pedestrian Plan	Puerto Rico Highways & Transportation Authority	2015, Puerto Rico	Technical Support
22834701: Complete Streets Plan & Design Guidelines	Puerto Rico Highways & Transportation Authority	Puerto Rico, 2015	Technical Support
22699901: CTP for the Municipality of San Juan	Municipalidad de San Juan	2015, Puerto Rico	Technical Support
22967301: Advisory Ciudadela Master Plan	ROSSILUGO Arq.	2016, Puerto Rico	Project Manager
22505504: Metropistas Annual Report	Metropistas	2015, Puerto Rico	Technical Support
22633802: San Juan Caguas Commuter Rail - DTL Alt	Puerto Rico Public Private Partnerships Authority	2015, Puerto Rico	Technical Support

	Project	Client	Year/Location	Role
Data Collection & Analysis	Hatillo-Aguadilla Corridor Analysis Update	AFI	2014, Puerto Rico	Technical Support
	Caguas-San Juan Commuter Train Project	APPPR	2014, Puerto Rico	Technical Support

Impacts for Metro Implementation in Panama City	Transporte Masivo de Panama SA	2013, Panama	Technical Support
CETRAM Chapultepec	Grupo BBVA Bancomer	2013, Mexico	Technical Support
Congestion Charging Scheme for Bogota	Secretaría Distrital de Movilidad (SDM)	2013, Colombia	Technical Support
PR-22 Dynamic Toll Lane Study	Metropista	2012, Puerto Rico	Technical Support
Traffic Advice for Corredor Norte	ICA Infrastructure	2012, Panama	Technical Support
Metropistas Annual Report	Metropistas	2012, Puerto Rico	Technical Support
Traffic Study SATOUR- LRT	CSA Group/PRHTA	2011, Puerto Rico	Technical Support
PR-22 PR-5 Traffic and Revenue	Abertis/Goldman Sachs	2011, Puerto Rico	Technical Support
PR-52 Sketch T & R Study	Confidential	2011, Puerto Rico	Technical Support
Access Study Reforma 509	Banco Santander	2011, Mexico	Technical Support
Access Study Reynosa	Corning Inc.	2011, Mexico	Technical Support

Selected projects

Modelling

23196801: PR30/PR26/PR2 Potential Tolling Analysis

Client *Puerto Rico Highways & Transportation Authority*
Year/Location *Puerto Rico /2018*
Position Held *Modeler*

The Puerto Rico Fiscal Agency and Financial Advisory Authority (FAFAA) and the Puerto Rico Highway and Transportation Authority (PRHTA) have asked Steer to support the analysis of potentially tolling three currently untolled freeways, namely: PR-30, PR-26 and PR-2 from PR-52 in Ponce to PR-100 in Hormigueros.

23028701: PR Long Range Multimodal Transportation Plan

Client *Puerto Rico Highways & Transportation Authority*
Year/Location *Puerto Rico/2017*
Position Held *Technical Support*

The Puerto Rico Highways and Transportation Authority is seeking a team of consultants to develop the 2045 PRMLRTP. This is to be responsive to Puerto Rico's needs and its supportive development policies. It should also comply with all the Commonwealth's applicable laws, regulations and policies, including federal laws and regulations applicable to the transportation planning process. Proposed transportation travel demand modelling update is considering the current Cube/Voyager software as a platform.

23114501: Traffic Study, Industrial Area in Añasco

Client *Puerto Rico Industrial Development Company*
Year/Location *Puerto Rico /2017*
Position Held *Project Manager*

Steer was contacted by the Puerto Rico Industrial Development Company to support a traffic study, required as part of the permits process to close local road Baxter Boulevard. Liza Rios Berrios was project manager and principal modeler.

23181701: Short Range Strategic Transit Plan

Client *Municipality of Vega Baja*
Year/Location *Puerto Rico/2018*
Position Held *Technical Support-*

The Autonomous Government of Vega Baja Municipality requests proposals from qualified consultants, with expertise in transportation planning and United States Department of Transportation (USDOT) rules and regulations of the Federal Transit Administration (FTA), for the development of a Short Range Strategic Transit Plan for Vega Baja.

22779301: PR-53

Client *CSA Group*
Year/Location *Puerto Rico/2017*
Position Held *Project Manager*

CSA contacted the PR Office to support them in the preparation of a proposal to undertake the Environmental Impact Statement (EIS) for the completion of PR-53 from Guayama to Yabucoa. Liza Rios Berrios was project manager and principal modeler. .

23126101: Sustainable transit in Panama City

Client *British Embassy Panamá*
Year/Location *2017, Panamá*
Position Held *Project Manager*

Developing sustainable public transport networks in Panama City, to provide support to Panama as it implements public transport initiatives, to reduce Panama's carbon emissions. Liza Rios Berrios was project manager, constant communication with the client, analysis, conclusions and recommendations for the suggest changes were part of her tasks.

23171501: Demand Description

Client *FDDS Management*
Year/Location *2017, Puerto Rico*
Position Held *Project Manager*

Steer has been commissioned to develop a general characterization of the train users and the impacts that may occur under a closure of operations of it, as well as First Transit services. Liza Rios Berrios was project manager. The constant communication with the client, and recommendations and conclusions were part of her tasks.

23141401: Dynamic Tolled Flyover

Client *Puerto Rico Highways & Transportation Authority*
Year/Location *2017, Puerto Rico*
Position Held *Modeler*

The PRHTA wants to analyse the feasibility of constructing reversible flyovers on highly-congested at peak hours interchanges. Steer will prepare simple spreadsheet models to analyse potential revenues and congestion reduction at specific locations on major highways Islandwide.

22834601: Comprehensive Bicycle & Pedestrian Plan

Client *Puerto Rico Highways & Transportation Authority*
Year/Location *2015, Puerto Rico*
Position Held *Technical Support*

The Department of Transportation and Public Works (DTPW) through the PR Highway and Transportation Authority (PRHTA) has selected Steer as the consultant firm to prepare the Comprehensive Bicycle and Pedestrian Plan. This will be the first comprehensive statewide bicycle and pedestrian planning effort to be developed to comply with the requirements of Moving Ahead for Progress in the 21st Century (MAP-21) and Fixing America's Surface Transportation (FAST-ACT) related to the use of cycling and walking as transportation alternatives.

22834701: Complete Streets Plan & Design Guidelines

Client **Puerto Rico Highways & Transportation Authority**
Year/Location *Puerto Rico, 2015*
Position Held *Technical Support*

The Department of Transportation and Public Works (DTPW) through the PR Highway and Transportation Authority (PRHTA) has selected Steer as the consultant firm to prepare the Puerto Rico Complete Streets Plan and Design Guidelines. This will be the first Complete Streets planning and design effort to be developed to comply with the requirements of the 21st Century (MAP-21) and Fixing America's Surface Transportation (FAST-ACT).

22699901: CTP for the Municipality of San Juan

Client *Municipalidad de San Juan*
Year/Location *Puerto Rico, 2015*
Position Held *Technical Support*

The Autonomous Municipality of San Juan contracted Steer as consultants with experience in transportation and the rules and regulations of the USA DoT FTA to develop a Comprehensive Transportation Plan. This opportunity includes the definition of the structure of the Municipal Transportation Office, evaluation and proposals for transit, traffic and parking strategies in the Municipality.

22699801: Calle Calaf Study

Client *Manuel Bermudez Arquitectos*
Year/Location *Puerto Rico, 2014*
Position Held *Modeler*

Architect Bermúdez contacted Steer for support in the analysis of improvements to Calle Calaf in Hato Rey. The proposed changes to the street will consider a Complete Street analysis. Liza has been actively working on this project developing the report, presentations to the client, modelling and managing the overall team.

Revitalization Ponce de Leon Avenue

Client *Manuel Bermudez Arquitectos*
Year/Location *Puerto Rico, 2014*
Position Held *Modeler*

The Municipality of San Juan requested Manuel Bermudez Arquitectos to prepare a proposal for the urban revitalization of the Ponce de Leon Avenue in the Rio Piedras area. The aim is to increase non-motorized mobility between the University of Puerto Rico and the commercial area in Rio Piedra's town along Ponce de Leon. MB Architects contacted the PR Office to support this project from the stand point of mobility and traffic management. The project required Steer to support the office of Manuel Bermudez to generate a conceptual proposal for the revitalization of Ponce de Leon Avenue, specifically improve intersections in the study area considering both aspects of transit as pedestrian and cyclist mobility. Also propose a circuit of cycle routes associated with the study area that works for the campus of the University of Puerto Rico and for the residents of the area. Steer proposed strategies to revitalize the pedestrian street known as "Calle José de Diego" and present a proposal for a Complete Streets design in the study area. Liza has been actively working on this project assisting in reporting, presentations to the client, data analysis, and model development.

22615502: Hatillo-Aguadilla Corridor Analysis Update

Client *Puerto Rico Infrastructure Financing Authority*
Year/Location *Puerto Rico, 2015*
Position Held *Modeler*

The Infrastructure Finance Authority (AFI) is leading the revision of the environmental Impact Statement of the Hatillo-Aguadilla Corridor. This will include the updates A Desireability and Convenience Study of the preferred alternative.

22967301: Advisory Ciudadela Master Plan

Client *ROSSILUGO Arq.*
Year/Location *2016, Puerto Rico*
Position Held *Project Manager*

Steer was contacted by Architect Fernando Lugo to provide technical support regarding proposed road improvements surrounding the Ciudadela Master Plan in Santurce. Liza Rios Berríos was project manager. The constant communication with the client, advice and recommendations for the suggested changes were part of her tasks.

22505504: Metropistas Annual Report

Client *Metropistas*
Year/Location *2015, Puerto Rico*
Position Held *Technical Support*

Steer was contacted by Metropista to support it in the preparation of the Annual Report (four years) on the current and forecasted traffic volume on the toll roads PR-22 and PR-5. This represents the second year of work.

The report must be prepared based on the FHWA Traffic Monitoring Guide and presented to Puerto Rico Highway Transportation Authority (PRHTA).

22839501: PR-52 DTL Update

Client *Metrics Engineers*
Year/Location *2015, Puerto Rico*
Position Held *Modeler*

Steer recently completed a sketch level analysis of adding DTL to PR-52 between Caguas Norte and north of Américo Miranda Avenue in San Juan.

The main task of the work described in this proposal will be to build upon our prior work to support sketch level analysis of demand and revenue for the DTL, together with Metrics Engineering and the design team. To do this we will conduct a sensitivity analysis with the model Steer recently constructed in order to determine the demand and revenue variations to the DTL in response to changes in design or operation

22633802: San Juan Caguas Commuter Rail - DTL Alt

Client *Puerto Rico Public Private Partnerships Authority*
Year/Location *2015, Puerto Rico*
Position Held *Technical Support*

In late December 2013, Steer (Steer) was contracted as an advisor to the Puerto Rico Public-Private Partnerships Authority's (the Authority) development of the Caguas-San Juan Transit Project. The original scope of work was widened through the First Amendment signed in June 2014. Throughout Steer's involvement in the project, we have gained a strong understanding of the project development, the Authority's needs, and the needs of other members of the consultant team.

Given the current needs of the project, Steer's current scope of work has been widened to provide additional support to undertake a sketch level analysis of the DTL lanes on PR-52

Hatillo-Aguadilla Corridor Analysis Update

Client *AFI*
Year/Location *2014, Puerto Rico*
Position Held *Modeler*

AFI has been the leader of the Impact Declaration (DIA, Spanish initials) revision of Hatillo-Aguadilla Corridor. This includes the traffic update and the socioeconomic data. Steer, has been part of the group created by AFI, who was in charge of the revision of previous studies, updating the models and data collection. One of the additional tasks was the analysis of every intersection in the PR-22 between Hatillo and Aguadilla. Consequently, she did a model in VISSIM and Synchro. Liza worked in this task, and obtain the LOS of every traffic lighted intersection and the travelling time of the stretch under study, for the present model and the future one.

PR-22 Auxiliary Lane over La Plata Bridge

Client *Metropistas*
Year/Location *2013, Puerto Rico*
Position Held *Modeler*

Metropistas contacted the Steer PR Office to make a model in Vissim for a segment of PR-22 with the objective of sustaining a proposal to the Highway Authority (ACT, Spanish initials) and the Federal Highway Administration (FHWA), converting the shoulder to an auxiliary lane, for the congestion period in the west direction, specifically in the Bridge over La Plata River in the west side of the toll in Toa Baja. For this project we count for the present situation and the future one, considering the future will have the addition of the auxiliary lane, the cues, average delay, service levels, and the travelling time. Liza Rios Berríos was project manager and principal modeler. The constant communication with the client, modelling, conclusions and recommendations for the suggest changes were part of her tasks.

Cidade da Copa

Client *Odebrecht/AEG/OAS*
Year/Location *2011, Brazil*
Position Held *Modeler*

Transport master planning for a proposed new 'city' on the outskirts of Recife. Also transport plan for the adjacent stadium project. Liza worked with the construction, input data, design optimization and result analysis in S. Paramics model.

Movilidad Pedregal 24

Client *Delegación Miguel Hidalgo / SEDUVI Consortium*
Year/Location *2011, Mexico*
Position Held *Technical Support*

Traffic study for a 25-floor office building at Las Lomas (Pedregal 24), Mexico City. Liza worked with the VISSIM construction model and balancing network.

Abu Dhabi Metro Study

Client *AECOM/Abu Dhabi Department of Transport*
Year/Location *2011, Abu Dhabi*
Position Held *Modeler*

Planning, modelling and demand forecasting for a new metro system. Liza worked with input of traffic data into a Sychro model.

Data Collection and Analysis

Hatillo-Aguadilla Corridor Analysis Update

Client *AFI*
Year/Location *2014, Puerto Rico*
Position Held *Technical Support*

The Puerto Rico Infrastructure Financing Authority (PRIFA) led the revision of the environmental Impact Statement of the Hatillo-Aguadilla Corridor. This included the update of traffic and socio-economic data, considering a P3 scheme. Steer supported PRIFA's management team in various tasks including meeting with the team and government agencies, reviews of prior studies, model update, data collection plan, amongst others. Liza worked on modelling micro simulation, and collaborated in the construction of macro simulation model.

Caguas-San Juan Commuter Train Project

Client *APPPR*
Year/Location *2014, Puerto Rico*
Position Held *Technical Support*

Technical advisory support to the Puerto Rico PPP Authority related to the preparation of a commuter rail scheme between the Municipality of Caguas and a Tren Urbano Station in San Juan. We have been contracted to prepare sketched level and investment grade R&R forecasts as well as support the advisory team in defining a preliminary preferred alternative. Liza worked with supervision and processing of data collected in field.

Impacts for Metro Implementation in Panama City

Client *Transporte Masivo de Panamá SA*
Year/Location *2013, Panama*
Position Held *Technical Support*

Due to the implementation of the Metro's first line, Steer analyzed the impact in terms of demand on main bus operation in the city. Additionally, Steer explored alternatives for the operational integration of bus-metro. Liza described the different types of collective transportation of Puerto Rico.

CETRAM Chapultepec

Client *Grupo BBVA Bancomer*
Year/Location *2013, México*
Position Held *Technical Support*

Traffic, pedestrian and cycling impact study of a new multi-modal transfer station. Liza collaborated in the process of generating trips.

Congestion Charging Scheme for Bogota

Client *Secretaría Distrital de Movilidad (SDM)*
Year/Location *2013, Colombia*
Position Held *Technical Support*

Formulated the technical, financial and legal structure for a congestion charging scheme for Bogotá. Liza revised de EMME Network .

PR-22 Dynamic Toll Lane Study

Client *Metropista*
Year/Location *2012, Puerto Rico*
Position Held *Technical Support*

Steer conducted a study to identify recommended initial toll rates for the PR-22 Dynamic Toll Lanes in the San Juan, Puerto Rico area. Liza worked in processing the data collected in the field.

Traffic Advise for Corredor Norte

Client *ICA Infrastructure*
Year/Location *2012, Panamá*
Position Held *Technical Support*

Demanded estimation and traffic advice for toll road concession Corredor Norte located north of Panama City. Liza worked in the data collection supervision and collaborated with models on Vissim.

Metropistas Annual Report

Client *Metropistas*
Year/Location *2012, Puerto Rico*
Position Held *Technical Support*

Steer was contacted by Metropistas to support them preparing the Annual Report (every 4 years) and forecasted traffic volume on the Toll Roads PR-22 and PR-5. Liza helped with the coordination of the itinerary of data collections and processing the information and analysis.

Traffic Study SATOUR - LRT

Client *CSA Group*
Year/Location *2011, Puerto Rico*
Position Held *Technical Support*

Base data collection and model creation for a Transport Assessment for the Environmental Impact Statement required for the project permitting process. A micro simulation model will be prepared to, in a later phase, analyse the impact a new transit system will have on the road network for the short, medium and long term. Liza supervised the data collection and collected the time travelling and traffic lights times.

PR-22 PR-5 Traffic and Revenue

Client *Abertis/Goldman Sachs*
Year/Location *2011, Puerto Rico*
Position Held *Technical Support*

Liza worked on the analysis and the supervision of field data collection on a main toll Plaza along PR-22.

PR-52 - Sketch T & R Study

Client *Confidential*
Year/Location *2011, Puerto Rico*
Position Held *Technical Support*

Liza undertook a travel time study and she processed and analyzed GPS data.

Traffic Study SATOUR - LRT

Client *CSA Group/ PRHTA*
Year/Location *2011, Puerto Rico*
Position Held *Technical Support*

Traffic impact assessment for the proposed alignment of a new Light Rail system for the Municipality of San Juan, called SATOUR. As part of a traffic assessment required for the Environmental Impact Statement as part of the project permission process, Steer designed and analyzed traffic data collection results. Liza did the travel time study, the analysis and balancing of traffic count data along the LRT network and she obtained the operational characteristics of all the intersections with traffic lights along the corridor.