

CARLOS ORTEGA

Senior Director – Infrastructure & Capital Projects / Disputes & Investigations

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EDUCATION

Bachelor of Engineering - Civil,
Universidad de los Andes,
Colombia

Master of Engineering
Management,
University of Technology,
Sydney, Australia

MBA (Engineering Management
& Policy),
University of Technology,
Sydney, Australia

RECOGNITIONS

WWL Experts List 2019
WWL Experts List 2020

ASSOCIATIONS

AACE International,
Founding President
Colombia Section

LANGUAGES

Spanish
English

Carlos Ortega is one of the main Independent Technical Experts and Expert Witnesses in Latin America and Senior Director for Alvarez and Marsal, for the practices: Infrastructure & Capital Projects and Disputes & Investigations . Mr. Ortega specializes in Project Management services and policies, and has lead PM teams for a diverse number of large-scale infrastructure construction projects in Latin America and Australia. Mr. Ortega is a registered Technical Expert with the International Chamber of Commerce, ICC, as well as the several Chambers of Commerce and Arbitration Centers in Latin America.

For the past 18 years, Mr. Ortega has provided PM and Claims consulting work for key projects such as the M7 Motorway construction project, the upgrade of the Sydney Metro stations in Revesby, Ashfield, Lidcombe, Macdonaldtown, amongst others, in Sydney, Australia, the new El Dorado Airport in Bogota, Colombia, and the Talara Refinery Expansion in Peru.

In arbitration proceedings, Mr. Ortega has acted as Technical Expert and Expert Witness for cases like the Talara Refinery in Peru (US\$5.2B), Bogotá water & wastewater operations contract, the construction of the El Quimbo hydropower plant, the construction of the General Public Hospital in San Andrés Island, the construction of the Command and Operations Center for the Bogota Mass Transit System, Transmilenio, the construction of a power line grid, and multimodal sea port in Mexico and several large-scale road concessions in Colombia, with accumulated value over US\$5B.

Mr. Ortega was recently selected to the Who's Who Legal: Construction 2019, as leading Technical Expert and only Latin American based expert to make the list.

Mr. Ortega has also participated as speaker and panelist for several Latin-American Infrastructure conferences and forums, is a recurrent guest speaker and advisor for the PMI Colombian chapter, as well as guest speaker for several top university events related to construction and Project Management in Colombia. Mr Ortega is also Infrastructure Project Advisor for the World Economic Forum in Latin America, that advised the previous Argentinian Government in the development of the National PPP program.

Mr. Ortega is a Civil Engineer from Universidad de los Andes, Colombia, and has a Master of Engineering Management and an MBA with primary focus on Engineering Management & Policy from University of Technology, Sydney, Australia. Mr. Ortega is also certified as Six Sigma Executive Champion and is the Founding Past President of AACE Colombia.



Relevant Experience**Roads**

Mr. Ortega was recently Technical Expert and testified in arbitration hearings before the Chamber of Commerce of Bogotá, in the case derived from the largest damages valuation road project in the history of Colombia. The dispute includes in excess of US \$1.3B in claims, as part of a 610km PPP roadway.

Mr. Ortega led the expert team that worked in the assessment and Preliminary Expert Assessment for a claim as part of a 18 tunnel 150km roadway in Colombia, with approximate construction cost of US\$1.2 Billion.

Mr. Ortega worked as Technical Expert of a fourth-generation highway concession in Colombia, in which he provides independent expert analysis and testimony both to the National Infrastructure Agency, and as part of the claim against the EPC contractor. The project, valued at more than \$330 million, had serious stoppages due to land acquisition issues and social unrest. The team documented previous causes of delay as well as quantifying the associated cost overruns.

For the *Parques del Rio Medellin* project Mr. Ortega carried out the initial review of the first phase project schedule of the of the major project with a total cost of more than US\$ 1 billion. He met the design team of the project and the technical advisors of EDU in order to understand the planned constructive methodologies and rebuild the project schedule before the tender for the construction of the first phase.

As Director of Operations for Latin America for Alpha Corporation, Mr. Ortega led the team in charge of the biannual audit of the project Northeast Freeway (Santo Domingo – Samaná) in the Dominican Republic. The US\$154 million project comprised the construction of the 65 miles main North-South freeway connecting towns north and south of the island and reducing 70 miles of trajectory with regards to the previous route. The consulting contract was to conduct a project management biannual audit to the grantee hired by SwissRe in charge of the technical evaluation of the project status, in order to assess the latent risk of execution of the reinsurance policy for DSU.

Mr. Ortega worked as Contract Manager for the main subcontractor of civil works and paving during the construction of the M7 Freeway in Sydney, Australia, project worth US\$3.500 million. He was responsible for reviewing documentation of subcontractors, information and progress reports to the client and monitoring all quality, environment and industrial safety (QHSE) activities of Nace Civil Engineering in the project.

Metro/Rail

Mr. Ortega worked as lead Expert Advisor for the preliminary claim, as part of a Metro Project in Perú, with approximate construction cost of US\$5.2 Billion. The claim will not be proceeding to ICSID Arbitration.

Mr. Ortega participated in the bidding team for the Rail Duplication Project for the Sydney Metro, between Ashfield and Lidcombe, Australia. The project, with an approximate cost of US\$55M, included the duplication of the rail lines between the two stations, construction of new passenger platforms at both stations, construction of power substations at both stations and the upgrade of all overhead wiring and signaling for the project. Mr. Ortega was in charge of preparing the project schedule for the bid, as well as the MonteCarlo risk analysis for the proposal budget submitted by Leighton Contractor in Sydney, Australia. The company was awarded the project and concluded its construction in 2007.

Working for Leighton Contractors, Mr. Ortega participated as part of the team that prepared the bid proposal for the construction of the Revesby Turnback project in Sydney, Australia. With a project cost of US\$65M. While working on the project, Mr. Ortega was in charge of developing the full project schedule and the MonteCarlo analysis for the proposal that eventually was awarded the contract. The project included the construction of a new turnback at Revesby Metro Station, the construction of a new passenger platform, and upgrade to the overhead wiring and signaling systems surrounding the station.

As part of the Leighton Contractors project team in Sydney, Australia, Mr. Ortega also participated in the team that prepared and wrote the proposal for the public bid for the upgrade and expansion of the Macdonaldtown metrorail station, in the suburbs of Sydney. This project, valued at US\$35M, was comprised of the expansion of the passenger station, the construction of a new train stabling yard and the upgrade of all overhead wiring, tracks and signaling systems around the station. Mr. Ortega was in charge of developing the full project schedule, using Primavera®, for the bid proposal submitted to TIDC (Transport Infrastructure Development Corporation), now TCA (Transport Construction Authority, Sydney Australia). Mr. Ortega was also in charge of the initial Project Controls for the project.

Oil & Gas

Mr. Ortega is currently the Director of the independent claims advisory team working for Petroperu, specifically for the Talara Refinery Modernization Project. As part of this case, various functions have been carried out, which include, analysis of delays in the schedule, analysis of disruption claims, verification and assessment of exchange notifications and response to Expert Reports of their counterparty. Likewise, the team led by Mr. Ortega performed the risk analysis, by MonteCarlo methodology of the project.

As Director of Operations for Latin America of Alpha Corporation, Mr. Ortega led the team that provided advisory services to Repsol YPF, main contractor of BG, in charge of the construction of the pipeline of LNG (Liquid Natural Gas) in the region of Margarita, west of Santa Cruz de la Sierra in Bolivia. Services included review and editing of the master schedule of the project.

Mr. Ortega conducted specialized advisory regarding productivity improvement and claims analysis of the Power and Steam project carried out by Schrader Camargo Ingenieros Asociados and Morelco for the Barrancabermeja Refinery of Ecopetrol. During this advisory engagement, the team of Mr. Ortega and Arcadis US performed project schedule analysis to determine possible personnel productivity improvement as well as potential causes of Change Orders and claims.

Airports

Mr. Ortega worked as Director of Operations for Latin America for Alpha Corporation, a Project Management consulting firm based out of Washington D.C. AS part of his accomplishments, he lead the Project Management team for the Eldorado International Airport, in Bogota, Colombia, where the company provided PM consulting services to the concessionaire for a period of 2.5 years. The project, with estimated cost above US\$1.0 billion, included the construction of the new international cargo terminal, the demolition of the existing domestic cargo terminal, construction of the new international and domestic passenger terminals, the new administrative building for the Colombian Civil Aviation Agency (*Aerocivil*) and the reorganization and upgrade of all service, utilities,

platforms, and hangars on the airside area, and, the construction of a new viaduct, adjacent roads and parking areas on the landside area. Mr. Ortega was appointed by Alpha Corporation to provide a presentation of the monthly progress report to the project's Board of Directors.

Tunnels

Mr. Ortega lead the team providing the Expert Report and Testification for a large construction claim related to the construction of two (2) 8km wastewater tunnels in Medellin, Colombia. The claims are related to schedule delays as well as quantum of damages regarding unforeseen site conditions and Geotechnical risk.

Mr. Ortega lead the expert team that worked in the assessment and Preliminary Expert Assessment for a claim as part of a 18 tunnel 150km roadway in Colombia, with approximate construction cost of US\$1.2 Billion.

Power Transmission Lines

Mr. Ortega testified as Technical Expert in the arbitration of Abengoa Transmission Norte (ATN) against the Ministry of Energy of Peru for the delays and subsequent damages caused by land accessibility issues as part of the construction of a stretch of this power transmission line.

Civil Works

Mr. Ortega was Project Engineer for Nace Civil Engineering during the construction of Prince Henry at Little Bay urban development in Sydney, Australia. The US\$72 million, 85 hectares project included demolition of a World War II hospital, remediation of all medical, toxic and asbestos waste and construction of all civil works and subdivision of the development. Civil works included, among others, movement of more than 750,000 m³ of waste material and earthworks, the construction of retaining walls for zoning and subdivision of the urban development, the construction of all water, sewage (including biological gray water treatment), voice and data, power, telephone and gas networks; the construction of all internal roads of the development and the connection with the public roads outside the project. Mr. Ortega was in charge of the environmental and industrial safety (QHSE) quality control and assurance as well as management of all project contracts.

Special Buildings

The public-private partnership project of El Campín worth US\$400 million, comprised expansion and upgrading of El Campin stadium of Bogotá to 85.000 people, the demolition of the existing coliseum and the construction of a new one for 28.000 people, the construction of an office building, a sports museum and facilities of the IDRDR (District Institute of Recreation and Sports). Mr. Ortega worked as schedule programmer of the feasibility process of the project for the district and was the one who submitted the schedule to the District in representation of the grantee.

PMO & PM Training

Mr. Ortega developed the Business Process Analysis (BPA) of MC Arquitectos where current design, budgeting, construction and operations processes of the company were evaluated in order to propose improvements and optimizations of said processes, aimed to pave the way for the implementation of Best Practices in Project Management and BIM Modeling.

Mr. Ortega led the consulting process in Project Management in Schrader Camargo Ingenieros Asociados, where the Power and Steam project, carried out for Barrancabermeja Refinery of Ecopetrol was evaluated in order to improve contractual productivity and performance. At the same time, Mr. Ortega performed the operations and internal processes analysis after which recommendation for the creation of the current PMO was submitted. This work was carried out with Chris Carson, Engineer and international consultant and expert in processes and practices in Project Management.

Mr. Ortega conducted the advisory team who trained PetroAmazonas/PetroEcuador projects personnel in Primavera P6® in the Esmeraldas refinery in Ecuador and headquarters in Quito.

He also conducted the consulting team in charge of the personnel training of the Panama Canal Authority project in Primavera Risk Analysis®, then called Pertmaster®.

Mr. Ortega was engaged by PetroTiger to carry out the viability assessment (Due Diligence) of the company Inelectra from the technical and Project Management processes point of view, in order to provide management of PetroTiger with decision making tools to acquire operations of Inelectra in Argentina, Colombia, Panama and Spain.

Additional Independent Expert Reports & Expert Testimony

Technical expert for a Bogota Chamber of Commerce Arbitration Tribunal summoned by Empresa de Acueducto y Alcantarillado de Bogotá (EAAB) against Aguas Kapital, operator of the north zone of the water and sewerage system of Bogotá, Colombia.

Technical expert for a Bogota Chamber of Commerce Arbitration Tribunal summoned by FONADE (Financial Fund for Development Projects) against Consorcio del Norte, constructors of New Hospital of San Andres, Colombia.

Technical expert for a Bogota Chamber of Commerce Arbitration Tribunal summoned by EMGESA against Proyecont, responsible for the construction of camps, offices and treatment plants of El Quimbo hydroelectric project in Colombia.

Technical expert for the Arbitration Tribunal summoned by SI99 against PRIME Construcciones and Consultoría, engaged for the construction of the Command and Operations Center for the Bogota Mass Transit System, Transmilenio.

Part of the Technical expert team for private customer, constructor of a thermoelectric plant worth more than US\$450M.