

**DESCRIPTION OF WORK**

**SUPERVISION OF WORKS**

- Monitoring the progress of preparatory work to resolve the interference with public services;
- Discussion and approval of implementation plan of work beyond the control of achievement;
- Participation of delivery of the land, checking permits and documentation necessary for the start of the works;
- Management in the competent agencies to solve trouble of interference in networks of sanitation, irrigation and public and private services, etc., and make regular and frequent inspection of facilities and equipment of the contractor, verified the adequacy of staff, reporting their findings on notebook works;
- Planning and coordination meetings with the contractor on the development of the contract;
- Evaluation and control of civil works completed and, where appropriate, the preparation of technical documents that involve additional assumptions and / or deductible, to approvation the PROTRANSPORTE, Comptroller's Office and final decision of the Bank.

**CONTROL TECHNOLOGY**

- Control the quality of services and materials, making sure the work was properly executed according to approved projects, the general technical specifications, using the laboratory for testing materials when needed;
- Application procedures and technical instructions in accordance with the standard for monitoring the implementation of the work, to ensure the fulfillment of obligations by the techniques employed;
- Control of the certification of calibration of equipment used to perform tests in laboratory and field.

**PLANNING SYSTEMS**

- Monitoring the performance of contractual obligations since the start of construction to completion, comparing the actual progress versus plan/contract, through programs of Project Management, PERT-CPM networks, Gantt chart and others;
- Preparation of periodic reports and technical reports for the monitoring and working meetings with the Contracting and contractors;
- Preparation of statistics during the work process, using the program MS-Project Project or similar;
- Organization of technical and administrative files, for elaboration of a database with all the information generated during the execution of services.

**QUALITY SYSTEM ISO 9001 and 14000**

- Adequacy of internal working procedures for continuous improvement of organizational performance and internal communication;
- Facilitate integration with other standards and management systems, such as environmental management and occupational health and safety, 5 S, among others;
- Preparation of contractual procedures and instruction in order to standardize the working methods and monitor the cycle of continuous improvement - PDCA;
- Control and maintenance of all documentation prepared with the creation of databases and backup security.

**COSTS AND MEASUREMENT**

- Control accounting and financial development of the works, including letters to the contractor's assurances regarding the amount and duration;
- Conducting monthly reviews of advances and repayments of work, supported by administrative and technical support by registering them in the Book of Works.

**ENVIRONMENTAL MANAGEMENT**

- Monitoring the effective enforcement of environmental standards for urban projects under Law 26410 to establish the jurisdiction of the National Council for the Environment and the Environmental Impact Assessment of the State Archive of Technical Work;
- Monitoring compliance with safety standards of vehicle traffic, pedestrians and for third parties to verify the validity of insurance policies in terms of scope, amount and duration.

**ROAD MAINTENANCE AND SAFETY**

- Verification of proper maintenance of traffic, especially during deployment of diversion route for the works;
- Signaling appropriate interim control and road safety equipment.

**FINAL REPORT AND AS-BUILT**

- Verification of final plans, specifications, procedures for quality control and assurance control, unit costs, meters and quality of the work actually performed.

**COSAC I - Corridor Segregated High Capacity**  
Lima/Peru



**DESCRIPTION OF THE ENTERPRISE**

The COSAC I - Corridor Segregated High Capacity, is a modern mass transit system with 26 km of exclusive lanes, constructed with rigid pavement (concrete), linking the northern and southern zones of the city of Lima, joining 16 counties through 35 intermediate stations, two terminal connectors transfer and a metro station (under construction). The collection will be through electronic equipment installed in stations and terminals.

The Corridor will be used exclusively for buses, high capacity input and output through the left side of the vehicle type CNG articulated with capacity for 160 passengers. Passenger demand is estimated at 750 000 passengers per day.

The transportation system will be monitored by satellite using a CCO and also with an intelligent control of traffic lights installed at intersections along the corridor.



Client:



Instituto Metropolitano Protransporte de Lima

More information:

[www.protransporte.gob.pe](http://www.protransporte.gob.pe)

[www.metropolitano.com.pe](http://www.metropolitano.com.pe)

## COSAC I - Corridor Segregated High Capacity Lima / Peru

### DESCRIPTION OF NORTH TRAMO

The Maubertec managed the North Leg of COSAC I, with extension of 7.15 km, linking the Plaza Ramón Castilla in downtown Lima, to the North Terminal Naranjal, consisting of 10 intermediate stations, installed by the side of the aisle.

The corridor has two lanes in both directions, essentially throughout its length with a width of 7.00 m and 31cm thickness of concrete.

For implementation of this corridor, was renovated around the main road system and marginal strips with 3.00 m wide, varying along the section between 3 and 6 lanes in each direction, built in flexible pavement.

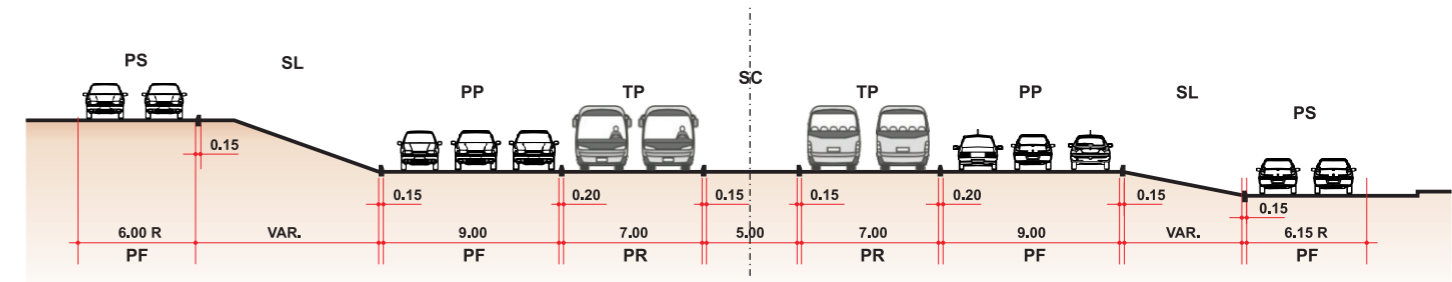
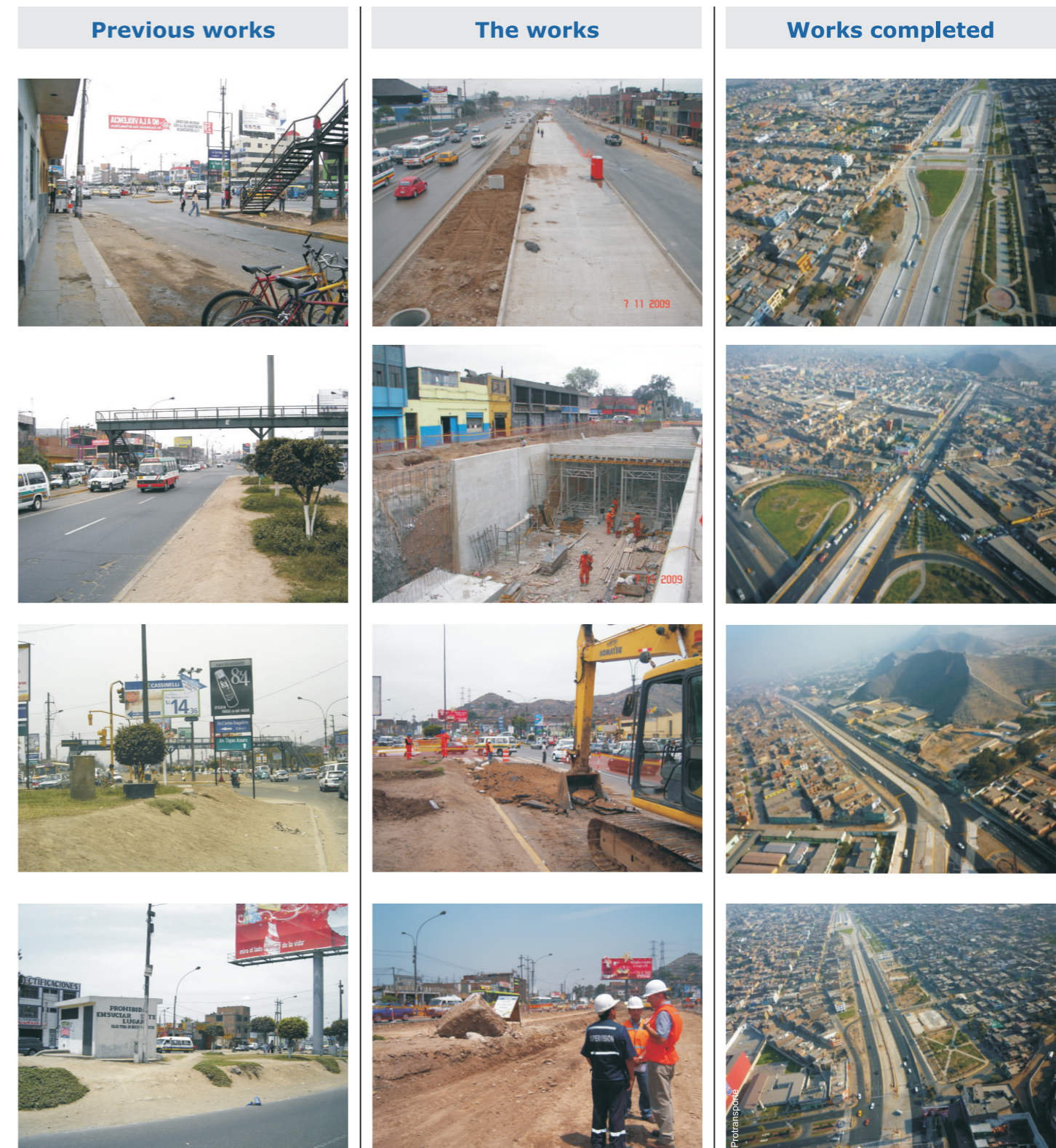
Among other works were performed additional 5.0 kilometers of irrigation systems, bridges, electrical works, plumbing, retaining walls and a viaduct, with a length of 270 meters.

The work of supervision were implemented in consortium with the peruvian company C.P.S. de Ingenieria S.A.C., the period of the november/2008 January/2010.

### Location



### PHASES OF ENTERPRISE



Seccion - Av. Tupac Amaru - Entre: Av. Eizaguirre Y Av. Los Pinos