SOLID

Transforming Transit
Redefining Cities

2024

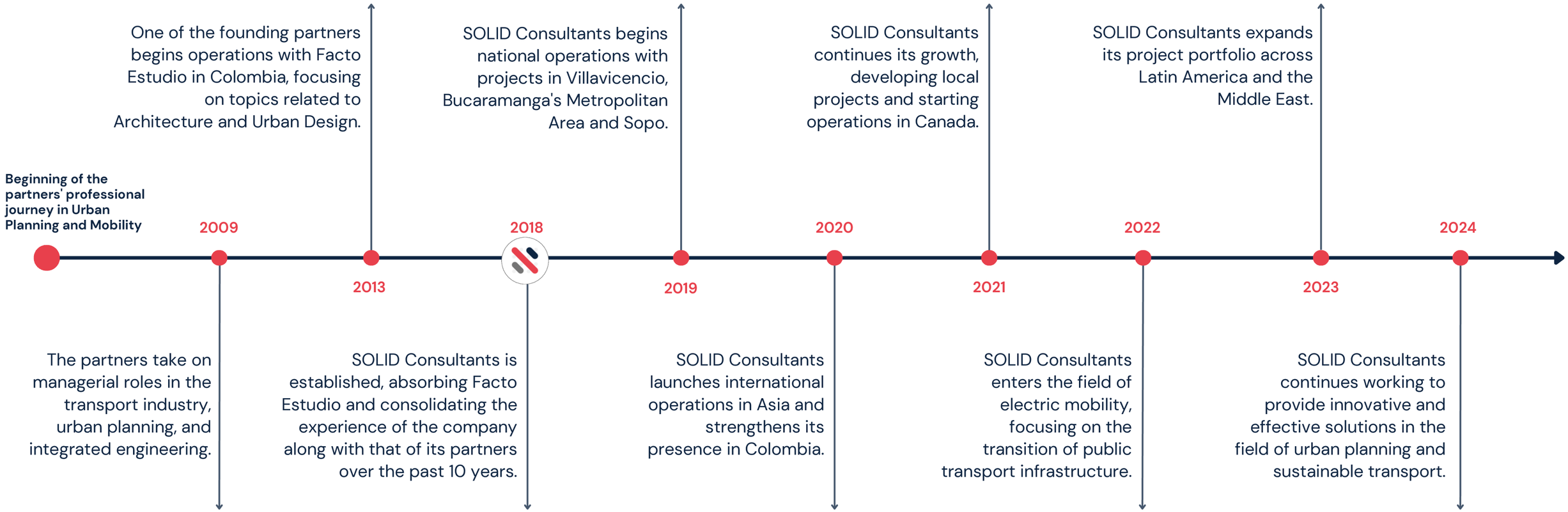
About Us

We are a Colombian company with over 15 years of experience, both locally and internationally. At SOLID Consultants, we offer innovative and effective solutions in the **urban planning and sustainable transport** industry, backed by a team with in-depth knowledge of the public sector and extensive experience in private and non-governmental sectors. We have advised on more than **100 public and private projects** across **America, Europe, Asia, and the Middle East**, adapting to a wide range of institutional, financial, cultural, and social contexts.

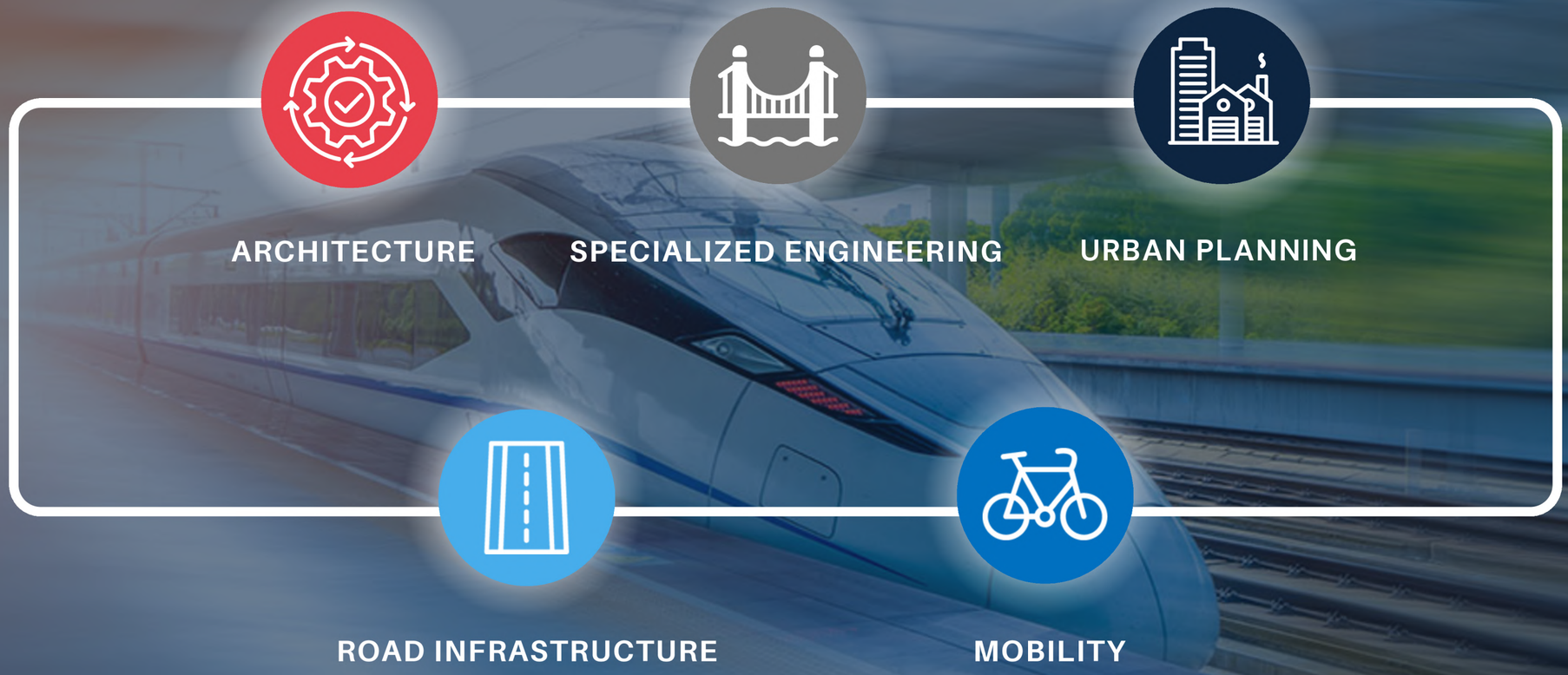
Our international experience allows us to offer a variety of user-centered alternatives, ensuring that our solutions are not only innovative but also practical and tailored to the specific needs of each client. We work with an integrated and collaborative approach, allowing us to tackle complex challenges and deliver outstanding results.

Timeline

Overview of key milestones in the history of SOLID Consultants.



Areas of Expertise

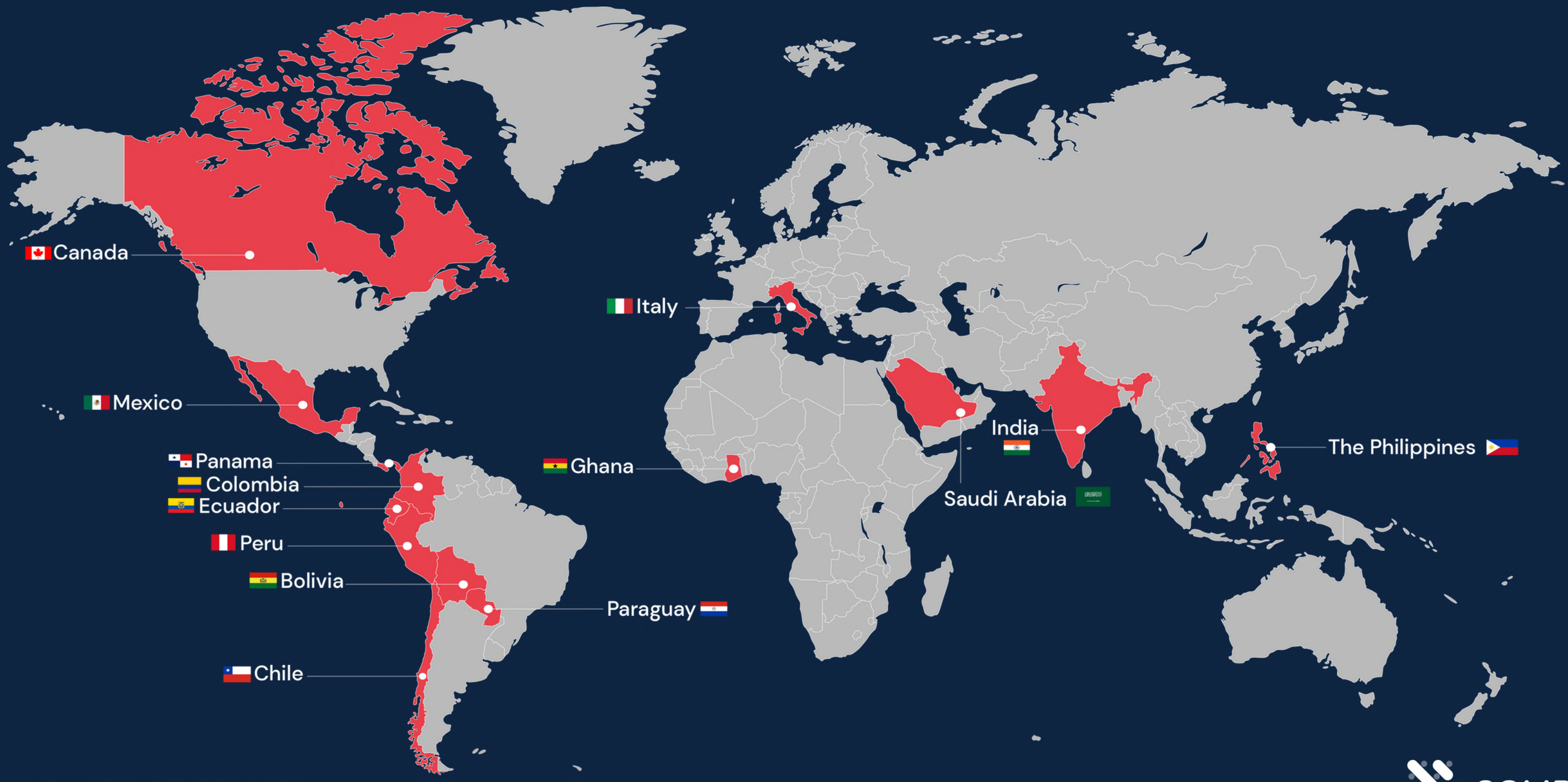


Services

SOLID Consultants specializes in providing services in consulting, project supervision, advisory, engineering, technical due diligence, value engineering, and comprehensive project management for infrastructure throughout all its phases.

- Integrated Project Management
- Value Engineering
- Technical Due Diligence
- Consulting
- Advisory
- Project Supervision

Global Reach: Projects delivered in 14 countries on 4 continents



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SOLID Consultants in numbers

+200 km of public space and non-motorized mobility design

+ 10 Mobility plans

+ 250 km of BRT corridors and associated infrastructure designed

+300 km of Metro corridors and associated infrastructure designed

+ 70 Depot facilities planned and/or designed

+ 10 Advisory projects in electric mobility

+ 20 Technical due diligence and transport infrastructure design audits

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What sets us apart?

At SOLID Consultants, our added value lies in a deep understanding of contemporary urban planning practices and the role of mobility in improving quality of life. We adapt to a globalized context with diverse local and cultural conditions that require multidisciplinary skills, mastery of advanced technological tools, and a user-centered vision.

Technological Optimization

Our projects are developed using the leading technological tools available, ensuring precision and efficiency. We use **GIS**, **BIM, and Cloud Management** to optimize every stage of our projects.

International Experience

We have had the opportunity to participate in multiple successful international projects across **America, Asia, Europe, and the Middle East,** allowing us to adapt our experience to various cultures and contexts.

Multidisciplinary team

Our team is made up of specialized professionals in key areas such as **Project Management, Engineering, Transport, and Architecture.** This diversity enables us to approach projects comprehensively, delivering complete and well-coordinated solutions.

Languages

We are equipped to be strategic partners in international projects, working fluently in **English, Spanish, and Italian**, which facilitates communication and collaboration with global clients and partners.

Human-Centered and Environmental Vision

Every project we deliver is designed to **meet the needs of the end user**, ensuring optimal development. Our user-focused approach guarantees that our solutions are not only technically sound, but also practical and valuable for those who use them —always with a strong emphasis on **environmental sustainability.**

Mobility, Transport, and Road Safety

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Electromobility

Through innovative and sustainable solutions, we aim to transform urban transport by integrating net-zero or low-emission technologies. We approach this transformation with a systematic analysis that considers operational, technological, infrastructure, and governance aspects.

- Electromobility in Latin America and the Caribbean
  - Identification of the regulatory framework, benefits, and key electromobility projects in the LAC region.
  - Leadership in conducting interviews with key stakeholders involved in the transition to electromobility in Latin America.
  - Development of a SWOT analysis on potential markets for electromobility in the region.
  - Context analysis and identification of investment opportunities in the field of sustainable mobility in Ecuador.

Electromobility

Through innovative and sustainable solutions, we aim to transform urban transport by integrating net-zero or low-emission technologies. We approach this transformation with a systemic analysis that considers operational, technological, infrastructure, and governance aspects.

- **Electric Buses in Medellin:** In collaboration with the Inter-American Development Bank (IDB) to structure the technological migration to electric buses in Medellin's transport system.
- **Consultancy:** Technological, industrial, and market analysis of electric vehicles in Latin America and the Caribbean.

Electromobility in Latin America and the Caribbean

- **Electric Buses in Cali:** Coordination of the team of specialists and development of the infrastructure component for the consulting study. The project seeks strategies for financial sustainability, fare integration, technological efficiency, and environmental impact by incorporating electric buses into the mass transit system of the western zone – SITM MIO.
- **Zero-Emission Buses:** Support to C40 Cities Finance Facility by preparing a report on best practices for coordination and communication between key stakeholders, aiming to accelerate the deployment of zero-emission bus fleets.
- **Electric Buses in Asuncion:** Feasibility study for a public transport system and a pilot fleet of electric buses for Asuncion, Paraguay.

Mobility, Transport, and Road Safety

Conceptualization and infrastructure design to support the operation of various transport modes (BRT, LRT, cable car, pedestrian, and bicycle): roads, stations, modal integration hubs, terminals, and depot facilities.

Public Transport System Design Integrating Electromobility Solutions

- **Electric Bus Depot – Bogota Integrated Transport System – Colombia:** Supervision of infrastructure delivery for depot operation.
- **Electric Bus Depots – BRT System in Navotas – Philippines:** Operational and architectural design for electric bus depots of the Navotas BRT system in Manila, Philippines.
- **The Line – NEOM Smart Linear City:** Support for the structuring of NEOM's regional mobility strategy in Saudi Arabia.
- **BRT Mass Transit System – Ontario Municipalities – Canada:** Project management for the structuring of the Brampton – Queen St. BRT in the municipalities of Brampton and York, Ontario, Canada.
- **Bogota Metro – First Line:** Technical and administrative assistance for the structuring of Bogota's first metro line.
- **Bogota Metro – First Line:** Coordination of the structural design of the viaduct structures required for the technical branch of the first metro line in Bogota, within the framework of the Integrated Public Transport System – SITP.

Mobility, Transport, and Road Safety

Conceptualization and infrastructure design to support the operation of various transport modes (BRT, LRT, cable car, pedestrian, and bicycle): roads, stations, modal integration hubs, terminals, and depot facilities.

Studies and Designs for Infrastructure Associated with Public Transport Systems

- **Public Transport System – Metropolitan District of Quito – Ecuador:** Cost analysis, fare collection system, and service quality indicators for Quito's public transport system.
- **Integrated Public Transport System – Tarija, Bolivia:** Planning study at the pre-investment level for the city's integrated transport system.
- **Fluvial Passenger Transport System – Sinú River in Monteria – Colombia:** Infrastructure component for the technical, legal, and financial structuring of the system and detailed engineering design of a pilot project.
- **Depots – Bogota Integrated Public Transport System (SITP):** Geometric redesign of infrastructure for depot operation in the localities of Fontibon, Bosa, Suba Centro, and San Cristóbal.
- **Standard Design Guide for Depots and Terminals:** Coordination of the consultancy team to develop a standard design guide for functional infrastructure components of depots and terminals in Bogota's zonal transport system, including analysis methodology for real estate modeling and case-specific applications.
- **Integrated Public Transport System – Metropolitan Area, Central West Region – Colombia:** Coordination of specialists and development of the infrastructure and vehicle technology component for the technical, financial, and legal structuring consultancy of the AMCO Integrated Transport System, including electric bus transition analysis.
- **Strategic Public Transport System – Manizales:** Technical, legal, financial, and social structuring (ETLFS) of the Strategic Public Passenger Transport System (SETP) for the municipality of Manizales.
- **National Intelligent System for Infrastructure, Transit, and Transport – Colombia:** Technical consultancy for the design and implementation of the SINITT, including project monitoring support for ITS (Intelligent Transport Systems) and the national ITS master plan.

Mobility, Transport, and Road Safety

Conceptualization and infrastructure design to support the operation of various transport modes (BRT, LRT, cable car, pedestrian, and bicycle): roads, stations, modal integration hubs, terminals, and depot facilities.

Studies for Bus Rapid Transit (BRT) Systems

- **BRT System – MiBus – Panama City:** Mobility and geometric design study for 30 system stations.
- **BRT System – Abu Dhabi – United Arab Emirates:** Conceptual study for the implementation of the BRT system in the city.
- **BRT System – Cebu City – Philippines:** Development of technical specifications for the design of the BRT system in Cebu.
- **BRT System – Acapulco – Mexico:** Review and conceptual design alternatives for the proposed BRT corridor in Acapulco.
- **BRT System – Toluca – Mexico:** Planning and capacity analysis of conceptual design alternatives for proposed BRT terminal integration nodes.
- **BRT System – Chimalhuacán – Mexico:** Road safety audits of the main corridor and capacity analysis of corridor stations (Av El Peñon).
- **BRT System – Santiago – Chile:** Review and geometric design alternatives for 4 nodes along the Santa Rosa line.
- **BRT System – Lima – Peru:** Pre-design and geometric layout for a private initiative proposal of the Lurigancho BRT corridor in Lima.
- **BRT System – Cali – Colombia:** MIO consultancy for the conceptual component of the technical, legal, and financial structuring for a pilot fleet of electric buses.
- **BRT System – Metrolínea – Bucaramanga – Colombia:** Operational, planning, and elevation design of the provisional depot in Floridablanca.

Road Safety

- **MIO BRT System – Cali – Colombia:** Road safety audit for designs and works of the MIO Mass Transit System.
- **Traffic Light System – Monteria – Colombia:** Technical diagnostics of the signaling system.

Mobility, Transport, and Road Safety

Conceptualization and infrastructure design to support the operation of various transport modes (BRT, LRT, cable car, pedestrian, and bicycle): roads, stations, modal integration hubs, terminals, and depot facilities.

Studies for Bus Rapid Transit (BRT) Systems

- **BRT System – Bogota – Colombia:**

Leadership and coordination of a team of 28 interdisciplinary professionals, as well as supervision of multiple contracts for:

- Maintenance and improvement of accessibility, safety, and capacity conditions of the SITP bus stop network.
- Planning and implementation of infrastructure promoting BRT system integration with bicycles (access control, bike parking, and custody services).
- Maintenance and enhancement of the BRT system infrastructure, following safety, comfort, and user information standards.
- Structuring of the operation and expansion of the cable car network within the Integrated Public Transport System.
- Planning and implementation of energy-efficient technology upgrade programs (lighting and alternative energy sources) at stations and terminals.
- Comprehensive project management for the adaptation and construction of the temporary 80th Street and Suba depots – TransMilenio Phase I and II.

Urban Design and Transit-Oriented Development

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Urban Design and Transit-Oriented Development

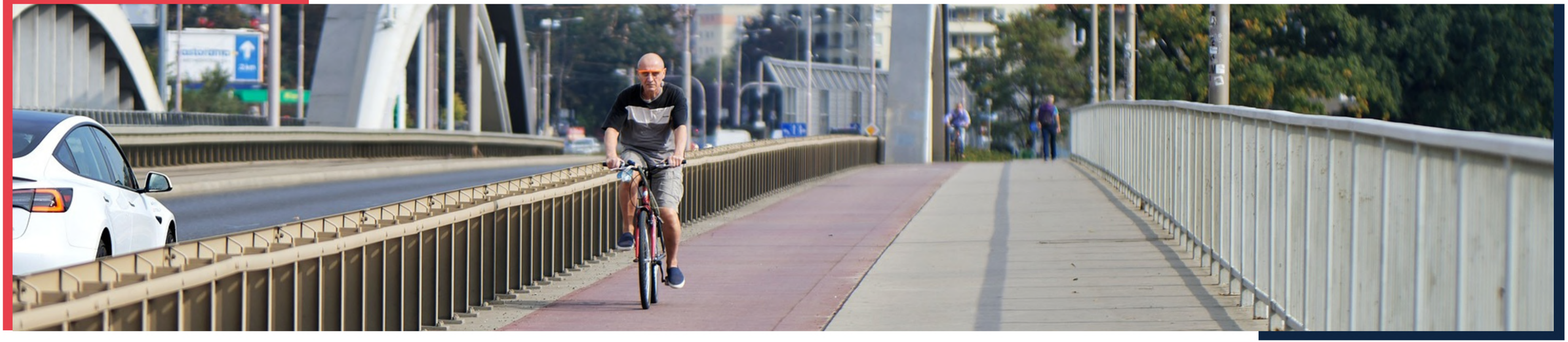
Urban planning, mobility plans, urban and public space design, and Transit-Oriented Development (TOD).

Urban Public Space and Landscape Design

- **Construction of urban road infrastructure in Engativa, Bogota – Colombia:** Public space design and construction monitoring.
- **Detailed studies and designs for Av. Constitucion in Bogota – Colombia:** Urban planning and landscape design.
- **Public Space Conservation in Bogota – Colombia:** Urban and landscape design for road segments in the area known as Group 4. Tv 80G; Phase III design and public space coordination on Tv 80G between Calle 68 Bis Sur and Calle 66 Sur in Bogota, approx. 700 m².
- **Public space at Calle 54 intersection, Bogota – Colombia:** Phase III design and coordination of public space at the intersection of Calle 54 and Cr 9 in Bogota, approx. 940 m².
- **Public space on Calle 83:** Phase III design and public space coordination on Calle 83 between Cr 7 and Av. Circunvalar in Bogota, approx. 1,200 m².

Urban Design and Transit-Oriented Development

Urban planning, mobility plans, urban and public space design, and Transit-Oriented Development (TOD).



Urban Public Space and Landscape Design

- **Public Space – Manga, Cartagena:** Phase III design of public space for Quinta Avenida in Manga, Cartagena – approx. 30,000 m².
- **Public Space – San Victorino:** Phase III design of public space for the San Victorino Open-Air Shopping Center – approx. 23,000 m².
- **Urban Development Institute (IDU) Planning:** Planning, development, and implementation of infrastructure projects for non-motorized transport, with an emphasis on bicycles and cycling infrastructure in Bogota.
- **Regularization and Management Plan for the Colegio de Estudios Superiores de Administración (CESA):** Coordination of Phase III (detailed) urban and landscape design.
- **Av. 80 Tram – Medellin, Colombia:** Phase II (feasibility) designs for urban and landscape development.

Urban Design and Transit-Oriented Development

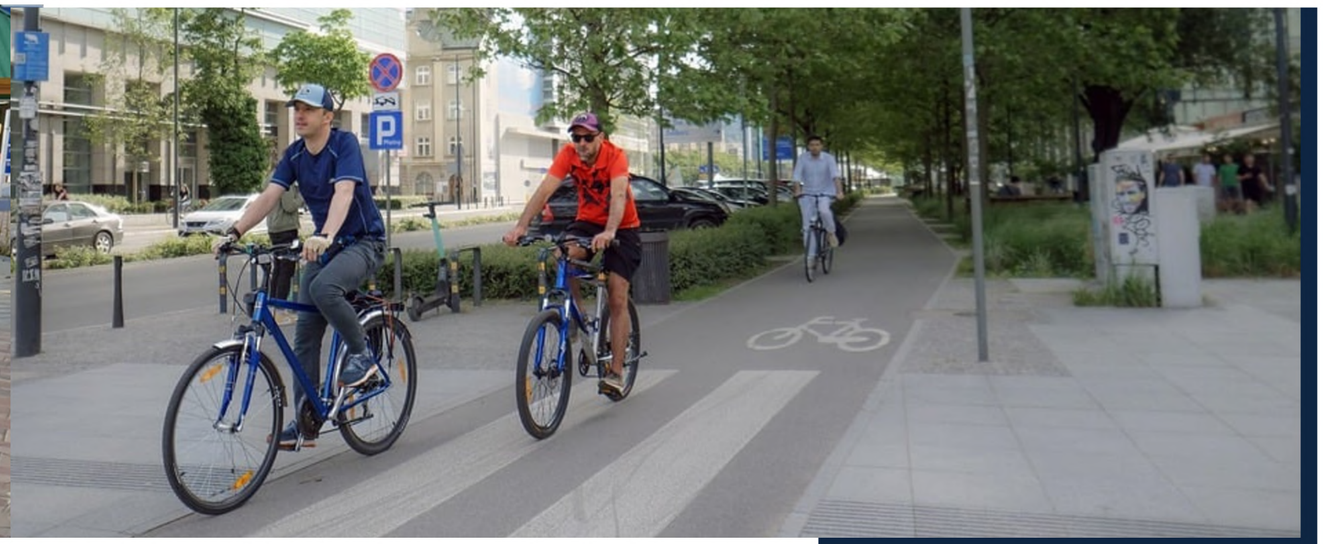
Urban planning, mobility plans, urban and public space design, and Transit-Oriented Development (TOD).

Urban Public Space and Landscape Design

- **Soacha Viaduct:** Phase II (Feasibility) designs for the architecture, urban planning, and landscape volumes.
- **Giron – Piedecuesta Bypass:** Phase II (Feasibility) designs for the architecture, urban planning, and landscape volumes.
- **Private Road Project – Conexion Centro in Pereira, Armenia, and Manizales (Colombia):** Urban planning design for the road infrastructure project.
- Villavicencio – Yopal: Phase III (Detailed) designs for the architecture, urban planning, and landscape volumes of the Villavicencio–Yopal dual carriageway project, Functional Units 1 and 7.
- **Private Road Project – Perimetral Sabana in Madrid, Mosquera, Funza, Tenjo, Tabio, Cota, and Cajica (Colombia):** Urban planning volume design.
- **Transversal del Sisga:** Phase III (Detailed) designs for the architecture, urban planning, and landscape volumes of the rehabilitation project for the Transversal del Sisga road corridor, Functional Units 1 to 4.

Urban Design and Transit-Oriented Development

Urban planning, mobility plans, urban and public space design, and Transit-Oriented Development (TOD).

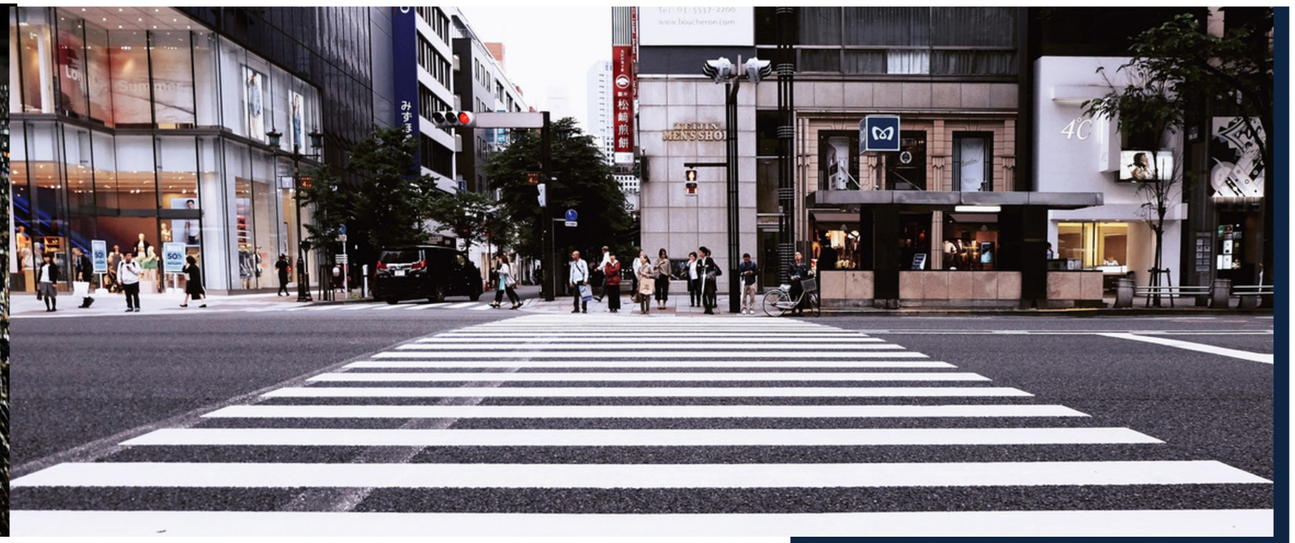


Urban Public Space and Landscape Design

- **Accenorte:** Phase II (Feasibility) and Phase III (Detailed) designs for the architecture, urban planning, and landscape volumes of the Bogota Northern Access expansion project.
- **Calle 63:** Phase II (Feasibility) designs for the architecture, urban planning, and landscape volumes.
- **Calle 170:** Phase II (Feasibility) designs for the architecture, urban planning, and landscape volumes.
- **Metropolitan Area Road Project in Bucaramanga – Colombia:** Urban planning and landscape design for the road infrastructure project.
- **Meta Road Network Project:** Urban planning and landscape design for the APP Llanos road concession.

Urban Design and Transit-Oriented Development

Urban planning, mobility plans, urban and public space design, and Transit-Oriented Development (TOD).



Mobility: Characterization, Connectivity, Diagnostics, and Master Plans

- **Mobility Plan for the Municipality of Sogamoso – Colombia:** Restructuring of public transport routes as part of the master mobility plan for municipalities with historic centers.
- **Mobility System of Toluca – Mexico:** Baseline mobility characterization study for the city.
- **Mobility Systems of Nezahualcoyotl and Chimalhuacan – Mexico:** Characterization and diagnostic study of urban mobility.
- **Barrancabermeja – Colombia:** Formulation of the city's Master Mobility Plan and Road Plan.
- **Connectivity Study for the Red de Pueblos Patrimonio – Socorro, Colombia:** Analysis and inclusion of the municipality in the network.
- **Master Mobility Plan for Galapa – Colombia:** Formulation of the master mobility and public space plan.
- **Master Mobility Plan for Bucaramanga – Colombia:** Urban planning, road safety, and infrastructure components for the plan's update.
- **Master Mobility Plan for the Historic Center of Asuncion:** Urban planning, road safety, and infrastructure specialties.

Concessions and road infrastructure

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Concessions and road infrastructure

We work on the conceptualization and design required for the structuring of Colombian road concessions.

Support Infrastructure for Road Concessions: Toll and weigh stations, operations control centers, tunnels, and service areas.

- **Villavicencio – Yopal Corridor:** Toll stations and weigh stations.
- **Pamplona – Cúcuta Corridor:** Operations Control Center, Tunnel Control Center, and Service Area.
- **Transversal del Sisga:** Operations Control Center, Service Area, toll stations, and weigh stations.
- **Northern Access Roads to Bogota:** Operations Control Center, Service Area, toll stations, and weigh stations.
- **Eastern Perimeter Road of Bogota:** Operations Control Center and Service Area.

Structuring for Public-Private Partnerships

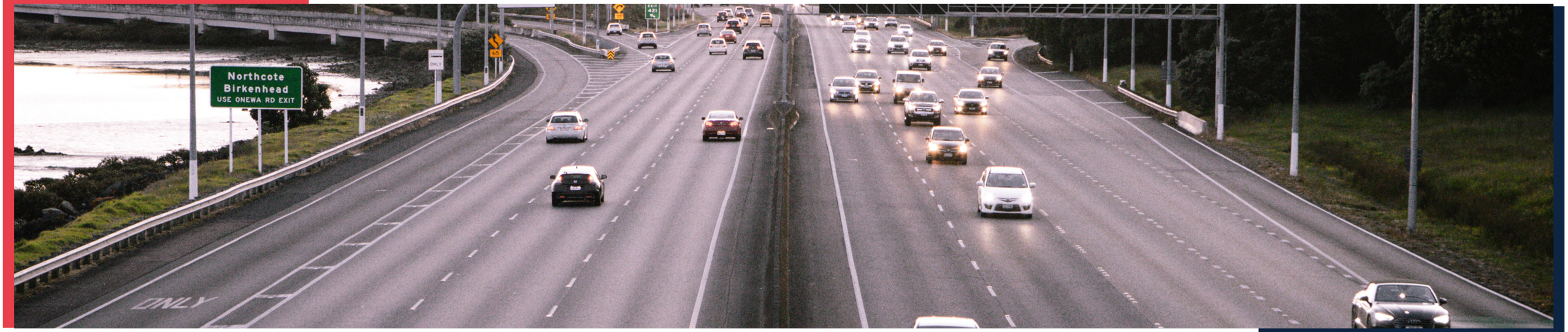
- **Soacha Viaduct:** Phase II (Feasibility) designs for the architecture, urban planning, and landscape volumes.
- **Giron – Piedecuesta Bypass:** Phase II (Feasibility) designs for the architecture, urban planning, and landscape volumes.
- **Perimetral Sabana – Private Initiative PPP:** Phase II (Feasibility) designs for the architecture, urban planning, and landscape volumes.
- **Villavicencio – Yopal Dual Carriageway:** Phase III (Detailed) designs for the architecture, urban planning, and landscape volumes – Functional Units 1 and 7.
- **Transversal del Sisga:** Phase III (Detailed) designs for the architecture, urban planning, and landscape volumes for the corridor rehabilitation – Functional Units 1 to 4.
- **Accenorte – Bogota Northern Access Expansion:** Phase II (Feasibility) and Phase III (Detailed) designs for the architecture, urban planning, and landscape volumes.
- **Calle 63 – Bogota:** Phase II (Feasibility) designs for the architecture, urban planning, and landscape volumes.
- **Calle 170 – Bogota:** Phase II (Feasibility) designs for the architecture, urban planning, and landscape volumes.

Road Infrastructure (Design and Supervision)

- **Av. 80 Tram – Medellin:** Phase II (Feasibility) urban planning and landscape design.
- **VIPSA Toll Stations Supervision – 2016:** Supervision of studies and designs for the urban planning volume of the VIPSA road concession.
- **Cesar – Guajira Road Concession:** Supervision of studies and designs for the urban planning and landscape volumes.

Concessions and road infrastructure

We work on the conceptualization and design required for the structuring of Colombian road concessions.

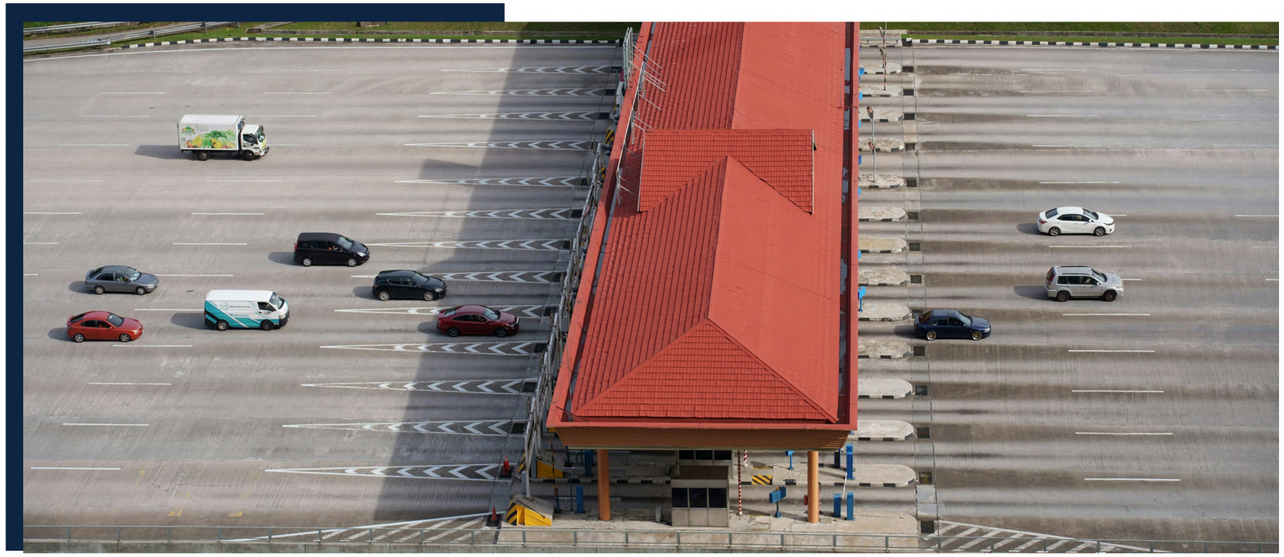


Structuring for Public-Private Partnerships

- **Operations Control – POB (Perimetral de Oriente de Bogota):** Architectural design of the Operations Control Center and Service Area for the POB road concession in Sopo, Cundinamarca.
- **Operational Infrastructure – Cúcuta – Pamplona:** Architectural design of Tunnel Control Centers, Service Area, and Operations Control Center for the Cucuta – Pamplona road concession in Santander.
- **Accenorte II:** Review of urban planning and dry utility volumes as part of the technical due diligence for the Accenorte concession in Chia, Cundinamarca.
- **Lorica:** Phase I (Pre-feasibility) design for the urban planning and dry utility volumes of a road infrastructure project in Lorica, Cordoba.
- **Bogota – Girardot:** Review of the accessibility component of buildings in the Via 40 Bogota – Girardot road concession in Cundinamarca.
- **Savanna's Environmental Connection:** Phase II (Feasibility) design of the urban planning and public space volume for the Savanna's Environmental Connection corridor in Cundinamarca.
- **Meta Road Network:** Phase III (Detailed) designs for the architecture, urban planning, and landscape volumes of the Meta's Road Network road concession project.

Concessions and road infrastructure

We work on the conceptualization and design required for the structuring of Colombian road concessions.



- **Puerto Nuevo:** Port Concession Contract No. 001 of March 31, 2011, signed between the National Concessions Institute – INCO (now under the National Infrastructure Agency – ANI) and Sociedad Portuaria Puerto Nuevo S.A.
- **Cerrejon:** Port Concession Contract established under Resolution No. 503 of July 1, 1983, signed between the General Superintendency of Ports (now under ANI) and Carbones de Colombia S.A. – CARBOCOL S.A. (now operated by Sociedad Cerrejon Zona Norte S.A.)

Technical audits for road concession projects

- **Magdalena 2:** Concession Contract No. 008 of 2014 between the National Infrastructure Agency (ANI) and Autopista Río Magdalena S.A.S., for the development of final studies and designs, financing, environmental, land, and social management, construction, improvement, rehabilitation, operation, maintenance, and reversion of the Río Magdalena 2 Concession.
- **Neiva – Espinal – Girardot:** Concession Contract No. 017 of 2015 between the National Infrastructure Agency (ANI) and Autovía Neiva Girardot S.A.S., for final studies and designs, financing, environmental, land, and social management, construction, improvement, rehabilitation, operation, maintenance, and reversion of the Neiva – Aipe – Castilla – Espinal – Girardot road concession.
- **Autopistas del Cafe:** Concession Contract No. 0113 of April 21, 1997, signed between the National Roads Institute (INVIAS)—now under the National Infrastructure Agency (ANI)—and the concessionaire Autopistas del Cafe S.A., for the development and operation of the Autopistas del Cafe corridor.
- **Oiltanking – Port Concession:** Port Concession Contract No. 021 of December 30, 1997, signed between the General Superintendency of Ports (now under ANI) and Sociedad Portuaria Dow Quimica de Colombia S.A. (now Oiltanking Colombia S.A.).

Architectural Design

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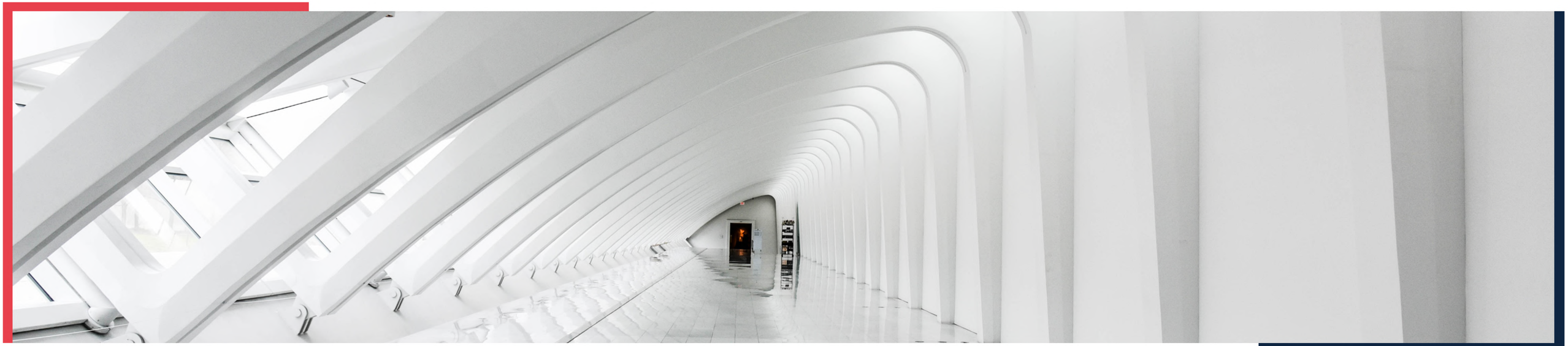
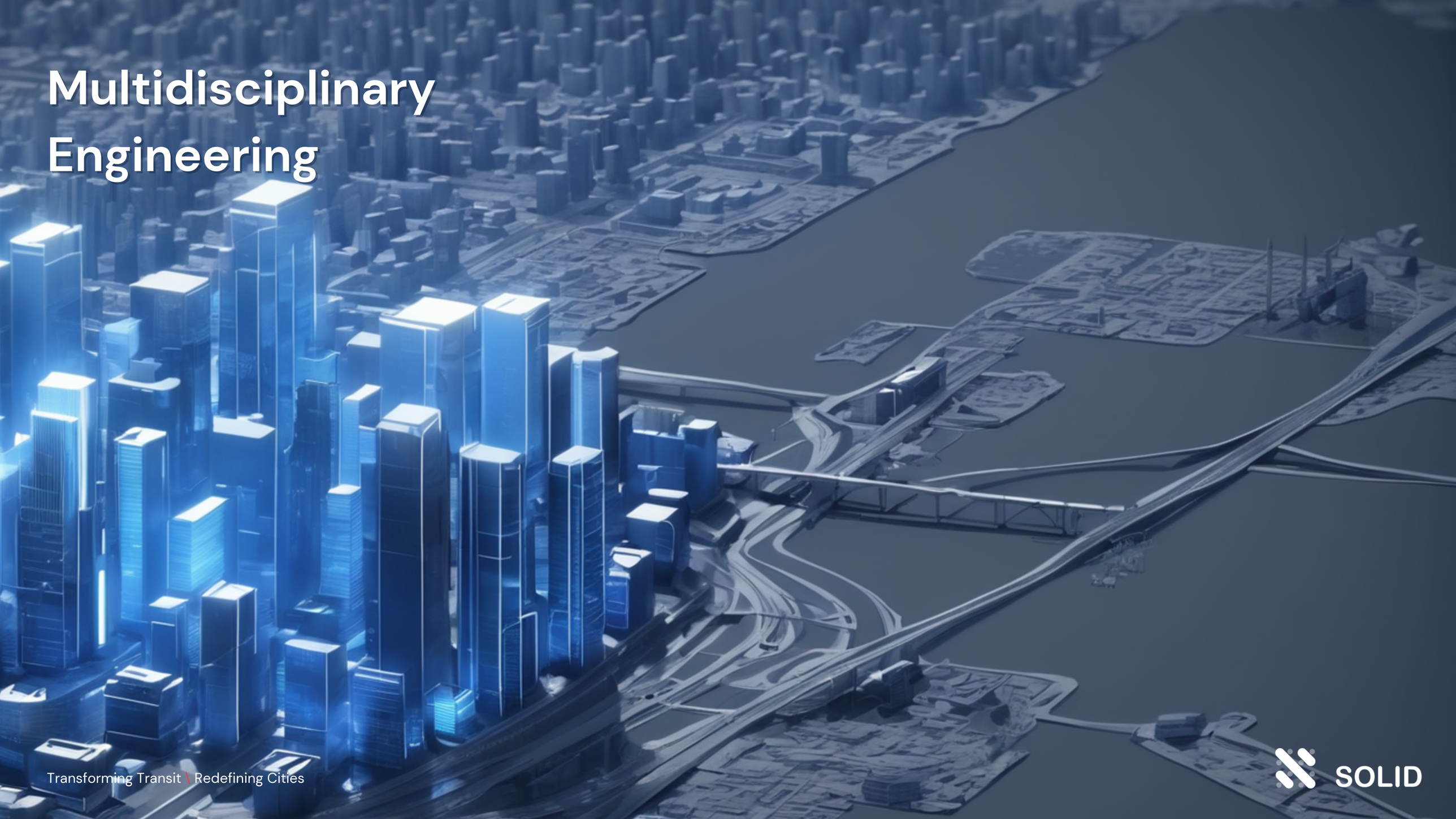
Architectural Design

We develop architectural projects for all types of activities. All our designs are developed using BIM methodology.



- **Coworking Offices in Bogota – Artwork:** Architectural design for the building's renovation.
- **Single-Family Rural Housing in Paipa:** Architectural design of a rural home in Paipa.
- **Coworking Offices – Accesa:** Architectural design for the conversion of an office building into a coworking space in Bogota.
- **Warehouse in Funza, Cundinamarca:** Architectural and structural design of a firebreak wall and general warehouse structure.
- **Single-Family Rural Housing in Guayabal:** Architectural design of a rural home.

Multidisciplinary Engineering



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Multidisciplinary Engineering

Hydraulic, topographic, geological, geotechnical, soil, pavement, structural, traffic, environmental, mechanical, electrical, and lighting studies.

Espíritu Santo Educational Center in Villavicencio: geometric design, pavement, and public space design for the educational facility.

El Samán Country Housing Complex – Anapoima: geometric road design for urban development of El Samán in Anapoima.

Intermodal Plan for Southern Bolívar and Bajo Cauca: environmental component for intermodal planning of the Bajo Cauca region, led by UPIT in Colombia.

Detailed design studies for Constitución Avenue in Bogota – Colombia: dry utilities design and authorization with various public service companies.

Accenorte II: review of urban development volumes and dry utilities for the technical due diligence process related to the Accenorte concession in Chía, Cundinamarca.

Specialties

Urban planning and public space

Architecture

Geometric design

Structural Engineering

Geotechnical engineering and pavement

Water supply and sanitary networks

Electrical and telecommunications networks

HVAC (Heating, Ventilation, and Air Conditioning)

Heritage

Environmental

Budget and cost estimation

Topography

Multidisciplinary Engineering

Hydraulic, topographic, geological, geotechnical, soil, pavement, structural, traffic, environmental, mechanical, electrical, and lighting studies.

Lorica: Phase I design (Pre-feasibility) for urban development volumes and dry utility networks for a road infrastructure project in Lorica, Córdoba.

Cúcuta – Pamplona Operational Infrastructure: Architectural design of the Tunnel Control Centers, service areas, and the Operations Control Center for the Cúcuta – Pamplona road concession in Santander.

Architectural Design of a Single-Family Rural Housing in Guayabal – QUINO

Electric Bus Depot for the Bogota Integrated Transport System – Colombia – Perdomo: Supervision of infrastructure delivery for the operation of the depot.

Environmental Connection Sabana: Phase II design (Feasibility) for urban development volumes and public space for the "Conexión Ambiental Sabana" corridor in Cundinamarca.

Specialties

- Urban planning and public space
- Architecture
- Geometric design
- Structural Engineering
- Geotechnical engineering and pavement
- Water supply and sanitary networks
- Electrical and telecommunications networks
- HVAC (Heating, Ventilation, and Air Conditioning)
- Heritage
- Environmental
- Budget and cost estimation
- Topography

NEOM IN SAUDI ARABIA

Client: NEOM

Saudi Arabia, 2023

Support in the structuring of the regional mobility strategy for NEOM in Saudi Arabia.

- **2,000 km** of roads
- **250 km** of railways
- **530 km** of maritime routes
- **3,100 km** of air routes
- **12** modal interchanges
- **4** modes of transport
- **5,900 km** total mobility network

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CEBU BUS RAPID TRANSIT (BRT)

Client: Kunhwa Engineering Ltd & Co.
Philippines – 2020

Technical Coordination
Geometric, Urban, and Operational
Infrastructure Design for a 24 km
transit corridor

- **17** stations
- **2** terminals
- **1** modal transfer zone
- **86** bus stops
- **1** depot facility
- **1** operations control center
- **1** pedestrian bridge

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DEPOTS – TRANSMILENIO TRUNK SYSTEM

Client: Sigma GP – SI18

Bogota D.C. – 2019

Project Management, Conceptual Design, Detailed Design, Technical Coordination, and Construction Monitoring for 5 depot facilities of Bogota's TransMilenio Trunk System (2 temporary and 3 permanent depots)

PERMANENT DEPOTS

Suba**: 130** bi-articulated buses

Norte**: 49** bi-articulated and **63** articulated buses

Calle 80**: 72** bi-articulated buses

TEMPORARY DEPOTS

Norte: **140** bi-articulated buses

Calle 80: **40** bi-articulated buses

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DESIGN GUIDE FOR SITP ZONAL DEPOTS AND TERMINALS

Client: Sigma GP – TransMilenio S.A.

Bogota D.C. – 2018

Project Management, Conceptual Design, Detailed Design, and Technical Coordination for the Standard Design Guide for functional modules and infrastructure components of the zonal transport system depots and terminals in Bogota. Includes the analysis methodology for the development of real estate models and their application to specific land use cases.

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UPDATE OF THE METROPOLITAN MASTER MOBILITY PLAN OF THE BUCARAMANGA METROPOLITAN AREA

Client: Transconsult / Findeter

Bogota D.C. – 2022

Specialized consultancy for the development of the Urban Planning, Infrastructure, and Road Safety components for the update of the Metropolitan Master Mobility Plan of the Bucaramanga Metropolitan Area

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- Municipality of Bucaramanga
- Municipality of Floridablanca
- Municipality of Giron
- Municipality of Piedecuesta

SOLID

TECHNICAL DUE DILIGENCE – ACCENORTE 2 ROAD CONCESSION

Client: Neoingeniería S.A.S.

Bogota D.C. – 2021

Specialized consultancy for the analysis of the urban planning and dry utility design components included in the public tender for the Accenorte **2** corridor in Bogota.

The project encompassed 7 functional units with a total length of **17.9 km**: (**5.8 km** along Autopista Norte, **4.9 km** along Carrera Séptima, and **7.2 km** along the Perimetral de Sopo).

Development of technical alternatives to enable cost estimation at the feasibility level, and analysis of various CAPEX and OPEX scenarios under different sensitivities. This provided the client with the necessary tools to formulate an optimal bid during the tender process.

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URBAN DESIGN – MEDELLIN
AV. 80 TRAM

Final Client: ARUP

Medellin – 2017

Value engineering and update of the feasibility studies for the metro corridor along Avenida 80 in Medellin, Colombia. Urban design for **13.3 km** of integration between the metro system and its urban surroundings, including **17** stations and proposed potential areas for **Transit-Oriented Development (TOD)**.

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CÚCUTA – PAMPLONA ROAD CONCESSION

Client: SAICON Ingeniería S.A.S. / SACYR

Bogota D.C. – 2020

Architectural, Electrical, and HVAC Design for the Operations Control Center, Service Area, and two Tunnel Control Centers of the Unión Vial Río Pamplonita Concession:

- Operations Control Center: approx. **700 m²**
- Service Area: **2,000 m²**
- Exterior Areas (circulation and parking): **1,000 m²**
- Tunnel Control Centers: **155 m²** each

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TRANSMICABLE CIUDAD BOLIVAR

Client: TransMilenio S.A.

Bogota D.C. – 2019

Technical management, data processing, and support for detailed design for the operational readiness of the Ciudad Bolívar cable car system connection with BRT.

- **4** accessible stations with bike parking and commercial areas
- **163** cabins with a 4-passenger capacity
- **3.34 km**

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INFRASTRUCTURE FOR THE METROBÚS SYSTEM

Client: Mobilé

Panama City – 2012

Conceptual and functional design, detailed functional design, geometric design, and signage design.

- **2** depots (Santa Librada and Albrook)
- **8** terminals
- **22** stations

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TRANSPORT INFRASTRUCTURE FOR THE SETP OF MONTERIA

Client: Mobilé

Monteria – 2013

Data processing, conceptual design, and pre-feasibility design.

- **4** integration terminals with the SETP
- Integration with intermunicipal services and mototaxis
- Commercial and mixed-use areas

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CONNECTION OF TRUNK LINES AND INTERMEDIATE STATION – MIO

Client: GSD+

Cali – 2017

Conceptual and functional design of the connection between two trunk lines with an interchange terminal.
Geometric design and coordination of the technical team (traffic, urban planning, dry and wet utilities).

- **2** BRT stations
- **1** intermediate station
- Improved road safety conditions
- Increased public space and bike lane infrastructure

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Clients


INLASA
CONSTRUCTORA


Concesionaria
Vial del Oriente


KENNETHCOBONPUE


UPIT
UNIDAD DE PLANEACIÓN DE INFRAESTRUCTURA DE TRANSPORTE


ODINSA


ANI
Agencia Nacional de
Infraestructura


CANO JIMÉNEZ
ESTUDIOS S.A.


ARUP


POB
PERIMETRAL ORIENTAL DE BOGOTÁ S.A.S.


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DE SANTANDER


IDESAN
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para el Desarrollo
de Santander


mio


AcceNorte


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DESARROLLO URBANO


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DE LOS LLANOS


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Especialistas en el desarrollo de proyectos


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METRO
DE MEDELLÍN


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TRANSVERSAL DEL SISGA
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