SINGLE REVISED TEXT (TUO) of the TERMS AND CONDITIONS
(Up to Circular letter N° 21)
Bid of Comprehensive Projects
LONGITUDINAL DE LA SIERRA HIGHWAY
Section 4
October 2016

Important: This is an unofficial translation. In the case of divergence between the English and Spanish text, the version in Spanish shall prevail.
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1. PURPOSE OF THE BID AND PROJECT CHARACTERISTICS


The general objectives of the Bidding Terms and Conditions are the following:

- Achieve a clear, simple, objective and equal procedure.
- Achieve the participation of the largest number of bidders with experience in the required obligations.
- Set ground rules on which the bidder may submit its proposal.

The Bid referred to in the Bidding Terms and Conditions shall be carried out in accordance with the provisions contained therein and in matters not provided therein, the rules of Supreme Decree N° 059-96-PCM, Legislative Decree N° 1012 and its complementary regulations and amendments shall apply to this process.

It is considered, without admitting evidence to the contrary, that all Bidder, stakeholder or person who, directly or indirectly, participates in the bid knows the contents of these Bidding Terms and Conditions and applicable regulations.

1.1. Purpose of the Bid

The State of the Republic of Peru, through the Private Investment Promotion Agency - PROINVERSION, has called for a Comprehensive Project aimed at selecting a legal, national or foreign person or consortium that will conform the Concessionaire of the Longitudinal de Sierra Section 4: Huancayo – Izcuchaca – Mayocc - Ayacucho/Ayacucho – Andahuaylas - Sahuinto Bridge/Dv. Pisco – Huaytará - Ayacucho, according to technical, financial and legal qualifications set out in these Bidding Terms and Conditions.

1.2. Project Characteristics

The Project will have the following basic referential characteristics, according to these Bidding Terms and Conditions and the Concession Contract:

According to the type of contract foreseen in the concession scheme, it is a co-financed BOT (build, operate and transfer) concession, with guaranteed contributions in charge of the State of the Republic of Peru, according to the Economic Proposal of the Bidder.

The delivery in concession of the Longitudinal de la Sierra Highway Section 4: Huancayo – Izcuchaca – Mayocc - Ayacucho/Ayacucho – Andahuaylas - Sahuinto Bridge/Dv. Pisco – Huaytará - Ayacucho, based on provisions made by the Ministry of Transportation and Communications in the Evaluation Report, implies works to be executed by the GRANTOR and the CONCESSIONAIRE and the Operation and
Maintenance according to the technical guidelines indicated in the Concession Contract.

The approximate length of the project is 971 km.

The concession term is 25 years, counted from the date of signature of the Contract, this term may be extended according to the provisions set forth in the Concession Contract.

At the end of the concession period, Assets of the Concession will be returned or given freely, as appropriate, to the State of the Republic of Peru, which is free to exploit or award them directly to a new concessionaire, so that the continuity of the service is guaranteed.

2. DEFINITIONS

Any reference made in this document to "Section", "Form" and "Annex", shall be understood as made to Sections, Forms and Annexes of these Bidding Terms and Conditions respectively, unless expressly stated otherwise.

All time references are to local time of Peru.

Expressions in the singular include where appropriate, the plural and vice versa. Capitalized terms appearing in these Bidding Terms and Conditions and which are not specifically defined therein, correspond to Applicable Laws, or the meaning to be given to them in the use of the activities of project development or, failing that, to the terms that are commonly used in capital letters.

In these Bidding Terms and Conditions the following terms shall have the following meanings:

2.1. Non-Disclosure Agreement

It is the agreement that Authorized Agents shall sign before using the Data Room. The Non-Disclosure Agreement appears as Form 4 of ANNEX N° 8.

2.2. Award

Declaration made by the Committee determining which bidders have submitted the best proposal based on the terms and conditions established in the Bidding Terms and Conditions and who is the concession winner.

2.3. Successful Bidder

It is the Bidder who obtains the Award.

2.4. Private Investment Promotion Agency – PROINVERSIÓN

Body referred to in Law N° 28660 and the Regulation of Organization and Functions of PROINVERSION approved by Ministerial Resolution N°

1 Amended by virtue of Circular letter No. 4
083-2013-EF/10, responsible, among other things, for promoting the private investment in public works of infrastructure and in public services that may be granted in concession to the private sector in accordance with applicable laws and regulations.

2.5. **Authorized Agents**
Natural persons appointed as such by the Bidder for the purposes of this Bid.

2.6. **Governmental Authority**
Any government or national, regional or local authority or any of its departments or agencies, regulatory or administrative, or any entity or agency of the State of the Republic of Peru that according to law, exercises executive, legislative or judicial powers, or that belong to any of the above mentioned governments, authorities and institutions.

2.7. **Bidding Terms and Conditions**
Public document containing administrative aspects, procedures and conditions of the Bid, including its ANNEXES, Forms, Appendices and Circular letters issued by the Committee, setting the terms under which the bid shall be developed. During the bid the contract forms part of the Bidding Terms and Conditions.

2.8. **Concession Assets**
Assets movable and immovable incorporated in and affected by the Concession or inseparable from the Concession object, which: were delivered by the GRANTOR at the beginning or during the concession, replaced others, or were acquired or constructed by the CONCESSIONAIRE during concession term. These assets are owned by the GRANTOR and will be returned and/or delivered by the CONCESSIONAIRE, at the end of the concession.

2.9. **BOT**
From the acronym in English built, operate and transfer. It is the modality by which the road infrastructure is delivered to the CONCESSIONAIRE so that it may build, operate and transfer said road infrastructure to the State at the end of the concession.

2.10. **Capital Stock Subscribed and paid**
Part of the subscribed capital stock and effectively provided by the CONCESSIONAIRE'S shareholders.

2.11. **Longitudinal de la Sierra Highway Section 4: Huancayo- Izcuchaca-Mayocc-Ayacucho/Ayacucho-Andahuaylas-Pte Sahuinto/Dv. Pisco – Huaytará - Ayacucho**
Project commissioned to PROINVERSION by the Ministry of Transportation and Communications, to be granted in concession.
2.12. **Circular letters**
Written communications issued by PROINVERSION Committee whether for specific or general purpose, aiming at completing, clarifying, interpreting, specifying or modifying the content of the Bidding Terms and Conditions, another Circular letter or answering inquiries made by the persons authorized to it. These Circular letters will be part of the Bidding Terms and Conditions. They may be also issued to inform Bidders on the process, prior Committee’s approval.

2.13. **Committee**
PROINVERSIÓN Committee in charge of Road Infrastructure Projects, Railway Infrastructure and Airport Infrastructure -PRO INTEGRACIÓN, which permanent members were appointed through Supreme Resolution N° 021-2013-EF and Supreme Resolution N° 50-2014-EF that appoints the new members.

2.14. **Payment Voucher for the right of participation**
Document that PROINVERSIÓN shall deliver to the Bidder as proof of having paid the right to participate in this Bid.

2.15. **GRANTOR**
State of the Republic of Peru, represented by the Ministry of Transportation and Communications (MTC).

2.16. **Concession**
It is the public law judicial relationship established between the GRANTOR and the CONCESSIONAIRE as from the date of signing of the contract, whereby, the GRANTOR grants the CONCESSIONAIRE the right to exploit the concession assets, and therefore it is obliged to execute the Rehabilitation and Improvement, the Initial Periodic Maintenance, retain such as sets and provide a range of services for users of the Longitudinal de la Sierra Highway Section 4, according to the provisions of the Concession Contract during the term of the same, subject to the provisions of applicable laws and regulations.

2.17. **CONCESSIONAIRE**
Legal person incorporated in Peru by the Successful Bidder that enters into the concession contract with the GRANTOR.

2.18. **Bid**
Process regulated by these Bidding Terms and Conditions for the award of the concession to the private sector, through a Bid of Comprehensive Projects, of the Longitudinal de la Sierra Highway Section 4: Huancayo – Izcuchaca – Mayocc - Ayacucho/Ayacucho – Andahuaylas – Sahuanito Bridge/Dv. Pisco – Huaytará - Ayacucho.

2.19. **Bid of Comprehensive Projects**
Modality foreseen in Article 6 Section 2 of Supreme Decree Nº 059-96-PCM, under which the Longitudinal de la Sierra Highway Section 4:
Huancayo – Izcuchaca – Mayocc - Ayacucho/Ayacucho – Andahuayas - Puente Sahuinto/Dv. Pisco – Huaytará – Ayacucho will be delivered in concession to the private sector.

2.20. Conservation or Maintenance
Set of activities performed since the takeover with the purpose of preserving, recovering or delaying the loss of the structural and functional original conditions of the Concession Assets.

2.21. Road Conservation or Road Maintenance
Set of technical activities aimed at the continuous and sustained preservation of the good condition of road infrastructure to ensure the optimum service to users. It may be of routine or periodic nature.

2.22. Consortium
Association of two or more legal entities lacking legal personality independently of its members, which has been formed in order to participate as a bidder in this bid.

2.23. Constructor
Legal person, or legal persons who will sign with the CONCESSIONAIRE the contracts to implement the Rehabilitation and Improvement and the Initial Periodic Maintenance of the Concession.

2.24. Concession Contract or Contract
Binding document including its ANNEXES and Appendices signed between the CONCESSIONAIRE and the GRANTOR that governs relations between the parties for the implementation of the Rehabilitation and Improvement, Initial Periodic Maintenance and Exploitation of the Longitudinal de la Sierra Highway Section 4, during the term of the Concession.

2.25. Effective Control
One person holds or is subject to the effective control over another company or under common control with it, in any of the following cases:

   a) It has more than fifty percent (50%) of the voting power at general shareholders meetings or partners, through direct ownership of securities representing the capital by or indirectly through usufruct contract, pledge, trust, syndication and the like or any other legal act.

   b) Directly or indirectly has the power to appoint or remove the majority of members of the board or equivalent body, which enables to control or exercise the majority of votes in the board meetings or equivalent body, or to govern the operative or financial policies under a regulation or contract whatever is its modality.

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2 Amended by Circular letter No. 8
3 Amended by virtue of Circular letter No. 4
c) By any other mechanism or circumstance (contractual or not), effectively controls the power of decision over the other company.

In addition to the above and whenever applicable, for purposes of determining effective control provisions of CONASEV Resolution N° 090-2005-EF-94.10 CONASEV amended by Resolution N° 005-2006-EF/94.10, its amendments, or replacement legislation will be taken into account.

2.26. Schedule
Temporary sequence of activities to be developed during Bid process indicated in ANNEX N° 11.

2.27. Affidavit
Written statement submitted by the Bidder in which he declares or makes a commitment that is presumed to be true for purpose of this bid, without prejudice to the provisions of Section 12.1.

2.28. Days
Working days, that is, other than Saturday, Sunday or non-working holiday in the city of Lima. Also the days when banks in Lima are not obliged to serve the public by provision of the Governmental Authority are also considered as holidays as well as the non-working regional holidays.

2.29. Calendar Day
All days, including Saturdays, Sundays and holidays.

2.30. Dollar or American Dollar or US$
The currency or monetary unit of legal tender in the United States of America.

2.31. Affiliated Company, Matrix Subsidiary or Related
The definitions are the following:

a) Affiliated company: A company will be considered affiliated to another company when the Effective Control of said companies is exercised by a same Matrix Company.

b) Matrix Company: the company that holds the Effective Control over another. The company that holds Effective Control over a Matrix Company, as defined and so on is also considered as Matrix Company in this definition.

c) Subsidiary Corporation: Company which Effective Control is exercised by another company.

d) Related Company: Any Affiliated company, Matrix or Subsidiary.

In addition to the above and whenever applicable to determine the above mentioned definitions the CONASEV Resolution No 090-2005-EF-94.10,

Amended by virtue of Circular letter No. 8
amended by CONASEV Resolution N° 005-2006-EF/94.10, its amendments, or replacement legislation shall also be applied.

2.32. A. **Banking Companies**
Companies defined as such according to Law N° 26702, General Law of the Financial System and Insurance System and Organic Law of the Superintendence of Banking and Insurance, referred to in List 1 of Annex N° 1.

B. **Insurance Companies**
Companies defined as such according to Law N° 26702, General Law of the Financial System and Insurance System and Organic Law of the Superintendence of Banking and Insurance, referred in List 3 of Annex N° 1.5

2.33. **International Financial Entity**
A first class international financial entity recognized in Peru and included in List 2 of Annex N°1.

2.34. **Existing Studies**
Group of technical studies and reports about Longitudinal de la Sierra Highway Section 4. Such studies are to be available for bidders in the Data Room as referential information, prior signature of the non-disclosure agreement and payment of the right to participate in the bid.

2.35. **Exploitation**
It consists of the road infrastructure operation and maintenance in the Concession Assets, the mandatory and optional services provided and user fees to be paid for the use of road infrastructure and facilities, as well as the provision of such services under the terms established in the Contract.

2.36. **Competence Factor**
These are variables defining the bid winner. These shall be construed as the lesser amount to be paid for Rehabilitation and Improvement, for annual payment for Initial Periodic Maintenance and for annual payment for maintenance and operation, offered in relation to the amounts determined by the State.

2.37. **Contract Signing Date**
It is the day when the GRANTOR and the CONCESSIONAIRE signs Concession Contract.

2.38. **Validity, Enforceability and Bid Bond**
Stand-by letter of credit or letter of guarantee submitted by the Pre-selected Bidder in favor of PROINVERSIÓN, for an amount of thirteen million one hundred and two thousand two hundred eleven and 00/100 American Dollars (US$ 13 102 211.00), to assure the validity, effectiveness and seriousness of its bid (it includes the Technical and

5 Amended by virtue of Circular letter No. 4
Economic Proposal), according to the model enclosed as Form 1 of ANNEX N° 5.

The bid bond shall be issued by a Banking Company or by an International Financial Entity, as detailed in List 1, in List 2 or List 3 respectively of ANNEX N° 1 of these Bidding Terms and Conditions, which shall be several, unconditional, irrevocable, without the benefit of excussion, indivisible and automatically enforceable.

In case of a stand-by letter of credit or letter of guarantee issued by an International Financial Entity, it shall be countersigned and confirmed by any of the banking companies indicated in List of ANNEX N° 1.

A stand-by letter of credit or letter of guarantee confirmed by a banking company means that the confirming banking company is the receiver of the execution letter and the responsible for making the requested payment.

The bid bond shall be valid for at least ninety (90) calendar days after the date of filing of the Economic Proposal. The Committee may grant a mandatory bid bond extension, in which case the Bidder shall renew it as required by the Committee. However, at the discretion of the Committee and by the assessment of the possibility of awarding the bid to a second bidder, the Committee may individually arrange the return of the Bidders’ bid bonds.

The return of the bid bonds submitted by the Bidders, in any case, shall not exceed fifteen (15) calendar days after the signing date of the Contract.

In order to accomplish the above, two or more bid bonds that make up the total amount required may be filed, provided these bid bonds meet, individually, all other requirements.

2.39. Performance Bond of the Concession Contract
Bond which opportunity of submission, model, amount, terms and conditions shall be defined in the Concession Contract. This bond is intended to ensure compliance with each and every one of the contractual obligations of the CONCESSIONARI including the payment of the penalties that are not guaranteed by the Performance Bonds of Execution of Rehabilitation and Improvement and/or Initial Periodic Maintenance.

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6 Amended by virtue of Circular letter No. 4
7 Amended by virtue of Circular letter No. 7
8 Amended by virtue of Circular letter No. 10
9 Amended by virtue of Circular letter No. 4
10 Amended by virtue of Circular letter No. 4
11 Amended by virtue of Circular letter No. 4
2.40. **Performance Bond of Execution of Rehabilitation and Improvement**

It is the bond granted to ensure the correct Rehabilitation and Improvement execution, including the payment of penalties and other sanctions and obligations. Its submission date, amount, terms and conditions shall be defined in the Concession Contract.\(^{12}\)

2.41. **Performance Bond of Execution of the Initial Periodic Maintenance**

It is the bond granted to ensure the correct execution of the Initial Periodic Maintenance, including the payment of penalties and other sanctions and obligations. Its submission date, amount, terms and conditions shall be defined in the Concession Contract.\(^{13}\)

2.42. **VAT**


2.43. **Laws and Applicable Provisions**

Set of Peruvian general laws governing the contract. It includes the Constitution of Peru, the rules with the force of law, regulations, directives and resolutions that may dictate any competent governmental authority in accordance with its founding law, which shall be binding upon the parties.

2.44. **Initial Periodic Maintenance**

Works to be executed in the existing route over the first years of the concession to reach and/or overcome the Service Levels required in Annex I of the contract.

2.45. **Improvement**

Necessary measures to raise the standard of the j through activities involving substantial modification of geometry and pavement structure works; and the construction and/or adaptation of bridges, tunnels, drainage, walls, and necessary signs.

2.46. **Service Levels**

Indicators to qualify and quantify the status of the service of a route and which are normally used as admissible limits to which they can evolve their surface, functional, structural condition, and security. Indicators are specific to each route and vary according to technical and economic factors within a general scheme of user satisfaction (comfort, convenience, safety and economy) and profitability of the resources available.

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\(^{12}\) Amended by virtue of Circular letter No. 4

\(^{13}\) Amended by virtue of Circular letter No. 4
2.47. **Sol**\(^{14}\)
Currency of legal tender in the Republic of Peru.

2.48. **Work**
Road infrastructure executed in a working area, based on an approved technical file, generally using resources: manpower, materials and equipment.

2.49. **Operation**
Set of activities to be developed so that the route can be operated in a normal way. It includes the administration of the Concession, care and monitoring of the road, load control and vehicle weight, road safety and prevention of Road Emergencies.

2.50. **Operator**
It is the Bidder or member in case of Consortium, that has met the pre-shortlisting requirements regarding the experience in operation and is responsible for operating the concession.

2.51. **Regulatory Body**
Supervisory Organism for Investment in Transport Infrastructure for Public Use - OSITRAN, according to Law N° 26917 and its regulatory, complementary rules and amendments and whose provisions (autonomous regulations, general guidelines and rules of a particular nature, mentioned in Article 22 of the regulation approving Supreme Decree N° 044-2006-PCM), paragraph 3.1 of Article 3 of Law N° 27332, are mandatory for enforcement and compliance for the CONCESSIONAIRE.

2.52. **Annual Payment for Initial Periodic Maintenance (APIPM)**
Sum of total annual money expressed in dollars, that the State of the Republic of Peru will pay to the CONCESSIONAIRE, according to its economic proposal, intended to cover the Initial Periodic Maintenance costs, under the terms and conditions set forth in the Contract. The method and frequency of payment are regulated in the Concession Contract.

2.53. **Annual Payment for Maintenance and Operation (APMO)**
Sum of total annual money expressed in dollars, that the State of the Republic of Peru will pay to the CONCESSIONAIRE, according to its economic proposal, intended to cover the operation and maintenance costs of the concession, subject to the terms and conditions set in the Contract. The method and frequency of payment are regulated in the Concession Contract.

2.54. **Minimum Shareholding**
It is the shareholding equivalent to thirty-five percent (35%) of the subscribed and paid capital of the CONCESSIONAIRE that the Strategic

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\(^{14}\) Amended by virtue of Circular letter No. 13
Partner shall have and maintain at least in the CONCESSIONARE during the concession term. This shareholding is entitled to vote at the General Shareholders Meeting.

2.55. **Payment for Rehabilitation and Improvement (PRI)**
Amount of money expressed in dollars, that the State of the Republic of Peru shall assure to the CONCESSIONAIRE, according to its Economic Proposal, addressed to cover the Rehabilitation and Improvement costs. The payment procedure is regulated in the Concession Contract.

2.56. **Concession Term**
Term between the signing date of the Contract and the termination of the concession.

2.57. **Bidder**
Legal entity or Consortium participating in this Bid that has acquired the right to participate and is subject to the Biding terms and Conditions.

2.58. **Pre-shortlisted Bidder**
The bidder whose documentation, duly submitted through Envelope Nº 1, has complied with the requirements foreseen in the Bidding Terms and Conditions, being accepted and expressly declared by the Committee.

2.59. **Proposal**
Documentation to be submitted by Pre-shortlisted Bidders, whether Technical Proposal or Economic Proposal.

2.60. **Economic Proposal**
Document to be submitted by the Pre-shortlisted Bidder in Envelope Nº 3, as indicated in Section 14.2, Form 1 and Form 2 of ANNEX Nº 6, as the case may be.

2.61. **Technical Proposal**
Set of documents submitted by the Pre-shortlisted Bidder in Envelope Nº 2, as indicated in Section 14.1.

2.62. **Contract Project**
Models of Concession Contracts to be delivered to the Bidders to receive their comments and/or suggestions. None of the terms and/or criteria contained therein shall bind to any extent to PROINVERSION, the Committee or the GRANTOR.

2.63. **Rehabilitation**
Implementation of the necessary works to restore the road infrastructure to its original conditions and adapt it to a new period of service. Such works refer mainly to the repair and/or execution of pavement, bridges, tunnels, drainage, earthmoving in specific areas and others if required.

2.64. **Legal Representative**
Natural person(s) appointed as such by the Bidder for purposes of this bid.
2.65. **Pre-shortlisting Requirements**
Requirements indicated in Section 12 of these Bidding Terms and Conditions that the bidder shall comply with to be declared as Pre-shortlisted Bidder and to continue participating in the bid.

2.66. **Data Room**
It is the area determined in the office of PROINVERSIÓN located at Av. Canaval Moreyra 150, 7th floor, San Isidro, Lima 27, Peru, which will contain the referential document related to the concession and which shall be available to the Bidders for the preparation of their proposal.

2.67. **Envelope (s)**
Makes reference individually or collectively to Envelopes Nº 1, 2 and 3.

2.68. **Envelope Nº 1**
Envelope containing the documents indicated in Section 0, to be submitted by the Bidder.

2.69. **Envelope Nº 2**
Envelope containing the documents indicated in Section 14.1, to be submitted by the Pre-shortlisted Bidder.

2.70. **Envelope Nº 3**
Envelope containing the Economic Proposal to be submitted by the Pre-shortlisted Bidder, according to the provisions set forth in Section 14.2.

2.71. **Strategic Partner**
Shareholder or holder of participatory interest of the CONCESSIONAIRE who credited compliance with the operational requirements specified in the Bid Terms, which holds title of the Minimum Participation in the CONCESSIONAIRE.

2.72. **Sub Section (s)**
Component Part(s) of the section of the highway to be granted in concession.

3. **LEGAL FRAMEWORK OF THE BID**
- Legislative Decree N° 839 dated August 20, 1996, which approves the Law for Promotion of Private Investment in public infrastructure and utility works, creating, as the agency in charge, the Commission for the Promotion of Private Concessions (PROMCEPRI).
- Supreme Decree N° 059-96-PCM dated December 26, 1996 which approves the Consolidated Text of regulations with rank of law ruling the granting in concession of public infrastructure and utility Works to the private sector.
- Supreme Decree N° 060-96-PCM dated December 27, 1996, promulgating the Regulation of the Consolidated Text of regulations with rank of law ruling the granting in concession of public infrastructure and utility Works.
to the private sector amended through Supreme Decree N° 003-2009-PCM.

- Law 27111 dated May 11, 1999, that transfers to the COPRI, the functions, attributions and competences granted to the PROMCEPRI.

- Supreme Decree N° 027-2002-PCM dated April 24, 2002 that provides the merger of the COPRI, the National Commission of Investment and Foreign Technologies and the Economic Promotion Management of the Commission of Promotion of Peru, in the Executive Direction of FOPRI, which is called Private Investment Promotion Agency (PROINVERSION).

- Law N° 28660 published on December 25, 2005, which determines the legal nature of the Private Investment Promotion Agency PROINVERSIÓN as a Decentralized Public Organism attached to the Economy and Finance sector, with legal status, technical autonomy, functional, administrative, economic and financial, constituting a budget statement. The current Regulation of Organization and functions of PROINVERSIÓN was approved through Supreme Decree N° 083-2013-EF/10 dated March 20, 2013.

- Subparagraph L, Article 22 of Law N° 27785, Law of the National System of Control and the Comptroller General of the Republic, which establishes the power of the Comptroller General of the Republic to previously inform about operations, bails, guarantees, and other bonds granted by the State, including contract projects, which may, in any way, compromise its credit or financial capacity, whether by negotiations in the country or abroad.

- Legislative Decree N° 1012, which approves the Framework Law of Public Private Partnerships for the Generation of Productive Employment and dictates rules for streamlining the promotion process of private investment and its amendments.

- Supreme Resolution N° 021-2013-EF which reconstructs the formation of members of the PROINVERSIÓN Committee in Road Infrastructure Projects, Railway Infrastructure and Airport Infrastructure— PROINTEGRACIÓN.

- Supreme Decree N° 127-2014-EF and its amendments that approves the Legislative Decree Regulation No 1012.

- PROINVERSIÓN Steering Council Meeting N° 514-1-2 013-CPI, dated March 27, 2013 by which it was agreed: 1. To incorporate the project into the private investment promotion process, under the mechanisms and procedures established in Supreme Decree N° 059-96-PCM, Legislative Decree N° 1012 and its corresponding regulations, 2. Instruct the Pro Integración Committee about the execution of the private investment promotion process of the project and 3. Manage the corresponding legal provision.
Supreme Resolution N° 50-2014-EF that appoints the new members of the PROINVERSIÓN Committee in Road Infrastructure Projects, Railway Infrastructure and Airport Infrastructure-PRO INTEGRACIÓN.

PROINVERSIÓN Steering Council Meeting N° 641-201 4-CPI, of November 17, 2014 by which it agrees to modify Section 1 of the incorporation agreement of the Steering Council meeting N° 514-1- 2013-CPI, regarding the incorporation of the project called Longitudinal de la Sierra Highway Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho/Ayacucho - Andahuaylas – Sahuinto Bridge/Dv. Pisco – Huaytará – Ayacucho.


4. POWERS OF THE COMMITTEE AND PROINVERSIÓN
The Committee aims at leading the private investment promotion process of the bid to grant the concession of the Longitudinal de la Sierra Highway Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho / Ayacucho - Andahuaylas - Sahuinto Bridge/ Dv. Pisco - Huaytará - Ayacucho. As such, it is empowered, among other things, to promote, organize, regulate, modify, manage, monitor, control and dictate all provisions which are relevant or they deem necessary for the implementation of this process, including amendments to the Bidding Terms and Conditions. In addition, it is empowered to resolve what is not provided in the Bidding Terms and Conditions or Applicable Laws and, in general, to exercise all other powers assigned by the Applicable Laws.

The Committee may extend the terms indicated in these Bidding Terms and Conditions. This Bid may be suspended or cancelled if deemed convenient by the Committee, without expressing any cause and without any liability as a consequence therein, according to Section 17.2. All amendments to these Bidding Terms and Conditions will be communicated, through Circular letters to the Bidders or to the Pre-shortlisted Bidders.

The mere presentation of the planned information and/or requested by the Committee for pre-shortlisting purposes by a Bidder does not oblige the Committee to declare it as Pre-shortlisted Bidder, nor submitting a proposal requires the Committee to accept it.

The sole submission of documents by the bidder implies full knowledge, acceptance and unconditional submission by the Bidder, the Pre-shortlisted
Bidder or the Successful Bidder, as appropriate, to each and every one of the procedures, obligations, conditions and rules without exception established in the Bidding Terms and Conditions, the same that have legally binding nature for those, as well as their irrevocable and unconditional waiver to file before any jurisdiction or authority, any action, claim, demand or request for compensation against the State, PROINVERSION, the Committee, advisors, or any other entity, agency or official of the Government of Peru for the exercise of the option provided in these Bidding Terms and Conditions.

Except where expressly provided to the contrary, decisions of PROINVERSIÓN Committee or Steering Council, as appropriate, regarding this Bid are definitive and shall not give rise to compensation of any kind and are not subject to challenge at the administrative or judicial field. Consequently, with the mere participation in the bid, individuals who fall under the scope of these Bidding Terms and Conditions waive filing any legal challenge against such decisions.

5. CONCESSION DRAFT CONTRACTS
Draft Contracts shall be made available to the bidders, who may submit their comments and/or suggestions within the deadlines specified in Circular letters with which the draft contracts are to be sent, with the same formalities prescribed in section 10.1b). The Committee shall evaluate whether or not to include the suggestions the Bidders or Pre-shortlisted Bidders formulate to the draft contracts.

The final version of the Concession Contract approved by the Steering Council will be informed to the Bidders, according to the Schedule (ANNEX N° 11).

6. BID SCHEDULE
Schedule activity dates are included in ANNEX N° 11.

The Committee may modify the Schedule dates at any time, which will be communicated to the interested parties through a Circular letter.

Except as otherwise expressly stated, the maximum hour of the day is the 17:00 hours of Lima - Peru.

7. INTERPRETATION AND REFERENCES
Terms and expressions used in these Bidding Terms and Conditions shall be construed in their natural and obvious sense unless specifically been assigned another meaning in this document or its annexes, or the context otherwise requires it; and in any case according to the rules in force in Peru. It shall be considered, without admitting evidence to the contrary, that all participants in this process knows the laws and regulations in Peru and applicable to this case.

Titles of chapters, sections, forms and annexes of the Bidding Terms and Conditions are exclusively used for indicative purposes and shall not affect the interpretation of their content.
8. TECHNICAL BACKGROUND AVAILABLE TO BIDDERS

Different technical background and studies made will be available for Bidders in the Data Room referred to in Section 10.2 of these Bidding Terms and Conditions.

The studies comprising the technical background will be available to Bidders which are indicated in Appendix 1 of ANNEX N° 8.

9. AUTHORIZED AGENTS AND LEGAL REPRESENTATIVE

9.1. Authorized Agents

a) Appointment of Authorized Agents
Each Bidder shall appoint one or two natural persons with common domicile in the city of Lima or Callao as their Authorized Agents, for purposes of this bid.

b) Appointment Letter
The appointment of Authorized Agents shall be made by a simple letter signed by the Bidder expressly indicating their authority and stating the appropriate information, as stated in paragraph 9.1c) and d). Also the affidavit indicated in Form 1 Annex N°1 shall be attached.

c) Powers of attorney Granted
Authorized Agents duly appointed may indistinctly act, and not necessarily jointly and will be the only persons authorized by the Bidder to:

i. Represent the Bidder before PROINVERSIÓN, the Committee and the advisors on every affair other than those which are exclusive jurisdiction of the Legal Representative pursuant to Section 9.2.

ii. Reply, on behalf of the Bidder and with binding effect for the grantor, all the questions made by the Committee.

iii. Receive administrative, judicial or extra judicial notifications; and

iv. Subscribe, with binding effect for the Bidder, the Non-Disclosure Agreement referred to in Section 10.2b).

d) Information
The information the Bidder shall provide with respect to each of the Authorized Agents will be: name, identity card, common address, telephone numbers and facsimile in the city of Lima or Callao and two (2) electronic addresses (emails). The Bidder shall communicate in writing to the Committee if the above information is changed.

e) Notifications
All extra judicial notifications, including Circular letters, addressed to the Bidder may be made to any of the Authorized Agents by fax, with
complete transmission confirmation, issued by the addressee of the corresponding communication through another fax, in which case it shall be understood as delivered on the date of completion of the transmission of the sender; or by letter delivered by courier or notarized, in which case the notification shall be understood as delivered on the date of its delivery, understood as well made and efficiently made any notification in the common address specified by the Authorized Agents referred to in Section 9.1d), or by electronic mail to the electronic address indicated in section 9.1d) The Bidder accepts to have well received the Circular letters sent by email at any time within the range established in the Schedule and is therefore understood that the mere fact of submitting the documents referred to in section 9.1b), the Bidder gives consent to the Committee to make electronic notifications from the mail with the institutional web domain specified in 10.1 b).

f) Replacement
The Bidder, prior written communication addressed to the Committee and by complying with the same requirements indicated in Section 9.1b), may replace any of the Authorized Agents. The replacement will have effect on the following day of the date in which the corresponding communication issued by the Bidder, was received by the Committee.

9.2. Legal Representative

a) Appointment and Powers of attorney
i. The Bidder may only appoint up to two common Legal Representatives to represent him, jointly or individually, as provided in this Section. The address, fax number, phone number and e-mail of the legal representatives, as well as its replacement, are subject to the provisions of Section 9.1 d), e) and f).

ii. The powers of attorney granted to each of the Legal Representatives shall be sufficiently broad so as to authorize any of them, jointly or individually to sign on behalf of their power grantor all documents required by the Bidding Terms and Conditions, including, specifically, the power to initiate challenge proceedings foreseen in the Bidding Terms and Conditions and sign Proposal Submission Letters.

iii. Documents submitted in Envelopes Nº 1, Nº 2 and Nº 3 and, in general, all documents submitted by a Bidder with relation to the bid, shall be signed or endorsed by its legal representative, as appropriate, who shall be duly empowered for said purpose, according to the provisions set forth in this section.

iv. In case the Bidder or its members come from a contracting state member (signatory) of the “Agreement Abolishing the Requirement of Legalization of Foreign Public Documents” adopted on October
5, 1961 in the City of The Hague, Kingdom of the Netherlands, approved by Legislative Decision N° 29445 and ratified by Supreme Decree N° 086-2009-RE, only those documents shall comply with the conditions set forth in the said agreement, as long as the country concerned has not observe the membership of Peru.

b) Submission of Power of attorney
   i. The power of attorney by which the Legal Representatives are appointed shall contain the corresponding representation powers. It shall be submitted in Envelope N° 1.

   ii. During the bid the power of attorney accreditation of the Legal Representative may be made as follows:

       • Through general power of attorney granted in the incorporation document.
       • Through special power of attorney.

   iii. The appointment of a new Legal Representative will only take effect from the day following the date on which the Committee received the documents evidencing such appointment properly.

c) Place and formalities for granting of power of attorney
   i. The power of attorney granted outside Peru appointing a Legal Representative shall be:

       • Duly extended or authenticated before the competent Consulate of Peru, enclosing an uncertified translation into Spanish in case of issuing it in different language.
       • Countersigned by the Ministry of Foreign Relation of Peru.

   ii. Powers of attorney granted in Peru shall be registered through a public deed or in a notary certified copy of the minutes in which the corresponding corporation organ grants them.

   iii. If the Bidder comes from a Member Contracting country (signatory) of the “Agreement Abolishing the Requirement of Legalization of Foreign Public Documents” adopted on October 5, 1961 in the city of The Hague, Kingdom of the Netherlands, approved by Legislative Resolution N° 29445 and ratified by Supreme Decree N° 086-2009-RE, the power of attorney granted outside Peru appointing a legal representative shall not require the extension or legalization referred to in section 9.2 c), being enough that it meets only the conditions set forth in the said agreement, as long as the country concerned has not observed the membership of Peru.
d) Registration in the Registry Office
Under no circumstances, at the time of submission, the powers of attorney of the Legal Representative shall be required to be registered in the Public Registry.

10. INQUIRIES AND INFORMATION

10.1. Inquiries on the Bid Terms and suggestions to the Draft Contract

a) Term for inquired and suggestions
As from the date of notice referred to in Annex 11 and as to the date stated in that Annex, Bidders, through their Authorized Agents and/or Legal Representatives may make inquiries about the Bidding Terms and Conditions. They also may make suggestions to the draft contract based on the dates indicated in the respective Circular letter. The Committee shall not be obliged to accept or reply the suggestions the Bidders or Pre-shortlisted Bidders formulate to the Draft Contract.

b) Formality of inquiries and suggestions
Inquiries and suggestions shall be submitted in written and in Spanish, and shall be addressed to:
Longitudinal de la Sierra Project Section 4
PROINVERSIÓN
Av. Enrique Canaval Moryera N° 150, Piso 8 – San Isidro-Lima -Perú
Telephones: 2001200 extension 1292
Fax [511] 2212935
E-mail: tramo4longitudinaldelasierra@proinversion.gob.pe

c) Circular letter
i. Replies of the Committee to inquiries on Bidding Terms and Conditions will be communicated through Circular letter to all the Bidders or Pre-shortlisted Bidders, according to the case, without indicating the name of the person who made the consultation.

ii. The Committee is not obliged to respond to inquiries on the Bidding Terms and Conditions that bear no relationship with this bid.

iii. Similarly, if the Committee, at any time deems necessary to clarify, specify, amend or complement the Bidding Terms and Conditions, it shall issue a circular letter to that effect. This Circular letter shall be addressed to the Authorized Agents according to that indicated in paragraph 9.1 e) of these Bid Terms. All issued Circular letter are available on the PROINVERSION website.

iv. After the deadline for pre-shortlisting of Bidders, Circular letters shall only be notified to the pre-shortlisted Bidders, and after the
submission of Envelopes N° 2 and 3, only to Bidders who submitted proposals.

v. Circular letters issued by the Committee shall be part of these Bidding Terms and Conditions, consequently, they shall be legally binding for all Bidders and Pre-shortlisted Bidders.

vi. Circular letters may be also issued to communicate to Bidders information related to the process, prior the Committee approval.

10.2. Access to Information: Data Room

a) Access to Data Room

i. Bidders who have paid the right to participate in the Bid and have signed the Non-Disclosure Agreement shall have access, until the date indicated in the Schedule, to the information related to the Longitudinal de la Sierra Highway Section 4: Huancayo – Izcuchaca – Mayocc - Ayacucho/Ayacucho – Andahuaylas – Sahuinto Bridge/Dv. Pisco – Huaytará - Ayacucho that will be available for its consultation in the Data Room. Such Data Room is located at the PROINVERSIÓN premises, located at Av. Enrique Canaval Moreyra N° 150, 7th floor, San Isidro, Lima 27, Peru.

ii. Access to the Data Room shall be coordinated based on the rules established for its operation contained in the Manual of Access and Use of Data Room, ANNEX N° 8 of these Bidding Terms and Conditions.

iii. Bidders, through written communication sent to the Project Leader by any of its Authorized Agents or Legal Representative, shall indicate the name of the persons who shall have access to the Data Room. The Project Leader shall timely coordinate the effective organization of visits to the Data Room.

b) Non-Disclosure Agreement

Authorized Agents shall sign the Non-Disclosure Agreement included in Form 4 of ANNEX N° 8, in order to have access to the Data Room.\(^\text{15}\)

c) Contents of information in the Data Room

Information of the Data Room is indicated in Appendix 1 of ANNEX N°8.

Any document incorporated to the Data Room shall be communicated through Circular letter.

d) Request of Interviews

All Bidders, through the Authorized Agents and/or Legal Representatives, as appropriate, shall be entitled to request

\(^{15}\text{Amended by virtue of Circular letter No. 4}\)
interviews with Committee officials, the Investment Promotion Director or the Head in Road Topics until the day before the deadline to submit Envelope N° 1 and, in the case of Pre-shortlisted Bidders, they may do so until a day before the submission of Envelopes N° 2 and N° 3.

e) Limitations of Liability

i. Independent decision of Bidders

All Pre-shortlisted Bidders shall base their decision to submit Envelope N° 2 and Envelope N° 3 on their own investigations, surveys, inspections, visits, interviews, analysis and conclusions on the information available and that it has particularly sought, in own and sole risk.

ii. Limitations of Liability

The State or any agency, PROINVERSION, the Committee, consultants or advisers are not liable, do not guarantee, either expressly or implicitly, the totality, integrity, reliability or truthfulness of oral or written information supplied to the effect or within the bid. Therefore, none of the persons participating in the bid may attribute any responsibility whatsoever to any of the aforementioned parties or their representatives, agents or employees for the use that may be made of such information or for any inaccuracies, failure, defect, lack of updating or any other cause not expressly contemplated herein.

iii. Scopes of Liability Limitation

The limitation referred to in Section 10.2 e) ii. includes, in the broadest way possible, all information related to the bid that is effectively known, unknown information and information should have been known at some time including likely errors or omissions therein contained, by the State or any agency, organism or official of it, or by PROINVERSION, the Committee or its advisors. Likewise, said liability limitation includes all the information, whether or not supplied or prepared, directly or indirectly, by any of the aforementioned parties.16

The liability limitation also extends to all information available in the Data Room, as well as that supplied through Circular letters or any other form of communication, which is acquired during visits to the facilities connected to the bid and those mentioned in these Bidding Terms and Conditions, including all its Forms and ANNEXES.

The Bidder shall not claim for the differences that may be found during the execution of the Contract (studies and interventions) in relation to any reference information included in the Data Room.

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16 Amended by virtue of Circular letter No. 4
including feasibility studies and initial and maintenance work programs. 17

f) Acceptance by the Pre-shortlisted Bidder of the provisions of Section 10.2 e)

The sole submission of the Forms provided in the Bidding Terms and Conditions, shall constitute, with no need of any further act, acceptance of all the provisions in Section 10.2 e) by the Bidder and, where appropriate, of the CONCESSIONAIRE as well as their irrevocable and unconditional waive, in the broadest way possible that Applicable Laws so permit, to file any action, counterclaim, exception, claim, demand or request for compensation against the state or any agency, organism or official thereof, or by PROINVERSION, the Committee, or it or the advisers.

11. SUBMISSION OF ENVELOPES Nº 1, Nº 2 AND Nº 3

11.1. Submission

Any document that is submitted by a Bidder, in excess of the requirements of Envelopes Nº 1, Nº 2 and Nº 3 shall not be considered for purposes of the corresponding assessment.

11.2. Submission of general documentation for Pre-shortlisting (Envelope Nº1)

The documentation for pre-shortlisting contained in Envelope Nº 1, shall be submitted at the Committee offices located at Av. Enrique Canaval Moreyra Nº 150, San Isidro - Lima, Peru, within the term indicated in ANNEX Nº 1 1.

The submission of Envelope Nº 1 will be performed before the Committee or before the persons it shall appoint, in presence of a Notary Public, in the terms indicated in the Schedule.

11.3. Submission of Envelopes Nº 2 and Nº 3

The Bidder shall submit Envelope Nº 2 and Envelope Nº 3, in the offices of PROINVERSION located in the building at Av. Enrique Canaval Moreyra Nº 150, San Isidro, Lima, Peru.

Envelopes Nº 2 and Nº 3 shall be presented to the Committee or the persons it may appoint, in presence of a Notary Public, on the date, hour and place indicated through a Circular letter.

11.4. Submission of Envelopes by Authorized Agent or Legal Representative

Envelopes Nº 1, Nº 2 and Nº 3 may only be submitted personally by one of the Authorized Agents or by the Legal Representative of the Bidder. Documents sent by mail, fax or any other type of communication shall not be accepted or received.

17 Included by virtue of Circular letter No.19
11.5. **Language**

Unless expressly stated otherwise, all documents shall be submitted in Spanish or accompanied by a simple translation into Spanish. In case of any discrepancy between the texts in both languages, Spanish text shall prevail.

11.6. **Original Documents and Copies**

Documents comprising Envelopes N° 1 and N° 2 shall be submitted in original or authenticated copy by a notary, in two envelopes duly marked as "Original" and "Copy". Documents making up the envelope marked "Copy" shall correspond to the single copy of the documents comprising the envelope marked as "Original".

The document comprising Envelope N° 3 shall be submitted in original, in two copies of envelopes duly marked as "Original" and "Copy" on the first page. The document making up envelope marked as "Copy" shall correspond to a single copy of the documents comprising the envelope marked "Original".

In case the Bidder or its members come from a contracting member country (signatory) of the “Agreement Abolishing the Requirement of Legalization of Foreign Public Documents” adopted on October 5, 1961 in the City of The Hague, Kingdom of the Netherlands, approved by Legislative Resolution N° 29445 and ratified by Supreme Decree N° 086-2009-RE, and if those documents had been issued abroad shall comply only with the conditions established in the said agreement, provided the respective country incorporated has not observed the membership of Peru.

11.7. **Form of Submission of Envelopes N° 1, N° 2 and N° 3**

Envelopes shall be submitted closed and clearly marked on their obverse with the Bidder’s name and with the indications "Envelope N° 1", "Envelope N° 2" or "Envelope N° 3", respectively.

All documents submitted in Envelopes shall be perfectly legible and shall be clearly paged, in a correlative way and initialed on each page. Likewise, a detailed list of all the documents included in each Envelope shall be included.

In case of any discrepancy between a figure expressed in numbers and in letters, the figure expressed in letters shall prevail.

11.8. **Cost of preparation and submission**

The Bidder shall bear all costs or expenses, direct or indirect, incurred in connection with the preparation and submission of Envelope N° 1, N° 2 and N° 3, as appropriate. The State or any agency, body or official thereof, or PROINVERSION, the Committee, or advisors shall not be liable in any way for those costs, regardless of the way the bid is made, the result of it, or if it is suspended or canceled.
12. PRESHORTLISTING REQUIREMENTS : CONTENT OF ENVELOPE Nº 1 (CREDENTIALS)

12.1. General Information
Legal persons or consortia may participate in this bid.

A legal person directly or indirectly, individually or through a consortium cannot participate in more than one Bidder.

The amount of the Participation Right to participate in the bid and to submit Envelope Nº 1, is One thousand and 00/100 American Dollars (US$ 1,000.00). This amount is not refundable.

The Bidder, who decides not to participate in the bid, may transfer the participation right to a legal person of its group or to a third party. For this purpose, the acquirer of said right shall submit in Envelope Nº 1 a communication by which the transfer on its behalf is credited, with authenticated signature of the grantor.

The Bidder shall demonstrate its commitment to submitting accurate information, by submitting FORM 1 of ANNEX 2, which shall be considered as Affidavit. The Affidavit shall be submitted to the Committee by simple document signed by the Legal Representative of the Bidder, whose signature shall be authenticated by a Notary Public or by the Consul of Peru in the country where it is domiciled.

The Committee reserves the right to verify the accuracy of all documentation submitted by the Bidder during the different stages of the bid, without involving in any way limiting the Bidder's responsibility for the possible failure or lack of veracity of the data or information presented.

The lack of accuracy or failure in data or information submitted by the Bidder in this bid, will cause the Committee to disqualify the Bidder at any stage.

12.2. Bidder Pre-shortlisting Requirements
Bidders for Pre-shortlisting purposes shall comply with the following requirements:

a) Operation Capacity
   For purposes of crediting the operation pre-shortlisting of the Bidder, in accordance with the requirements stated below, Form 2 and Form 3 of ANNEX 2 shall be submitted in addition to original or a copy of the relevant supporting documentation of the submitted information.

   In case of Consortiums, experience in operation shall be accredited by the Strategic Partner.
To prove the operation capacity established in the Bid Terms, the following provisions shall be considered:

i. The Bidder shall prove that in the last ten (10) years, it is operating or has operated one or more asphalted road concessions making a total of at least 100 kilometers, or that over the past five (5) years is operating or has operated one or more asphalted road concessions making a total of at least 50 kilometers. In both cases, extension of the two directions of the road, is counted provided they are different roads (highway) and for a period of two (02) years accumulated. In no case the Concessions shall have expired due to Operator responsibility.

ii. The Bidder or a member thereof, in case of a Consortium, that seeks to invoke his participation in previous projects, to demonstrate compliance with the operation requirements pursuant to these Bidding Terms and Conditions shall prove:

- Have taken part with a minimum of twenty percent (20%) in the company or consortium that was formed to operate the concession.

Such participation may also be accredited through subsidiaries of the Bidder or member thereof in case of a Consortium, stating the experience, provided that the Bidder or Consortium member should have actual control in the subsidiary.

- Have kept a contractual relation for the concession operation.

In any case the concession contracts or another kind of contractual operation relationship shall have expired by the Concessionaire or operator responsibility.

b) Legal Requirements
The Bidder, in case of a legal person or a consortium of legal persons, shall submit or prove the following:

i. Authenticated copy of the Bidder’s articles of incorporation in the case of being a legal person. In case it is a Consortium, the articles of incorporation of each one of its membership

ii. Accreditation of the existence of legal person with document issued in the last ninety (90) calendar days to the pre-shortlisting date by the corresponding authority of the country of origin of the Bidder, and the submission of Form 1A of ANNEX N° 3.

iii. If the Bidder is a Consortium in addition to the above mentioned requirements, the Bidder shall submit an affidavit signed by the Legal Representative and the Legal Representatives of each of the Consortium members, confirming its existence and solidarity.
regarding the obligations assumed and affidavits, drawn up according to the model attached as Form 1B of ANNEX N° 3.

iv. An Affidavit, according to the model that appears in Form 2A and FORM 2B of ANNEX N° 3, as appropriate, signed by the Legal Representative of the Bidder, indicating the percentage of participation corresponding to each one of its shareholders or partners. In the case of Consortia, said information shall also be required regarding each one of its members, as appropriate.

v. The Bidder, one of its shareholders or partners, or a Company Related to the Bidder or to any of its shareholders or partners has been the person who paid or acquired through right transfer, the right to participate in the bid. To prove this, submitting a legalized copy of the payment voucher of said right or the communication by which the transfer in its favor is credited, according to Section d) of Clause 12.2, as appropriate shall suffice. Additionally, an Affidavit shall be submitted explaining the way of acquisition of the participation right.  

vi. To have a Legal Representative pursuant to the requirements established in Section 9.2, accrediting it by submitting an authenticated copy of the corresponding power of attorney.

vii. That the Bidder, or its members in case the Bidder is a Consortium: i) are not sanctioned administratively with temporary or permanent disqualification from exercising their rights to participate in the selection processes summoned by state agencies or from celebrating Contracts with the State; ii) are still CONCESSIONAIRE for not breaching a concession contract celebrated with the State of the Republic of Peru, signed under the framework of the promotion of private investment referred in the TUO of Concessions approved by Supreme Decree N° 059-96-PCM or Law N° 28059, Framework Law of Decentralized Investment and do have any of the impediments set forth in the First Complementary Final Disposition of Law N° 30283. To this end, the Bidder will need to subscribe, through its Legal Representative, an affidavit conforming to the model attached as Form 3 of Annex 3.

Once awarded the bid, such requirements shall be met in turn by members of the CONCESSIONAIRE signing the contract.

viii. An affidavit expressing that the Bidder waives to invoke or exercise any privilege or diplomatic immunity or another, or claims through diplomatic channels and any claim that could be

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18 Amended by virtue of Circular letter No. 4
19 Amended by virtue of Circular letter No. 8
invoked by or against the State or its agencies; PROINVERSIÓN; the Committee, its members, advisors and consultants, under Peruvian law or under any other law with respect to its obligations on the Bid Terms, the Economic Proposal, Technical Proposal and the Contract.

Said Affidavit shall be submitted according to Form 4ª or Form 4B of ANNEX N° 3, according to the following:

- Form 4A of ANNEX N° 3 for that Bidder who has not listed its shares on stock exchange. In case of Consortium, it will be submitted only by those members of the Consortium who do not have their shares listed on stock exchange.

- Form 4B of ANNEX N° 3 for that Bidder who has listed its shares in stock exchange. In case of Consortium, it will be submitted only by those members of the Consortium who have their shares listed on stock exchange.

If it is a Consortium composed by companies listed and not listed in the stock exchange, both forms shall be submitted based on the abovementioned provisions.

ix. An affidavit drawn up according to Form 5 of Annex 3, duly signed by the Legal Representative of the Bidder declaring that the Bidder’s Advisors have not directly supplied any kind of services in favor of PROINVERSION and the Committee, either full-time, part-time or temporary kind, in connection with this process of promoting private investment in the last year computed from the date of pre-shortlisting.

x. An affidavit by which the Bidder declares not having direct or indirect interest in any other Bidder, according to Form 6A or Form 6B of Annex 3, as applicable:

- Form 6A of ANNEX N° 3 for that Bidder who has not listed its shares in the stock exchange. In case of Consortium, only those members of the Consortium who have not listed their shares on the stock exchange shall submit it.

- Form 6B of ANNEX N° 3 for that Bidder who has listed its shares in the stock Exchange. In case of Consortium, only those members of the Consortium who have listed their shares on the stock Exchange shall submit it.

If it is a Consortium composed by companies listed and not listed in the stock exchange, both forms, shall be submitted based on the abovementioned provisions.

xi. Incorporation Commitment

The Bidder and each of its members, in the case of a consortium shall submit according to Form 7 of Annex 3, an Affidavit of their
intention of organizing a concession corporation in Peru, the same which may adopt any of the corporate modalities regulated by the General Corporations Act.

In the CONCESSIONAIRE shareholder structure, the Strategic Partner shall own and keep a minimum share that may never be less than 35%.

The Bidder or member of the Consortium that has accredited the operational requirements during the bid and which is formed as the Strategic Partner shall own and keep its Minimum Share up to two years following the completion of the Rehabilitation and Improvement and the Initial Periodic Maintenance from which it may transfer or assign the conditions laid down in the Concession Contract.

Those who are themselves within the scope of Article 1366 of the Civil Code may not be Bidders.

c) Financial Requirements
The Bidder shall prove compliance with the following financial requirements:20 21 22

i. The Bidder shall demonstrate having a minimum net worth of one hundred and one million two thousand three hundred and seventy one and 00/100 US Dollars (US $ 131 200 371.00).

ii. If the Bidder is a consortium, the Strategic Partner shall demonstrate having a minimum net worth of forty five million nine hundred and twenty thousand one hundred and thirty and 00/100 American Dollars (US$ 45 920 130.00)

iii. If the Bidder is a consortium, each member, different from the Strategic Partner, shall demonstrate having a minimum net worth of thirty nine million three hundred and sixty thousand one hundred and twelve and 00/100 American Dollars (US$ 39 360 112.00), with exception of the companies that have been incorporated for less than three years.

iv. The total minimum net worth value shall be determined by the sum of the net worth of each member of the Consortium.

v. Financial information referred to in this section may be submitted in Spanish or in English, requiring simple translation if submitted in English. It shall be submitter pursuant Form 1 of ANNEX 4, signed in original by the Legal Representative. The Bidder shall provide either their own financial figures or their

20 Amended by virtue of Circular letter No. 6
21 Amended by virtue of Circular letter No. 10
22 Amended by virtue of Circular letter No. 15
members figures, in case of Consortium, those of their shareholders, or the company related to them. The Bidder shall also submit information according to the Form 2 of ANNEX 4.

In addition, they shall submit their corresponding audited financial statements from the three (3) years available or similar documents, of the Bidder or its members, in case of a consortium or the corresponding Related Companies of the Bidder, if applicable.

A member of the Bidder who has been incorporated for less than three years shall not be required to submit financial statements, therefore its contribution shall not be considered in the accreditation of the minimum net worth.

vi. A reference letter (Form 3 of ANNEX 4) issued by a Banking Entity or an International Financial Institution under the listing 1 or Listing 2 of Annex 1 of the Bidding Terms and Conditions, indicating the seniority of the Bidder as customer and creditworthiness shall be included.

The reference letters may be issued in favor of the Bidder, of any of its members, in case of Consortium, of its shareholders or partners, or of the related companies to them.

d) Verification of information submitted to the Committee

From the submission of the documentation referred to in Section 11.2 and until the date of signing the contract, the Bidder agrees to make available to the Committee all documents that may be requested by it, in order to verify the veracity of the documents submitted in accordance with this section.

13. SUBMISSION OF THE CONTENT OF ENVELOPE N° 1 AND PRESHORTLISTING RESULTS

13.1. Submission of the content of Envelope N° 1

a) Bidders shall submit their envelopes N°1 prior appointment, within the period specified in the Schedule (ANNEX N° 11).

b) Envelope N° 1 shall be received by the Committee or by an Evaluation Commission of Envelope N°1 appointed by the Committee, and shall be opened in the presence of a Notary Public. The submission of the Bidder and the number of pages of the documentation included in that Envelope 1 shall be recorded in a Minute

c) In the minute referred to in the preceding paragraph, the reception of documents contained in Envelope N° 1 and the objections the Bidder may formulate shall be included.
d) If any of the documents requested in Envelope N° 1 are missing, it shall be returned and may be resubmitted according to indications made in the preceding paragraphs, leaving a record in the above mentioned minute.

e) After the opening ceremony of Envelope N° 1, the Bidder shall not have information concerning the qualification thereof, until the Committee's decision has been made known to the Bidder.

13.2. Evaluation of the content of Envelope N° 1

a) If the Evaluation Commission considers that there are remediabale errors (formal defects, clarification) in Envelope N° 1, the Commission shall request the Bidder in writing to remedy or comply with the observation, granting the Bidder a term which may not exceed the maximum term specified in ANNEX N° 11.

b) Additionally, in order to facilitate the review, verification and data comparison and requirements, the Evaluation Commission of Envelope N° 1 may ask any Bidder to clarify the information contained in Envelope N° 1, without implying any modification of contents. The request for clarification and the response shall be in writing, in accordance with the provisions of the preceding paragraph.

c) At the suggestion of the Evaluation Committee of Envelope N° 1, the Committee shall issue its decision, within the maximum period established in the Schedule, on the Pre-shortlisted Bidders who can participate in the following stages of the bidding process.

13.3. Simplification Mechanism

The Simplification Mechanism in the submission of the documentation required in the Pre-shortlisting Envelope (Envelope N° 1), shall operate according to the following rules:

a) The Bidder shall request the Investment Promotion Direction a "Certificate of Good Standing of Pre-shortlisting Documents/ Credentials" indicating the documentation that was submitted in any other process for the purposes of pre-shortlisting or presentation of credentials, and the submission date of such documentation. This certificate shall not be issued with respect to documentation kept by the Committee for more than two years.

b) The Bidder that submitted pre-shortlisting documents or credentials in a particular process will only be obliged to submit, for the purpose of applying for pre-shortlisting or submit credentials in another process: i) the Certificate of Good Standing of Pre-shortlisting Documents; ii) an affidavit stating that the documentation referred to in the "Certificate of Good Standing of Prequalification Documents/ Credentials" is still valid, according to Form 4 of Annex N° 2; iii) any new or additional documentation regarding the previously submitted,
in accordance with the requirements of each one of the Bidding Terms and Conditions; iv) proof of payment of the Right of Participation and, v) the validity of power of attorney of the Bidder and of each of its members in case of consortium.

The Committee or the Evaluation Commission, as appropriate, shall verify the validity of the affidavit and its applicability to the pre-shortlisting process to which it is subjected, and shall proceed to the respective assessment in accordance with the provisions of the Bidding Terms and Conditions.

13.4. Announcement of Pre-shortlisted Bidders

a) The Committee, within the term for pre-shortlisting, indicated in ANNEX N° 11 will inform each Bidder, the result of the pre-shortlisting process through written communication.

b) Any Pre-shortlisted Bidder may form a consortium until the date specified in the Bid Schedule. Also in that period the Pre-shortlisted Bidders as Consortium may make changes in their composition. In either case they may be associated with other Pre-shortlisted Bidders or with third parties. The new Consortium on the term foreseen in the schedule, shall comply with the pre-shortlisting requirements by submitting the prequalification documents the Bidding Terms and Conditions required for this purpose.

c) Changes shall be put under consideration of the Committee within the indicated deadline, which reserves the right to accept these changes.

d) In case any member of a Pre-shortlisted Bidder as Consortium decides to withdraw from the Bid, the Committee shall be informed within the term established in the Bid Schedule. To this end, the Pre-shortlisted Bidder shall submit another legal person to replace him, only to the extent that the members to remain in the Pre-shortlisted Bidder do not meet the pre-shortlisting requirements. If it is the case, the Pre-shortlisted Bidder will put under the consideration of the Committee, the new member for its assessment, within that period. In case the Pre-shortlisted Bidder does not present the new member, its pre-shortlisting will become invalid for the bid, which will be communicated by the Committee.

e) The decision of the Committee regarding the pre-shortlisting will be final and shall not be challenged.

14. CONTENT OF ENVELOPES Nº 2 AND Nº 3


a) The documents to be submitted in Envelope Nº 2 will be integrant part of the Concession Contract, and shall have binding nature.
b) In the event that any of the documents listed below is missing, the Committee will consider Envelope N° 2 as not submitted. Only the correction of errors or defects of not substantial character in the documents comprising the Envelope N° 2 shall proceed.

c) Envelope N° 2 with the Technical Proposal shall include the following:

**Document N° 1: Affidavits**
The Bidder shall submit the following Affidavits:

i. Affidavit (Form 2 of ANNEX 5) by which the information, representations, certification and, in general, all information submitted in Envelope N° 1 shall be confirmed to be currently in force and that will remain in effect until the Contract Subscription Date.

ii. Affidavit (Form 3 of ANNEX N° 5) of having made the recognition of the Road Sub Sections subject matter of the concession, and commitment to comply with the execution of the Rehabilitation and Improvement and the Initial Periodic Maintenance according to the Final Engineering Study and Environmental Impact and to the technical files formulated by the CONCESSIONAIRE and approved by the GRANTOR in due time.

iii. Affidavit (Form 4 of ANNEX N° 5) to assume the commitment to comply with the recommendations of road security approved by the regulations in force.

**Document N° 2: Acceptance of the Bidding Terms and Conditions and Contract**
The Bidder shall submit an affidavit indicating that it knows the Bidding Terms and Conditions and Circular letters and accepts the final version of the contract to be delivered on the date indicated in ANNEX N° 11 and agrees that in the case of being the Successful Bidder, the Concession Contract will be signed by the incorporated Concessionaire according to indications made in Section 12.2, subparagraph b) xi.

This document shall be submitted according to the samples included as Form 5A of ANNEX N° 5, if the bidder has not listed its shares on a stock exchange or according to Form 5B of Annex 5, in the case of companies that list on any stock exchange, as appropriate.

**Document N° 3: Concession Contract**
A copy of the Concession Contract endorsed on each of its pages by the Legal Representative of the Pre-shortlisted Bidder in acceptance of the terms and conditions thereof.
Document N° 4: Warrant of Validity, enforceability Effectiveness and Seriousness of the Proposal

The Bidder shall guarantee the validity, effectiveness and seriousness of the Technical and Economic Proposal, and must submit a guarantee in the terms stated in Section 2.38 and according to the sample indicated in Form 1 of ANNEX N° 5 of the Bidding Terms and Conditions.

14.2. Content of Envelope N° 3: Economic Proposal

a) The documents to be submitted in Envelope N° 3 will be an integral part of the Concession Contract, to which it shall be automatically incorporated and shall have binding nature.

b) The Committee shall timely communicate, through a Circular letter, the referential PRI, APIPM and APMO that shall be considered as competence factor by the Pre-shortlisted Bidders in their Economic Proposal.

c) Amounts to be consigned by the Bidders in their Economic Proposal of Annex N° 6, shall be in integer numbers and shall be within the references established by the Committee for the proposals of PRI, APIPM and APMO. Otherwise, the Economic Proposal shall not be considered as valid.

d) Envelope N° 3 with the Economic Proposal will be submitted according to Form 1 of ANNEX N° 6, expressing its proposal, and shall contain the following:

i. Payment for Rehabilitation and Improvement (PRI): Economic proposal submitted by the Bidder for payment of concept referred in Section 2.55.

ii. Annual Payment for Initial Periodic Maintenance (APIPM): Proposal submitted by the Bidder for payment of the concept referred in Section 2.52.


e) In case of tie the Pre-shortlisted Bidders shall submit Form 2 of Annex N° 6 according to the provisions set forth in Section 14.2 of the Bidding Terms and Conditions.

f) The Economic Proposal shall be effective, as minimum, until one hundred and twenty (120) calendar days after the submission date of envelopes N° 2 and N° 3. Economic Proposals with a lower effective term shall not be accepted.

g) For purposes of this bid, the submission of envelope N° 3 is an irrevocable Economic Proposal, with the submission of the Pre-
shortlisted Bidder who submits it, without exception, to all the terms and conditions of the contract.

15. RECEPTION OF ENVELOPES Nº 2 AND Nº 3 AND OPENING OF ENVELOPE Nº 2.

15.1. Submission of Envelopes Nº 2 and Nº 3 and Opening of Envelope Nº 2

a) Envelopes Nº 2 and Nº 3 shall be submitted according to the general rules foreseen in Section 11 of these Bidding Terms and Conditions. Without prejudice of it, the Committee shall grant thirty (30) minutes of tolerance for its submission. In case that all Pre-shortlisted Bidders are present before the President of the Committee or the person who replaces him, before elapsing the tolerance term, the Committee may begin the act.

b) The Chairman of the Committee or the person who replaces him will receive Envelopes Nº 2 and Nº 3 in the presence of a notary, who in each case, shall proceed to the opening of Envelope Nº 2, in the order they were submitted by the Pre-shortlisted Bidders.

c) Once Envelope Nº 2 is opened, the Notary shall sign and seal all pages of the documents contained therein and shall deliver them to the Committee for evaluation based on the provisions of Section 15.2.

d) Unopened Envelope Nº 3 shall remain in custody of the Notary Public until the opening date of Envelope Nº 3, according to the Schedule (ANNEX Nº 11).

e) The Notary Public shall prepare a minute, in which it shall be evidenced the reception of Envelopes Nº 2 and Nº 3 and opening of Envelope Nº 2, which shall be signed by the members of the Committee and the Bidders who want to do so.

15.2. Evaluation of content of Envelope Nº 2

a) The documents contained in Envelope Nº 2 will be analyzed by the Committee, or by an Evaluation Commission of Envelopes Nº 2 to be appointed. The Committee shall issue an opinion about the documents submitted by the Bidders.

b) If the Committee or the Evaluation Commission of Envelopes Nº 2 determines the existence of any non-substantial defect to remedy in relation to any of the documents contained in Envelope Nº 2, the Pre-shortlisted Bidder shall be informed, who, in the period to be granted, shall remedy the defects incurred. In any case the failure to submit any of the documents to be included in Envelope Nº 2 shall be deemed as remediable defect.

c) Any document of Envelope Nº 2 that is submitted conditionally shall be considered invalid.
d) Results of the assessment of Envelopes N° 2 will be recorded in the minutes of assessment that will be signed by the members of the Evaluation Commission of Envelopes 2 and shall be given to the PROINVERSION Committee, who after assessment shall declare accepted or not accepted the Envelopes N°2.

e) The result of the evaluation of Envelopes N° 2 will be informed to the Pre-shortlisted Bidders according to Section 16.1 of the Bidding Terms and Conditions.

f) The decision of the Committee about the results of qualification of Envelopes N° 2 is final and shall not give rise to any claim or objection by the Bidders.

g) Only the Bidders, whose Envelopes N° 2 have been accepted by the Committee, shall pass to the following stage of the bid, which is the opening of Envelope N° 3.

16. OPENING OF ENVELOPE N° 3 AND AWARD

16.1. Opening of Envelope N° 3

a) The Chairman of the Committee or the person replacing him shall commence the procedure of opening Envelopes N° 3 and Award of the Concession before a Notary Public, at the specified place and date, by informing those present the results of assessment of Envelopes N° 2.

b) The Notary Public shall open the sealed package of Envelopes N° 3 (taken into custody) after verification by the Legal Representatives of the Bidders who wish to do so.

c) The Chairman of the Committee or his representative shall return unopened envelopes N° 3, of the Pre-shortlisted Bidders whose Envelopes N° 2 have not been declared accepted.

d) Then, the Notary Public shall proceed to open the Envelopes N° 3 of Pre-shortlisted Bidders whose Envelopes N° 2 have been declared accepted and the Chairman of the Committee or his representative shall read their content, verifying that the proposals adjust to the provisions of the Bidding Terms and Conditions.

e) If any of the Economic Proposals contained in Envelope N° 3, do not comply with the requirements established in these Bidding Terms and Conditions, said Economic Proposal will not be considered by the Committee as a valid Economic Proposal.

f) Any document of Envelope N° 3 which is submitted conditionally shall be considered invalid.
g) Then, the Chairman of the Committee or his representative will announce those valid Economic Proposals submitted in accordance with the provisions of Form 1 of ANNEX 6, or as the case may be of the valid Economic Proposals valid submitted in Form 2 of ANNEX N° 6.

16.2. **Evaluation of Envelope N° 3**

a) The Committee shall assess the Economic Proposals of Bidders as follows:\(^{23}\)

\[
PE = (PRM \times A) + (PAMPI \times B) + (PAMO \times C)
\]

Where:

- **EO**: Economic Proposal
- **PRI**: Payment for Rehabilitation and Improvement
- **APMO**: Annual Payment for Maintenance and Operation
- **APIPM**: Annual Payment for Initial Periodic Maintenance
- **A, B, C**: Weighting Factor for PRI, APIPM and APMO respectively

b) **Tie of Economic Proposals**

i. In the event of a tie after the above mentioned assessment, the Pre-shortlisted Bidders who tied will have a term of up to one (01) hour to submit a new Economic Proposal, according to Form 2 of ANNEX N° 6, which shall be better than originally filed, otherwise it shall be considered as invalid proposal.

ii. In case of another tie, it will be decided by lot, conducted by the Public Notary and in the same act, using for this purpose an urn with bowling numbered 1 to 30. The winner of the raffle will be the Pre-shortlisted Bidder who removes the bolus with greatest number.

iii. In case of submission of new proposals, the formula indicated in Section 16.1 shall be applied.

iv. The Pre-shortlisted Bidder submitting a new Economic Proposal shall submit it with a new Envelope N° 3 according to Form 2 of ANNEX N° 6. Forms submitted shall be duly signed by the Legal Representative of the Pre-shortlisted Bidder.

v. If the Pre-shortlisted Bidders do not present a new Economic Proposal, or it is not valid, the previously filed Economic Proposal will be considered as valid.

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\(^{23}\) Included by virtue of Circular letter No. 4
16.3. Award

It is the statement made by the Committee determining which of the bidders has submitted the best proposal in the terms and conditions set forth in these Bidding Terms and Conditions and that has won the concession according to the result obtained after the assessment specified in Section 16.2.

16.4. Drawing up the Minutes

Once the award procedure is concluded, the Public Notary shall draw up the minute of opening of Envelope N° 3 and Award, the same that shall contain among others the Economic proposals of the Bidders who participated in this event and the final result obtained, expressed in descending order from the best financial offer. The minute shall be signed by the Committee members or their representative, the Successful Bidder and other Pre-shortlisted Bidders who wish to do so.

16.5. Challenge

a) Challenge Procedure

Any Pre-shortlisted Bidder which Envelope N° 2 has been approved by the Committee and has submitted a valid Economic Proposal, may file a legal challenge before the Committee against the award. This challenge shall be recorded as an objection in the minute of opening of Envelope N° 3, and shall be properly supported, in writing, within a maximum period of eight (8) days following the award. The Committee shall resolve such challenge within a maximum period of ten (10) days from the filing date of the challenge.

b) The Pre-qualified Bidder may submit before the same Committee an appeal against the Committee's Resolution within a three (3)-day period following the date of acknowledgment of its receipt. The appeal may also be filed against the implied resolution of challenge rejection in the event that, the deadline of ten (10) days for the Committee to solve the submitted challenge has expired, and it has not issued the corresponding resolution. In the latter case, the deadline for filing an appeal shall be counted as from the day following to the expiration of the said ten-(10)-day period.

c) The appeal against the express or implied resolution of the Committee shall be decided by the Steering Council of PROINVERSIÓN within thirty (30) days counted from its filing. The resolution at second and final instance shall be final and binding.

d) Any Pre-shortlisted Bidder recurrent expenditure, which may arise in the process of challenging of the award, will be sole responsibility of the Bidder.

e) Challenge Guarantee

i. No challenge shall be considered validly filed and be without any effect unless, within three (03) days from the date of the award, the challenging Bidder submits to the Committee a joint, irrevocable, unconditional bank guarantee, without benefit of
excussion or division and automatically enforceable, according to Form 3 of Annex 6, in favor of PROINVERSIÓN. This bank guarantee must be issued by a Bank Company, as listed in List 1 of Annex N° 1, and the amount will be the equivalent of one percent (1%) of the sum of the amounts of referential Rehabilitation and Improvement and Initial Periodic Maintenance of the project.

ii. Such challenge guarantee shall be executed by PROINVERSION, if the corresponding Resolution declares unfounded or inadmissible the appeal filed by the Bidder; also, if that the Bidder does not submit the corresponding appeal against this resolution, within the period specified in paragraph 16.5 b), the award shall be considered granted by the Committee. If the challenge or the appeal filed is well founded, the challenge guarantee will be returned to the respective Bidder, with no interests accrued in its favor.

iii. The challenge guarantee period referred to in this section shall be from the day this guarantee is submitted until (60) days after said date.

16.6. Bid not awarded
The Committee shall declare the bid void if there are not, at least, two (02) valid Technical and Economic Proposals that comply with the instructions provided in these Bidding Terms and Conditions. The Committee may call for a new bid on a new date, at its sole discretion. This decision is not challengeable.

17. ACTIONS BEFORE THE CONTRACT SUBSCRIPTION DATE

17.1. Constructor’s Experience
a) It shall not be necessary to prove the experience of the constructor to be declared as Pre-shortlisted Bidder.

b) The accreditation of the constructor’s experience shall be performed as from the date of the award until 30 calendar days after that date. The corresponding assessment shall be conducted by the Evaluation Commission of Envelope N° 1.

c) Requirements
i. The constructor shall prove that it has executed in the last fifteen (15) years at least 100 km between "new road", "rehabilitation" and/or "improvement" works and can accumulate the extension of both road directions, just in case of different roads (highway).

ii. Of the total length of accreditation required to the constructor in the previous paragraph, at least 10% shall have been executed in an altitude exceeding 2,400 m.a.s.l.
iii. In case of crediting their experience with works projects under implementation, the progress in km completed at the submission date of Envelope N° 3 shall be indicated.

iv. The constructor who seeks to invoke his participation in previous projects, for the purpose of demonstrating compliance with the building requirements pursuant to these Bidding Terms and Conditions, shall demonstrate having participated at least twenty percent (20%) in the company or Consortium established for the execution of the work.

v. In case of Constructors Consortium each legal persons comprising it shall comply with the requirement set forth in the previous paragraph individually (i.e. without possibility of completing or complying with the requirements with other member(s) of the Consortium, affiliated Companies or other legal persons.24

d) Accreditation
i. Accredited technical experience shall be supported with simple copy of execution of works certificates issued by their contractors.

ii. To demonstrate the constructor experience, the Successful Bidder, before a Notary Public, prior coordination with the Project Leader in Road issues, shall submit the following documents, according to the corresponding case:

- By the Successful Bidder
  Form 1 of ANNEX N° 7. If the Successful Bidder is a consortium, he may demonstrate through one or more of its members. Each member shall comply with the requirements set forth in Section 17.1 c) of the Bidding Terms and Conditions.25

- By a third party different from the Successful Bidder
  Form 1 of ANNEX N° 7. Form 2 and Form 3 of ANNEX N° 7.26

iii. If the Successful Bidder wants to prove his constructor quality directly, Form 2 and Form 3 of Annex N° 7 are not required. Only Form 1 of ANNEX N° 7 shall be submitted.

iv. The Bidder shall submit in original or simple copy the accreditations corresponding to the experiences indicated in Form 1 of ANNEX N° 7.

24 Included by virtue of Circular letter No. 20
25 Amended by virtue of Circular letter No. 20
26 Amended by virtue of Circular letter No. 20
v. Documents submitted by the Successful Bidder may be corrected at the request of the Evaluation Commission within a deadline set by the Commission which shall not exceed ten (10) calendar days as from the following day of receipt of the request for correction.

vi. If the constructor does not qualify, the Successful Bidder shall present another constructor in order to be qualified under the above conditions, no later than ten calendar days as from the day on which he was informed of the disqualification of the presented Constructor.

vii. In case this second constructor, does not qualify, the Guarantee of Validity, effectiveness and Seriousness of the Proposal shall be executed, according to Section 19.

viii. The Committee, if the constructor does not qualify, under agreement, shall be entitled, but shall not be obliged, to accept the proposal of the Bidder who submitted the second best proposal in the Economic Proposal or otherwise cancel the bid.

ix. If the committee chooses to accept the second best proposal in the Economic Proposal, it shall notify the Bidder holder of such proposal, communicating its decision to declare the new Successful Bidder. If it is the case, the new Successful Bidder shall extend the term of its Guarantee of Validity, effectiveness and Seriousness of the Economic Proposal for the term that the Committee shall communicate, otherwise, the Committee may execute said guarantee, canceling the bid.

x. The option chosen by the Committee shall be communicated to the Pre-shortlisted Bidders through Circular letter, which shall include the information corresponding to the agreed election.

xi. For the experience accreditation of the new Successful Bidder constructor Section 17.1 shall be taken into account.

17.2. Suspension or Cancellation of the Bid
The bid may be suspended, canceled or rescinded at any time, even before the date of signing the contract, without expressing any reason, if the committee deems it appropriate, without incurring in any liability. This decision is not challengeable.

18. CONTRACT SUBSCRIPTION

18.1. Contract Subscription Date
It is the day Concession Contract is entered into between the GRANTOR and the CONCESSIONAIRE and will be held before the Committee or its representative in presence of a Notary Public.
It will be communicated promptly by Circular, further indicating the place and time.

18.2. **Events on the Subscription Date of the Contract**

To sign the Concession Contract, previously, in presence of a notary public, who will certify the acts that this numeral refers to, the following events will take place:

a) The Successful Bidder shall prove the registration in the corresponding Registry Office of powers of attorney of the Legal Representative of the legal person who shall sign the contract.

b) Documentation certifying registration in the corresponding Registry Office of the Statutes of the legal person who will sign the contract, the same shall have been incorporated in Peru, at least with the same shareholders or members in case of consortium and respecting the Minimum Participation of the Strategic Partner referred to the Bidding Terms and Conditions. The minimum subscribed capital, its way of integration of capital and opportunity will be according to the terms and conditions set forth in the Concession Contract.

c) Legalized copy by notary of the book entries of registration of shares or equivalent document, in which the conformation of the shareholding or participations of the concessionaire corporation shall be recorded, on the Contract Subscription Date.

d) Performance Bond of the Concession Contract, referred in Section 2.39 and according to the model considered in the Concession Contract.

e) The CONCESSIONAIRE signing the Concession Contract, shall submit to the Committee, regarding the company and the members of the Consortium, as appropriate, the certificate of not been disqualified from participating in the selection processes or from signing contract with the State issued by the Supervisor Organism of Contracting with the State-OSCE. Addition, it shall submit a certificate of not having breached a Concession Contract. If it is determined the existence of false information, the award will be revoked and shall execute the Guarantee of Validity, Effectiveness and Seriousness of the Proposal.

f) Submission of the affidavit declaring that that at the date of signing the Concession Contract, all information submitted in Envelopes N° 1 and N° 2 remains in force and is reliable (Form 1 of Annex 10).

g) PROINVERSIÓN shall return to the Successful Bidder the Guarantee of Validity, Effectiveness and Seriousness of the Proposal.

---

27 Amended by virtue of Circular letter No. 18
28 Amended by virtue of Circular letter No. 8
h) Delivery of listings of movable and immovable properties as stated in the Concession Contract, which will be delivered on the takeover.

i) The CONCESSIONAIRE must submit a written commitment to pay the amount in favor of PROINVERSION, on account of preparatory acts for the process of granting of concessions of the Longitudinal de la Sierra Highway Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho / Ayacucho - Andahuaylas - Sahuinto Bridge/ Dv. Pisco - Huaytará - Ayacucho, which amount shall be established in the Concession Contract. Payment shall be made no later than thirty (30) calendar days following the signing date of the Contract.

j) Financial and economic model of the Project elaborated by the Successful Bidder for the submission of the Economic Proposal included in Envelope Nº 3.

Also, all representations and verifications shall be made and all related documents shall be delivered on the signing date of the contract stipulated in the Concession Contract.

19. EXECUTION OF THE GUARANTEE OF VALIDITY, EFFECTIVENESS AND SERIOUSNESS OF THE PROPOSAL

19.1 If the Successful Bidder fails to fulfill any of its obligations under the Subscription Contract Date mentioned in Section 18.2 due to reasons attributable to it, PROINVERSIÓN shall execute the Guarantee of Validity, Effectiveness and Seriousness of the Proposal immediately and without prior notice to the Successful Bidder. The execution of this warranty does not limit or restrict any other right that PROINVERSIÓN might have before the Successful Bidder who failed to comply with its obligations undertaken in its proposal.

19.2 Without prejudice of the provisions set forth in this section, PROINVERSIÓN and/or the Committee may initiate all the legal actions permitted by the Applicable Laws as direct or indirect consequence of the non-fulfillment of the original Successful Bidder.

19.3 In such case, the Committee shall have the power, but not the obligation, to accept the proposal of the Bidder who submitted the second best proposal in the Economic Proposal according to the assessment under Section 16.2.

19.4 If the committee chooses to accept the second best proposal in the Economic Proposal, it shall notify the Bidder holder of that proposal its decision to declare the new Successful Bidder and, if applicable, request the extension of the term of its Guarantee of Validity, Effectiveness and Seriousness of the Economic Proposal for the term to be communicated

29 Included by virtue of Circular letter No. 15
by the Committee, otherwise the Committee may execute the guarantee, canceling the bid.

19.5 The option chosen by the Committee shall be taken by agreement and communicated to the Pre-shortlisted Bidders through Circular.

20. EFFECTIVE DATE OF THE CONTRACT

The Contract shall become effective and shall take full legal effect from the Contract subscription date by the GRANTOR and the CONCESSIONIARE.

21. FINAL PROVISIONS

21.1. Applicable Laws
These Bidding Terms and Conditions, the documents integrating them, and the contract shall be governed and interpreted pursuant to the Applicable Laws.

21.2. Jurisdiction and competence
Pre-shortlisted Bidders and persons who are members of consortia and the CONCESSIONAIRE shall irrevocably accept and are subject to the jurisdiction of the courts and judges of the city of Lima, Peru, to resolve any conflicts that may arise between them and the State of the Republic of Peru on these Bidding Terms and Conditions. They expressly and irrevocably waive any diplomatic claim, as well as any right to file any actions of any nature before any other jurisdiction.

Does not apply any provision amended, altered or cut the right of the State, of PROINVERSION, the Committee, to initiate any legal action or enforce a judgment obtained in Peru, before the judges and courts in other jurisdictions, waiving the Pre-shortlisted Bidders and people who are members of consortia, to invoke or exercise any immunity or privilege that may be entitled in such jurisdictions, without reservation or limitation, accepting from now and by the mere fact of participating in the bid, the election of the alternative jurisdiction or jurisdictions made by the State, PROINVERSION, the Committee accordingly.

21.3. Environment
The Successful Bidder shall make the studies corresponding to social environment established in the Concession Contract.

21.4. Expenses of the Process
The Successful Bidder is obliged to pay PROINVERSIÓN for the corresponding process expenses of promotion of private investment foreseen in the Concession Contract.

21.5. Conformity of the Comptroller General of the Republic
These Bidding Terms and Conditions and the contract resulting from this process should incorporate relevant aspects of the report, if any, issued.
in due course by the Comptroller General of the Republic, as appropriate, pursuant to subparagraph of Article 22 of Law N° 27785 that reads:

“Article 22.- Attributions
The attributions of the Comptroller General are the following:

L) Inform on operations, deposits, guarantees and other guarantees granted by the State, including the draft contract, which in any way compromise their credit or financial capacity, whether involved in negotiations in the country or abroad”

21.6. **Acquisition and Expropriation of Property**
It shall be the responsibility of the GRANTOR

21.7. **Interferences**
The relocation of interferences (optical fiber, lighting, communications, etc.) that hinder the execution of the works of the CONCESSIONAIRE will be in charge of the MTC.
ANNEX N° 1
Form 1
AFFIDAVIT
(Notification of information)

(Reference: Section 9.1d) of the Bidding Terms and Conditions

Bidder:...........................................................................

We hereby declare under oath the following:

We accept that any notification or communication, within these circulars, which takes place within the framework of the private investment promotion process that regulates these Bidding Terms and Conditions, be notified through the following emails:

1. .............................................................................

2. .............................................................................

I am committed to keeping the two email accounts active during the private investment promotion process, otherwise PROINVERSION and the Committee may consider it as a lack of responsibility.

Place and date:.................................................. 201...

Name, representative and signature of the company or companies, as appropriate, that shall integrate the Consortium.

Name ...........................................................................

Legal Representative of Bidder

Signature ...........................................................................

Legal Representative of Bidder
ANNEX Nº 1
List 1
BANKING COMPANIES AUTHORIZED TO ISSUE THE GUARANTEES ESTABLISHED IN THE BIDDING TERMS AND CONDITIONS
(Reference: Section 2.32 of the Bidding Terms and Conditions)

Domestic banks authorized to issue bonds letters are those which have a minimum rating of A for financial strength, a minimum rating of CP-1, Category 1, CLA-1 or EQL-1 for short-term instruments and a minimum rating of AA for long-term instruments.

The classification of commercial banks shall be in force when submitting the letters of guarantee or standby letter of credit.

In this regard, the reference ratio of Banking Companies that have the minimum rating indicated in the preceding paragraph to January 2015, is composed of the following list:

<table>
<thead>
<tr>
<th>BANKING COMPANIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>BANCO DE CRÉDITO DEL PERÚ</td>
</tr>
<tr>
<td>BANCO INTERAMERICANO DE FINANZAS – BANBIF</td>
</tr>
<tr>
<td>BANCO SANTANDER PERÚ S.A.</td>
</tr>
<tr>
<td>BBVA BANCO CONTINENTAL</td>
</tr>
<tr>
<td>BANCO INTERNACIONAL DEL PERÚ S.A.A – INTERBANK</td>
</tr>
<tr>
<td>CITIBANK DEL PERÚ S.A.</td>
</tr>
<tr>
<td>CREDISCOTIA.</td>
</tr>
<tr>
<td>SCOTIABANK PERÚ S.A.A.</td>
</tr>
<tr>
<td>DEUTSCHE BANK</td>
</tr>
</tbody>
</table>
ANNEX Nº 1

List 2

LIST OF INTERNATIONAL FINANCIAL ENTITIES ³⁰
(Reference: Section 2.33 of the Bidding Terms and Conditions)

1. The first class foreign banks included in the list approved by the Central Bank through Circular N° 0026-2015-BCRP, or legislation replacing it will be considered.³¹

2. Any international financial institution with investment level, assessed by a well-known international institution authorized to international classification.

3. Any multilateral institution of credit of which the State of the Republic of Peru is member.

The classification of the International Financial Entities, shall be in force when submitting the letters of guarantees or standby credit letter.

The guarantees issued by the entities indicated in Sections 1 and 2 shall be endorsed and confirmed by any of the banking companies included in List 1 of ANNEX Nº 1.

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³⁰ Amended by virtue of Circular letter No. 8
³¹ Amended by virtue of Circular letter No. 4
LIST OF INSURANCE COMPANIES
(Reference: Section 2.32 of the Bidding Terms and Conditions)

The Local insurance companies authorized to issue bonds shall be those that are authorized by the Superintendence of Banking, Insurance and AFP (SBS) and that have a minimum “A” rating for financial strength.

The rating of insurance companies shall be in force at the time of submitting the letters of guarantee.

Thus, the reference list of Insurance Companies with the minimum above mentioned rating consists of:

<table>
<thead>
<tr>
<th>INSURANCE COMPANIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE Seguros S.A.</td>
</tr>
<tr>
<td>MAPFRE Perú Compañía de Seguros y Reaseguros</td>
</tr>
<tr>
<td>Rímac Seguros y Reaseguros</td>
</tr>
<tr>
<td>SECRESX Compañía de Seguros de Crédito y Garantías S.A.</td>
</tr>
<tr>
<td>INSUR S.A. Compañía de Seguros</td>
</tr>
</tbody>
</table>

32 Included by virtue of Circular letter No. 4
ANNEX Nº 2
Form 1
AFFIDAVIT
(Commitment of reliable information)
(Reference: Section 12.1 of the Bidding Terms and Conditions)

Bidder: ..............................................................................

We hereby declare under oath the following:

That all the information submitted to credit our experience in the Management and operation indicated in the submitted documents is reliable.

Place and date: .........................................................201...

Name, representative and signature of the company or companies, as appropriate, that integrate the Consortium.

Name ..............................................................................

  Signature ........................................................................

  Legal Representative of Bidder

(The signature of the Legal Representative, shall be legalized by notary).
ANNEX Nº 2

Form 2

REQUIREMENTS OF OPERATION FOR SHORTLISTING
(Reference: Section 12.2a) of the Bidding Terms and Conditions

AFFIDAVIT

Bidder: ............................................................... Place and date: .................................................. 201...

<table>
<thead>
<tr>
<th>Name Member/Bidder</th>
<th>Name of the Concessionaire company</th>
<th>Shareholding of the Member in the concessionaire company (%) y/o contractual relation of operation</th>
<th>Description and location of the concession</th>
<th>Grantor</th>
<th>Length (km)</th>
<th>From (month/year)</th>
<th>To (month/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Minimum 20% of shareholding.

Name..............................................................
Legal Representative of Bidder

Signature ............................................................
Legal Representative of Bidder
ANNEX Nº 2
Form 3
DECLARATION OF STRATEGIC PARTNER
(Reference: Section 2.71 of the Bidding Terms and Conditions

AFFIDAVIT

Bidder: ............................................................................................................................

We hereby declare under oath that the Strategic Partner is:

........................................................................................................ (Name of Bidder or Member in case of Consortium)

Place and date: ................................................................. 201...

Name ........................................................................
   Legal Representative of Bidder

Signature ........................................................................
   Legal Representative of Bidder

(The signature of the Legal Representative in this affidavit shall be legalized by notary)
ANNEX Nº 2
Form 4
EFFECTIVENESS OF DOCUMENTATION REFERRED IN THE “GOOD STANDING CERTIFICATE OF PRESHORTLISTING DOCUMENTS /CREDENTIALS”
(Reference: Section 13.3 of the Bidding Terms and Conditions

AFFIDAVIT

Bidder: .................................................................................................................................

We hereby declare under oath that the documentation submitted in the bid....... (state the name of the process in which you timely filed or submitted documentation to prequalify or submitted credentials) for the purpose of obtaining our pre-shortlisting or for which we submit our credentials, as Bidder or as a member of a consortium, on the date of signature of this is still in force, having no changes in this documentation.

The referred documentation is the following:

1. 
2. 
3. 
4. 

Place and date: ..............................................................201...

Name ........................................................................
Legal Representative of Bidder

Signature ........................................................................
Legal Representative of Bidder
ANNEX Nº 3
Form 1A
SHORTLISTING
(Legal Incorporated person)
(Reference: Section 12.2 b) ii. of the Bidding Terms and Conditions

AFFIDAVIT

Bidder: .................................................................................................................................

We hereby declare under oath that ................................................................. (Name of Bidder) is a legal person duly incorporated under the laws of ........................................ and is in force according to the legal principles applicable to the country of origin.

Place and date: ................................................................. 201...

Name ............................................................................
Legal Representative of Bidder

Signature ............................................................................
Legal Representative of Bidder

(The signature of the Legal Representative in this affidavit shall be legalized by notary)
ANNEX Nº 3
Form 1B
CREDENTIALS FOR SHORTLISTING (Only for Consortia)
(Reference: Section 12.2 b) iii. Of the Bidding Terms and Conditions

AFFIDAVIT

Bidder:.............................................................................................................

We hereby declare under oath the following:

That.................................................................................................................. (Name of each one of the members of the consortium) have been associated through a consortium to participate in the Comprehensive Project Bid.

That.................................................................................................................. (Name of each one of the members of the consortium) are incorporated companies according to the legislation and keep their existence.

That.................................................................................................................. (name of each one of the member of the consortium) are jointly responsible and indivisibly before the Republic of Peru, PROINVERSION and the Committee regarding all and each one of the obligations assumed and affidavits submitted by the Bidder in relation to the Comprehensive Project Bid.

Place and date:....................... ................................. 201...

Name ............................................................
Legal Representative of Bidder

Signature ............................................................
Legal Representative of Bidder

Company ......................................................

Name ................................................................
Legal Representative of (Member 1)

33 Amended by virtue of Circular letter No. 4
Signature ............................................................
Legal Representative of (Member 1)

Company ......................................................

Name ...........................................................
Legal Representative of (Member 2)

Signature ............................................................
Legal Representative of (Member 2)

Company ......................................................

Name ...........................................................
Legal Representative of (Member 3)

Signature ............................................................
Legal Representative of (Member 3)

(The signature of the Legal Representative of the consortium in this affidavit shall be legalized by notary)
ANNEX Nº 3

Form 2A
CREDENTIALS FOR SHORTLISTING:
Percentage of participation for legal persons
(Reference: Section12.2b) of the Bidding Terms and Conditions

AFFIDAVIT

**Bidder:**

We hereby declare under oath that the percentage of participation of each one of our shareholders or Partners is the following:

<table>
<thead>
<tr>
<th>Shareholders or Partners</th>
<th>Percentage of participation in the Bidder (only those with more than 5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

Place and date: .................................................. 201...

Name ..................................................
Legal Representative of Bidder

Signature ..................................................
Legal Representative of Bidder

---

34 Amended by virtue of Circular letter No. 4
CREDENTIALS FOR SHORTLISTING:
(Percentage of participation for Consortia)
(Reference: Section12.2b) of the Bidding Terms and Conditions

AFFIDAVIT

Bidder:.................................................................................................................................

We hereby declare under oath that the percentage of participation of each one of our members, and our shareholders or partners is the following:

<table>
<thead>
<tr>
<th>Shareholders or partners</th>
<th>Percentage of participation in Member 1 (only those with more than 5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

(*)This table shall be filled by each member of the consortium.

Place and date:................................................................. 201...

Name .................................................................

Legal Representative of Bidder

Signature .................................................................

Legal Representative of Bidder
ANNEX N° 3
Form 3
CREDENTIALS FOR SHORTLISTING:35
Declaration of not being disqualified from contracting
(Reference: Section12.2b) of the Bidding Terms and Conditions

AFFIDAVIT

Bidder:.................................................................................................................................

We hereby declare under oath that, [.............................. (Name of the Bidder)], [........................ (Members of the consortium)]:

They are not administratively sanctioned with temporary or permanent disqualification from exercising their rights to participate in selection processes summoned by the State, or to contract with the state.

They have not ceased to be concessionaires due to the breach of a concession contract signed with the State of the Republic of Peru under the private investment promotion framework referred to TUO on Concessions approved by Supreme Decree N° 059-96- PCM or Law N° 28059, Framework Law for the Decentralized Investment Promotion., and are not involved in impediments established in the First Complementary Final Provision of Law N° 30283

Place and date:.............................. 201...

Name ............................................................
Legal Representative of Bidder

Signature ............................................................
Legal Representative of Bidder

35 Amended by virtue of Circular letter No. 8
ANNEX N° 3
Form 4A

CREDENTIALS FOR SHORTLISTING
Waiver of privileges and claims applicable to not listed corporations
(Reference: Section12.2b) of the Bidding Terms and Conditions

AFFIDAVIT

Bidder:.........................................................................................................................

We hereby declare under oath that................................................................. (Name of the Bidder), and its shareholders, Partners or members and the shareholders and partners of these latter, if appropriate, waive to the following:

1. To invoke or exercise any privilege or diplomatic immunity or of any other kind.

2. To file any claim through diplomatic channels and any right to compensation or other in connection with any claim that may be brought by or against the State, MTC, PROINVERSION, the Committee, its members, advisors and consultants, under the Peruvian law or under any other law with respect to our obligations in respect of the bidding terms and conditions, the Economic Proposal, the Technical Proposal and the Concession Contract.

Place and date:......................................................... 201...

Name ............................................................................

Legal Representative of Bidder

Signature ..............................................................................

Legal Representative of Bidder
ANNEX N° 3
Form 4B

CREDENTIALS FOR SHORTLISTING:
Waiver of privileges and claims applicable to corporation that are listed in stock Exchanges
(Reference: Section12.2b) of the Bidding Terms and Conditions

AFFIDAVIT

Bidder:.......................................................... ..........................................................

We hereby declare under oath that..........................................................
(Name of the Bidder), and its shareholders, Partners or members waive to the following:

1. To invoke or exercise any privilege or diplomatic immunity or of any other kind.

2. To file any claim through diplomatic channels and any right to compensation or other in connection with any claim that may be brought by or against the State, MTC, PROINVERSION, the Committee, its members and advisors, under Peruvian law or under any other law with respect to our obligations in respect of the bidding terms and conditions, the Economic Proposal, the Technical Proposal and the Concession Contract.

Place and date:.............................. 201...

Name ..........................................................
Legal Representative of Bidder

Signature ..........................................................
Legal Representative of Bidder
ANNEX N° 3
Form 5
CREDENTIALS FOR SHORTLISTING:
Declaration of not having incompatibility
(Reference: Section12.2b) of the Bidding Terms and Conditions

AFFIDAVIT

Bidder:..............................................................................................................................

We hereby declare under oath that our consultants have not directly supplied any kind of services in favor of PROINVERSION or the Committee during the course of this private investment promotion process, whether full time, part time or eventual type, in relation to the aforementioned private investment promotion process in the last year.

Place and date:.............................................................. 201...

Name ..............................................................
Legal Representative of Bidder

Signature ..............................................................
Legal Representative of Bidder
ANNEX N° 3
Form 6A

CREDENTIALS FOR SHORTLISTING:
Independence among Bidders (for not listed companies)
(Reference: Section12.2b) of the Bidding Terms and Conditions

AFFIDAVIT

Bidder:.............................................................................................................

We hereby declare under oath that......................................................... (Name of the
Bidder), its shareholders, partners or members, Partners or shareholders of the
latter, if applicable, do not have direct or indirect participation in any other Bidder.

Place and date:................................................................. de 201...

Name ...............................................................................................................
Legal Representative of Bidder

Signature  .................................................................................................
Legal Representative of Bidder
ANNEX N° 3
Form 6B
CREDENTIALS FOR SHORTLISTING
Independence among Bidders (for listed companies)
(Reference: Section12.2b) of the Bidding Terms and Conditions

AFFIDAVIT

Bidder:.................................................................................................................................

If the Bidder is the legal person that has listed its shares in stock exchange, the following declaration shall be initiated with the following text:

We hereby declare under oath that _______(Name of the Bidder), does not have direct or indirect participation in any other Bidder where they exercise management control or any of its members in case of consortium pursuant to the Regulation provisions of Indirect Property, Linkage and Economic Group approved through CONASEV RESOLUTION N° 090-2005-EF-94.10 amended by CONASEV Resolution N° 005-2006-EF/94.10o or regulation that modifies or replaces it.

In case it is any of the members of the consortium the legal person who has listed its shares in stock exchange, the following declaration shall be initiated with the following text:

We hereby declare under oath that_____(Name of the Bidder) and its members: ____________________________and____________________(Name(s) of the member(s) of consortium), do not have direct or indirect participation in any other Bidder where they exercise management control or any of its members in case of consortium according to the provisions set forth in the Regulation of Indirect Property, Linkage and Economic Group approved by CONASEVE RESOLUTION N° 090-2005-EF-94.10 amended by CONASEV Resolution N° 005-2006-EF/94.10 or regulation that modifies or replaces it.

Place and date:.......................................................... 201...

Name............................................................................................................
Legal Representative of Bidder

Signature ...........................................................................................................
Legal Representative of Bidder
ANNEX N° 3
Form 7
INCORPORATION COMMITMENT

AFFIDAVIT
(Reference: Section12.2 b) of the Bidding Terms and Conditions

Bidder:........................................................................................................................................

We hereby declare under oath the following:

(In case of Consortium):

That, ........................................... (Name of each one of the consortium members) have been associated through a consortium to participate in this Bid of comprehensive projects.

That, ............................................ (those indicated in the preceding section) have signed a commitment of intention to incorporate a legal person with domicile in the Republic of Peru and a capital according to the provisions set forth in the Concession Contract.

(In case of an individual company):

That, ............................................... we commit to incorporating a legal person with domicile in the Republic of Peru and a capital according to the provisions set forth in the Concession Contract.

(Following paragraphs for both cases):

The legal person to be incorporated shall enter into the concession contract of the Longitudinal de la Sierra Highway Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho/Ayacucho - Andahuaylas – Sahuinto Bridge/Dv. Pisco - Huaytará - Ayacucho.

That if we become the Successful Bidder, we commit to delivering the relevant testimony of the Public Deed of Incorporation of the Concessionaire with proof of its registration with the Registry Office corresponding to the date of signing the Contract indicated in the Bid Schedule.

In that sense, we know and accept that the non-compliance of this commitment may be taken into account in order to leave without effect the award granted in our favor.

Place and date:................., .............. 201...

Name .............................................................

Legal Representative of Bidder
Signature............................................................
Legal Representative of Bidder

Signatures of the members in case of consortium:

Company .....................................................
Name ..........................................................
Legal Representative of (Member 1)

Signature ............................................................
Legal Representative of (Member 1)

Company .....................................................
Name ..........................................................
Legal Representative of (Member 2)

Signature ............................................................
Legal Representative of (Member 2)

Company .....................................................
Name ..........................................................
Legal Representative of (Member 3)

Signature ............................................................
Legal Representative of (Member 3)
SUBMISSION LETTER SAMPLE FOR SHORTLISTING FINANCIAL INFORMATION

Lima, ........................................... 201...

Messrs.
PROINVERSIÓN Committee in Road Infrastructure Projects, Railway Infrastructure and Airport Infrastructure - PRO INTEGRACIÓN Private Investment Promotion Agency (PROINVERSIÓN)

Present.-

Bidder: .................................................................

According to the provisions in Section 12.2 sub paragraph c) of the Bidding Terms and Conditions of the Comprehensive Projects, we hereby fulfill to submit our presentation letter of financial and technical information.

FINANCIAL REQUIREMENTS

A. Net Equity of the Bidder

<table>
<thead>
<tr>
<th>Shareholder, Related or member</th>
<th>Note 1</th>
<th>US$ Net Equity (Note 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NET EQUITY US$ [ ]*

* The total amount that is included in this table should be the same that appears as such in table B.

B. Net Equity

36 Amended by virtue of Circular letter No. 6
37 Amended by virtue of Circular letter No. 6
<table>
<thead>
<tr>
<th>Shareholder, member or related company</th>
<th>Amount (Original currency)</th>
<th>Exchange rate</th>
<th>Amount (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET EQUITY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member 1 (Strategic Partner)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The Exchange rate to be used shall be that published by the Superintendence of Banking and Insurance and AFP on the date of the submitted financial statements.

**D. Explanation of the relation between the Bidder, the shareholder or member of Bidder and its corresponding Related Company.**

If the figure of a shareholder or member corresponds to another person, then the relationship that causes the company to be related company of the Bidder, shareholder or member of the Bidder shall be explained:

____________________________________________________________

____________________________________________________________

____________________________________________________________

____________________________________________________________

____________________________________________________________

____________________________________________________________

38Amended by virtue of Circular letter No. 6
39 Amended by virtue of Circular letter No. 13
E. Include a letter of reference of the International Financial Entity (Form 3 of ANNEX Nº4)

Note: Members of the bidder with less than three (03) years of incorporation shall not be considered

Sincerely,

Name ................................................
Legal Representative of Bidder

Signature ................................................
Legal Representative of Bidder

Company ..............................................

Name ................................................
Legal Representative of (Member 1)

Signature ................................................
Legal Representative of (Member 1)

Company ..............................................

Name ................................................
Legal Representative of (Member n)

Signature ................................................
Legal Representative of (Member n)
ANNEX N° 4
Form 2
FINANCIAL REQUIREMENT OF MANAGEMENT AND OBTAINMENT OF FINANCING BY THE BIDDER
(Reference: Section12.2c) of the Bidding Terms and Conditions

AFFIDAVIT

Bidder: .................................................................................................................................

<table>
<thead>
<tr>
<th>Nº</th>
<th>Project</th>
<th>Type and main characteristics</th>
<th>Entity that granted the financing</th>
<th>Amount in US$</th>
</tr>
</thead>
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<td></td>
</tr>
</tbody>
</table>

Place and date: ...................................................... 201...

Name ...........................................................................................................................
Legal Representative of Bidder

Signature ......................................................................................................................
Legal Representative of Bidder
LETTER OF REFERENCE
(Reference: Section12.2 c) of the Bidding Terms and Conditions

TO PROINVERSIÓN Committee in Road Infrastructure Projects, Railway Infrastructure and Airport Infrastructure -PRO INTEGRACIÓN.

Private Investment Promotion Agency (PROINVERSIÓN).

(Name of bank attorney).................................................. as attorney of Bank.................................

Certifies

That........................................................................................................................................ domiciled at.................................................................................................................., which main activity.................................................................................................., is client of proven seniority and recognized experience in this entity, deserving our trust.

In any case this letter shall be understood as a guarantee or promise of guarantee.

Upon the request of our client, this certificate is issued on...............… 201....

...............................................
Signature of the Bank
VALIDITY, ENFORCEABILITY AND BID BOND SAMPLE
(Reference: Section 14.1 of the Bidding Terms and Conditions)

Lima,......................................... 201....

Messrs.
Private Investment Promotion Agency - PROINVERSIÓN
Present.-

Ref.: Letter of Guarantee N°............................
Expiration:..................................

Of our consideration:

We hereby at the request of our client, Messrs. (Bidder or member).......................... issue this several, irrevocable, unconditional and automatically enforceable bond without benefit of excussion or division, for the amount of up to -------------</p>$____ and 00/100 Dollars of the United States of America (US $) in favor of PROINVERSION to guarantee the validity, enforceability and bid bond (including Technical and Economic Proposal) submitted by our client or consortium composed by ___ according to the terms and conditions established in the Bidding Terms and Conditions of the Comprehensive Projects Bid for the concession of the Longitudinal Highway of the Sierra Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho / Ayacucho - Andahuaylas - Sahuinto Bridge/ Dv. Pisco - Huaytará - Ayacucho.

This warrant Bond shall be effective in case our client is declared Successful Bidder by the Committee and does not fulfill its obligations on the signing date of the Contract of the aforementioned bid.

To honor this warrant bond in your favor it will suffice the requirement by notarial channel of the Executive Director of PROINVERSION or person who replaces him in our offices located at................................................................. and any delay on our part to honor it shall accrue an interest equivalent to one year LIBOR rate plus a margin (spread) of 3%.

LIBOR rate will be established by the daily Reuter Cable received in Lima at 11:00 am and shall accrue interests from the date of the request to honor until the effective payment date.

40 Amended by virtue of Circular letter No. 13
Our obligations under this bond shall not be affected by any dispute between you and our clients.

The effectiveness term of this bond shall begin on the date of submission of the Technical Proposal and until...........................

The terms used in this bond have the same meaning of the terms defined in the Bidding Terms and Conditions of Comprehensive Projects.

Sincerely,

Signature ..........................................................

Name.................................................

Banking Entity........................................
ANNEX N° 5
Form 2
INFORMATION EFFECTIVENESS

AFFIDAVIT
(Reference: Section 14.1 c) I. of the Bidding Terms and Conditions

Bidder:...............................................................................................................

We hereby declare under oath that the information, statements, certification and, in
geneneral, all documents submitted in Envelope N° 1 remain in effect on the date and
shall remain in the same manner until the signing date of the contract.

Place and date:.........,.............. 201...

Name ............................................................
Legal Representative of Bidder

Signature ............................................................
Legal Representative of Bidder

Company .............................................

Name ............................................................
Legal Representative of (Member 1)

Signature ............................................................
Legal Representative of (Member 1)

Company .............................................

Name ............................................................
Legal Representative of (Member n)

Signature ............................................................
Legal Representative of (Member n)
AFFIDAVIT OF RECOGNITION OF SUB SECTIONS OF THE CONCESSION
AND COMMITMENT OF EXECUTION OF REHABILITATION AND
IMPROVEMENT AS WELL AS INITIAL PERIODIC MAINTENANCE
(Reference: Section 14.1 c) ii of the Bidding Terms and Conditions)\textsuperscript{41}

AFFIDAVIT

Bidder: ...........................................................................................................................................

We hereby declare under oath the following:

That, in our capacity as Bidders for the concession of the Longitudinal de la Sierra
Highway Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho / Ayacucho -
Andahuaylas - Sahuinto Bridge/ Dv. Pisco - Huaytará - Ayacucho, we have made
the corresponding recognition to the full extent of the Concession, also we express our
commitment to comply with the implementation of the Rehabilitation and
Improvement and the Initial and Periodic Maintenance according to the Final
Engineering Study and Environmental Impact and technical reports made by the
CONCESSIONAIRE and approved by the GRANTOR at the time.

In that sense, we know and accept that the non-compliance of this commitment
may be taken into account to do no approve Envelope Nº 2.

Place and date: ............, ..... ............... 201...

Name ................................................................................

Legal Representative of Bidder

Signature ........................................................................

Legal Representative of Bidder

\textsuperscript{41} Amended by virtue of Circular letter No. 4
ANNEX N° 5
Form 4
COMMITMENT OF COMPLIANCE WITH ROAD SAFETY RECOMMENDATIONS
(Reference: Section 14.1 c) iii of the Bidding Terms and Conditions))

AFFIDAVIT

Bidder: ..............................................................................................................

We hereby declare under oath that we will comply with the recommendations of road security approved by the regulations in force.

Place and date: .......................................................... 201...

Name ..............................................................................................
Legal Representative of Bidder

Signature ..........................................................................................
Legal Representative of Bidder

42 Amended by virtue of Circular letter No. 4
ANNEX N° 5
Form 5A
ACCEPTANCE OF THE BIDDING TERMS AND CONDITIONS AND CONTRACT
((Applicable to Bidders and members of Consortia that do not have listed their shares in stock exchanges)
(Reference Section 14.1 of the Bidding Terms and Conditions)

AFFIDAVIT

Bidder:..............................................................................................................................

If the Bidder is a legal person, the declaration shall start with the following text:
We hereby, ________________________________ (Name of the Bidder), and his shareholders (or Partners, as the case may be), declare under oath the following:

If the Bidder is in consortium, the declaration shall start with the following text:
We hereby, ________________________________ (Name of the Bidder); his members: ___________________ and ___________________ (Names of each one of the members of the Consortium); and the shareholders (or Partners, as the case may be) of the mentioned members, declare under oath the following:

1. We comply with all provisions inherent to the Bid and Award; the rules established in the Supreme Decree N° 059-96-PCM, Consolidated Text of the regulations with force of law governing the granting in concession to the private sector of Public Infrastructure Works and Public Services (TUO) and its Regulations, Supreme Decree N° 060-96-PCM; Bidding Terms and Conditions and its Circulars.

2. We have reviewed and we are satisfied with these Bidding Terms and Conditions, Contract and other background and documents hereof, expressly accepting the obligations provided for the compliance with the Private Investment Promotion Law in Public Infrastructure Works and Public Utilities, these Bidding Terms and Conditions and other rules applicable to the Concession Contract, having no claims or objections to make. Consequently, we release PROINVERSIÓN, its officers, its advisors and consultants from all liability for any eventual errors or omissions the aforementioned background and documents may have.

3. That, in case of being the Successful Bidders of the bid award, we are committed that the Concession Contract shall be signed by the concessionaire, pursuant to the provisions of Section 12.2 b) xi of the Bidding Terms and Conditions.43

Place and date:......................................................... 201...

Name ...............................................................
   Legal Representative of Bidder

Signature ............................................................
   Legal Representative of Bidder

43 Amended by virtue of Circular letter No. 4
ANNEX N° 5
Form 5B

ACCEPTANCE OF BIDDING TERMS AND CONDITIONS AND CONTRACT
(Applicable to Bidders and to members of Consortia that have listed their shares in stock exchanges)
(Reference Section 14.1 of the Bidding Terms and Conditions

AFFIDAVIT

Bidder: ..............................................................................................................................

If the Bidder is a legal person who has listed its shares in the stock exchanges, the declaration shall start with the following text:

We hereby, ____________________ (Name of the Bidder), declare under oath the following:

If the members of the consortium is a legal person who has listed its shares in the stock exchanges, the declaration shall start with the following text:

We hereby, _____________________ (Name of the Bidder) and its members: ___________________ and ____________ (Name of the member(s) of the consortium, declare under oath the following:

1. That we comply with all provisions inherent to the Bid and Award; the rules established in Supreme Decree N° 059-96-PCM, Single Consolidated Text of the regulations with force of law governing the granting in concession to the private sector of Public Infrastructure Works and Public Services (TUO) and its Regulations, Supreme Decree N° 060-96-PCM; Bidding Terms and Conditions and Circulars.

2. We have reviewed and we are satisfied with these Bidding Terms and Conditions, Contract and other records and documents of the same, expressly accepting the obligations provided for the compliance with the Law for Promotion of Private Investment in Public Infrastructure Works and Public Utilities, these Rules and other rules applicable to the Concession Contract, having no claims or objections to make. Consequently, we release PROINVERSIÓN, its officers, its advisors and consultants from all liability for any errors or omissions that the aforementioned background and documents may have.

3. That, in case of being the Successful Bidder of the bid, we are committed that the concession contract will be signed by the concessionaire, according to the provisions of Section 12.2(b) ix of the Bidding Terms and Conditions.44

Place and date: ................................................................. 201...

Name .................................................................
Legal Representative of Bidder

Signature .................................................................
Legal Representative of Bidder

44 Amended by virtue of Circular letter No. 4
SAMPLE PRESENTATION LETTER FOR ECONOMIC PROPOSAL
(Reference: Section 14.2. of the Bidding Terms and Conditions)

Messrs. PROINVERSIÓN Committee in Road Infrastructure Projects, Railway Infrastructure and Airport Infrastructure - PRO INTEGRACIÓN
Present

Bidder: ..........................................................


According to indications made in the Bidding Terms and Conditions of Comprehensive Projects of reference, we hereby comply with submitting our Economic Proposal.

Economic Proposal

1. Competence Factor: Payment for Rehabilitation and Improvement (PRI)
It is the amount of money expressed in Dollars, that the State of the Republic of Peru shall assure to the CONCESSIONAIRE, according to its Economic Proposal, addressed to cover the costs of Rehabilitation and Improvement. The payment procedure is regulated in the Concession Contract.

Maximum PRI determined by the State:
…………………………. American Dollars (US$………..) without VAT

Annual Payment for Initial Periodic Maintenance (APIPM)
It is the total annual amount of money expressed in dollars that the State of the Republic of Peru shall assure to the CONCESSIONAIRE, according to its Economic Proposal, once it has received the sub sections where the Initial Periodic Maintenance is executed based on the terms and conditions established in the contract. The procedure and the periodicity of payment are regulated in the Concession Contract.

Maximum APIPM determined by the State:
…………………………. American dollars (US$………..) without VAT
Annual Payment for Maintenance and Operation (APMO)
It is the annual total amount of money expressed in dollars, that the State of the Republic of Peru shall assure to the CONCESSIONAIRE, according to its Economic Proposal addressed to cover the Operation and Maintenance costs of the concession, based on the terms and conditions established in the contract. The procedure and periodicity of payment are regulated in the Concession Contract.

Maximum APMO determined by the State:
............................ American dollars (US$.............) without VAT

2. Economic Proposal of Bidder: In integer numbers

a) Payment for Rehabilitation and Improvement (PRI)
............................ American dollars (US$.............), without VAT, in the conditions indicated in the contract.

b) Annual Payment for Initial Periodic Maintenance (APIPM):
............................ American dollars (US$.............), without VAT, in the conditions indicated in the contract.

c) Annual Payment for Maintenance and Operation (APMO):
............................ American Dollars (US$.............), without VAT, in the conditions indicated in the contract.

We declare that our Economic Proposal included in the proposed PRI, APIPM and APMO, are irrevocable and that will be in full effect until one hundred and twenty (120) calendar days after the submission date of Envelopes N° 2 and N° 3.

We declare that our Economic Proposal shall be incorporated to the Concession Contract in all its terms and conditions and without any exception and that the same is an affidavit.

Sincerely,

Name ......................................................
Legal Representative of Bidder

Signature .....................................................
Legal Representative of Bidder

(The Pre-shortlisted Bidder shall fill, in 2. a), 2.b) and 2. c) of this form, the amounts of the PRI, APIPM and APMO, corresponding to its proposal)
Messrs.
PROINVERSIÓN Committee in Road Infrastructure Projects, Railway Infrastructure and Airport Infrastructure -PRO INTEGRACIÓN
Present.

Bidder:.........................................................


According to indications made in the Bidding Terms and Conditions of Comprehensive Projects of the reference, we hereby comply to submit our Economic Proposal.

Economic Proposal.

1. **Competence Factor:**

   **Payment for Rehabilitation and Improvement (PRI)**
   It is the amount of money expressed in dollars, that the State of the Republic of Peru shall assure to the CONCESSIONAIRE, according to its Economic Proposal, addressed to cover the Rehabilitation and Improvement costs. The payment procedure shall be regulated in the Concession Contract.

   **Maximum PRI determined by the State:**
   …………………………… American dollars (US$.............) without VAT

   **Annual Payment for Initial Periodic Maintenance (APIPM)**
   It is the annual total amount of money expressed in dollars, which the State of the Republic of Peru shall assure to the CONCESSIONAIRE, according to its Economic Proposal, once it has received the sub sections where it shall be executed the Initial Periodic Maintenance, according to the terms and conditions established in the contract. The procedure and periodicity of payment are regulated in the Concession Contract.
Maximum APIPM determined by the State:
………………………… American dollars (US$…………….) without VAT

Annual Payment for Maintenance and Operation (APMO)
It is the annual total amount of money expressed in dollars, which the State of the Republic of Peru shall assure to the CONCESSIONAIRE, according to its Economic Proposal, to cover the operation and maintenance costs of the concession, according to the terms and conditions established in the contract. The procedure and periodicity of payment are regulated in the Concession Contract.

Maximum APMO determined by the State:
………………………… American dollars (US$…………….) without VAT

2. Economic Proposal of the Bidder: In integer numbers
   a) Payment for Rehabilitation and Improvement (PRI):
      ……………………… American dollars (US$…………….), without VAT, in the conditions indicated in the contract.
   b) Annual Payment for Initial Periodic Maintenance (APIPM):
      ………………… American dollars (US$…………….), without VAT, in the conditions indicated in the contract.
   c) Annual Payment for Maintenance and Operation (APMO):
      ………………… American dollars (US$…………….), without VAT, in the conditions indicated in the contract.

We declare that our Economic Proposal included in the proposed PRI, APIPM and APMO, is irrevocable and that it shall be in force until one hundred and twenty (120) calendar days after the submission date of Envelopes N° 2 and N° 3.

We declare that our Economic Proposal shall be incorporated to the concession contract in all its terms and conditions and without any exception and that is has an affidavit nature.

Sincerely,

Name ……………………………………………………………
   Legal Representative of Bidder

Signature ……………………………………………………………
   Legal Representative of Bidder

(The Pre-shortlisted Bidder shall fill, in 2. a), 2. b) and 2. c) of this form, the amounts of the PRI, APIPM and APMO, corresponding to its proposal)
Lima,............................. 201...

Messrs.
Private Investment Promotion Agency - PROINVERSIÓN

Present.-

Ref. : Letter of Guarantee Nº..............................
Expiration:....................................

Of our consideration:

We hereby at the request of our client ____________issue a joint and several, irrevocable, unconditioned, automatic execution letter of guarantee, without the benefit of excussion or division, for the amount of up to _ dollars of the United States of America (US $ _) in favor of PROINVERSION to guarantee our beneficiaries in the payment of that amount in any of the cases mentioned in the fourth paragraph of this letter of guarantee.

This bond will have a term from its submission and until (60) days counted from the submission date thereof and shall be effective when the corresponding resolution declares unfounded or inadmissible the appeal filed by the Bidder; likewise, in case that against such resolution, the Bidder does not present the corresponding appeal within the period specified in Section 16.5 b).

It is expressly understood by us that this bond may be executed by PROINVERSION pursuant to the provisions of Article 1898 of the Peruvian Civil Code.

It expressly agreed that to proceed to honor this bond, it is sufficient a simple notarial notification to our offices, located at the address indicated below, stating that the challenge brought about the bid for the concession of Longitudinal de la Sierra Highway Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho / Ayacucho - Andahuaylas - Sahuinto Bridge/ Dv. Pisco - Huaytará - Ayacucho, has been declared unfounded or inadmissible by the Steering Council of PROINVERSIÓN; or, having obtained resolution to this effect from the Committee, it was not appealed.

45 Amended by virtue of Circular letter No. 13
We undertake to pay the full amount of the bond within a maximum period of 24 hours, counted as from the date of receipt of the notarized letter of formal notice.

Any delay on our part to honor it shall give rise to the payment of compensatory interests in your favor which shall be calculated on the LIBOR rate at a year, plus a Spread of 3.0%.

LIBOR rate will be established by the daily Reuter Cable received in Lima at 11:00 am and Interest shall accrue from the date on which the honoring of this guarantee is required.

Sincerely,

________________________
SIGNATURE AND SEAL

Name of the bank that issues the guarantee:
Bank address:
**ANNEX N° 7**

Form 1

**TECHNICAL REQUIREMENTS FOR SHORTLISTING**
(Reference: Section 17.1 of the Bidding Terms and Conditions)

**AFFIDAVIT**

**BIDDER:** .................................................................

**Place and date:** ...................................................... 201...

**EXPERIENCE OF CONSTRUCTOR IN THE EXECUTION OF ROAD WORKS**

<table>
<thead>
<tr>
<th>Constructor Name</th>
<th>ACCREDITATION OF PARTICIPATION (1)</th>
<th>Description and location of work</th>
<th>Contractor</th>
<th>Length (km)</th>
<th>Altitude (mask)</th>
<th>Since (month/year)</th>
<th>Until (month/year)</th>
<th>Work amount US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of company or consortium that executed the work</td>
<td>Shareholding of constructor in the company that executed the work (%) and/or contractual relationship of construction</td>
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(1) Minimum 20% of shareholding.

Name: Legal Representative of Bidder / Successful Bidder

Signature: Legal Representative of Bidder / Successful Bidder

Name: Legal Representative of Constructor (2)

Signature: Legal Representative of Constructor (2)

(2) In case of a Constructor Consortium this form shall be completed with the name and signature of the common legal representative of the legal persons comprising it; otherwise with the name and signature of the legal representatives of the legal persons comprising the Constructor Consortium.

---

Amended by virtue of Circular letter No. 20
ANNEX N° 7
Form 2
AFFIDAVIT OF CONSTRUCTOR
(Reference: Section 17.1 of the Bidding Terms and Conditions)

Constructor: …………………………………………………

The constructor hereby declares under oath the following:

1. **Organization and Powers**
   *(If the Constructor is a single company, i.e. a legal person that meets the Constructor quality)*

   That the Constructor is a validly existing company or business entity duly incorporated and recorded in the corresponding registry, according to the laws of its jurisdiction of incorporation or organization to sign the Contract for Execution of Works and to comply with the obligations set out therein.

   *(In the event of a Constructor consortium, i.e. consortium in which each of its members meets the Constructor quality)*

   That, the Constructors forming the Consortium are companies or commercial entities duly incorporated, validly existing, duly recorded in the corresponding registry, in accordance with the laws of its jurisdiction of incorporation or organization to sign the Contract for Execution of Works and to comply with the obligations set out therein.

2. **Capacity**
   *(If the Constructor is a single company, i.e. a legal person that meets the Constructor quality)*

   That, the Constructor is duly trained and is competent to carry out its Business, daily operations, and other transactions foreseen in the Work Execution Contract.

   *(In the event of a Constructor consortium, i.e. consortium in which each of its members meets the Constructor quality)*

   That, the Constructors forming the Consortium are duly trained and are competent to carry out their business, daily operations, and other transactions foreseen in the Work Execution Contract.

3. **Authorization**
   *(If the Constructor is a single company, i.e. a legal person that meets the Constructor quality)*

---

47 Amended by virtue of Circular letter No. 4
48 Amended by virtue of Circular letter No. 20
That the constructor has the capacity and sufficient representation to execute and perform the Contract Work Execution. The execution and performance of this construction contract have been duly authorized in accordance with their respective internal rules or standards by all necessary corporate social action. None of the acts required for this purpose has been changed or canceled, and such acts are fully applicable.

(In the event of a Constructor consortium, i.e. consortium in which each of its members meets the Constructor quality)

That, the Constructors that have formed the Consortium have the capacity and sufficient representation to execute and perform the Contract Work Execution. The execution and performance of this construction contract have been duly authorized in accordance with their respective internal rules or standards by all necessary corporate social action. None of the acts required for this purpose has been changed or canceled, and such acts are fully applicable

4. Absence of Conflicts
   (If the Constructor is a single company, i.e. a legal person that meets the Constructor quality)

That the execution, delivery and performance of the contract of execution of work by the constructor and the performance of the acts referred to therein, do not violate any provision of the Applicable Law, or any partnership agreement, trust agreement or contravenes any arrangement of the Constructor’s statute.

(In the event of a Constructor consortium, i.e. consortium in which each of its members meets the Constructor quality)

That the execution, delivery and performance of the contract for the work execution by the Constructors forming the Consortium and the performance of the acts referred to therein, do not violate any provision of the Applicable Law, or any partnership agreement, trust agreement or contravenes any arrangement of the statute of the Constructors forming the Consortium.

5. Lack of disqualification
   (If the Constructor is a single company, i.e. a legal person that meets the Constructor quality)

That the constructor is not administratively sanctioned with temporary or permanent disqualification from exercising its rights to participate in selection processes summoned by the State, or to contract with the state.

(In the event of a Constructor consortium, i.e. consortium in which each of its members meets the Constructor quality)

That the Constructors forming the Consortium are not administratively sanctioned with temporary or permanent disqualification from exercising its
rights to participate in selection processes summoned by the State, or to contract with the state.

In that sense, we know and accept the consequences of the lack of truthfulness of the aforementioned declarations.

Place and date: ................................................. 201...

<table>
<thead>
<tr>
<th>Name</th>
<th>Legal Representative of Constructor (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Legal Representative of Constructor (1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entity</th>
<th>Successful Bidder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Legal Representative of Successful Bidder</td>
</tr>
<tr>
<td>Signature</td>
<td>Legal Representative of Successful Bidder</td>
</tr>
</tbody>
</table>

(1) In case of a Constructor Consortium this Form shall be completed with the name and signature of the common legal representative of all the legal persons comprising the Consortium or otherwise with the name and signature of the legal representatives of the legal persons comprising the Constructor Consortium.
ANNEX Nº 7
Form 3

COMMITMENT TO HIRING THE CONSTRUCTOR
(Reference: Section 17.1 of the Bidding Terms and Conditions

AFFIDAVIT

Successful Bidder: ..................................................

We hereby declare under oath the following:

That, we undertake to hire the constructor company(ies) .........................
(Name of constructor company or constructor companies that form a Consortium) once it has been pre-shortlisted complying with the requirements set forth in the Bidding Terms and Conditions.

Place and date:................................. 20...

Name ............................................................
Legal Representative of Successful Bidder

Signature ..........................................................
Legal Representative of Successful Bidder

49 Amended by virtue of Circular letter No. 4
50 Amended by virtue of Circular letter No. 20
1. DEFINITIONS

1.1 DATA ROOM

Data Room refers to all information supporting a project or process not concluded (hereinafter the process) and carried out under the responsibility of the Project Leader.

1.2 DATA ROOM ADMINISTRATOR

The head of Archives and Documentary Management, hereinafter the Administrator is responsible for the administration of the Data Room, through the Information Center (CINFO) of Proinversión.

1.3 BIDDER

It refers to a legal person or consortium that comes to this bid, who has acquired the right to participate and is subject to the provisions set forth in the Bidding Terms and Conditions.

1.4 USER

User is any person who has been authorized by the Bidder to have access to the information contained in the Data Room and also has the authorization of the Project Leader.

2. USE OF DATA ROOM

The Data Room may be only used by the users expressly authorized by the Project Leader in accordance with the provisions contained in this manual.

3. REQUEST OF USERS REGISTR

To use the Data Room, the Bidder shall designate (the) user (s) authorized by him that are authorized to on its behalf to have access to the Data Room. This authorization is done through the document entitled "Registration Application of Users" contained in Form 1 of this ANNEX. Similarly, the Bidder shall complete and sign the appropriate format to the Non-Disclosure Agreement as indicated in Section b).

Once the above formats are completed and signed by the representative of the Bidder or his designee, they shall be forwarded to the Project Leader. The Bidder may add new users using these formats.

Similarly, if the Bidder representative decides to rescind the designation of any user, he shall inform the Project Leader to unsubscribe.
4. VISIT REQUEST TO DATA ROOM

The Bidder or (the) user (s) who wants to visit the Data Room to review or obtain information or documents shall request it to the Project Leader through the format of Form 2 of this Annex.

The request may be made using any means considering that the request shall contain the same information provided in Form 2 of this ANNEX. The Administrator or designee will respond to the request confirming the availability of the Data Room for the day and time requested.

5. OPENING HOURS

The Data Room opening hours are the same as those established for the PROINVERSION offices.

6. ATTENTION IN DATA ROOM

Registered and authorized users can make use of the information contained in the Data Room requesting it to the Project Leader, the Administrator or his designee on the date and time that has been reserved for them. However, if the user wishes to obtain a copy (s) of certain document (s), he shall request it to the Administrator by completing Form 3 of ANNEX Nº 8 and its delivery will be made according to the availability of resources and facilities upon payment of the amount that costs such photocopying service. To this effect, the user will provide the Administrator all the information needed to manage the corresponding receipt of payment.

It is expressly established that the information is available to users as it has been recorded and sent to CINFO by the Project Leader, therefore it is the responsibility of users, if so required, to make analysis, pictures, translations etc. in respect thereof.

Access to information and documents is strictly restricted to the environment where the Data Room is located. Similarly, it is absolutely forbidden for the user to make notes, summaries, trademarks, alterations, mutilations or similar in the documents requested under responsibility. If that happens, the Administrator will report to the Project Leader so that it brought to the attention of these facts to the Bidder and to determine penalties that may apply.

7. INQUIRIES ABOUT THE INFORMATION CONTAINED IN DATA ROOM

The Administrator may answer inquiries from users regarding only the issues related to information management. Inquiries regarding technical or specialized aspects shall be made to the Project Leader or his designee. To this effect, the necessary coordination between the manager and the Project Leader shall be made so that the necessary and timely assistance to users who require it may be provided.
Any information obtained by other means and that is not contained in the Data Room and the respective index shall not be deemed official and therefore valid.

8. AVAILABLE SERVICES

The Data Room will be located will be enabled with computer equipment and photocopying service (Form of this Annex) under the conditions set out in paragraph 6 of this Annex. However, if the user requires other services, it shall with due notice communicate to the Administrator to coordinate its implementation according to the availability of resources.
By this letter we request permission to use the Data Room of the project "PROJECT". For that purpose we kindly ask to register the following people as users.

<table>
<thead>
<tr>
<th>Full name</th>
<th>Company</th>
<th>Position</th>
<th>National Identity Type(*)</th>
<th>Number</th>
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</table>


Also we are aware of the Data Room Access and Use Manual as well as the use thereof is strictly confidential.

E-mail reference list for notification from the Data Room

1
2
3
4

Sincerely,

[Signature]

Name of Representative

Position:
Bidder:
Phone:
E-mail:
Fax:
REQUEST OF APPOINTMENTS FOR VISITS TO DATA ROOM

Sir: 

Present 

Ref.: Public Bid- “PROJECT”

We hereby request to have an appointment to make use of the Data Room of the “Project”, for the following days:

<table>
<thead>
<tr>
<th>Day (dd/mm/yyyy)</th>
<th>Time From</th>
<th>Time To</th>
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<tbody>
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</table>

Sincerely,

Signature

Name of Representative

Position:
Bidder: __________________________
Phone: __________________________
E-mail: __________________________
Fax: __________________________
**DATA ROOM “PROJECT XXXX”**

**PHOTOCOPY REQUEST**

**FULL NAME:**  

**BIDDER:**  

**DOCUMENTS**

<table>
<thead>
<tr>
<th>REFERENCE CODE</th>
<th>DESCRIPTION</th>
<th>FROM PAGE(*)</th>
<th>TO PAGE(*)</th>
<th>DELIVERED</th>
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</thead>
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</tr>
</tbody>
</table>

(*) Leave blank if you require a copy of the entire document

**DELIVERY OF PHOTOCOPIES**

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
</tr>
</thead>
</table>

COMPLIES (Applicant)

Applicant  

Data Room Administrator
ANNEX N° 8
Form 4
NON DISCLOSURE AGREEMENT
(Reference: Section 10.2 b). of the Bidding Terms and Conditions

Lima,............................................ 201....

Messrs.
PROINVERSIÓN Committee in Road Infrastructure Projects, Railway Infrastructure and Airport Infrastructure -PRO INTEGRACIÓN
Present.-

Bidder: ..........................................................................................
........................................................................ (Name of the Bidder) duly represented by its ........................................ (Position of undersigned), Mr./Mrs. ............................................................................................................. (name of undersigned), identified with ............... Nº .......................
.............................................................................................................................
we hereby express our interest to access the Data Room that the Committee makes available, according to the Bid Terms of Comprehensive Projects for the Concession of the Longitudinal de la Sierra Highway Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho/Ayacucho - Andahuaylas – Sahuinto Bridge/Dv. Pisco - Huaytará - Ayacucho.

In this regard, we are committed to maintaining confidentiality of all information obtained in the Data Room, not to disclosing any material or information to third parties without the prior written permission of the Committee, not to using the information for any other purpose not related to the process of the Comprehensive Projects and to not using the information in any manner that may cause conflicts with the interests of the state, its officials or agencies, PROINVERSION and the Committee.

The materials obtained from the Data Room will only be made available to our staff, executives and consultants, for reasons related to the process of Comprehensive Projects. Such staff shall be aware of this agreement and will be equally obliged to maintain confidentiality regarding the above information. We will take all reasonable actions to avoid disclosing any information to third parties without the prior written consent of the Committee.

No permit or right has been granted or shall be granted to any of our consultants regarding the provision of information comprised in this agreement.

We agree that the State, governmental officials or agencies, APN, PROINVERSION, the Committee, its consultants or members are not declaring or guaranteeing, expressly or implicitly, the accuracy, reliability or totality of the information available to us, and any of its parties, managers, officers, employees or representatives will be responsible to us or to any other person for the use of such
information and/or material. We agree to make our own decisions related to the information available to us and we recognize that we will not depend or be induced for such information when deciding on our intention regarding the bid.

We accept that no documents or information provided, discussion, negotiation or other related matters constitute an offer by or on behalf of the Committee, and that they will not serve as a basis or will be taken into account in connection with any agreement, except when it has expressly been agreed in writing with the Committee.

At the request of the Committee we accept to immediately return all copies of all documents that were made available to us, or available to our representatives or consultants.

Similarly, we agree that the Committee does not undertake or is obliged to provide access to additional information or to update the information and materials available or to correct any inaccuracies that may appear.

This agreement shall not apply to information that: (i) the date on which it was disclosed to us or to our consultants was of public knowledge or any time after that opportunity is of public knowledge (except that information subject of non-compliance of this agreement by us or our agents), or (ii) to date, is legally in our power and, therefore, is not subject to confidentiality agreement.

The rights and obligations herein shall be governed and construed in accordance with the provisions of the Peruvian law and the parties irrevocably agree to submit to the jurisdiction of the judges and courts of Lima, Peru.

In acceptance and compliance with all terms and conditions of this Non-Disclosure agreement we sign and deliver a copy to the Committee, on..... ............. 201..................

Legalized signature .................................

Name .........................................................

(Legal representative or Authorized Agent of the Bidder)51

Bidder ...............................  

51 Amended by virtue of Circular letter No. 4
LIST OF DATA ROOM DOCUMENTS
(Reference: Section 10.2 c). of the Bidding Terms and Conditions

1. Studies conducted in the Sub-Sections where the Concessionaire will perform the Rehabilitation and Improvement:

<table>
<thead>
<tr>
<th>Study Name</th>
<th>Name of the Consulting Firm that Prepared the Study and Year Prepared</th>
<th>Intervention Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-A</td>
<td>Final Report on the Feasibility Study for the re of the Izcuchaca – Mayocc Road (First Part)</td>
<td>Consorcio Vial Izcuchaca 2013</td>
</tr>
<tr>
<td>1-B</td>
<td>Final Report on the Feasibility Study for the Rehabilitation and Improvement of the Izcuchaca – Mayocc Road (Second Part)</td>
<td>Consorcio Vial Izcuchaca 2013</td>
</tr>
</tbody>
</table>

2. Studies conducted in previous years in the Sub-Sections where the Concessionaire will perform the Initial Periodic Maintenance:

<table>
<thead>
<tr>
<th>Study Name</th>
<th>Name of the Consulting Firm that Prepared the Study and Year Prepared</th>
<th>Intervention Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Final Report on the Supervision of the Rehabilitation and Improvement Works for the Ayacucho – Abancay Road – Sub-Section N° 9 (Km 0.000 (Ayacucho) – Abra Tocto)</td>
<td>HOB Consultores S.A. (2011)</td>
</tr>
</tbody>
</table>

3. Studies for the Sub-Sections where the GRANTOR performed and/or is currently performing the Rehabilitation and Improvement and Service Agreements:

52 Updated by virtue of Circular letter No. 13
### Study Name

<table>
<thead>
<tr>
<th>Study Name</th>
<th>Name of the Consulting Firm that Prepared the Study and Year Prepared</th>
<th>Intervention Type</th>
</tr>
</thead>
</table>

### Sub-Sections where the Concessionaire will perform the Initial Periodic Maintenance:

<table>
<thead>
<tr>
<th>Code</th>
<th>Study Name</th>
<th>Name of the Consultant Who Prepared the Study and Year Prepared</th>
<th>Intervention Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Initial and Maintenance Works Program for the Sectors of Section 4 of the Carretera Longitudinal de la Sierra</td>
<td>Sergio Avilés Córdoval</td>
<td>Initial Periodic Maintenance</td>
</tr>
<tr>
<td>4.2</td>
<td>Standardization of Section 4 –Longitudinal de la Sierra Highway</td>
<td>José Luna Huamán</td>
<td>Initial Periodic Maintenance</td>
</tr>
</tbody>
</table>
4.3 Initial and Maintenance Works Program for the Sectors of Section 4 of the Carretera Longitudinal de la Sierra Andahuaylas (Emp. 30B) – Dv. Kishuará (Emp PE-3SE): Sub-Section N° 14 and San Clemente (Emp. PE-1S) - Puente Choclocococha: Sub-Section N° 17

5. Cargo and Passenger Demand Study

<table>
<thead>
<tr>
<th>Code</th>
<th>Study Name</th>
<th>Name of the Consultant Who Prepared the Study and Year Prepared</th>
<th>Intervention Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Cargo and Passenger Demand Study</td>
<td>Consorcio CSI-PM PERU SAC-2011</td>
<td></td>
</tr>
</tbody>
</table>

6. Terms of reference for the construction and implementation of toll booths

53 Included by virtue of Circular letter No. 19
1. **THE PROJECT**

1.1 **LOCATION**

The project is located in the departments of Junín, Huancavelica, Ayacucho, Apurímac, and Ica. To the north, it reaches as far as the city of Huancayo; to the south, up to the Sahuinto Bridge; and to the west, to the junction with the Panamericana Sur highway.

1.2 **GENERAL DESCRIPTION OF THE PROJECT**

The Longitudinal de la Sierra highway – Section 4 is a national highway that connects the major cities of Peru’s southern highlands. It begins in the city of Huancayo, in the department of Junín, and passes through the cities of Izcuchaca, Mayocc, Huanta, Ayacucho, and others. It connects with the coast via the San Clemente - Ayacucho Sub-Section. The general objective of this project is to perform the works and make use of the concession’s road infrastructure, offering adequate transitability and other services to the route’s users.

The project also includes services to be provided to the route’s users, as established in the Contract.

1.3 **ROAD SUB-SECTIONS INCLUDED IN THE PROJECT**

The following table includes a summary of the Sub-Sections that will form part of the Concession, their length, and other characteristics:

Table 1.3: Area of the Concession

<table>
<thead>
<tr>
<th>SUB-SECTION</th>
<th>DESCRIPTION</th>
<th>ROUTE</th>
<th>LENGTH km</th>
<th>START</th>
<th>END</th>
<th>OBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dv. Huancayo – Pte. Chanchas</td>
<td>PE-3S</td>
<td>3.834</td>
<td>126.528</td>
<td>130.362</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Pte. Chanchas - Huayucachi</td>
<td>PE-3S</td>
<td>2.820</td>
<td>130.362</td>
<td>133.182</td>
<td></td>
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<tr>
<td>3</td>
<td>Huayucachi - Imperial</td>
<td>PE-3S</td>
<td>26.567</td>
<td>133.182</td>
<td>159.749</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Imperial - Izcuchaca</td>
<td>PE-3S</td>
<td>31.219</td>
<td>159.749</td>
<td>190.968</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Izcuchaca - Mayocc</td>
<td>PE-3S</td>
<td>116.863</td>
<td>190.968</td>
<td>307.831</td>
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<tr>
<td>6</td>
<td>Mayocc - Huanta</td>
<td>PE-3S</td>
<td>32.756</td>
<td>307.831</td>
<td>340.587</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Huanta - Ayacucho (Emp PE-28A)</td>
<td>PE-3S</td>
<td>42.253</td>
<td>340.587</td>
<td>382.840</td>
<td></td>
</tr>
</tbody>
</table>

54 Amended by virtue of Circular letter No. 4.
55 Amended by virtue of Circular letter No. 8.
### Table

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Distance</th>
<th>Start Point</th>
<th>End Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Ayacucho (Emp PE-28A) - Km. O+000 (Ayacucho)</td>
<td>PE-3S</td>
<td>7.628</td>
<td>382.840</td>
</tr>
<tr>
<td>9</td>
<td>Km. O+000 (Ayacucho) - Abra Tocto</td>
<td>PE-3S</td>
<td>50.000</td>
<td>390.468</td>
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<tr>
<td>10</td>
<td>Abra Tocto - Ocros</td>
<td>PE-3S</td>
<td>48.800</td>
<td>440.468</td>
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<tr>
<td>11</td>
<td>Ocros - Chincheros</td>
<td>PE-3S</td>
<td>55.200</td>
<td>489.268</td>
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<tr>
<td>12</td>
<td>Chincheros - Santa María de Chicmo</td>
<td>PE-3S</td>
<td>66.022</td>
<td>544.468</td>
</tr>
<tr>
<td>13</td>
<td>Santa María de Chicmo - Andahuaylas (Emp PE-30B)</td>
<td>PE-3S</td>
<td>20.340</td>
<td>610.490</td>
</tr>
<tr>
<td>14</td>
<td>Andahuaylas (Emp PE-30B) - Dv. Kishuara (Emp PE-3SE)</td>
<td>PE-3S</td>
<td>54.307</td>
<td>630.830</td>
</tr>
<tr>
<td>15</td>
<td>Dv. Kishuara (Emp PE-3SE) - Dv. Sahuinto (Emp PE-3S)</td>
<td>PE-3S</td>
<td>62.711</td>
<td>0.000</td>
</tr>
<tr>
<td>16</td>
<td>Dv. Sahuinto (Emp PE-3S) - Puente Sahuinto</td>
<td>PE-3S</td>
<td>13.739</td>
<td>737.699</td>
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<tr>
<td>17</td>
<td>San Clemente (Emp. PE-1S) - Puente Choclococha</td>
<td>PE-28A</td>
<td>163.810</td>
<td>0.000</td>
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<td>18</td>
<td>Puente Choclococha - Ayacucho (Emp. PE-28A)</td>
<td>PE-28A</td>
<td>172.066</td>
<td>163.810</td>
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</table>

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</thead>
<tbody>
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<td>Total</td>
<td>970.935</td>
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</tr>
</tbody>
</table>

### 1.4 PROJECT OBJECTIVE

Facilitate vehicular transit and safety of the farming areas and populated centers within the project’s area of influence, contributing to socioeconomic development in the regions of Ica, Junín, Huancavelica, Ayacucho, and Apurímac.

### 1.5 CURRENT SITUATION

The roads that form part of Section 4 of the Longitudinal de la Sierra Highway currently suffer from extensive transitiability problems (especially those sections with a packed dirt surface, such as the Izcuchaca – Mayocc section) due to the conditions of the wearing course, a semi-rugged terrain along the entire route, with rolling hills and a significantly
uneven platform, hampering the free passage of vehicles and optimal accessibility to the regions’ main markets. This often results in slow transit, with vehicles having to stops many times and brake abruptly, leading to higher vehicle operating costs as the problems with the wearing course increase, as well as risks to the circulation of vehicles and passersby due to the condition of the road.

On the other hand, there are also sections where the wearing course has recently been upgraded to rolled asphalt with good serviceability.

Section 4 of the Longitudinal de la Sierra highway also has rolled asphalt sectors that were remediated and upgraded between 2002 and 2006, such as the Huancayo – Imperial and Imperial – Izcuchaca sections, with good levels of transitivity, in an average state of conversation, with conservation agreements by service levels.

This situation has led to interest from the community and the authorities in avoiding increases in the cost of vehicle operation and the risk of the constant deterioration of the pavement and the slopes, thus preventing subsequent maintenance works from turning into reconstruction, involving higher costs. With this goal in mind, Section 4 of the Longitudinal de la Sierra highway is being granted in concession to the private sector.

The condition of the main Sub-Sections that form part of the Longitudinal de la Sierra – Section 4 is described below: 56

**Sub-Sections Dv. Huancayo - Chanchas Bridge - Huayucachi - Imperial - Izcuchaca**

These Sub-Sections between the Huancayo Turnoff and Izcuchaca, measuring 64.44 km long, begin at the exit from Huancayo, and will be operated by the GRANTOR before being delivered to the CONCESSIONAIRE.

The delivery of these Sub-Sections will occur on the date and under the conditions established in the Concession Contract.

**Izcuchaca - Mayocc Sub-Section**

The road route begins 150 m from the Izcuchaca Bridge, running southeast through the towns of La Mejorada, Matancra, Represa de Tablachaca, Quichuas, Anco, and Santa Elena, until it arrives in the town of Mayocc, running an approximate distance of 116.86 km.

The road is currently paved with granular material (packed dirt), which is an average to poor state of conservation, predominated by loose aggregates, bumps, and potholes, whose levels of severity range from minor to moderate.

---

56 Updated by virtue of Circular letter No. 13
This Sub-Section has a technical and economic feasibility study in the National Public Investment System (SNIP), for the laying of rolled asphalt.

The final study and the implementation of the works will be entrusted to the CONCESSIONAIRE, as per the deadlines for each activity established in the Concession Contract.

**Mayocc - Huanta Sub-Section**
Sub-Section measuring 32.76 km long, operated by the GRANTOR. This Sub-Section will be delivered on the date and under the conditions established in the Concession Contract.

**Huanta - Ayacucho (Emp PE-28A) Sub-Section**
The Huanta - Ayacucho (Emp PE-28A) Sub-Section measures 42.25 km long, and has a double bituminous surface treatment (DBST). This Sub-Section will be operated by the CONCESSIONAIRE via Initial Periodic Maintenance (MPI), for which purpose the CONCESSIONAIRE shall prepare the corresponding technical files. The deadlines for each activity are established in the Concession Contract.

**Km 0+000 (Ayacucho) - Abra Tocto Sub-Section**
The Ayacucho – Abra Tocto Sub-Section measures 50.00 km long, and is paved with asphalt. This Sub-Section will be operated by the CONCESSIONAIRE via Initial Periodic Maintenance (MPI), for which purpose the CONCESSIONAIRE shall prepare the corresponding technical files. The deadlines for each activity are established in the Concession Contract.

**Abra Tocto - Ocros Sub-Section**
This Sub-Section measures 48.8 km long, and is paved with rolled asphalt. It will be operated by the GRANTOR prior to being delivered to the CONCESSIONAIRE.

This Sub-Section will be delivered on the date and under the conditions established in the Concession Contract.

**Ocros - Chincheros Sub-Section**
This Sub-Section measures 52.2 km long, and is paved with rolled asphalt. It will be operated by the GRANTOR prior to being delivered to the CONCESSIONAIRE.

This Sub-Section will be delivered on the date and under the conditions established in the Concession Contract.

**Chincheros - Santa Maria de Chicmo Sub-Section**
This Sub-Section measures 66.022 km long, and is paved with rolled asphalt. It will be operated by the GRANTOR prior to being delivered to the CONCESSIONAIRE.

This Sub-Section will be delivered on the date and under the conditions established in the Concession Contract.

**Santa Maria de Chicmo - Andahuaylas Sub-Section**
This Sub-Section measures 20.34 km long, and is paved with rolled asphalt.

This Sub-Section will be operated by the CONCESSIONAIRE via Initial Periodic Maintenance (MPI), for which purpose the CONCESSIONAIRE shall prepare the corresponding technical files. The deadlines for each activity are established in the Concession Contract.

**Andahuaylas - Dv. Kishuara Sub-Section**
This Sub-Section measures 54.31 km long, and is paved with rolled asphalt.

This Sub-Section will be operated by the CONCESSIONAIRE via Initial Periodic Maintenance (MPI), for which purpose the CONCESSIONAIRE shall prepare the corresponding technical files. The deadlines for each activity are established in the Concession Contract.

**Dv. Kishuara - Dv Sahuinto (Emp PE-3S) Sub-Section**
This Sub-Section measures 62.711 km long, and is paved with rolled asphalt. It will be operated by the GRANTOR prior to being delivered to the CONCESSIONAIRE.

This Sub-Section will be delivered on the date and under the conditions established in the Concession Contract.

**Dv Sahuinto (Emp PE-3S) - Sahuinto Bridge Sub-Section**
This Sub-Section measures 13.739 km long, and is paved with rolled asphalt. It will be operated by the GRANTOR prior to being delivered to the CONCESSIONAIRE.

This Sub-Section will be delivered on the date and under the conditions established in the Concession Contract.

**San Clemente - Choclococha Bridge Sub-Section**
This Sub-section, measuring 163.81 km long, is currently conserved by service levels.
This Sub-section will be operated by the CONCESSIONAIRE via Initial Periodic Maintenance (MPI), for which purpose the CONCESSIONAIRE shall prepare the corresponding technical files. The deadlines for each activity are established in the Concession Contract.

**Choclococha Bridge - Ayacucho (PE-03S/PE-28A) Sub-section**
This Sub-section, measuring 172.066 km long, is paved with asphalt. This Sub-section will be operated by the CONCESSIONAIRE via Initial Periodic Maintenance (MPI), for which purpose the CONCESSIONAIRE shall prepare the corresponding technical files. The deadlines for each activity are established in the Concession Contract.

**Bridges in the San Clemente - Ayacucho Section**
In the San Clemente - Ayacucho Section, twelve (12) bridges have been identified that will need to be replaced due to their age and poor conditions. These bridges will be operated by PROVIAS NACIONAL and delivered during Years 2 and 3 of the Concession.

The bridges to be operated are as follows:
- Huancano Bridge (31 m)
- Rumicahaca I Bridge (60 m)
- Niñacha Bridge (15 m)
- Supaymayo Bridge (15 m)
- Suchuna Bridge (15 m)
- Niñobamba Bridge (15 m)
- Rumichaca II Bridge (21 m)
- S-N/Km. 266+284 Bridge (15 m)
- Ccatumpampa Bridge (21 m)
- Angasmayo Bridge (31 m)
- Casacancha Bridge (31 m)
- S-N/Km. 327+733 Bridge (15 m)

The rest of the bridges in these Sub-Sections must be included in the Technical Files for the Initial Periodic Maintenance, as per the Concession Contract.

The Periodic and Routine Maintenance costs for the bridges shall be assumed by the CONCESSIONAIRE. As such, said costs are included in the Concession.

**1.6 ORIGIN-DESTINATION SURVEYS IN THE STUDY AREA**
In 2011, the Planning and Budget Office of the MTC conducted the Cargo and Passenger Demand Study, which collected information on the provenance and destination of cargo and passengers at 175 stations distributed throughout the national road network, 24 hours a day for 3 consecutive days.
Of these 175 stations, 17 are located in the project area and cover the road network to be granted in concession, alternate routes, and the main crossing roads and feeder routes. The distribution of the stations by department is as follows: four (4) in the department of Junín; five (5) in the department of Huancavelica; four (4) in the department of Ayacucho; and five (5) stations in the department of Apurimac.

1.7 CALIBRATION COUNTING STATIONS
The demand analysis was performed by vehicle composition (lightweight vehicles, passenger transport vehicles, and cargo transport vehicles) in the main road corridors of the study area. The project’s database includes detailed results on ten (10) counting stations (per hour, direction, and detailed vehicle type), which are shown in the Demand Report.

The following table details the capacities identified at the counting points in 2011, 2010, and 2008, as applicable, classified by vehicle category: lightweight vehicles, passenger transport vehicles, and cargo transport vehicles.

Vehicle capacities at counting points by vehicle type: lightweight vehicle (LV), passenger transport (PT), and cargo transport (CT)

<table>
<thead>
<tr>
<th>Station</th>
<th>Lightweight (LV)</th>
<th>Passenger (PT)</th>
<th>Cargo (CT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C253 Pacra</td>
<td>184</td>
<td>236</td>
<td>76</td>
</tr>
<tr>
<td>C600 Rumichaca</td>
<td>100</td>
<td>102</td>
<td>163</td>
</tr>
<tr>
<td>E054 Yanama</td>
<td>255</td>
<td>374</td>
<td>11</td>
</tr>
<tr>
<td>C049 Huanta</td>
<td>477</td>
<td>798</td>
<td>20</td>
</tr>
<tr>
<td>E175 Quinua</td>
<td>358</td>
<td>751</td>
<td>4</td>
</tr>
<tr>
<td>C215 Acostambo</td>
<td>480</td>
<td>724</td>
<td>77</td>
</tr>
<tr>
<td>E055 Santa María de Chicmo</td>
<td>221</td>
<td>574</td>
<td>15</td>
</tr>
<tr>
<td>C054 Auquibamba</td>
<td>86</td>
<td>196</td>
<td>18</td>
</tr>
<tr>
<td>E178 Suncho</td>
<td>57</td>
<td>121</td>
<td>9</td>
</tr>
<tr>
<td>C081 Casinchihua</td>
<td>331</td>
<td>59</td>
<td>183</td>
</tr>
</tbody>
</table>

1.8 TRIP GROWTH MODELS
The overall transport demand, for both passengers and cargo, depends to a large extent on the economic activity of the study area included. It is common to tie various transport indicators (fuel consumption, traffic volume, etc.) to macroeconomic parameters such as population, GDP, and GDP per capita. Once these ratios have been established, the projections for the macroeconomic parameters are applied. At the end of this process, the traffic growth rates for passengers and cargo vehicles are estimated through 2015, 2017, 2019, 2024, and 2039.

Statistical information and projections are broken down at the national, departmental, and—in the best of cases—provincial levels. But the projections used in the modeling processes must be correlated to the defined traffic areas, since these are made up of groups of provinces.

Prepared by: Planning and Budget Office (OGPP)
When projections are national, they must first be broken down to at the departmental level based on known historical trends at this level. Likewise, when projects are available at the departmental level, they are broken down to the provincial level based on known historical trends at this level.

2. **RESPONSIBILITY FOR THE STUDIES**

The Final Engineering Studies, the Environmental Management Instruments for Rehabilitation and Improvement, and the Technical Files for the Initial Periodic Maintenance shall be prepared by the CONCESSIONAIRE, by the date and in the form established in the Concession Contract.

The GRANTOR shall include the Feasibility Study for Rehabilitation and Improvement in the Data Room.

The terms of reference for the preparation of the Technical Files for the Initial Periodic Maintenance are contained in these Bidding Terms and Conditions.

3. **Toll Booths and Weigh Stations**

3.1 **Existing Toll Booths**

In accordance with the Concession Contract, the necessary systems shall be implemented in the existing toll booths.

3.2 **New Toll Booths**

The CONCESSIONAIRE shall construct and implement the new toll booths, as specified in Chapter IX of the Concession Contract. The terms of reference for the construction of the new toll booths are not binding, and are only for reference purposes.57

3.3 **Weigh Stations**

The CONCESSIONAIRE shall install and operate fixed weigh stations and mobile weigh stations.58

The location for the installation of the fixed stations shall be coordinated with the GRANTOR.

They shall begin operation simultaneously with the commissioning of the Sub-section where each weigh station is located.

3.4 **Appendix 3 to ANNEX 9: Toll System for standardized operation** 59

4. **REHABILITATION AND IMPROVEMENT, INITIAL PERIODIC MAINTENANCE, AND CONSERVATION**

57 Included by virtue of Circular letter No. 19.
58 Amended by virtue of Circular letter No. 4.
59 Included by virtue of Circular letter No. 4.
4.1 REHABILITATION AND IMPROVEMENT
This Concession includes the Rehabilitation and Improvement of the wearing course of the Izcuchaca – Mayocc Sub-section, for which purpose Final Engineering Studies and Environmental Management Instruments shall be prepared based on the terms of reference contained in Appendix 2 to ANNEX 9 of these Bidding Terms and Conditions.

4.2 INITIAL PERIODIC MAINTENANCE
The Initial Periodic Maintenance interventions planned for the project shall be carried out by the CONCESSIONAIRE, for which purpose it shall prepare the Technical Files based on the terms of reference contained in Appendix 1 to ANNEX 9 of these Bidding Terms and Conditions.

The CONCESSIONAIRE shall carry out the Initial Periodic Maintenance in the following Sub-Sections of the Concession:
- Huanta – Ayacucho (Emp PE-28A) Sub-section
- Km 0+000 (Ayacucho) – Abra Tocto Sub-section
- Santa María de Chico – Andahuaylas (Emp PE-30B) Sub-section
- Andahuaylas (Emp PE-30B) – Dv. Kishuara (Emp PE-3SE) Sub-section
- San Clemente (Emp PE-1S) – Choclococha Bridge Sub-section
- Choclococha Bridge - Ayacucho (Emp. PE-28A) Sub-section

4.3 CONSERVATION OF THE CONCESSION ASSETS
The activities for the Conservation of the Concession Assets include Periodic, Routine, and Emergency Road Maintenance for the Concession assets, in all of the Sub-Sections included therein. To determine the degree of compliance with the conservation activities, the concept of Service Levels will be used. According to this concept, the functionality of road infrastructure can be expressed through parameters for which limits may be established, which we will denominate Service Levels. These levels are the admissible limits within which the parameter measurements may fluctuate, such that the road infrastructure adequately provides the service for which it was conceived. ANNEX I to the Agreement contains the minimum Service Levels established by the GRANTOR and the deadlines for their implementation.

The purpose of ANNEX I is to establish complementary contractual obligations for the performance of the works, tasks, activities, operations, actions, and caretaking inherent to the Conservation of the Road Infrastructure by the CONCESSIONAIRE, as well as setting the limits for the indicators on the condition of the road infrastructure elements that must be met—denominated Service Levels—and, in some cases, to indicate the types of intervention to be carried out by the CONCESSIONAIRE in response to unsatisfactory conditions in road infrastructure elements, based on the evaluations performed.

60 Amended by virtue of Circular letter No. 13.
In accordance with the foregoing, in a concession by Service Levels, the CONCESSIONAIRE is expected to have the ability to anticipate or detect, on its own, any condition parameters whose measurements are approaching the acceptable limits, and to carry out the conservation tasks necessary for the correction thereof (without waiting for instructions from the GRANTOR or the supervisor), at the lowest possible cost, so as to meet the established minimum levels in the most critical situations.

Under these circumstances, the CONCESSIONAIRE shall have the structure, organization, and resources (physical, technical, and administrative) necessary to schedule and perform—throughout the entire concession period—the tasks necessary to ensure that the measurement of the condition parameters for the selected road Sub-Sections are kept within the Service Levels defined in the Agreement, at all times.

Under this system, complying with the standards in force on the matter at all times, the CONCESSIONAIRE is permitted to introduce technological innovations or new materials that reduce construction and operating costs, minimize environmental impacts, lengthen the duration of the conservation effects, and improve user comfort and safety.

Periodic Road Conservation shall be performed in each Sub-section in accordance with the schedule submitted each year by the CONCESSIONAIRE.

The CONCESSIONAIRE shall likewise perform the Routine Road Conservation tasks according to its best estimates, taking into account the need to comply with the Service Level limits established in ANNEX I to the Agreement.

Compliance with the conservation standards shall be performed in accordance with the procedures and by the deadlines established in ANNEX I to the Agreement.

4.3.1 Reference Conservation Program

The CONCESSIONAIRE shall submit a reference conservation program to the REGULATOR for consideration, in accordance with the procedures set forth in ANNEX I to the Concession Contract, which describes the tasks it plans to perform, with the corresponding designs and specifications.

The reference conservation program shall be based on evaluations of the physical conditions and state of the road infrastructure elements, using suitable sounding techniques and road infrastructure management tools appropriate for the requirements established in ANNEX I. The program shall also establish the policies to be applied for decision making.

More details on this activity can be found in the Concession Contract.
4.3.2 Road Conservation

4.3.2.1 Routine Road Conservation
This is the set of activities to be performed on the roads on an ongoing basis to conserve their Service Levels. These activities may be manual or mechanical, and primarily involve cleaning, pothole repair, profiling, brush clearing, elimination of small rockslides, and the cleaning or repair of expansion joints, support elements, paint, and drainage in the superstructure and substructure of the bridges.

More details on this activity can be found in the Concession Contract.

4.3.2.2 Periodic Road Conservation
This is the set of activities that can be scheduled every so often, to be performed on the roads to recover their service conditions. These activities may be manual or mechanical, and mainly include: i) replacement of wearing courses, coating of the asphalt layer, installation of leveling layers, surface treatments and sealant; ii) limited repair or reconstruction of lower layers of the pavement; iii) limited repair or reconstruction of tunnels, walls, drainage works, road safety elements, and signage; iv) limited repair or reconstruction of the level area of the road, which may include limited drainage works and other activities to ensure the stability thereof; and v) limited repair or reconstruction of bridge components, including both superstructure and substructure.

More details on this activity can be found in the Concession Contract.

4.3.2.3 Road Emergencies
Road emergencies are those involving unexpected damages to the road caused by natural disasters or human beings, which hamper or prevent the circulation of users.

More details on this activity can be found in the Concession Contract.

4.3.3 Conservation of Other Concession Assets
The CONCESSIONAIRE shall also conserve other Concession Assets, such as toll booths and weigh stations; mandatory and optional service equipment; other equipment; electrical, mechanical, and electronic operating and administrative systems, etc. The CONCESSIONAIRE is required to update and overhaul said assets as technology and science advance.

4.3.4 Other Services to Be Provided by the CONCESSIONAIRE
In addition to the interventions to be performed by the CONCESSIONAIRE, its other responsibilities include the following:

- Ambulance service
- Emergency hotline
- Real-time emergency communication system
4.4 DESCRIPTION OF THE SERVICE LEVEL TO BE ACHIEVED
The condition of the Concession Assets and the road infrastructure will be expressed using condition parameters, which shall be defined in the Concession Contract, in reference to different aspects such as: the state of the pavement, condition of the drains, state of the signs, quality of circulation, etc. The limits on the condition parameters that must be complied with are known as "Service Levels."

The CONCESSIONAIRE is obligated to schedule and perform the maintenance tasks necessary to ensure that, at all times, the condition parameters measurements are equal to or greater than the minimum thresholds (or below the maximums) established by the Service Levels defined in the Concession Contract.

5. TECHNICAL SPECIFICATIONS

5.1 General Technical Specifications
When performing the Rehabilitation and Improvement, the Initial Periodic Maintenance, and the Conservation tasks, the CONCESSIONAIRE shall use the following general technical specifications as guidelines:

- Geometric Road Design Manual DG-2013
- General Technical Specifications for Roads EG-2013
- Manual on Automotive Transit Control Devices for Streets and Roads
- Bridge Design Manual DP-2003
- Directive 007-2008-MTC/02: Safety Barriers
- Hydrology, Hydraulics, and Drainage Manual approved by Director's Resolution 020-2011-MTC/14

As well as those included in the terms of reference for the preparation of the respective studies.

Future works and conservation tasks shall use the same standards, as updated by the Ministry of Transportation and Communications.

5.2 Particular Technical Specifications
When performing the Rehabilitation and Improvement and the Initial Periodic Maintenance, the CONCESSIONAIRE shall use the particular technical specifications contained in the Engineering Studies and Technical Files to be prepared by the CONCESSIONAIRE and approved by the GRANTOR.

For the performance of the Conservation tasks, the CONCESSIONAIRE may use the general technical specifications listed in the preceding point.

61 Updated by virtue of Circular letter No. 13.
5.3 Technical Specifications for Complementary Works
For all matters related to buildings and special structures, electrical installations, sanitation, etc., the CONCESSIONAIRE shall follow the National Building Regulations in force.

5.4 Complementary Technical Specifications
In the event that the technical specifications currently in force do not include procedures, techniques, or materials commonly used in other countries, the CONCESSIONAIRE may propose the use of complementary technical specifications, in its respective programs, based on internationally recognized standards (AASHTO, ASTM, DIN, etc.).
21.8. TERMS OF REFERENCE FOR THE PREPARATION OF TECHNICAL FILES

(Initial Periodic Maintenance)

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62 Amended by virtue of Circular letter No. 13.
1. PURPOSE
The purpose of the terms of reference is to issue guidelines for the preparation of the Technical Files for the Initial Periodic Maintenance of the wearing course of the Longitudinal de la Sierra Highway Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho/Ayacucho - Andahuaylas - Sahuinto Bridge/Dv. Pisco - Huaytará - Ayacucho, in the following lengths located in the sections from Huanta-Ayacucho (42.25 km), Ayacucho-Andahuaylas-Sahuinto Bridge (70.34 km), and Choclococha Bridge-Ayacucho (166.89 km). Said studies must propose the most appropriate solutions or treatments to ensure that the road infrastructure of each Sub-section meets the Service Levels specified in the Concession Contract.

2. DEFINITIONS
For the application of these terms of reference, the glossary of terms approved by Ministerial Resolution 660-2008-MTC/02 shall be used. All references herein to "Numeral" or "Item" shall be understood as made to the numeral or item of these terms of reference, respectively, unless otherwise expressly indicated.

3. SCOPE
The terms of reference encompass all of the activities necessary for the preparation of the Technical Files for the Initial Periodic Maintenance of the wearing course in the Sub-Sections of the Longitudinal de la Sierra Highway – Section 4, indicated in Point 1.0.

The CONCESSIONAIRE is responsible for ensuring that the Technical File it implements is performed with the required technical quality, in accordance with the Bidding Terms and Conditions and the terms of reference. The CONCESSIONAIRE therefore assumes total and complete technical responsibility for the Technical Files.

Any differences, errors, and/or omissions detected following the approval of the Technical File are the exclusive responsibility of the CONCESSIONAIRE.

The review of the documents and plans by PROVIAS NACIONAL during the preparation of the Technical File does not exempt the CONCESSIONAIRE from final and total responsibility for said documents and plans.

Based on the results of the evaluations of the state of the Road Infrastructure in the different Sub-Sections, the CONCESSIONAIRE shall use the disciplines necessary to propose the most adequate treatments and solutions, in order to define the Initial Periodic Maintenance that complies with the Service Levels established in the Concession Contract, which shall necessarily include the application of modern Road Conservation technologies as an alternative, after evaluating the costs of application and analyzing their profitability.
Without excluding the obligations of the CONCESSIONAIRE in accordance with the legal provisions in force, inherent to it in its capacity as such, the following activities are considered essential obligations:

a. Fieldwork
   • Count the flow of vehicles, perform origin-destination surveys, and cargo censuses at the stations defined for the Traffic and Cargo Study.
   • Identify the critical points and vulnerable points of the section.
   • Perform the geotechnical, hydrological, hydraulic, soil, quarry, and water source soundings, samplings, tests, and evaluations required to plan the initial maintenance works, and to define the corrective measures for critical points and vulnerable points in the section.
   • Perform the topographic stakeout along the entire section, including everything necessary for the suggested solutions involving interventions in the pavement and the critical and vulnerable points, to determine the areas, volumes, and thickness of quarries, and for other purposes.
   • Perform the necessary measurements and tests on the pavement, concrete structures, engineering works, drainage works, and signage and road safety elements.
   • Identify the Black Spots in the Road as part of the Signage and Road Safety Study.
   • Identify quarries, dumps, water sources, and areas where camps, aggregate production plants, asphalt mixing plants, concrete plants, etc., will be installed, as applicable, verifying the availability thereof.
   • Identify the environmental conditions of the project area, and collect information for the adequate environmental management thereof during the performance of the Initial Periodic Maintenance.

b. Desk work
   • Collection, review, and analysis of all information related to the studies, to establish the history of solutions previously proposed, evaluate their performance, and obtain the best possible criteria for the proposal of solutions for the Initial Periodic Maintenance, critical points, and vulnerable points of the section.
   • Calculation of all the parameters included in the designs and the sizing of the final solutions to be proposed, including those obtained from the Traffic Study.
   • Based on the evaluation performed, design and/or condition the engineering and drainage works, or other necessary protective structures.
   • Based on the evaluation performed, design the reinforcements and/or repairs necessary for the pavement, considering the zones or sectors of the section that have severe problems in their functioning and structural conditions, according to the evaluations.
   • Calculate the volumes of materials required and available in quarries for use in the project.
• Depending on the magnitude of the problems identified as critical points, present the recommendations required for the definitive solution of each specific case.
• Propose signage solutions that contribute to the safety of the users of the section.
• Design the mixtures of asphalt concrete, Portland cement, and others considered necessary, using aggregates from the proposed quarries, in order to guarantee the optimum quality of the works, verifying that they meet the quantities of materials and works defined (dosing of asphalt cement, additives, etc.), and that they fit the availability of materials according to the Quarries and Water Sources Study.
• Define the works quantities resulting from the selection of the optimal alternative for Initial Periodic Maintenance.
• Submit the environmental management plan to be used during the performance of the Initial Periodic Maintenance.
• Establish the technical specifications of each one of the headings and sub-headings proposed, when these cover all of the project’s general and special aspects.
• Prepare the Technical File for the performance of the Study for Initial Periodic Maintenance of each one of the Sub-Sections, including costs, budgets, and activities programming.

4. PERFORMANCE
The guidelines to be followed by the CONCESSIONAIRE, the actions it must carry out, the essential obligations and responsibilities arising therefrom, until the conclusion of the Technical File, include but are not limited to the following:

4.1 General Considerations
• All designs prepared by the CONCESSIONAIRE shall strictly follow the procedure set forth in the corresponding Standard or Method, making explicit reference thereto in the calculation report. The foregoing shall likewise apply to the performance of tests.
• For the design of pavement reinforcements, the CONCESSIONAIRE shall use the AASHTO method, version 1993 or later, after determining the elastic parameters using a reasonable method. It shall also perform the mathematical modeling of the design obtained for its verification using failure criteria.

• On a supplementary or alternate basis, the CONCESSIONAIRE may also propose the use of other design methodologies, testing standards, or technical criteria used by widely recognized, prestigious entities or bodies, provided it technically justifies the use thereof for the optimization of the project.

• The CONCESSIONAIRE shall respect the current geometry of the road. If modifications are required in the horizontal alignment, they shall be mentioned as alternate solutions only in the case of specific sectors identified as critical points, vulnerable points, or Black Spots.

• All claims, estimates, data, or proposals by the CONCESSIONAIRE shall be backed up by a conceptual and analytical justification. No estimates or observations shall be admitted without proper justification.

• If necessary, the CONCESSIONAIRE shall constantly coordinate with staff members from the Technical Concessions Office of Provías Nacional, in order to more precisely identify the main problems to be solved in order to achieve the adequate serviceability of the Sub-section.

• The CONCESSIONAIRE shall propose the most adequate Repairs in the zones or sectors of the road identified as critical and vulnerable points, which—depending on their complexity and magnitude—may require special treatment. The CONCESSIONAIRE shall also propose other types of solutions for works aimed at preventing emergencies in vulnerable points and environmental impact mitigation works, so that the performance of such works makes it possible to guarantee the required Service Levels.

• The specific improvements to be introduced in the initial periodic maintenance, with regard to the solution of hydraulic and drainage problems, shall be of a magnitude such that it cannot be assumed that what is being proposed is the performance of a hydraulic improvement project, rather than an Initial Periodic Maintenance project.

• The Technical File, including plans, technical specifications, and the works budget, shall be signed in witness of conformity by the Legal Representative of the CONCESSIONAIRE, by the Project Leader, and by the Specialized Professionals participating in its preparation.

• The Technical File shall be created using Microsoft Word for text, Microsoft Excel for spreadsheets, Power Point for slideshows, MS
Project for programming, AUTOCAD for plans, and S10 or similar for costs and budgets.

- All information from the Studies shall be submitted in printed and digital versions, and in the original programs created. PDF files will not be accepted, except for field notebooks or notes, or the final version of the Study, with numbered pages and signed.

4.2 Inspection, Initial Evaluation, and Historical Analysis
This work shall include the following:

- The inspection and initial visual evaluation of the section, for the purpose of comparing the historical information compiled with the current conditions of the section.
- The collection, review, and analysis of Basic Studies, Initial Periodic Maintenance Studies, and final studies prepared for the section (Technical File of the most recent Remediation) and all information related thereto held in the possession of Proviás Nacional, any other agencies of the MTC, or other entities related to the sector, that may be useful in preparing the Initial Periodic Maintenance studies.
- The collection, review, and analysis of final supervision and quality control reports for the most recent works performed in the section (Remediation, Upgrading, Maintenance, etc.).
- Preparation of tables and graphs based on the historical information, showing stratigraphic profiles and characterizing the soils of the road prism; characterizing the pavement layers; identifying quarries and water sources with their physical characteristics and the original volumes, exploited volumes, and available volumes of said quarries; the evolution of traffic and loads on the pavement; the evolution of pavement deterioration; identifying critical points, vulnerable points, black spots, environmental liabilities, and other aspects pertaining to the geology, geotechnics, hydrology, hydraulics, and drainage of the section; identifying alternate solutions previously proposed for the different sectors of the section, and the reasons for which they were not implemented, etc.

4.3 Performance of Engineering Disciplines
As a minimum, the CONCESSIONAIRE shall perform the following engineering disciplines required by the technical files, under the following guidelines:

4.3.1 Topography
- Perform topographic surveying on the road section, including those sections where solutions are proposed for the pavement that include structural supports (involving, among others, works for the removal of the wearing course, such as in-place recycling of wearing courses, in-plant hot recycling of wearing courses, full-depth in-place
Longitudinal de la Sierra Highway Concession: Section 4

4.3.2 Traffic

- All information on vehicle flow counts and weight and measurement controls currently in the possession of MTC agencies shall be reviewed and analyzed.
- The CONCESSIONAIRE shall position the necessary stations along the section to perform traffic counts that provide representative samples for the calculation of vehicle flows along different sectors of the section.
- It shall also perform the origin-destination surveys (ODSs) and cargo censuses necessary to obtain, among other information, reports on the type of cargo transported, the tire pressure of the vehicles, operating speed, and other details (type, make, model, year, number of seats, number of occupants, fuel type, empty weight, dry weight, payload, etc.).
- The fieldwork shall include a minimum of seven (7) days of counts (Monday through Sunday) for each station included.
Based on the processed and evaluated information, the CONCESSIONAIRE shall determine the traffic projections for each type of vehicle, justifying the adoption of an annual traffic growth rate. It shall also determine the traffic composition, the destructive factors necessary for the calculation of 8.2-ton equivalent axles, and the number of EE repetitions for the design period of the structural package reinforcement.

- The results obtained in the performance of this discipline will also be used as a solution input for the pavement.
- All the information shall be submitted using the formats established by the MTC Planning and Budget Office.

4.3.3 Hydrology and Hydraulics

- The purpose of the Hydrology and Hydraulics Study for the section is to identify problems that may be solved with an Initial Periodic Maintenance intervention, taking into account the existing basic and final studies drafted during the construction process. In all cases, the CONCESSIONAIRE shall use that information as the basis for its evaluations.
- The performance of this discipline shall be focused on obtaining all of the information necessary to propose solutions to local hydrodynamic problems, or other related problems that occur along the section and affect it (structural package and/or main structures), such as sliding materials (mudslides), riverbank erosion, erosion due to surface runoff, etc.
- Among the parameters to be obtained by the CONCESSIONAIRE to design the new structures necessary for an efficient drainage system, that provides the road with adequate protection, are the following: flood probabilities, flow volume estimates, drag speed, riverbank erosion, sediment transport, etc.
- In those places the CONCESSIONAIRE considers it necessary to install new culverts, with the prior approval of the GRANTOR of the Agreement, a longitudinal profile of the axis shall be prepared up to distances of no less than 100 m upstream and downstream, and cross-sections of the culverts axis shall be taken, so as to reproduce the conditions of the basin course and obtain the excavation needs. A similar procedure shall be used in the case of culverts and runoff channels requiring repair due to hydraulic insufficiency.

4.3.4 Structures and Engineering Works
Include all of the different types of bridges, pontoons, runoff channels, culvert walls and heads, gutters with frame-type cross-sections, etc., regardless of the material of which they are made.

Perform the inventory and evaluation of each one of the existing structures.

- Location (kilometer markers and GPS coordinates)
- Current conditions (with regard to main elements and the general structure, the limitations of provisional structures, pavement width, design overload, hydraulic capacity, etc.)
- General characteristics (measurements, load capacity, etc.)
- Fill out the inspection forms to be provided by the Studies and Projects Management of Provias Nacional
- Photographs

The CONCESSIONAIRE shall perform the measurements, tests, and evaluations necessary to determine the functional and structural condition (concrete, steel, etc.) of the engineering works and drainage works existing in the section, such as gutters, culverts, collecting systems, pontoons, bridges, runoff channels, containment walls, sub-drains, gabions, dry walls, protective structures, and any others it deems necessary to evaluate.

Based on the evaluation, propose and provide details on works for:

- Maintenance (structures in good condition)
- Remediation, Reinforcement for S/C HL93, and Expansion (structures in average condition), with regard to both the superstructure and substructure, also including the seismic actions established in the AASHTO LRFD Bridge Design Specifications in force.
- Replacement (structures in poor condition)
- Construction (structures not currently existing)

For the structural evaluation of existing bridges and pontoons, use the AASHTO Manual for Bridge Evaluation in force.

For new structures, propose the necessary structure based on the basic studies.

The designs shall be based on the AASHTO LRFD Bridge Design Specifications in force.
The evaluation and seismic design parameters shall be in accordance with this version.

- The topographic, geological and geotechnical, hydrological, and hydraulic information shall be used to design any additional concrete structures, engineering works, and drainage works necessary for the section, or the Remediation or replacement of the existing structures and works: culverts, gutters, crown ditches, discharge spouts, catch basins, runoff channels, pontoons, protective structures, concrete walls, drywall, etc., in poor conditions, including sealing cracks and restoring concrete structures.

- For sectors with insufficient drainage, the designs of the works to be incorporated as specific improvements shall indicate the best location and costs. Previously, calculations shall be done for the parameters to be considered in the design of the new structures required for an efficient drainage system.

The CONCESSIONAIRE shall bear in mind that these specific improvements to be incorporated into the section shall not be of a magnitude that might suggest the planning of a special hydraulic improvement project.

- The CONCESSIONAIRE shall draw up the detailed plans at an adequate scale, for each one of the structures requiring treatment, indicating the tasks to be performed, as well as the engineering and surface or underground drainage works to be implemented.

### 4.3.5 Quarries, Water Sources and Dumps

- For reference purposes, the CONCESSIONAIRE may use the analyses conducted on the quarries for use in the performance of the most recent Remediation and/or Periodic Maintenance of the section, verifying the properties and quality of the materials, as well as the available volumes, carrying out the boreholes, tests, samples, evaluations, and topographic surveys necessary to determine the areas, volumes, and thickness.

- The CONCESSIONAIRE shall perform topographic surveying and cross-sections every 10 m in the quarries to be used, in order to justify the volume of material to be exploited.

- As a reference, it may use the analyses conducted on the quarries for the performance of the most recent Remediation of the section and/or [sic]

- There shall be three (3) verification boreholes per hectare, at depths of no less than the maximum exploitation depth. The CONCESSIONAIRE shall submit photograph records and an excavation log for each one of the prospections it
performs in all of the quarries studied, wherein it details the characteristics of the aggregates, shape, size, humidity, and color, in accordance with ASTM D-2488 standards.

- It shall be taken into account that laboratory tests to determine the physical, chemical, and mechanical characteristics of the quarry materials shall be those necessary to guarantee that they meet the quality, quantity, and availability requirements.
- The laboratory tests to verify the physical, chemical, and mechanical characteristics of the quarry materials shall essentially be performed in accordance with the MTC’s Materials Testing Manual for Roads (EM-2000), and on a supplementary basis, with any other standard in force (ASTM, AASHTO, NTP, etc.), in accordance with the proposed used:

**Standard Tests**
- Particle Size Analysis with Sieve
- Materials Finer than Mesh Size N° 200
- Natural Humidity
- Atterberg Limits (Materials Finer than Mesh Size N° 40)
- Soil Classification Using USCS and AASHTO Methods

**Special Tests:**
- Modified Proctor
- California Bearing Ratio (CBR)
- Resilient Modulus (AASHTO T307)
- Percentage of Flat and Elongated Particles
- Percentage of Particles with at least one or two Fractured Faces (ratio is 1/3: thickness/length)
- Absorption Percentage (Coarse and Fine Aggregate)
- Atterberg Limits (Material Finer than Mesh Size N° 200)
- Percentage of Friable Particles
- Sand Equivalent
- Abrasion
- Durability (Coarse and Fine Aggregate)
- Bitumen Adhesion to Aggregates (Coarse and Fine Aggregate)
- Total Soluble Salts
- Sulfate Content
- Organic Impurities
- Volumetric Weights (Loose and Compacted, Coarse and Fine Aggregate)
- Specific Weights (Loose and Compacted, Coarse and Fine Aggregate)
- And all others indicated in the MTC’s General Technical Specifications for Road Construction (EG-2000).

The representative samples of the materials from each quarry shall be submitted to all of the tests required by the MTC’s General Technical Specifications for Road Construction (EG-2000), according to the proposed use, with the following minimums:

- Standard Tests: One (1) set of tests for each test pit.
- Special Tests: Three (3) sets of tests for each quarry, thus covering the entire area and exploitation volume, in order to determine and establish their physical-mechanical characteristics and prove compliance with the Technical Specifications.

The foregoing shall not limit the CONCESSIONAIRE from including new quarries necessary for the Initial periodic Maintenance, in which case the minimum number of tests shall be as follows:

- Standard Tests: One set of tests for each test pit.
- Special Tests: Five (5) sets of tests for each quarry.

For each quarry and application type (base, subbase, and/or fill), the Resilient Modulus Test shall be performed in accordance with AASHTO T 307-99 test standards. The samples shall be processed in accordance with the treatments proposed for their use by the CONCESSIONAIRE, in order to prove the structural capacity of the aggregates from the quarries to be used in the structuring of the pavement.

In general, the verified or new quarries and/or borrow areas shall have defined locations, bounds, and access routes, analyzing and classifying them, evaluating their capacity and volume to provide the different types of materials to be used in the road works, and their legal situation shall be noted in order to avoid later costs due to exploitation fees.

The same treatment shall be used for information on water sources, determining their locations and taking samples to verify their quality (chemical analyses), indicating with precision whether water is permanently available from these sources.

In the event that the historical information is insufficient, the necessary quarries and water sources shall be located.

The areas to be used as dumps shall be identified, performing the measurements and topographic surveys necessary to determine their capacity.
4.3.6 Soils and Pavements

Evaluation of the Pavement Surface Condition

- Includes the performance of failure surveys, which shall be used to classify the surface condition of the pavement, including the determination of the Pavement Condition Index (PCI) score, using the method of the same name (application of ASTM D 6433 - 99, Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys).

- The technology to be used to survey failures and process the results of the measurements shall be implemented through the direct measurement of failures (traditional method). In this case, the entire surface of the pavement shall be surveyed, additionally including the berms. This evaluation will make it possible to define sectors by intervention types in the pavement surface, considering the structural evaluation of the pavement.

- The results of this evaluation shall make it possible to determine the status of the pavement’s deterioration, as well as its condition and the first level of intervention required by the pavement as of the evaluation date.

Evaluation of the Pavement’s Functional Condition

- The CONCESSIONAIRE shall evaluate the functional condition of the pavement by measuring its surface evenness (roughness), using measuring equipment and methods that are compatible (or that may be considered compatible) with the Class 2 measurement methods established in World Bank Technical Paper Nº 46 (1986), or those established in the ASTM E950 standards.

- In all cases, the field measurements shall be performed continuously, every 100 m, over the entire road, in each lane, making it possible to calculate an IRI value (average and characteristic). Any calibration and/or correlation equation shall be statistically justified and developed in the respective report, demonstrating the methodology used.

- The ultimate objective of the evaluation of the pavement’s functional condition shall be to determine the Present Serviceability Index (PSI) score of the pavement based on the roughness values measured, and the use of the theory and algorithms resulting from the International Road Roughness Experiment, which were published in World Bank Technical Paper Nº 45 (1986). This will make it possible to establish the state of the pavement’s deterioration, and the second type of treatment to be implemented.
Evaluation of the Pavement’s Structure Condition

- The CONCESSIONAIRE shall evaluate the pavement’s structural condition via methods that use equipment or instruments whose deflection or deformed curve measurements of the pavement make it possible to perform modeling and calculations of elastic parameters using mechanistic theories, such as the Falling Weight Deflectometer (Dynatest FWD, Kuab FWD, etc.).

- The CONCESSIONAIRE shall submit the original data on the deflections logged by the equipment in its proprietary format (original file), as well in Excel.

- In all cases, the frequency at which the deflection curves are measured shall not be more than 50 m, alternating in each direction (the measurement is to be performed in each one of the lanes, along the entire section). This information shall be used to obtain the maximum, characteristic, and admissible deflections, the radius of curvature, the elastic moduli of the course (E₀) and the pavement (E*), and the CBR of the course, all parameters that will subsequently be used in the designs.

- The CONCESSIONAIRE shall provide supporting information on each one of the parameters used for the processing of data in the calculation of the elastic moduli of the pavement layers.

- The ultimate objective of the structural evaluation of the pavement shall be to determine the Effective Structural Number (SNe) or similar parameter, which shall be used in the design or calculation of the reinforcement.

Soil Prospection and Destructive Tests on the Pavement

- In zones and/or sectors where the pavement evaluation indicates that the pavement has severe structural and/or functional problems, or deflections in excess of those admissible, all the necessary prospecting test pits shall be made and all the necessary samples shall be taken, both in the course and the layers that make up the pavement’s structure, to conduct the tests and determine the physical and/or chemical characteristics of the sampled materials, thus making it possible to corroborate the results of the evaluations, define their causes, and then propose the most adequate solutions. The number of prospections shall be defined by the CONCESSIONAIRE, taking into account the fact that they must be no less than 1.50 m deep below the pavement structure, and they must prove supporting evidence for the issues detected in that sector. Each test pit shall have a georeferenced location to make it easy to locate, and, where applicable, a verification of the soil stratigraphy. The CONCESSIONAIRE shall
perform one (1) diamond drill hole per kilometer to verify thicknesses and test the reuse of the existing aggregates.

- In the case of soils, in those places where it can be observed that the pavement has conserved its structural characteristics, the minimum number of test pits to be implemented is one (1) every 5 km.

The performance of these test pits shall make it possible to obtain samples for each stratigraphic variation, and to define the stratigraphic columns. This information shall be used to determine the physical characteristics of the materials of the course and the pavement structure in both lanes (particle size, limits, density, humidity, compaction %, CBR, etc.), to analyze them and compare them to the results obtained from the calculation of elastic parameters in the Structural Evaluation.

- The CONCESSIONAIRE shall take special care to identify and classify the sectors of the section that have a high potential of pavement deformation due to the presence of expansive soils in the underlying layers.

- A relative scale shall be established based on the correlation between the level of severity of the problem and the parameters resulting from the laboratory tests selected, in order to classify the sub-sectors or zones of the section with these problems.

### Division of the Section

- Based on the results of the pavement evaluation, a definition shall be established regarding the sectors that shall receive the same treatment in the Initial Periodic Maintenance (Homogeneous Sectors). Other variables will also be taken into account, such as traffic, climate, altitude, pavement structure type, geometric characteristics of the sector, or any others applicable.

In all cases, the CONCESSIONAIRE shall calculate the variation of roughness coefficient and the deflection in each Homogeneous Sector compared to the others, which shall be less than 15% and 30%, respectively. Other limits may be used in specific cases, provided they are duly justified.

### Designs

- Based on the results of the pavement evaluation, the prospection of soils and destructive tests in the pavement, and the division of the section, the CONCESSIONAIRE shall propose the designs and alternate solutions for the Initial Periodic Maintenance of the pavement, including
the Repairs and Routine Maintenance Works that must be performed previously.

- The CONCESSIONAIRE may use the most appropriate methodology to propose its solutions, which shall be backed by the 1993 version or newer of the (AASHTO [sic] design method, after first determining the elastic parameters using a rational method for a design period of eight (8) years. The CONCESSIONAIRE shall draft a calculation report setting forth all the criteria used, describing, step-by-step, how the results have been obtained.

- The solutions to be proposed shall fall within the range of activities included in the Manual on General Technical Specifications for Road Conservation, approved by Director's Resolution N° 051-2007-MTC/14 (dated August 27, 2007). If the CONCESSIONAIRE wishes to propose other solutions, it shall provide a detailed justification of each parameter used.

- The CONCESSIONAIRE may propose alternate solutions that comply with the requirement of using modern road conservation technologies, such as: micro agglomerates, micro-pavements with SBS-modified asphalt, stone mastic asphalt or stone matrix asphalt (SMA), BBTM, BBUM, micro-pavements with emulsified SBS-modified asphalt, micro-pavements with emulsified SBR-modified asphalt, resurfacing of asphalt concrete prepared using SBS-modified asphalt, cold in-place recycling of wearing courses, cold planning, and in-plant hot recycling of wearing courses, full-depth in-place cold recycling, antireflection treatment of cracks using stress absorbing membranes (SAM/SAMI), draining asphalt layers, foam asphalts, fissure and crack treatments with hot elastomeric sealants made from SBS-modified asphalt cement, fissure and crack treatments with cold elastomeric treatments made from emulsified SBS-modified asphalt cement, fissure and crack treatments with cold elastomeric sealants made from emulsified SBR-modified asphalt cement, sealing and priming with SBR-modified emulsified asphalts, etc., and any others with the corresponding technical justification, as approved by the Agreement Administrator.

- It shall also consider the use of ecological materials, and, where applicable, adapt the designs to the weather and altitude conditions of the project area (precipitation, extreme temperatures, temperature gradient, meteorological phenomena, etc., as applicable), as well its soil types (soils with expansive potential, etc.). In the specific case of altitude conditions, the considerations...
shall include the incorporation of design recommendations for pavement at high altitudes, specifically with regard to doses and types of asphalt cement, minimum thicknesses of asphalt concrete layers, incorporation of filler, incorporation of adhesion-improving additives, use of high-performance and improved-quality asphalt cements, use of special grading envelopes for aggregates, etc.

The CONCESSIONAIRE shall take special care in determining the affinity of the aggregate/asphalt pairing, testing the materials it plans to use in the different asphalt mixtures.

• The functional condition and safety factors of the pavement that shall be required for the proposed solutions, and included in the Technical Specifications, are as follows: the Condition and Serviceability parameters, Maintenance Indices, etc., of the pavements required for the solutions proposed by the CONCESSIONAIRE shall be those detailed in the Concession Contract – Appendix 2: “Condition and Serviceability Parameters Required in Road Concessions” (individual service levels and response terms).

4.3.7 Critical Points and Vulnerable Points
• Based on the visual inspection and specific studies for the problem detected, to be performed at the start of the study, plus the results from the other evaluations, the CONCESSIONAIRE shall identify, evaluate, and classify the section’s critical points and vulnerable points; areas of the pavement with widespread deterioration, areas with hydrodynamic problems, areas with geodynamic problems, slope stability problems, insufficient drainage, hydraulic insufficiency in existing drainage works, settlements, erosion of riverbanks, cave-ins, sliding of materials (mudslides), undercutting, clogging of waterbodies, flooding, infiltration, etc.

• The CONCESSIONAIRE shall propose the most adequate Repairs (designs for correct measures) in the zones or sectors of the road that are identified as critical points. It shall also propose Repairs related to Emergency Prevention works at vulnerable points, so that the performance of such Repairs guarantees the Service Levels required for the section during the design period.

4.3.8 Signage and Road Safety
• Based on the visual inspection to be performed at the start of the study, plus the analysis of accident statistics on the
section, the CONCESSIONAIRE shall identify the section’s Black Spots.

- The CONCESSIONAIRE shall perform a detailed evaluation of the current condition of the signage and road safety elements existing in the section, using measurements and tests to identify replacement or repair requirements.
- The works proposed in the Technical File shall primarily involve the required replacement or repair of deteriorated signs; painting of solid and broken lines on the edge of the roads and circulation channels; painting of other safety elements; replacement or repair of sign posts, kilometer marker posts, and boundary posts; specific improvements involving the provision and installation of new signage and road safety elements, such as signs, signals, etc., or longer guardrails, etc.
- The CONCESSIONAIRE shall also propose the most adequate solutions to the Black Spots along the section.

4.3.9 Environmental Impact

- The CONCESSIONAIRE shall identify, predict, interpret, and propose the environmental impacts that the performance of the Initial Periodic Maintenance may cause to the different components of the environment, civil cultural and archaeological heritage, proposing the most appropriate corrective measures to avoid the occurrence of environmental impacts detrimental to people’s health and wellbeing.
- In general, the CONCESSIONAIRE shall propose repairs tied to works for the mitigation of environmental impacts along the section.
- The CONCESSIONAIRE shall define the mitigation measures for the effects of the works to be performed, as well as determining the treatment of any environmental liabilities that may need to be resolved, focusing primarily on:
  o Location of camps, asphalt plants, quarries, and dumps.
  o Potential impacts of the works in general on the ecological surroundings.
  o Adequate procedures for working in the materials quarries, defining the treatment to be given to these areas after they are done being used (leveling, filling, and other necessary measures).
  o Adequate procedures for the use of dump areas for excess materials, or the elimination of waste, defining how they will be accommodated and covered, if necessary.
Environmental management and monitoring plan to avoid and/or mitigate indirect impacts, as well as quantifying them.

Prevention and Contingency Plan to address possible accidents, earthquakes, fuel or pollutant spills, traffic accidents, fires, etc.

Implementation of methodologies to quantify impacts, so that objective and quantitatively verifiable statements can be made.

Determination of the costs of the solutions to be adopted.

• The CONCESSIONAIRE shall collect all information necessary for the adequate environmental management of the project during the performance thereof.

4.3.10 Footages, Costs, Budgets, Polynomial Formulas, Technical Specifications, and Project Plans

• Following the approval of the designs, solutions, treatments, and repairs for the Road Infrastructure, the CONCESSIONAIRE shall prepare the justified bills of materials, costs, budgets, polynomial formulas, timelines, and technical specifications, ensuring that they are consistent and compatible with one another in terms of the procedures for implementation, measuring methods, and project plans.

• The footages shall be calculated based on the articles of works to be performed and their unit of measurement. The CONCESSIONAIRE shall be responsible for preparing, with reasonable detail and precision, the bills of materials for the works to be performed in each one of the stages of the Initial Periodic Maintenance, providing details for each specific article of the budget, in three formats: detailed bills by stakeout, summarized bills by kilometer, and summarized bills by five-kilometer sectors. These details shall include typical diagrams, cross-sections, and location sketches that aid in their interpretation; as well as a plan or location sketch for quarries, water sources, DME, and plant locations, with the respective kilometer markers.

• Analyses of unit prices and indirect costs (fixed and variable general expenses, and profit) shall be calculated in detail for each project article, including labor, equipment, and materials, as well as actual yields. The costs included in the materials and inputs shall be backed by the corresponding market study, attaching quotes (minimum of three (3) and comparative charts used to determine the costs. The same process shall be used for subcontracts.
The equipment rates used in the unit price analyses shall be backed by the corresponding market study, attaching quotes and comparative charts. In the case of equipment involving new technologies, which do not have any references in the domestic market, the rental rates shall necessarily be calculated based on procurement quotes, and calculations of owning and operating costs.

The budget for the Initial Periodic Maintenance shall be calculated based on footages and unit price analyses, differentiating direct and indirect costs, and VAT.

While the technical specifications of the project for the works to be carried out in the Initial Periodic Maintenance are included in this Chapter, they shall be established by each one of the specialists, by rubric and for each specific budget item, and shall be signed by each specialist in witness of his/her conformity. It shall also be necessary to take into account the MTC’s General Technical Specifications for Road Conservation in force and the General Technical Specifications for Road Construction (EG-2000), as amended, as well as including quality control and testing during the performance and reception of the Initial Periodic Maintenance, along with other general aspects pertaining to the conservation of the environment, topographic stakeout, camp construction, general cleanup of the work area, maintenance of transitability throughout the section, etc.

Among the quality controls involved in the technical specifications, special care shall be taken to include ongoing controls of the functional and structural conditions, as well as the safety factors of the pavement, during each stage of the works performance, so that, in the event that any of the works are performed incorrectly, corrective measures can be taken promptly, before the completion of the works.

The specifications shall also include a minimum list of laboratory equipment for the adequate quality control of the works, which shall be a fundamental aspect of the quality control on the performance of the Initial Periodic Maintenance.

The CONCESSIONAIRE shall draw up the performance program for the Initial Periodic Maintenance, bearing in mind any restrictions on the normal performance of the works, such as rain or adverse climate conditions, difficulty in accessing certain areas, difficulty in the supply of certain materials and/or imported inputs, etc. This program shall be drawn up using the PERT and CPM method, and shall identify the activities or articles located...
in the project’s critical path. It shall also submit a bar diagram for each one of the tasks. This programming shall be used to prepare the Valorized Progress Calendar and other items. The works performance program shall be accompanied by a list of minimum mechanical equipment necessary to guarantee compliance with the delivery deadlines for the Initial Periodic Maintenance.

5. TECHNICAL FILE
The CONCESSIONAIRE shall select the presentation it deems most appropriate for the Technical File, provided the file fits the structure proposed by the GRANTOR. The documentation submitted shall have a table of contents, with numbered pages. Below, the GRANTOR presents the structure of the Technical File, which shall consist of the following volumes:

- **Volume 1: Narrative Report and Specific Studies**
  1. **NARRATIVE REPORT**
     This report shall present a description of the works performed, the results obtained, and the proposals made, as well as a location plan of the project, a general plan with a graphic representation of the proposals made, and a complementary plan with typical sections of the proposals made, all at an appropriate scale for easy visualization. The first page shall include a list of all the professionals involved in preparing the studies, giving their full name, registration number in the Peruvian Engineers’ Association (CIP), and signature. The proposed structure for this part of the Technical File is as follows:
     1.1 Project Background
     1.2 Project Objectives
     1.3 Project Location
     1.4 Location Plan
     1.5 Key Plan
     1.6 Plan with Typical Sections and Division into Sections
     1.7 Project Scope
        1.7.1 Topography
        1.7.2 Traffic
        1.7.3 Hydrology and Hydraulics
        1.7.4 Structures and Engineering Works
        1.7.5 Quarries, Water Sources, and Dumps
        1.7.6 Soils and Pavements
        1.7.7 Critical Points and Vulnerable Points
        1.7.8 Signage and Road Safety
        1.7.9 Economic Evaluation
        1.7.10 Environmental Impact
1.7.11 Footages, Costs, Budgets, Polynomial Formulas, Programming and Technical Specifications, Plans

2. TOPOGRAPHY

2.1 General Information
   2.1.1 Location
   2.1.2 Description of the Project Area
   2.1.3 Scope of the Work

2.2 Background of the Project Area
   2.2.1 Collection of Information
   2.2.2 Analysis
   2.2.3 Conclusions

2.3 Topographic Surveys for Hydrology, Hydraulics, and Drainage
   2.3.1 Fieldwork
   2.3.2 Desk work

2.4 Topographic Surveys for Concrete Structures, Engineering and Drainage Works
   2.4.1 Fieldwork
   2.4.2 Desk work

2.5 Topographic Surveys for Quarries, Dumps, and Water Sources
   2.5.1 Fieldwork
   2.5.2 Desk work

2.6 Topographic Surveys for Soils and Pavements
   2.6.1 Fieldwork
   2.6.2 Desk work

2.7 Topographic Surveys for Critical Points and Vulnerable Points
   2.7.1 Fieldwork
   2.7.2 Desk work

2.8 Topographic Surveys for Signage and Road Safety
   2.8.1 Fieldwork
   2.8.2 Desk work

2.9 Topographic Surveys for Environmental Impacts
   2.9.1 Fieldwork
   2.9.2 Desk work

2.10 Analysis, Conclusions, and Recommendations

3. TRAFFIC

3.1 General Information
   3.1.1 Location
   3.1.2 Description of the Project Area
   3.1.3 Scope of the Work

3.2 Background of the Project Area
   3.2.1 Collection of Information
   3.2.2 Analysis
   3.2.3 Conclusions

3.3 Location of Stations
3.4 Volumes and Classification of Vehicle Flows
   3.4.1 Fieldwork
   3.4.2 Desk work
3.5 Traffic Projects
   3.5.1 Normal or Current Traffic
   3.5.2 Generated and Rerouted Traffic
   3.5.3 Projections
3.6 Magnitude and Axle Frequency Study
3.7 Analysis, Conclusions, and Recommendations

4. HYDROLOGY AND HYDRAULICS
4.1 General Information
   4.1.1 Location and Description of the Work Area
   4.1.2 Scope of the Work
4.2 Background of the Work Area
   4.2.1 Collection of Information
   4.2.2 Analysis
   4.2.3 Conclusions
4.3 Evaluation of Hydrodynamic Problems
   4.3.1 Fieldwork
   4.3.2 Desk work
4.4 Evaluation of Hydraulic Insufficiency and Drainage Insufficiency
   4.4.1 Fieldwork
   4.4.2 Desk work
4.5 Proposal of Solutions
4.6 Analysis, Conclusions, and Recommendations

5. STRUCTURES AND ENGINEERING WORKS
5.1 General Information
   5.1.1 Location and Description of the Work Area
   5.1.2 Scope of the Work
5.2 Background
   5.2.1 Collection of Information
   5.2.2 Analysis
   5.2.3 Conclusions
5.3 Inventory of Bridges and Pontoons
   5.3.1 Functional Evaluation
   5.3.2 Structural Evaluation
5.4 Inventory of Engineering Works
   5.4.1 Functional Evaluation
   5.4.2 Structural Evaluation
5.5 Inventory of Drainage Works
   5.5.1 Functional Evaluation
   5.5.2 Structural Evaluation
5.6 Designs
5.7 Analysis, Conclusions, and Recommendations
6. QUARRIES, WATER SOURCES, AND DUMPS
   6.1 General Information
      6.1.1 Location and Description of the Work Area
      6.1.2 Scope of the Work
   6.2 Background
      6.2.1 Collection of Information
      6.2.2 Analysis
      6.2.3 Conclusions
   6.3 Quarry Study
      6.3.1 Location of Quarries
      6.3.2 Fieldwork
      6.3.3 Desk work
   6.4 Water Source Study
      6.4.1 Location of Water Sources
      6.4.2 Fieldwork
      6.4.3 Desk work
   6.5 Dumps
      6.5.1 Location of Dumps
      6.5.2 Fieldwork
      6.5.3 Desk work
   6.6 Analysis, Conclusions, and Recommendations

7. SOILS AND PAVEMENTS
   7.1 General Information
      7.1.1 Location and Description of the Work Area
      7.1.2 Scope of the Work
   7.2 Background of the Section
      7.2.1 Collection of Information
      7.2.2 Analysis
      7.2.3 Conclusions
   7.3 Surface Condition of the Pavement
      7.3.1 Fieldwork
      7.3.2 Desk work
   7.4 Functional Condition of the Pavement
      7.4.1 Fieldwork
      7.4.2 Desk work
   7.5 Structural Condition of the Pavement
      7.5.1 Fieldwork
      7.5.2 Desk work
   7.6 Soil Prospecting and Destructive Tests on the Pavement
      7.6.1 Fieldwork
      7.6.2 Desk work
   7.7 Division of the Section
   7.8 Designs
   7.9 Analysis, Conclusions, and Recommendations

8. CRITICAL POINTS AND VULNERABLE POINTS
9. SIGNAGE AND ROAD SAFETY
   9.1 General Information
   9.2 Scope of the Work
   9.3 Background of the Section
      9.3.1 Collection of Information
      9.3.2 Analysis
      9.3.3 Conclusions
   9.4 Inventory of Signage and Road Safety Elements
      9.4.1 Functional Evaluation
      9.4.2 Structural Evaluation
   9.5 Analysis, Conclusions, and Recommendations

10. ENVIRONMENTAL IMPACT
    Processes by the CONCESSIONAIRE with the DGASA.

11. FOOTAGES, COSTS, BUDGETS, POLYNOMIAL FORMULAS, AND PROGRAMMING
    To be submitted for each stage of the performance of the Initial Periodic Maintenance. The programming shall include the works performance and payment disbursement timelines, adequately backed by their corresponding PERT - CPM programs and charts.

- **Volume N° 2: General and Special Technical Specifications**

- **Volume N° 3: Footages**
  The following rubrics shall be included, as a minimum:
  1. Preliminary Works Footages
  2. Grading Footages (repair area, black spots, etc.)
  3. Pavement Footages
  4. Engineering and Drainage Works Footages
  5. Signage and Road Safety Footages
  6. Environmental Mitigation Works Footages

- **Volume N° 4: Plans**
  o Any matters not specifically addressed in this point shall take into account the descriptions set forth in DG-2001 – Standards for the Submission of Final Project Reports, Chapter I: Report Submission, Section 103: Conditions for the Development of the Final Report, 103.4 Submission of Plans. Modifications may be made with prior coordination and the approval of the contract manager.
  o The original plans shall be submitted in color on bond paper; with black and white copies, also on bond paper, clearly displaying the information necessary for the interpretation thereof.
  o The most important plans and their contents shall include, but are not limited to, the following:
    1. Index plan with general information.
2. Location and localization plan.

3. Key plan at adequate scale (1/100,000), on non-deformable paper, with UTM coordinates, showing the geographic features, populations, means of communication, materials sources, dumps, water sources, etc., existing inside the project area, as well as a table of distances, altitudes, traffic, and any other information deemed necessary.

4. Division Plan, with the following information:
   a. Surface deteriorations, according to the pavement evaluation performed using the PCI method, showing numerical and graphic results for codified failures, according to the catalogue established under the aforementioned method.
   b. Deflectograph by homogeneous sectors (radii of curvature, average deflection, characteristic deflection, admissible deflection for each stage of the Periodic Maintenance), including projections for the next ten (10) years.
   c. Profilograph by homogeneous sectors (PSI, average IRI, admissible IRI, characteristic IRI).
   d. Elastic moduli of the pavement.
   e. Soil profile, classification of materials of the different strata, CBR, physical constants, and other parameters the CONCESSIONAIRE deems important; at a scale of 1:10,000 (H) for those sectors where soil prospecting and destructive testing is performed, and 1:20 (V) for test pit stratigraphy.
   f. Results of road surface prospecting.
   g. Identification and classification of critical points and vulnerable points.
   h. Average daily traffic (ADT) by homogeneous sectors, annual vehicle growth rate, and location of counting stations.

5. Division Plan with the information of the stratigraphy adopted as a solution, in each one of the Periodic Maintenance stages:
   a. Reinforcements due to structural insufficiency, as applicable.
   b. Combination of reinforcements due to structural insufficiency and asphalt layers to correct roughness, as applicable.
   c. Asphalt layers to correct roughness.
   d. Protective surface treatments: mortars, seals, asphalt slurries, primers, etc.
   e. Deferred routine maintenance.
   f. Drainage insufficiency solutions.
   g. Repair of critical points.
h. Protective works.
i. Preventive works.
j. Restricted maintenance (transitability).

6. Plan of Standard Cross-Sections, indicating all the typical dimensions and characteristics of each one of the reinforcements, solutions, and treatments proposed for the pavement.

7. Geometry plans for the road being studied:
   Ground, longitudinal profile, and cross-section plans for the road in all homogeneous sections with proposals for structural reinforcement, leveling layers to control regularity, and seals to correct the macro- and micro-texture of the pavement.

The Ground and Longitudinal Profile Plans shall use a scale of H: 1/2,000 and V: 1/200, providing visual details of the twists and turns, as well as the slope changes, in the section being studied.

Typical Cross-Section Plans shall use a scale of H: 1/100 and V: 1/100, indicating all the typical dimensions and characteristics of each one of the works included in the road’s cross-section, such as width and thickness of the different pavement players, berms, gutters and drains, slope inclines, crown or toe ditches, width of the Right of Way, etc. For such purpose, the following criteria shall be taken into account:

- Curved Sections: minimum of one (1) cross-section in the center of the horizontal curve.
- Sections at a Tangent: Minimum of one (1) cross-section in each tangent with equal geometric dimensions as the road.
- Minimum of one (1) cross-section in each critical point and/or compromised structure that traverses or sits parallel to the road.
- Typical cross-section plan for all homogeneous sections where Periodic Maintenance activities have been established.

Typical cross-section plan for all homogeneous sections where Periodic Maintenance activities have been established.

8. Hydrology and hydraulics plans.
9. Plans of quarries, dumps, and water supply sources, including topographic surveys, cross-sections, and volumes, providing information on access routes and transport distances, according to the layout diagram that shall accompany these plans.
These plans shall also include the location, cross-sections or test pits (vertical scale of 1:20), volumes, and other technical characteristics; information on the use period, exploitation method, use, yields, access routes, and transport distances, according to the layout diagram that shall accompany these plans.

Ground plans of quarries, dumps, and water supply sources, at a scale of 1:2,000, indicating location, cross-sections or test pits (vertical scale of 1:20), volumes, and other technical characteristics; information on the use period, exploitation method, use, yields, access routes, and transport distances, according to the layout diagram that shall accompany these plans.

10. Plans at a scale of 1:5,000 (H) for the proposed drainage system, with location of gutters, crown ditches, pontoons, culverts, etc.

Include the longitudinal profile of gutters and/or drainage ditches parallel to the road, indicating elevations and discharge points into culverts, pontoons, etc., as well as cross-sections for all drainage works, at a scale of 1:100, noting entrance and exit elevations, slopes, all types of drainage works, heads, etc.

11. Variable-scale plans, depending on the design of drainage structures and engineering works (culverts, walls, pontoons, lined gutters, sub-drains, etc.), with quantity tables corresponding to the different articles included in the budget, in accordance with the terms and conditions for measurements established in the technical specifications.

12. Design plans for critical points and vulnerable points.

13. Signage and road safety plans at variable scales, including signage during the performance of works; horizontal signage (pavement markings); vertical signage (preventive, restrictive, and informative signs); details on sign posts; road safety elements, guardrails, reflective markers, delineator posts, etc. A general signage and road safety post shall also be submitted, at a scale of 1:5,000, clearing indicating the corresponding horizontal and vertical signage and the road safety elements.

14. Any others considered important.

- **Volume N° 5: Unit Price Analysis**

This analysis is required to include the following information, as of the most recent data available:

1. Terms and conditions for the calculation of unit prices.
   - Cost of labor
   - Cost of mechanical equipment
   - Cost of materials
2. Analysis of direct cost by articles
3. Analysis of general expenses
4. Summaries of the cost components and unit prices by articles
5. Budget

- **Volume N° 6: Executive Summary of the Project**

- **Volume N° 7: CD**
The CONCESSIONAIRE shall submit the CDs with the files in the original programs for the Periodic Maintenance Studies, in an orderly form with an explanatory report indicating how to completely reconstruct the Final Report, including the economic evaluation files using the HDM 4 model.
The plans shall also be submitted on a CD in AutoCAD files.

- **Volume N° 8: Annexes**
  - Annex N° 1: Topography Field Notebooks
  - Annex N° 2: Traffic Study Field Information
  - Annex N° 4: Field Information and Statistics for the Hydrology, Hydraulics, and Drainage Study
  - Annex N° 5: Laboratory Tests on Soils, Pavements, Concrete, Hydraulics, Quarries, and Water Sources
  - Annex N° 6: Surveying of Failures in the Road Surface and Berms
  - Annex N° 7: Roughness Measurements
  - Annex N° 8: Deflection Measurements
ANNEX 9
Appendix 2

TERMS OF REFERENCE FOR THE PREPARATION OF THE FINAL
ENGINEERING STUDY
(Rehabilitation and Improvement)

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3. TECHNICAL FILE

63 Amended by virtue of Circular letter No. 13.
TERMS OF REFERENCE FOR THE PREPARATION OF THE FINAL ENGINEERING STUDY
(Rehabilitation and Improvement)

1. PURPOSE

The purpose of the terms of reference is to establish guidelines for the preparation of the Final Engineering Study for the Rehabilitation and Improvement of the Izcuchaca – Mayocc Sub-section (116.86 km) of the Longitudinal de la Sierra Highway Road, Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho/Ayacucho - Andahuaylas - Sahuiinto Bridge/Dv. Pisco - Huaytará - Ayacucho.

The CONCESSIONAIRE shall be responsible for all the works and studies performed in compliance with these terms of reference.

2. SCOPE

The description of the scope set forth below shall be used for the preparation of the Final Engineering Study.

The CONCESSIONAIRE shall be responsible for the adequate planning, programming, conduction of basic studies, designs, and, in general, for the technical quality of the entire study, which shall be carried out in accordance with the current design standards in all engineering disciplines related to the study. Likewise, latest-generation construction methods shall be proposed for the construction.

Any differences, errors, and/or omissions detected following the approval of the Technical File are the exclusive responsibility of the CONCESSIONAIRE.

The review of the documents and plans by PROVIAS NACIONAL during the preparation of the Technical File does not exempt the CONCESSIONAIRE from final and total responsibility for said documents and plans.

2.1 Review and Evaluation of Background

In preparing the Study, the CONCESSIONAIRE shall review and evaluate all of the background information placed at its disposal by the MTC, along with all other relevant documents in the possession of other public and private bodies. The CONCESSIONAIRE shall also report on the results of its visit to the project zone.

2.2 General Conditions for the Performance of the Study

All of the characteristics of the road design shall be subject to the Geometric Road Design Manual DG-2013, the Materials Testing Manual for Roads EM-2000, and the General Technical Specifications for Road
Construction EG-2013. AASHTO and ASTM standards and specifications shall be used on a supplementary basis.

The design shall be performed using internationally and/or nationally recognized computer road design programs (software).

The reports shall be drafted in MS Word for texts; Excel for spreadsheets; Microsoft Project for programming; AutoCAD for plans; and S10 for costs.

All calculations, claims, estimates, or data shall be conceptually and analytically justified. No estimates or comments by the CONCESSIONAIRE will be accepted without the proper supporting evidence.

2.3 Scope of the Study

2.3.1 Traffic Study

The Traffic Study shall be conducted based on the following:

- Identification of “homogeneous sections” of demand. Identification of nodes and their nature, for the creation of these homogeneous sections.
- Traffic counts at locations agreed to with the MTC. The counts shall be volumetric, and classified by vehicle type. If the MTC does not have any permanent counting stations, the counts shall be performed for a minimum of seven (7) days.
- Using the corresponding correction factors (hourly, daily, seasonal), the Annual Average Daily Traffic (AADT) shall be obtained for the section or Sub-section, by vehicle type and total.
- Origin-destination (O/D) survey at stations agreed to with the MTC, with a minimum of twenty-four (24) hours per station, at a minimum of two (2) O/D station. The survey shall include vehicle type, make, model, year, number of seats, number occupants, fuel type, origin, destination, purpose of travel, frequency of travel, empty weight, loaded weight, payload, goods transported, travel cost to the user (passengers and/or cargo transported).
- Load census by heavyweight vehicle type and by axle (trucks and buses). The census shall be performed for four (4) days, at a minimum of twelve (12) hours each day (day and night shifts) until completing two (2) days, in order to obtain the loads; real load factors acting on the pavement; tire pressure, to obtain the adjustment factor to the load factors; and the lane and directional factor of the load, to determine the number of 8.2-ton equivalent axles for the pavement design, and the number of EE repetitions for the design period, as well as the traffic composition. This shall also include an analysis of excess load problems.
- Measurement of speeds and obtainment of average operating speed by vehicle type, for each homogeneous section. Analysis of the impact that different design speeds would have on demand, in terms of both volume and composition, O/D, and nature (normal, generated, and derived).
The traffic study shall also include an analysis of the non-motorized traffic demand (pedestrians, bicyclists, cattle driving), identification of demand centers such as schools, markets, bus stops, merchandise loading and unloading zones, etc.

The studies shall differentiate local flows from regional flows, establishing growth rates for both flows, by vehicle type and main O/D.

The study shall include an analysis of possible qualitative changes in the demand (vehicle composition, e.g., new passenger transport services, load in higher-capacity vehicles), due to improvements to the road or changes in the design speed.

Traffic projections shall be established for each vehicle type, considering the duly calculated and supported annual growth rate, as applicable; historical trends; or projections of a socioeconomic nature (GDP, motorization rates, population projections, evolution of income, etc.), and the traffic estimated following pavement, identifying normal, generated, and derived traffic, by homogeneous sections of traffic. The CONCESSIONAIRE shall submit the methodologies, criteria, or models used for the calculation and projections of normal, generated, and derived traffic.

### 2.3.2 Road Safety

Road safety shall include the following aspects:
- Collection and analysis of accident data:
  - Collection of data from public entities, local residents, hospitals, etc.;
  - Analysis of the data to identify the causes and types of accidents and the black spots on the road.
- Recording and analysis of the current physical characteristics of the road, to identify any factors that may affect road safety:
  - Nonexistent or inadequate public lighting;
  - Inadequate horizontal and vertical alignment;
  - Irregular or inadequate access routes or intersections;
  - Narrowing of the road or surface deformations;
  - Nonexistent or inadequate berms;
  - Crossing points over rivers, springs, and irrigation canals vulnerable to accidents with hazardous loads;
  - Animal, pedestrian, and cyclist crossing points and bus stops. Inadequate road safety devices.
  - Insufficient or inadequate signage.
  - Lack of and need for lateral defenses (e.g., guardrails and/or walls).
- Integrated diagnosis, based on the results of the traffic study and ground plan demarcation of “black spots” (areas where accidents occur with greatest frequency).
- Definition of measures to reduce and prevent traffic accidents.

For those sectors that pose the greatest road safety risks, plans shall be drawn up with proper signage, additionally designing (as applicable) safety elements such as curbs, delineator posts, guardrails, and/or walls and impact buffers. Where necessary, the CONCESSIONAIRE shall design on-ramps (third lane), runaway truck ramps, shoulders, step cuts in curves for
visibility purposes, etc. Emphasis shall be placed on protective measures for pedestrians and non-motorized transport in urban areas, town crossings, areas with population concentrations (schools, hospitals, churches, markets, etc.) and special signage when entering/leaving urban areas and towns.

The CONCESSIONAIRE shall also establish the safety standards and measures necessary to decrease risks of traffic accidents during the works.

2.3.3 Geometric Design

- The EDI shall be prepared based on the Feasibility Study for a third-class road in rugged orography.
- The CONCESSIONAIRE shall study and propose—for approval by the MTC—the design speed, stopping and passing visibility distances, and typical design cross-sections, in accordance with the road’s classification, projected demand, topography type, soils, climate, etc. etc., as suitable according to the Geometric Design Manual for Roads (DG-2013). The AASHTO Design Standards shall be applied on a supplementary basis.
- The project requires a homogeneous horizontal alignment, where tangents and curves transition harmoniously, avoiding the use of minimum radii and maximum slopes where possible.
- The surveying of the main polygon and the auxiliary closing polygons shall be performed using a total station. When calculating the coordinates of the polygon’s vertices, the coordinates of the closest existing geodetic marks shall be used as a reference.
- The CONCESSIONAIRE shall materialize the proposed axis with stakes every twenty (20) meters for sections at a tangent; and every ten (10) meters for curved sections or sections with abrupt changes in the terrain’s relief.
- The polygon intersections (PIs), the points of curvature (PCs), and the points of tangency (PT) shall be marked in the terrain or using concrete monuments, in an area that is not subject to removal by the construction equipment.
- All stakes of the axis shall be leveled, surveying the longitudinal profile of the terrain, using the elevations of the geodetic marks closest to the zone as a point of reference and designing the corresponding grade.
- The leveling shall be closed out every 500 m with a precision of 0.012 m/km, installing a benchmark (BM) in the form of a concrete monument every 500 m in properly protected areas, outside the reach of the works, at unmovable points.
- The cross-sections shall be surveyed at each stake, at a width of no less than 30 meters to each side of the axis, making it possible to obtain the earthworks volumes and the design of engineering works.
- Cross-sections, profiles, and levels shall be taken at crossings with other roads, intersections of streets, canals, creeks, and any other element that may influence the route, in order to define the most advisable solutions.
- Plans shall be drawn up, inside the right of way, for technically adequate pipelines and chambers that allow for the installation of fiber optic wires, thus making it possible to provide public telecommunications services in accordance with the provisions of Supreme Decree 024-2007-MTC.

- In those sectors that pass through populated centers, the designs to be used shall be appropriate for the nature of the populated area, as follows:
  - Plans shall be drawn up regarding protective measures for pedestrians, sidewalks, bus stops, pedestrian and cyclists’ crossings, merchandise loading and unloading zones, etc., providing details on their location, characteristics, and design. The sidewalks shall have a minimum width in accordance with the flow of persons, based on peak demand time (e.g., when children get out of school). The recommended minimum width is 1.50 m. If the CONCESSIONAIRE opts to use a width that is less than the minimum, it must submit the corresponding justification. Emphasis shall be given to the circulation and speed standards proposed for the road based on the resulting design, population size, etc., with particular stress on restrictions to the proposed circulation speed.
  - The design shall take into account the levels and bounds of all existing buildings. Wherever it is necessary to expropriate residences or lands so that the road and its sidewalk can maintain their design conditions, the CONCESSIONAIRE shall mark these properties in its plan, such that they are individually identified.
  - The CONCESSIONAIRE shall include solutions for design interferences caused by existing or planned public service works (posts, wires, pipes, sewer receptacle, etc.). For such effect, it shall coordinate with the corresponding municipal councils, communities, and/or public service agencies.

Topographic Surveying
- This activity includes the topographic surveys required for the design of bridges and walls, affected areas (PACRI) and those corresponding to critical sectors that require special treatment, areas with materials sources, dumps etc.
- An inventory shall be taken of all the engineering works, sewers, bridges, containment walls, etc., indicating their location, diameter or dimensions, and the elevation at the bottom of the incoming and outgoing sides.
- In urban areas, the topography shall include all existing details, including elevations, sidewalks, façade lines, manholes, posts, etc. The plans shall be submitted at a scale of 1:500, with contour lines every 0.50 metros. These plans shall indicate concentrated areas of inhabitants, such as markets, schools, health posts, town halls, main squares, fairs, etc., up to 200 meters to each side of the road axis.
- Ground plan at a scale of 1:500 for towns traversed by the road, within a minimum belt of 50 meters to each side of the road’s axis, indicating the road width, berms, pedestrian sidewalks,
constructions (façade lines), intersections with streets or roads, bus stops, posts, manholes, etc.
- Bodies of rivers, minor water courses, and flash flood paths shall be subject to the topographic surveying necessary to design the drainage works and supplementary engineering works, establishing auxiliary polygons throughout the entire course, no less than 300 meters upstream and 300 meters downstream from the axis, which shall be leveled, subsequently obtaining cross-sections running transversally to the course and the slopes of natural courses.
- Complete records shall be taken regarding the occupation of the right of way, in order to individually identify the buildings, crops, points of sale, etc. In the event the construction will affect privately owned buildings or lands, or in case of the need to widen the road, correct the route, or establish variations, supplementary topographic surveys shall be conducted, preparing the technical identification documents necessary for the entity to evaluate the bounds and the total areas, and then expropriate the properties.

2.3.4 Soil, Quarry, and Pavement Study
2.3.4.1 Soil Study

The works to be performed in the field, laboratory, and office are aimed at evaluating and establishing the physical-mechanical characteristics of the foundation terrain and the structure of the roadbed on which the pavement will rest:
- The CONCESSIONAIRE shall establish the Stratigraphic Profile of road (horizontal 1:10,000 and vertical 1:12.5).
- To define the Stratigraphic Profile, the CONCESSIONAIRE shall performing prospecting studies. The distance between
the prospecting points shall not exceed 200 m. If there is any difference in the characteristics of the strata between contiguous test pits, an additional test pit shall be implemented between them. The study depth shall be a minimum of 1.50 m below the line of the proposed roadbed.

- The evaluation shall determine whether or not there are any organic soils and/or expansive soils present. If either of these soil types are discovered, the test pits shall be deeper, in order to determine the thickness of these strata. The studies shall clearly indicate the location, length, and depth of said sector, making specific recommendations regarding the treatment thereof during the construction process.

- For each test pit implemented, the CONCESSIONAIRE shall submit an Excavation Record, indicating the thicknesses and description (type of material, color, moisture, compactness, etc.) of each one of the strata encountered. Additionally, it shall submit photographs of each one of the test pits, showing the strata encountered and the excavation depth.

- In case of precipitation (rainfall) during the prospecting works, all work shall be halted and recommenced once the precipitation has ceased.

- The test pits shall be protected for their evaluation, and duly referenced with regard to a road kilometer marker to aid in their location. To ensure road safety, the test pits shall be properly filled in and compacted once the evaluation and sampling of each one of the strata has been concluded. The sampling shall be done in sufficient quantities to allow for the performance of laboratory and verification testing, where required, especially for those strata selected for the implementation of Proctor, CBR, and Resilient Modulus tests.

- The soil mechanics tests to be performed on the samples from each stratum encountered at each prospecting site shall be carried out in accordance with the Road Materials Testing Manual for Roads (EM-2000), as follows:
  o Particle Size Analysis with Sieve
  o Natural Humidity
  o Atterberg Limits
    - Liquid Limit
    - Plastic Limit
    - Plasticity Index
  o Soil Classification using USCS and AASHTO methods
- Modified Proctor Test and California Bearing Ratio (CBR) Test on the foundation terrain for each soil type, at a maximum of every two (2) kilometer. These tests, together with the particle size analyses, will help determine the representative soil type for sectors with homogeneous characteristics.

- Resilient Modulus Tests for Design (AASHTO T-307-99) in each homogeneous section, in accordance with the conditions described in the previous paragraph, at a maximum of every ten (10) km. The sample shall be compacted at optimum humidity and 95% density, obtained using the Modified Proctor Method.
Alternately and at its own responsibility with regard to the structural behavior of the pavement during its design period, the CONCESSIONAIRE may indirectly establish the Resilient Modulus for Design based on the CBR values and/or those established in the AASHTO Mechanistic-Empirical Pavement Design Guide (2008 version).

To meet the established deadlines, the CONCESSIONAIRE shall test the soil samples in its own soil and materials laboratories. Depending on its operating and/or performance capacity, it may entrust the tests to third parties, in order to carry out laboratory tests simultaneously and thus reduce the time required for the laboratory stage. In both cases, the CONCESSIONAIRE shall be responsible for the accuracy and reliability of the results.

In addition to the testing certificates, the CONCESSIONAIRE shall submit summary tables with the test results, indicating: test pit number, kilometer marker, sample, stratum depth, percentages of material retained in Mesh 2", 1", ¾", N° 4, N° 10, N° 100, and N° 200 meshes, physical constants (liquid limit, plastic limit, and plasticity index), natural humidity, USCS and AASHTO classification, Proctor (maximum dry density and optimum humidity content); CBR (at 95% and 100% of M.D.S.), and resilient modulus (K1 and K2 values, values at total estimated stress, using the total stresses suggested in the AASHTO 93 guide as a reference).

The CONCESSIONAIRE shall prepare the Stratigraphic Profile of the road, including the elevations of the terrain and the elevation of the planned roadbed. Based on the information collected in the field and the results of the laboratory tests, it shall also establish a graphic representation of soil types and their physical-mechanical characteristics, stratum thickness, water table level, and other observations deemed necessary by the CONCESSIONAIRE. Additionally, it shall evaluate the Stratigraphic Profile, determining critical sectors and sectors with homogeneous characteristics based on the physical-mechanical characteristics thereof.

The Narrative Report on the Soils Study shall include a description of the soils encountered, current condition of the road surface, and structural condition of the foundation terrain; location of inadequate materials (organic and/or expansive soils), weak soils (if any), water table presence, and analysis of all the laboratory test results, with recommendations, treatment, solutions, and other comments on the matter that the CONCESSIONAIRE deems necessary.

For those sectors where soil improvement is proposed, the CONCESSIONAIRE shall justify the technical criteria used to determine said sectors, establishing and justifying the length, width, and depth, and doing likewise for sectors with slope cutting or widening of the flat area. A technical and economic definition shall be established for the stabilization alternative for the conditions existing in said sector. In case of replacement, indicate the quality of the materials to be used, giving priority to the cut materials, construction procedure, and works controls (type and frequency).
2.3.4.2 Quarries and Water Sources

The works to be performed in the field, laboratory, and office are aimed at carrying out activities that make it possible to evaluate and establish the physical-mechanical characteristics of the aggregates from the quarries to determine their quality and uses in the different works requirements. For such purpose, at a minimum:

- The CONCESSIONAIRE shall locate materials banks that shall be studied and analyzed to determine their use in the different structural layers of the pavement (subbase and unbound base, asphalt base, wearing course, surface treatment, etc.), borrow areas of material to form fills, soil improvement, as well as rock aggregates for the preparation of hydraulic concretes.

- In order to determine the strata to be exploited, use, yields, and thickness of the quarries, the CONCESSIONAIRE shall perform explorations (minimum of three (3) prospections for each area less than or equal to one (1) hectare) through drill holes, boreholes, test pits, and/or ditches, at depths of no less than the maximum exploitation depth. The prospections shall be located such that they cover the entire recommended exploitation area. The location of the test pits shall be detailed in the topographic survey plan of the quarry.

- The CONCESSIONAIRE shall submit an excavation log for each one of the prospections performed in all of the quarries studied, in which: i) It shall provide details on the characteristics of the aggregates, shape, size, humidity, color, strata thickness, etc.; and ii) It shall present the corresponding photographs of each test pit and quarry analyzed (different angles showing the size of the quarry).

- The laboratory tests to determine the physical, chemical, and mechanical characteristics of the quarry materials shall be performed in accordance with the MTC’s Materials Testing Manual for Roads (EM-2000), according to the proposed use, as follows:

  **Standard Tests:**
  - Particle Size Analysis with Sieve
  - Materials Finer than Mesh Size N° 200
  - Natural Humidity
  - Atterberg Limits (Materials Finer than Mesh Size N° 40)
  - Soil Classification Using USCS and AASHTO Methods

  **Special Tests:**
  - Modified Proctor
  - California Bearing Ratio (CBR)
  - Resilient Modulus (AASHTO T307)
  - Percentage of Flat and Elongated Particles
  - Percentage of Particles with at Least One or Two Fractured Faces (ratio is 1/3: thickness/length)
  - Absorption Percentage (Coarse and Fine Aggregate)
  - Atterberg Limits (Material Finer than Mesh Size N° 200)
  - Percentage of Friable Particles
  - Sand Equivalent
o Abrasion
o Durability (Coarse and Fine Aggregate)
- Bitumen Adhesion to Aggregates (Coarse and Fine Aggregate)
- Total Soluble Salts
- Sulfate Content
- Organic Impurities
- Volumetric Weights (Loos and Compacted, Coarse and Fine Aggregate)
- Specific Weights (Loose and Compacted, Coarse and Fine Aggregate)

And all others indicated in the MTC’s General Technical Specifications for Road Construction (EG-2013).

- The representative samples of the materials from each quarry shall be submitted to all of the tests required by the MTC’s General Technical Specifications for Road Construction (EG-2013) according to the proposed use, with the following minimums:
  - Standard Tests: One (1) set of tests for each prospection performed in the quarry. The number of prospections shall be determined based on the area and exploitation volume of the quarry.
  - Special Tests: Five (5) sets of tests for each quarry, thus covering the entire area and exploitation volume, in order to determine and establish their physical-mechanical characteristics and prove compliance with the Technical Specifications. The laboratory tests shall be performed in accordance with the MTC’s Materials Testing Manual for Roads (EM-2000).

- For each quarry and application type (base, subbase, and/or fill), the Resilient Modulus Test shall be performed in accordance with AASHTO T 307-99 test standards. The samples shall be processed in accordance with the treatments proposed for their use by the CONCESSIONAIRE, in order to prove the structural capacity of the aggregates from the quarries to be used in the structuring of the pavement.

- If it is necessary—in order to comply with the corresponding Technical Specifications—to submit the aggregate to a treatment (washing, draining, mixtures, etc.), the CONCESSIONAIRE shall submit a similar number of material test results as indicated in the previous paragraph, performed with aggregates after being submitted to said treatments, in order to corroborate and verify whether said treatments meet the Technical Specifications.

- The number of samples extracted from the quarries shall be sufficient to perform the required tests, as well as any verification tests to rectify and/or ratify infrequent (doubtful) results.

- In the case of rocks and/or rocky outcrops proposed as quarries, the quality tests shall include the following, in addition to the abrasion tests:
  - The macroscopic petrographic description of the rock.
Definition of the outcrop’s characteristics (volume, fracturing, size of blocks, etc.).

Recommendation of the exploitation processing methodology (method of blasting, crushing, etc.).

- The CONCESSIONAIRE shall recommend the plant types for the production of aggregates. For the different particle size uses, it shall indicate the production yield requirements.
- Only those quarries closest to the works shall be selected, with the corresponding laboratory tests and topographic plans demonstrating that the quality and quantity of existing material are adequate and sufficient for the project, and that they meet all the requirements established in the General Technical Specifications for Road Construction (EG-2013), in accordance with the proposed use.
- The CONCESSIONAIRE shall evaluate the required access roads to the quarries, taking into account the need to build or improve them, additionally noting whether the access roads are located on third-party properties.
- To meet the established deadlines, the CONCESSIONAIRE shall test the aggregate samples in its own soil and materials laboratory. Depending on its operating and/or performance capacity, it may entrust the tests to third parties, in order to carry out laboratory tests simultaneously and thus reduce the time required for the laboratory stage. In both cases, the CONCESSIONAIRE shall be responsible for the accuracy and reliability of the results.
- In addition to the testing certificates, the CONCESSIONAIRE shall submit a summary table for each quarry, indicating all of the results for the tests performed (with the corresponding identification: quarry, test pit, sample, test name, results, etc.).
- The CONCESSIONAIRE shall perform topographic surveying and cross-sections every 10 m in all of the proposed materials banks.
- The CONCESSIONAIRE shall calculate the volume of usable and disposable material, and shall recommend the period and occasion for use, calculating the yield for each use. It shall additionally indicate the exploitation procedure and its availability to provide the different types of materials to be used in the works.
- The Narrative Report shall provide information on: the location of the materials bank; accessibility thereto; type of materials source; description of the aggregates, uses, treatment, type, and exploitation period; owner; and any other information the CONCESSIONAIRE deems relevant, as well as providing the corresponding photographs of all of the quarries.
- The CONCESSIONAIRE shall likewise determine the location of water sources; perform a chemical analysis on them; and determine their quality for use in the works (for concrete mixtures, granular layers, etc.).
- The CONCESSIONAIRE shall submit a Quarries and Water Sources Plan, in which it shall provide a concrete summary of the results of the Field Research and Narrative Report (including, among other aspects: location of the quarries and water points, length and condition.
(transitability) of the access routes, characteristics of the aggregates, uses, thickness, yield, treatment, exploitation period and equipment).

- The CONCESSIONAIRE shall establish the legal and technical conditions under which the project’s constructor must move forward with the corresponding paperwork and formalities necessary to obtain the environmental permits, authorizations, and concessions, as well as the easements necessary for the extraction, use, and exploitation of the natural resources required by the project.

2.3.4.3 Pavement Design

- The CONCESSIONAIRE shall study and analyze different pavement structuring alternatives, based on the bearing capacity of the roadbed, the predicted traffic, the environmental conditions in the area (climate, altitude, precipitation, etc.), the road maintenance alternatives, the natural materials available in the area, etc.

- The CONCESSIONAIRE shall develop the structural design of the pavement using the methodology established in the AASHTO Design Guide, 1993 version, as well as the guide published by the ASPHALT INSTITUTE in 1991. The CONCESSIONAIRE may employ another methodology commonly used by widely recognized entities or bodies, for which purpose it must obtain the express authorization of PROVIAS NACIONAL. It shall also submit a calculation report, explaining all the criteria adopted, and describing, step-by-step, how the results were obtained.

- The CONCESSIONAIRE shall justify each one of the design parameters used, following the instructions/directions of the design guide used.

- In order to verify the pavement structure to be used, the design alternatives must be analyzed using a mechanistic method. This shall be done taking into account the failure criteria for deformation in the roadbed and for fatigue in the asphalt layer (traffic and climate). For such purpose, the CONCESSIONAIRE shall establish the structural dimensions for each homogeneous section, indicating the number of layers, the thickness of each one of them, and the elastic modulus and Poisson’s ratio. The elastic moduli shall be based on the properties of the asphalt concrete obtained in the preliminary design for mixtures, the results of the resilience moduli of the quarry materials, and the resilience moduli of the foundation soil. The total cumulative deformation in the surface must be less than 12 mm during the useful life. The percentage of cracks shall be less than 20%, and the fissure depth due high thermal gradients shall be less than 50% of the total thickness of the wearing course. The deterioration equations used shall be those given in the AASHTO Mechanistic-Empirical Pavement Design Guide (2008 version); or, in the absence thereof, the CONCESSIONAIRE may, at its own responsibility, use other formulas employed widely recognized entities or bodies. The CONCESSIONAIRE shall also submit the calculation report, including all of the criteria adopted and describing, step-by-step, how the results were obtained.
Finally, the CONCESSIONAIRE, at its own responsibility, shall determine the structure of the pavement to be constructed.

- If the wearing course is an asphalt layer, a twenty (20)-year design shall be studied and analyzed, with implementation in a single stage and in two stages, based on a first stage of ten (10) years and a second stage of up to twenty (20) years. All other cases shall be determined by the CONCESSIONAIRE, with the corresponding technical justification.

- The CONCESSIONAIRE shall establish the routine and periodic maintenance policies for the pavement selected, based on the required service levels, justified using HDM-4 (Highway Development and Management) software, version 2.08.

- Based on the knowledge of the proposed quarries and the physical-mechanical characteristics of the aggregates, the CONCESSIONAIRE shall perform a preliminary design of the asphalt wearing course, as well as defining the type of asphalt to be used, based on the traffic and altitude characteristics of the zone.

- The CONCESSIONAIRE shall submit the laboratory results for the asphalt wearing course design to be used in the construction of the pavement, including tables and/or graphs of the corresponding analyses, as well as the relevant conclusions.

### 2.3.5 Geological/Geotechnical Study of the Road

- The study shall be commenced after defining the axis and staking out the final route, with the participation and opinion of the geological and geotechnical expert, given the need to plan possible variants.

- Detailed cartography of the regional and local geology, with the identification of formations, lithological structures, and geological faults along the entire route. The geological information shall be depicted in a local geological map, with a description containing applied engineering concepts, arriving at a geotechnical interpretation of the geomorphology, stratigraphy, petrography, sedimentology, structural or tectonic geology in the location of each section. Depicted in maps or plans to scale (1:2000), identifying, among other aspects: main towns and ravines; critical and unstable sectors; and other elements useful to the study.

- If there are any clayey materials found in the sectors where structures or engineering works are planned, it shall be necessary to evaluate the instability of the clay due to consolidation and expansion, proposing the corresponding measures.

- In the case of sandy soils, where it is also possible to infer the presence of the water table, it shall be necessary to evaluate the soils' susceptibility to liquefaction, using internationally accepted methodologies and/or based on triaxial tests, proposing the corresponding control measures.

- Identification and analysis of the external geodynamics processes and unstable slopes that pose a risk to the road's transitability, defining their magnitude and geometry, evaluating the causes and
consequences, identifying the destabilizing agents, performing the corresponding field and laboratory geotechnical investigations in support of the parameters, diagnosing the problem and proposes the measures or works necessary to resolve it, at the design level, including the exploration required, in the form of prospecting works (diamond drill holes, SPT, DPSH, DPL, test pits, ditches, etc.). In these evaluations, a minimum of two (2) transverse holes shall be drilled, making it possible to define the standard geological/geotechnical cross-section of the sector. All correlations shall be duly justified based on documents and an analysis of the available information, establishing valid conclusions for the project.

- The evaluation and solution of the external geodynamic processes shall be multidisciplinary. As such, it shall require the opinion and approval of the CONCESSIONAIRE’s other specialists. In the case of extremely costly solutions, the CONCESSIONAIRE shall also suggest other alternatives requiring a lower investment. However, this does not affect its responsibility for submitting a design for the original solution. In general, the corrective measure shall strike an ideal balance between the technical and economic aspects.

- In those sectors affected by riverbank erosion processes, the CONCESSIONAIRE shall evaluate these problems and establish the corresponding treatment, in close coordination with the hydraulics specialist. The corrective measure shall be in keeping with the materials available in the zone, in order to ensure a suitable technical/economic balance.

- In the case of critical sectors, whose solution will require more exhaustive and/or highly specialized studies, the CONCESSIONAIRE shall use direct and indirect boreholes. As a minimum, it shall drill two (2) transverse holes, based on which it is possible to define the standard 20-m geological/geotechnical cross-section in each sector, based on the considerations and exploration methodology established in the section on Geology and Geotechnics for Bridges and Pontoons, supplemented with seismic refraction, involving at least two (2) times the length of the affected sector, at a minimum. The layout of these works shall necessarily be coordinated with the entity, taking into account the speeds of the different strata and the elastic constants. The spacing between geophones for the purposes of defining the stratigraphy shall be 3.0 m. In situ research techniques to be used include dynamic and semi-static soundings, in order to fully interpret the nature of the process and arrive at the design of the stabilization works; or else, to propose variants. The evaluation of these sectors shall necessarily include an exhaustive analysis of the specific geological photointerpretation for the entire area of influence, with a radius of approximately two (2) times the length of the affected sector, which shall form part of the study for these sections. The presentation guidelines shall include, as a minimum, those established in the chapter on bridges and pontoons, indicating the geotechnical modeling and corrective measures, with the corresponding design.
The slope stability analyses shall be performed using the limit equilibrium method, for which purpose both standard and special tests shall be performed (classification, Atterberg limits, humidity content, direct shear, triaxial, etc.) as means for obtaining the geo-mechanical parameters of the materials present. Static and dynamic penetration tests may be used. However, they shall not be considered a replacement for the laboratory tests.

The use of back analysis shall only be permitted as a referential means for obtaining the failure surface strength parameters of a slope. Under no circumstances shall such analysis replace the laboratory shear stress tests.

In the case of unstable and critical slopes tied to groundwater problems or very superficial water tables, hydrogeological studies shall be performed in order to design deep drains, drainage galleries, vertical wells, etc.

Interventions in rocky outcrops shall necessarily include, among other aspects: petrographic classification, kinematic stability analysis using stereographic projections, geo-mechanical classifications (Bieniawski and Barton, etc.), or others applicable to slopes and failure analysis, calculation of shear strength of discontinuities, using special tests and proprietary methodologies. The minimum tests to be performed for the characteristics of the rock mass are as follows: simple compression, unit weight, direct shear (discontinuities).

Localized seismic hazard studies shall be performed using appropriate methodologies, based on instrumental and historical earthquakes records that define the design uniform hazard spectra for the works involved in the section, as established in the 2014 AASHTO LRFD 2014 design specifications, or the edition currently in force.

The classification of materials shall be performed throughout the section, every 50 m at most, based on homogeneous sections, qualifying and quantifying, percentage-wise, the amount of loose material, loose rock, and fixed rock. This information shall be used to justify the incline of the slopes in the cross-sections, as well as the earthworks volumes for flat areas.

The studies shall include the performance of special tests (triaxial, direct shear, etc.) and standard tests (classification, unit weight, etc.) for the slope stability analyses, indicating the real parameters.

All text-based information shall be supported by test certificates and graphic supplements, such as photographs, maps, geological, geotechnical, and geodynamic plans at scales in accordance with the standards in force (1:200).

When planning retaining or support works, the CONCESSIONAIRE shall perform special tests (triaxial, direct shear, etc.) and standard tests (classification, unit weight, etc.) for the corresponding stability analyses, indicating the real parameters.

In case of any other considerations not included in these terms of reference, the project shall comply with Peruvian Standards EG-2013 and DG-2013.
Geotechnical Design

- The designs for cut and fill slopes in soils shall be performed as a result of the slope stability analyses, using the limit equilibrium model, necessarily based on standard and special laboratory tests.
- The works required for slope stability, critical point treatment, external geodynamic processes, support and retaining walls, etc., shall be designed defining the foundation elevation in meters above sea level (m.a.s.l.).
- Overall stability analyses shall be performed for the planned work, under both static and pseudo-static conditions, based on the current situation and the situation following intervention.
- A calculation report shall be submitted on the ultimate capacity of the soil and the structure stability calculations (overturning, sliding, contact pressure, overall stability of the planned work under static and pseudo-static conditions, etc.), with graphs, considering the current situation and the situation following intervention.
- Foundations on slopes shall require special stability analyses using specific methods, including limit equilibrium.
- The works necessary for the stabilization of rock slopes (bolts, anchors, shotcrete, etc.) shall be implemented after performing a prior analysis of plane failures, wedge failures, overturning, etc., and the design shall be based on specific methodologies.
- The CONCESSIONAIRE shall present recommendations and theoretical/technical instructions on controlled and/or pre-cut blasting, which shall not cause instability in the rock mass.

2.3.6 Geology and Geotechnics for Bridges and Pontoons

- The study shall be commenced after defining the axis and staking out the final route, with the participation and opinion of the geological and geotechnical expert, given the need to plan possible variants.
- The geological and geotechnical studies for new structures such as bridges and pontoons shall be performed based on the topographic surveys, covering a distance of 300 m upstream and 300m downstream from the proposed axis.
- The geological and geotechnical studies for the foundations of bridges and pontoons required due to needs and/or recommendations involving river hydraulics, structures, road design, etc., shall be performed based on specific topographic surveys for each one.
- The CONCESSIONAIRE shall perform a detailed investigation of the geological and geotechnical concepts and aspects at the location of the structure, and their influence on the location of the bridge, based on the final route, such that the design does not neglect any aspect involving the stability of the bridge’s infrastructure.
- The planned structure shall be located in a zone that is not vulnerable to geodynamic processes. For such purpose, it shall be necessary to perform external geodynamic studies in the area of influence. If any unfavorable geological/geotechnical conditions are detected (natural dams, sliding, flash flooding, etc.) with a direct and/or potential influence on the stability of the planned structure, it shall be necessary...
to perform the corresponding geotechnical evaluations and investigations, with supplementary topographic surveys that cover the affected area, in order to finally propose the respective treatment.

- Test pits, ditches, and diamond drill holes shall be performed.
- One (1) diamond drill hole shall be performed in each support, with two (1) in planned bridges and one (1) in each pontoon. In the latter case, the drill hole shall be no less than 10.0 m below the course level, and shall be performed in the most representative materials, supplemented with DPL and/or DPHS in the other support, which may be supplemented with a test pit measuring no less than 4 m deep. If the strengths obtained with the stratigraphic information from the drilling are inconsistent, it shall be necessary to perform a bore hole to directly verify the stratigraphic column in the respective sector, supplemented by a test pit measuring no less than 4 m deep.
- For bridges, one (1) hole shall be drilled in each support of the planned structure. The depth of both holes shall be a minimum of 20 m below the level of the watercourse’s bed, supplemented with SPTs every 1.50 m in granular soils. In fine soils, the holes shall reach a minimum depth of 35 m below the course level. In case of rock, the continuity of the rock shall be verified at a minimum of 5.0 m.
- These drill holes shall be used to:
  - Determine the detailed stratigraphy, every 1.50 m.
  - Identify the water table.
  - Establish the SPT values.
  - Obtain two (2) unaltered samples (using a Shelby tube) per drill hole, for the performance of special laboratory tests, consisting of:
    - Direct shear in sandy soils, or remolded shear in gravels.
    - Triaxial CU for the undrained strength of clays.
    - One-dimensional consolidation in clays.
    - Free and/or controlled expansion in clays.
    - Effective unit weight of each stratum.
- If liquefiable strata are encountered, a soil liquefaction analysis shall be performed using the method established in “Specifications for Highway Bridges,” or another compatible and recognized method, in order to determine the strata susceptible to liquefaction, and the maximum liquefaction depth, so that they are not included in the bearing capacity calculations.
- The ultimate bearing capacity shall be established using proven parameters through admissible foundation soil tests, dividing the ultimate bearing by a safety factor of no less than three (3) for normal service conditions, verifying the maximum undercutting or maximum liquefaction conditions, compared to the methodology proposed by AASHTO LRFD. Accordingly, the foundation study shall also include the verification of ultimate bearing capacity, as per the AASHTO LRFD protocol.
- If an excavated pile foundation system is proposed, given that there are no domestic standards, the admissible axial bearing capacity shall
be established using the methodology contained in the AASHTO standards (for excavated piles), or, alternately, the methodology of Reese & O’Neill, considering that Reese & O’Neill’s calculation is based on permissible settlement. If another methodology is applied, the corresponding settlement analyses shall likewise be performed.

- The lateral friction resistance shall not consider the material above the total undercutting level, nor the strata susceptible to liquefaction and those with low resistance.
- The group reduction factor shall be determined according to AASHTO standards, and any change shall be objectively justified, but shall not exceed 0.75 under any circumstance.
- The required laboratory tests shall include the following, among others:
  - Standard soil tests (particle size, LL, LP, humidity, unit weight, etc.).
  - Special tests (triaxial, direct shear, consolidation, etc.).
  - Chemical analysis of the soils and waters in the subsoil to identify the presence of chlorines, sulfates, and others that act aggressively on steel and concrete.

- The minimum contents of the geological/geotechnical study shall be as follows:
  - Regional geology of the area of influence of the location of each structure (bridge or pontoon), defining the stratigraphy, structural geology, and geodynamics of the site of the planned superstructure and any unstable areas, based on which the geological/geotechnical interpretation and the stratigraphic profile shall be performed.
  - Local and detailed geology of the site of the superstructure, within a radius of no less than 300 m, mapping the unstable areas, indicating the control works at the design level, consistent with the geological/geotechnical interpretation and the stratigraphic profile.
  - Identification, evaluation, and interpretation of the external geodynamic processes in the area of influence or risk to the project (for the local area, a radius of 300 m), with the control recommendations, properly sized and designed in accordance with the undercutting levels calculated in the hydrological study.
  - Topographic ground plan with the exact location of the drill holes, which shall be located on the axis (with an accuracy of a radius of 5 m) of the structure sites. Nearby or correlated prospections will not be accepted, except due to considerations of risk and traffic interruption, which shall be reported to the entity in due time for its approval and opinion.
  - Geological and geodynamic plan, with the location and site of the corresponding units, indicating the location of the active units as per the basic plan.
  - Drilling logs, containing detailed information on the geological and geotechnical characteristics of the materials (every 1.50 m), water table level, SPT, DPL, DPHS, RQD, concordant and
consistent with the geological interpretation, for bridges and critical sectors (20 m), and pontoons (10 m), as a minimum. When performing the leveling of the liner pipe, a test pit shall be performed with a depth of no less than 2.0 m, for which the payable drill hole shall be 18 m, and the test pit shall have the corresponding cost. This test pit shall not apply exclusively in the case of rock.

- Detailed stratigraphic cross-section profile, longitudinal to the bridge axis, with all information pertaining to the foundation, such as: foundation depth, bearing capacity, undercutting level, soil liquefaction, bottom of the watercourse, lithological and geotechnical contacts, NAME, in meters above sea level (m.a.s.l.), etc.

- Detailed logs, with all relevant information on the foundation materials obtained from the drill holes, shall be included in the corresponding records, duly signed by the responsible professional, thus guaranteeing the technical quality of the prospecting.

- Laboratory test certificates, issued by a renowned laboratory, in compliance with the requirements established in the Peruvian Technical Standards (NTPs) and the ToRs (soils). Special tests shall preferably be processed by respected public entities (universities, vocational institutes) or private laboratories that have proven to have the equipment necessary to perform the test, duly calibrated, no more than six (6) months old, subject to inspection by the entity.

- Calculation sheet or report on the bearing capacity of the foundation materials.

- Localized seismic hazard study, including the basic information used in the road study.
  
  - If rock masses are encountered, drilling shall be stopped and/or suspended only if the in-situ geological/geotechnical assessment with regard to the lithological characteristics (petrographic analysis), structural characteristics (microtectonic stations in the support areas), uniaxial compressive strength (of unaltered sample(s) extracted from the likely foundation level), shear strength of discontinuities, RQD, geomechanics and spatial distribution of fissures, joints, and failures, ratifies the quality of the rock mass as foundation material (minimum 5 m below the foundation level), performing a rock foundation analysis using at least two (2) methodologies, including, among others, the geotechnical conditions of the mass, in concordance with the fluvial dynamic conditions.

For any other considerations not included in these terms of reference, the project shall comply with the Bridge Design Manual (2003).

**Geotechnical Design**
The foundation depth shall be indicated in absolute levels (m.a.s.l.), and shall be lower than the total undercutting level. Under this critical condition, the foundation shall have a confined depth of not less than that assumed in the bearing capacity calculations.

The bearing capacity calculations shall include the influence of the water table level. The CONCESSIONAIRE is thus obligated to verify said level, and include this information in the study, noting the methodology used and parameters (cohesion, friction, pore pressure, unit weight, etc.) based on duly certified tests, sheets, and/or calculation reports.

Foundations on slopes shall be permitted if the hydraulics specialist determines there is no undercutting in the support zone, and slope stability analyses are performed in both soils and rocks. The load bearing capacity calculations shall use typical methodologies for foundations on slopes, taking into account the materials’ shear strength.

The design seismic forces shall be based on the parameters obtained from the seismic hazard study, correlated with the provisions established in the 2014 AASHTO LRFD design specifications or latest version.

The work’s stability shall be analyzed with regard to settlement and soil liquefaction.

2.3.7 Hydrology and Hydraulic

The hydrology and hydraulics study shall focus on determining the hydraulic parameters to be included in the design of the new structures required for the Rehabilitation and Improvement of the Izcuchaca – Mayocc Subsection (116.86 km) of the Longitudinal de la Sierra Highway, Section 4: Huancayo - Izcuchaca - Mayocc - Ayacucho/Ayacucho - Andahuaylas - Sahuinto Bridge/Dv. Pisco - Huaytará – Ayacucho. For such purpose, the following activities, among others, shall be carried out:

- Collection of information and review of existing technical information on the current carriage way being used (topographic, cartographic, meteorological, soils).
- After establishing the staked axis and defining the project’s cross-section, field studies shall be performed to identify any hydrodynamic problems. Submit the inventory and evaluation of major and minor drainage works on the existing and planned carriage way, indicating their location (kilometer markers), type, material, hydraulic dimension (span, height), and describe the current hydraulic state of each one of them.
- Field studies to identify the sectors affected by any overflowing of the Mantaro River, so as to propose improvements with regard to the road’s location. This shall include alternatives, such as the elevation of the grade or relocation of the final axis, in order to protect the road from the dynamic actions of the Mantaro River.
- Field studies to identify ravine crossings, with a flow of debris or mudslides, along with treatments and solutions aimed at guaranteeing road transitability and safety.
The field studies report shall have technical sheets reporting on the evaluation of existing works, indicating kilometer marks, current state, geometric characteristics, etc. Technical sheets shall also be submitted for all of the critical sectors affected by erosion in ravines, flooding, infiltration in unstable slopes, mudslide flow, major ravine crossings, etc.

For new drainage works to be incorporated and those in poor condition due to hydraulic insufficient or other hydrological aspects, the following actions shall be taken:

- Present or determine the physical parameters of the receiving basin, based on national charts and/or topographic surveying.
- Hydrological analyses based on precipitation or maximum discharge data, which shall contain, at a minimum, the preparation of hydrographs, analysis of frequencies, and adjustment tests (Smirnov – Kolgomorov), with a calculation report and conclusions from the analysis.
- Determine the return period and maximum design discharge. The return period will depend on the importance of the road, consequences of its failure, and risk analysis based on the useful life of the work.

At a minimum, the standards established in the MTC's Hydrological and Hydraulic Manual will be accepted:

- For the hydraulic sizing of bridges = 175 years.
- For maximum undercutting calculations = 500 years.

- Use of computerized hydrological modeling (HEC-HMS or others) and/or appropriate hydrological models to determine, consistently and conclusively, the maximum design flow volume of the planned drainage works.
- Hydraulic simulation of flooding behavior (HEC-RAS or others) of the design flow volumes in major works (bridges and/or runoff channels or other important works). Submit the hydraulic cross-sections, flooded flatlands, and 3-D modeling views, including the planned structures.
- Submit a list of transversal and longitudinal drainage, sub-drainage, and protective works planned, indicating their hydraulic sizes, location, type, etc., including their respective hydraulic calculation reports, referenced in accordance with the kilometer markers established in the project’s ground and profile plans.
- For riverbank protection works, it shall previously be necessary to take into account the availability of material in the zone, accessibility for the performance of works in the watercourse, and construction procedures. When using rockfill dams, establish the average minimum diameter of the rocks to be used, thickness, and rock quality based on the flow drag capacity; and design the protection filters to control the washing away of fines.
Where the use of geotextiles is required, the necessary mechanical and hydraulic properties shall be established.

In case of planned bridges, the minimum span shall be such that it does not cause the narrowing of the river’s hydraulic cross-section, in order to avoid the formation of still water curves, accumulation of sediments upstream, and hydraulic rebound immediately downstream from the bridge, which may cause whirlpools capable of compromising the stability of the supports.

Calculate the potential undercutting (general, local, curvature, contraction, etc.), which shall be estimated based on the hydraulic conditions of each sector, and shall be consistent with the types of materials reported in the stratigraphic profiles or soil studies.

Design Criteria

- The drainage works shall be designed to be compatible with the rainfall regimen in the area, establishing the location (kilometer markers), hydraulic size (span, height), liner types, gradients, discharge points, etc.

- The geometric characteristics of the lateral ditches shall be designed in accordance with hydraulic and road safety criteria, as well as the Geometric Design Manual (DG-2013). Their capture length shall not exceed 250 m, except where technical justifications exist. On the other hand, deliveries to natural terrain shall be equipped with spillways in order to protect the upper and lower slopes of the roadway platform.

- In sectors with surface water table levels with a negative impact on the road structure and/or outcropping of sub-surface flows (springs, infiltration, etc.), longitudinal and transversal underground drainage systems (sub-drains) shall be planned. These systems shall be compatible for the drainage of the predominant material at the compromised site or sector, in terms of particle size and hydraulic conductivity.
  - In those areas with high subsurface water levels, piezometers shall be installed to measure the water table oscillations in rainy season, thus making it possible to establish the degree of saturation for the structural package, as well as the depth of the sub-drains, where necessary.

- In the ridge deck of the planned bridges, surface runoff drainage points shall be designed in order to guarantee the free and adequate runoff of any rainfall or water flows.

- The vertical clearance in planned bridges shall allow for the passage of floating solid material, and shall be determined in accordance with the Design Standards in force. The minimum acceptable clearance shall be 2.5 m, measured as from the maximum design water level.

- The solution adopted for road drainage shall be presented and detailed in totally designed plans, with floor, profile, cross-sections, and cutaways.
2.3.8 Structures

Include all the different types of bridges, pontoons, runoff channels, walls, and culvert heads, frame cross-sections, etc., regardless of the material of which they are made.

Perform an inventory and evaluation of each one of the existing structures, corroborating and/or complementing the information from the existing feasibility study and final study. Said inventory shall consist of:

- Locations (kilometer markers and GPS coordinates).
- Current conditions (with regard to primary elements and the general structure, limitations of provisional structures, width of the carriage way, design overload, hydraulic capacity, etc.).
- General characteristics (dimensions, bearing capacity, etc.)
- Fill out the inspection sheets to be provided by the Studies and Projects Management of Provías Nacional
- Photographs

The CONCESSIONAIRE shall perform the measurements, tests, and evaluations necessary to determine the functional and structural condition (concrete, steel, etc.) of the engineering works and drainage works existing in the section, including ditches, culverts, collecting systems, pontoons, bridges, runoff channels, retaining walls, sub-drains, gabions, dry walls, protective structures, and any others it deems necessary to evaluate.

Propose and provide details, based on the evaluation, for the following works:

- Maintenance (structures in good condition)
- Remediation, reinforcement for S/C HL93, and expansion (structures in average condition), for both the superstructure and substructure, additionally considering the seismic actions established in the 2014 AASHTO LRFD design specifications or most recent version
- Replacement (structures in poor condition)
- Construction (structures not currently existing)

For new structures, propose the necessary structure based on the basic studies.

The design for all the structures shall meet the standards or regulations in force (AASHTO LRFD specifications, and, for aspects particular to Peru, use the MTC’s Bridges Manual), based on the material deemed appropriate and the seismic conditions in the area.
Define the structure type, and especially the foundation, based on the ultimate bearing capacity of the soil, water table and foundation levels, probable settlement, maximum and minimum water levels, undercutting, available of materials and equipment in the work area. All of these conditions shall be seconded by the respective specialists (to be included in the narrative report and corresponding plans).

Submit the narrative report for the proposed structures.

Submit the design of the structures based on plans justified in the respective calculation report.

Perform the calculations preferably using computerized systems, with a detailed report to be submitted together with the plans.

Submit a specific budget for each design and work (remediation, expansion, reinforcement, replacement, etc.) proposed, indicating its performance deadline.

**Bridges and Pontoons**

For the structural evaluation of existing bridges and pontoons, use the 2012 AASHTO Manual for Bridge Evaluation or most recent version.

For new bridges and bridges to be replaced, the design period shall be 100 years. For pontoons, the design period shall be 50 years. For culverts and drainage ditches, it shall be 20 years; and 10 years for ditches, taking into account the effects of the El Niño Phenomenon of 1983 and 1988.

The following shall be taken into account for the design:

- The 2014 version of the American Association of State Highway and Transportation Officials (AASHTO LRFD) Bridge Design Specifications or most recent version.
- The cross-section of the superstructure and the access routes shall coincide with the geometric design of the section.
- The CONCESSIONAIRE shall propose the final spans, based on the basic engineering information it obtains on its own.
- The design shall be based on basic engineering studies, including hydrology, hydraulics, erosion, and protection and/or control works, geological and geotechnical studies, determining the admissible bearing capacity, water and foundation level, probable settlement, maximum and minimum water levels, and undercutting levels.
- The solution proposed by the CONCESSIONAIRE (reinforced concrete, etc.) shall take into consideration the effects of seismic forces.
Once the design of new bridges and pontoons has been finished, a sheet shall be filled out with the technical characteristics of the new structure.

The CONCESSIONAIRE may propose a solution other than that established in the feasibility and existing study, provided it is able to provide proper technical and economic justification.

Submit the following plans:

- Topographic plan of the location (zone included within 1,148.29 ft. of the axis upstream, and 300 m downstream, at a scale of 1:1,000, with contour lines at intervals of 1.00 meter, indicating reference points and levels, in accordance with the geometric design of the road.
- General ground and elevation view, based on a detailed topographic and bathymetric survey of the location area.
- Plan of structures to be demolished.
- Details on reinforcement (to meet the requirements established in the 2014 AASHTO LRFD specifications or most recent version) or repair, as applicable.
- Substructure (excavations, formwork – reinforcement of concrete buttresses, pillars, stub-ups, etc.).
- Superstructure (formwork – reinforcement of beams and concrete slab, steel links, etc.).
- Details (supports, expansion joints, drainage pipes, rails, approach slabs, etc.).
- Complementary works.

Also, on an additional basis, include the following:

- Recommendations for the construction process.
- Establish the longitudinal slope as null, where possible. Otherwise, this slope should be a maximum of 3%.
- Approach slabs at both ends of the structure, if it is isostatic.
- The wearing course shall be similar to that used for the road.
- The complementary works are those necessary for riverbank defense and protection against erosion, undercutting, or sedimentation.
- Submit a specific budget, including the items established in the preceding points.

Walls

- Walls may be gravity or cantilever, and shall include technical/economic justification proving which is the most appropriate.
- For the design of cut and fill retaining walls, soil investigation test pits shall be made (to obtain strength parameters), at depths that ensure the useful life of the work. Cross-sections, profiles, and complementary levels shall be taken, determining the layout, elevation, and foundation levels. The axis and shoulders of each wall shall be properly staked out.
- Create designs for each soil type established, taking into account that their elevation may vary at increments of 0.5 m.
Verify stability against overturning and slipping, for static and dynamic conditions.

2.3.9 Signage

The CONCESSIONAIRE shall perform the study and design of both vertical and horizontal signage for the road, based on the needs thereof, in accordance with the Manual on Automotive Transit Control Devices for Streets and Roads currently in force, taking into account the results of the road safety studies.

The signage design shall be compatible with the geometric design of the road, such that the signs contribute to road safety and are easily visible, in keeping with the traffic speed.

Based on the results of the road safety studies in the high-risk areas of the road, or those with a history of accidents, special care shall be taken in designing the signage, using larger signs repeated at previously established intervals, speed bumps, guardrails, etc.

The size and characteristics specified shall coincide with the different documents contained in the Technical File: Narrative Report, Plans, Technical Specifications, Footages, etc.

The CONCESSIONAIRE shall prepare the technical specifications for both horizontal and vertical signs, specifying the materials, sizes, and qualities for each one of the articles.

2.3.9.1 Horizontal Signage

- Markings on the Pavement
  The markings on the pavement are intended to regulate the movements of vehicles and increase the safety of their operation. These markings must be consistent in their design, positioning, and application, so that drivers can quickly recognize and interpret them.

  The CONCESSIONAIRE shall determine the necessary signs and markings on the pavement to allow road users—including both drivers and pedestrians (population living near the road)—to safely make use of the road.

  The CONCESSIONAIRE shall adequately specify the paint to be used for the markings on the pavement, which shall be reflective, using small glass beads applied to the paint.

  The doses of the paint and the glass beads shall be appropriate for each type of pavement. The rougher or the more open the asphalt, the higher the dose required to achieve adequate coverage and retroreflectivity. The CONCESSIONAIRE shall specify the
retroreflectivity values for each color (white on the edges and yellow on the road axis).

It shall also specify the double application of markings on the pavement. The first shall be temporary, on those paved sections that are used for transit, in order to guarantee the safety of the road, both during the day and at night. The second application shall be performed once the road paving has been finished, for the final reception thereof. The doses of paint and glass beads shall be in accordance with the durability requirements for each application: the first shall be for temporary use, during the remediation of the road; while the second shall have the necessary durability for the permanent use of the road. The CONCESSIONAIRE shall also include the footages and unit prices for each application.

- Reflective Pavement Markers
  The CONCESSIONAIRE shall include the use of reflective pavement markers, particularly in areas with fog, curves, slopes, and any other sector that requires increased visibility at nighttime. It shall avoid the simultaneous or repetitive use of reflective elements (on delineator posts, guardrail reflectors, and markers) to avoid confusing road users. It shall also avoid the simultaneous use of reflective markers on the axis and on the edge of the road, particularly in blind curves, where these elements may cause confusion at night.

- Metal Guardrails
  The CONCESSIONAIRE shall plan for the use of guardrails in critical areas where there is a possibility that the vehicle may run off the road, such that the guardrails act as a retaining element. For such purpose, the CONCESSIONAIRE shall use minimum lengths appropriate for said function.

The guardrails used shall be of the sizes and made of the materials established in the standards in force, specifying the use of protective paint against corrosion in geographic areas with a corrosive environment (mainly near the coast).

2.3.9.2 Vertical Signage

- Preventive Signs
  Preventive signs are those used to indicate that certain road conditions are approaching, alerting users to a real or potential hazard that can be avoided by taking certain precautionary measures.

  The CONCESSIONAIRE shall plan for the installation of preventive signs in order to “alert” users to road conditions that require their immediate attention and action. These signs shall be placed at the distance recommended by the Manual on Automotive Transit
Control Devices for Streets and Roads, so that the user has sufficient time to react.

- **Regulatory Signs**
  Regulatory signs establish mandatory actions or restrictions governing the use of the road, with which the user must comply or else be punished. As such, these signs must be planned based on reasonable and feasible parameters so that users can comply with them, particularly with regard to speed limits. In urban areas, speed limits of 30 kilometers per hour (kph) are recommended. Likewise, after zones where speed limits are lowered, the maximum speed permitted on the road shall once again be specified.

  The materials to be used shall be appropriate for the environmental conditions, and resistant to vandalism, designing the components in accordance with these requirements (e.g., zinc-plated, round-head bolts). Preferably, concrete posts shall be used that are less attractive to thieves.

  The sizes of the signs shall be adequate for the speed at which vehicles are traveling, and any “visual pollution” that may exist on the road. In urban areas, where there are more distractions (posts, advertising, plants, etc.), signs shall be larger.

- **Informational Signs**
  The CONCESSIONAIRE shall design informational signs to inform users of towns located along the road, distances until they are reached, and any destinations on roads branching off the highway.

  The sizes of these informational signs shall ensure both their legibility and their visibility at reasonable distances. Their sizes shall be designed in multiples of 0.15 m, since the reflective sheets for signs are sold in Imperial units (1 foot equals 0.30 m).

  The size of the letters to be used shall be adequate for the average speed of travel.

  The sizes and materials used for the panels for each type of sign shall be specified, along with the structural support and foundation elements necessary.

  The CONCESSIONAIRE shall indicate the location of each type of sign, with its respective design, indicating the measurements and content, as well as providing summary tables of the sizes and footages thereof.
- **Route Signs**
  The CONCESSIONAIRE shall specify route signs used to inform the user about the road itself, and familiarize him with MTC nomenclature.

  These signs may be installed on individual posts, or together with informational signs on location and destinations. The same criteria shall be used for departmental routes or local routes that branch off from the national route.

- **Environmental Signage**
  The CONCESSIONAIRE shall include signs for environmental protection.

### 2.3.9.3 Signage and Traffic Control Procedures During the Performance of the Works

The CONCESSIONAIRE shall submit signage plans and traffic control procedures to be used during the performance of the works, based on the works timeline, including the Contractor’s responsibilities and requirements for communication with the affected towns and settlements, in order to alert road users of any interruptions, traffic detours, and possible prolonged travel times.

### 2.3.10 Footages, Unit Price Analyses, and Technical Specifications

The footages, unit price analyses, and technical specifications shall be closely tied to, and compatible with, one another, in terms of the construction procedures, measurement methods, and payment terms and conditions. The general criteria for each of the aspects shall be based on the concept of Unit Prices.

The footages shall be determined based on the articles of works to be implemented, the unit of measurement, the proposed designs indicated in the ground and longitudinal profile plans, cross-sections, longitudinal cutaways, and specific construction designs and details. The definition of articles of works and the calculation of footages shall be accurate, and shall fall within a reasonable range with regard to the real works footages, defined by a difference on the order of ± 10% of the real footages.

The unit price analyses shall be performed for each article of the project, based on the makeup of labor, materials, and corresponding equipment and labor yield. The analyses shall contain detailed information on both direct and indirect costs (fixed general expenses, variable expenses, profit). The works budget shall be calculated based on the works footages and the unit price analyses, differentiating among the direct costs, indirect costs, and the applicable VAT.

The costs established for materials and inputs shall be backed by a market study, attaching the quotes (minimum of three (3)) and
comparative charts used to determine the costs. The same shall apply for subcontracts.

The Technical Specifications shall be established for each project article. Particular specifications shall be based on the recommendations and solutions proposed by each specialist. The specifications shall comply with the Geometric Design Manual for Roads (DG-2013), the Materials Testing Manual for Roads (EM-2000), and the General Technical Specifications for Road Construction (EG-2013), as amended and approved by the MTC. AASHTO and ASTM standards and specifications shall be used on a supplementary basis. These standards and specifications shall include quality control, tests during the performance of the works, criteria for acceptance or rejection, controls for the reception of the work, and aspects pertaining to environmental conservation.

2.4 Timeline for the Performance of the Works, Use of Equipment and Materials, and Disbursements
The CONCESSIONAIRE shall establish the analyzed works performance timeline, taking into account any restrictions that may exist on the normal performance of the works, such as rainfall or adverse climate conditions, difficulty in accessing certain areas, etc. The timeline shall be prepared using the PERT-CPM method and MS Project software, identifying the activities or articles that form part of the project's critical path. The CONCESSIONAIRE shall also submit a bar diagram for each one of the tasks and stages of the project. The CONCESSIONAIRE shall clearly establish that the timeline is applicable for the climate conditions in the zone. It shall also submit an equipment and materials usage program, in accordance with the PERT-CPM timeline.

The programming shall place special emphasis on the evaluation of the stage for mobilization and the installation of camps and equipment at the works by the CONCESSIONAIRE.

2.5 Technical File
The CONCESSIONAIRE shall prepare the Technical File for the works.

The Technical File shall form part of the Final Report, and shall consist of the following documents:

- Narrative report, basic budget for the works, works performance timelines, equipment and materials usage timelines, and disbursement timelines, along with the polynomial formulas and a
list of minimum equipment, for both the performance of the works and the laboratory.

- Technical Specifications.
- Footages.
- Plans.

3. TECHNICAL FILE

The Technical File may use the following reference structure, which may be adjusted to highlight the study results:

I. Volume 1 - Narrative Report and Basic Studies

i. Narrative Report.

ii. General plan of the project and typical cross-sections.

iii. Study of topography, route, and geometric design.

iv. Conclusions on the traffic and load study.

v. Soil, geotechnics, quarries, dumps, and water sources study.

vi. Pavement design and typical cross-sections thereof.

vii. Hydrological and hydraulics study.

viii. List and narrative report on engineering and drainage works.

ix. Design of new bridges and remediation of existing bridges.

x. Conclusions from the signage and road safety study.

xi. List of footages by article of work
   - Summary of footages
   - Terms and conditions for budget calculation

xii. Basic budget

xiii. Timeline for the performance of works, use of equipment and materials, and disbursements

xiv. Polynomial formula

xv. Labor and equipment requirements

xvi. Annexes – Basic Studies

- Route and road design
- Traffic and cargo study by corridor
- Soil study, summary of soil, quarry, and water source tests
- Geotechnical study
- Pavement design calculation report
- Hydrological and hydraulic study
- Drainage works design calculation report, including walls
- Bridge design and remediation calculation report
- Signage and road safety study
- Service lines

II. Volume 2: Technical Specifications

This part shall include the technical specifications for the work to be performed, according to the General Technical Specifications Manual for Road Construction (EG-2013), as amended, by rubrics and for each article of the works budget, including quality control and tests during the performance and for the reception of the works. It shall also include activities for environmental conservation,
topographic staking, construction of camps, general cleanup of the works, etc.

III. Volume 3: Footages
The footages shall be itemized by each specific article of the budget, and shall include typical diagrams, cross-sections, and location maps, as applicable.
- Footages for preliminary works
- Footages for flat areas
- Footages for pavements
- Footages for paid transport
  - Footages for engineering and drainage works
  - Footages for bridges
  - Footages for signage and road safety

Additionally, a location plan or map for quarries, water sources, DME, and the location of the plants, with the respective kilometer markers.

IV. Volume 4: Plans
The plans shall have a standardized appearance and size, and shall be submitted duly protected in blueprint carrier cases that keep them all together but allow for easy individual access.

They shall be identified using an appropriate numbering and coding system, and shall indicate the date, seal and signature of the specialist and the project head.

The most important plans and their contents shall include, but are not limited to, the following:

- General report and plan index
- Location plan, showing the most important roads, populated areas, and projects inside the study’s area of influence
- Key plan at a scale of 1/25,000 on non-deformable paper, with UTM coordinates, showing the geographic features, populations, means of communication, materials sources, dumps, water sources, etc., existing inside the project area, as well as a table of distances, altitudes, traffic, and any other information deemed necessary.
- Typical cross-section plan, at a scale of 1:50 (H) and 1:5 (V), indicating all the dimensions and other characteristics of the works included in the cross-section of the road, such as width and thickness of the packed dirt layer, berms, gutters, and drains, slope incline, crown or toe ditches, width of the Right of Way, etc.
- Ground and profile plans for the project, at scales of 1:2,000 (H) and 1:200 (V), with the nomenclature required by Peruvian standards. The ground plans shall indicate the reference PIs, boundaries of the Right of Way, location, including elevations
and slopes, for culverts, walls, crown and drainage ditches, guardrails, and other important complementary works. The profile plans shall indicate the location and reference of the BMs, culverts, pontoons, bridges, and other structures.

- Cross-section plans, indicating the grading areas in each section, at a scale of 1:200 in rural areas and 1:100 in urban areas.
- Ground and profile plans for urban areas at a scale of 1:500 (H) and 1:50 (V).
- Mass diagram, indicating the compensation of volumes, partial transport distances, and classification of materials. Horizontal scale of 1:25,000.
- Plans for quarries, dumps, and water supply sources, at a ground scale of 1:2,000, indicating the location, cross-sections, or test pits (vertical scale of 1:20), volumes, and other technical characteristics, data about the use period, exploitation method, use, yields, ease of access, and transport distances, according to the accompanying layout diagram.
- Hydraulic basin and hydrology plans (scale of 1:50,000 or less).
- Plans at a scale of 1:5,000 (H) of the planned drainage system, with the location of gutters, ditches, culverts, etc. These plans shall include the longitudinal profile of gutters and/or drainage ditches running parallel to the road, indicating elevations and outlets into culverts, pontoons, etc., along with the cross-sections of all the engineering and drainage works, at a scale of 1:100, indicating input and output elevations, slopes, type of drainage work, heads, walls, etc.
- Quarry and water source plan at variable scale, providing a concrete summary of the results of the field research.
- Plans at a variable scale, depending on the design of engineering works (pontoons, culverts, walls, gutters, etc.), with bills of quantities corresponding to the different articles of work included in the budget, as per the given specifications.
- Detailed plans for bridges (new and remediated), showing the footages for the different articles included, in accordance with the given specifications.
- Signage and road safety plans, to be presented at a variable scale, including signage during the performance of the works; vertical signage (preventive, restrictive, and informational signs); a list of sign posts, road safety elements, guardrails, reflective road markers, delineating posts, etc. It shall also be required to submit a general signage and road safety plan, at a scale of 1:2,000, clearly indicating the location of the corresponding vertical signage and road safety elements.

OTHER DOCUMENTS TO BE SUBMITTED BY THE CONCESSIONAIRE AS PART OF THE FINAL REPORT
V. Volume 5: Executive Summary of the Project

VI. Volume 6: Verification Report on the Technical/Economic Evaluation of the Project (HDM III)

VII. Volume 7: Unit Price Analysis
- Terms and conditions for the calculation of unit prices
- Analysis of direct cost by article of work
- Analysis of the indirect cost by article of work
- Summary of cost and unit price components by article of work
- Basic works budget
- Polynomial formulas
- Works performance and disbursements timeline
- PERT – CPM for the performance of the works
- Optimized labor, materials, and equipment requirements
- Support for input prices

The CONCESSIONAIRE shall also perform an analysis of the unit costs by articles of work, taking into account the particular characteristics of the work; the labor requirements; the distance to the construction materials quarries; their exploitation cost; the cost of other materials and their transport; machinery and equipment to be installed at the work, including freight, taxes, insurance, and, in general, all the costs required in the construction and erection activities.

The analysis of the costs shall include direct and indirect costs separately, dividing them into local and foreign currency, depending on their origin, and indicating the exchange rate and date.

VIII. Route Notebook and Annexes
The CONCESSIONAIRE shall submit the notebooks on the route, leveling, and cross-sections, along with a list of BMs, PIs, and their references, spreadsheets, diagrams, tables, and graphs used to prepare the documents submitted.

IX. Compact Discs
The CONCESSIONAIRE shall deliver the compact discs, with the files corresponding to the Study, in an organized manner with an explanatory report indicating how to fully reconstruct the Final Report.

Likewise, the design plans shall be submitted on compact discs in CAD files.
### TECHNICAL SPECIFICATION

<table>
<thead>
<tr>
<th>System</th>
<th>Equipment</th>
<th>Specification</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane/Road</td>
<td>Optical vehicle detector</td>
<td>Infrared detection sensors: raised axles, tractor cabs, continuity of metal mass; two units contained in a cabinet for each lane.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sensor pedal</td>
<td>Works with optical vehicle detector. Sensors embedded in stand, guarantee 5 million activations or 3 years. One per lane.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Automatic gate</td>
<td>Operates with loop detector. One per lane.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Toll information screen</td>
<td>3-color, LED, for notices regarding toll paid, change due, etc.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>OCR (ANPR)</td>
<td>For vehicle registration without operator intervention. Includes infrared light, post, metal cover. One per lane.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>RFID antenna</td>
<td>For vehicle registration without operator intervention via third plate. Includes fastening supports. Two per lane, one primary and one secondary antenna.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Control computer/lane terminal</td>
<td>Industrial computer with 17” touchscreen, one per lane. Include backup.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CCTV camera</td>
<td>Closed circuit, minimum 520K pixels, 650 TV lines, outdoor, dome-type.</td>
<td>1</td>
</tr>
<tr>
<td>Booth</td>
<td>Electronic card reader (inside)</td>
<td>For toll payment, proximity reader supports: SO/IEC 14443 A &amp; B compatible, 13.56MHz</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Electronic card reader (outside)</td>
<td>For toll payment, proximity reader supports: 2 Tier type, ISO/IEC 14443 A &amp; B compatible, 13.56MHz</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Notification light</td>
<td>Two-color: Red/green LED lights and siren</td>
<td>1</td>
</tr>
<tr>
<td>Office</td>
<td>Toll server</td>
<td>1GHz (minimum), 1GB/100GB (minimum), 2 Ethernet, Windows</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Operating terminal</td>
<td>Core2duo, 512MB/60GB (minimum), Windows 7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Printer</td>
<td>Laser 1200*1200dpi, A4/A3/Letter</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Switch</td>
<td>Digital logic device for equipment interconnection, Layer 3: 10/100/1000 Ethernet 12 ports at a minimum, minimum performance 6.5Mbps</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>IP communication service</td>
<td>Fiber optic link, minimum 1 GB. Includes media converter – Layer 3.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>UPS</td>
<td>7.5 KVA, 200AH 12V/16ea, 4 hours, includes batteries</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>Office supervision monitor</td>
<td>42 inches</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lane lamp</td>
<td>For verification of axles by operator, LED lights</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Online video recorders</td>
<td>MJPEG, MPEG4, or H.264. Accepts two 3.5” high-speed SATA hard drives for recording autonomy.</td>
<td>1</td>
</tr>
</tbody>
</table>

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64 Included by virtue of Circular 4
65 Completed by virtue of Circular 19
Toll system: Central level

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONITORING server</td>
<td>1</td>
</tr>
<tr>
<td>TRANSSACTION server</td>
<td>1</td>
</tr>
<tr>
<td>DATABASE software</td>
<td>1</td>
</tr>
<tr>
<td>Computers</td>
<td>2</td>
</tr>
<tr>
<td>ON LINE video monitors</td>
<td>2</td>
</tr>
<tr>
<td>Monitoring software</td>
<td>1</td>
</tr>
<tr>
<td>DATABASE software</td>
<td>1</td>
</tr>
<tr>
<td>Management software</td>
<td>1</td>
</tr>
<tr>
<td>COMUNICAC equipment</td>
<td>1</td>
</tr>
<tr>
<td>VIDEO equipment</td>
<td>1</td>
</tr>
<tr>
<td>UPS</td>
<td>1</td>
</tr>
</tbody>
</table>

1. System architecture

2. Lane toll system

2.1 Island toll system

The essential characteristics of the lane installation is to detect with precision the following elements:

Vehicles:
The number of vehicles is counted by detecting the width of the tire and the number of axis (including the lifted one), differencing individual and double tires to identify light vehicles and load vehicles.
Preventive measures against corruption:
The axis number detection system, etc., confirms the difference in the type of vehicle and arbitrary changing of vehicle made by any worker (reports the number of axis of the vehicle and the image of the vehicle and identification plate). This is made with the following equipment:

**Numeric Treadle sensor:** classifies vehicle by measuring the width of the tire and width of the treadle.

**Optical Vehicle detector:** detects the trailer connection and axis through the interconnection of the treadle sensor. The following images show trailers and load trucks with the axis referred to passing through the office.

**Control barriers**

**Line traffic light**

**Canopy traffic lights**

**CCTV** (TV closed circuit): where the identification plate of the transaction can be seen, these images are recorded in the DVR of the toll office.

**Lane LED light:** placed at the collection lane; lights have a solar cell integrated system to work automatically from sun to sun.

**OCR cameras** (optical characters recognition): cameras to capture the identification plate of vehicles and digitalized them.

**Toll information screen** (TID): LED screen to show the number of the identification plate of the vehicles, amount paid and other information so the driver can see the status of the transaction.

**Warning light** (WL): rotating light and buzzer activates in abnormal situation when modifying the type of vehicle or plate number, changes in the amount counted.
Cabin toll system

The cabin toll system controls all peripheral installed in the collection island and keeps the database with the information generated.

**Toll terminal** (PC with touch-screen monitor): to manual record of vehicle plates for each transaction

**Ticket printer**: thermal printer for each transaction, to pay with cash

**E-card reader**: capture information upon approximation of the card to the reader.

**Tag reader**: captures tag devices

3. **Toll office system**

**Administrative terminal** (PC with monitor minimum 02)

**Video monitor**

**DVR** (video recorder) TV closed circuit

**Server**

**UPS**

**MLBS** live movement transmission system

**DVR** TV closed circuit

4. **Toll main office system**

**Monitoring terminal** (PC with monitor, minimum 02)

**Video monitor** (52” flat screen)

**Main server**

**UPS**

5. **Software configuration**

The software consists of the collection lane software, toll office software and management center software, for which the corresponding licenses will be paid.

6. **Responsibilities**

a) Existing toll units have a Toll system – Detraction and equipment, the CONCESSIONAIRE will pay the licensing and evaluate the renewal of equipment.

b) For projected toll units, the CONCESSIONAIRE will pay the licensing of software and will consider the equipment for its operation, which relation and technical specifications are contained in this Appendix.
7 Software Configuration

The Software shall include the Collection Lane Software, the Toll Office Software, and the Management Center Software, for which the corresponding licenses shall be paid.
ANNEX N° 10
Form 1
AFFIDAVIT
(Sworn statement containing true and up-to-date information)
(Reference: Section 18.2). of the Bidding Terms and Conditions

Concessionaire: .....................................................

We do hereby swear:

"That, as of the Agreement Execution Date, all the information, representations, certifications, and, in general, all the documents submitted in Envelopes 1 and 2 in the Tender remain true and in full force and effect."

Place and Date: ............................................. 201...

Name ..............................................................

Name of the Concessionaire’s Legal Representative

Signature ...........................................................

Signature of the Concessionaire’s Legal Representative
### ANNEX N° 11

**REFERENCE TIMELINE**

*(Reference: Section 6 of the Bidding Terms and Conditions)*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date/Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call for Bids</td>
<td>Up to ten (10) Calendar Days following the approval of the Bidding Terms and Conditions by the Board of Directors</td>
</tr>
<tr>
<td>Dissemination of the Bidding Terms and Conditions</td>
<td>As from the date of the Call for Bids</td>
</tr>
<tr>
<td>Questions regarding the Bidding Terms and Conditions</td>
<td>Up to thirty (30) Calendar Days before the deadline for the submission of Envelope 1</td>
</tr>
<tr>
<td>Response to the questions regarding the Bidding Terms and Conditions</td>
<td>Up to twenty (20) Calendar Days before the deadline for the submission of Envelope 1</td>
</tr>
<tr>
<td>Deadline for forming consortia, changing the makeup thereof, or for a member of a Prequalified Bidder to withdraw therefrom</td>
<td>From the Call for Bids up to thirty-five (35) Calendar Days before the submission of Envelopes 2 and 3</td>
</tr>
<tr>
<td>Submission of Envelope 1 (Prequalification Documents)</td>
<td>From the Call for Bids up to thirty (30) Calendar Days before the submission of Envelopes 2 and 3</td>
</tr>
<tr>
<td>Deadline for the rectification of errors in the documents contained in Envelope 1</td>
<td>Up to twenty-five (25) Calendar Days before the submission of Envelopes 2 and 3</td>
</tr>
<tr>
<td>Announcement of Prequalified Bidders</td>
<td>Up to twenty (20) Calendar Days before the submission of Envelopes 2 and 3</td>
</tr>
<tr>
<td>Delivery to Bidders of the Final Version of the Agreement, approved by the Board of Directors of PROINVERSION</td>
<td>Within six hundred seventy-seven (677) Calendar Days following the Call for Bids</td>
</tr>
<tr>
<td>Access to the Data Room</td>
<td>Up to three (3) Calendar Days before the submission of Envelopes 2 and 3</td>
</tr>
<tr>
<td>Submission of Envelopes 2 and 3</td>
<td>Starting thirty (30) Calendar Days after the delivery to Bidders of the Final Version of the Agreement or up to ten (10) Calendar Days following the reception of the Report by the Government Accountability Office, free of objections or after the necessary rectifications have been made by PROINVERSION</td>
</tr>
<tr>
<td>Opening of Envelope 3 and Awarding of the Contract</td>
<td>Up to ten (10) Calendar Days following the previous event, or up to ten (10) Calendar Days following the reception of the Report by the Government Accountability Office, free of objections or after the necessary rectifications have been made</td>
</tr>
<tr>
<td>Agreement Execution Date</td>
<td>To be announced via a Circular</td>
</tr>
</tbody>
</table>

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66 Amended by virtue of Circular letter No.13  
67 Amended by virtue of Circular letter No. 15.  
68 Amended by virtue of Circular letter No. 19.