

Contract No: 047

Contract for Consultant's Services

Fixed Price

For the provision of

**Project Management, Supervision of Design and Construction Supervision
for the Connectivity Project on The Northern Transnational Highway**

between

**Fondo del Milenio (MCA El Salvador)
El Salvador**

and

**Wilbur Smith Associates Inc.
in association with
Técnica y Proyectos, S.A. (TYP SA)**

September 29, 2008

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I. Agreement

This CONTRACT AGREEMENT (this "Contract") made as of the 29 of September, 2008, between Fondo del Milenio - FOMILENIO (MCA El Salvador) (the "MCA Entity"), on the one part, and Wilbur Smith Associates Inc. (the "Consultant") in association with Técnica y Proyectos, S.A. (TYPESA), on the other part, each of which will be jointly and severally liable to the MCA Entity for all of the Consultant's obligations under this Contract and is deemed to be included in any reference to the term "Consultant."

RECITALS

WHEREAS,

- (a) The Millennium Challenge Corporation ("MCC") and the Government of El Salvador (the "Government") have entered into a Millennium Challenge Compact for Millennium Challenge Account assistance to help facilitate poverty reduction through economic growth in El Salvador on November 29, 2006 (the "Compact") in the amount of approximately US\$ 460.9 millions ("MCC Funding"). The Government, acting through the MCA Entity, intends to apply a portion of the proceeds of MCC Funding to eligible payments under this Contract. Payments made under this Contract will be subject, in all respects, to the terms and conditions of the Compact and related documents, including restrictions on the use, and conditions to disbursement, of MCC Funding. No party other than the Government and the MCA Entity shall derive any rights from the Compact or have any claim to the proceeds of MCC Funding; and
- (b) The MCA Entity has requested the Consultant to provide certain consulting services as described in Appendix A to this Contract; and
- (c) The Consultant, having represented to the MCA Entity that it has the required professional skills, and personnel and technical resources, has agreed to provide such services on the terms and conditions set forth in this Contract.

NOW THEREFORE, the Parties to this Contract agree as follows:

1. In consideration of the payments to be made by the MCA Entity to the Consultant as set forth in this Contract, the Consultant hereby covenants with the MCA Entity to perform the Services in conformity in all respects with the provisions of this Contract.
2. Subject to the terms of this Contract, the MCA Entity hereby covenants to pay the Consultant, in consideration of the performance of the Services, the Contract Price (as defined below) or such other sum as may become payable pursuant to the provisions of this Contract at the times and in the manner prescribed by this Contract.
3. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - a) General Conditions of Contract
 - b) Special Conditions of Contract

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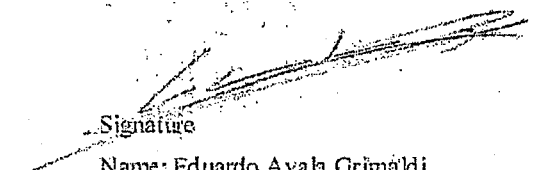
c) The following Appendices:

- Appendix A: Description of Services
- Appendix B: Reporting Requirements
- Appendix C: Key Professional Personnel
- Appendix D: Breakdown of Contract Price in US\$
- Appendix DI - Breakdown of Man-Month for Phase I in US\$
- Appendix E: Payment Schedule
- Appendix F: Services and Facilities to be Provided by FOMILENIO
- Appendix G: Additional Provisions
- Appendix H: The RFP and its Amendments 1 and 2, as well as the Clarifications 1 and 2
- Appendix I: The Technical and Financial Proposals presented by Wilbur Smith/TYPSA and additional clarifications presented during the contract negotiation
- Appendix J: The negotiation minutes

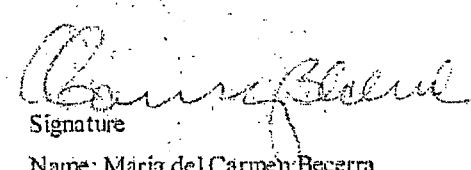
IN WITNESS whereof the Parties hereto have caused this Contract to be executed in accordance with the laws of El Salvador as of the day, month and year first indicated above.

For Fondo del Milenio (MCA El Salvador):

For Wilbur Smith- TYPSA:


Signature

Name: Eduardo Ayala Grimaldi


Signature

Name: María del Carmen Becerra

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II. General Conditions of Contract

1. General Provisions

1.1 Definitions

Capitalized terms used in this Contract and not otherwise defined have the meanings given such terms in the Compact or related document. Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "Applicable Law" means the laws and any other instruments having the force of law in El Salvador, as they may be issued and in force from time to time.
- (b) "coercive practice" means impairing or harming or threatening to impair or harm, directly or indirectly, persons or their property, to influence their participation in a procurement process, or affect the execution of a contract.
- (c) "collusive practice" means a scheme or arrangement between two or more parties, with or without the knowledge of the MCA Entity, designed to establish prices at artificial, non-competitive levels or to otherwise deprive the MCA Entity of the benefits of free and open competition.
- (d) "Compact" has the meaning given the term in the recital clauses to this Contract.
- (e) "Consultant" has the meaning given the term in the initial paragraph to this Contract.
- (f) "Contract" means this agreement entered into between the MCA Entity and the Consultant, to provide the Services, and consists of the Contract Agreement, these GCC, the SCC, and the Appendices (each of which forms an integral part of this agreement), as the same may be amended, modified, or supplemented from time to time in accordance with the terms of this agreement.
- (g) "Contract Price" means the price to be paid for the performance of the Services, in accordance with GCC Clause 6.
- (h) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of a public official (including the MCA Entity and MCC staff and employees of other organizations taking or reviewing selection decisions) in the selection process or in contract execution or the making of any payment to any third party, in connection

with or in furtherance of a contract, in violation of (A) the United States Foreign Corrupt Practices Act of 1977, as amended (15 USC 78a et seq.) ("FCPA"), or any other actions taken that otherwise would be in violation of the FCPA if the FCPA were applicable, or (B) any applicable law in El Salvador.

- (i) "Effective Date" has the meaning given the term in GCC Clause 2.2.
- (j) "Force Majeure" has the meaning given the term in GCC Clause 2.5.
- (k) "fraudulent practice" means any act or omission, including any misrepresentation, in order to influence (or attempt to influence) a selection process or the execution of a contract to obtain a financial or other benefit, or to avoid (or attempt to avoid) an obligation.
- (l) "GCC" means these General Conditions of Contract.
- (m) "Government" has the meaning given the term in the recital clauses to this Contract.
- (n) "Key Professional Personnel" means the Personnel listed in Appendix C to this Contract.
- (o) "Local Currency" means US\$
- (p) "MCA Entity" has the meaning given the term in the initial paragraph to this Contract.
- (q) "MCC" has the meaning given the term in the recital clauses to this Contract.
- (r) "Member" means any of the entities that make up a joint venture or other association; and "Members" means all these entities.
- (s) "obstructive practice" means
 - (i) destroying, falsifying, altering or concealing evidence material to the investigation or making false statements to investigators in order to impede an investigation into allegations of a corrupt, fraudulent, coercive, collusive, or prohibited practice; and threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, and
 - (ii) acts intended to impede the exercise of the inspection and audit rights of MCC provided under the Compact and related agreements.
- (t) "Party" means the MCA Entity or the Consultant, as the case may be, and "Parties" means both of them.

- (u) "Personnel" means persons hired by the Consultant or by any Sub-Consultants and assigned to perform the Services or any part thereof.
- (v) "prohibited practice" means any action that violates Section E (Compliance with Anti-Corruption, Anti-Money Laundering and Terrorist Financing Statutes and Other Restrictions) of Appendix G to this Contract.
- (w) "SCC" means the Special Conditions of Contract by which the GCC may be amended or supplemented.
- (x) "Services" means the activities to be performed by the Consultant pursuant to this Contract, as described in Appendix A to this Contract.
- (y) "Sub-Consultant" means any person or entity to whom/which the Consultant subcontracts any part of the Services.
- (z) "Substantial Modifications" means modifications which:
 - (i) increase the value of the Contract; or
 - (ii) change the scope of Services or duration of the Contract by more than ten percent (10%).
- (aa) "Tax" and "Taxes" have the meanings given the terms in the Compact or related agreement.
- (bb) "US Dollars" means the currency of the United States of America.

1.2 Relationship Between the Parties

Nothing contained in this Contract shall be construed as establishing a relationship of master and servant or of principal and agent as between the MCA Entity and the Consultant. The Consultant, subject to this Contract, has complete charge of Personnel and Sub-Consultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf in connection with this Contract.

1.3 Law Governing Contract

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.

1.4 Language

This Contract has been executed in English. This English language version shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

1.5 Interpretation

Unless otherwise indicated, throughout this Contract:

- (a) "confirmation" means confirmation in writing;
- (b) "in writing" means communicated in written form (e.g., by mail, e-mail, or facsimile) delivered with proof of

receipt;

(c) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular;

(d) the feminine means the masculine and vice versa; and

(e) the headings are for reference only and shall not limit, alter or affect the meaning of this Contract.

1.6 Notices

1.6.1 Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the SCC, or sent by confirmed facsimile or electronic email, if sent during normal business hours of the recipient Party, unless the giving of notice is otherwise governed by Applicable Law.

1.6.2 A Party may change its address for receiving notice under this Contract by giving the other Party notice in writing of such change to the address specified in the SCC.

1.7 Location

1.7.1 The Services shall be performed at such locations as are specified in Appendix A to this Contract and, where the location of a particular task is not so specified, at such locations, whether in El Salvador or elsewhere, as the MCA Entity may approve.

1.8 Authority of Member in Charge

1.8.1 In case the Consultant consists of a joint venture or other association of more than one entity, the Members hereby authorize the entity specified in the SCC to act on their behalf in exercising all the Consultant's rights and obligations toward the MCA Entity under this Contract, including without limitation the receiving of instructions and payments from the MCA Entity.

1.9 Authorized Representatives

1.9.1 Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the MCA Entity or the Consultant may be taken or executed by the officials specified in the SCC.

1.10 Taxes and Duties

(a) Except as may be exempted pursuant to the Compact or another agreement related to the Compact, available in English at [http://mca.gob.sv/administrador/archivos/0/archivo145.pdf], the Consultant, the Sub-Consultants, and their

respective Personnel may be subject to certain Taxes on amounts payable by the MCA Entity under this Contract in accordance with Applicable Law (now or hereinafter in effect). The Consultant, each Sub-Consultant and their respective Personnel shall pay all Taxes levied under Applicable Law. In no event shall the MCA Entity be responsible for the payment or reimbursement of any Taxes. In the event that any Taxes are imposed on the Consultant, any Sub-Consultant or their respective Personnel, the Contract Price shall not be adjusted to account for such Taxes.

- (b) The Consultant, the Sub-Consultants and their respective Personnel, and their eligible dependents, shall follow the usual customs procedures of El Salvador in importing property into El Salvador.
- (c) If the Consultant, the Sub-Consultants or any of their respective Personnel, or their eligible dependents, do not withdraw but dispose of any property in El Salvador upon which customs duties or other Taxes have been exempted, the Consultant, the Sub-Consultants or such Personnel, as the case may be, (i) shall bear such customs duties and other Taxes in conformity with Applicable Law, or (ii) shall reimburse such customs duties and Taxes to the MCA Entity if such customs duties and Taxes were paid by the MCA Entity at the time the property in question was brought into El Salvador.
- (d) Without prejudice to the rights of the Consultant under this clause, the Consultant, the Sub-Consultants and their respective Personnel will take reasonable steps as requested by the MCA Entity or the Government with respect to the determination of the Tax status described in this GCC Clause 1.10.
- (e) If the Consultant is required to pay Taxes that are exempt under the Compact or a related agreement, the Consultant shall promptly notify the MCA Entity (or such agent or representative designated by the MCA Entity) of any Taxes paid, and the Consultant shall cooperate with, and take such actions as may be requested by the MCA Entity, MCC, or either of their agents or representatives, in seeking the prompt and proper reimbursement of such Taxes.
- (f) The MCA Entity shall use reasonable efforts to ensure that the Government provides the Consultant, the Sub-Consultants, and their respective Personnel the exemptions from taxation applicable to such persons or

entities, in accordance with the terms of the Compact or related agreements. If the MCA Entity fails to comply with its obligations under this paragraph, the Consultant shall have the right to terminate this Contract in accordance with GCC Clause 2.7.2(d).

1.11 Fraud and
Corruption
Requirements

1.11.1 MCC requires that the MCA Entity and any other beneficiaries of MCC funding, including any bidders, suppliers, contractors, subcontractors and consultants under any MCC-funded contracts, observe the highest standards of ethics during the procurement and execution of such contracts.

Measures to
be Taken

1.11.2 MCC may cancel the portion of MCC Funding allocated to this Contract if it determines at any time that representatives of the MCA Entity, the Consultant or any other beneficiary of the MCC Funding were engaged in corrupt, fraudulent, collusive, coercive, prohibited or obstructive practices during the selection process or the execution of this Contract, without the MCA Entity, the Consultant or such other beneficiary having taken timely and appropriate action satisfactory to MCC to remedy the situation.

1.11.3 MCC and the MCA Entity may pursue sanction of the Consultant, including declaring the Consultant ineligible, either indefinitely or for a stated period of time, to be awarded an MCC-funded contract if it at any time determines that the Consultant has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, prohibited or obstructive practices in competing for, or in executing, this Contract or another MCC-funded contract.

1.11.4 The MCA Entity may terminate (and MCC may cause the MCA Entity to terminate) this Contract in accordance with the terms of GCC Clause 2.7.1(d) if it determines that the Consultant has, directly or through an agent, engaged in coercive, collusive, corrupt, fraudulent, obstructive or prohibited practices in competing for, or in the performance of, this Contract or another MCC-funded contract.

1.12 Commissions
and Fees

The Consultant shall disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents with respect to the selection process or execution and performance of this Contract. The information disclosed must include at least the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee.

1.13 Entire Agreement This Contract contains all of the covenants, stipulations and provisions agreed to by the Parties. No agent or representative of either Party has the authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth in this Contract.

2. Commencement, Completion, Modification and Termination of Contract

2.1 Contract Entry into Force This Contract shall come into full force, and be legally binding on the Parties in all respects, on the date this Contract is signed by the Parties or such other date as may be stated in the SCC.

2.2 Effective Date and Commencement of Services The Consultant shall commence the Services on the date specified in the SCC, which shall be defined as the "Effective Date."

2.3 Expiration of Contract Unless terminated earlier pursuant to GCC Sub-Clause 2.7, this Contract shall expire at the end of such time period after the Effective Date as specified in the SCC.

2.4 Modifications or Variations 2.4.1 Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. Pursuant to GCC Sub-Clause 7.2, however, each Party shall give due consideration to any proposals for modification or variation made by the other Party.

2.4.2 In cases of Substantial Modifications, the prior written consent of MCC is required.

2.5 Force Majeure Definition

2.5.1 For the purposes of this Contract, "Force Majeure" means an event or condition that (a) is not reasonably foreseeable and is beyond the reasonable control of a Party, and is not the result of any acts, omissions or delays of the Party relying on such event of Force Majeure, (or of any third person over whom such Party has control, including any Sub-Consultant), (b) is not an act, event or condition the risks or consequence of which such Party has expressly agreed to assume under this Contract, (c) could not have been prevented, remedied or cured by such Party's reasonable diligence, and (d) makes such Party's performance of its obligations under this Contract impossible or so impractical as to be considered impossible

under the circumstances.

No Breach of Contract

2.5.2 The failure of a Party to fulfil any of its obligations under this Contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as practicable (and in no event later than five (5) days after the occurrence) about the occurrence of an event giving rise to a claim of Force Majeure.

Measures to be Taken

2.5.3 Subject to GCC Sub-Clause 2.5.6, a Party affected by an event of Force Majeure shall continue to perform its obligations under this Contract as far as is reasonably practical, and shall take all reasonable measures to minimize and otherwise mitigate the consequences of any event of Force Majeure.

2.5.4 A Party affected by an event of Force Majeure shall provide evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.

2.5.5 Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

2.5.6 During the period of its inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the MCA Entity, shall either:

(a) demobilize, in which case the Consultant shall be reimbursed for additional costs it reasonably and necessarily incurred and, if the Consultant is required by the MCA Entity to reactive its performance of the Services at the time of restoration of normal conditions, the additional costs the Consultant reasonably and necessarily incurred as part of such reactivation; or

(b) continue with the Services to the extent possible, in which case the Consultant shall continue to be paid under the terms of this Contract and be reimbursed for additional costs reasonably and necessarily incurred.

2.5.7 In the case of disagreement between the Parties as to the

existence or extent of an event of Force Majeure, the matter shall be settled in accordance with GCC Clause 8.

2.6 Suspension

The MCA Entity may, by giving thirty (30) days' written notice to the Consultant, suspend all payments to the Consultant under this Contract if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (a) shall specify the nature of the failure, and (b) shall request the Consultant to remedy such failure within a period not exceeding thirty (30) days after receipt by the Consultant of such notice of suspension.

2.7 Termination

By the MCA Entity

2.7.1 Without prejudice to any other remedies that may be available to it for breach of this Contract, the MCA Entity may, upon written notice to the Consultant, terminate this Contract in case of the occurrence of any of the events specified in sub-paragraphs (a) through (i) of this GCC Sub-Clause 2.7.1, and in the case of the occurrence of any of the events specified in paragraphs (h) or (i) of this GCC Clause 2.7.1, the MCA Entity may suspend this Contract.

- (a) If the Consultant, in the judgment of the MCA Entity or MCC, fails to perform its obligations relating to the use of funds set out in Appendix G. Termination under this provision shall (i) become effective immediately upon delivery of the notice of termination and (ii) require that the Consultant repay any and all funds so misused within a maximum of thirty (30) days after termination.
- (b) If the Consultant does not remedy a failure in the performance of its obligations under this Contract (other than failure to perform obligations relating to use of funds as set forth in GCC Clause 2.7.1(a) of this Contract, which such failure shall not be entitled to a cure period) within thirty (30) days after delivery of the notice of termination or within any further period of time approved in writing by the MCA Entity. Termination under this provision shall become effective immediately upon the expiration of the thirty (30) days (or such further period as may have been approved by the MCA Entity) or on such later date as may be specified by the MCA Entity.
- (c) If the Consultant (or any Member or Sub-Contractor) becomes insolvent or bankrupt, and/or fails to exist or is dissolved. Termination under this provision shall

become effective immediately upon delivery of the notice of termination or on such other date as may be specified by the MCA Entity in such notice of termination.

- (d) If the Consultant (or any Member or Sub-Contractor), in the judgment of the MCA Entity has engaged in coercive, collusive, corrupt, prohibited, obstructive or fraudulent practices in competing for or in the performance of this Contract or another MCC funded contract. Termination under this provision shall become effective immediately upon delivery of the notice of termination.
- (e) If, as the result of an event of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) days. Termination under this provision shall become effective upon the expiration of thirty (30) days after delivery of the notice of termination or on such later date as may be specified by the MCA Entity.
- (f) If the MCA Entity, in its sole discretion and for any reason whatsoever, decides to terminate this Contract. Termination under this provision shall become effective upon the expiration of thirty (30) days after delivery of the notice of termination or on such later date as may be specified by the MCA Entity.
- (g) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to GCC Clause 8. Termination under this provision shall become effective upon the expiration of thirty (30) days after delivery of the notice of termination or on such later date as may be specified by the MCA Entity.
- (h) If the Compact expires, is suspended or terminates in whole or in part in accordance with the terms of the Compact. Suspension or termination under this provision shall become effective immediately upon delivery of the notice of suspension or termination, as the case may be, in accordance with the terms of the notice. If this Contract is suspended pursuant to this GCC Clause 2.7.1(h), the Consultant has an obligation to mitigate all expenses, damages and losses to the MCA Entity during the period of the suspension.
- (i) If suspension or termination is permitted under Applicable Law. Suspension or termination under this provision shall become effective immediately upon

delivery of the notice of suspension or termination, as the case may be, in accordance with the terms of the notice. If this Contract is suspended pursuant to this GCC Clause 2.7.1(i), the Consultant has an obligation to mitigate all expenses, damages and losses to the MCA Entity during the period of the suspension.

By the Consultant

2.7.2 The Consultant may terminate this Contract, upon written notice to the MCA Entity in accordance with the time period specified below, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (e) of this GCC Clause 2.7.2.

- (a) If the MCA Entity fails to pay any money due to the Consultant pursuant to this Contract that is not otherwise subject to dispute pursuant to GCC Clause 8 hereof within forty-five (45) days after receiving written notice from the Consultant that such payment is overdue. Termination under this provision shall become effective upon the expiration of thirty (30) days after delivery of the notice of termination unless the payment that is the subject of such notice of termination is made by the MCA Entity to the Consultant within such thirty (30) days.
- (b) If, as the result of an event of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) days. Termination under this provision shall become effective upon the expiration of thirty (30) days after delivery of the notice of termination.
- (c) If the MCA Entity fails to comply with any final decision reached as a result of arbitration pursuant to GCC Clause 8. Termination under this provision shall become effective upon the expiration of thirty (30) days after delivery of the notice of termination.
- (d) If the Consultant does not receive a reimbursement of any Taxes that are exempt under the Compact within one hundred and twenty (120) days after the Consultant gives notice to the MCA Entity that such reimbursement is due and owing to the Consultant. Termination under this provision shall become effective upon the expiration of thirty (30) days after delivery of the notice of termination unless the reimbursement that is the subject of such notice of termination is made to the Consultant within such thirty (30) days.
- (e) If this Contract is suspended in accordance with GCC

Clauses 2.7.1(h) or (i) for a period of time exceeding three (3) consecutive months; provided that the Consultant has complied with its obligation to mitigate in accordance with GCC Clauses 2.7.1(h) or (i) during the period of the suspension. Termination under this provision shall become effective upon the expiration of thirty (30) days after delivery of the notice of termination.

Payment upon Termination

2.7.3 Upon termination of this Contract pursuant to GCC Sub-Clauses 2.7.1 or 2.7.2, the MCA Entity shall make, or cause to be made, the following payments to the Consultant:

- (a) payment pursuant to GCC Clause 6 for Services satisfactorily performed prior to the effective date of termination; and
- (b) except in the case of termination pursuant to paragraphs (a) through (d) and (g) of GCC Sub-Clause 2.7.1, reimbursement of any reasonable cost (as determined by the MCA Entity or MCC) incidental to the prompt and orderly termination of this Contract; provided, that in the case of suspension of this Contract pursuant to GCC Sub-Clauses 2.7.1 (h) or (i), the Consultant has complied with its obligation to mitigate in accordance with such clauses.

Disputes about Events of Termination

2.7.4 If either Party disputes whether an event specified in paragraphs (a), (b), (c), (e) or (g) of GCC Sub-Clause 2.7.1 or paragraphs (a) through (d) of GCC Sub-Clause 2.7.2 has occurred, such Party may, within forty-five (45) days after receipt of notice of termination from the other Party, refer the matter to dispute resolution in accordance with GCC Clause 8, and this Contract shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

2.8 Cessation of Rights and Obligations

Upon termination of this Contract pursuant to GCC Sub-Clause 2.7, or upon expiration of this Contract pursuant to GCC Sub-Clause 2.3, all rights and obligations of the Parties under this Contract shall cease, except (a) such rights and obligations as may have accrued on the date of termination or expiration, (b) the obligation of confidentiality set forth in GCC Sub-Clause 3.3, (c) the Consultant's obligation to permit inspection, copying and auditing of its accounts and records set forth in GCC Sub-Clauses 3.7 and 3.8 and Appendix G and (d) any right or obligation which a Party

may have under the Applicable Law.

2.9 Cessation of Services

Upon termination of this Contract by notice of either Party to the other pursuant to GCC Sub-Clauses 2.7.1 or 2.7.2, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultant and equipment and materials furnished by the MCA Entity, the Consultant shall proceed as provided, respectively, by GCC Sub-Clauses 3.4 or 3.12.

3. Obligations of the Consultant

3.1 General

Standard of Performance

3.1.1 The Consultant shall perform the Services and carry out its obligations under this Contract with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as faithful adviser to the MCA Entity, and shall at all times support and safeguard the MCA Entity's legitimate interests in any dealings with Sub-Consultants or third parties.

Law Governing Services

3.1.2 The Consultant shall perform the Services in accordance with Applicable Law and shall take all practicable steps to ensure that any Sub-Consultants, as well as the Personnel of the Consultant and any Sub-Consultants, comply with the Applicable Law.

3.2 Conflict of Interests

3.2.1 The Consultant shall hold the MCA Entity's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or its own corporate interests.

Consultant Not to Benefit from Commissions, Discounts, etc.

3.2.2 The payment of the Consultant pursuant to GCC Clause 6 shall constitute the Consultant's only payment in connection with this Contract and, subject to GCC Sub-Clause 3.2.3, the Consultant shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or in the discharge of its

obligations under this Contract, and the Consultant shall use its best efforts to ensure that any Sub-Consultants, as well as the Personnel and agents of either of them, similarly shall not receive any such additional payment.

3.2.3 Furthermore, if the Consultant, as part of the Services, has the responsibility of advising the MCA Entity on the procurement of goods, works or services, the Consultant shall comply with the "MCC Program Procurement Guidelines" from time to time in effect as posted on the MCC website at www.mcc.gov and shall at all times exercise such responsibility in the best interest of the MCA Entity. Any discounts or commissions obtained by the Consultant in the exercise of such procurement responsibility shall be for the account of the MCA Entity.

Consultant and
Affiliates
Not to Engage
in Certain Activities

3.2.4 The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-Consultants and any entity affiliated with such Sub-Consultants, shall be disqualified from providing goods, works or services (other than consulting services) resulting from or directly related to the Services.

Prohibition of
Conflicting
Activities

3.2.5 The Consultant shall not engage, and shall cause its Personnel as well as its Sub-Consultants and their Personnel not to engage, either directly or indirectly, in any business or professional activities that would conflict with the activities assigned to them under this Contract.

3.3 Confidential
Information;
Rights of Use

Confidential
Information

3.3.1 Except with the prior written consent of the MCA Entity, or as may be required to comply with Applicable Law, the Consultant and its Personnel shall not (and shall cause any Sub-Consultants and their Personnel not to) at any time (a) communicate to any person or entity any confidential information acquired in the course of the Services, or (b) make public the recommendations formulated in the course of, or as a result of, the Services.

Rights of Use

3.3.2 The Consultant and its Personnel shall not (and shall cause any Sub-Consultants and their Personnel not to), without the previous written consent of the MCA Entity, disclose this Contract, or any provision of this Contract, or any

specification, plan, drawing, pattern, sample or information provided by or on behalf of the MCA Entity in connection therewith, to any person other than a person employed by the Consultant in the performance of this Contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.

3.3.3 The Consultant and its Personnel shall not (and shall cause any Sub-Consultants and their Personnel not to), without the previous written consent of the MCA Entity, make use of any document or information related to or delivered in connection with this Contract, except for the purpose of performing this Contract.

3.3.4 Any document related to or delivered in connection with this Contract, other than this Contract itself, shall remain the property of the MCA Entity and shall be returned (including, except as provided in GCC Sub-Clause 3.4, all the copies) to the MCA Entity on completion of the Consultant's performance under this Contract.

3.4 Documents Prepared by the Consultant to be the Property of the MCA Entity

All plans, drawings, specifications, designs, reports, other documents and software prepared by the Consultant under this Contract shall become and remain the property of the MCA Entity, and the Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the MCA Entity, together with a detailed inventory thereof in accordance with this GCC Sub-Clause 3.4 and Sub-Clause 3.3.4. The Consultant may retain a copy of such documents and software, and use such software for its own use with prior written approval of the MCA Entity. If license agreements are necessary or appropriate between the Consultant and third parties for purposes of development of any such computer programs, the Consultant shall obtain the MCA Entity's prior written approval to such agreements, and the MCA Entity shall be entitled at its discretion to require recovering the expenses related to the development of the program(s) concerned. Other restrictions about the future use of these documents and software, if any, shall be specified in the SCC.

3.5 Liability of the Consultant

Subject to additional provisions, if any, set forth in the SCC, the Consultants' liability under this Contract shall be provided by the Applicable Law.

3.6 Insurance to be taken out by the

The Consultant (a) shall take out and maintain, and shall cause any Sub-Consultants to take out and maintain, at its (or the

- Consultant Sub-Consultants', as the case may be) own cost but on terms and conditions approved by the MCA Entity, insurance against the risks, and for the coverage specified in the SCC and in Appendix G, and (b) at the MCA Entity's request, shall provide evidence to the MCA Entity showing that such insurance has been taken out and maintained and that the current premiums have been paid.
- 3.7 Accounting, Inspection and Auditing The Consultant shall keep accurate and systematic accounts and records in respect of the provision of the Services under this Contract, in accordance with the provisions of Appendix G and internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time changes and costs, receipt and use of goods and services and the basis thereof, together with a detailed inventory thereof.
- 3.8 Reporting Obligations The Consultant shall maintain such books and records and submit to the MCA Entity the reports, documents and other information specified in Appendices B and G, in the form, in the numbers and within the time periods set forth in such Appendices. The Consultant shall submit to the MCA Entity such other reports, documents and information as may be requested by the MCA Entity from time to time. Final reports shall be delivered in an electronic form specified by the MCA Entity in addition to the hard copies specified in Appendices B and G. The Consultant consents to the MCA Entity's sharing of the reports, documents and information delivered by the Consultant pursuant to this Contract with MCC and the Government.
- 3.9 Consultant's Actions Requiring the MCA Entity's Prior Approval In addition to any modification or variation of the terms and conditions of this Contract pursuant to GCC Sub-Clause 2.4, the Consultant shall obtain the MCA Entity's prior approval in writing before taking any of the following actions:
- (a) any change or addition to the Personnel listed in Appendix C;
 - (b) entering into a subcontract with a Sub-Consultant for the performance of any part of the Services; and
 - (c) any other action that may be specified in the SCC.
- 3.10 Obligations with Respect to Subcontracts Notwithstanding the MCA Entity's approval for the Consultant to enter into a subcontract pursuant to GCC Clause 3.9, the Consultant shall retain full responsibility for the Services. In the event that any Sub-Consultants are found by the MCA Entity to be incompetent or incapable in discharging assigned duties, the MCA Entity may require that the Consultant provide

a replacement, with qualifications and experience acceptable to the MCA Entity, or to resume the performance of the Services itself.

- 3.11 Use of Funds The Consultant shall ensure that its activities do not violate provisions relating to use of funds and environmental guidelines, as set out in Appendix G.
- 3.12 Equipment, Vehicles and Materials
Furnished by the MCA Entity Equipment, vehicles and materials made available to the Consultant by the MCA Entity, or purchased by the Consultant wholly or partly with funds provided by the MCA Entity, shall be the property of the MCA Entity and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultant shall make available to the MCA Entity an inventory of such equipment, vehicles and materials and shall dispose of such equipment, vehicles and materials in accordance with the MCA Entity's instructions. While in possession of such equipment, vehicles and materials, the Consultant, unless otherwise instructed by the MCA Entity in writing, shall insure them in an amount equal to their full replacement value plus fifteen percent (15%).
- 3.13 Equipment and Materials
Provided by the Consultant Equipment, vehicles or materials brought into El Salvador by the Consultant, Sub-Consultants and Personnel, or purchased by them without funds provided by the MCA Entity, and used either for provision of the Services or personal use shall remain the property of the Consultant, its Sub-Consultants or the Personnel concerned, as applicable.

4. Consultant's Personnel and Sub-Consultants

- 4.1 General The Consultant shall employ and provide such qualified and experienced Personnel and Sub-Consultants as are required to carry out the Services.
- 4.2 Description and Approval of Personnel; Adjustments; Approval of Additional Work
- 4.2.1 The title, agreed job description, minimum qualification and estimated period of engagement in the carrying out of the Services of each of the Consultant's Key Professional Personnel are described in Appendix C. The Key Professional Personnel and Sub-Consultants listed by title as well as by name in Appendix C are hereby approved by the MCA Entity.
- 4.2.2 GCC Sub-Clause 3.9 shall apply in respect of other Personnel and Sub-Consultants which the Consultant proposes to use in the carrying out of the Services, and the Consultant shall submit to the MCA Entity for review and approval a copy of

their Curricula Vitae (CVs).

- 4.2.3 Adjustments with respect to the estimated periods of engagement of Key Professional Personnel set forth in Appendix C may be made by the Consultant without the prior approval of the MCA Entity only if (a) such adjustments shall not alter the originally estimated period of engagement of any individual by more than ten percent (10%) or one week, whichever is larger and (b) the aggregate of such adjustments shall not cause payments under this Contract to exceed the Contract Price. If so indicated in the SCC, the Consultant shall provide written notice to the MCA Entity of any such adjustments. Any other adjustments shall only be made with the MCA Entity's prior written approval.
- 4.2.4 If additional work is required beyond the scope of the Services specified in Appendix A, the estimated periods of engagement of Key Professional Personnel set forth in Appendix C may be increased by agreement in writing between the MCA Entity and the Consultant. In a case in which such additional work would result in payments under this Contract exceeding the Contract Price, such additional work and payments will be explicitly described in the agreement and shall be subject in all respects to the provisions of GCC Clauses 2.4 and 6.4.
- 4.3 Working Hours, Overtime, Leave, etc.
- 4.3.1 Working hours and holidays for Key Professional Personnel are set forth in Appendix C. To account for travel time, foreign Personnel carrying out Services inside **El Salvador** shall be deemed to have commenced, or finished work in respect of the Services such number of days before their arrival in, or after their departure from **El Salvador** as is specified in Appendix C.
- 4.3.2 The Consultant and Personnel shall not be entitled to reimbursement for overtime nor to take paid sick leave or vacation leave except as specified in Appendix C, and except as specified in Appendix C, the Consultant's remuneration shall be deemed to cover these items. All leave to be allowed to the Personnel is included in the staff-months of service set forth in Appendix C. Any taking of leave by Personnel shall be subject to the prior approval by the Consultant who shall ensure that absence for leave purposes will not delay the progress and adequate supervision of the Services.
- 4.4 Removal and/or Replacement of
- 4.4.1 Except as the MCA Entity may otherwise agree, no changes shall be made in the Key Professional Personnel. If, for any reason beyond the reasonable control of the Consultant, such

Personnel

as retirement, death, medical incapacity, among others, it becomes necessary to replace any of the Key Professional Personnel, the Consultant shall, subject to GCC Sub-Clause 3.9(a), provide as a replacement a person of equivalent or better qualifications.

4.4.2 If the MCA Entity (a) finds that any of the Personnel has committed serious misconduct or has been charged with having committed a criminal action, or (b) has reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultant shall, at the MCA Entity's written request specifying the grounds therefore and subject to GCC Sub-Clause 3.9(a), provide as a replacement a person with qualifications and experience acceptable to the MCA Entity.

4.4.3 The Consultant shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

4.5 Resident Project Manager

If required by the SCC, the Consultant shall ensure that at all times during the Consultant's performance of the Services in El Salvador a resident project manager, acceptable to the MCA Entity, shall take charge of the performance of such Services.

5. Obligations of the MCA Entity

5.1 Assistance and Exemptions

Unless otherwise specified in the SCC, the MCA Entity shall use its best efforts to ensure that the Government shall:

- (a) Provide the Consultant, Sub-Consultants and Personnel with work permits and such other documents as shall be necessary to enable the Consultant, Sub-Consultants or Personnel to perform the Services.
- (b) Arrange for the Personnel and, if appropriate, their eligible dependents to be provided promptly with all necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in the Government's country.
- (c) Facilitate prompt clearance through customs of any property required for the Services and of the personal effects of the Personnel and their eligible dependents.
- (d) Exempt the Consultant, Sub-Consultants and their Personnel employed for the Services from any requirement to register or obtain any permit to practice their profession or to establish themselves either individually or as a corporate entity according to the

Applicable Law.

- (e) Grant to the Consultant, Sub-Consultants and their Personnel the privilege, pursuant to the Applicable Law, of bringing into El Salvador reasonable amounts of foreign currency for the purposes of the Services or for the personal use of the Personnel and their dependents and of withdrawing any such amounts as may be earned therein by the Personnel in the execution of the Services.

5.2 Access to Land

The MCA Entity warrants that the Consultant, Sub-Consultants and their Personnel shall have, free of charge, unimpeded access to all land in El Salvador in respect of which access is required for the performance of the Services. The MCA Entity will be responsible for any damage to such land or any property thereon resulting from such access and will indemnify the Consultant, Sub-Consultants and their Personnel in respect of liability for any such damage, unless such damage is caused by the default or negligence of the Consultant or Sub-Consultants or their Personnel.

5.3 Change in the Applicable Law Related to Taxes and Duties

If, after the date of this Contract, there is any change in the Applicable Law with respect to Taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, payments to the Consultant shall not be adjusted. However, the provisions of GCC Sub-Clause 1.10. (e) shall be applicable in such a situation.

5.4 Services, Facilities and Property of the MCA Entity

5.4.1 The MCA Entity shall make available to the Consultant and the Personnel, for the purposes of performing the Services and free of any charge, the services, facilities and property described in Appendix F at the times and in the manner specified in Appendix F.

5.4.2 In case that such services, facilities and property shall not be made available to the Consultant as and when specified in Appendix F, the Parties shall agree on (a) any time extension that it may be appropriate to grant to the Consultant for the performance of the Services, (b) the manner in which the Consultant shall procure any such services, facilities and property from other sources, and (c) the additional payments, if any, to be made to the Consultant as a result thereof pursuant to GCC Sub-Clause 6.1.

5.5 Payment

In consideration of the Services performed by the Consultant under this Contract, the MCA Entity shall make to the Consultant payments in the manner provided in GCC Clause 6.

- 5.6 Counterpart Personnel
- 5.6.1 The MCA Entity shall make available to the Consultant free of charge such professional and support counterpart personnel, to be nominated by the MCA Entity with the Consultant's advice, if specified in Appendix F.
- 5.6.2 If counterpart personnel are not provided by the MCA Entity to the Consultant as and when specified in Appendix F, the MCA Entity and the Consultant shall agree on (a) how the affected part of the Services shall be carried out, and (b) the additional payments, if any, to be made by the MCA Entity to the Consultant as a result thereof pursuant to GCC Sub-Clause 6.1.
- 5.6.3 Professional and support counterpart personnel, excluding the MCA Entity's liaison personnel, shall work under the exclusive direction of the Consultant. If any member of the counterpart personnel fails to perform adequately any work assigned to such member by the Consultant that is consistent with the position occupied by such member, the Consultant may request the replacement of such member, and the MCA Entity shall not unreasonably refuse to act upon such request.

6. Payments to the Consultant

- 6.1 Contract Price
- Except as provided in GCC Sub-Clause 6.5, the total payment due to the Consultant shall not exceed the Contract Price set forth in the SCC (as may be adjusted in accordance with the terms of the SCC). The Contract Price is an all-inclusive fixed-price, lump-sum covering all costs required to provide the Services in accordance with the terms of this Contract. The Contract Price may only be increased above the amounts stated in the SCC (including, without limitation, pursuant to the terms of GCC Sub-Clauses 4.2.4, 5.4.2 and 5.6.2) if the Parties have agreed to additional payments in accordance with GCC Sub-Clauses 2.4 and 6.4.
- 6.2 Currency of Payment
- Payments shall be made in US Dollars.
- 6.3 Terms, Conditions and Mode of Billing and Payment
- Payments will be made to the account of the Consultant and according to the payment schedule stated in SCC 6.1 and against an invoice. Any other payment shall be made after the conditions listed in the SCC for such payment have been met, and the Consultant has submitted an invoice to the MCA Entity specifying the amount. In all cases, invoices shall be delivered

to the MCA Entity no later than 30 days prior to the requested payment date and will not be deemed delivered until they are in form and substance satisfactory to the MCA Entity. Payments will be made to the Consultant within thirty (30) days of the date of receipt by the MCA Entity of a valid and proper invoice or the date of the MCA Entity's acceptance of required deliverables (e.g., the delivery of reports), whichever is later. The Consultant shall comply with any other instructions related to payment as may be reasonably requested by the MCA Entity.

- 6.4 Payment for Additional Services For the purposes of determining the remuneration due for additional services as may be granted under GCC Sub-Clause 2.4, a breakdown of the Contract Price (lump sum) is provided in Appendices D and E.
- 6.5 Interest on Delayed Payments If the MCA Entity has delayed payments beyond thirty (30) days after the payment date determined in accordance with GCC Sub-Clause 6.3, interest shall be paid to the Consultant for each day of delay at the rate stated in the SCC.

7. Fairness and Good Faith

- 7.1 Good Faith The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.
- 7.2 Operation of the Contract The Parties recognize that it is impractical in this Contract to provide for every contingency which may arise during the life of this Contract, and the Parties hereby agree that it is their intention that this Contract shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Contract either Party believes that this Contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness.

8. Settlement of Disputes

- 8.1 Amicable Settlement The Parties agree that the avoidance or early resolution of disputes is crucial for a smooth execution of this Contract and the success of the assignment. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.
- 8.2 Dispute Any dispute between the Parties as to matters arising pursuant

Resolution

to this Contract that cannot be settled amicably within thirty (30) days after the receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions specified in the SCC.

9. Compact Conditionalities

9.1 Required Provisions

For the avoidance of doubt, the Parties agree and understand that the provisions set forth in Appendix G reflect certain obligations of the Government and the MCA Entity under the terms of the Compact and related documents that are also required to be transferred onto any consultant, sub-consultant or associate who partakes in procurements or contracts in which MCC funding is involved and that, as with other clauses of this Contract, the provisions of Appendix G are binding obligations under this Contract.

9.2 Flow Through Provisions

In any sub-contract or sub-award entered into by the Consultant, as permitted by the terms of this Contract, the Consultant shall ensure the inclusion of all the provisions contained in Appendix G in any agreement related to such sub-contract or sub-award.

III. Special Conditions of Contract

	Amendments of, and Supplements to, Clauses in the General Conditions of Contract of this Contract
GCC 1.4	<p>This English language version shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract, except for the Appendices listed as follows, for which the controlling and binding language is the specified.</p> <p>Appendix A: English Appendix B: English Appendix C: Spanish Appendix D: Spanish Appendix D1: Spanish Appendix F: Spanish Appendix G: English Appendix H: English Appendix I: Spanish Appendix J: Spanish</p>
GCC 1.6.1	<p>The governing language for all notices and communications pursuant to this condition shall be: Spanish</p> <p>The addresses for serving notices under this Contract are:</p> <p><u>For the MCA Entity:</u></p> <p>Executive Director, FOMILENIO Boulevard del Hipódromo # 442 - Col. San Benito San Salvador, Republic of El Salvador Tel: (503) 2524-1000 E-mail: Director.Ejecutivo @fomilenio.gob.sv</p> <p><u>For the Consultant:</u></p> <p>Maria del Carmen Becerra Director, U.S. Government International Programs Wilbur Smith Associates 3060 Williams Drive, Suite 300, Fairfax, Virginia 22031 USA Tel: (1) (202) 997.9442/(1) (703) 208-2166 E-mail: CBecerra@WilburSmith.com</p>

GCC 1.8	The Member in charge of the Association is Wilbur Smith Associates Inc.
GCC 1.9	<p>The Authorized Representatives are:</p> <p><u>For the MCA Entity:</u></p> <p>Eduardo Ayala Grimaldi President of the Board, FOMILENIO Boulevard del Hipódromo # 442 - Col. San Benito San Salvador, Republic of El Salvador Tel: (503) 2524-1000 E-mail: eaygri@cpmsp.gob.sv</p> <p><u>For the Consultant:</u></p> <p>Maria del Carmen Becerra Director, U.S. Government International Programs Wilbur Smith Associates 3060 Williams Drive, Suite 300, Fairfax, Virginia 22031 USA Tel: (1) (703) 208-2166 E-mail: CBecerra@WilburSmith.com</p>
GCC 1.10	All matters related to taxes as established in Section 3.8 of the Data Sheet included in the RFP Section 2 Instructions to Consultants (ITC) shall apply for this Contract.
GCC 2.1	This Contract shall enter into force on the date of signing of the Contract by both parties.
GCC 2.2	The Effective Date shall be: within 30 days after the signing date of this Contract.
GCC 2.3	The Total Contract Period shall be of 45 months including 3 phases of individual duration of: 18 months for Phase 1; 33 months for Phase 2; and 21 months for Optional Phase 3, this includes 3 month for liquidation of construction contracts on Phase 3 (see pag.74 on the RFP document). The Project Management Service

	<p>is included in all Phases for the whole duration of the Contract of 45 months.</p> <p>At its sole option, FOMILENIO can notify and agree with the Consultant that the term of this Contract will be extended for an additional period as required and to be determined. FOMILENIO shall notify the Consultant of its intent to exercise such option periods at least 30 days prior to the expiration of the current period. The Contract shall expire 45 months after effective date.</p>
GCC 3.5	<p>A. Un-fulfillment and Penalties</p> <p>In case of un-fulfillment of the contractual obligations by CPM or any delay in its obligation according to the CPM approved work plan, FOMILENIO will apply the following penalties, unless a specific penalty is defined in the contract document for the particular un-fulfillment or failure:</p> <ul style="list-style-type: none"> a) In the first thirty (30) days of delay, the penalty per day will be equivalent to 0.10% of the total contract amount. b) In the next thirty (30) days of delay, the penalty per day will be equivalent to 0.125% of the total contract amount. c) The following days of delay, the penalty per day will be equivalent to 0.15% of the total contract amount <p>When the accumulated amount of penalties represents 12% of the total contract amount, FOMILENIO reserve the right to terminate the contract, establishing the responsibility of CPM and the causes for termination, and will decide if the Performance Bond should be activated (called).</p> <p>Additionally, the following specific penalties are established, which will be effective by deduction in the immediate payment period.</p> <p>For each Key or Non-Key Personnel or technician that is not at the site, without justified reason, according to the work plan (in accordance with the profile of the staff, period of assignment, and frequency of visits) a specific penalty of Five Hundred US Dollars (US\$500) per day will be applied. In the case that a substitution of any professional or technician is necessary, it shall be done with a substitute with equal or higher profile than the one to be replaced, and with the prior approval of FOMILENIO.</p> <p>The non existence of the Record Book (Bitacora) at the work site or the non use and daily updating and the omission of registers of main events in a timely manner during the development of the works will result in a specific penalty applied to the CPM. The sanction shall be Five Hundred US Dollars (US\$500) per day of delay.</p> <p>The delay in the presentation of any report required from the CPM in the TOR according to the contractual submission dates will result in a specific penalty applied to the CPM. The specific penalty shall be One Thousand US Dollars (US\$1,000) per day of delay.</p>

	<p>Deductions related to the above specific penalties will be made by FOMILENIO from the payments to the CPM.</p> <p>B. Bonds and Guarantees</p> <p>The requirements to submit bonds and guarantees by the CPM are:</p> <ul style="list-style-type: none"> a) Securities, bonds or guarantees shall be issued by a reputable bank or financial institution selected by the Consulting Firm. If the bank or financial institution issuing the security, bond or guarantee is located outside El Salvador, it shall have a correspondent bank or financial institution located in El Salvador to make it enforceable. b) CPM shall present: <ul style="list-style-type: none"> (i) Performance Bond: Within 15 days following the date established on the Start Order of services, the Consulting Firm shall present to FOMILENIO a "Performance Bond" in US\$ for an amount of ten per cent (10%) of the contract value in favor of FOMILENIO, as a guarantee of compliance of the terms of contract. It should be valid until FOMILENIO receives the consulting services in a satisfactory manner (Form TECH 9 of RFP). (ii) Guarantee for Good Management , Supervision of Design and Construction Supervision: Within the 15 days that follows the liquidation of the contract, the Consulting Firm must issued in favor of FOMILENIO this guarantee in US\$ for an amount of ten per cent (10%) of the contract value, as a guarantee for goods services provided by the Consulting Firm. The Guarantee shall be valid for a period of one year from its emission (Form TECH 10 of RFP). <p>The Representatives of both Parties will determine the set of procedures by which FOMILENIO will execute these penalties.</p>
GCC 3.6	<p>The risks and the coverage shall be as follows:</p> <ul style="list-style-type: none"> (a) Third Party motor vehicle liability insurance in respect of motor vehicles operated by the Consultant or its Personnel or any Sub-Consultants or their Personnel for the performance of the Services. (b) Third Party liability insurance for property, injuries or death in connection with the performance of the Services by the Consultant, its Personnel or any Sub-Consultants. (c) Professional liability insurance. (d) Employer's liability and worker's compensation insurance in respect of the Personnel of the Consultant and of any Sub-Consultants, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate; and (e) Insurance against loss of or damage to: (i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the Consultant's

	<p>property used in the performance of the Services, and (iii) any documents prepared by the Consultant in the performance of the Services.</p> <p>Additional provisions included in Appendix G with respect to insurance shall apply.</p>
GCC 3.9	<p>Additional Consultant's Actions Requiring the MCA Entity's Prior Approval:</p> <p>a) Any change or addition to the Work Plan</p> <p>(b) Key Personnel Vacation</p> <p>(c) Programming and changes to mobilization of Key Personnel</p>
GCC 3.12	<p>The conditions established on the GCC 3.12 applies only to equipment, vehicles and materials indicated in Appendix F of this Contract</p>
GCC 4.2.2	<p>Other Personnel to be submitted to MCA Entity for review and approval shall be limited to Non-Key Professional Personnel. This information shall consist of a professional profile and main duties to be undertaken by each specialist.</p>
GCC 4.2.3	<p>Written notification to the MCA Entity of adjustments is required.</p>
GCC 4.5	<p>A resident Project Manager shall be required for the whole duration of this Contract.</p>
GCC 6.1	<p>The total cost of the services is US\$11,950,000. This amount is divided as follows:</p> <p>a) Base Contract: Phase 1, US\$5,296,872.00 and Phase 2, US\$3,300,600.00, making a total of US\$8,597,472.00</p> <p>b) Optional Contract: Phase 3, US\$3,352,528.00</p> <p>The Base Contract and Option Contract include the Project Management for the whole period of 45 months.</p> <p>The accounts number for payments will be provided by the Consultant with the first deliverable. Payments for the deliverables shall be made according to the payment schedule established on Appendix E of this Contract.</p>
GCC 6.5	<p>The interest rate to be applied in the case of late payments is the Federal Funds Rate as stated on the website www.federalreserve.gov/fomc/funds/rate.htm</p>
GCC 8.2	<p>Dispute Resolution</p> <p>a) All disputes that cannot be settled amicably by the Parties shall finally and exclusively be settled in accordance with the Rules of Arbitration of the International Chamber of Commerce (the "Rules") by an arbitration panel composed of three arbitrators appointed in accordance with said Rules. The arbitration will be held in El Salvador and shall be conducted in English. Members of the Consortium shall have access to documents and records maintained pursuant to this Agreement or prepared for purposes of any such arbitration"...</p> <p>b) Without limiting the terms of Section 4.15 of this Agreement, MCC has the right to be an observer or a party to any arbitration proceeding hereunder, in either case at its sole discretion, but does not have the</p>

	<p>obligation to participate in any arbitration proceeding, in any capacity. Whether or not MCC is an observer or a party to any arbitration hereunder, the Parties shall provide MCC with written transcripts of any arbitration proceedings or hearings and a copy of the reasoned written award within ten (10) days after: (i) each such proceeding or hearing, or; (ii) the date on which any such award is issued. MCC may enforce its rights hereunder in an arbitration conducted in accordance with this provision or by bringing an action in any court that has jurisdiction. The acceptance by MCC of the right to be an observer or a party to the arbitration shall not constitute consent to the jurisdiction of the courts or any other body of El Salvador or any other jurisdiction or to the jurisdiction of any arbitral panel.</p> <p>c) The costs associated with any settlement efforts before arbitration shall be allocated between FOMILENIO and the CPM as follows: (i) each Party shall be responsible for its own attorneys' fees; (ii) costs related to translation or interpretation shall be paid for each Party; and (iii) all other costs associated with the arbitration shall be allocated as determined by the arbitration panel.</p>
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IV. Appendices

Appendix A – Description of Services

I. OBJECTIVE OF THE ASIGNMENT

Manage the implementation of the Connectivity Project for the Northern Transnational Highway. The Connectivity Project Manager (CPM) shall provide the following main services for the Connectivity Project of the Compact in activities related to the Northern Transnational Highway (Package I), described in detail in the subsequent sub-sections of this appendix and on the whole TOR document (Appendix H of this contract):

1. Connectivity Project Management Services
2. Supervision of Design Consultants
3. Supervision of Construction Works

CPM shall perform effective project management services in order to ensure that the Connectivity Project is completed on time, within budget and at a high level of quality. The services shall be provided to achieve the project goals and objectives as stated in the Compact and in accordance with the outcomes of prior, related activities.

7.3.1.1 BASE CONTRACT

Phase 1

• **Project Management Services and Supervision of the Consultants responsible for the Final Design of Sections 5, 6 and 7 of the NTH (from Nuevo Eden de San Juan to Concepcion de Oriente):** Activities include, but are not limited to: **a)** Project management process of initiating, planning, executing, monitoring, supervising, controlling, and advising prompt adjustments to the designs implementation plans as a result of a close technical and on the ground follow up, applying best practices in the technical field until final deliveries are accepted accordingly to the related contract(s) and thus closing the implementation; **b)** reviewing the final deliverables for feasibility study and environmental impact assessment of the project, the ROW and the RAP in order to make any necessary adjustment to proceed with the procurement process for designs not covered in the referred study, if any fatal flaw is detected; and **c)** supervising and managing the deliverables and providing quality assurance for design consultancies, project scheduling, and project reporting, assistance in the preparation technical specifications of the final design and in the preparation of “Works Requirements” (Bill of Quantities, Technical Specification for Works) for construction of 135 km that will be financed with MCC’s funds.

Phase 2

• **Project Management Services and Supervision of the Construction Contractor(s) responsible for construction of Sections 2, 3 and 4 of the NTH (from Metapan to Nuevo Eden de San Juan):** Activities include, but are not limited to: **a)** Project management process of initiating, planning, executing, monitoring, supervising, controlling, and advising prompt adjustments to the construction implementation plans as a result of a close technical and on the ground follow up, applying best practices in the technical field until final deliveries are accepted accordingly to the related contract(s), and thus closing the implementation; **b)** reviewing the final deliverables for final design of 155 km of the NTH (from La Virgen to Nuevo Eden de San Juan), which also includes design of Section 1 (eventough the decision for construction of Section 1 is still pending, and could be possible included in optional Phase 3) in order to make any necessary adjustment to go ahead with the procurement process for construction, if any fatal flaw is detected; and, **c)** supervising the construction contractor(s), scheduling, managing Requests for Information (RFIs), change order requests, the provision of full or part-time supervision engineers (to be proposed by the Consultant in its Technical Proposal for effective delivery of its services), progress and scheduling, reviewing requests for payment, reviewing as-built drawings, and providing quality assurance for the construction of about 135 km of the NTH (from Metapan to Nuevo Eden de San Juan).

7.3.1.2 OPTIONAL CONTRACT

Phase 3 (Optional)

Project Management Services and Supervision of the Construction Contractor(s) responsible for construction of Sections 5, 6 and 7 and possible Section 1 of the NTH (from Nuevo Eden de San Juan to Concepcion de Oriente); and, if so decided by FOMILENIO, these services will also include Section 1 (from La Virgen to Metapan).

Activities include, but are not limited to: **a)** Project management process of initiating, planning, executing, monitoring, supervising, controlling, and advising prompt adjustments to the construction implementation plans as a result of a close technical and on the ground follow up, applying best practices in the technical field until final deliveries are accepted accordingly to the related contract(s), and thus closing the implementation; and, **b)** supervising the construction contractor(s), scheduling, managing Requests for Information (RFIs), change order requests, the provision of full or part-time supervision engineers (to be proposed by the Consultant in its Technical Proposal for effective delivery of its services), progress and scheduling, reviewing requests for payment, reviewing as-built drawings, and providing quality assurance for the construction of about 136 km of the NTH: from Nuevo Eden de San Juan to Concepcion de Oriente, and, if so decided by FOMILENIO, also from La Virgen to Metapan (about 19 km).

The optional contract indicated above may awarded to the CPM depending on the performance in rendering the services for Base Contract. FOMILENIO will evaluate the compliance of all contract requirements by the CMP in the services for the Base Contract and in accordance with this evaluation will determine if the optional contract will be continued by the CPM. In any case, the level of effort needed will be determined before the initiation of this option period accordingly to the full loaded monthly rate indicated in Appendix D.

8.1 Project Management

CPM shall perform effective project management services in order to ensure that the Connectivity Project is completed on time, within budget and at a high level of quality. The services shall be provided to achieve the project goals and objectives as stated in the Compact and in accordance with the outcomes of prior, related activities.

It is expected that the CPM will manage competing project requirements, namely *scope, time, and cost*. Project quality is affected by balancing these three factors, and as such it is expected that the CPM will work to ensure that the Connectivity Project will be considered a high quality project by delivering the roads as required, through works that are within scope, and completed on time and within budget.

Adhering to widely recognized international best practices and standards for project management –the details of which shall be proposed by the bidder in the technical proposal – and acting as the Employer’s Representative for managing the Connectivity Project, the services of the CPM provided to FOMILENIO shall include but are not limited to the following:

8.1.1 Project Integration Management

In order to properly integrate all Compact activities, FOMILENIO has prepared an Implementation Plan, already approved by MCC, which will be the basis for the planning activities of the CPM. The preparation of the Implementation Plan also considered conditions in the Compact whose satisfactory completion is required to ensure continued funding from MCC.

8.1.1.a The CPM shall review and continually monitor the development of the Implementation Plan of the Project, particularly as it pertains to the Connectivity Project, and shall recommend to FOMILENIO any adjustment or modification necessary to optimize and successfully complete the project on time, within budget and with the required quality. If FOMILENIO agrees to adjust or modify the Implementation Plan based on the CPM’s recommendation; any adjustment of technical specifications, bill of quantities, drawings, budgets or any other technical document resulting from this decision, shall be performed by the CPM as part of its responsibilities.

8.1.1.b To secure the funding for the Connectivity Project, the GoES must comply with conditions set out in the Compact between the GoES and the MCC. The CPM shall assist FOMILENIO and pertinent entities, such as GoES, in attaining compliance with such conditions. The Compact and its supplementary documents and also all MCC guidelines, particularly environmental guidelines, procurement guidelines and gender policy, which apply to the implementation of the Program are available at the following websites:

www.mcc.gov and www.fomilenio.gob.sv.

8.1.1.c The CPM shall be responsible for developing a comprehensive project management information system, which shall be adequately introduced and described in the bidder’s proposal. The project management information system shall, as a minimum, have the capacity to collect and distribute information necessary for overall monitoring and control of the project from initiation through closing. Based on this information, the CPM shall be able to obtain, on demand, **real-time** project and component status, forecast the future trends of the Project, evaluate the effect on the achievement of project objectives and propose any necessary measures to guarantee the successful implementation of the project. The CPM shall provide access to this system to FOMILENIO and the UIPC during the period of services and at completion of the services to transfer the software and the rights for operation of this system to FOMILENIO.

When proposing such project management information system, the Consultant shall also include training sessions for FOMILENIO and UIPC staff in using it, and all its applications, within the

first 30 days of the implementation of the system by the CPM. The Consultant shall implement the system in full operational mode within 60 days from the execution of the CPM Contract.

8.1.1.d The CPM shall coordinate with *FOMILENIO* and the PA on all Connectivity Project procurements to ensure proper integration of technical inputs to the Bidding Documents. This may include, and is not limited to, providing reviews of technical aspects of all Bidding Documents, assessing their completeness and revising technical inputs, as necessary.

8.1.2 Project Scope Management

The CPM, through project scope management, shall ensure that all the work required - and only the work required - to complete the Connectivity Project successfully is included in the Contractors' scope of work. The CPM shall consider scope management in both the design phase and the construction phase and shall, as a minimum, perform the following:

8.1.2.a The CPM shall develop a scope statement, identifying project constraints and assumptions, and estimating project resource requirements before a project is included in the Procurement Plan of FOMILENIO. A written project scope statement will provide a documented basis for making future project decisions and will ensure a common understanding of project scope among all stakeholders.

8.1.2.b The CPM shall continually monitor and assess the progress of activities in the Connectivity Project for the NTH in order to evaluate the initial scope statement and mitigate negative impacts to overall activity objectives. The CPM shall notify FOMILENIO of impacts as they arise, in real-time, and may be requested to develop and/or implement mitigation strategies.

8.1.2.c As actual project costs and progress may affect the entire scope of the Compact, the CPM shall participate in activities, in coordination with FOMILENIO, to assess and determine scope changes that may impact the overall scope of the Connectivity Project.

8.1.3 Project Time Management

The CPM shall effectively manage the scheduling of project activities to mitigate risks, such as higher project costs, non-delivery of benefits to the residents of the Northern Zone, and loss of MCC's and GoES funds. To achieve this objective, the CPM shall perform tasks, which include but may not be limited to, the following:

8.1.3.a The CPM shall develop a strategy (included in its technical proposal) and implement its proposed plan, upon acceptance by FOMILENIO, which, as a minimum, will accurately identify required activities and sub-activities, will demonstrate schedule and resource requirements, and will manage any changes and impacts that may occur.

8.1.3.b As mentioned above, FOMILENIO has prepared an Implementation Plan, including a project schedule, which was already approved by MCC as the baseline for the Connectivity Project. Furthermore, the CPM shall develop a more detailed MS-Project implementation plan capturing significant components of each design and construction contract, and provide real-time progress updates and comparison to FOMILENIO's baseline plan, whenever needed by FOMILENIO. The CPM shall review and continually monitor the development of this detailed implementation plan and prepare performance reporting against the schedule baseline as part of its schedule control, in which the CPM shall also propose any proper and timely measures to secure the successful implementation of the Connectivity Project.

8.1.4 Project Cost Management

The CPM shall assist FOMILENIO in managing the Connectivity Project budget. Specific tasks to ensure this objective include, but may not be limited to, the following:

8.1.4.a The CPM shall develop and implement a cost management plan to ensure that the Connectivity Project is completed within the project budget. The plan (introduced in its technical proposal) shall, as a minimum, determine the types and quantities of resources needed for project activities, assess and apply costs for the resources, allocate costs to project activities over the duration of the project, and manage changes to the project budget.

8.1.4.b The Implementation Plan of FOMILENIO has been prepared based on the cost estimation made in 2006 at the pre-feasibility level, for preparation of the proposal to MCC for applying to MCC funds. As result of the Feasibility Study, general updated costs for the Connectivity Project will be determined, establishing the project cost baseline. The CPM shall review the costs and incorporate the costs into the cost management plan accordingly.

8.1.4.c CPM shall prepare timely analysis and compare the project's budget to actual costs when new design *or* construction contracts are awarded or amounts related to Right of Way or RAPs are finalized for sections of the NTH from the inception of the project to its completion. The CPM shall incorporate and report any variances and change orders, tracking and monitoring all costs associated with the project against the overall project budget allocated in the Compact.

8.1.4.d CPM shall provide FOMILENIO with timely and systematic reports of cost status and changes. This activity will gain importance in the implementation of the project when the actual designs are completed and construction cost increases are likely to exceed the total amount allocated in the Compact for the Connectivity Project.

8.1.5 Project Quality Management

The CPM shall apply quality management to increase the likelihood that the project will accomplish its objectives. Quality management should address the management of the project as well as the quality of the product. Ultimately, the CPM shall incorporate quality management to minimize rework, and in doing so, shall help to control costs, increase productivity, and meet Stakeholder expectations. Quality management shall be performed in conjunction with other services described in this contract. For Connectivity Project Management services, tasks shall include, but are not limited to, the following:

8.1.5.a The CPM shall identify relevant quality standards for project management components, such as project scheduling, Bidding Documents, budget and resource monitoring, risk recognition, supervision reports, among others, and prepare and implement a Quality Management Plan to ensure the quality standards are met for all activities under the CPM's responsibility. The Quality Management Plan of the CPM shall be submitted for approval to FOMILENIO.

8.1.5.b The CPM shall manage quality of the Design and Construction Supervision services (as detailed in this contract). As part of this task, the CPM shall regularly monitor performance and report to FOMILENIO on compliance with the Quality Management Plan.

8.1.6 Project Human Resources Management

CPM shall manage and balance its resources, particularly its staff, in order to guarantee provision of high quality services and appropriate balance for the work load in any stage of the project. The CPM shall be required to provide, as a minimum, the following:

8.1.6.a The CPM shall develop a Staffing and Resource Plan (which was introduced in its technical proposal) in order to manage all tasks required to fulfill the objectives of this contract. The CPM shall accommodate its personnel to the work rate of the design consultants and/or the

construction contractors, which at various points may occur simultaneously. During the period of services, the Consultant shall not make any adjustment to the Staffing and Resource Plan without prior written approval of FOMILENIO. Any request for such an adjustment shall be first submitted for consideration of FOMILENIO.

8.1.6.b In the case that the design consultants or construction contractors increase the work fronts, the CPM shall provide the staff and equipment resources necessary to fulfill the required supervision services of designs or works. Failure by the CPM to provide supervision of all work will represent non-compliance to this contract and will be subject to the penalties or sanctions established in GCC 3.5 of the SCC.

8.1.6.c In conjunction with its duties as Design and Construction Supervisor, the CPM shall ensure that provisions in the Design Consultants' and Contractors' contracts regarding the qualifications of contractor staff are strictly enforced.

8.1.7 Project Communications Management

Determining and satisfying the information needs of project stakeholders is the essence of project communication management. CPM communications should be addressed as a part of the overall project plan, although the level of formality will vary with the diversity of the stakeholders. Critical to effective communication management are performance reporting processes that provide timely information about how project resources are used to achieve project objectives. CPM shall keep close and permanent communication with FOMILENIO, UIPC of MOP, Procurement Agent, and project's stakeholders during the implementation of the project.

Public participation is one of the main principles of MCC projects as established in the Compact, the CPM shall ensure that in all stages of the implementation of the Connectivity Project the design consultants and construction contractors carry out proper public consultation in order to identify critical areas, potential social and environmental impacts and, in a timely manner, propose prevention, mitigation, and/or compensation measures, in order to avoid delays in the implementation of the project.

The EIA final report (as described in Section 4.2 of the TOR of the RFP) will include an information and communication plan for the construction stage including objectives, strategies, actions and public consultation; CPM shall revise and complement this plan if necessary to achieve the project objectives.

As part of its project communication strategy, the CPM shall propose a web-based information system to share real-time project management data, including (but not limited to) schedule, cost, and scope information, with FOMILENIO, UIPC, and MCC. For this the CPM shall use handheld devices to record field observations and images by construction supervision staff and make it available in real-time on such web-based information system. As proposed for the web-based system, the Consultant shall carry out training sessions for FOMILENIO and UIPC staff in using it in its application within the first 30 days of the Contract. Any information to be divulged by the CPM shall be previously discussed with FOMILENIO.

8.1.8 Project Risk Management

The CPM will be expected to assist FOMILENIO in managing risk regarding the Connectivity Project. In doing so, the CPM may be asked to identify, assess and respond to project risks, and, as a minimum, will be expected to perform the following tasks:

8.1.8.a The Feasibility Study will include a Risk Management Plan for the Connectivity Project including risk to implementation from the increase in the price of materials and fuel, risk of

natural disasters (floods, hurricanes, earthquakes, etc); and also the EIA will include the analysis of environmental and social risks. The CPM shall review and complement this plan, if necessary and if any deficiency is detected, in order to minimize the impact of such identified risk in the achievement of the project objectives.

8.1.8.b The CPM shall continually monitor risk and update the Risk Management Plan accordingly, immediately reporting to FOMILENIO as new risks or associated impacts to the Project are identified and developing strategies to manage the impacts, and especially to mitigate negative impacts.

8.1.9 Project Procurement Management¹

The procurement processes for the Connectivity Project in particular, and for FOMILENIO's program in general, are the responsibility of the PA (Charles Kendal and Partners). Also, FOMILENIO has its own Procurement Management office which works in coordination with the PA to guarantee that all procurements for services, goods and works are handled and managed in a transparent, competitive and fair way, and in accordance with the timings of the Implementation Plan.

8.1.9.a The CPM shall maintain close communication and coordination with the Procurement Director of FOMILENIO and the PA to monitor the progress of the procurement processes related to the Connectivity Project and to provide any necessary information related to performance of the design consultants and works contractors, since the contract administration is a responsibility of the PA.

8.1.9.b Every six months during the Compact Term, the PA, in coordination with FOMILENIO, prepares a six-month period Procurement Plan to be submitted for the approval of MCC. The CPM shall provide to the PA all information related to procurement processes to be executed for the Connectivity Project for design or construction of any section of the NTH.

8.1.10 Environmental and Social Impact Management

As provided in the Appendix B of this contract, the CPM shall provide the ESID of FOMILENIO with regular reports that update the status of environmental and social impact management activities and verify Project compliance with EMPs, Resettlement Action Plans (RAPs), and other applicable environmental requirements of MCC and the GoES.

The proposed frequency, format, and content of these reports shall be described in the methodology of the Technical Proposal and reconfirmed by the selected Contractor in the Inception Report. Each report should at a minimum:

- a) Ensure that all necessary environmental permits have been obtained prior to commencement of Project activities at a given location. These include, but are not limited to, the permits required for work camps, waste disposal sites, borrow pits, and blasting activities.
- b) Ensure that environmental and social responsibilities have been included in the bidding documents, including gender issues.
- c) Ensure that prior to commencing construction works for any given section, that approval of the implementation of the corresponding RAP has been obtained from FOMILENIO and MCC .
- d) Monitor and ensure that the Construction Contractors prepare and submit EMP implementation plans for CPM approval, and—following their approval—that the construction contract activities are in strict compliance with EMPs, in accordance with the corresponding EMP implementation plans.

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- e) Support or participate in public outreach and consultation programs, as requested by FOMILENIO.
- f) Support or participate in third party environmental audits, as requested by FOMILENIO.
- g) Coordinate with the UIPC specialists and any other consultant hired by FOMILENIO regarding all technical issues associated with ROW acquisition and RAP implementation.

8.2 Supervision of Design Consultants

The CPM shall undertake the responsibilities necessary to ensure timely and successful completion of the design of the remaining 135 km of the NTH. In this sense, the activities described in this section shall be considered as indicative only. The Consultants should not be limited by the concise outline of services in this appendix and shall render his services accordingly.

The CPM shall provide technical supervision of the work of the Design Consultants for the remaining roads of the NTH. This will include review and recommending approval to FOMILENIO of studies, designs, technical specifications, progress and other reports that were submitted. It shall be the responsibility of the CPM to ensure that the design is optimum and cost effective for obtaining the desired output and successful construction.

It is important to note that the design contracts for the remaining sections of the NTH will also include the preparation of the Resettlement Action Plans (RAP) and the implementation of such plans for the acquisition of the rights of way (ROW) for the roads.

However, these design contracts will not include the construction of new houses for Project Affected Persons (PAP) which will have to be relocated, if necessary. It is expected that the Connectivity Project will include only a limited number of such actual resettlement cases.

Therefore, the major focus of the design contracts, and the related design supervision effort by the CPM, shall be placed on the acquisition process for the ROW in coordination with the UIPC and any other consultant hired by FOMILENIO.

International standards will be applied for design works, which shall also be considered by the CPM in the design supervision activities. Standards include but are not limited to the following:

- AASHTO
- ACI
- FP
- FHWA
- ASTM
- Asphalt Institute
- Portland Cement Association (PCA)
- Especificaciones para la Construcción de Carreteras y Puentes Regionales, SIECA, March 2001
- Manual Centroamericano para Diseño de Pavimentos, SIECA.
- Manual Centroamericano de Dispositivos Uniformes para el Control de Tránsito, SIECA
- Reglamento para la Seguridad Estructural de las Construcciones de la República de El Salvador.
- Salvadoran roads law (Ley de Carreteras y Caminos Vecinales)

In case of any contradiction between standards and specifications, the one that provides higher safety and better likelihood for timely completion and suitability for intended use, within cost of

the Project shall prevail. Lack of knowledge of laws, standards, rules or regulations of the Republic of El Salvador will not be accepted as cause for failure to apply appropriate standards.

8.2.1 Duties

Duties to be included in this portion of the assignment include but are not limited to:

- a) Review the FS and the EIA (which includes EMPs, RAPs and HIV-AIDS Awareness Plans) Final Reports prepared by CPB as part of the study "*Mejoramiento de la Red Vial de la Zona Norte de El Salvador*", which is the main technical input for further design work. The CPM will perform this review with additional information and clarifications provided by UIPC as available. The CPM shall provide timely advice to FOMILENIO of any required modification or complementary work if any fatal flaw is detected, and after obtaining the corresponding FOMILENIO's authorization, proceed to complement and modify the Final Reports accordingly. The content of these reports is described in Section 4 of the TOR included in Appendix H of this contract;
- b) Review and recommend any modification to the TOR for the final design works to be used for the tendering of final design services;
- c) Prepare the agenda and presentation for the kickoff (pre-design) meeting of the design projects with the Design Consultants and discuss the agenda with FOMILENIO prior to the meetings. Prepare meeting minutes for this meeting and any project meeting thereafter;
- d) Review and approve of the work programs submitted by the design consultants;
- e) Review and approval of the methodology proposed by the design consultants for the design works;
- f) Monitor and report on the physical and financial progress of the works undertaken by Design Consultants and recommend action(s) to be taken when progress is not in accordance with the approved program;
- g) Ensure that the design works are completed according to the recommendations of the previously developed FS, EIA, the AIA, the general resettlement strategy/RAP, and Archeological Resources Survey and that quality assurance on quality control performed by design consultants has been included;
- h) Ensure that the Design Consultants perform their services in accordance with the Compact, MCC's regulations, Salvadoran legal framework and any other provisions given in the consulting services contracts;
- i) In the case of deficiency by the Design Consultants, report immediately to UIPC and FOMILENIO and compile or prepare support documents related to such deficiency. Such documentation should include, as a minimum, a description of the current situation and how it constitutes a deficiency in the responsibilities of the Design Consultant, an analysis of potential impacts (including technical, cost, and schedule impacts), and a recommended approach to address the deficiency, when necessary;
- j) Revise and approve all technical matters of the design works, such as topographic surveys, proposed alignment, geometric design, right of way and relocation of utilities, geotechnical investigations, and proposed locations for borrow banks, quarries, disposal areas and camp-yards, pavement design, drainage works, bridges, intersections, earthworks, pedestrian crossings, signage, and any other deliverable from the Design Consultant;
- k) Cooperate with UIPC to ensure that all proposed locations for borrow banks, quarries, disposal areas, camp-yards, and water extraction are communicated to MARN in a timely

fashion, in order that site inspections can take place and preliminary environmental approvals can be provided during the design phase.

- l) Ensure that special attention is paid to the border connection/crossing with Honduras in the final design of Section 7 of the NTH, which will additionally require coordination with the government authorities of Honduras. The CPM shall manage such coordination and provide necessary technical support;
- m) Systematically and periodically review the evolution of the cost proposed for construction works, in such a way as to maintain economic feasibility and to allow making real-time decisions related to changes in the level of intervention or category of the roads to optimize the use of financial resources without reducing the quality, useful life and design period;
- n) Ensure that all designs are directly coordinated with and adhere to the World Bank's Operational Policy on Involuntary Resettlement (OP 4.12), MCC Environmental Guidelines and Salvadoran laws. Ensure that final designs include, to the extent feasible, measures to eliminate or reduce the incidence of resettlement, including land acquisition and physical or economic displacement. Also ensure that the design consultants strictly follows the general Resettlement Plan included in the EIA, including any resettlement action plans (RAPs) or land acquisition and compensation programs that must be implemented prior to commencement of construction or rehabilitation activities at a given location. Also, CPM shall secure that implementation of the ROW and RAPs is properly performed by the Design Consultants and avoiding conflicts with the project affected persons.

CPM shall be responsible to manage and supervise the preparation and implementation of the RAPs by the design consultants which is a critical activity for the successful implementation of the Connectivity Project, including but not limited to:

- Planning, preparation and implementation of the activities of: i) social support; ii) acquisition of right of way; and iii) construction of new houses for resettlement (if necessary) indispensable for the satisfactory physical execution of the RAP, all in accordance with OP 4.12 of the World Bank.
- The number of project affected persons (PAP) under the project alignment will be the result of the final designs and of the preparation of the Resettlement Action Plans, and the CPM shall supervise all activities related to the total number of PAPs.
- Ensure the compliance by the design consultants of the assignment and optimal use of all resources allocated for the project in relation to the RAP's.
- Review, approve and monitor the work plan for RAP's of the design consultants, in case of non compliance with the work plan to propose corrective measures in order to ensure the proper and on-time clearance of the work areas previous to the execution of construction works.
- Establish a flexible working time shift for his staff in order to supervise RAP development to be performed on weekends and non working hours, since many of the landowners work or live outside the project area.
- Ensure that the design consultant provides the social support in two areas: (i) acquisition of right of way or economic compensation; and (ii) resettlement or physical relocation, as applicable.
- Ensure that the design consultants include in the RAP all landowners that are affected by the alignment of the NTH. This attendance shall cover not only the persons/families living

in the properties under the project alignment, but also to those owners/occupants living in other regions of the country.

- Ensure that the design consultants provide necessary field offices to inform and attend the residents of the influence area of the project and owners/occupants of properties under project alignment, in any matter related to processes, inquiries and questions about right of way acquisitions and resettlements. Such field offices of the design consultants, shall be strategically located in the project area in order to allow to all PAPs in order to allow the participation of as many residents.
 - Ensure that the design consultant render his services related to RAP in an equally and fair way to all PAPs, indistinctly of their financial status or if they are owners or occupants of the affected properties.
 - Ensure the compliance by the design consultants of all and any of the parts of the process for Acquisition Rights of Way, including but not limited to: (i) identification of owners or occupants; (ii) collection of identification documents and property documents; (iii) topographic survey; (iv) preparation of general and individual right of way drawings; (v) preparation of valuation criteria and parameters; (vi) public consultation; (vii) valuation; (viii) notification; (ix) negotiation and acceptance of valuations; (x) Deed for properties on the name of the State and Government of the Republic of El Salvador; (xi) monitor payment process; (xii) monitor the registration process at the National Center of Registers (Centro Nacional de Registros – CNR); and (xiii) monitor the process for clearance of the right of way areas prior to the construction of works.
 - Ensure the compliance by the design consultants of the activities related to new houses for resettlements, either individual or group solutions or of any other economic activity, for the PAPs to be relocated in new places (if necessary), including but not limited to: (i) preparation of alternatives and analysis of possible relocation sites; (ii) design of resettlement solutions, individual or group housing or commercial solutions or any other type with the corresponding technical specifications, cost estimation and work plan; (iii) monitor the social support to be provided to the PAPs prior, during and after the resettlement; (iv) monitor the public consultation; and (v) supervision of the construction of any housing or commercial structure resulting necessary for the resettlements.
- o) Ensure that the Design Consultants adequately considered potential impacts to cultural, historical, and archeological resources in the project zones and, as needed, modify road designs to minimize or eliminate impact to these zones;
- p) Ensure that the Design Consultants, in coordination with the FOMILENIO Regional Offices: Reception, Encounter and Attention Centers as well as the FOMILENIO Communication Direction, plan, organize and carryout appropriate public consultation of all significant design alternatives with the potentially affected parties; monitor and supervise such public consultation activities and the appropriate consideration of and response to the public input received;
- q) As needed, perform periodic field observations of design firm works including survey work, geotechnical investigation, etc.;
- r) With cooperation of the UIPC, ensure that the Design Consultants prepare the EMP including all measures required to prevent, reduce, control and/or compensate for negative environmental impacts that may occur during the construction and post completion phases of the project, as well as to optimize positive impacts. Additionally, CPM shall secure that the engineering design includes all environmental measures included in the EMP and ensure that the technical

specifications for construction bidding documents clearly identify the responsibilities of the Construction Contractor with respect to EMPs, site specific environmental permits and related environmental requirements;

- s) Compile and evaluate information about accident reports as they may occur and report to FOMILENIO;
- t) Prepare and issue instructions to Design Consultants, as necessary for Project Implementation;
- u) Review and comment with recommendation of approval (or rejection) by FOMILENIO of change (variation) orders proposed by Design Consultants;
- v) When appropriate, propose change orders for FOMILENIO's approval, which shall also include the cost and time impact of such proposed changes. CPM shall also be required to submit the various alternatives with cost-benefit analysis and effect on time for the particular design work and for the project as a whole to facilitate decisions by FOMILENIO;
- w) Review and approve of reports submitted by the Design Consultants;
- x) Provide photographs of field works related to design, and documentation, as appropriate, showing monthly progress of the designs and potential trouble areas;
- y) Review and approve of documents for payments to the Design Consultants, certifying that such documents accurately reflect the value of the services rendered. This shall include invoices and support documents submitted by the Design Consultants as evidence of the executed work, and advice FOMILENIO accordingly;
- z) Analyze and make recommendations regarding claims submitted by the Design Consultants;
 - aa) Attend claims meetings between FOMILENIO and the Design Consultants;
 - bb) Ensure that the designs of the proposed roads are technically sound, cost optimized, and fulfill the minimum requirements of MOPTVDU for each road classification;
 - cc) Assist FOMILENIO to incorporate the results of these studies/designs into the bidding/contract documents for the construction projects;
 - dd) Revise and approve the estimated bill of quantities, technical specifications, proposed construction schedule, cost estimation, drawings, and any other technical inputs to the Bid Documents for procurement packages of road construction;
 - ee) Maintain orderly working files and a comprehensive, computerized log for correspondence, minutes of meetings and conferences, submittal data, submittal registers, inspection and monthly progress reports, contract documents including amendments, notices to proceed, change orders and modifications, all in a system which is comparable with software used by FOMILENIO, which will provide deliverable inventory, scheduled dates and actual status. During the course of the work, the CPM shall maintain it in good order and in a reference library format in office space in San Salvador to be used by the FOMILENIO staff. From time to time, FOMILENIO may request the CPM to show documents to interested parties, approved by FOMILENIO. Documents of a sensitive nature should be stored separately in the reference library. Prior to completion of the period of work, the CPM shall pack and deliver to FOMILENIO the entire contents of the Project library in good order and properly indexed and marked. In addition, the CPM shall provide FOMILENIO with all electronic files of any and all project documents stored in a media acceptable to FOMILENIO including a comprehensive, well-organized electronic index of all those documents. The copyright of all Project materials will remain with FOMILENIO;
 - ff) Perform all other design supervision and project administration tasks as specified in the contracts between FOMILENIO and the Design Consultants;

- gg) CPM shall promptly recommend to FOMILENIO remedial actions to be taken in the case of implementation delays, cost overruns, poor quality of the deliverables, and other problems, paying special attention to activities that are part of the critical path; Prepare a Final Report for each one of the Final Designs Sections completed, including recommendation to FOMILENIO for Final Acceptance of all the designs included in the contract documents and amendments, with a Quality Certification, stating that all technical, environmental and social requirements have been met.;
- hh) Answer, together with the Design Consultants if necessary, to any comment or questions on the execution of the final designs issued by FOMILENIO;
- ii) As requested by FOMILENIO, support or participate in FOMILENIO's public outreach and consultation program; and
- jj) Perform other related duties as directed by FOMILENIO.

8.3 Construction Supervision

This Section applies to the construction supervision services indicated in **Phase 2** as well as the **Optional Phase 3 for the NTH**.

The CPM shall implement the methodology and approach included in its Technical Proposal to utilize cost effectively its staff in the interim period between Phase-1 and Phase 2 (such as maintaining a reduced presence to effectively perform the required activities during this period). All such costs are included in this contract.

The CPM Consultant shall provide complete construction supervision services, according to best international standards of road construction—whether noted below or not—as the supervisory representatives of FOMILENIO.

The CPM shall prepare and manage the Connectivity Project's implementation schedule and shall monitor and report on the physical and financial progress of the works undertaken by Construction Contractors. The CPM shall recommend preventive and corrective actions to be taken in the case of implementation delays, cost overruns, poor quality of the works that does not meet specifications, unmitigated environmental impacts, and other problems. In addition, the CPM shall review and certify the accuracy of invoices submitted by entities providing technical and construction services.

In addition to its continuing service as the Employer's Representative, the CPM shall assume and perform all the duties and responsibilities of "the Engineer" as prescribed in the Conditions of Contract for Building and Engineering Works Designed by the Employer, FIDIC 1999, in particular for the construction supervision activities during the construction stage of the Connectivity Project. There will be no other supervisory engineer acting on behalf of FOMILENIO.

8.3.1 Duties

Duties to be included in this portion of the assignment include but are not limited to:

- 1) Review the Final Design reports prepared by CPB as part of the study "Mejoramiento de la Red Vial de la Zona Norte de El Salvador" for the first 155 km of the NTH (from La Virgen to Nuevo Eden de San Juan), which also includes design of Section 1 (even though the decision for construction of Section 1 is still pending, with the possibility to be included in optional Phase 3), which are the main technical input for the further construction work. The CPM will perform this review with additional information and clarifications provided by UIPC as available CPM shall timely advice to FOMILENIO of any required modification or complementary work if any fatal flaw is detected, and after obtaining the corresponding FOMILENIO's no objection, proceed to complement and modify the final reports accordingly. The content of this report is described in Section 8 of the TOR included in Appendix H of this contract;
- 2) Review and recommend any modification to the Scope of Work (Technical Specification and/or drawings) on the bidding document for construction works;
- 3) Prepare the agenda and presentation for the kickoff (pre-construction) meeting with the contractors of each different project and discuss the agenda with FOMILENIO prior to the meetings. During this meeting, points of contact shall be identified and procedures for exchange of information and communications are discussed and decided upon. Prepare meeting minutes for this meeting and any project meeting thereafter;
- 4) Review and comment on or approval of the programs of work submitted by construction contractors;
- 5) Review and approve construction plans and methods proposed by construction contractors, for road sections and bridges;
- 6) CPM shall be responsible for managing and supervising the activities of the construction contractors related to ROW and RAPs, including but not limited to the following:
 - Monitor the finalization of pending cases which by any reason were not completed in the design stage. This activity shall apply in the following areas: (i) acquisition of right of way or economic compensation; and (ii) resettlement or physical relocation.
 - Ensure that construction of works by the contractors is executed according to the drawings of right of way acquired by FOMILENIO, avoiding that contractors use land or affect constructions not included in the acquisition.
 - Ensure that construction contractors provide an office space for attention of residents of the project area, resolution of claims and social problems resulting from the construction works.
 - Follow-up the process of resettlement on those sections or segment were still exist some problems, and look for an adequate solution, in cooperation with UIPC;
 - In cooperation with UIPC ensure that the ROW of the Section or Sections under consideration for construction is cleared and the land is property of the GOES;
 - Review and assure that social and environmental and social responsibilities are defined in the contractor bidding documents, including gender issues;
 - Ensure that the Contractor has attended any unforeseen social impact that could arise during the construction period and that necessary mitigation measures have been taken, and support as necessary to avoid delays, and inform FOMILENIO immediately;
 - Ensure that the construction contractors execute the access solution to properties as identified in the design stage; and
 - Cooperate with FOMILENIO-UIPC to avoid the illegal occupation (usurpation) of the acquire ROW.

- 7) Monitor and report on the physical and financial progress of the works undertaken by construction contractors and recommending action to be taken when progress is not in accordance with the approved program;
- 8) Ensure that the quality of the construction works are completed according to the design drawings and specifications, and providing quality assurance on quality control tests performed by contractors;
- 9) The CPM shall have its own independent laboratory and equipment and test sites to control construction materials quality, independently of the Contractor's laboratory and equipment; the provisions for laboratory space and equipment will be provided to the CPM as established in Appendix F of this contract. The CPM shall include a quality assurance (QA) testing plan with a minimal number of respective QA tests per unit road and/or bridge as a percentage of the number of tests in the approved QC plan of the Contractor;
- 10) Monitor and ensure that the Construction Contractors prepare and submit EMP implementation plans for CPM approval. Review the proposed EMP implementation plans with attention to the appropriate sequencing and integration of EMP activities with related construction works. Comment and/or approve the EMP implementation plans.
- 11) Monitor and ensure the implementation of the EMP and the HIV/AIDS Awareness Plan by the Contractor, in accordance with the implementation plan of the EMP, including all environmental measures that apply to borrow pits, dumping areas and camp yards, as well as all public outreach and consultation activities of the Contractor;
- 12) Monitor the processes related to environmental issues carried out by the Contractors with MARN, such as new sites for borrow banks, camp yards and dumping areas, as well as processes with any other institution;
- 13) Ensure that the Contractor has attended any unforeseen environmental impact that could arise during the construction period and that necessary mitigation measures have been taken, and support as necessary to avoid delays;
- 14) Certify that the monthly certificates for payment from construction contractors accurately reflect the value of the works completed and recommend to proceed for payment;
- 15) Ensure that the Construction Contractors perform their work in accordance with the Compact, MCC's regulations, Salvadoran legal framework and any other provisions given in the construction contract;
- 16) In case of where the construction contractor does not meet its contractual obligation, the CPM shall report the case immediately to UIPC and FOMILENIO and compile all support documents pertaining to such case;
- 17) Compile and evaluate information for accident reports as they occur and report to both the UIPC and FOMILENIO;
- 18) Prepare and issue site instructions to construction contractors, as necessary for Project implementation;
- 19) To maintain the Record Book (Bitacora) at the work site and use for daily communication with contractors and to maintain registers of main events in a timely manner during the development of the works;
- 20) Provide full time lead construction supervision engineers for each of the construction contracts;
- 21) Review, verify the accuracy, respond, and approve all necessary shop drawings submitted by the construction contractors;

- 22) Review, approve and monitor the Quality Control Plan submitted by the Construction Contractors;
- 23) Review and comment on or recommend approval of construction contractors proposed change (variation) orders to FOMILENIO. Prior to propose to FOMILENIO, CPM shall discuss these matters with UIPC in relation to technical issues;
- 24) Propose change orders for the approval by FOMILENIO; this shall also include the cost and time impact of such proposed changes, if any. CPM shall also be required to submit the various alternatives with cost benefit analysis and effect on time for the particular section on construction and for the project as a whole for facilitating the decision by FOMILENIO. Prior to propose to FOMILENIO, CPM shall discuss these matters with UIPC in relation to technical issues;
- 25) Review and approve reports submitted by construction contractors;
- 26) Review, approve and monitor the Safety and Occupational Health Plan submitted by the construction contractors, and include comments and recommendations in the Monthly Reports related to the execution of such Safety and Occupational Health Plan;
- 27) Provide photographs of construction documenting weekly and monthly progress and potential trouble areas according to the formats to be defined previous to the commencement of the construction supervision activities; these photographs should be posted on the web-based project management system.
- 28) Review and certify monthly payment certificates of construction contractors;
- 29) Analyze and make recommendations regarding claims submitted by construction contractors;
- 30) Attend claims meetings between FOMILENIO and construction contractors;
- 31) Communicate with businesses and communities affected by any of the works undertaken under the Project to keep them aware of the construction process and schedule;
- 32) Review (verify accuracy of) the as-built drawings prepared by construction contractors and compiling complete sets of these drawings for FOMILENIO on a monthly basis;
- 33) Perform pre-final and final inspections of projects sites, as well as prepare, as and if applicable, detailed punch lists and verify that all punch list items are corrected prior to recommendation of FOMILENIO acceptance of the completion of the works and issuance of the Taking Over Certificate;
- 34) Prepare a Final Report for each one of the road projects, including recommendation to FOMILENIO for Final Acceptance of all the works included in the contract documents and amendments, with a quality certification, stating that IRIs or any other evaluation parameters have been accomplished;
- 35) Maintain orderly working files and a comprehensive, computerized log for correspondence, minutes of meetings and conferences, submittal data, submittal registers, inspection and monthly progress reports, contract documents including amendments, notices to proceed, change orders and modifications, all in a system which is comparable with software used by FOMILENIO, which will provide deliverable inventory, scheduled dates and actual status.

During the course of the work, the CPM shall maintain it in good order and in a reference library format in office space in San Salvador for use by FOMILENIO staff. From time to time, FOMILENIO may request the CPM to show documents to interested parties, approved by FOMILENIO. Documents of a sensitive nature should be stored separately in the reference library. Prior to completion of the period of work, the CPM shall pack and deliver to FOMILENIO the entire contents of the Project Library in good order and properly indexed and marked. In addition, the CPM shall provide FOMILENIO with all electronic files of any and all

project documents stored in a media acceptable to FOMILENIO including a comprehensive, well-organized electronic index of all those documents. The copyright of all Project materials will remain with FOMILENIO;

36) Answer, together with the construction contractors if necessary, to any comment on the performance of the works issued by FOMILENIO;

37) Perform all other construction supervision and project administration tasks as specified in the contracts between FOMILENIO and construction contractors;

38) Support or participate in third party environmental audits, as requested by FOMILENIO;

39) Review and verify that delivered materials meet specifications and criteria as described in the Technical Specifications and those that are required to meet the desired performance of the project. The CPM shall perform necessary QA tests, in the field and in a laboratory as required, to ensure compliance of delivered materials to the specified criteria. The CPM shall briefly describe its QA testing plan for expected delivered materials in its technical proposal;

40) Conduct weekly meetings with the Contractors to review current work program and daily activities. The CPM is expected to compile and report minutes from the meetings as part of scheduled deliverable reports;

41) For every construction project, the CPM will facilitate periodic meetings between FOMILENIO, UIPC and the Contractor project management team to provide high-level status reports and discuss problems, delays, potential change orders, and other pertinent contractual impacts; and

42) Perform other duties as directed by the FOMILENIO.

43) Review and approve the Road Safety Plan submitted by the construction contractors, and include comments and recommendations in the Monthly Reports related to the execution of such Road Safety Plan;

44) Verify and monitor the environmental auditing processes executed by the Ministry of Environment and Natural Resources (MARN as in Spanish);

45) Verify and monitor the process for releasing the Environmental Guarantee of the Project, as well as any guarantee for disposal sites, borrow pits and camp yards, that the Contractor or the MOPTVDU have submitted to MARN in relation with the Project.

46) The Quality Assurance Plan (QAP) of the CPM shall consider as minimum the following content:

1. Introduction (General Approach)
2. Personnel
 - 2.1 Organization
 - 2.2 Tasks and responsibilities
3. Construction Control
 - 3.1 Schedule Control and tracking
 - 3.2 Physical Control
 - 3.3 Financial Control
 - 3.3.1 Monthly Statements for Payments
 - 3.3.2 Liquidation
 - 3.4 Control of design changes during construction
4. Quality Assurance of Materials and Construction Processes.
 - 4.1 Establishment of Acceptance Criteria
 - 4.2 Work inspections

- 4.3 Technical documentation (standards, specifications, others)
- 4.4 Laboratory Equipment
- 4.5 Verification of tests performed by the Contractor
- 4.6 Verification tests performed by the CPM
- 4.7 Statistical control
- 5. Interrelation between Contractors and Employer
 - 5.1 Information Flow
 - 5.2 Correspondence and communication control
 - 5.3 Meetings
 - 5.4 Technical and financial reports

At commencement of the each one of the construction contracts, the QAP (presented as part of the technical proposal) shall be complemented and made compatible with the scope of works of the corresponding construction contract and submitted for approval to FOMILENIO.

APPENDIX B – REPORTING REQUIREMENTS

The CPM is required to provide the reports described below. All reports will be submitted with two original copies in Spanish and with its corresponding electronic file. The reports will be submitted first for technical review of UIPC, followed by approval of FOMILENIO. Once FOMILENIO has issued its approval, the CPM shall proceed to prepare an English version of such documents and submit them to FOMILENIO. These documents shall include (but not be limited to):

Project Management (Initial documents to be submitted in form and substance acceptable to FOMILENIO)

- a) Project Management Plan (within the first 2 months after the effective date)
- b) Project Management Information System according to section 8.1.1.c of Appendix A of this contract (within the first 3 months after the effective date)
- c) All information related to the project management activities, as indicated in Appendix A shall be reported by the CPM as part of the monthly reports established in this Appendix or as a separate report if the situation requires an immediate action or analysis or when FOMILENIO requires. In the event that the technical services are finished Project Management report shall continue to be submitted monthly.
- d) An Initial Report that will include(within the first ~~seven~~ten day after the signing of this Contract):
 - i. A detailed methodological approach to supervise the compliance of the Project's Contractors with the Resettlement Action Plan, all ~~environmental~~environmental mitigation measures established in the Environmental Management Plans, in the Archeological Impact Assessments and in the HIV- AIDS Awareness Plans.
 - ii. Mobilization Plan

Supervision of Design Consultants

(i) Inception Report

Within four weeks from the effective date of the contract, the CPM shall present to the FOMILENIO the Inception Report with a consolidated work plan outlining critical milestones, methodologies, staffing and a plan to ensure the quality of these services. The roles of the key personnel shall be clarified and the deliverables and their schedule reviewed. Contracting of required work outside of the CPM firm or those subcontractors identified in their proposal shall be minimal and in such cases shall be presented to FOMILENIO for its consideration and approval. At this time, points of contact shall be identified and procedures for communications and exchange of information discussed and decided upon. Coordination of work efforts, definition of FOMILENIO's requirements and establishment of future roles and participation shall also be presented and discussed. The Inception Report will include but not be limited to:

- o Methodology

- Scope
- A statement defining the proposed services, including:
 - methods and parameters
 - any changes to the composition of the Consultant's team and specialists needed
 - methods of consultation, through the Connectivity Project Coordinator at FOMILENIO with MOPTVDU, different GoES authorities, local authorities, local population and other concerned parties
 - methods of consultation with the FOMILENIO's Officials, with the Procurement Agent and with the Fiscal Agent
- Detailed program of work, showing time, duration and personnel as well as the inter-relationship between activities
- List of applicable environmental laws, regulations, and standards
- List of required environmental, construction, or other permits
- List of documents to be kept in document library²
- Proposed methodology for tracking compliance with MCC Environmental Guidelines, applicable GoES environmental laws and regulations, and site-specific EMPs and RAPs
- Proposed schedule
- Proposed flow of funds
- Projected staffing
- A detailed cost breakdown and resources allocations for management of the implementation.

Consultant shall provide timely written comments to FOMILENIO on all design submittals received throughout the course of the NTH final design work within the time specified in the Terms of Reference for those works.³ The Consultant is advised that delays in the delivering of its responses and services are unacceptable, and will constitute a basis for withholding payment or reducing the amount of payment due as specified in the payment schedule enclosed in this RFP.

(ii) Monthly Progress Reports

The CPM shall prepare and submit Monthly Progress Reports to FOMILENIO. The Monthly Progress Reports shall address the status of work measured as "percent completion" against the schedule submitted by the CPM and approved by FOMILENIO. The Monthly Progress Reports shall contain an accurate, up to date, account of all work accomplishments, work scheduled and outstanding issues of consultants. The reports shall also include description of problems and proposed solutions, details of any change order, possible delays and effect on the work schedule, time extensions, cost overruns, and any other important technical or administrative aspect that could affect the work progress. These reports shall be submitted to the FOMILENIO no later than the 10th day of the month following the end of the monthly period covered by each report. FOMILENIO will base the payment according to the negotiated payment schedule.

(iii) Special Reports

² Such list shall be supplied by FOMILENIO.

³ On average this is generally within 2 to 3 weeks of receipt of the document but will need to be verified against the time periods negotiated in the final contracts.

Other special reports that may be required from time to time as directed by FOMILENIO or UIPC for such issues as significant change requests, prompt remedial actions recommendations, accidents with injuries, and any other important technical or administrative aspect that requires a special attention.

(iv) Annual Report

Annual report summarizing all issues related to the works undertaken in the foregoing year.

(v) Final Report

The Final Report shall include all documents and information collected during the period of services, and also a special section of “lessons learned” on the whole project.

(vi) Communications

All communications concerning the Connectivity Project between the various consultants, contractors, UIPC and other interested or effected parties and the Connectivity Project Manager shall be copied to the FOMILENIO’s Connectivity Project Coordinator with a note as to its importance and whether it is for information only or requires action. This applies to all correspondence, technical documents, minutes or any other hard copy or electronic materials. The Consultant shall incorporate such communications in a web-based project information system discussed in Section 8.1.7.

(vii) Other Regular Reports

The CPM shall provide the ESID of FOMILENIO with regular reports to update the status of the supervision of the environmental and social (impact where necessary) assessments and that design activities are in compliance with applicable environmental requirements of the Government of El Salvador and MCC guidelines and those defined in the EMPs of the EIAs. The proposed frequency, format, and content of these reports shall be described in the methodology of the Technical Proposal and reconfirmed by the selected Consultant in the Inception Report. Each report should indicate as a minimum:

- Discuss progress made and outcomes of implementing environmental and social mitigation measures contained in the EMPs, RAPs, or other related plans. Particular attention should be given to the information related to Right of Way and Resettlement;
- Summarize the results of any field or laboratory analyses performed to support environmental monitoring requirements (such as water quality sampling, air quality monitoring, and any other test result.);
- Identify any environmental and social issues that could affect Project performance, particularly any unforeseen impacts, and recommended measures for resolving the issue(s);
- Identify any planned or actual modifications to the EMPs, including changes to environmental-related budgets or disbursement schedules; and,
- Outline the primary environmental and social management activities planned for the following reporting period, including proposed measures for resolving key issues.

Construction Supervision

Deliverables

The CPM shall provide as part of its services the following deliverables. These documents shall be prepared in Spanish and submitted for approval of FOMILENIO. If there are significant technical issues in a particular report, the CPM shall submit it first for review by UIPC, followed by approval of FOMILENIO. Otherwise, it shall be submitted directly for FOMILENIO's approval with a copy to UIPC. Once FOMILENIO has issued its approval, the CPM shall proceed to prepare an English version of such documents and submit them to FOMILENIO.

(i) Inception Report

Within four weeks from the effective date of the contract, the CPM shall present to FOMILENIO in FOMILENIO's offices in San Salvador, a consolidated work plan outlining critical milestones, methodologies, staffing and a plan to ensure the quality of these services. The roles of the key personnel shall be clarified and the deliverables and their schedule reviewed. Contracting of required work outside of the CPM firm or those subcontractors identified in their proposal shall be minimal and any efforts so identified shall be presented to FOMILENIO for their consideration and approval. Coordination of work efforts, definition of needs from FOMILENIO and establishment of future roles and participation shall also be presented and discussed. It is anticipated that some exchange of existing information may occur before this meeting but the majority of information exchange will take place at this time. The Inception Report will include but not be limited to:

- Methodology
- Scoping
- A statement defining the proposed services, including:
 - methods and parameters;
 - any changes to the composition of the Consultant's team and specialists needed;
 - methods of consultation, through the Connectivity Project Coordinator, with MOPTVDU; other GoES authorities, local authorities, local population and other concerned parties;
 - methods of consultation with the FOMILENIO's Procurement Agent and the Fiscal Agent
- Detailed program of work, showing time, duration and resources as well as the inter-relationship between activities.
- List of applicable environmental laws, regulations, and standards
- List of required environmental, construction, or other permits
- List of documents to be kept in document library⁴
- Proposed methodology for tracking compliance with MCC Environmental Guidelines, applicable GOES environmental laws and regulations, and site-specific EMPs and RAPs
- Proposed schedule
- Proposed flow of funds
- Projected staffing

⁴ Such list shall be supplied by FOMILENIO through its Connectivity Project Coordinator.

- A detailed cost breakdown and resources allocations for management of the implementation.

(ii) Monthly Reports

The CPM shall prepare and submit monthly progress report FOMILENIO. The Monthly Progress Reports shall address the status of work measured as “percent completion” against the schedule submitted by the construction contractors and approved by CPM at the onset of work. The detailed schedule shall be in MS-Project 2007, broken down, at a minimum, to a level of Bill of Quantity (BOQ) items, according to the respective contract. In certain cases FOMILENIO may request more specific breakdown of sub-components, as needed. These reports shall be sent to the Connectivity Project Coordinator. The Monthly Progress Reports shall contain an accurate, up to date, account of all work accomplishments, work scheduled and outstanding issues of all contractors. The reports shall also include description of problems and proposed solutions, details of any change order, possible delays and effect on the work schedule, time extensions, cost overruns, etc. These reports shall be submitted to FOMILENIO no later than the 10th day of the month following the end of the monthly period covered by each report. FOMILENIO will base the payment according to the negotiated payment schedule.

(iii) Special Reports

Other special reports that may be required from time to time as directed by the FOMILENIO for such issues as significant change requests, prompt remedial actions recommendations, accidents with injuries, etc.

- (iv) **Annual Report:** summarizing all issues related to the works undertaken in the foregoing year.
- (v) **Environmental compliance reports:** as outlined in above part Environmental and Social Impact Management.
- (vi) **Final Report:** The Final Report shall include all documents and information collected during the period of services, and also a special section of “lessons learned” on the whole project.
- (vii) All communications concerning the Connectivity Project between the various consultants, contractors, UIPC, and other interested or affected parties and the Connectivity Project Manager shall be copied to the FOMILENIO’s Connectivity Project Coordinator with a note as to its importance and whether it is for information only or requires action. This applies to all correspondence, RFIs, shop drawing submittals, technical documents, minutes or any other hard copy or electronic materials.

**APPENDIX C
KEY PROFESSIONAL PERSONNEL**

Nombre	EXPERIENCIA											Meses de Asignación	
	Experiencia en general (mínimo 10 años)	Experiencia con proyectos similares (mínimo 5 años)	Titulado en grado Masters o más	Fluidez en Inglés	Fluidez en Español	Experiencia regional en LA o países similares (mínimo 3 años)	Gerente de Proyectos	Diseño de Carreteras	Rehabilitación	Planificación	Supervisión de Construcción		
Fase 1													
Coordinador de Proyecto, Especialista de Caminos CTN	Isidro Delgado	26	22	MS	x	x	20	x	x	x	x	x	18
Ingeniero de Puentes (Estructural)	Carlos Lopez Feito	42	20	MS	x	x	4						8
Especialista Ambiental y Social (RAP)	Mario Epstein	28	9	DSc, MS	x	x	28	x	x	x	x	x	18
Diseñador e Ingeniero de Drenaje	Jesús Ramirez	35	35				6	x	x	x	x	x	8
Fase 2													
Gerente de Proyecto	Miguel Roca (PMC)	18	15	MBA	x	x	18	x	x	x	x	x	24
Especialista de Sistemas de Información	Roque Rodas	20	18	Ing	x	x	20	x	x	x	x	x	12
Coordinador de Proyecto, Especialista de Caminos NTH	Jorge González	34	30	MS	x	x	26	x	x	x	x	x	24
Ingeniero de Puentes (Estructural)	Eduardo Olmedo	22	20	Ing	x	x	22	x	x	x	x	x	4
Ingeniero de Pavimentos	Daniel Dimaschow	20	20	Ing	x	x	20	x	x	x	x	x	6
Especialista Ambiental y Social (RAP)	Ana Aguilar	17	8	MS	x	x	17		x	x	x	x	4
Ingeniero de diseño de Drenaje	Hans Tovar	21	15	MS	x	x		x	x	x	x	x	2
Ingeniero Geotécnico	Jorge Coll	28	9	MS	x	x	28		x	x	x	x	6
Ingeniero Residente 1	Renán García	37	12	Postgrado	x	x	37	x	x	x	x	x	24
Ingeniero Residente 2	Guillermo García Su	38	38	MS	x	x	32	x	x	x	x	x	24
Ingeniero Residente 3	Luis Acuña	20	13	MS	x	x	10	x	x	x	x	x	24
Fase 3													
Gerente de Proyecto	Miguel Roca (PMC)	18	15	MBA	x	x	18	x	x	x	x	x	21
Especialista de Sistemas de Información	Roque Rodas	20	18	Ing	x	x	20	x	x	x	x	x	10
Coordinador de Proyecto, Especialista de Caminos NTH	Jorge González	34	30	MS	x	x	26	x	x	x	x	x	21
Ingeniero de Puentes (Estructural)	Eduardo Olmedo	22	20	Ing	x	x	22	x	x	x	x	x	2
Ingeniero de Pavimentos	Daniel Dimaschow	20	20	Ing	x	x	20	x	x	x	x	x	6
Especialista Ambiental y Social (RAP)	Ana Aguilar	17	8	MS	x	x	17		x	x	x	x	4
Ingeniero de diseño de Drenaje	Hans Tovar	21	15	MS	x	x		x	x	x	x	x	2
Ingeniero Geotécnico	Jorge Coll	28	9	MS	x	x	28		x	x	x	x	6
Ingeniero Residente 4	Mario Orantes	23	9	MS	x	x	23		x	x	x	x	12
Ingeniero Residente 5	Carlos Tito Guardia	36	25	MS	x	x	35		x	x	x	x	12
Ingeniero Residente 6	Brinder Cisneros	15	10	MS	x	x	15	x	x	x	x	x	12

Nota: PMC = Program Management Certificate
DSc = Doctor en ciencias
MS = Master

Los tiempos de asignación incluyen:

Horario de trabajo: Lunes a Viernes de 8am a 5pm Sábado 8am a 12m
Feriados: Oficiales del Gobierno de El Salvador
Vacaciones y enfermedad: Según políticas de la empresa

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**APPENDIX D
BREAKDOWN OF BASE AND OPTION CONTRACT PRICE IN US\$**

FORMULARIOS

**Paquete I
Formulario FIN-2 (A)**

Paquete	Monto US\$
(A) Contrato Base (precio fijo de la firma)	6,116,800.00

Formulario FIN-2 (B)

Equipo	Estimado Hombre - mes requerido	Tarifa mensual FLMR	Precio propuesto US\$
a) Equipo requerido			
Gerente de Proyecto	24	33,000.00	792,000.00
Coordinador de Proyecto, especialista de construcción de carreteras	24	25,000.00	600,000.00
Especialista de manejo de sistemas de información	12	8,000.00	96,000.00
Ingeniero residente principal para construcción (3 ingenieros)	72	15,500.00	1,116,000.00
Ingeniero geotécnico y materiales	6	13,500.00	81,000.00
Ingeniero de puentes y estructuras	4	10,000.00	40,000.00
Ingeniero de pavimentos	6	16,600.00	99,600.00
Ingeniero de diseño de drenaje	2	8,000.00	16,000.00
Lider ambiental y especialista social - RAP	4	11,500.00	46,000.00
b) Otro personal técnico (no requerido)	36	8,500.00	306,000.00
c) Otro personal de apoyo administrativo (no requerido)	36	3,000.00	108,000.00
TOTAL (B)			3,300,600.00

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Paquete I

Formulario FIN-2(C)

Equipo	Estimado Hombre - mes requerido	Tarifa mensual FLMR	Precio propuesto US\$
a) Equipo requerido			
Gerente de Proyecto	21	33,000.00	693,000.00
Coordinador de Proyecto, especialista de construcción de carreteras	21	25,000.00	525,000.00
Especialista de manejo de sistemas de información	10	8,000.00	80,000.00
Ingeniero residente principal para construcción (3 ingenieros)	36	15,500.00	558,000.00
Ingeniero geotécnico y materiales	6	13,500.00	81,000.00
Ingeniero de puentes y estructuras	2	10,000.00	20,000.00
Ingeniero de pavimentos	6	16,600.00	99,600.00
Ingeniero de diseño de drenaje	2	8,000.00	16,000.00
Líder ambiental y especialista social - RAP	4	11,500.00	46,000.00
b) Otro personal técnico (no requerido)	36	8,500.00	306,000.00
c) Otro personal de apoyo administrativo (no requerido)	36	3,000.00	108,000.00
TOTAL (C)			2,532,600.00

Resumen propuesta de precio para el Paquete I

Paquete	Precio de Propuesta US\$
A. Formulario Financiero 2 A	6,116,800.00
B. Formulario Financiero 2 B	3,300,600.00
C. Formulario Financiero 2 C	2,532,600.00
Total de Paquete I	11,950,000.00

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RFP FOMILENIO QCBS 2008-08 "Administración de Proyecto, Supervisión de Diseños y Construcción de la Carretera Longitudinal del Norte"

NOTAS ACLARATORIAS AL PRECIO FINAL

12 de Septiembre, 2008

El precio presentado en el Formulario FIN-2 (A) incluye lo siguiente:

- ✓ Especialistas para la Supervisión y Revisión de Diseños:
 - Coordinador de Diseños
 - Especialista en Diseño Vial
 - Especialista en Estructuras
 - Especialista Ambiental y Planes de Reasentamiento
 - Especialista en Hidrología y Drenaje
- ✓ Personal técnico de apoyo para la Supervisión y Revisión de Diseños:
 - Ingeniero de Costos
 - Ingenieros de Campo
 - Cuadrilla de Revisión de Topografía
 - Responsable de Revisión de Geotecnia
 - Ingenieros Auxiliares
 - Administrativos
- ✓ Todos los costos directos para la logística del programa por un periodo máximo de 45 meses calendario
- ✓ El costo de las garantías para el precio de la "solución base", compuesto por los precios incluidos en:
 - Formulario FIN-2 (A)
 - FIN-2 (B)

Las Tarifas Mensuales (FLMR) presentadas en el Formulario FIN-2 (B) y FIN-2 (C) incluyen:

- ✓ Salario del especialista
- ✓ Gastos Generales (Over-Heads)
- ✓ Ganancias (Fee)
- ✓ IVA

Los meses incluidos en los formularios FIN-2 (B) y FIN-2 (C) son considerados como un estimado para iniciar el proyecto. Se acuerda que las necesidades de Meses-Hombre adicionales se irán analizando a medida que avanza el proyecto. WSA-TYPSA propone que esta programación se haga de una manera trimestral.

NOTA FINAL: el Sistema de Información Gerencial que se utilizará será MS PROJECT para facilitar compatibilidad con los sistemas ya implantados en FOMILENO.

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ASSOCIATES

**APPENDIX D1
BREAKDOWN OF MAN-MONTH FOR PHASE I IN US\$**

PHASE I						
1. EQUIPO HUMANO - Design Supervision						
	Unidad	Cantidad	Cobro unitario US\$	Cobro total US\$	IVA 13%	Total
<u>Personal clave</u>						
Coordinador diseños	mes	16	\$22,124	\$353,982	\$46,018	\$400,000
Espec. Estructuras	mes	8	\$8,850	\$70,796	\$9,204	\$80,000
Espec. Ambiental y RAC	mes	16	\$10,177	\$162,832	\$21,168	\$184,000
Espec. Hidrología y drenaje	mes	8	\$7,080	\$56,637	\$7,363	\$64,000
Subtotal				\$644,248	\$83,752	\$728,000
<u>Otros profesionales</u>						
Ingeniero de campo 2	mes	8	\$7,522	\$60,177	\$7,823	\$68,000
Espec. Diseño vial	mes	8	\$7,522	\$56,416	\$7,334	\$63,750
Espec. Costos	mes	8	\$7,522	\$60,177	\$7,823	\$68,000
Respons. revisión topografía	mes	7	\$7,522	\$52,655	\$6,845	\$59,500
Respons. revisión geotecnia	mes	8	\$7,522	\$60,177	\$7,823	\$68,000
Apoyo oficina matriz		4	\$16,106	\$64,425	\$8,375	\$72,800
Subtotal			\$0	\$354,027	\$46,023	\$400,050
<u>Personal de apoyo</u>						
Ingenieros auxiliares (4)	mes	32	\$7,522	\$240,708	\$31,292	\$272,000
Administrativos (2)	mes	32	\$2,655	\$84,956	\$11,044	\$96,000
Subtotal				\$325,664	\$42,336	\$368,000
SUBTOTAL				\$1323,938	\$172,112	\$1496,050
<p>Note: Only the staff inputs for Design Supervision provided above (No. 1) shall be revised to address any overrun on design schedule not attributable to the Consultant. The Consultant shall put its best efforts to achieve the goals within the timeframe expected of 18 monts.</p>						

**APPENDIX E
PAYMENT SCHEDULE**

CONTRACTUAL ITEMS	PHASE 1	PHASE 2	PHASE 3	TOTAL
BASE CONTRACT	\$ 5296,872	\$ 3300,600	\$ -	\$ 8597,472
OPTION CONTRACT	\$ -	\$ -	\$ 3352,528	\$ 3352,528
TOTAL CONTRACT				\$ 11950,000

AMOUNT TO SCHEDULE	\$ 5296,872			\$ 5296,872
AMOUNT TO PROGRAM LATER		\$ 3300,600	\$ 3352,528	\$ 6653,128
				\$ 11950,000

	ITEM	% of PH 1	TOTAL
0	INITIAL REPORT	5.0%	\$ 264,844
1	INCEPTION REPORT	5.0%	\$ 264,844
2	MONTHLY REPORT	3.2%	\$ 167,902
3	MONTHLY REPORT	3.2%	\$ 167,902
4	MONTHLY REPORT	3.2%	\$ 167,902
5	MONTHLY REPORT	3.2%	\$ 167,902
6	MONTHLY REPORT	3.2%	\$ 167,902
7	MONTHLY REPORT	3.2%	\$ 167,902
8	MONTHLY REPORT	3.2%	\$ 167,902
9	MONTHLY REPORT	3.2%	\$ 167,902
10	MONTHLY REPORT	3.2%	\$ 167,902
11	MONTHLY REPORT	3.2%	\$ 167,902
12	ANNUAL REPORT	3.2%	\$ 167,902
13	MONTHLY REPORT	3.2%	\$ 167,902
14	MONTHLY REPORT	3.2%	\$ 167,902
15	MONTHLY REPORT	3.2%	\$ 167,902
16	MONTHLY REPORT	3.2%	\$ 167,902
17	MONTHLY REPORT	3.2%	\$ 167,902
18	MONTHLY REPORT	3.2%	\$ 167,902
19	MONTHLY REPORT	1.3%	\$ 66,892
20	MONTHLY REPORT	1.3%	\$ 66,892
21	MONTHLY REPORT	1.3%	\$ 66,892
22	MONTHLY REPORT	1.3%	\$ 66,892
23	MONTHLY REPORT	1.3%	\$ 66,892
24	ANNUAL REPORT	1.3%	\$ 66,892
25	MONTHLY REPORT	1.3%	\$ 66,892
26	MONTHLY REPORT	1.3%	\$ 66,892
27	MONTHLY REPORT	1.3%	\$ 66,892
28	MONTHLY REPORT	1.3%	\$ 66,892
29	MONTHLY REPORT	1.3%	\$ 66,892
30	MONTHLY REPORT	1.3%	\$ 66,892

Once the Option Phase III is activated the cash flow under PHASE I will be adjusted to incorporate the US\$819,928 reserved here

Once the Phase II an Optional Phase III are activated it will also be paid based on FLMR and the actual man-months used.

The man-months level of effort for Phase II and III will be reviewed every three months for any reasonable adjustments.

31	MONTHLY REPORT	1.3%	\$ 66,892
32	MONTHLY REPORT	1.3%	\$ 66,892
33	MONTHLY REPORT	1.3%	\$ 66,892
34	MONTHLY REPORT	1.3%	\$ 66,892
35	MONTHLY REPORT	1.0%	\$ 52,969
36	ANNUAL REPORT	1.0%	\$ 52,969
37	MONTHLY REPORT	1.0%	\$ 52,969
38	MONTHLY REPORT	1.0%	\$ 52,969
39	MONTHLY REPORT	1.0%	\$ 52,969
40	MONTHLY REPORT	1.0%	\$ 52,969
41	MONTHLY REPORT	1.0%	\$ 52,969
42	MONTHLY REPORT	1.0%	\$ 52,969
43	MONTHLY REPORT	1.0%	\$ 52,969
44	MONTHLY REPORT	1.0%	\$ 52,969
45	MONTHLY REPORT	0.9%	\$ 48,041
	APPROVED FINAL REPORT	5.0%	\$ 264,844
		100%	\$ 5296,872

NOTE 1. THE CASH FLOW FOR PHASE I PRESENTED HERewith IS FOR THE PURPOSE OF CREATING A PAYMENT PLAN ONLY; IT IS NOT TO BE VIEWED AS AN ACTUAL DISTRIBUTION OF COSTS.

NOTE 2 THE PARTIES AGREE THAT IN THE EVENT OF A CANCELLATION OF THE CONTRACT A REASONABLE DEMOBILIZATION FEE WILL BE NEGOTIATED.

NOTE 3 THE CONSULTANT WILL RECEIVE THE COMPLETE PAYMENT CONSIDERED FOR THE SUPERVISION OF DESIGN IN PHASE I UPON ITS COMPLETION AND TO FOMILENIO SATISFACTION WHENEVER ITS DELIVERED BEFORE THE 18 MONTH PERIOD.

APPENDIX F
SERVICES AND FACILITIES PROVIDED BY FOMILENIO

Medios materiales y recursos a suministrar por la empresa constructora al equipo de supervisión de las obras

Oficina

La empresa contratista de las obras construirá e instalará a su costa una oficina para el equipo de supervisión de las obras que estará constituido como mínimo por 10 técnicos y 3 administrativos como personal con necesidad de espacio de oficina.

La oficina debe disponer de un despacho de 10 m² para el Ingeniero Residente, dos despachos más de 14 m² cada uno para el equipo técnico principal, una sala de reuniones de 30 m², un despacho de 14 m² para el equipo administrativo, una sala para el equipo técnico auxiliar y de campo de aproximadamente 25 m², un área de almacén de los equipos topográficos, un área de almacén de material de papelería y otros consumibles, un área de cocina y comedor, y dos aseos completos (uno para hombres y otro para mujeres). El total estimado para cubrir esas necesidades será de 140 m² aproximadamente.

El exterior de la oficina debe estar acondicionado para permitir el parqueo de 11 vehículos bajo una marquesina o un techo.

La oficina puede ser construida con módulos prefabricados o con bloques de concreto, pero en cualquier caso, deberá ser construida sobre una losa bien nivelada y estar dotada de un techo con cámara de aire para favorecer su aislamiento.

Todos los despachos y áreas de trabajo, así como los aseos y la cocina deberán tener ventanas que permitan la iluminación natural y la ventilación.

Todas las ventanas deberán llevar reja de protección.

La oficina debe estar dotada de suministro e instalación eléctrica, equipos de aire acondicionado en todas las dependencias excepto la zona de aseos, suministro de agua y saneamiento, y servicio telefónico de dos líneas fijas.

La oficina debe disponer de un generador de emergencia para las ocasiones en que falle el suministro de la red.

El contratista de obra asumirá el costo de alojar al equipo de la supervisión en un local provisional de su propiedad o alquilado a terceros durante el tiempo que dure la construcción y acondicionamiento de la oficina de obra que será la permanente y hasta el momento en que dicha instalación de oficina esté preparada para su ocupación.

Igualmente asumirá el traslado de todo el mobiliario y equipo de la oficina provisional a la definitiva.

La oficina provisional tendrá las mismas características de espacio y dotaciones que la definitiva.

Mobiliario para la oficina

El contratista de las obras equipará la oficina con muebles de trabajo de calidad suficiente para garantizar su uso durante la duración de todo el Proyecto.

El mobiliario será el necesario para 13 puestos de trabajo y, sin carácter limitativo, cada uno de

ellos estará dotado de una mesa de despacho de 1,60 x 0,70 metros con cajones archivadores, una mesa auxiliar de 1,00 x 0,60 metros, un mueble estantería para archivar documentos, un sillón de trabajo y dos sillas adicionales.

El salón de reuniones estará dotado de una mesa dimensionada para un grupo de 10 personas como mínimo y las sillas correspondientes.

Los aseos y la cocina estarán equipados con todos sus elementos funcionales para que estén plenamente operativos, incluyendo en la cocina un refrigerador de volumen adecuado para el equipo de trabajo para el que se dimensiona la oficina, así como una mesa, sillas y utensilios de cocina.

Todos los despachos y elementos de la oficina tendrán iluminación artificial de techo y cada puesto de trabajo también una lámpara individual.

Servicios de la oficina

El contratista de las obras se responsabilizará a su costa de todas las tareas de mantenimiento, limpieza y vigilancia de la oficina.

También asumirá los costos del consumo eléctrico, agua, teléfono e Internet durante toda la duración del Proyecto.

Equipos para la oficina

El contratista de las obras equipará todos los puestos de trabajo con medios informáticos suficientes para el desarrollo del trabajo de la empresa supervisora.

De forma no limitativa, cada uno de los 10 puestos de trabajo para el equipo técnico dispondrá de una computadora personal con características mínimas de microprocesador Quad Core 2.4 Ghz, disco duro de 160 Gb, memoria RAM 4 Gb, con sistema operativo Windows Xp-64 bits.

Cada uno de los 3 puestos de trabajo para el equipo administrativo dispondrá de una computadora personal con características mínimas de microprocesador Core Duo 2 Ghz, disco duro de 160 Gb, memoria RAM 2 Gb, con sistema operativo Windows XP-32 bits.

El equipo de computadoras se completará con una unidad de alimentación ininterrumpida UPS para cada computadora, así como los periféricos necesarios para el trabajo de impresión y escaneo de documentos.

Como mínimo se dispondrá de 2 impresoras laser de blanco y negro, otras 2 impresoras de color de tipología chorro de tinta y tamaño de papel A3 o tabloide, y 1 scanner.

El equipo informático anterior se complementará con todo el software necesario para la labor de la supervisión de las obras incluyendo las licencias correspondientes.

Las computadoras de los 10 técnicos estarán dotadas como mínimo con el paquete Office de Microsoft, Project de Microsoft, y Autocad.

Las computadoras de los 3 administrativos estarán dotadas como mínimo con el paquete Office de Microsoft y un programa de contabilidad a definir.

Se instalará una red local de 100-1000 Mbit/seg. que conecte todos los equipos y se pueda trabajar de forma conjunta por parte de todos los miembros del equipo.

Igualmente se aportará un servidor general para todo el equipo con almacenamiento de 500 Gb en Reid 5 y sistema automático de back-up en cinta Vitrium.

El equipo de oficina a suministrar y mantener por el contratista de las obras se compondrá también por una fotocopidora para copias en color y clasificador, 4 cámaras fotográficas digitales de 10 Pxl., y teléfonos celulares en un número de 17 unidades plenamente operativas.

Vehículos

El contratista de las obras facilitará al equipo de la supervisión el siguiente equipo de vehículos para su uso exclusivo.

- Un vehículo tipo camioneta todo terreno 4x4 para el Ingeniero Residente.
- Cinco vehículos tipo pick-up de doble cabina y tracción 4x4 para el resto del equipo de ingenieros e inspectores de obra.
- Microbús de capacidad para doce pasajeros.

Los vehículos podrán ser de motor diesel o gasolina pero de potencia mínima 120 HP y dotados de aire acondicionado.

Los vehículos deberán ser nuevos y estarán en perfecto estado de conservación y el contratista de las obras asumirá el costo de su operación y el total mantenimiento y conservación durante toda la duración del Proyecto, incluyendo el seguro con una cobertura que deje totalmente exento de responsabilidad al usuario.

Equipo topográfico

El contratista de las obras suministrará los siguientes equipos para permitir el control topográfico de las obras por parte de la supervisión:

- Dos estaciones totales de reflexión directa (DR) servoasistida de 3" (1 mgon) de precisión, con reconocimiento automático del prisma (ATR), plumada laser, mínimo 256 Mb de memoria interna y programas para el control de carreteras (Estacionamiento libre, introducción de ejes, secciones tipo, replanteos) completas con prismas, jalones, trípodes, cuatro juegos de baterías y una maleta de transporte para cada estación total.
- Un equipo (unidad móvil + unidad fija) receptor topográfico GPS de doble frecuencia para medición cinemática en tiempo real (RTK) con controladora operable bajo Windows (mismos programas que en la estación total) y tecnología bluetooth.
- Dos niveles digitales electrónicos de 1,5 mm de precisión con posibilidad de lectura óptica completo con sus trípodes, miras digitales y maletas de transporte.

Equipo de laboratorio y control de calidad de materiales

El contratista construirá o dispondrá de un laboratorio de ensayos de control de calidad de materiales para su utilización por parte del equipo de supervisión de las obras.

Igualmente, suministrará los dispositivos necesarios para que el equipo de supervisión de obras realice los ensayos de campo necesarios para comprobar el cumplimiento de las especificaciones del Proyecto.

El equipamiento con el que estará dotado el laboratorio y los dispositivos que se suministrarán para los ensayos in situ serán como mínimo los que se indican en la relación adjunta.

El laboratorio estará ubicado en la zona de la obra, en un lugar que sea lo más cercano posible al punto medio del tramo de carretera que se va a construir y en las proximidades de la oficina de la supervisión y del campamento de obra.

El laboratorio contará con un despacho que estará aislado de la sala de ensayos y al que se dotará de las mismas facilidades que los despachos de la oficina de campo, incluyendo una computadora, una impresora, y teléfono.

El edificio del laboratorio también estará dotado de un aseo.

Todo el edificio tendrá suministro de electricidad, agua e Internet.

El contratista de las obras se responsabilizará a su coste del mantenimiento y conservación del laboratorio durante toda la duración del Proyecto, así como también asumirá todos los costos de los servicios públicos necesarios y los consumibles para todas las actividades del control de la calidad que realizará la empresa supervisora.

El laboratorio indicado y los medios para el control de la obra se han dimensionado para los ensayos que se van a requerir para la verificación de la calidad de las obras de suelos, concretos hidráulicos y productos bituminosos para la pavimentación de la carretera.

El contratista deberá hacer provisión de un presupuesto adicional para realizar ensayos de otro tipo de materiales como aceros, pinturas, juntas, etc. que por su singularidad no está justificado disponer de equipos en el laboratorio de obra y es habitual contar con el apoyo de un laboratorio externo.

La cantidad presupuestaria que se debe prever como parte del presupuesto total ofertado por el contratista es del 1% para estas acciones de control adicional.

Unidades	Ensayo	DESCRIPCIÓN DEL EQUIPO
1	Concretos	APARATO VICAT COMPLETO
1	Concretos	BAÑO "LE CHATELIER" COMPLETO
1	Concretos	BIDÓN PLASTICO 5 L. CON TAPA SIFONICA PARA EQUIVALENTE DE ARENA
1	Concretos	BROCA CON CORONA DIAMANTE D.100
1	Concretos	BROCA D.60 MM.
1	Concretos	BROCA DIAMANTE D.75 MM
1	Concretos	CALENTADOR DE AZUFRE 12L
1	Concretos	CÁMARA HÚMEDA COMPLETA CON HUMIDIFICADORES, CALENTADORES Y REGISTROR
1	Concretos	CESTILLO LATON CON ASA 0.6 LTS.
1	Concretos	CESTILLO LATON CON ASA 1.8 LTS.
2	Concretos	CESTILLO METALICO D. 20x20 CM.
2	Concretos	CONO ABRAMS CON LANCETA
1	Concretos	CRISOL DE HIERRO CON TAPA
1	Concretos	DISPOSITIVO 4x4 ENSAYO COMPRESION
1	Concretos	DISPOSITIVO 4x4x16 ENSAYO FLEXION
1	Concretos	DISPOSITIVO ENSAYO BRASILEÑO
1	Concretos	EMBUDO DE LLENADO PARA EQUIVALENTE DE ARENA
1	Concretos	ESCLEROMETRO
3	Concretos	ESPATULA FLEXIBLE 10 cm
1	Concretos	GALGA PARA COEFICIENTE DE FORMA
1	Concretos	GRUPO ELECTROGENO PORTATIL PARA SONDA SACATESTIGOS
1	Concretos	HORNO DE MUFLA 120x160x200 MM.
1	Concretos	MACHACADORA MANDIBULAS
1	Concretos	MAQUINA CORTADORA PROBETAS
1	Concretos	MAQUINA LOS ANGELES
1	Concretos	MEDIDOR DE AIRE OCLUIDO HORMIGÓN FRESCO
60	Concretos	MOLDE ACERO D.15x30 CM.
6	Concretos	MOLDE LE CHATELIER
3	Concretos	MOLDES TRIPLES
1	Concretos	PHMETRO PORTATIL DIGITAL
1	Concretos	PRENSA COMPRESION 1500 Kn informatizada
6	Concretos	PROBETA PLASTICO CON TAPON EQUIVALENTE ARENA

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1	Concretos	RECIPIENTE ACERO INOXIDABLE HERMETICO
5	Concretos	RECIPIENTE HERMETICO
1	Concretos	REFRENTADOR PARA PROBETAS GRAVA-CEMENTO
1	Concretos	REFRENTADOR PARA PROBETAS SUELO-CEMENTO
1	Concretos	REFRENTADOR PROBETAS D.15x30 cm
1	Concretos	TAMIZ D.8" UNE 8
1	Concretos	TUBO SACAMUESTRAS
1	Concretos	VARILLA DE MEDIDA CON PIE CONICO
1	Concretos	YUNQUE TARADO PARA ESCLEROMETRO
2	Materiales Bituminosos	AGUJA PENETROMETRO
1	Materiales Bituminosos	APARATO MICRODEVAL
1	Materiales Bituminosos	APARATO NUCLEAR PARA MEZCLAS BITUMINOSAS TROXLER MOD. 4640-B
1	Materiales Bituminosos	APARATO ROCIADOR DE EMULSIONES BITUMINOSAS
1	Materiales Bituminosos	APARATO TAGLIABUE COMPLETO
1	Materiales Bituminosos	APARATO TOMAMUESTRAS BACON PARA LIGANTES
1	Materiales Bituminosos	BAÑO TERMOSTATICO 10 LTS.
1	Materiales Bituminosos	BAÑO TERMOSTATICO 20 LTS. MARSHALL
1	Materiales Bituminosos	CENTRIFUGA CON VASO DE D.18.5x20.00
1	Materiales Bituminosos	CENTRIFUGA ELECTRICA PARA 6 TUBOS DE ENSAYO MOD. ANGULAR 6
1	Materiales Bituminosos	DESTILADOR 300x30 CM. CON SERPENTIN
1	Materiales Bituminosos	EQUIPO ACCIONAMIENTO MANUAL ANILLO Y BOLA
1	Materiales Bituminosos	EXTRACTOR HIDRAULICO 5 TM. MARSHALL MANUAL
1	Materiales Bituminosos	EXTRACTORA DE TESTIGOS HILTI
1	Materiales Bituminosos	HORNO DE IGNICION POR INFRARROJOS TROXLER
1	Materiales Bituminosos	MAQUINA ABRASION PARA VIA HUMEDA
1	Materiales Bituminosos	MARTILLO COMPACTADOR MARSHALL
1	Materiales Bituminosos	MATRAZ DESTILACION
1	Materiales Bituminosos	MECHERO ANULAR PARA EMPLEAR CON LA RETORTA
10	Materiales Bituminosos	MOLDE INMERSION-COMPRESION
6	Materiales Bituminosos	MOLDE MARSHALL CON BASE Y COLLAR
1	Materiales Bituminosos	MOLDE TRONCOCÓNICO Y BASE
1	Materiales Bituminosos	MONITOR GEYGER-MULLER PARA LECTURA DIRECTA DE RADIACIÓN GAMMA Y X
1	Materiales Bituminosos	PENETROMETRO MANUAL
1	Materiales Bituminosos	PICNOMETRO 1000 CC. COMPLETO
1	Materiales Bituminosos	PICNOMETRO 2000 CC. COMPLETO
1	Materiales Bituminosos	PISTON INFERIOR EQUIPO INMERSION-COMPRESION
1	Materiales Bituminosos	PLACA VIALIT CON RODILLO Y BOLA
1	Materiales Bituminosos	RETORTA METALICA 1000 ML.

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1	Materiales Bituminosos	SOPORTE PIE PLATO 315x200 MM. CON VARILLA INOX. 12x800
1	Materiales Bituminosos	TUBO DESPRENDIMIENTO
1	Materiales Bituminosos	UNIDAD REFRIGERACION BAÑO ENSAYO
1	Materiales Bituminosos	VISCOSIMETRO SAYBOLT COMPLETO
1	Suelos	AGITADOR MECANICO PARA EQUIVALENTE DE ARENA
1	Suelos	APARATO CASAGRANDE MANUAL Y ACANALADORES
1	Suelos	BASE SIN ORIFICIO PARA MOLDES PROCTOR MODIFICADO
1	Suelos	CALIBRADOR DE BARRAS
2	Suelos	COLLAR PARA MOLDES
1	Suelos	COMPACTADOR AUTOMATICO PARA PROCTOR
1	Suelos	COMPARADOR DE 0.001"
2	Suelos	COMPARADOR DE 0.01x10 MM.
1	Suelos	DENSIMETRO TROXLER MOD. 4340
1	Suelos	DISCO ESPACIADOR
1	Suelos	LONA Y BARRAS 2,2M
1	Suelos	MAZA COMPACTACION PROCTOR NORMAL ARMY
1	Suelos	MAZA PROCTOR MODIFICADO TIPO ARMY
2	Suelos	MOLDE ACERO D.102 MM. CON PALOMILLA
15	Suelos	MOLDES DE C.B.R.
2	Suelos	MOLDES PROCTOR MODIFICADO
10	Suelos	PESASUSTANCIAS 0,25x50
1	Suelos	PISTON DE PENETRACION C.B.R. ROSCA LARGA
9	Suelos	PLACA CON VASTAGO PARA C.B.R.
1	Suelos	PLACA DE CARGA COMPLETA
1	Suelos	PRENSA MULTIENSAYO 20 TN. INFORMATIZADA
15	Suelos	SOBRECARGAS ANULARES DE 10 LB.
15	Suelos	SOBRECARGAS ANULARES DE 5 LB.
15	Suelos	SOBRECARGAS RANURADAS DE 10 LB.
15	Suelos	SOBRECARGAS RANURADAS DE 5 LB.
2	Suelos	TRIPODE C.B.R.
1	Varios	AGITADOR CON HELICE REEMPLAZABLE Y VASO
1	Varios	AGITADOR ELECTRICO RZR1 DE 35 A 2000 RPM
1	Varios	BALANZA ANALITICA 0.1 MG. 200 g
1	Varios	BALANZA ELECTRONICA 0-30000 GR.
1	Varios	BALANZA ELECTRONICA 0-3100 GR.
5	Varios	BANDEJA 100x100x5 CM.
10	Varios	BANDEJA 20x20x5 CM.
10	Varios	BANDEJA 40x20x5 CM.
10	Varios	BANDEJA 40x40x5 CM.
10	Varios	BANDEJA 60x40x5 CM.
1	Varios	BAROMETRO
1	Varios	BASCULA ROMANA 100 KG.
1	Varios	BOMBA DE VACIO
1	Varios	CALIBRADOR PIE DE REY 0.02 200/157
1	Varios	CAMPANA PARA GAS 1200x600 CON LAMAS
5	Varios	CAPSULA PORCELANA STAATLICH AG-11
1	Varios	CRISOL DE PLATINO D.85x42 MM.
2	Varios	CRONOMETRO DIGITAL
1	Varios	CUARTEADOR 12 PASOS 3.8 CM
1	Varios	CUARTEADOR 14 PASOS 1.25 CM
1	Varios	CUARTEADOR 14 PASOS 2,54 CM
1	Varios	DESECADOR DE VIDRIO Y LLAVE VACIO D.300 MM. SIN PLACA
1	Varios	DESECADOR DE VIDRIO Y LLAVE VACIO D.300 MM. SIN PLACA
1	Varios	ESTUFA 288 LTS. CON BANDEJA ADICIONAL
1	Varios	ESTUFA 80 L.
2	Varios	JUEGOS DE TAMICES COMPLETOS CON FONDO Y TAPA
1	Varios	MARTILLO KANGO
1	Varios	MATRAZ FONDO REDONDO 5", 100, 2000 CM3
1	Varios	MECHERO BUTANO, MANORREDUCTOR, BOQUILLAS

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1	Varios	MORTERO DE AGATA
1	Varios	MORTERO PORCELANA
1	Varios	NUEZ DE FIJACION DOBLE DE BURETAS
1	Varios	TAMIZADORA AUTOMATICA
6	Varios	TERMOMETRO DE MERCURIO
2	Varios	TERMOMETRO DIGITAL
1	Varios	TERMOMETRO DIGITAL -40°C A 650°C POR TERMOPAR TIPO K
1	Varios	VOLUMENOMETRO LE CHATELIER

All assets considered in this Appendix are subject to the General Condition of this Contract number 3.12.

APPENDIX G
ADDITIONAL PROVISIONS

Capitalized terms that are used but not defined in this Appendix shall have the meaning given to them in the agreement to which this Appendix is attached (the “*Agreement*”) and that certain Millennium Challenge Compact by and between the United States of America, acting through MCC, and the Government, signed on November 29, 2006, as may be amended from time to time (the “*Compact*”).

FOMILENIO is responsible for the oversight and management of the implementation of the Compact on behalf of the Government. The Government of El Salvador has received a grant from MCC pursuant to the Compact and intends to apply a portion of the proceeds of the Compact to eligible payments under this Contract, provided that (i) such payments will only be made at the request of and on behalf of the FOMILENIO and as authorized by the Fiscal Agent, (ii) MCC shall have no obligations to the Consultant (for the purposes of this Appendix, the “*Consultant*”) under the Compact or this Agreement, (iii) such payments will be subject, in all respects, to the terms and conditions of the Compact, and (iv) no party other than the FOMILENIO shall derive any rights from the Compact or have any claim to MCC Funding.

INSURANCE: The Consultant shall obtain insurance, performance bonds, guarantees or other protections appropriate to cover against risks or liabilities associated with performance of the Agreement. The Consultant shall be named as payee on any such insurance and the beneficiary of any such guarantee, including performance bonds. MCC and the FOMILENIO shall be named as additional insured on any such insurance or other guarantee, to the extent permissible under applicable laws. The Consultant shall ensure that any proceeds from claims paid under such insurance or any other form of guarantee shall be used to replace or repair any loss or to pursue the procurement of the covered goods, services or works, provided, however, at MCC’s election, such proceeds shall be deposited in an account as designated by the FOMILENIO and acceptable to MCC or as otherwise directed by FOMILENIO.

A. MCC Status; Reserved Rights; Third-Party Beneficiary

1. MCC Status. MCC is a United States Government corporation acting on behalf of the United States Government in the implementation of the Compact. As such, MCC has no liability under this Contract, and is immune from any action or proceeding arising under or relating to this Contract. In matters arising under or relating to this Contract, MCC is not subject to the jurisdiction of the courts or any other juridical or other body of any jurisdiction.

2. MCC Reserved Rights.

- (a) Certain rights are expressly reserved to MCC under this Contract, the Compact and other related Compact documents, including the right to approve the terms and conditions of this Contract, as well as any amendments or modifications hereto, and the right to suspend or terminate this Contract.

- (b) MCC, in reserving such rights under this Contract, the Compact or other related Compact documents, has acted solely as a funding entity to assure the proper use of United States Government funds, and any decision by MCC to exercise or refrain from exercising these rights shall be made as a funding entity in the course of funding the activity and shall not be construed as making MCC a party to this Contract.
- (c) MCC may, from time to time, exercise its rights, or discuss matters related to this Contract with the Parties or the Government, as appropriate, jointly or separately, without thereby incurring any responsibility or liability to any party.
- (d) Any approval (or failure to approve) or exercise of (or failure to exercise) any rights by MCC shall not bar the Government, the MCA Entity, MCC or any other person or entity from asserting any right against the Consultant, or relieve the Consultant of any liability which the Consultant might otherwise have to the Government, the MCA Entity, MCC, or any other person or entity. For the purposes of this clause (d), MCC shall be deemed to include any MCC officer, director, employee, affiliate, contractor, agent or representative.

3. Third-Party Beneficiary. MCC shall be deemed to be a third party beneficiary under this Contract.

B. Limitations on the Use or Treatment of MCC Funding

The use and treatment of MCC Funding in connection with this Contract does not, and shall not, violate any limitations or requirements specified in the Compact or any other relevant agreement or Implementation Letter or applicable law or United States Government policy. A summary of the applicable provisions referenced in this paragraph may be found on the MCC website at www.mcc.gov/guidance/compact/funding_limitations.pdf

C. Procurement

The Consultant shall ensure that all procurements of goods, services or works under, related to or in furtherance of this Contract shall be consistent with the general principles set forth in the Compact and in the MCC Program Procurement Guidelines from time to time in effect as posted on the MCC website at www.mcc.gov. The Consultant shall comply with the eligibility requirements related to prohibited source or restricted party provisions in accordance with U.S. law, regulations and policy, applicable World Bank policies or guidelines and in accordance with other eligibility requirements as may be specified by MCC or the MCA Entity. A summary of the applicable provisions referenced in this paragraph may be found on the MCC website at [www.mcc.gov/guidance/compact/procurement awards provisions.pdf](http://www.mcc.gov/guidance/compact/procurement_awards_provisions.pdf)

D. Reports and Information; Access; Audits; Reviews

1. Reports and Information. The Consultant shall maintain such books and records and provide such reports, documents, data or other information to the MCA Entity in the manner and to the

extent required by the Compact or related documents and as may be reasonably requested by the MCA Entity from time to time in order to comply with its reporting requirements arising under the Compact or related documents. MCC may freely use any information it receives in any report or document provided to it in any way that MCC sees fit. The provisions of the Compact and the Governing Documents that are applicable to the Government in this regard shall apply, *mutatis mutandis*, to the Consultant as if the Consultant were the Government under the Compact. A summary of the applicable provisions referenced in this paragraph may be found on the MCC website at www.mcc.gov/guidance/compact/audits_reviews_provisions.pdf

2. Access; Audits and Reviews. Upon MCC's request, the Consultant shall permit such access, audits, reviews and evaluations as provided in the Compact or related documents. The provisions of the Compact and the Governing Documents that are applicable to the Government with respect to access and audits shall apply, *mutatis mutandis*, to the Consultant as if the Consultant were the Government under the Compact. A summary of the applicable provisions referenced in this paragraph may be found on the MCC website at www.mcc.gov/guidance/compact/audits_reviews_provisions.pdf

3. Application to Providers. The Consultant shall ensure the inclusion of the applicable audit, access and reporting requirements in its contracts or agreements with other providers in connection with this Contract. A summary of the applicable requirements may be found on the MCC website at www.mcc.gov/guidance/compact/audits_reviews_provisions.pdf

E. Compliance with Anti-Corruption, Anti-Money Laundering and Terrorist Financing Statutes and Other Restrictions

1. The Consultant shall ensure that no payments have been or will be made by the Consultant to any official of the Government, the MCA Entity, or any third party (including any other government official) in connection with this Contract in violation of the United States Foreign Corrupt Practices Act of 1977, as amended (15 U.S.C. 78a et seq.) (the "FCPA") or that would otherwise be in violation of the FCPA if the party making such payment were deemed to be a United States person or entity subject to the FCPA, or similar statute applicable to this Contract, including any local laws. The Consultant affirms that no payments have been or will be received by any official, employee, agent or representative of the Consultant in connection with this Contract in violation of the FCPA or that would otherwise be in violation of the FCPA if the party making such payment were deemed to be a United States person or entity subject to the FCPA, or similar statute applicable to this Contract, including any local laws.

2. The Consultant shall not provide material support or resources directly or indirectly to, or knowingly permit MCC Funding to be transferred to, any individual, corporation or other entity that the Consultant knows, or has reason to know, commits, attempts to commit, advocates, facilitates, or participates in any terrorist activity, or has committed, attempted to commit, advocated, facilitated or participated in any terrorist activity, including, but not limited to, the individuals and entities (i) on the master list of Specially Designated Nationals and Blocked Persons maintained by the U.S. Department of Treasury's Office of Foreign Assets Control, which list is available at www.treas.gov/offices/enforcement/ofac, (ii) on the consolidated list of individuals and entities maintained by the "1267 Committee" of the United

Nations Security Council, (iii) on the list maintained on www.epls.gov or (iv) on such other list as the MCA Entity may request from time to time. For purposes of this provision, "material support and resources" includes currency, monetary instruments or other financial securities, financial services, lodging, training, expert advice or assistance, safe houses, false documentation or identification, communications equipment, facilities, weapons, lethal substances, explosives, personnel, transportation, and other physical assets, except medicine or religious materials.

3. The Consultant shall ensure that its activities under this Contract comply with all applicable U.S. laws, regulations and executive orders regarding money laundering, terrorist financing, U.S. sanctions laws, restrictive trade practices, boycotts, and all other economic sanctions promulgated from time to time by means of statute, executive order, regulation or as administered by the Office of Foreign Assets Control of the United States Treasury Department or any successor governmental authority, including, 18 U.S.C. § 1956, 18 U.S.C. § 1957, 18 U.S.C. § 2339A, 18 U.S.C. § 2339B, 18 U.S.C. § 2339C, 18 U.S.C. § 981, 18 U.S.C. § 982, Executive Order 13224, 15 C.F.R. Part 760, and those economic sanctions programs enumerated at 31 C.F.R. Parts 500 through 598 and shall ensure that its activities under this Contract comply with any policies and procedures for monitoring operations to ensure compliance, as may be established from time to time by MCC, the MCA Entity, the Fiscal Agent, or the Bank, as may be applicable. The Consultant shall verify, or cause to be verified, appropriately any individual, corporation or other entity with access to or recipient of funds, which verification shall be conducted in accordance with the procedures set out in the MCC Program Procurement Guidance paper entitled "Excluded Parties Verification Procedures in MCA Entity Program Procurements" that can be found on MCC's website at www.mcc.gov. The Consultant shall (A) conduct the monitoring referred to in this paragraph on at least a quarterly basis, or such other reasonable period as the MCA Entity or MCC may request from time to time and (B) deliver a report of such periodic monitoring to the MCA Entity with a copy to MCC.

4. Other restrictions on the Consultant shall apply as set forth in the Compact or related documents with respect to any activities in violation of other applicable U.S. laws, regulations, executive orders or policies, any misconduct injurious to MCC or the MCA Entity, any activity contrary to the national security interests of the United States or any other activity that materially and adversely affects the ability of the Government or any other party to effectively implement, or ensure the effective implementation of, the Program or any Project or to otherwise carry out its responsibilities or obligations under or in furtherance of the Compact or any related document or that materially and adversely affects the Program assets or any Permitted Account.

F. Publicity, Information and Marking

1. The Consultant shall cooperate with the MCA Entity and the Government to provide the appropriate publicity to the goods, works and services provided under this Contract, including identifying Program activity sites and marking Program assets as goods, works and services funded by the United States, acting through MCC, all in accordance with the MCC Standards for Corporate Marking and Branding, available on the MCC website at <http://www.mcc.gov/documents/mcc-marking-corporate-v2.pdf> provided, however, that any press release or announcement regarding MCC or the fact that MCC is funding the Program or any other publicity materials referencing MCC, shall be subject to MCC's prior written approval

and must be consistent with any instructions provided by MCC from time to time in relevant Implementation Letters.

2. Upon the termination or expiration of the Compact, the Consultant shall, upon MCC's request, cause the removal of any such markings and any references to MCC in any publicity materials.

G. Insurance

The Consultant shall obtain insurance or other protections appropriate to cover against risks or liabilities associated with performance of this Contract. The Consultant shall be named as payee on any such insurance. The MCA Entity and, at MCC's request MCC, shall be named as additional insured on any such insurance or other guarantee, to the extent permissible under applicable laws. The Consultant shall ensure that any proceeds from claims paid under such insurance or any other form of guarantee shall be used to replace or repair any loss or to pursue the procurement of the covered goods, works and services; provided, however, that at MCC's election, such proceeds shall be deposited in an account as designated by the MCA Entity and acceptable to MCC or as otherwise directed by MCC.

H. Conflict of Interest

The Consultant shall ensure that no officer, director, employee, affiliate, contractor, subcontractor, agent, advisor or representative of the Consultant participates in the selection, award, administration or oversight of a contract, grant or other benefit or transaction funded in whole or in part (directly or indirectly) by MCC Funding in connection with this Contract, in which (i) the entity, the person, members of the person's immediate family or household or his or her business partners, or organizations controlled by or substantially involving such person or entity, has or have a financial or other interest or (ii) the person or entity is negotiating or has any arrangement concerning prospective employment, unless such person or entity has first disclosed in writing to the parties under this Contract and MCC the conflict of interest and, following such disclosure, the parties to this Contract agree in writing to proceed notwithstanding such conflict. The Consultant shall ensure that none of its officers, directors, employees, affiliates, contractors, subcontractors, agents, advisors or representatives involved in the selection, award, administration, oversight or implementation of any contract, grant or other benefit or transaction funded in whole or in part (directly or indirectly) by MCC Funding in connection with this Contract shall solicit or accept from or offer to a third party or seek or be promised (directly or indirectly) for itself or for another person or entity any gift, gratuity, favor or benefit, other than items of *de minimis* value and otherwise consistent with such guidance as MCC may provide from time to time. The Consultant shall ensure that none of its officers, directors, employees, affiliates, contractors, subcontractors, agents, advisors or representatives engage in any activity which is, or gives the appearance of being, a conflict of interest in connection with this Contract. Without limiting the foregoing, the Consultant shall comply, and ensure compliance, with the applicable conflicts of interest and ethics policies of the MCA Entity as provided by the MCA Entity to the Consultant.

I. Inconsistencies

In the event of any conflict between this Contract and the Compact and/or the Disbursement Agreement or the Procurement Agreement/Program Implementation Agreement, the term(s) of the Compact and/or the Disbursement Agreement or the Procurement Agreement/Program Implementation Agreement shall prevail.

J. Other Provisions

The Consultant shall abide by such other terms or conditions as may be specified by the MCA Entity or MCC in connection with this Contract.

K. Flow-Through Provisions

In any subcontract or sub-award entered into by the Consultant, as permitted by this Contract, the Consultant shall ensure the inclusion of all the provisions contained in paragraphs (A) through (J) above.

Appendix H

Appendix H - Terms of Reference

Terms of Reference (TOR)

1. Definitions and Abbreviations

AIA: Archeological Impact Assessment

CPB: Joint Venture Consulta S.A. de C.V./Parsons Brinckerhoff Int. Inc.

CPM: Connectivity Project Manager

Connectivity Project: It has the meaning set forth in the Preamble of Schedule 3 to Annex I of the Compact.

Connectivity Project Coordinator: Person within FOMILENIO responsible for the institutional management of the Connectivity Project.

Connectivity Project Manager (CPM): Consulting Firm for rendering services under this contract.

Construction Contractors: Any contractor responsible for the construction of works under the Connectivity Project.

EIA: Environmental Impact Assessment

EMP: Environmental Management Plan

Environmental and Social Impact Director (ESID): Person within FOMILENIO responsible for environmental and social impact management and compliance with applicable environmental laws and guidelines.

FLMR: Fully Loaded Monthly Rate for personnel all inclusive of all and any direct and indirect costs.

FOMILENIO: Fondo del Milenio.

FOSEP: Fondo Salvadoreño para Estudios de Preinversión

FOVIAL: Road Maintenance Fund.

FS: Feasibility Study

GDP: Gross Domestic Product

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GOES: Government of El Salvador

MCC: Millennium Challenge Corporation

MOPTVDU: Ministry of Public Works, Transportation, and Housing and Urban Development.

NCR: Network of Connecting Roads

NTH: Northern Transnational Highway

PA: Procurement Agent of FOMILENIO

PAP: Project Affected Person

Project: Connectivity Project

RAP: Resettlement Action Plan

RFI: Request for Information

RFP: Request for Proposals

Resident Engineer: Principal on-site engineer and point of contact for the construction contractor.

ROW: Right of Way

Study and/or Design Consultants: Consulting firms preparing or which have prepared the feasibility studies (FS), environmental impact assessments (EIA), and/or final designs (FD) related to the Connectivity Project.

TOR: Terms of Reference

UIPC: Connectivity Project Implementation Unit (Unidad de Implementación del Proyecto de Conectividad) of the MOPTVDU

2. Introduction

El Salvador is a country of approximately 6.9 million people, located in Central America, bordering the North Pacific Ocean, between Guatemala and Honduras. Approximately 35 percent of its population lives in poverty, with a high incidence of extreme poverty in rural areas. El Salvador's civil conflict of the 1980s cost the lives of over 70,000 Salvadorans and destroyed much of the country's infrastructure. The rural areas, particularly in the northern region of the country, were most affected. During those war years, human capital formation lagged, GDP declined, public investment was deferred, deterioration of the natural resource base accelerated, and migration to the United States of America increased. By the end of the 1980s, about two-thirds of the Salvadoran population was living in poverty. In 1989, a new government embarked on a major stabilization and structural adjustment program and initiated peace negotiations, reaching a Peace Accord in early 1992. El Salvador has

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made substantial progress in improving its economic and social conditions and building its democratic institutions in the last 20 years; nonetheless, a significant portion of its population remains in poverty, without access to good jobs or basic social services, and continuing environmental deterioration poses risks for sustainable development.

In November 2005, El Salvador was declared eligible to present a proposal to MCC. **The Government of El Salvador (GoES)** prepared a proposal focused on the Northern Zone of the country, a region that includes one-half of El Salvador's poorest municipalities, that suffered more than any other from the 1980s civil conflict, and that has substantial unrealized potential for sustainable development. The Northern Zone is also an important source of water, energy, biodiversity and environmental resources of El Salvador and Central America. The objectives of the Program included in the proposal were designed to advance El Salvador's fulfillment of the broadly shared aspiration to unite the northern third of the national territory with the rest of the country and lift this isolated region's people out of poverty.

In this context, the Government of El Salvador (GoES) received a US\$ 460.9 million grant aid from the Government of the United States of America through the Millennium Challenge Corporation (MCC), a US Government corporation. Subject to the terms and conditions of related agreements, and the availability of funds, the Parties have identified three component Projects that GoES will implement: (i) Human Development Project; (ii) Productivity Development Project; and (iii) Connectivity Project.⁵

3. Connectivity Project Description

This section describes and summarizes the key elements of the project to be implemented in furtherance of the Connectivity Objective (the "**Connectivity Project**").

The Connectivity Project addresses the issue of the Northern Zone's physical isolation in an attempt to fully integrate this region into the development plans of El Salvador. The isolation of the Northern Zone is an impediment to its development and a contributor to the widespread poverty that affects more than half of households in the Northern Zone. Improving transportation connectivity in the Northern Zone will stimulate human and productive development by reducing the time and cost of travel, facilitating access to markets, encouraging regional development and productive land use, attracting investment, and improving access to health and education services.

Current road conditions and, in some places, the lack of roads have contributed to the isolation of the Northern Zone. With the Connectivity Project, 57 municipal capitals within El Salvador will be linked by a reliable, paved road. Currently, 23 of the 57 municipalities have only unpaved dirt roads. During periods of heavy rain, the current roads - especially unpaved roads - can become impassable. In the Northern Zone, many neighboring communities do not have direct, reliable transport routes connecting them, so community members must travel long distances, or over difficult conditions, to access services or markets in neighboring communities.

The Connectivity Project will provide significantly greater access that will alleviate these difficulties as well as decrease travel time and vehicle operation and maintenance costs.

The Connectivity Project will apply MCC Funding to the completion of a two-lane transnational highway across the Northern Zone (the "**Northern Transnational Highway**" or **NTH**), which will serve as a transport artery within the Northern Zone and will augment international connectivity through two new border crossings, one with Honduras in the east and one with Guatemala in the west. In addition, the Connectivity Project will fund improvements to a strategic network of connecting roads

⁵ For more information please visit the websites www.fomilenio.gob.sv or www.mcc.gov.

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(the "*Network of Connecting Roads*" or *NCR*). The Network of Connecting Roads will provide reliable paved roads to foster the connection of remote municipalities and rural villages of the Northern Zone with the NTH and other regional and national traffic routes.

MCC Funding will support the following Project Activities:

- a) *Northern Transnational Highway*: To design and construct openings of approximately 50 km of secondary² roads; to improve approximately 160 km to secondary road standards; and to rehabilitate approximately 80 km to secondary road standards³; and
- b) *Network of Connecting Roads*: To improve approximately 240 km to modified tertiary road⁴ standards.

The map shown in Figure 1 indicates the tentative alignment of the NTH and the NCR.

It is important to remark that according to the Compact, in the case that the funds assigned from MCC for each activity are not enough to complete all the objectives of the Connectivity Project, the Government of El Salvador has committed to provide necessary additional funds to complete all services or works. In the same context, The Government of El Salvador has the responsibility to complete any contract obligation for any contract for services or works still on force in the case that the validity period of the Compact expires and there are still on going services or works.

The following summarizes each Project Activity under the Connectivity Project:

Project Activity: Northern Transnational Highway (the "Northern Transnational Highway Activity") - NTH

The Northern Transnational Highway (NTH) will provide contiguous and reliable access to communities in the Northern Zone, as well as to main transport corridors, thereby enabling the Northern Zone to participate more fully in the national and regional economy. When completed, the NTH will extend across El Salvador from Guatemala in the west to Honduras in the east, and will connect with roads to southern El Salvador, to the new Pacific Ocean port at La Union in eastern El Salvador and to the Caribbean ports in Guatemala (Puerto Barrios) and Honduras (Puerto Cortez). Primarily, the NTH will follow a course of existing roads; with only 50 km of new roads needed to connect the different sections of road to form a continuous transnational paved surface.

As El Salvador increases its participation in international and regional markets through the Central America-Dominican Republic-United States Free Trade Agreement (CAFTA-DR) and Plan Puebla-Panama activities, the NTH will provide valuable access to a wider range of opportunities for the

² "Secondary" roads are composed of a paved traveled way of two 3.25 m wide lanes (6.50 m traveled way) and 1.5 m wide shoulders, and include surface drainage.

³ The work to be performed on the NTH and the NCR can be classified by the following standard descriptions: (i) "improvement" means that the geometric characteristics of an existing road are changed to raise the standards of the road; this type of work implies widening of lanes, adding or widening shoulders, increasing the minimum radius of curvature, decreasing maximum slopes and paving unpaved roads; (ii) "rehabilitation" means that the general geometric characteristics, except width, of an existing paved road are maintained; this work requires improving pavement surface or pavement structure or drainage; and (iii) "opening" a new road means that no road exists; in connection with such work cuts often occur on the slopes in mountainous zones and significant modification of the topography often occurs, at least within the area of influence of the road.

⁴ "Modified tertiary roads" are roads that have a paved traveled way of 6.0 m and 1.0 m shoulders, and include drainage structures. These modified tertiary roads will contribute greatly to improving mobility in the Northern Zone and to the success of the Human Development Project and Productive Development Project.

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communities of the Northern Zone. Reliable and efficient transportation schemes are essential to El Salvador's participation in international and regional markets, and especially essential to small, local producers and suppliers. Currently, the Northern Zone has neither a reliable nor an efficient transport route for the goods and services of the communities in the Northern Zone. The Northern Transnational Highway Activity will provide wide-ranging benefits, including helping produce to arrive at markets undamaged and in a timely manner, allowing efficient access of public services such as ambulances and public transportation, and reducing vehicle operation and maintenance costs.

Related to the geometric characteristics of the roads, the NTH will be a Secondary road type. The Table 1 shows the main characteristics for this type.

Table 1 - Minimum Criteria for Secondary Road Type

Design Criteria	Plain Terrain	Waved Terrain	Mountainous Terrain
Design Speed	80 Km/h	70 Km/h	50 Km/h
Maximum Slope	5%	6%	8%
Minimum Radius	150.00 m	100.00 m	60.00 m
Minimum distance between horizontal curves	60.00 m	60.00 m	60.00 m
Minimum Distance for Speed	130.00 m	100.00 m	80.00 m
Road Width	9.50 m	9.50 m	9.50 m
Pavement Width	6.50 m	6.50 m	6.50 m
Shoulder Width	1.50 m	1.50 m	1.50 m
Road Width on Bridges	7.40 m	7.40 m	7.40 m
Right of Way Width	20.00 m	20.00 m	20.00 m
Width of Retirement Zone	10.00 m	10.00 m	10.00 m
Design Load for Bridges	1.25 HS20-44	1.25 HS20-44	1.25 HS20-44
Surface Type	To be defined	To be defined	To be defined

Subject to modifications based on findings of the feasibility study, the NTH can be described by road sections, as follows:

Table 2 - Sections of the Northern Transnational Highway

Sections of NTH	Description	Length (km)
Section 1	La Virgen to Metapan	19.22
Section 2	Metapan to Nueva Concepcion	37.05
Section 3	Chalatenango to La Trinidad	43.65
Section 4	La Trinidad to Nuevo Eden de San Juan	55.65
Section 5	Nuevo Eden de San Juan to Detour to Ciudad Barrios	38.85
Section 6	Detour to Ciudad Barrios to Corinto	53.32
Section 7	Corinto to Concepcion de Oriente	43.07
TOTAL		290.81

The map shown in Figure 2 indicates the tentative sections of the NTH according to the above table.

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Some sections of the NTH, mainly between La Virgen and Nuevo Eden de San Juan (Sections 1 to 4), include construction of new major bridges for crossing important rivers, such as the Lempa River, which would be the longest bridge in the country. Therefore for purposes of the preparation of the proposals, the possible bidder shall consider the supervision of these main structures as indicated in the following Table 3:

Table 3 - Main Bridges of the Northern Transnational Highway by Section

Sections of NTH	Length of Bridge	Number
Section 1	From 10 to 50 m	1
	From 50 to 100m	3
Section 2	From 50 to 100m	1
	210 m	1
Section 3	From 10 to 50 m	3
	From 50 to 100m	3
	210 m	1
Section 4	From 10 to 50 m	8
	From 50 to 100m	1
	360 m	1
Section 5	From 10 to 50 m	5
Section 6	---	---
Section 7	From 10 to 50 m	2
	From 50 to 100m	3

Specifically, MCC Funding will support the following on the NTH:

- i. Design; environmental assessment, as needed (to include, if necessary, supplemental EIAs, EMPs, and RAPs); and construction activities for the opening, improvement, or rehabilitation of approximately 290 km of the NTH;
- ii. Implementation of environmental and social mitigation measures as identified in the EIA, or as otherwise may be appropriate, to include compensation for physical and economic displacement of individuals, residences and businesses affected by such rehabilitation and construction, consistent with the World Bank's Operational Policy on Involuntary Resettlement (OP 4.12), and implementation of HIV/AIDS awareness plans satisfactory to MCC;
- iii. Design and construction of drainage structures, as may be required;
- iv. Design and construction of all necessary new bridges and rehabilitation of existing bridge structures, as may be required;
- v. Posting of signage and incorporating other safety improvements;

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- vi. Project management, supervision and auditing of such improvements and upgrades; and
- vii. Training in environmental management.

Project Activity: Strategic Network of Connecting Roads (the “Network of Connecting Roads Activity”) - NCR

Under current conditions, many rural roads in the Northern Zone are virtually impassable without a four-wheel drive vehicle. In addition, considering the high rainfall and flooding levels common in the region, these roads are not only inefficient, but also dangerous.

By improving approximately 240 km of primarily dirt roads to modified tertiary road status, the Connecting Roads Activity will connect vast rural areas of the Northern Zone with the NTH and with the existing paved road network. The improvement of connecting roads will improve transportation linkage and reduce transportation costs and time. Northern Zone residents will have mobility within their hometowns and will have access to territories beyond their usual boundaries.

Related to the geometric characteristics of the roads, the NCR will be a Tertiary Modified road type. The following Table 4 shows the main characteristics for this type.

Table 4 - Minimum Criteria for Tertiary Modified Road Type

Design Criteria	Plain Terrain	Waved Terrain	Mountainous Terrain
Design Speed	60 Km/h	50 Km/h	40 Km/h
Maximum Slope	6%	8%	10%
Minimum Radius	150.00 m	100.00 m	40.00 m
Minimum distance between horizontal curves	50.00 m	50.00 m	50.00 m
Minimum Distance for Speed	130.00 m	100.00 m	80.00 m
Road Width	8.00 m	8.00 m	8.00 m
Pavement Width	6.00 m	6.00 m	6.00 m
Shoulder Width	1.00 m	1.00 m	1.00 m
Road Width on Bridges	7.40 m	7.40 m	7.40 m
Right of Way Width	20.00 m	20.00 m	20.00 m
Width of Retirement Zone	10.00 m	10.00 m	10.00 m
Design Load for Bridges	1.25 HS20-44	1.25 HS20-44	1.25 HS20-44
Surface Type	To be defined	To be defined	To be defined

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Subject to modifications based on findings of the feasibility study, NCR can be described by road segments, as follows:

Table 5 - Sections of the Network of Connecting Roads

Description		Length (km)
Group 1	Connecting Roads of the Western Zone	85.57
VT-5	Masahuat – Santa Rosa Guachipilín	12.25
VT-6	Nueva Concepción - Texistepeque	27.29
VT-7	San Fernando – Dulce Nombre de María	31.00
VT-11	San Francisco Morazán – Tejutla – El Paraíso	15.03
Group 2	Connecting Roads of the Central Zone	87.24
VT-1	San José Cancasque – Potonico – Cerrón Grande – Jutiapa – Tejutepeque y Ramal	23.04
VT-4	Ilobasco – Presa 5 de Noviembre	32.40
VT-8	San Miguel de Mercedes – San Antonio Los Ranchos – Potonico	14.93
VT-16	Nombre de Jesús – Arcatao	16.87
Group 3	Connecting Roads of the Eastern Zone	65.57
VT-2	Sesóri – Et. SAM31E (San Luis de la Reina)	15.30
VT-3	Anamorós – Lislique	8.50
VT-13	Perquín – Paso del Mono	13.17
VT-15	CA:7 – Arambala – Joateca	17.80
VT-17	SAM33, Cantón El Carrizal – San Antonio	7.15
VT-18	MOR13W, San Simón – San Isidro	3.65
Total Length of NCR		238.38

Note: VT means Vialidad Transversal (connecting road)

The map shown in Figure 3 indicates the tentative groups of the NCR according to the above table.

The NCR also includes major structures as bridges which shall be considered for purposes of the preparation of the proposals in the supervision of these structures, as indicated in the following Table 6.

Table 6 - Main Bridges of the Network of Connecting Roads by Group

Group of NCR	Length of Bridge	Number
Group 1	From 10 to 50 m	1
	270 m	1
Group 2	From 10 to 50m	4
Group 3	From 10 to 50 m	1

Specifically, MCC Funding will support the following on the NCR:

- i. Design; environmental assessment, as needed (to include, if necessary, supplemental EIAs, EMPs, and RAPs); and construction activities for the improvement of approximately 240 km of the NCR
- ii. Implementation of environmental and social mitigation measures as identified in the EIA, or as otherwise may be appropriate, to include compensation for physical and economic displacement of individuals, residences and businesses affected by such rehabilitation and

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construction, consistent with the World Bank's Operational Policy on Involuntary Resettlement (OP 4.12), and implementation of HIV/AIDS awareness plans satisfactory to MCC;

- iii. Design and construction of drainage structures, as may be required;
- iv. Design and construction of all necessary new bridges and rehabilitation of existing bridge structures, as may be required;
- v. Posting of signage and incorporating other safety improvements;
- vi. Project management, supervision and auditing of such improvements and upgrades; and
- vii. Training in environmental management.

4. Consulting Services under way: "Mejoramiento de la Red Vial de la Zona Norte de El Salvador" – *Consulta S.A. de C.V.-Parsons Brinckerhoff Int. Inc.*

Since the Compact has a fixed five-years period for implementation, the GoES through the Ministry of Public Works, Transportation, and Housing and Urban Development (MOPTVUDU, by its acronym in Spanish), in order to expedite the execution period of the Connectivity Project, prior the entry into force of the Compact decided to hire a consulting firm to carry out the studies named "*Mejoramiento de la Red Vial de la Zona Norte de El Salvador*" (Improvement of the Road Network of the Northern Zone of El Salvador) financed by the Fondo Salvadoreño para Estudios de Preinversión (FOSEP). The studies were awarded to the joint venture *Consulta S.A. de C.V. – Parsons Brinckerhoff Int. Inc.* (CPB) according to the contract and a Letter of Understanding No 1, the period for the execution of the study is from March 5, 2007 to June 28, 2008.

The studies to be done by CPB are:

For the NTH

- (i) Technical and economic feasibility for 290 km (Sections 1 to 7);
- (ii) Environmental impact assessment for 290 km (Sections 1 to 7) (environmental and social - RAP);
- (iii) Final engineering design for only 155 km (Sections 1 to 4)

For the NCR

- (i) Technical and economic feasibility for 240 km;
- (ii) Environmental impact assessment for 240 km; (environmental and social – RAP)

In more detail, the services to be provided by this firm correspond to:

- Feasibility Study – Technical and Economical - (FS) for 530 km (290 km on the NTH and 240 km on the NCR) corresponding to the MCC program
- Environmental Impact Assessment and RAP for 530 km (290 km on the NTH and 240 km on the NCR) corresponding to the MCC program.

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- Final Engineering Design for 155 km on the NTH (Sections 1 to 4 – from La Virgen to Nuevo Eden de San Juan)) only corresponding to the MCC program

The delivery dates of the different Final Reports, [prior to MOPTVDU approvals, for each of the studies are:

- Feasibility Study (NTH + NCR) June 28, 2008
- Environmental Impact Assessment and RAP (NTH + NCR) June 28, 2008
- Final Design of NTH (155 km)
 - Section 2 (from Metapan to Nueva Concepcion) May 30, 2008
 - Estimated:
 - Section 1 (from La Virgen to Metapan) August, 2008
 - Section 3 (from Chalatenango to La Trinidad) August, 2008
 - Section 4 (from La Trinidad to Nuevo Eden de San Juan) August, 2008

At the time to commence the consulting services for CPM, the objective of this RFP, it is expected that the final reports of the study “Mejoramiento de la Red Vial de la Zona Norte de El Salvador” will have been completed and approved by MOPTVDU as owner of the study, and will provide the basic inputs for the further steps in the implementation of the Project. The responsibilities of the CPM in relation to these reports are explained in Section 8 “Description of Services” of these TOR, covering the following three areas:

4.1 Feasibility Study (Technical-Economic)

The Feasibility Study of the Project including technical and economic evaluation, will determine the best route and the capacity of the road network in the northern zone of El Salvador, with a minimum construction cost and maximum operation level, establishing according to clearly defined criteria, a priority order for execution in such a way to secure that the project is technically and economically feasible. Besides, the selection of the best route shall consider the option with lower environmental and social impact.

The feasibility study shall conclude in the selection of the route for the whole project for which the final design will be prepared, defining the following project parameters:

- Topographic condition of the geometric axes of the route in plan and profile for each section of the Project.
- Cross section of each section of the project.
- According to the selected route, to determine the points for location of interchanges, accesses and exits, which shall be properly designed.
- Packages or sections for construction and a construction schedule.
- Total required investment for the project (by packages and sections).
- Estimation of cost for operation and maintenance and proposal of finance options to obtain necessary funds for sustainable operation and maintenance processes.

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The Final Report of the Feasibility Study will be presented in a format including an Executive Summary, Report,, Drawings and Cost Estimate.

The main text of the report will include:

- Influence zone of the project
- Environmental impact assessment
- Socio-economic study of the influence zone
- Traffic study
- Geologic study
- Seismic study
- Geotechnical study
- Hydrology and hydraulic study
- Geometric specifications
- Proposal of pavement structure
- Pedestrian crossings
- Collective transport
- Intersections
- Rights of way
- Investment cost
- Maintenance cost
- Operation cost
- Savings in operation cost
- Savings in travel time
- Savings in reduction of accidents
- Economic and financial evaluation
- Sensibility analysis
- Optimization in time
- Distributed impact of benefits
- Description and justification of proposed alternatives
- Determination of recommended alternative
- Monitoring and evaluation plan and baseline data
- Risk management plan.

As minimum, this report will include also the following drawings:

- Route Plan
- Route Profile
- Typical cross sections
- Plan of intersections
- Plan for access to public transportation
- Plan of lots and utilities affected by the right of way
- Plan of signage and road safety
- Geologic drawings

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- Seismic zoning drawings
- Geotechnical drawings
- Digitalized aerial photos showing the alignment and explanation of all alternative routes

The study will also include preliminary cost estimation (at feasibility level) with work quantities and estimated unit prices for at least the following cost-items:

- Earthworks
- Retention walls
- Minor drainage structures
- Major drainage structures and bridges
- Pavement structure
- Horizontal and vertical signage
- Intersections
- Rights of way
- Implementation of environmental measures
- Detour of affected utilities
- Detour of accesses for affected properties
- Plan for provisional detours and signage

4.2 Environmental Impact Assessment

This study will include the detailed qualitative and quantitative description of the subprojects and of the global project, characterization of the environment, identification of significant environmental and social impacts, positive or negative, the cumulative impacts and the prevention, reduction or compensation measures, which shall be structured into an *Environmental Management Plan (EMP)*. For subprojects which require the relocation of persons it will be necessary to include a *Resettlement Action Plan (RAP)* which shall be additional to the EMP.

The *Environmental Impact Assessment (EIA)* will include as minimum the following:

- Title and authors.
- Executive Summary of the Study.
- Introduction.
- Description of the global Project, subprojects and proposed sections.
- Legal considerations and environmental laws related to the Project.
- Baseline data: description, characterization and quantification of the existing environment (qualitative or quantitative), of the physical, biologic, socioeconomic and landscaping components of the site and influence to be studied.
- Identification, prioritization, forecasting and quantification of the direct and indirect environmental impacts, induced or cumulative social impacts due to the project: global, subprojects and proposed sections.
- Interpretation of the results of the cost-benefit analysis, feasibility and efficiency, considering technical, economic, social and environmental factors for the proposed alternatives for each section, subproject and global project.

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- Analysis of alternatives
- Preparation of the *Environmental Management Plan (EMP)* which shall also include and information and communication plan during the construction stage.
- Preparation of the *RAP* according to the Operational Policy OP-4.12 of the World Bank.
- Preparation of the *HIV/AIDS Awareness Plan*
- Record of the public consultations, information meetings and meetings with local authorities, communitarian organizations and general public made during the study.
- Appendixes.

4.3 Final Engineering Design (155 km of the Northern Transnational Highway)

The final design carried out under the study “Mejoramiento de la Red Vial de la Zona Norte de El Salvador” covers the portion of the NTH from La Virgen in Santa Ana province to Nuevo Eden de San Juan in San Miguel province (Sections 1 to 4), with an approximate length of 155 km.

The final design report shall include as minimum the following:

- Topographic study
- Geometric design
- Right of Way and Relocation of Utilities
- Geotechnical study
- Hydrologic and hydraulic studies
- Pavement design
- Drainage works
- Bridges design
- Intersections design
- Earthworks
- Road safety, pedestrian crossings and signage
- Work quantities
- Unit Cost
- Construction schedule
- Cost Estimation of the project
- Drawings
- Technical Specifications

5. Objectives of the TOR for the Consulting Services Requested

The Connectivity Project is an emblematic project for which the inhabitants of the Northern Zone have been waiting for more than 60 years for its realization. The efficient implementation of the Project is crucial for the success of the Compact as a whole.

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FOMILENIO's implementing framework considers the participation of consulting firms with the technical competence in designs, construction supervision and project management as a first step to increase the probability of success. However, project success cannot be achieved without the application of international best practice in project management.

This is why FOMILENIO has decided to hire consulting firms (named as *Connectivity Project Manager - CPM*) to provide project management and supervision services in order to achieve the best possible outcome of the Connectivity Project.

Project management is understood as the application of knowledge, skills, tools and techniques to project activities to meet project requirements in technical matters as well as managing the scope of implementation and timing of deliveries. FOMILENIO expects that the CPM would accomplish its tasks by means of an integrated project management process of planning, initiating, executing, monitoring supervising, and controlling. The CPM is expected to promptly advise FOMILENIO on any necessary adjustments to the road construction implementation plans resulting from real time response and rapid follow-up in the field on technical issues. The CPM is expected to apply best international practices in management of road projects to assure that project deliverables meet their accepted objectives according to the related contract(s).

Under the framework explained above, the objectives of this Terms of Reference are as follows:

- a) Provide potential consulting firms the geographic reference of where the project will be executed;
- b) Provide potential consulting firms an overview of the magnitude of the Connectivity Project and the type of services to be rendered under this procurement process;
- c) Describe the minimum scope of services required for the CPM;
- d) Define the period for the services under this procurement process;
- e) Define the minimum tasks to be performed by the CPM;
- f) Describe the implementing structure of the Connectivity Program;
- g) Define the minimum content and period for submission of deliverables by the CPM;
- h) Define the minimum requirements for key personnel.

In relation to the Connectivity Project, part of the funds of the Compact are assigned to finance the following activities:

- a) Pending studies for portions of the 530 km :
 - NTH: Final design of the remaining 135 km (Nuevo Eden de San Juan to Concepción de Oriente) – Sections 5 to 7
 - NCR: Final design of the 240 km (Groups 1, 2 and 3)
- b) Construction of the 290 km of the NTH and 240 km of the NCR

The pavement structure could be either flexible or rigid type, for the NTH and/or the NCR, depending

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on the results of the Feasibility Study and Final Design.

As a complement to the study “*Mejoramiento de la Red Vial de la Zona Norte de El Salvador*”, FOMILENIO is also hiring a consultant to carry out an Archeological Impact Assessment (AIA) which will be carried out along the NTH and the NCR. The conclusions of this study will be considered as input for the final design works. The AIA includes:

- Archeological Assessment
- Archeological Prevention and Rescue Plan and activities
- Monitoring and contingency plan

Table 7 shows the status of the main activities for the NTH and NCR:

Table 7 – Status of Main Activities of NTH and NCR

Major activities	NTH-155km Sections 1, 2, 3, 4	NTH-135 km Sections 5, 6, 7	NCR-240 km Groups 1, 2 and 3
1. Feasibility Studies	In progress	In progress	In progress
2. Final Engineering Design	In progress	Future tender by FOMILENIO	Future tender by FOMILENIO
3. Design supervision	Pending (by CPM)	Pending (by CPM)	Pending (by CPM)
4. Environmental Impact Assessment	In progress	In progress	In progress
5. Right of Way and Resettlement	Future tender by FOMILENIO	Future tender by FOMILENIO	Future tender by FOMILENIO
6. Construction supervision	Pending (by CPM)	Pending (by CPM)	Pending (by CPM)
7. Construction contractors	Future tender by FOMILENIO	Future tender by FOMILENIO	Future tender by FOMILENIO

“**In Progress**” means that the consulting services are under way by CPB.

“**Pending**” means that those activities are to be performed by the CPM to be contracted.

“**Future tender by FOMILENIO**” means that the activity corresponds to works and consulting services to be tendered by FOMILENIO through the Procurement Agent.

6. Location for Services

The CPM is expected to maintain an office in San Salvador at a location acceptable to FOMILENIO, and shall house all key personnel in this office. This office shall be managed by the Chief of Party who shall be resident in El Salvador for the whole period of the services. It is expected that the same Chief of Party serve throughout both the base and optional contracts periods. Other ad-hoc experts shall work either for the whole period or short-term periods accordingly to the responsibilities assigned in the CPM’s implementation strategy, to supervise and conduct activities of Phase 1, Phase 2 and optional Phase-3. During the construction phase, the CPM will be required to provide full time supervision of construction activities with suitable personnel at each of the construction sites where work is occurring. Office space at these sites for this activity is to be provided by the construction contractor

7. Overview of Scope of Services

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The intent of these Terms of Reference (TOR) is to retain the services of an experienced and reliable Consultant to manage the implementation of the Connectivity Project. The selected Consultant, called Connectivity Project Manager (CPM) shall provide the following main services for the Connectivity Project of the Compact, to be described in detail in the subsequent sections of this TOR:

4. Connectivity Project Management Services
5. Supervision of Design Consultants
6. Supervision of Construction Works

7.1 Institutional Roles and Responsibilities

FOMILENIO, the entity established by GoES to implement the Compact, is the Client for these services and is responsible for the institutional management of the Compact. FOMILENIO will be assisted by the Connectivity Project Implementation Unit (Unidad de Implementación del Proyecto de Conectividad - UIPC) of the MOPTVDU for technical support in managing the Connectivity Project; and will be supported by the Procurement Agent for procurement and contract administration of all related activities of the Compact. Therefore, in a general distribution of responsibility, the UIPC will support FOMILENIO on technical matters, where the UIPC serves as the Employer's Technical Representative; and, FOMILENIO (with the assistance of its PA) will manage the administrative aspects of the CPM contract.

The Ministry of Public Works, Transport and Housing and Urban Development (MOPTVDU), according to that which is established in the Highways and Rural Roads Law (Ley de Carreteras y Caminos Vecinales), is the government institution in charge of the planning, construction and improvements of the national road system, of which the Connectivity Project forms a part.

Within this context and in the aspects related to the Connectivity Project, MOPTVDU, as the normative and ruling entity in the transport and road sector, has the following main roles:

- a) Approve the technical standards which rule the design and construction of the national road network, and any variations thereof, required during implementation
- b) Verify the application of the referred standards
- c) Approve changes and variations in technical standards resulting from feasibility and design studies
- d) Accept the road works to be constructed within the scope of the Connectivity Project
- e) Represent the GOES for the acquisition and administration of the right of way related to the Connectivity Project
- f) Verify the application of road safety regulations on civil works
- g) Obtain the necessary environmental permits from MARN prior to construction
- h) Keep close coordination with FOVIAL to ensure the sustainability of the roads built with MCC's fund.

For this CPM contract the UIPC will serve as the representative of MOPTVDU.

FOMILENIO reserves the right to modify the management arrangements of the CPM Consultant as needed by FOMILENIO at any time, in general accordance with FIDIC contracting documents. For example, FOMILENIO may form a Project Technical Committee for certain decisions and approvals of

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matters related to the CPM services under these TOR. Such committee may include one representative of FOMILENIO, one representative of UIPC of MOPTVDU and one representative of the Procurement Agent. Such committee may be in charge of analyzing certain recommendations or proposals (and any reports thereof) submitted by the CPM, and making necessary decisions and approvals. In general accordance with the FIDIC contracting documents, such decisions and approvals may include only those not directly provided to the Engineer. Such decisions will then be communicated to CPM by FOMILENIO. The following list includes possible examples of such decisions and approvals which will be made by such committee:

- Change orders;
- Time extensions;
- Changes to Implementation Plan; or
- Changes in the Project Budget.

The CPM Consultant shall act as the Management and Supervisory Agent of FOMILENIO for the Connectivity Project, e.g., as Employer's Representative where FOMILENIO is considered the Employer (or the Client). FOMILENIO's Connectivity Coordinator, who also chairs the UIPC, shall be the primary point of contact for the CPM. The MOPTVDU, through UIPC, shall have authority to review all technical matters related to these services, including any reports submitted by the CPM. The CPM shall have full responsibility of providing approvals, in general accordance with FIDIC contract documents of any products prepared by the design consultants and construction contractors in the implementation of the Connectivity Project. The CPM shall also be fully responsible to provide technical and project management recommendations related to any and all products prepared by the design consultants and construction contractors in the implementation of the Connectivity Project.

The CPM shall work in close coordination with the Connectivity Project Coordinator, the Social Viability and Land Tenure Specialist and the Environmental and Social Impact Director (ESID) of FOMILENIO and with the UIPC to develop and execute appropriate management, supervision and monitoring procedures for assuring compliance with technical, environmental and social requirements. The CPM shall also coordinate with other FOMILENIO officials or FOMILENIO contractors, such as the PA, when necessary to properly coordinate related activities under its responsibility.

The CPM is solely responsible for the execution of all direct or implicit duties described herein, and shall be the only agent (Employer's Representative) authorized by FOMILENIO to provide such products or services.

7.2 General Timing of Services

Under the terms of the Compact, funding for the MCC program expires on September 20, 2012 and therefore all projects have been scheduled to be completed in advance of the deadline of the Compact term. The term of the contract for the CPM is expected to be for the remaining period until the Compact expires, from approximately August 2008 to September 2012 making an estimated 50-month total period for the services, including the phases described below.

For the NTH, the estimated period for the services of Phase-1 is of 18 months, for Phase-2 of 33 months) and for the optional Phase-3 of 18 months. However, for optional Phase-3, a three-month liquidation period for construction contracts will be added so that duration of Phase -3 is expected to be

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a total of 21 months.

For the NCR, the estimated period for the services of Phase-1 is of 18 months. For optional Phase-2 is planned for 18 months. However, for Phase-2, a three-month liquidation period for construction contracts will be added so that Phase-2 duration is expected to be a total of 21 months.

As a reference in the preparation of the proposals, the possible Consultants shall consider the following schedule for the design supervision activities and for the construction supervision activities, as approved in the Implementation Plan of FOMILENIO.

Table 8 – Tentative Schedule of Implementation Plan of the Connectivity Project

Sections of NTH	Design Period	Construction Period
Section 1	On going by CPB	March 2010 – August 2011
Section 2	On going by CPB	November 2008 – May 2010
Section 3	On going by CPB	April 2009 – April 2011
Section 4	On going by CPB	April 2009 – April 2011
Section 5 (*)	November 2008 to June 2009	March 2010 – August 2011
Section 6 (*)	November 2008 to June 2009	March 2010 – October 2011
Section 7 (*)	November 2008 to June 2009	March 2010 – October 2011
Groups of NCR	Design Period	Construction Period
Group 1 (*)	November 2008 to June 2009	March 2010 – August 2011
Group 2 (*)	November 2008 to June 2009	March 2010 – August 2011
Group 3 (*)	November 2008 to June 2009	March 2010 – August 2011

() Since design consulting services contracts will also include the implementation of the RAP for acquisition of the ROW, the period of design services is extended up to March 2010*

It is important to note, that even though Section 1 (from La Virgen to Metapan) of the NTH is under design at this moment as part of the study “Mejoramiento de la Red Vial de la Zona Norte de El Salvador”, it has been designated a low priority for construction, with final decisions about its inclusion to be based on results of the feasibility study and availability of funds. At this time Section 1 has been tentatively scheduled for construction at the same time as Sections 5, 6 and 7, if deemed feasible and subject to availability of funds.

7.3 Phases of the Services

FOMILENIO seeks to hire a consultant firm CPM, to provide the following services in two PACKAGES (NTH and NCR), as follows:

7.3.1 PACKAGE I: NTH

This PACKAGE for the NTH consists of a base contract including two Phases, and an optional contract including an optional Phase 3, as follows:

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7.3.1.1 BASE CONTRACT

Phase 1

- **Project Management Services and Supervision of the Consultants responsible for the Final Design of Sections 5, 6 and 7 of the NTH (from Nuevo Eden de San Juan to Concepcion de Oriente):** Activities include, but are not limited to: **a)** Project management process of initiating, planning, executing, monitoring, supervising, controlling, and advising prompt adjustments to the designs implementation plans as a result of a close technical and on the ground follow up, applying best practices in the technical field until final deliveries are accepted accordingly to the related contract(s) and thus closing the implementation; **b)** reviewing the final deliverables for feasibility study and environmental impact assessment of the project, the ROW and the RAP in order to make any necessary adjustment to proceed with the procurement process for designs not covered in the referred study, if any fatal flaw is detected; and **c)** supervising and managing the deliverables and providing quality control for design consultancies, project scheduling, and project reporting, assistance in the preparation technical specifications of the final design and in the preparation of "Works Requirements" (Bill of Quantities, Technical Specification for Works) for construction of 135 km that will be financed with MCC's funds.

Phase 2

- **Project Management Services and Supervision of the Construction Contractor(s) responsible for construction of Sections 2, 3 and 4 of the NTH (from Metapan to Nuevo Eden de San Juan):** Activities include, but are not limited to: **a)** Project management process of initiating, planning, executing, monitoring, supervising, controlling, and advising prompt adjustments to the construction implementation plans as a result of a close technical and on the ground follow up, applying best practices in the technical field until final deliveries are accepted accordingly to the related contract(s), and thus closing the implementation; **b)** reviewing the final deliverables for final design of 155 km of the NTH (from La Virgen to Nuevo Eden de San Juan), which also includes design of Section 1 (eventough the decision for construction of Section 1 is still pending, and could be possible included in optional Phase 3) in order to make any necessary adjustment to go ahead with the procurement process for construction, if any fatal flaw is detected; and, **c)** supervising the construction contractor(s), scheduling, managing Requests for Information (RFIs), change order requests, the provision of full or part-time supervision engineers (to be proposed by the Consultant in its Technical Proposal for effective delivery of its services), progress and scheduling, reviewing requests for payment, reviewing as-built drawings, and providing quality assurance for the construction of about 135 km of the NTH (from Metapan to Nuevo Eden de San Juan).

7.3.1.2 OPTIONAL CONTRACT

Phase 3 (Optional)

- **Project Management Services and Supervision of the Construction Contractor(s) responsible for construction of Sections 5, 6 and 7 and possible Section 1 of the NTH**

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(from Nuevo Eden de San Juan to Concepcion de Oriente); and, if so decided by FOMILENIO, these services will also include Section 1 (from La Virgen to Metapan). Activities include, but are not limited to: **a)** Project management process of initiating, planning, executing, monitoring, supervising, controlling, and advising prompt adjustments to the construction implementation plans as a result of a close technical and on the ground follow up, applying best practices in the technical field until final deliveries are accepted accordingly to the related contract(s), and thus closing the implementation; and, **b)** supervising the construction contractor(s), scheduling, managing Requests for Information (RFIs), change order requests, the provision of full or part-time supervision engineers (to be proposed by the Consultant in its Technical Proposal for effective delivery of its services), progress and scheduling, reviewing requests for payment, reviewing as-built drawings, and providing quality assurance for the construction of about 136 km of the NTH: from Nuevo Eden de San Juan to Concepcion de Oriente, and, if so decided by FOMILENIO, also from La Virgen to Metapan (about 19 km).

For the case of the *NCR*, FOMILENIO seeks to hire a consultant firm to provide the services in Phase 1 and a second optional Phase 2:

7.3.2 PACKAGE II: NCR

This PACKAGE for the NCR consists of a base contract including Phase 1, and an optional contract including an optional Phase 2, as follows:

7.3.2.1 BASE CONTRACT

Phase 1

Project Management Services and Supervision of the Consultants responsible for the Final Design of 240 km of the Groups 1, 2 and 3 of the NCR: Activities include, but are not limited to: **a)** Project management process of initiating, planning, executing, monitoring, supervising, controlling, and advising prompt adjustments to the designs implementation plans as a result of a close technical and on the ground follow up, applying best practices in the technical field until final deliveries are accepted accordingly to the related contract(s) and thus closing the implementation; **b)** reviewing the final deliverables for feasibility study and environmental impact assessment of the , ROW and RAP in order to make any necessary adjustment to go ahead with the procurement process for designs not covered in the referred study, if any fatal flaw is detected; and, **c)** supervising and managing the deliverables and providing quality control for design consultancies, project scheduling, and project reporting, assistance in the preparation of technical specifications of the final design and in the preparation of TOR for construction of 240 km that will be financed with MCC's funds.

7.3.1.2 OPTIONAL CONTRACT

Phase 2 (Optional)

- **Project Management Services and Supervision of the Construction Contractor(s) responsible for construction of 240 km of the Groups 1, 2 and 3 of the NCR:** Activities

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include, but are not limited to: **a)** Project management process of initiating, planning, executing, monitoring, supervising, controlling, and advising prompt adjustments to the construction implementation plans as a result of a close technical and on the ground follow up, applying best practices in the technical field until final deliveries are accepted accordingly to the related contract(s), and thus closing the implementation; and, **b)** supervising the construction contractor(s), scheduling, managing Requests for Information (RFIs), change order requests, the provision of full or part-time supervision engineers (to be proposed by the Consultant in its Technical Proposal for effective delivery of its services), progress and scheduling, reviewing requests for payment, reviewing as-built drawings, and providing quality assurance for the construction of 240 km of the NCR.

The optional contracts indicated above (Phase 3 for NTH and Phase 2 for NCR) may be awarded to the CPM depending on the performance in rendering the services for Base Contract (Phases 1 and 2 for NTH and Phase 1 for NCR). FOMILENIO will evaluate the compliance of all contract requirements by the CPM in the services for Base contract and in accordance with this evaluation will determine if the optional contracts will be continued by the CPM.

The lengths and specifications of the roads to be designed and constructed as stated in the above phases are subject to confirmation by the results of the Feasibility Study. In case of the NCR, the lengths and number of road sections to be constructed will be decided based on the results of the feasibility studies, final designs, and the availability of funds.

7.4 Solicitation and Contracts

7.4.1 Solicitation

The solicitation for the CPM is structured in two packages, one for the NTH and one for the NCR. Consultants may submit proposals for any of the following: (i) PACKAGE I; (ii) PACKAGE II; (iii) a single proposal combining PACKAGES I and II. The PACKAGES are described as follows:

PACKAGE I for NTH including:

Base Contract

Phase 1 for NTH: Project Management and Final Design Supervision of Sections 5, 6 and 7. The designs will be contracted by future Request for Proposals.

Phase 2 for NTH: Project Management and Construction Supervision of Sections 2, 3 and 4, based on the designs prepared by CPB.

Optional Contract

Phase 3 (Optional) for NTH: Project Management and Construction Supervision of Sections 5, 6, 7. FOMILENIO reserves the right to also request the Consultant to include Section 1 in this Optional Contract and will negotiate the additional cost based on unit prices proposed by the Consultant in the bid forms.

PACKAGE II for NCR including:

Base Contract

Phase 1 for NCR: Project Management and Final Design Supervision for Groups 1, 2 and 3. The

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designs will be contracted by FOMILENIO in a future Request for Proposals.

Optional Contract

Phase 2 (Optional) for NCR: Project Management and Construction Supervision of Groups 1, 2 and 3.

7.4.2 Type of Contract

The contract(s) for the CPM services shall be structured as **Firm-fixed price** either for the NTH and the NCR in separate contracts (see RFP sections and draft Contract for details).

The CPM Consultant should note that it shall have no role in the evaluation process of bid proposals from design consultants or construction contractors, or the selection of winning bids thereof. However, the CPM will assist and support the procurement process for construction contractors by certifying the design specifications and drawings developed by the design consultants, and converting them into bidding documents appropriate for use by FOMILENIO's Procurement Agent (PA) for procurement of construction contractors.

This condition shall not limit the right of FOMILENIO to request any technical opinion of the CPM in relation to technical proposals made by the Consultants for final design and construction works contracts. FOMILENIO intends to use the CPM technical expertise on ad hoc, as needed basis, to be determined at the sole discretion of FOMILENIO, for prompt technical review and recommendations to support the technical evaluations during the related design and construction works procurements.

The relation of the CPM with the FOMILENIO's PA and its role in the procurement processes is further explained in Section 8.1.9 Project Procurement Management of these TOR.

7.5 Format of Deliverables

All deliverables to be presented by the CPM according to the details given in next Section 8 of these TOR, shall be submitted in one (1) original and five (5) copies, and two (2) copies in appropriate digital format on CDs or DVDs. The CPM shall use Microsoft Office 2007 or the latest version to elaborate the deliverables and data (Word, Excel, PowerPoint, MS-Project, etc.) and AutoCAD 2007 or latest version for drawings. The CPM shall also submit printable files in PDF format, but these will not be substitutes to the required working files that must be submitted.

8. Description of Services

The CPM is solely responsible for the execution of all duties described herein, direct or implicit, and shall be the only agent authorized by FOMILENIO to provide such products or services. It shall be the sole responsibility of the CPM to bring any conflict between these TOR and any other assigned responsibility to the attention of FOMILENIO's Connectivity Coordinator immediately. Any amendment to these TOR shall, unless otherwise directed in writing or by amendment by FOMILENIO, be governed by the same requirements, standards, schedules, products, services or other criteria set forth herein.

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The descriptions of services in this Section 8 are to be considered as minimum requirements. Technical proposals may include additional services, as the bidder deems necessary or advantageous to FOMILENIO, and the CPM may be asked to perform services that are not explicitly stated, but are understood by widely accepted international best practices for such services as those described.

8.1 Project Management

CPM shall perform effective project management services in order to ensure that the Connectivity Project is completed on time, within budget and at a high level of quality. The services shall be provided to achieve the project goals and objectives as stated in the Compact and in accordance with the outcomes of prior, related activities.

It is expected that the CPM will manage competing project requirements, namely *scope, time, and cost*. Project quality is affected by balancing these three factors, and as such it is expected that the CPM will work to ensure that the Connectivity Project will be considered a high quality project by delivering the roads as required, through works that are within scope, and completed on time and within budget.

Adhering to widely recognized international best practices and standards for project management – the details of which shall be proposed by the bidder in the technical proposal – and acting as the Employer’s Representative for managing the Connectivity Project, the services of the CPM provided to FOMILENIO shall include but are not limited to the following:

8.1.1 Project Integration Management

In order to properly integrate all Compact activities, FOMILENIO has prepared an Implementation Plan, already approved by MCC, which will be the basis for the planning activities of the CPM. The preparation of the Implementation Plan also considered conditions in the Compact whose satisfactory completion is required to ensure continued funding from MCC.

8.1.1.a The CPM shall review and continually monitor the development of the Implementation Plan of the Project, particularly as it pertains to the Connectivity Project, and shall recommend to FOMILENIO any adjustment or modification necessary to optimize and successfully complete the project on time, within budget and with the required quality. If FOMILENIO agrees to adjust or modify the Implementation Plan based on the CPM’s recommendation; any adjustment of technical specifications, bill of quantities, drawings, budgets or any other technical document resulting from this decision, shall be performed by the CPM as part of its responsibilities.

8.1.1.b To secure the funding for the Connectivity Project, the GoES must comply with conditions set out in the Compact between the GoES and the MCC. The CPM shall assist FOMILENIO and pertinent entities, such as GoES, in attaining compliance with such conditions. The Compact and its supplementary documents and also all MCC guidelines, particularly

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environmental guidelines, procurement guidelines and gender policy, which apply to the implementation of the Program are available at the following websites: www.mcc.gov and www.fomilenio.gob.sv.

- 8.1.1.c The CPM shall be responsible for developing a comprehensive project management information system, which shall be adequately introduced and described in the bidder's proposal. The project management information system shall, as a minimum, have the capacity to collect and distribute information necessary for overall monitoring and control of the project from initiation through closing. Based on this information, the CPM shall be able to obtain, on demand, **real-time** project and component status, forecast the future trends of the Project, evaluate the effect on the achievement of project objectives and propose any necessary measures to guarantee the successful implementation of the project. The CPM shall provide access to this system to FOMILENIO and the UIPC during the period of services and at completion of the services to transfer the software and the rights for operation of this system to FOMILENIO.
- 8.1.1.d The CPM shall coordinate with the PA on all Connectivity Project procurements to ensure proper integration of technical inputs to the Bidding Documents. This may include, and is not limited to, providing reviews of technical aspects of all Bidding Documents, assessing their completeness and revising technical inputs, as necessary.

8.1.2 Project Scope Management

The CPM, through project scope management, shall ensure that all the work required - and only the work required - to complete the Connectivity Project successfully is included in the Contractors' scope of work. The CPM shall consider scope management in both the design phase and the construction phase and shall, as a minimum, perform the following:

- 8.1.2.a The CPM shall develop a scope statement, identifying project constraints and assumptions, and estimating project resource requirements before a project is included in the Procurement Plan of FOMILENIO. A written project scope statement will provide a documented basis for making future project decisions and will ensure a common understanding of project scope among all stakeholders.
- 8.1.2.b The CPM shall continually monitor and assess the progress of activities in the Connectivity Project (in conjunction with other services to be described in these TOR) in order to evaluate the initial scope statement and mitigate negative impacts to overall activity objectives. The CPM shall notify FOMILENIO of impacts as they arise, in real-time, and may be requested to develop and/or implement mitigation strategies.
- 8.1.2.c As actual project costs and progress may affect the entire scope of the Compact, the CPM shall participate in activities, in coordination with FOMILENIO, to assess and determine scope changes that may impact the overall scope of the Connectivity Project.

8.1.3 Project Time Management

The CPM shall effectively manage the scheduling of project activities to mitigate risks, such as higher

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project costs, non-delivery of benefits to the residents of the Northern Zone, and loss of MCC's and GoES funds. To achieve this objective, the CPM shall perform tasks, which include but may not be limited to, the following:

- 8.1.3.a The CPM shall develop a strategy (to be included in the technical proposal) and implement its proposed plan, upon acceptance by FOMILENIO, which, as a minimum, will accurately identify required activities and sub-activities, will demonstrate schedule and resource requirements, and will manage any changes and impacts that may occur.
- 8.1.3.b As mentioned above, FOMILENIO has prepared an Implementation Plan, including a project schedule, which was already approved by MCC as the baseline for the Connectivity Project. Furthermore, the CPM shall develop a more detailed MS-Project implementation plan capturing significant components of each design and construction contract, and provide real-time progress updates and comparison to FOMILENIO's baseline plan, whenever needed by FOMILENIO. The CPM shall review and continually monitor the development of this detailed implementation plan and prepare performance reporting against the schedule baseline as part of its schedule control, in which the CPM shall also propose any proper and timely measures to secure the successful implementation of the Connectivity Project.

8.1.4 Project Cost Management

The CPM shall assist FOMILENIO in managing the Connectivity Project budget. Specific tasks to ensure this objective include, but may not be limited to, the following:

8.1.4.a The CPM shall develop and implement a cost management plan to ensure that the Connectivity Project is completed within the project budget. The plan (to be adequately introduced in the technical proposal) shall, as a minimum, determine the types and quantities of resources needed for project activities, assess and apply costs for the resources, allocate costs to project activities over the duration of the project, and manage changes to the project budget.

8.1.4.b The Implementation Plan of FOMILENIO has been prepared based on the cost estimation made in 2006 at the pre-feasibility level, for preparation of the proposal to MCC for applying to MCC funds. As result of the Feasibility Study, general updated costs for the Connectivity Project will be determined, establishing the project cost baseline. The CPM shall review the costs and incorporate the costs into the cost management plan accordingly.

8.1.4.c CPM shall prepare timely analysis and compare the project's budget to actual costs when new construction contracts are awarded for sections of the NTH or groups of the NCR from the inception of the project to its completion. The CPM shall incorporate and report any variances and change orders, tracking and monitoring all costs associated with the project against the overall project budget allocated in the Compact.

8.1.4.d CPM shall provide FOMILENIO with timely and systematic reports of cost status and changes. This activity will gain importance in the implementation of the project when the actual designs are completed and construction cost increases are likely to exceed the total amount allocated in the Compact for the Connectivity Project.

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8.1.5 Project Quality Management

The CPM shall apply quality management to increase the likelihood that the project will accomplish its objectives. Quality management should address the management of the project as well as the quality of the product. Ultimately, the CPM shall incorporate quality management to minimize rework, and in doing so, shall help to control costs, increase productivity, and meet Stakeholder expectations. Quality management shall be performed in conjunction with other services described in these TOR. For Connectivity Project Management services, tasks shall include, but are not limited to, the following:

8.1.5.a The CPM shall identify relevant quality standards for project management components, such as project scheduling, Bidding Documents, budget and resource monitoring, risk recognition, supervision reports, among others, and prepare and implement a Quality Management Plan to ensure the quality standards are met for all activities under the CPM's responsibility.

8.1.5.b The CPM shall manage quality of the Design and Construction Supervision services (as detailed in these TOR). As part of this task, the CPM shall regularly monitor performance and report to FOMILENIO on compliance with the Quality Management Plan.

8.1.6 Project Human Resources Management

CPM shall manage and balance its resources, particularly its staff, in order to guarantee provision of high quality services and appropriate balance for the work load in any stage of the project. The CPM shall be required to provide, as a minimum, the following:

8.1.6.a The CPM shall develop a Staffing and Resource Plan (which is to be adequately introduced in the technical proposal) in order to manage all tasks required to fulfill the objectives of these TOR. The CPM shall accommodate its personnel to the work rate of the design consultants and/or the construction contractors, which at various points may occur simultaneously.

8.1.6.b In the case that the design consultants or construction contractors increase the work fronts, the CPM shall provide the staff and equipment resources necessary to fulfill the required supervision services of designs or works. Failure by the CPM to provide supervision of all work will represent non-compliance to these TOR and will be subject to the penalties or sanctions established in Section 10 of these TOR.

8.1.6.c In conjunction with its duties as Design and Construction Supervisor, the CPM shall ensure that provisions in the Design Consultants' and Contractors' contracts regarding the qualifications of contractor staff are strictly enforced.

8.1.7 Project Communications Management

Determining and satisfying the information needs of project stakeholders is the essence of

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project communication management. CPM communications should be addressed as a part of the overall project plan, although the level of formality will vary with the diversity of the stakeholders. Critical to effective communication management are performance reporting processes that provide timely information about how project resources are used to achieve project objectives. CPM shall keep close and permanent communication with FOMILENIO, UIPC of MOP, Procurement Agent, and project's stakeholders during the implementation of the project.

Public participation is one of the main principles of MCC projects as established in the Compact, the CPM shall ensure that in all stages of the implementation of the Connectivity Project the design consultants and construction contractors carry out proper public consultation in order to identify critical areas, potential social and environmental impacts and, in a timely manner, propose prevention, mitigation, and/or compensation measures, in order to avoid delays in the implementation of the project.

The EIA final report (as described in Section 4.2 of these TOR) will include an information and communication plan for the construction stage including objectives, strategies, actions and public consultation; CPM shall revise and complement this plan if necessary to achieve the project objectives.

As part of its project communication strategy, the CPM shall propose a web-based information system to share real-time project management data, including (but not limited to) schedule, cost, and scope information, with FOMILENIO, UIPC, and MCC. For this the CPM shall also consider and propose using handheld devices to record field observations and images by construction supervision staff and make it available in real-time on such web-based information system. When proposing such a web-based system, the Consultant shall also include training sessions for FOMILENIO and UIPC staff in using it in its application within the first 30 days of the Contract.

8.1.8 Project Risk Management

The CPM will be expected to assist FOMILENIO in managing risk regarding the Connectivity Project. In doing so, the CPM may be asked to identify, assess and respond to project risks, and, as a minimum, will be expected to perform the following tasks:

- 8.1.8.a The Feasibility Study will include a Risk Management Plan for the Connectivity Project including risk to implementation from the increase in the price of materials and fuel, risk of natural disasters (floods, hurricanes, earthquakes, etc); and also the EIA will include the analysis of environmental and social risks. The CPM shall review and complement this plan, if necessary and if any deficiency is detected, in order to minimize the impact of such identified risk in the achievement of the project objectives.
- 8.1.8.b The CPM shall continually monitor risk and update the Risk Management Plan accordingly, immediately reporting to FOMILENIO as new risks or associated impacts to the Project are identified and developing strategies to manage the impacts, and especially to mitigate negative impacts.

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8.1.9 Project Procurement Management⁶

The procurement processes for the Connectivity Project in particular, and for FOMILENIO's program in general, are the responsibility of the PA (Charles Kendal and Partners). Also, FOMILENIO has its own Procurement Management office which works in coordination with the PA to guarantee that all procurements for services, goods and works are handled and managed in a transparent, competitive and fair way, and in accordance with the timings of the Implementation Plan.

- 8.1.9.a The CPM shall maintain close communication and coordination with the Procurement Director of FOMILENIO and the PA to monitor the progress of the procurement processes related to the Connectivity Project and to provide any necessary information related to performance of the design consultants and works contractors, since the contract administration is a responsibility of the PA.
- 8.1.9.b Every six months during the Compact Term, the PA, in coordination with FOMILENIO, prepares a six-month period Procurement Plan to be submitted for the approval of MCC. The CPM shall provide to the PA all information related to procurement processes to be executed for the Connectivity Project for design or construction of any section of the NTH or the NCR.

8.1.10 Environmental and Social Impact Management

As provided in the Deliverables section below, the CPM shall provide the ESID of FOMILENIO with regular reports that update the status of environmental and social impact management activities and verify Project compliance with EMPs, Resettlement Action Plans (RAPs), and other applicable environmental requirements of MCC and the GoES. The proposed frequency, format, and content of these reports shall be described in the methodology of the Technical Proposal and reconfirmed by the selected Contractor in the Inception Report. Each report should at a minimum:

- a) Ensure that all necessary environmental permits have been obtained prior to commencement of Project activities at a given location. These include, but are not limited to, the permits required for work camps, waste disposal sites, borrow pits, and blasting activities.
- b) Ensure that environmental and social responsibilities have been included in the bidding documents, including gender issues.
- c) Ensure that prior to commencing construction works for any given section, that approval of the implementation of the corresponding RAP has been obtained from FOMILENIO and MCC.
- d) Monitor and ensure that the Construction Contractors prepare and submit EMP implementation plans for CPM approval, and—following their approval—that the

⁶ This knowledge area will be closely coordinated with FOMILENIO's PA in order to foster the processes of bidding and contract administration.

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construction contract activities are in strict compliance with EMPs, in accordance with the corresponding EMP implementation plans.

- e) Support or participate in public outreach and consultation programs, as requested by FOMILENIO.
- f) Support or participate in third party environmental audits, as requested by FOMILENIO.
- g) Coordinate with the UIPC specialists and any other consultant hired by FOMILENIO regarding all technical issues associated with ROW acquisition and RAP implementation.

8.1.11 Deliverables

The CPM shall provide as part of its technical proposal a list of deliverables to be submitted as result of the project management activities. These documents shall be prepared in Spanish and submitted first for technical review by UIPC, followed by approval of FOMILENIO. Once FOMILENIO has issued its approval, the CPM shall proceed to prepare an English version of such documents and submit them to FOMILENIO. As a minimum the CPM shall deliver the following documents:

- a) Project Management Plan (within the first 2 months of the services)
- b) Project Management Information System according to section 8.1.1.c of these TOR (within the first 3 months of the services)

8.2 Supervision of Design Consultants

The CPM shall undertake the responsibilities necessary to ensure timely and successful completion of the design of the remaining 135 km of the NTH and the 240 km of the NCR of the Connectivity Project. In this sense, the activities described in this section shall apply for both cases, and shall be considered as indicative only. The Consultants should not be limited by the concise outline of services in this section and may develop their proposal accordingly.

The CPM shall provide technical supervision of the work of the Design Consultants for the remaining roads of the NTH and NCR. This will include review and recommending approval to FOMILENIO of studies, designs, technical specifications, progress and other reports that were submitted. It shall be the responsibility of the CPM to ensure that the design is optimum and cost-effective for obtaining the desired output and successful construction.

It is important to note that the design contracts for the remaining sections of the NTH and the whole NCR will also include the preparation of the Resettlement Action Plans (RAP) and the implementation of such plans for the acquisition of the rights of way (ROW) for the roads. However, these design contracts will not include the construction of new houses for Project Affected Persons (PAP) which will have to be relocated, if necessary. It is expected that the Connectivity Project will include only a limited number of such actual resettlement cases. Therefore, the major focus of the design contracts, and the related design supervision effort by the CPM, shall be placed on the acquisition process for the ROW in coordination with the UIPC and any other consultant hired by FOMILENIO.

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International standards will be applied for design works, which shall also be considered by the CPM in the design supervision activities. Standards include but are not limited to the following:

- AASHTO
- ACI
- FP
- FHWA
- ASTM
- Asphalt Institute
- Portland Cement Association (PCA)
- Especificaciones para la Construcción de Carreteras y Puentes Regionales, SIECA, March 2001
- Manual Centroamericano para Diseño de Pavimentos, SIECA.
- Manual Centroamericano de Dispositivos Uniformes para el Control de Tránsito, SIECA
- Reglamento para la Seguridad Estructural de las Construcciones de la República de El Salvador.
- Salvadoran roads law (Ley de Carreteras y Caminos Vecinales)

8.2.1 Duties

Duties to be included in this portion of the assignment include but are not limited to:

- a) Review the FS and the EIA (which includes EMPs, RAPs and HIV-AIDS Awareness Plans) Final Reports prepared by CPB as part of the study "*Mejoramiento de la Red Vial de la Zona Norte de El Salvador*", which is the main technical input for further design work. The CPM will perform this review with additional information and clarifications provided by UIPC as available. The CPM shall provide timely advice to FOMILENIO of any required modification or complementary work if any fatal flaw is detected, and after obtaining the corresponding FOMILENIO's authorization, proceed to complement and modify the Final Reports accordingly. The content of these reports is described in Section 4 of these TOR;
- b) Review and recommend any modification to the TOR for the final design works to be used for the tendering of final design services;
- c) Prepare the agenda and presentation for the kickoff (pre-design) meeting of the design projects with the Design Consultants and discuss the agenda with FOMILENIO prior to the meetings. Prepare meeting minutes for this meeting and any project meeting thereafter;
- d) Review and approve of the work programs submitted by the design consultants;
- e) Review and approval of the methodology proposed by the design consultants for the design works;
- f) Monitor and report on the physical and financial progress of the works undertaken by Design Consultants and recommend action(s) to be taken when progress is not in accordance with the approved program;
- g) Ensure that the design works are completed according to the recommendations of the previously developed FS, EIA, the AIA, the general resettlement strategy/RAP, and Archeological Resources Survey and that quality assurance on quality control performed by design consultants has being included.;

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- h) Ensure that the Design Consultants perform their services in accordance with the Compact, MCC's regulations, Salvadoran legal framework and any other provisions given in the consulting services contracts;
- i) In the case of deficiency by the Design Consultants, report immediately to UIPC and FOMILENIO and compile or prepare support documents related to such deficiency. Such documentation should include, as a minimum, a description of the current situation and how it constitutes a deficiency in the responsibilities of the Design Consultant, an analysis of potential impacts (including technical, cost, and schedule impacts), and a recommended approach to address the deficiency, when necessary;
- j) Revise and approve all technical matters of the design works, such as topographic surveys, proposed alignment, geometric design, right of way and relocation of utilities, geotechnical investigations, and proposed locations for borrow banks, quarries, disposal areas and camp-yards, pavement design, drainage works, bridges, intersections, earthworks, pedestrian crossings, signage, and any other deliverable from the Design Consultant;
- k) Cooperate with UIPC to ensure that all proposed locations for borrow banks, quarries, disposal areas, camp-yards, and water extraction are communicated to MARN in a timely fashion, in order that site inspections can take place and preliminary environmental approvals can be provided during the design phase.
- l) Ensure that special attention is paid to the border connection/crossing with Honduras in the final design of Section 7 of the NTH, which will additionally require coordination with the government authorities of Honduras. The CPM will be requested to manage such coordination and provide necessary technical support;
- m) Systematically and periodically review the evolution of the cost proposed for construction works, in such a way as to maintain economic feasibility and to allow making real-time decisions related to changes in the level of intervention or category of the roads to optimize the use of financial resources without reducing the quality, useful life and design period;
- n) Ensure that all designs are directly coordinated with and adhere to the World Bank's Operational Policy on Involuntary Resettlement (OP 4.12), MCC Environmental Guidelines and Salvadoran laws. Ensure that final designs include, to the extent feasible, measures to eliminate or reduce the incidence of resettlement, including land acquisition and physical or economic displacement. Also ensure that the design consultants strictly follows the general Resettlement Plan included in the EIA, including any resettlement action plans (RAPs) or land acquisition and compensation programs that must be implemented prior to commencement of construction or rehabilitation activities at a given location. Also, CPM shall secure that implementation of the ROW and RAPs is properly performed by the Design Consultants and avoiding conflicts with the project affected persons.

CPM shall be responsible to manage and supervise the preparation and implementation of the RAPs by the design consultants which is a critical activity for the successful implementation of the Connectivity Project, including but not limited to:

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- Planning, preparation and implementation of the activities of: i) social support; ii) acquisition of right of way; and iii) construction of new houses for resettlement (if necessary) indispensable for the satisfactory physical execution of the RAP, all in accordance with OP 4.12 of the World Bank.
- The number of project affected persons (PAP) under the project alignment will be the result of the final designs and of the preparation of the Resettlement Action Plans, and the CPM shall supervise all activities related to the total number of PAPs.
- Ensure the compliance by the design consultants of the assignment and optimal use of all resources allocated for the project in relation to the RAP's.
- Review, approve and monitor the work plan for RAP's of the design consultants, in case of non compliance with the work plan to propose corrective measures in order to ensure the proper and on-time clearance of the work areas previous to the execution of construction works.
- Establish a flexible working time shift for his staff in order to supervise RAP development to be performed on weekends and non working hours, since many of the land owners work or live outside the project area.
- Ensure that the design consultant provides the social support in two areas: (i) acquisition of right of way or economic compensation; and (ii) resettlement or physical relocation, as applicable.
- Ensure that the design consultants include in the RAP all landowners that are affected by the alignment of the NTH and NCR. This attendance shall cover not only the persons/families living in the properties under the project alignment, but also to those owners/occupants living in other regions of the country.
- Ensure that the design consultants provide necessary field offices to inform and attend the residents of the influence area of the project and owners/occupants of properties under project alignment, in any matter related to processes, inquiries and questions about right of way acquisitions and resettlements. Such field offices of the design consultants, shall be strategically located in the project area to provide easy access in order to allow the participation of the major number of residents.
- Ensure that the design consultant render his services related to RAP in an equally and fair way to all PAPs, indistinctly of their financial status or if they are owners or occupants of the affected properties.
- Ensure the compliance by the design consultants of all and any of the parts of the process for Acquisition Rights of Way, including but not limited to: (i) identification of owners or occupants; (ii) collection of identification documents and property documents; (iii) topographic survey; (iv) preparation of general and individual right of way drawings; (v) preparation of valuation criteria and parameters; (vi) public consultation; (vii) valuation; (viii) notification; (ix) negotiation and acceptance of valuations; (x) Deed for properties on the name of the State and Government of the Republic of El Salvador; (xi) monitor payment process; (xii) monitor the registration process at the National Center of

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Registers (Centro Nacional de Registros – CNR); and (xiii) monitor the process for clearance of the right of way areas prior to the construction of works.

- Ensure the compliance by the design consultants of the activities related to new houses for resettlements, either individual or group solutions or of any other economic activity, for the PAPs to be relocated in new places (if necessary), including but not limited to: (i) preparation of alternatives and analysis of possible relocation sites; (ii) design of resettlement solutions, individual or group housing or commercial solutions or any other type with the corresponding technical specifications, cost estimation and work plan; (iii) monitor the social support to be provided to the PAPs prior, during and after the resettlement; (iv) monitor the public consultation; and (v) supervision of the construction of any housing or commercial structure resulting necessary for the resettlements.
- o) Ensure that the Design Consultants adequately considered potential impacts to cultural, historical, and archeological resources in the project zones and, as needed, modify road designs to minimize or eliminate impact to these zones;
- p) Ensure that the Design Consultants plan, organize and carry appropriate public consultation of all significant design alternatives with the potentially affected parties; monitor and supervise such public consultation activities and the appropriate consideration of and response to the public input received;
- q) As needed, perform periodic field observations of design firm works including survey work, geotechnical investigation, etc.;
- r) With cooperation of the UIPC, ensure that the Design Consultants prepare the EMP including all measures required to prevent, reduce, control and/or compensate for negative environmental impacts that may occur during the construction and post completion phases of the project, as well as to optimize positive impacts. Additionally, CPM shall secure that the engineering design includes all environmental measures included in the EMP and ensure that the technical specifications for construction bidding documents clearly identify the responsibilities of the Construction Contractor with respect to EMPs, site specific environmental permits and related environmental requirements;
- s) Compile and evaluate information about accident reports as they may occur and report to FOMILENIO;
- t) Prepare and issue instructions to Design Consultants, as necessary for Project Implementation;
- u) Review and comment with recommendation of approval (or rejection) by FOMILENIO of change (variation) orders proposed by Design Consultants;
- v) When appropriate, propose change orders for FOMILENIO's approval, which shall also include the cost and time impact of such proposed changes. CPM shall also be required to submit the various alternatives with cost-benefit analysis and effect on time for the particular design work and for the project as a whole to facilitate decisions by FOMILENIO;
- w) Review and approve of reports submitted by the Design Consultants;

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- x) Provide photographs of field works related to design, and documentation, as appropriate, showing monthly progress of the designs and potential trouble areas;
- y) Review and approve of documents for payments to the Design Consultants, certifying that such documents accurately reflect the value of the services rendered. This shall include invoices and support documents submitted by the Design Consultants as evidence of the executed work, and advice FOMILENIO accordingly;
- z) Analyze and make recommendations regarding claims submitted by the Design Consultants;
- aa) Attend claims meetings between FOMILENIO and the Design Consultants;
- bb) Ensure that the designs of the proposed roads are technically sound, cost optimized, and fulfill the minimum requirements of MOPTVDU for each road classification;
- cc) Assist FOMILENIO to incorporate the results of these studies/designs into the bidding/contract documents for the construction projects;
- dd) Revise and approve the estimated bill of quantities, technical specifications, proposed construction schedule, cost estimation, drawings, and any other technical inputs to the Bid Documents for procurement packages of road construction;
- ee) Maintain orderly working files and a comprehensive, computerized log for correspondence, minutes of meetings and conferences, submittal data, submittal registers, inspection and monthly progress reports, contract documents including amendments, notices to proceed, change orders and modifications, all in a system which is comparable with software used by FOMILENIO, which will provide deliverable inventory, scheduled dates and actual status. During the course of the work, the CPM shall maintain it in good order and in a reference library format in office space in San Salvador to be used by the FOMILENIO staff. From time to time, FOMILENIO may request the CPM to show documents to interested parties, approved by FOMILENIO. Documents of a sensitive nature should be stored separately in the reference library. Prior to completion of the period of work, the CPM shall pack and deliver to FOMILENIO the entire contents of the Project library in good order and properly indexed and marked. In addition, the CPM shall provide FOMILENIO with all electronic files of any and all project documents stored in a media acceptable to FOMILENIO including a comprehensive, well-organized electronic index of all those documents. The copyright of all Project materials will remain with FOMILENIO;
- ff) Perform all other design supervision and project administration tasks as specified in the contracts between FOMILENIO and the Design Consultants;
- gg) CPM shall promptly recommend to FOMILENIO remedial actions to be taken in the case of implementation delays, cost overruns, poor quality of the deliverables, and other problems, paying special attention to activities that are part of the critical path;

Prepare a Final Report for each one of the Final Designs Sections completed, including recommendation to FOMILENIO for Final Acceptance of all the designs included in the

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contract documents and amendments, with a Quality Certification, stating that all technical, environmental and social requirements have been met.;

- hh) Answer, together with the Design Consultants if necessary, to any comment or questions on the execution of the final designs issued by FOMILENIO;
- ii) As requested by FOMILENIO, support or participate in FOMILENIO's public outreach and consultation program; and
- jj) Perform other related duties as directed by FOMILENIO.

8.2.2 Deliverables

The CPM shall provide as part of its services the following deliverables. These documents shall be prepared in Spanish and submitted first for technical review of UIPC, followed by approval of FOMILENIO. Once FOMILENIO has issued its approval, the CPM shall proceed to prepare an English version of such documents and submit them to FOMILENIO. These documents shall include (but not be limited to):

(i) Inception Report

Within four weeks after the signature of the contract, the CPM shall present to the FOMILENIO the Inception Report with a consolidated work plan outlining critical milestones, methodologies, staffing and a plan to ensure the quality of these services. The roles of the key personnel shall be clarified and the deliverables and their schedule reviewed. Contracting of required work outside of the CPM firm or those subcontractors identified in their proposal shall be minimal and in such cases shall be presented to FOMILENIO for its consideration and approval. At this time, points of contact shall be identified and procedures for communications and exchange of information discussed and decided upon. Coordination of work efforts, definition of FOMILENIO's requirements and establishment of future roles and participation shall also be presented and discussed. The Inception Report will include but not be limited to:

- Methodology
- Scope
- A statement defining the proposed services, including:
 - methods and parameters
 - any changes to the composition of the Consultant's team and specialists needed
 - methods of consultation, through the Connectivity Project Coordinator at FOMILENIO with MOPTVDU, different GoES authorities, local authorities, local population and other concerned parties
 - methods of consultation with the FOMILENIO's Officials, with the Procurement Agent and with the Fiscal Agent
- Detailed program of work, showing time, duration and personnel as well as the inter-relationship between activities
- List of applicable environmental laws, regulations, and standards
- List of required environmental, construction, or other permits
- List of documents to be kept in document library⁷

⁷ Such list shall be supplied by FOMILENIO.

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- Proposed methodology for tracking compliance with MCC Environmental Guidelines, applicable GoES environmental laws and regulations, and site-specific EMPs and RAPs
- Proposed schedule
- Proposed flow of funds
- Projected staffing

(ii) Consultant shall provide timely written comments to FOMILENIO on all design submittals received throughout the course of the NTH and NCR final design work within the time specified in the Terms of Reference for those works.⁸ The Consultant is advised that delays in the delivering of its responses and services are unacceptable, and will constitute a basis for withholding payment or reducing the amount of payment due as specified in the payment schedule enclosed in this RFP.

(iii) Monthly Progress Reports

The CPM shall prepare and submit Monthly Progress Reports to FOMILENIO. The Monthly Progress Reports shall address the status of work measured as “percent completion” against the schedule submitted by the CPM and approved by FOMILENIO. The Monthly Progress Reports shall contain an accurate, up to date, account of all work accomplishments, work scheduled and outstanding issues of consultants. The reports shall also include description of problems and proposed solutions, details of any change order, possible delays and effect on the work schedule, time extensions, cost overruns, and any other important technical or administrative aspect that could affect the work progress. These reports shall be submitted to the FOMILENIO no later than the 10th day of the month following the end of the monthly period covered by each report. FOMILENIO will base the payment according to the negotiated payment schedule.

(iv) Special Reports

Other special reports that may be required from time to time as directed by FOMILENIO or UIPC for such issues as significant change requests, prompt remedial actions recommendations, accidents with injuries, and any other important technical or administrative aspect that requires a special attention.

(v) Annual Report

Annual report summarizing all issues related to the works undertaken in the foregoing year.

(vi) Final Report

The Final Report shall include all documents and information collected during the period of services, and also a special section of “lessons learned” on the whole project.

(vii) Communications

All communications concerning the Connectivity Project between the various consultants, contractors, UIPC and other interested or effected parties and the Connectivity Project Manager shall be copied to the FOMILENIO’s Connectivity Project Coordinator with a note as to its importance and whether it is for information only or requires action. This applies to all correspondence, technical documents, minutes or any other hard copy or electronic materials. The Consultant shall incorporate such communications in a web-based project information system discussed in Section 8.1.7.

⁸ On average this is generally within 2 to 3 weeks of receipt of the document but will need to be verified against the time periods negotiated in the final contracts.

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