A. PROJECT BACKGROUND AND OBJECTIVES

This activity would complement a potential World Bank lending operation (Lima Metro Line 2 Project - P145610) to support the National Government’s contribution to the Lima Metro Line 2 project—a 35-km greenfield subway to be designed, built, operated and transferred through a 35-year concession contract. The Metro project would serve a critical East-West corridor from Ate-Vitarte to Callao, including the maritime port and international airport.

Although the concessionaire is required to design and build stations according to international standards of quality and universal accessibility, the multimodal integration infrastructure facilities, the accessibility of stations surroundings, the supportive public space and the potential urban renewal is beyond the current scope of the Line 2 concession. It is likely that stakeholders in local government, civil society, local community and users will identify gaps in non-motorized accessibility and multimodal integration, as well as opportunities for improving public spaces and other social amenities around future stations. Additional investments will be needed for ancillary civil works and goods around key Metro stations and corridors feeding Line 2 to ensure appropriate multi-modal integration and local accessibility improvements. These may include elements of an integrated fare collection system, facilities for buses, pedestrians and bicycling, including safe and convenient crossings and signage, and TOD-related interventions with high-quality public spaces.

The proposed work will examine the direct area of influence where future Metro Line 2 stations will have the potential for urban (re)development to improve the living conditions of the poor and Bottom 40%; and inform the National and Local Governments about the potential transformation of the built environment of surrounding neighborhoods if complementary investments are carried out, with particular emphasis on the easternmost corridor segment of Line 2, from Santa Clara (an eastern neighborhood of Ate District), thorough Ate end station, and to Santa Anita intermediate station at...
the east end of Line 2. The proposed work will focus in this polygon area as there’s already a limitation of public space and road right-of-way (i.e., Carretera Central) around Ate end station because the presence of a mountain and the Rimac river.

Since there’s very limited space in this narrow corridor where the Ate terminal station will be constructed, along Carretera Central, this situation may prevent the construction of a multimodal transfer facility on this site. This lack of space will also generate a traffic bottleneck during and after construction of Line 2. The TOD characteristics envisioned for the pilot project would be affected by the intense traffic of buses, microbuses, auto rickshaws, taxis, etc., and will preclude the existence of well-connected public space, especially if burying Carretera Central is not possible as projected by the Ate local government1. An alternative analysis will be required in order to analyze in a geographically larger context the need for public space connectivity from Ate downtown and the future river boulevard projects, the Metro L2 constructions specifications, the burying Carretera Central, the most convenient and feasible location for the intermodal transfer facility, the district’s overall road connectivity, and other key social and environmental factors for improving the living conditions of the neighborhood. Therefore, a broader connectivity analysis is included in this pilot project study to address this issue by conducting alternative analysis for the TOD, public space, intermodal integration facilities, and road connectivity in this area (from Santa Anita to Santa Clara).

The goal of the proposed work is to conduct an alternative analysis, and assess and evaluate possible urban transformation projects associated to the arrival of mass transit service in the area. Generally, low-income neighborhoods in the periphery districts, such as Ate and Santa Anita, are not characterized by mixed-use development and have a low job-housing balance. They also lack adequate local access to other urban amenities associated to livable and vibrant neighborhoods, such as high-quality public open (green) spaces and facilities for education, health and commerce. This pilot project of TOD for Metro Line 2 should also inform a broader proposal for an Integration and Accessibility Plan for Metro Line 2 that should include infrastructure works, goods and services that go beyond the scope of the Metro Line 2 concession contract.

The location of Metro Line 2 stations is already defined in the concession contract, and there are already some detailed engineering designs for the stations of segment 1A of Line 2. The focus of this study will be on the built environment and surroundings of the stations, as well as possible extensions or solutions to integrate the intermodal terminal facility with L2, fostering quality public open spaces and enhancing the living conditions. The study will propose different alternatives around a connectivity (multimodal) solution, and the different factors to evaluate a set of alternatives, for the easternmost corridor segment of Line 2.

The Bank wants to build on the support provided to the Municipality of Lima through a PHRD grant focused on piloting improved accessibility around stations of the Metropolitano BRT, particularly for the physically disabled. Based on this experience, the proposed participatory community planning for the pilot TOD project could include this group on interest, as well as other key community and civil society stakeholders. A strategy for community participation in the planning and decision-making will be required to ensure these local TOD and integration interventions are appropriated by the community and contribute to vibrant and livable communities where people can safely walk, live, work, shop and play. The Bank’s technical assistance work under this assignment wants to identify

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1 A proposal from the municipality Ate-Vitarte to put Carretera Central underground in this segment will not be possible based on the current engineering designs for Metro L2. Ate-Vitarte had submitted a project for financing to MEF for the burying of the Carretera Central at the Plaza de Armas location, just where the Metro L2 Ate station is planned. This project was included under the SNIP and was subject to advance to feasibility analysis phase.
these opportunities under Transit-Oriented Development (TOD) and participatory *placemaking* frameworks, complemented with other social strategies for jobs, poverty and gender.

**B. AVAILABLE STUDIES AND INFORMATION**

The national, metropolitan and local governments have undertaken various studies, gathered key information and studied some alternatives to handle this issue. This information serve as the basis for the present study; available for the Consultant. The Consultant is expected to build upon this existing body of work by deepening the analysis, concentrating on developing the set of alternatives and to develop a framework to evaluate options for the connectivity (multimodal) solution for the easternmost corridor segment of Line 2 fostering high quality public space and enhancing the living conditions of the Ate district. Some of this information is detailed below, notwithstanding that there could be further relevant information:

- Lima Metro Line 2 project layout and final (or preliminary) designs for station areas, in particular for Prolongación Javier Prado, Ate and Santa Anita stations, rail yards, depots, station exits, ventilation shafts;
- All other Metro Line 2 project information necessary;
- The client will facilitate contacts with the various municipal (district), metropolitan and national government authorities, as well as with the Metro Line 2 concessioner and/or related consultants for the proposed work;
- Floor plans, cadaster and maps of the corridor area, including key buildings in the area, such as the cultural center, church, hospital, school and other neighborhood amenities;
- Projects and proposals regarding the burying of Carretera Central;
- Information regarding transit routes and services in the area, the regional transport demand model, traffic counts in key roads, registered of transit companies operating in the area, etc.;
- Terms of Ramiro Prialé Highway Concession;
- Available cadaster data of the area;
- Census information of the area;
- Socio-economic information of the study area (census data, jobs, retail and wholesale markets, services and industry, etc.);
- Information regarding the proposed urban renewal and public space projects in the area (Ruiz de Somocurcio project, boulevard-malecon project, mall project, etc.);
- Municipality of ATE urban plan information (Plan Distrital Urbano and other related information);
- Restrictions and norms regarding the river side area;
- Water and sewerage information in the area;
- All other secondary information available from the client that could assist the consultant assignment.

**C. SCOPE OF WORK AND STUDY COMPONENTS**

**COORDINATION:**

The work will be delivered by individual consultants working under the coordination of a project manager, who will be responsible for coordinating activities of individual consultants, integrate the products, deliver the final product and serve as the focal point with the Bank, local beneficiaries and stakeholders.
### GENERAL SCOPE OF WORK:

- The scope of work will include a wide corridor area at different urban planning scales and analysis of integrated transport, public space and urban development interventions. These interventions will be evaluated under an alternative analysis framework, including mass transit infrastructure and associated multimodal integration infrastructure facilities, and its insertion within the built environment looking at the accessibility and connectivity dimensions.
- The work will require local knowledge of the urban development dynamics of Lima and Callao metropolitan region, as well as the local dynamics at the district level. The planning dimensions will go from a regional scale perspective (e.g., PLAM2035 or the actual Metropolitan Plan -Plan de Desarrollo Metropolitano Lima 2010-) to a very local one (e.g., Ate municipality’s urban plan -Plan Urbano Distrital of ATE-). It will also require analysis of cadastral data, determining the edificatory potential (floor-area ratios), the potential of future urban centralities, the identification of local economic forces, social and cultural dynamics, and the application of progressive and sustainable urban design and planning standards, such as dense, diverse and connected built environments supporting mass transit integration and accessibility (e.g., TOD) with high standards of urban design of public spaces and energy efficiency.
- The location of the Metro L2 stations in the scope of this study has been already defined in the concession contract, and there are already some detailed engineering designs for the stations of segment 1A. The main objective of the study is to focus on the built environment and surroundings of the stations. However, the alternative analysis will include different options for achieving a multimodal integration + TOD solution in the corridor with the possibility to propose extension of the current L2 to the east with new stations where a multimodal integration infrastructure facility could be developed.
- The connectivity and accessibility analysis for the easternmost corridor segment of Metro L2 should focus on the following issues: (i) How to achieve multimodal integration at the local station level, ensuring local accessibility needs, and connectivity (multimodal) across the corridor and at the District level?; (ii) How to handle the interaction with Carretera Central and the options to burying it, as well as other road connectivity projects for the District proposed by the local government?; (iii) What other transit services are serving the area and what are the options to restructure routes and services around a multimodal integration infrastructure facility? Where and how this facility should be planned and
constructed given the space constraints in the current Ate terminal station? How will the proposed project to rehabilitate the Ferrocarril Central to feed Metro L2 serve this purpose?; (iv) How the proposed interventions for the Integration and Accessibility Plan for Metro Line 2 on this pilot area could be integrated and orchestrated with local initiatives such as improvement of public space connectivity from Ate downtown and the future river boulevard/malecon project? The analysis of these issues should generate different options, with specific characteristics regarding: spatial extension and different timeframes, public transport integration, generation of high quality public space, traffic management, road infrastructure connectivity, etc. The alternative analysis should be conducted for three time scenarios: (i) immediate; (ii) short term; (iii) long term.

- The multimodal connectivity analysis will require carrying out a traffic simulation analysis and capacity analysis of the road network at the corridor district level, segmenting different traffic by purpose, service and destination (e.g., trucks to the port, trucks to Santa Anita Market, regional buses, urban buses, micro buses, local rickshaws or mototaxis, etc.)
- The preliminary provision of amenities, public space, multi-modal integration facilities, collective public facilities (health, education, justice, markets), social housing, etc. will be determined based on an initial assessment of current gaps at the local community (e.g., minimum of 10 m²/inhabitant of public space), foreseeing that a community participation process will feed the subsequent planning and design phases to identify the needs and functionalities of the proposed facilities, amenities and public space to be generated.
- Potential key stakeholders (private, public, NGOs, civil society, etc.) will be preliminarily identified to be included in the strategy that will allow the organization of participatory workshops with community and stakeholders, in particular to identify the needs and functionalities of the proposed facilities, amenities and public space to be generated.
- Approximate investments costs will be required into the alternative analysis for comparison. The urban transformation project will also require the analysis of different management structures and strategies (public/private/APP) to advance in project preparation, execution, management, operation and maintenance, as well as the proposed changes in planning regulation and norms, legal and co-financing agreements with different levels of government and other inter-institutional levels of coordination.
- The scope of work will include the elaboration of proposals on urban zoning and land use changes needed to accommodate the proposal and ad hoc management tools to carry out the proposed urban transformation.

WORK DESCRIPTION

The work will consist of written and graphic documentation (drawings, site plans, diagrams) necessary for the proper understanding of the alternative analysis and development proposals and shall contain a reflection on the following items:

- Line 2 eastern segment in relation to metropolitan/local urban and mobility master plans:
  - Line 2 and current urban development plans (including zoning, land use and property data), and mobility plans (metropolitan and local);
  - Line 2 and the proposed metropolitan and local transportation infrastructure and transit plans concerning: Metro network, BRT (Metropolitano), feeder buses, arterial roads and highways, green corridors, bike paths and other transport-related initiatives (central railway line, trams, pedestrian areas, parks & ride, etc.)
- Neighborhood analysis:
  - Descriptive documentation regarding the characterization of urban
neighborhoods along the corridor and around the stations: travel patterns, urban morphology, metropolitan/local economic forces, social and cultural structure/dynamics.

- Preliminary identification of key stakeholders (private, public, NGOs, civil society, etc.) for community participation (participatory placemaking) and identification of potential areas/sectors to include in a local economic and social development plan for the neighborhoods, complemented with other social strategies for jobs, poverty and gender.

- Alternative analysis of different connectivity (multimodal) solutions for the easternmost corridor segment of Line 2 focusing on integrated transport, public space and urban development interventions. The focus of this study will be on the built environment and surroundings of the stations, as well as possible extensions or solutions to integrate the intermodal terminal facility with L2, fostering quality public open spaces and enhancing the living conditions.

- Identification of preexisting constraints that may condition the potential urban (re)development of the neighborhoods on the easternmost corridor segment of Line 2, from Santa Clara (an eastern neighborhood of Ate District) to Ate end station and Santa Anita intermediate station.

- Draft designs and site planning proposals for the surrounding areas of the stations with a specific analysis of the relation/functionality of the facilities for multi-modal integration (buses, mototaxis, bicycles and pedestrians) and the proposed enhancements in public space, amenities and collective public facilities of the proposed site planning proposals. These proposals should include high standards of urban design for transformative TOD with high quality public spaces, and a relationship to boost local economic and social development priorities for the community.

- Urban transformation proposal for the corridor from Mercado Santa Anita, Vista Alegre, Prolongacion Javier Prado, Municipalidad Ate and (possible) Santa Clara stations areas:
  - Cadastral analysis in the area of influence, and analysis of potential urban renewal, (re)development and potential transformation of selected properties into public space, multi-modal integration facilities, collective public facilities and social housing.
  - Definition of zoning and (re)classification of urban land uses, public/private investment needs, proposed project management structure and strategy to advance in project preparation, community engagement and participation, urban planning regulation incentives and financing schemes with the private sector, and other elements that will be required for the feasibility, design and implementation of the proposed interventions.
  - Identification of necessary changes to the actual planning regulation and norms, legal and co-financing agreements with local district governments and National Government, and other inter-institutional levels of coordination.

- Conduct preliminary contacts and development strategy to engage key stakeholders (private, public, NGOs, civil society, etc.) in the organization of participatory workshops with community and stakeholders, in particular to identify the needs and functionalities of the proposed facilities, amenities and public space to be generated.

- Identification of potential land value captured mechanisms to finance TOD projects, such as the potential Line 2 extension to Santa Clara, the multimodal integration infrastructure facilities, generation of public space around stations and connectivity to the river boulevard/malecon project.

- Conclusions and recommendations.
### D. WORK DELIVERABLES AND TIMELINE

Eight (8) months, distributed as follows:

- **Phase 1:** three (3) months for developing work plan, gathering information, constructing scenarios, conceptualizing alternatives and performing preliminary assessments and evaluation of alternative analysis.
- **Phase 2:** five (5) months for the development of the detailed alternative analysis and Integration and Accessibility Plan for Metro Line 2, the diagnosis and micro-scale proposal analysis for Ate station and the delivery of the Final Report and Dissemination.

A first contract will be prepared for Phase 1 for the project management consultant (42 full working days) and a new contract for Phase 2 (42 full working days) will be subject to an evaluation of the preliminary results of Phase 1 by the Bank supervision team.

The work should include the following deliverables (1, 2, 3 and 4):

1. **Work Plan:** The consultant will prepare a detailed methodology and work plan.
2. **Alternative analysis and Integration and Accessibility Plan for Metro Line 2 from Santa Anita to Ate (+ Santa Clara):**
   - Analysis of transport connectivity of the corridor/district area and multimodal integration + accessibility to Metro L2 stations, including a broad perspective of passenger and good movement, and a local/metropolitan/interprovincial mobility perspective.
   - Analysis of the potential use of the Rimac’s river left bank and associated urban development, public space and transport infrastructure projects.
   - Local economic development strategy analysis, jobs perspective, sector dynamics for industry, services and commerce, and opportunities associated to proposed projects.
   - Social and local culture analysis, community participation and stakeholders for the proposed alternatives.
   - Environmental analysis, identification of potential impacts and opportunities, management of resources and proposals for the study area.
   - Development of potential urban TOD interventions + multimodal integration infrastructure terminal facilities in the corridor area. Including specific accessibility design and functional elements of the associated TOD interventions in public space with the access to Metro L2 stations and the main multimodal integration infrastructure terminal facility.
   - Land use, zoning, institutional and financial arrangements.
3. **Diagnosis and micro-scale proposal analysis for Ate station:**
   - Scenarios:
     - During construction works of Metro L2 station.
     - Perspective of Ate station as a terminal station during Metro L2 operation.
     - After potential extension of L2 to Santa Clara as terminal station.
4. **Final Report and Dissemination:** This final report should be an executive document that includes a summary of the alternative analysis, the evaluation of these proposals and the proposed plans, strategy and most relevant conclusions and recommendations from the study to advance on the design and construction of the proposed projects.
E. SPECIAL TERMS & CONDITIONS / SPECIFIC CRITERIA
- Although the documentation and Terms of Reference are in English, the deliverables (reports and presentations) will be produced in Spanish to facilitate review and dissemination to the client.

F. SPECIFIC TASK OF THE CONSULTANT AND PROFILE

Scope of work detailed of the consultant:
- Be responsible for the quality and the delivery of the work here defined in established time and form.
- Lead, coordinate and supervise the deliverables and inputs from others consultants involved in this work, and be responsible of the final delivery.
- Be the focal point of coordination with the World Bank Team and the local clients.
- Proactively monitor project preparation progress and ensure compliance with deadlines.

Consultant profile:
- An urban planner specialist, architect or city planner is required.
- Knowledge of the urban master planning and site planning processes of metropolitan Lima-Callao is required.
- Experience in urban landscape and public space projects is required.

Lima, April 12th 2015