

**CONTRACT FOR CONSULTANTS' SERVICES**

**Lump-Sum Remuneration**

between

**PROJECT MANAGEMENT UNIT NO. 85**

and

**THE JOINT VENTURE  
NIPPON KOEI Co., Ltd. - NIPPON ENGINEERING CONSULTANTS Co., Ltd. -  
CHODAI Co., Ltd. – THAI ENGINEERING CONSULTANTS Co., Ltd.**

October , 2011

## I. Contract

### LUMP-SUM REMUNERATION

This CONTRACT (hereinafter called the "Contract") is made in ....., 2011, between, on the one hand, Project Management Unit No. 85 (PMU85) (hereinafter called the "Client"), and, on the other hand, a joint venture consisting of the following entities, each of which will be jointly and severally liable to the Client for all the Consultant's obligations under this Contract, namely, Nippon Koei Co., Ltd. and Nippon Engineering Consultants Co., Ltd. and Chodai Co., Ltd. and Thai Engineering Consultants Co., Ltd. (hereinafter called the "Consultant").

#### WHEREAS

- (a) the Client has requested the Consultants to provide certain consulting services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the "Services");
- (b) the Consultants, having represented to the Client that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract;
- (c) the Client has received a credit from the International Development Association (hereinafter called the "Association") towards the cost of the Services and intends to apply a portion of the proceeds of this credit to eligible payments under this Contract, it being understood (i) that payments by the Association will be made only at the request of the Client and upon approval by the Association, (ii) that such payments will be subject, in all respects, to the terms and conditions of the agreement providing for the credit, and (iii) that no party other than the Client shall derive any rights from the agreement providing for the credit or have any claim to the credit proceeds;

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
  - (a) Minutes of Contract Negotiation; The second Minutes of Contract Negotiation; and The Minutes of Discussion Meeting for Contract Finalization.
  - (b) The General Conditions of Contract;
  - (c) The Special Conditions of Contract;
  - (d) The following Appendices:
    - Appendix A: Description of the Services
    - Appendix B: Reporting Requirements
    - Appendix C: Key Personnel and Sub-consultants
    - Appendix D: Cost Estimates
    - Appendix E: Services and Facilities Provided by the Client
    - Appendix F: The Request for Proposal revised according to Addendum No. 2, which was concurred by WB and approved by VEC
    - Appendix G: Technical Proposals submitted by the Consultant.
    - Appendix H: Financial Proposals submitted by the Consultant.

2. The mutual rights and obligations of the Client and the Consultants shall be as set forth in the Contract, in particular:
- (a) The Consultants shall carry out the Services in accordance with the provisions of the Contract; and
  - (b) the Client shall make payments to the Consultants in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

**For and on behalf of Project Management Unit No. 85**

***Nguyen Ngoc Canh***

*General Director*

**For and on behalf of each of the Members of the Consultant  
Nippon Koei Co., Ltd.**

***Takashi SEKI***

*General Manager of Infrastructure Development Division*

**Nippon Engineering Consultants Co., Ltd.**

***Masahide KAWAKAMI***

*President and CEO*

**Chodai Co., Ltd.**

***Yasuji NAGAYA***

*Representative Director*

**Thai Engineering Consultants Co., Ltd.**

***Pongsak Dej-Udom***

*President*

## II. General Conditions of Contract

### 1. GENERAL PROVISIONS

#### 1.1 Definitions

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 the Government’s country (or in such other country as may be specified in the Special Conditions of Contract (SC)), as they may be issued and in force from time to time;
- (b) “Bank” means the International Bank for Reconstruction and Development, Washington, D.C., U.S.A.;
- or**
- (b) “Association” means the International Development Association, Washington, D.C., U.S.A.;
- (c) “Contract” means the Contract signed by the Parties, to which these General Conditions of Contract (GC) are attached, together with all the documents listed in Clause 1 of such signed Contract;
- (d) “Contract Price” means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (e) “Foreign Currency” means any currency other than the currency of the Government;
- (f) “GC” means these General Conditions of Contract;
- (g) “Government” means the Government of the Client’s country;
- (h) “Local Currency” means the currency of the Government;
- (i) “Member,” in case the Consultants consist of a joint venture of more than one entity, means any of these entities; “Members” means all these entities, and “Member in Charge” means the entity specified in the SC to act on their behalf in exercising all the Consultants’ rights and obligations towards the Client under this Contract;
- (j) “Party” means the Client or the Consultants, as the case may be, and “Parties” means both of them;

- (k) “Personnel” means persons hired by the Consultants or by any Sub-consultant as employees and assigned to the performance of the Services or any part thereof;
- (l) “SC” means the Special Conditions of Contract by which the GC may be amended or supplemented;
- (m) “Services” means the work to be performed by the Consultants pursuant to this Contract, as described in Appendix A; and
- (n) “Sub-consultant” means any entity to which the Consultants subcontract any part of the Services in accordance with the provisions of Clauses 3.5 and 4.

- 1.2 Law Governing the Contract** This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.
- 1.3 Language** This Contract has been executed in the language specified in the SC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.
- 1.4 Notices** Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address specified in the SC.
- 1.5 Location** The Services shall be performed at such locations as are specified in Appendix A and, where the location of a particular task is not so specified, at such locations, whether in the Government’s country or elsewhere, as the Client may approve.
- 1.6 Authorized Representatives** Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Client or the Consultants may be taken or executed by the officials specified in the SC.
- 1.7 Taxes and Duties** Unless otherwise specified in the SC, the Consultants, Sub-consultants, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price.
- 1.8 Fraud and Corruption** If the Client determines that the Consultant and/or its Personnel, sub-contractors, sub-consultants, services providers and suppliers has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices, in competing for or in executing the Contract, then the Client may, after giving 14 days notice to the Consultant, terminate the

Consultant's employment under the Contract, and the provisions of Clause 2 shall apply as if such expulsion had been made under Sub-Clause 2.6.1(d).

Should any personnel of the Consultant be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Contract, then that personnel shall be removed in accordance with Sub-Clause 4.2.

### 1.8.1 Definitions

For the purposes of this Sub-Clause, the terms set-forth below are defined as follows:

- (i) “corrupt practice” is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party<sup>1</sup>;
- (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation<sup>2</sup>;
- (iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party<sup>3</sup>;
- (iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party<sup>4</sup>;
- (v) “obstructive practice” is
  - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
  - (bb) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under Clause 3.8.

<sup>1</sup> “Another party” refers to a public official acting in relation to the selection process or contract execution. In this context, “public official” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

<sup>2</sup> A “party” refers to a public official; the terms “benefit” and “obligation” relate to the selection process or contract execution; and the “act or omission” is intended to influence the selection process or contract execution.

<sup>3</sup> “Parties” refers to participants in the selection process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

<sup>4</sup> A “party” refers to a participant in the selection process or contract execution.

- 1.8.2 Measures to be Taken** (vi) will cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of the loan were engaged in corrupt, fraudulent, collusive or coercive practices during the selection process or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to the Bank to remedy the situation;
- (vii) will sanction a Consultant, including declaring the Consultant ineligible, either indefinitely or for a stated period of time, to be awarded a Bank-financed contract if it at any time determines that the Consultant has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a Bank-financed contract;
- 1.8.3 Commissions and Fees** The Client will require the successful Consultants to 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 of the 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.

## **2. COMMENCEMENT, COMPLETION, MODIFICATION, AND TERMINATION OF CONTRACT**

- 2.1 Effectiveness of Contract** This Contract shall come into effect on the date the Contract is signed by both parties or such other later date as may be stated in the SC.
- 2.2 Commencement of Services** The Consultants shall begin carrying out the Services thirty (30) days after the date the Contract becomes effective, or at such other date as may be specified in the SC.
- 2.3 Expiration of Contract** of Unless terminated earlier pursuant to Clause 2.6, this Contract shall terminate at the end of such time period after the Effective Date as is specified in the SC.
- 2.4 Modification** Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, may only be made by written agreement between the Parties and shall not be effective until the consent of the Bank or of the Association, as the case may be, has been obtained.
- 2.5 Force Majeure**
- 2.5.1 Definition** For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party and which makes a

Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

**2.5.2 No Breach of Contract** The failure of a Party to fulfill any of its obligations under the 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 possible about the occurrence of such an event.

**2.5.3 Extension of Time** 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.

**2.5.4 Payments** During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultants shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

## **2.6 Termination**

**2.6.1 By the Client** The Client may terminate this Contract, by not less than thirty (30) days' written notice of termination to the Consultants, to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause 2.6.1 and sixty (60) days' in the case of the event referred to in (e):

- (a) if the Consultants do not remedy a failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the Client may have subsequently approved in writing;
- (b) if the Consultants become insolvent or bankrupt;
- (c) if, as the result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days; or
- (d) if the consultant, in the judgment of the client has engaged in

corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this clause:

“corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the selection process or in contract execution.

“fraudulent practice” means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among consultants (prior to or after submission of proposals) designed to establish prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.

- (e) if the Client, in its sole discretion, decides to terminate this Contract.

**2.6.2 By the Consultants** The Consultants may terminate this Contract, by not less than thirty (30) days’ written notice to the Client, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and (b) of this Clause 2.6.2:

- (a) if the Client fails to pay any monies due to the Consultants pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the Consultants that such payment is overdue; or
- (b) if, as the result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days.

**2.6.3 Payment upon Termination** Upon termination of this Contract pursuant to Clauses 2.6.1 or 2.6.2, the Client shall make the following payments to the Consultants:

- (a) remuneration pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination;
- (b) except in the case of termination pursuant to paragraphs (a) and (b) of Clause 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel and their eligible dependents.

### 3. OBLIGATIONS OF THE CONSULTANTS

- 3.1 General** The Consultants shall perform the Services and carry out their obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Consultants shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Sub-consultants or third parties.
- 3.2 Conflict of Interests**
- 3.2.1 Consultants Not to Benefit from Commissions, Discounts, etc.** The remuneration of the Consultants pursuant to Clause 6 shall constitute the Consultants' sole remuneration in connection with this Contract or the Services, and the Consultants shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Consultants shall use their best efforts to ensure that the Personnel, any Sub-consultants, and agents of either of them similarly shall not receive any such additional remuneration.
- 3.2.2 Consultants and Affiliates Not to be Otherwise Interested in Project** The Consultants agree that, during the term of this Contract and after its termination, the Consultants and their affiliates, as well as any Sub-consultant and any of its affiliates, shall be disqualified from providing goods, works, or services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.
- 3.2.3 Prohibition of Conflicting Activities** Neither the Consultants nor their Sub-consultants nor the Personnel shall engage, either directly or indirectly, in any of the following activities:
- (a) during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract; or
  - (b) after the termination of this Contract, such other activities as may be specified in the SC.
- 3.3 Confidentiality** The Consultants, their Sub-consultants, and the Personnel of either of them shall not, either during the term or within two (2) years after

the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Client's business or operations without the prior written consent of the Client.

- 3.4 Insurance to be Taken Out by the Consultants** The Consultants (a) shall take out and maintain, and shall cause any Sub-consultants to take out and maintain, at their (or the Sub-consultants', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage, as shall be specified in the SC; and (b) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums have been paid.
- 3.5 Consultants' Actions Requiring Client's Prior Approval** The Consultants shall obtain the Client's prior approval in writing before taking any of the following actions:
- (a) entering into a subcontract for the performance of any part of the Services,
  - (b) appointing such members of the Personnel not listed by name in Appendix C ("Key Personnel and Sub-consultants"), and
  - (c) any other action that may be specified in the SC.
- 3.6 Reporting Obligations** The Consultants shall submit to the Client the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.
- 3.7 Documents Prepared by the Consultants to Be the Property of the Client** All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Consultants in accordance with Clause 3.6 shall become and remain the property of the Client, and the Consultants shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Client, together with a detailed inventory thereof. The Consultants may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be specified in the SC.
- 3.8 Accounting, Inspection and Auditing**
- 3.8.1 The Consultant shall keep, and shall cause its Sub-consultants to keep, accurate and systematic accounts and records in respect of the Contract, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify relevant time changes and costs.
- 3.8.2 The Consultant shall permit, and shall cause its Sub-consultants to permit, the Bank and/or persons appointed by the Bank to inspect its accounts and records relating to the performance

of the Contract and the submission of the Proposal to provide the Services, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Consultant's attention is drawn to Clause 1.9.1 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Clause 3.8 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures.).

#### 4. CONSULTANTS' PERSONNEL

**4.1 Description of Personnel** of The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Consultants' Key Personnel are described in Appendix C. The Key Personnel and Sub-consultants listed by title as well as by name in Appendix C are hereby approved by the Client.

**4.2 Removal and/or Replacement of Personnel**

(a) Except as the Client may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultants, it becomes necessary to replace any of the Key Personnel, the Consultants shall provide as a replacement a person of equivalent or better qualifications.

(b) If the Client finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultants shall, at the Client's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Client.

(c) The Consultants shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

#### 5. OBLIGATIONS OF THE CLIENT

**5.1 Assistance and Exemptions** The Client shall use its best efforts to ensure that the Government shall provide the Consultants such assistance and exemptions as specified in the SC.

**5.2 Change in the Applicable** 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

**Law** cost of the services rendered by the Consultants, then the remuneration and reimbursable expenses otherwise payable to the Consultants under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Clauses 6.2 (a) or (b), as the case may be.

**5.3 Services and Facilities** The Client shall make available to the Consultants the Services and Facilities listed under Appendix E.

## 6. PAYMENTS TO THE CONSULTANTS

**6.1 Lump-Sum Remuneration** The Consultant's total remuneration shall not exceed the Contract Price and shall be a fixed lump-sum including all staff costs, Sub-consultants' costs, printing, communications, travel, accommodation, and the like, and all other costs incurred by the Consultant in carrying out the Services described in Appendix A. Except as provided in Clause 5.2, the Contract Price may only be increased above the amounts stated in Clause 6.2 if the Parties have agreed to additional payments in accordance with Clause 2.4.

**6.2 Contract Price** (a) The price payable in foreign currency is set forth in the SC.

(b) The price payable in local currency is set forth in the SC.

**6.3 Payment for Additional Services** For the purpose of determining the remuneration due for additional services as may be agreed under Clause 2.4, a breakdown of the lump-sum price is provided in Appendices D and E.

**6.4 Terms and Conditions of Payment** Payments will be made to the account of the Consultants and according to the payment schedule stated in the SC. Unless otherwise stated in the SC, the first payment shall be made against the provision by the Consultants of a bank guarantee for the same amount, and shall be valid for the period stated in the SC. Any other payment shall be made after the conditions listed in the SC for such payment have been met, and the Consultants have submitted an invoice to the Client specifying the amount due.

**6.5 Interest on Delayed Payments** If the Client has delayed payments beyond fifteen (15) days after the due date stated in the SC, interest shall be paid to the Consultants for each day of delay at the rate stated in the SC.

## 7. SETTLEMENT OF DISPUTES

**7.1 Amicable** The Parties shall use their best efforts to settle amicably all disputes

**Settlement** arising out of or in connection with this Contract or its interpretation.

**7.2 Dispute Settlement** Any dispute between the Parties as to matters arising pursuant to this Contract that cannot be settled amicably within thirty (30) days after 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 SC.

### III. Special Conditions of Contract

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1(a)	The words “in the Government’s country” are amended to read “in Vietnam”
1.1(i)	Leader of the Joint Venture is <b>Nippon Koei Co., Ltd</b>
1.3	The language of contract is English. A Vietnamese version will be prepared for convenience but will not be signed. In case of any discrepancy, the signed contract will prevail.
1.4	<p>The addresses are:</p> <p>Client: Project Management Unit No. 85 184, Nguyen Sy Sach street, Vinh city, Nghe An province, Vietnam</p> <p>Attention: Mr. <b>Nguyen Ngoc Canh</b>, General Director</p> <p>Telephone: (84-4)3831 270</p> <p>Facsimile: (84-4)3 834 705</p> <p>Email: bqlda85@fpt.vn</p> <p>Consultant: <b>Nippon Koei (NK) in JV with Nippon Engineering Consultants Co., Ltd (NE), Chodai Co.,Ltd (Chodai) and Thai Engineering Consultants Co., Ltd (TEC)</b></p> <p>Attention: <b>Mr. Takashi Seki, General Manager of Infrastructure Development Division</b></p> <p>Telephone: +81-5276-3867</p> <p>Facsimile: +81-5276-3306</p> <p>E-mail: int.r@gx.n-koei.co.jp</p>
1.6	<p>The Authorized Representatives are:</p> <ul style="list-style-type: none"> <li>- The Client: Mr. Nguyen Trung Sy, Deputy General Director</li> <li>- The Consultant: <b>Mr. Ichizuru Ishimoto</b>, Project Manager/Team Leader</li> </ul>
1.7	<ul style="list-style-type: none"> <li>- The Consultant is responsible for taxes registration, declaration and payment for all local taxes, fees and others, and shall provide the relevant information and evidence accurately, quickly and timely for the Employer’s review and supervision.</li> <li>- <b>The Client shall pay output VAT and CIT to the Consultant. The Consultant has responsibility for paying and balancing input and output VAT at local tax office. The Consultant shall submit to the Client the copy of monthly VAT declaration certified by the local tax office and evidence for the CIT amount actually paid by the consultant.</b></li> </ul> <p>The Client support the Consultant for the necessary procedures for Personal Income Tax (PIT) exemption for all foreign experts working under the contract in compliance with <b>Prime Minister’s Decision No. 119/QD-TTg dated November 9, 2010 and the Joint-Circular 12/2010/TTLT-BKHDT-BTC issued jointly by Ministry of Planning and</b></p>

	<p><b>Investment and Ministry of Finance on May 28, 2010.</b></p> <p>- The Consultant shall be exempted from import taxes and VAT in respect of:</p> <p>(a) any equipment, materials, and supplies brought into the Government's country by the Consultants or Sub-consultants for the purpose of carrying out the Services and which, after having been brought into such territories, will be subsequently withdrawn there from by them;</p> <p>(c) any property brought into the Government's country by the Consultants, any Sub-consultants, and the Personnel of either of them (other than nationals of the Government or permanent residents of the Government's country) for their personal use and which will subsequently be withdrawn there from by them upon their respective departure from the Government's country.</p>
<b>2.1</b>	The Contract shall come into effect after the Contract is signed.
<b>2.2</b>	The date for the commencement of Services is the day that the Client and the Consultant agree in writing or shall be within fourteen (14) days after receipt of the Notice to Proceed issued by the Client.
<b>2.3</b>	The period shall be 14 months.
<b>3.2.1</b>	<p><b>“Procurement Rules of Funding Agencies</b></p> <p>Furthermore, if the Consultants, as part of the Services, have the responsibility of advising the Client on the procurement of goods, works, or services, the Consultants shall comply with any applicable procurement guidelines of the Bank or of the Association, as the case may be, and other funding agencies and shall at all times exercise such responsibility in the best interest of the Client. Any discounts or commissions obtained by the Consultants in the exercise of such procurement responsibility shall be for the account of the Client.</p>
<b>3.4</b>	<p>The risks and coverage shall be:</p> <p>(i) Third Party motor vehicle liability insurance in respect of motor vehicles operated in the Government's country by the Consultant or its Personnel or any Sub-consultants or their Personnel, with a minimum coverage of 1,600 USD for a person per year and 1,600 USD for a vehicle per year.</p> <p>(ii) Third Party liability insurance, with a minimum coverage of 1,600 USD for a person per year and 1,600 USD for asset per year.</p> <p>(iii) Employer's liability and workers' 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,</p>

	<p>any such life, health, accident, travel or other insurance as may be appropriate.</p> <p>(iv) Professional liability with a minimum coverage equivalent to the Contract Price</p> <p>(v) Loss or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the Consultant's property used in the performance of the Service.</p>
<b>3.7</b>	The Consultants shall not use these documents and software of Project for purposes unrelated to this Contract without the prior written approval of the Client.
<b>5.1</b>	<p>The Client shall facilitate the Consultant to collect documents and discuss with relevant agencies for project implementation purposes.</p> <p>The Client shall support necessary procedures for the foreign experts of the Consultant working in Vietnam.</p>
<b>6.2(a)</b>	<p>The amount in foreign currencies is: JPY 463,338,527 and US\$ 6,174,100 including all taxes and fees in compliance with regulations; Contingencies is JPY 40,015,600 and US\$ 533,218.</p> <p>Contingencies are used for additional assignments that are not included in the original TOR of the consultant.</p> <p>The amount of the contingency may be used subject to a separate payment schedule agreed by both parties through an amendment to the contract and with the prior agreement of the Bank and VEC. The Consultant may propose and submit scopes of works and additional cost to the Client, VEC, WB for their review and approval.</p>
<b>6.2(b)</b>	Not Applicable.
<b>6.4</b>	<p>The accounts are:</p> <p>for foreign currency:  Bank Name: The Bank of Tokyo-Mitsubishi UFJ, Ltd. Head Office  Bank Address: 7-1, Marunouchi 2-chome, Chiyoda-ku, Tokyo, Japan  Beneficiary's Name: Nippon Koei Co., Ltd.  Beneficiary's Account No.: 001.9041470</p> <p>for local currency:  To be informed after the commencement of the Service.</p> <p>Payments shall be made according to the following schedule:</p> <ul style="list-style-type: none"> <li>Twenty (20) percent of the Contract Price shall be paid after the commencement date against the submission of a bank guarantee for the same amount.</li> </ul>

	<ul style="list-style-type: none"> <li>• Ten (10) percent of the <b>contract price</b> shall be paid upon submission of Inception Report (ICR)</li> <li>• Twenty Five (25) percent of the <b>contract price</b> shall be paid upon submission of Interim Report, Basic Design Report (BDR) and Prequalification Documents;</li> <li>• Twenty (20) percent of the <b>contract price</b> shall be paid upon submission of Monthly Progress Report No.9, Detailed Design Reports and Bidding Documents of the first 3 packages.</li> <li>• Fifteen (15) percent of the <b>contract price</b> shall be paid upon submission of Detailed Design Reports and Bidding Documents of the remaining packages, Draft Final Project Completion Report and satisfactory completion of the following works: <ul style="list-style-type: none"> <li>○ Review and update EIA, EMP, EMDP, RAP</li> <li>○ Construction method and schedule;</li> <li>○ Preparation of implementation program;</li> <li>○ Study and design of ITS and toll collection system;</li> <li>○ Cost Estimate;</li> <li>○ Expressway operation and maintenance</li> </ul> </li> <li>• Ten (10) percent of the <b>contract price</b> shall be paid upon approval of Final Project Completion Report.</li> </ul> <p>Payment to the Consultant shall be carried out when design reports and other required documents submitted by the Consultant are approved by the Client and relevant authorities. In case payment is fulfilled when design reports are not approved, the Consultant shall be responsible for revising and finalizing the documents until they are approved by relevant authorities</p> <p>The bank guarantee shall be released when the total payments <b>reach fifty-five (55) percent of the contract price.</b></p> <p>Payment currencies:</p> <ul style="list-style-type: none"> <li>- The lump-sum amount shall be paid in USD and JPY, except VAT and CIT.</li> <li>- VAT and CIT shall be paid in VND.</li> </ul>
6.5	<p>Payment shall be made within 45 days of receipt of the invoice and the relevant documents specified in Clause 6.4, and within 60 days in the case of the final payment.</p> <p>The interest rate shall be the prevailing USD interest rate used by Vietcombank at the time of payment.</p>
6.6	<p><b>Exchange rate applied for payment documents</b></p> <p>The date of exchange rate applied for payment of CIT and VAT shall be 2 days prior to the Consultant' submission date of the payment document to the Client and the source of applied exchange rate is Interbank one issued by the Vietnam State Bank.</p>
7.2	<p>Any dispute, controversy, or claim arising out of or relating to this contract, or the breach, termination, or invalidity thereof, shall be settled</p>

	by arbitration in accordance with the <u>I</u> nternational Chamber of Commerce, Paris (ICC) Arbitration Rules as at present in force.
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## IV. Appendices

### APPENDIX A - DESCRIPTION OF THE SERVICES

## Terms of Reference

### 1. Background

The Government of the Socialist Republic of Vietnam (GOVN) represented by Ministry of Transport (MOT) is planning to implement Expressway Development (Da Nang - Quang Ngai) Project (hereafter called the Project). Vietnamese MOT is the line agency who makes investment decision for the Project. Vietnam Expressway Corporation (VEC) is the project owner and Project Management Unit No. 85 (PMU85) is the project management consultant at project preparation and implementation phases until the works is handed over and put into operation. PMU85 is authorized by MOT to manage the implementation of Detailed Design Consulting Services Contract and is also the implementing agency who actively works with relevant authorities to solve all the issues related to the Project. The purpose of the Expressway is to improve the inter-regional transport networks to support the socio-economic development in the Central region and in the whole country and promote traffic safety.

In preparation for the Project, the GOVN commissioned a Feasibility Study (FS) in 2003 which was subsequently revised and completed in March 2008 by JETRO Consultants. In order to meet the requirements of the guidelines and loan procedure of the World Bank and other international financial donors, the FS was updated by Nippon Koei Co., Ltd., being completed in May 2009 and completed by Transport Engineering Design Incorporated (TEDI) in 2010. This updated FS is being reviewed and further refined by CPCS Transcom Limited.

The Project consists of the following three components;

- (1) Component A: Civil Works  
Construction of four-lane dual carriageway road (with capacity for eventual widening to six lanes) and 131 km in total length.
- (2) Component B: ITS (Intelligent Transport System) Works  
Provision of traffic management and toll collection facilities
- (3) Component C: Expressway Operations and Maintenance  
Planning an institution to operate and maintain the expressway and identifying facilities and equipment that it will need.

It is currently expected that the project will be implemented with financial support from the World Bank and the Japan International Cooperation Agency (JICA). Funds from these agencies would be used to finance separate sections of the Project. The current Terms of Reference pertain to the entire Project.

### 2. Objectives of the Consulting Services

The objectives of the consulting services are:

- To undertake the efficient and proper preparation of the detailed engineering design;

- To prepare an implementation program that can ensure delivery of the project in an efficient and timely manner infrastructure in accordance with the implementation program; and
- To promote technology transfer by employing suitably qualified Vietnamese professionals for the detailed design and implementation planning for the Project and by providing appropriate training for staff of the related agencies who will be at various times responsible for the Project.

### 3. Scope of Services

#### 3.1 General

In executing the services, the Consultant shall follow the current relevant Guidelines and regulation/procedures of GOVN and the Bank based on the FIDIC Conditions of Contracts. The Consultant shall assist **PMU85** in all aspects of the work including the review of previous studies, detailed design and tender assistance required for implementation of the Project. The scope of the consulting services broadly consists of, but not limited to, the following works:

1. Review of previous studies.
2. Detailed engineering design including cost estimation and preparation of tender documents and other supporting documentation.
3. Assistance with calling and assessing tenders for works and for contract negotiations.

Special attention is drawn to the requirement that the Consultant conduct independent bid evaluations and give the Client advice on issues related to contract negotiations for the Client's reference.

The Consultant shall perform the tasks listed below:

#### 3.2 Review of Previous Studies and Establishing the Detailed Design Framework

The Consultant shall:

##### (1) Review Previous Studies

The Consultant shall review the previous studies to acquaint themselves with the evolution of the Project and its current features, and to identify matters that may materially affect the work of the current contract. Key issues will be identified for discussion and agreement with **PMU85**. The review shall cover, among others, the following subjects:

- a. Review of horizontal and vertical alignment and proposed structures.
- b. Review site-specific social and environmental impacts identified in the Environmental Impact Assessment (EIA) prepared by **PMU85** and the mitigation measures proposed in the associated Environmental Management Plan (EMP).
- c. Review construction phasing and management of traffic during construction.
- d. Review toll operation and control facilities, operation and maintenance facilities and services, service areas, parking areas, etc.

##### (2) Establish Detailed Engineering Design Framework

The Consultant shall:

- a. Establish design criteria and design standards to be applied for the Project.
- b. Recommend and agree with **PMU85** the format and content for the Bills of Quantities, cost estimates and prequalification and bidding documents.

- c. Recommend and agree with **PMU85/VEC** the time schedule for preparation of the detailed design, the Bills of Quantities, cost estimates, prequalification documents and bidding documents to allow the tendering of works and construction for each contract package to commence immediately after the completion of necessary design and documentation work and the gaining of necessary approvals.

### ***3.3 Detailed Engineering Design and Procurement Planning***

Tasks to be undertaken by the Consultant to prepare the detailed engineering design and the planning of procurement will include:

1. Identify project packaging.
2. Conduct surveys and investigations.
3. Prepare detailed design for roads, bridges and other structures.
4. Design of intelligent transport systems and toll facilities.
5. Establish an operation and maintenance system for the project.
6. Prepare an Environmental Impact Assessment, Environmental Management Plan, Ethnic Minority Development Plan (if needed) and Resettlement Action Plan.
7. Recommend construction methods and prepare a construction schedule.
8. Prepare a cost estimate for the Project.
9. Prepare pre-qualification, tender and contract documents.
10. Prepare an implementation program.

In undertaking the detailed engineering design, the Consultant shall:

- a. Use the reference documents of previous studies approved by GOVN and the World Bank as the basis for detailed design.
- b. Use engineering standards approved by GOVN. Where current standards are not available or are unsuitable, the Consultants shall make recommendations for appropriate standards and gain approval from **PMU85** for their use.
- c. Undertake the work in a phased manner so that pre-qualification of contractors can occur for packages for which detailed design and documentation is completed while detailed design and documentation continues for other packages.

#### ***3.3.1 Packaging***

The Consultant shall identify a recommended packaging for the project and get agreement with the Client before commencing detailed design. Packaging shall satisfy the following conditions:

- a. Individual packages should be confined to a single province;
- b. Individual package shall be financed by only a single financier;
- c. The value of a package should generally be from about 70 million to 100 million USD, i.e. neither too big nor too small.
- d. **During preparation of the detailed design, the Consultant shall study, initiate the solutions and design a contract package with reasonable scopes of works beforehand so that its construction can be commenced in September, 2012.**

#### ***3.3.2 Surveys and Investigations***

##### **(1) Data collection**

- Investigate and collect the following data for cost estimate and general cost

estimate: Production costs related to local transportation activities; depreciation regulations related to traffic vehicles; haulage tables for transportation services; charges for travel, bridges and roads, and insurance; costs for traffic accidents; inflation and exchange rate in the previous years; local unit price for calculation of general cost estimate; consult unit prices of projects under implementation in the region; investigate sources of materials and energies for construction; cooperate with local governments to identify disposal areas for soil and waste materials ( including liquid waste)

- Survey for construction material transportation
- Investigate and collect planning data related to the project and work with relevant authorities: Collect planning maps of highways, railways, waterways and maritime; plan of industrial and urban zones along the route; plan of systems of hydraulic works , irrigation, canals, dykes, and pumping stations, etc; plan of underground works and system of underground and overhead lines; Plan of water supply and drainage system; plan of electricity supply and lighting; plan of communication system and other relevant plans along the route, etc ( the plans must be granted with official approval of relevant authorities)
- Collect project documents and design document of the relevant projects
- Work and agree in writing with relevant authorities of Da nang city, Quang Nam and Quang Ngai provinces, 5<sup>th</sup> military zone under Ministry of Defense, EVN, VNPT, PMU of industrial zones and other relevant managing agencies about the following contents: Alignments; alternative design of interchange; scale and location of toll plazas, control center, service stations; elevation of detailed plans of urban zones and industrial zones; location, span or width, and elevation of culvert and frontage road; navigational clearance, railway clearance; documents related to hydraulic works, irrigation, water sources and sewage system for urban zones, clearance of large canals and dykes; areas within military structures, military barracks; and the other relevant documents, etc.

## (2) Surveys

Implement detailed surveys served for engineering designs of all work items under the project including: surveys of topography, hydrology, geology and testing, material sources, traffic issues, electricity, land acquisition and resettlement, surveys of relevant underground and overhead structures and staking land acquisition, etc ..,and additional survey quantities (if any) during the design. The surveys must comply with current Vietnamese specifications and standards, and supply sufficient data for documentation of detail engineering designs. Before implementation of surveys, the Consultant must carry out thorough studies on existing documents and data in the previous stages (FS, JETRO). Based on the findings from the studies, the Consultant makes and submits detailed plans for PMU85's approval to implement. Scope of the work are mainly, but not limited, as follows:

### (i) Topographic survey

- Class IV primary control points (national coordinate system VN2000): Installed with GPS technology, mark specification is in accordance with standard 22 TCN 263-2000. Each mark's distance is about 3-4 km along the expressway route, and at least 4 marks/ point at points of intersection and large bridges such as Ky Lam, Tam Ky.... and at least 2 marks/ point for the other interchanges and bridges. The marks along the route and at the large bridges and interchanges should be arranged reasonably to avoid overlapping.
- Class IV leveling network: Installed with highly accurate geometric leveling equipment. Marks of IV class leveling network share same positions with those of IV

class primary control points. Its errors are varied within standard 22 TCN 263-2000.

- Secondary control point (traverse net): measured with electronic tachometer which has accuracy and errors according to standard 22 TC 263-2000. Each mark's distance is about 150m-200 m/1 point along the expressway route, and at least 8 marks/ point for points of interchange and large bridges and at least 4 marks/ point for the other interchanges and bridges. The marks along the route and at the large bridges, interchanges should be arranged reasonably to avoid overlapping.
- Technical leveling network: Marks of technical leveling networks share same positions with those of secondary control point. It is measured with highly accurate geometric leveling equipment. Its accuracy and error is in line with standard 22 TCN 263-2000.
- Site planning: According to the alignment determined in FS, a site plan at scale of 1/1000 is made along the route, with measurement range in the expressway from center line to sides of 70 m and that in level crossing (traverse) from center line to sides of 50 m. The site plan is required to have full description of topography, ground objects, underground and surface structures, high voltage and low voltage lines, ground communication lines, railway signals, location of lakes and ponds, system of irrigation and canals, special ground objects, historical site, temples, pagodas, feretories, cemeteries, and administrative land boundary, etc as well as GPS marks, and secondary control points.
- Detailed stakeout works: According to the above site plan at scale of 1/1000, alignment design must comply with the specification and is agreed with relevant authorities (locality, military, etc). Based on system of secondary control points, official setting out in the field includes: top marking, marking in the curve, main stakeout in TS, TC, P, ST, CT; and detailed stake arrangement with max. distance of lower than 20m/ stake, and main stakes in the curve and in changed terrains and stakes of ground objects, culverts, control stakes, locations in planned industrial and urban zones (focusing on starting points and ending points) boundary of communes and districts, etc. Main stakes at top of curves, in TS, TC, P, ST, CT, Km, culverts, bridges, intersection, etc must be concreted according to standard 22 TCN 263-2000.
- Survey of longitudinal section at horizontal scale of 1/1000, and vertical scale of 1/100.
- Survey of cross-section at scale of 1/200. Surveying range is 70 m from center line to both sides of the expressway.
- Survey of culverts for drainage: Planimetric survey of the culverts with span (width) of more than 1.5m is at scale of 1/500 at the culverts, and axial measurement range of 100 m and horizontal one of 100 m for each side. The axial survey of dyke's center line, horizontal survey of dyke, and road crossing at all points of dyke's center line are at scale of 1/200. Surveying range includes range of planimetric survey of the culverts. Intersection angle is surveyed between road and culvert center lines. It is necessary to agree in writing with the relevant agencies on irrigation culverts.
- Survey of intersection points with the other works such as railways, high-voltage and low-voltage lines, communication lines including phone lines, electricity and lighting structures, post and communication cables and underground structures in the expressway routes consists of the following works: measurement of height of rail top at the intersection points with the existing routes; investigation of planned elevation of crossroad, if any; survey of elevation and locating alignment and electrical poles ( by coordinate), survey of at least two adjacent poles, intersection angle between lines and perpendicular lines, distance from the center line to the poles, height of the poles, clearance between the lowest lines and natural surface; and survey of kinds of poles,

electricity, cables, pipeline, electric transmission grid, managing agencies.

- Survey of interchanges: Identify crossroad intersecting with designed route (coordinate, station); identify the intersection angle, width of road base, kind of pavement, existing structure, kinds of vehicle, etc in the interchanges; stake out concrete/ iron piles at centerlines, starting points, ending points, top points, and basic points in the curve; make site plan with scale of 1/500 with measurement range within designed interchange range; survey longitudinal section of interchanges and its branches with length scale of 1/1000 and height scale of 1/100; survey cross-section of interchange at scale of 1/200 and distance from centerline to each side of 50m, and survey range is equal to site plan one.
- Survey of bridge: Make elevation plan at construction place of bridge at scale of 1/500; survey profile of bridge at scale of 1/500 at center line of the expressway; stake center line of the bridge with accuracy equivalent to that of secondary control points (it is noted to collect hydrographic and hydraulic data, and the documents agreed with local authorities on plan of rivers, dykes and hydraulic works. It is necessary to survey meteorological data such as: temperature, wind, rainfall, humidity, earthquake, and figures of flow rate, velocity and water level.
- Survey of residential underpass culverts: Make plan at scale of 1/500 with distance from center line to two sides of 200m and 100m respectively along the main route; survey the intersection angle between the interchange and the main route; survey kinds of intersection (district ones, commune ones, and ward ones), scale and plans (if any). Survey profile of intersection at scale of 1/500, at distance from the expressway's centerline to each side of 200m, and survey cross section of intersection at scale of 1/200 from the intersection's centerline to each side of 30m.
- Survey of canals and dykes: Identify location and boundary of canals and dykes; set plan at scale of 1/500 in boundary of canals and dykes; survey longitudinal section of canals and dykes at scale of 1/1000, and their height at scale of 1/100; survey their cross section at scale of 1/100, at distance from their centerline to each side of 20m.
- Survey of toll plazas, control centers, service station, expressway management offices, bus station, communication stations: Establish area control points equivalent to secondary control points; survey topographic plan at scale of 1/500.
- Survey and investigation of land acquisition and resettlement.
- Survey of tunnel portals: The Consultant shall submit detailed applicable specifications (survey specifications related to tunnel have not been available in Vietnam) to the Client for approval or to authorities for approval.
- Survey of frontage roads: Frontage roads are located inside survey areas (70m from center line to both sides). Thus, there is no additional works of frontage road survey.

#### (ii) Survey of hydrographical data

- Collect meteorological and hydrographical data related to rainfall, wind, and temperature, humidity from meteorological stations, and flow rate and water level at hydrographical stations in rivers in the project area.
- Collect relevant documents and work with Ministry and provincial departments of agriculture and rural development to agree with bridge designs. In terms of the culverts over irrigation systems, it is necessary to work with relevant authorities and local governments to gain agreement on culvert location, width, and required elevation from its bottom.

- Survey water level along each 1 km distance of the expressway, forming 1 water level group (each water level includes: highest one, frequent one, average one, and lowest one in 3 consecutive years; survey causes and period of flood....For drainage culverts, survey water level groups (each water level includes: highest one, frequent one, average one, and lowest one in 3 consecutive years). Survey year and causes of flood. Illustrate surveyed water level groups in the site plan.
- Survey situation of existing drainage works, irrigational system along and through the route, identify existing cross-section of canals and dykes, their top width, bottom width, depth, bottom elevation, functions, flow direction and longitudinal slope, and mark at their side.
- Survey fully existing situation of drainage, utility purposes and managing agencies of irrigation systems along and through the route.
- Hydrologic survey of bridge: Measure cross-section of flow; survey the water level in form of 3 groups at each location of bridge including: highest one, frequent one, average one, and lowest one in 3 consecutive years, causes and duration of flood.
- Hydraulic and hydrologic calculation: Based on survey data, carry out hydrologic calculation for the engineering design such as designed water level along the route, and hydraulic and hydrologic calculation of bridges and culverts (flow rate, velocity, and water level, general and local scour).

(iii) Engineering geological survey:

The Consultant is required to study thoroughly geological data in FS stage to arrange the holes drilled at stage of the engineering designs, avoiding to quantity overlapping. Requirements of geological drill are as follows:

- Engineering geological survey of normal foundation: Drill both normal foundation and culverts with two holes at the depth of 7 m per 1 km.
- Survey at special sections such as the ones which need deep excavation, embankment or soft ground ones: Drill one hole at the expressway centerline per 75 m; drill geological cross-sections with two holes for two sides and one hole at the centerline per 150 m and these cross-sections should be combined the locations of drilled culverts. Depth of borings must be enough to meet the requirements of detailed design. Carry out Vane shear test (VST) at drilled holes of the centerline at cross-section location. Distance of vane shear is 2 m to bottom of the holes..
- Engineering geological survey of bridge: Each abutment and bridge pier have one the drilled hole (location of abutment and bridge pier is identified after completion of the plan and profile of bridge's center line); the hole is 3-5 m deeper than pile foundation with the completing conditions equivalent to standard of 22 TCN 263-2000; one sample/ 2m is taken. SPT piercing in the holes is carried out with distance of 2m/ point. Test physico-mechanical properties of ground, especially in case of soft ground, test the additional parameters such as  $C_v$ ,  $K$ , organic content, and compress 3 axes in form of UU and CU to provide sufficient data for soft ground treatment.
- Engineering geological survey of tunnel: The Consultant is required to submit tunnel survey specifications. In case of the survey specifications of the Consultant is approved and suit with Consultant's proposal so PMU85 will agree with the Consultant's proposal. Engineering geological survey of tunnel: Drill at least one hole at the tunnel plaza, two holes at expressway centerline and horizontal drills with at least 50m at each tunnel portals. Depth of borings must be enough to meet the requirements of detailed design. Testing 17 undisturbed soil samples/ each boring and 8 disturbed samples/each boring. Seismic measurement at 4 points at the depth of 50m

and 8 points at the depth of 100m is carried out to identify strata structure. The consultant shall prepare and submit PMU85 tunnel survey specifications for their review and approval.

- Engineering geological survey of residential underpass culvert: Drill two staggered holes at each location of the residential underpass culvert, one hole at right lane of the expressway, and another at left one; Take one sample/ 2m; carry out SPT piercing in the holes with distance of 2m/ point.
- Engineering geological survey of toll plazas, control centers, service station, expressway management offices: each location has at 2- 4 holes with full depth to provide sufficient data for the design and the specific alternative shall be submitted to PMU85 before implementation.
- Sampling and testing works is carried out in accordance with the standards of 22 TCN 259-2000, 22 TCN 263-2000, 22TCN262-2000 and enough data is required to collect to serve for detailed engineering design. For the embankments on the soft ground, it necessary to test the parameters such as  $C_v$ ,  $K$ , organic content, and compress 3 axes in form of UU and CU to provide sufficient data for soft ground treatment. The Consultant shall collect and store samples, especially the ones at large bridges. These samples shall be handed over to the client upon the Project completion.

#### (iv) Material Source Survey

This task must be ensured to collect all data of locations of material sources which meet the requirements of the Project, are practical and feasible during construction.

- Back filling materials (borrow pits) and sand for soft ground treatment: identify exploitable soil and sand quarries; work with local governments to gain agreement in writing and then, map out them on plan at scale of 1/50,000. Collect data related to capacity and quality of each quarry; take testing sample to identify necessary parameters of back filling materials and others for soft ground treatment.
- Survey and evaluation of general situation, capacity and transportation length of the routes for exploitation and transportation to the construction site.
- Borrow pits and quarry sites for construction of bridge and culverts, pavement: For borrow pits and quarry sites which are exploited or being exploited, collect data related to their capacity and quality, exploitability, and transporting conditions to the construction site. For new borrow pits and quarry sites, carry out procedures for survey and testing necessary characteristics of each material.

#### (v) Survey of other relevant structures

- Survey current situations of traffic works in the area to evaluate usage capacity and level that shall be upgraded to construct service roads for construction of the expressway.
- Survey old bridges and culverts on the cross lines: Identify location, survey profile, main cross-section, and elevation of components of existing works; review construction materials; evaluate loading capacity of the works; evaluate fault degrees, suitability and utilizing capacity.
- Survey current situations of irrigation works within study area.
- Survey underground structures, public works: optical cables, underground cables, pipeline, oil and petrol pipeline, etc.
- Survey existing power supply in the route, and request for supplying capacity and starting points. For transformer stations, request was made to identify their location, scale, capacity, specifications, and works which is supplied with power, etc. Survey

additional locations of transformer stations; identify clearly locations of the station by coordinate and full description in maps including topographic, geologic and ground object data, and agreeing with the local governments in writing on these issues, etc.

- Survey cultural buildings, temples, pagodas, and relevant legal religious buildings.

(vi) Additional Traffic Surveys

- The Consultant shall review available traffic data on the existing road and conduct additional surveys as necessary to:
- Collect data needed for the detailed design of foundations, pavements, interchanges, and toll stations, etc; and
- Collect base line data that can be used for monitoring performance of the completed Project, where this data shall include the quantity and composition of traffic using the current national highway, total travel time and the variability of the travel time for, separately, cars and trucks, and the number and type of traffic accidents per annum along the current corridor. This data will be collected separately for at least the segments Danang to Tam Ky and Tam Ky to Quang Ngai.

(vii) Independent Land Valuation Survey

As part of the work on updating the Resettlement Action Plan (RAP) the consultant will engage as a sub-consultant a qualified Land Valuation Consultant (LVC). The LVC must be licensed by the Ministry of Finance to undertake land valuation in Viet Nam and be independent of all project stakeholders. As part of the updating work the LVC will undertake a survey to establish current market values for all types of land, by location and use, sufficient to confirm the budget under the updated RAP.

(viii) Environmental and Social Surveys

Undertake surveys as necessary to update the EIA and EMP.

*3.3.3 Detailed Design of Road, Bridges and Other Structures*

The Consultant shall:

- (1) Prepare a comparative analysis to aid the selection of the most appropriate types of interchange bridge structures and other important structures taking into account the site conditions, construction method as well as economic conditions.
- (2) Review the preliminary design in the previous studies taking account of the results of updated topographic survey, materials survey, geotechnical survey and soil investigation, hydrological survey and other available data.
- (3) Take account of site-specific social and environmental impacts identified in the EIA prepared by PMU85/VEC and the mitigation measures proposed in the associated EMP, and any other matters identified through work described in Section 3.3.6, in the detailed engineering design. Maintain records of changes in features of the Project to facilitate updating the EIA and EMP.
- (4) Prepare detailed engineering designs for roads, interchanges, bridges and other structures, soft ground treatment and pavement structure, including structural analysis, design calculation, drawings, etc. taking into account the most appropriate construction method.
- (5) Prepare engineering drawing that include site plans, interchange plans, general views and structural drawings. Unless agreed, scales for drawings shall be not less than:

- |    |                |                |
|----|----------------|----------------|
| a. | Plan           | 1:1000         |
| b. | Elevation      | 1:100          |
| c. | Cross sections | 1:200          |
| d. | Structures     | 1:200          |
| e. | Other          | as appropriate |
- (6) Calculate quantities for each item of work based on the detailed design and the agreed form and content of the bill of quantities.
  - (7) Undertake a road safety audit of the expressway design and revise the design, if appropriate, to address any safety issues identified in the design. A report will be prepared by an experienced Road Safety Audit Expert and submitted for review by the appropriate authority to confirm that appropriate measures have been taken to address road safety issues.
  - (8) The Consultant shall prepare detailed design of service areas in the alignment
  - (9) Using a participatory approach, identify the impact of the expressway construction on local infrastructure, which will include consideration of pedestrian and vehicle accesses, and disruption to irrigation and other agricultural or community facilities. Based on consultations with local communities prepare plans and procedures for minimizing impacts on local communities both during and after construction of expressways. To the extent possible existing accesses should be reinstated through use of over and under passes. Where an access cannot be reinstated alternative routes must be provided.
  - (10) The Consultant shall prepare the documents of land acquisition staking for the Project.

#### 3.3.4 Study and Design of ITS and Toll Collection System

- (1) The Consultant shall conduct an investigation into intelligent transport systems (ITS) and the toll collection system needed for the Project. The systems will include vehicle and incident detection, CCTV, information systems, data transmission, etc. The work shall draw on technical standards that it is expected will be established by the GOVN with support from JICA, and will cover:
  - a. Identification of potential data and information needs, traffic management issues and emergency support such as police, fire and ambulance services.
  - b. Conceptual design of ITS and toll collection systems.
  - c. Setting of design standards for each system component and configuration of each item of equipment.
  - d. Conceptual plan for institutional arrangements and staffing needed to manage the ITS and toll collection systems, including branch offices.
- (2) Following this investigation and approval of proposals by VEC, detailed design and cost estimates shall be prepared for the following facilities:
  - a. Central control and operation center and branch offices.
  - b. Agreed vehicle and incident detection, CCTV, information systems, data transmission and other systems.
  - c. Toll collection facilities including toll gate equipment and its operation system.

- d. Communication and other facilities needed for emergency support such as police, fire and ambulance services.

### 3.3.5 *Expressway Operations and Maintenance*

The Consultant shall review the operation and maintenance systems for existing and proposed expressway in Vietnam and recommend the most appropriate system for the Project. In doing so, the Consultant will also take account of work described in Section 3.3.4, and also the work of a separate planned investigation of legal and regulatory frameworks, policies, and institutional and administrative arrangements for expressways in Vietnam to be undertaken by the GOVN with support from the World Bank. The work to be undertaken by the Consultant shall include the following:

- a. Plan a Management Unit to undertake operations and maintenance of the expressway, including goals and objectives, organization structure, and staffing needs for the proposed Unit. This work should be undertaken to a sufficient level of detail to allow work described in the next item to be undertaken.
- b. Determine the buildings, facilities and equipment needed by the Unit, including its central and branch offices, submit the plans to VEC for review.
- c. Following approval, prepared the detailed design and cost estimates for buildings and facilities for the Management Unit and prepared specifications and cost estimates for all equipment, vehicles, materials and supplies, including stock, that will need to be procured to allow the Unit to undertake operations and maintenance of the expressway.

### 3.3.6 *Review and update, as necessary, an Environmental Impact Assessment (EIA), Environmental Management Plan (EMP), Ethnic Minority Development Plan (EMDP) and Resettlement Action Plan (RAP)*

The Consultant shall review the EIA for the Project and submit an updated EIA and an associated EMP with recommendations for mitigation measures in response to the environmental impacts, if any. An EMDP will be prepared if needed. The Consultant shall review and update the Resettlement Action Plan (RAP) prepared by PMU85/VEC. The EIA, EMP, EMDP and RAP will be prepared in accordance with World Bank guidelines including the *Environmental Assessment Guidebook* and *Involuntary Resettlement in Development Projects: Policy Guidelines in World Bank-Financed Projects*.

A more detailed outline of activities to be undertaken with regard to the EIA and EMP is presented in Annex A. Information on the work to be undertaken in updating the RAP is given in Annex B. The work on the RAP will draw on the independent land valuation survey described in Section 3.3.2(6). The work of the Consultant on resettlement will support the relevant Resettlement Committees, which have the principal responsibility for planning and implementing resettlement activities.

**Note:** The EIA, EMP, EMDP (if needed) and RAP shall be translated into Vietnamese by the Consultant and submitted **PMU85/VEC**. In case, there is discrepancy between English version and Vietnamese one, the English version will prevail.

### 3.3.7 *Construction Method and Schedule*

The Consultant shall carry out the study of construction execution and propose the most suitable and practical construction method and schedule of the Project.

### 3.3.8 *Cost Estimate*

The Consultant shall prepare the detailed cost estimate for the construction of the Project, including:

- a. Bills of Quantities for the construction works of every contract package and the whole project.
- b. The cost estimate for every contract package based on a detailed unit price analysis.
- c. Prepare the total cost estimate for every contract package and the whole project based on the Bills of Quantities and taking account of project management and other costs, and showing a breakdown of foreign and local currency portions.
- d. Prepare annual financing schedules for every contract package and the whole project based on the construction schedule and showing total costs and a breakdown of foreign and local currently portions.

### 3.3.9 *Pre-qualification, Bidding and Contract Documents*

For sections of the Project to be funded with assistance from the World Bank, the Consultant shall prepare procurement documents in accordance with the World Bank's *Procurement Guidelines, Standard Pre-Qualification Documents and Standard Bidding Documents for Procurement of Works*. For sections to be funded with assistance from the Government of Japan, the documents will be prepared in accordance with the most recent version of the *Handbook for Procurement under ODA Loans*. These standard documents will be provided to the Consultant.

The procurement documents to be prepared by the Consultant will include those needed for pre-qualification, bidding and contracting each contract package. The documents shall be prepared and completed in a timely manner so that prequalification of packages for which design has been completed and approvals gained can be undertaken in parallel with detailed design for other packages and the bidding can be started immediately after completing the detailed design for the concerned contract package.

Pre-qualification, bidding and contract documents shall be in English. The documents shall be translated into Vietnamese by the Consultant and submitted to VEC for approval. Where there is discrepancy between the English and Vietnamese versions, the English version will prevail.

### 3.3.10 *Preparation of Implementation Program*

The Consultant shall prepare the implementation program in accordance with the final scope of works.

## 3.4 *Procurement Assistance*

The Consultant shall provide necessary technical assistance to PMU85/VEC in all aspects of the procurement process in accordance with the procurement regulations of GOVN and World Bank guidelines.

The technical assistance shall include, but not limited to, the following:

- (1) Preparation of the Procurement Plan covering all major work contracts.
- (2) Preparation of pre-qualification and bidding documents for each contract package.
- (3) Providing necessary assistance on invitation of pre-qualification, evaluation of pre-qualification applications and preparation of pre-qualification evaluation reports for submission for review by concerned agencies including PMU85, VEC, MOT and the World Bank.
- (4) Providing necessary assistance on invitation for bids, bid opening, pre-bid conference, pre-bid site visits for the pre-qualified interested bidders, preparation

of clarification answers and addendum to bidding documents, evaluation of bids, preparation of bid evaluation report in accordance with the World Bank's standard bid evaluation form and the MOT's form for submission for review by concerned agencies including PMU85, VEC, MOT and the World Bank.

- (5) Assist PMU85/VEC in contract negotiation, preparation and finalization of contracts submission for review by concerned agencies including VEC, MOT and the World Bank.

3.5. The Consultant shall stake land acquisition to hand over to local authorities who undertake compensation for land acquisition and resettlement.

3.6. The Consultant shall undertake training and technology transfer for PMU85, VEC, local consultant and relevant authorities.

#### **4. Obligations of the Consultants**

The Consultants shall commit to complete well all the works stipulated in the TOR and the Contract Agreement. All members of the Consultants shall comply with Vietnamese law and regulations and World Bank requirements during the undertaking of the consulting services in Vietnam.

The Consultants shall be responsible for equipments and software required for carrying out their work.

## Annex A

**Updating the Environmental Impact Assessment and Management Plan  
for the Proposed Da Nang to Quang Ngai Expressway Project  
Detail Design Stage**

1. **Background:** In 2008-2010, PMU85 and its environmental consultants prepared and updated the Environmental Impact Assessment (EIA) and developed the Environmental Management Plan (EMP) based on the updated Feasibility Study published in October 2010. At that time, the entire alignment was re examined and the alignment segments were selected based not only on the technical, cost and geotechnical criteria but also taking into consideration environmental and social issues. Thus the current EIA/EMP reports are based on the alignment which was selected using environmental, technical and social criteria. However, the comparison and selection of the alignment is based on the feasibility level design, with inadequate maps and design details. Also, the current review of the feasibility study and the detailed engineering design could lead to some further revisions to the features of the project that could have environmental and other consequences.
2. **Objective:** The main objectives of the proposed assignment are to: (a) confirm that the selected alignment and the corresponding mitigation measures in presented in the EA reports are based on sound engineering design carried out using appropriate scale maps and drawings; (b) confirm that the project specific environmental, social and cultural issues are properly integrated in the analysis and selection of the final alignment, design, construction and operation of the proposed Da Nang to Quang Ngai Expressway; (c) confirm that the proposed mitigation measures are appropriate, feasible, and cost effective and are incorporated in the detail design, technical specs and contract documents; and (d) update the EIA and EMP reports highlighting the changes and modifications.
3. In reviewing and updating the EA reports, the Consultant will use the latest version of the preliminary design/feasibility report and any updates to it. PMU85 will share with the Consultants the latest version of the EIA/EMP reports and World Bank comments on the EIA/EMP reports.
4. **Scope of Work:** The scope of work comprises of the following main tasks divided into two phases.
5. **Phase 1: Confirm the appropriateness of the selected alignment and the adequacy of the proposed mitigation measures**
  - Review the latest EIA/EMP reports and the World Bank comments. Review the comparison of the alternatives and the selection of the options and confirm that the preferred alternatives and the final alignment are based on the engineering design using appropriate scale maps and drawings and takes into consideration environmental and social issues.
  - Based on detail field survey carried out during detail engineering design phase, review, comment on the adequacy of impacts assessment and discuss any potential environmental impacts or issues not raised in the EIA provided.

- Review the environmental mitigation measures proposed for the design, construction and operational phases. Confirm the appropriateness and adequacy of the proposed mitigation measures and recommend supplement mitigation measures as needed.
- Prepare a brief report on the comparison and selection of the alternatives and the final alignment. The report should: (a) include evaluation of the adequacy/-shortcomings in the choice of the alignment and whether the alternatives and the alignment were evaluated and selected with adequate detail engineering design, appropriate scale topographical maps and other information; (b) include an assessment of the best way to finalize the comparative options for selecting the remaining short segments of the alignment, the adequacy of the proposed mitigation measures and how best to incorporate the mitigation measures in the EA reports, the engineering design and the contract documents; and (c) review this TOR and if necessary, propose modifications of the TOR and resources (time and manpower) allocated to remediate/modify the above deficiencies and how best to proceed with updating the final EAs.
- In undertaking this work, collection of baseline environmental and social data is not envisaged. In the event that some data collection or confirmation is necessary, the Design Consultant should discuss the issue with PMU85, VEC and the EA Consultants responsible for compiling the original EA reports to confirm the need for additional data to supplement the information already collected. Allowance should be made in the budget for collection of some additional data in case it should be necessary.

**6. Phase 2: Update the EA reports, Engineering Design and Contract documents**

- Following consensus on the revised scope of work and budget, the Design Consultant will: (a) for the alignments segments for which previous work may be considered insufficient, strengthen the analysis using detail design and appropriate scale maps and information; (b) for the short segment alignment which require comparative analysis, obtain the necessary social and environmental information to supplement the technical and cost information for an in-depth analysis and selection of the alignment; (c) for the newly selected segments of the alignment, develop mitigation measures in consultation with PMU85/VEC and the environmental and social groups; (d) for the whole alignment, confirm the appropriateness of the mitigation measures and ensure that the mitigation measures are included in the design, technical specifications and contract documents; and (e) update the EIA/EMP reports. The Design Consultant should ensure that the mitigation measures proposed to remediate the impacts are practical, feasible and cost effective and that the measures should reduce/remediate the adverse environmental impacts to acceptable levels. The proposed mitigation measures should be practical and implementable and should be costed for capital and recurrent operating and monitoring costs.
- Prepare Terms of Reference for independent environmental monitoring and supervision during construction of the Project.

**7. Reporting.** The Design Consultant is required to deliver interim reports to VEC and the

World Bank for review and comments. The interim schedule is as follows:

- 2 months after signing the Contract: A brief report on the appropriateness of the proposed alignment, adequacy of socio-environmental impacts assessment and the corresponding mitigation measures.
- 5 months after signing the Contract: Updated draft EIA and EMP reports
- 8 months after signing the Contract: Draft final updated EIA and EMP reports, subject to no final updated EIA and EMP reports for any individual segment being submitted no less than 2 months in advance of completion of detailed engineering design for any individual section or component of the project.

## Annex B

**Resettlement Study Methodology  
Preparation of an Updated Resettlement Plan**

Following detailed design and together with the PMU85 and VEC staff and concerned resettlement committees (RCs), the scope of work to be undertaken by the Consultant will include, but not necessarily be limited to, the following:

- (1) Discuss with the PMU85 and VEC staff and implementing agencies (People's Committees and Resettlement Committees) on the cut-off-date of eligibility.
- (2) Updated Census of Affected Persons (APs) and Detailed Measurement Survey: Review the AP and IOL database survey prepared during the Feasibility Study. Work with RCs to ensure an updated census is prepared, a detailed measurement survey (DMS) of all lost assets is conducted, and the AP database is finalized. The updated information in the DMS baseline survey for each AP household will include the following:
  - a. Number of household members, gender of head of household, and ethnicity of family
  - b. Primary and secondary sources of income and levels of income for each, and location of income source (i.e., whether on site or off site)
  - c. Loss of potential work days due to loss of business by roadside shop owners or employment in roadside industries/businesses due to dislocation and/or disruption of normal economic activities
  - d. Number, type and area of the houses to be affected, and whether totally affected and must relocate or partially affected and can repair on same site
  - e. Number and area of all residential plots to be affected, and whether have sufficient remaining land or must relocate
  - f. Number, category and area of agricultural land to be affected; area of total agricultural landholding; area of remaining unaffected agricultural landholding
  - g. Quantity and types of crops and trees to be affected
  - h. Businesses to be affected including structures, land and other fixed assets
  - i. Quantity and category of other fixed assets affected by the Project
  - j. Temporary damage to productive assets
  - k. Legal status of affected land and structure assets, and duration of tenure and ownership
  - l. Resettlement needs, choices/preferences for resettlement and income restoration activities
- (3) Work with RCs to review the SES baseline and analysis and carry out supplementary work to improve the updated RP as necessary. If RP updating

does not occur for at least two years after SES which was undertaken during the Feasibility Study, another SES will be carried out. It will cover 20% of severely affected APs and at least 10% of all other APs, disaggregated by gender, ethnicity, and type of impact (i.e. loss of residential land and house, loss of agricultural land, loss of income from business or employment, etc.). Data to be collected should include, among others the following:

- a. Household head: name, sex, age, livelihood or occupation, income, education and ethnicity
  - b. Household members: number, livelihood or occupation, income, school age, children and school attendance, and literacy
  - c. Living conditions: access to water, sanitation and energy for cooking and lighting; ownership of durable goods; and
  - d. Access to basic services and facilities
  - e. Expenditures and Poverty Levels
  - f. Residential history of family and of community
  - g. Main agricultural practices of the family and community, if an agricultural area
  - h. Main non-agricultural employment opportunities
- (4) Ensure that an updated replacement cost is estimated for each affected commune based on the current market prices for different types of land and non-land assets including transaction costs such as administrative charges, taxes, registration. Analyze and compare results with current rates issued by the Provincial People's Committees and establish project rates. Further details of the requirements of the replacement cost survey are given below.
- (5) Review and assess the consultation and disclosure program carried out during the Feasibility Study. Design and facilitate implementation of a consultation and disclosure program to ensure all key stakeholders have been identified and consulted closely on their views about the project and resettlement effects, including poor and vulnerable APs (for example, the very poor, those without formal land title, female-headed households, ethnic minority groups, isolated groups, and the elderly) who might require special assistance are identified and consulted. Review and revise, as necessary, the gender strategy. Document the consultation and disclosure activities. Attach minutes of meetings, photos, attendance sheets in the updated RP.
- (6) Review and finalize the relocation strategy. Identify risks of loss of income/livelihood due to relocation, record discussions with APs in terms of final options for compensation and relocation. Review discussions held with local officials in terms of availability of replacement land, location of potential replacement land/resettlement sites (i.e., name of commune and distance from existing site) confirmed during the Feasibility Study and carry out feasibility study of the final sites identified. Confirm available resources and facilities and identify requirements to improve replacement land. Discuss land title issues and

process to acquire land with title. Identify environmental risks and arrangements for environmental management and monitoring.

- (7) Where incomes must be restored, review and assess list of severely affected APs and also APs most vulnerable to risk; carry out feasibility studies for income restoration programs and prepare a good monitoring program to see how APs are able to rehabilitate themselves, if not improve their socio-economic conditions, any problems faced and how to fine tune the programs introduced to make it workable/implementable based on current conditions/feedback from APs.
- (8) Review the Bank's relevant policies and guidelines and Government relevant laws and regulations. Review and revise gaps between Bank and Government policies and key strategies to reconcile differences to meet Bank's policies.
- (9) Review project policies and finalize entitlements for all types and level of impacts. Finalize options for locally acceptable replacements for land and non-land assets, lost services, cultural sites, common property or access to traditional resources for subsistence, income or cultural activities.
- (10) Review grievance mechanism and an appeal procedure. Finalize responsibilities, reporting requirements, and budget allocation to support the committee's functions.
- (11) Review and assess institutional arrangements. Focus on staffing, capacity, and logistical arrangements. Assess trainings and capacity buildings undertaken during Feasibility Study and include skills and training required during RP updating and implementation. Update key milestones for establishing units at the central and field level.
- (12) Work with RCs to establish an appropriate implementation schedule for land acquisition, compensation and resettlement and income restoration, in conjunction with the proposed implementation schedule for civil works, showing how affected people will be properly compensated and relocated before the site is required to be handed over to the contractor.
- (13) Review and revise as necessary a monitoring and evaluation plan with clear reporting requirements, an updated RP budget covering all land acquisition and resettlement activities with a clear description of flow of funds.
- (14) Review and assess grievance redress committees established and ensure that the responsibilities, reporting requirements, and budget allocation to support the committee's functions are in place.
- (15) Prepare updated RP. Prior to submission of updated RP to the Bank for review and approval, pertinent resettlement information in the updated RP should be disclosed to APs in a form and manner understood by them. This may be in a form of an Information Brochure to be distributed to the APs. The Information Brochure should contain a brief description of the Project, the types of impacts, basic compensation policy and entitlements, implementation schedule, implementing organizations, public consultation mechanisms and grievance procedures, and timing for compensation payments and schedule for clearing

the land required for the Project.

- (16) Coordinate with the independent monitoring organization. Ensure that findings and recommendations made by the IMO are discussed with PMU85 and RCs for appropriate action to ensure that resettlement updating and implementation are undertaken properly and effectively.

## DETAILED TERMS OF REFERENCE FOR REPLACEMENT COST SURVEY

### I. Objectives of the Assignment

Under the Replacement Cost Survey (RCS) the team shall verify and establish compensation rates for land, crops, trees, structures, and other non-land based income (e.g. fishponds) to ensure that Displaced Persons (DPs) are compensated at replacement costs.

### II. Scope of Works

**Approach.** The establishment of replacement costs will be carried out based on information collected from both Desk research and Direct interviews with people in affected area, both those persons who are affected and those not affected. Desk research will focus on relevant publications, materials of Government authorities, both at central and local levels. However, these materials will play the supporting role only. As the work is aimed at obtaining reasonable replacement costs for different types of affected assets, market evidences are the factors which most strongly base the formulation of these costs. Direct interviews with people in the affected area, both those, whose assets are affected by the Project and those, whose assets are not, will produce reliable data for establishment.

**Basis for Valuation.** The basis for valuation assessment of both land and real estate should be (i) research and market investigations carried out by the RCS team, (ii) accumulated market evidence already held by the valuation organization, (iii) the results of any valuation surveys carried out by any other organization that is available and (iv) survey maps of the land to be valued and surrounding land. Valuation of land must be undertaken by a licensed Land Valuer.

**Data collection.** The interviews will be conducted based on a pre-developed interview guide. Sample size will be determined by the RCS team for land, structures and other fixed assets.

**Structures:** (a) Interviews with owners of structures (main materials they used for their current structures; type of shops where they bought construction materials; distance of transport; origin of the materials (local or overseas); costs of various materials; labor cost); and (b) interviews with construction contractors (main materials which are most used by the local people to build their structures; costs of those main materials; cost of labor; average construction cost (cost per sq.m floor) for different types of houses according to different categories; and (c) validation of provincial construction prices (cost per sq.m floor for each category). Proposed compensation rates for structures will be based on sample of houses in each class to ensure that the rates established cover the whole range of houses in that class.

**Land.** Price of land will be differentiated based on the use of land, including:

Residential land; Garden land; Agricultural land; Land with water surface for fishery cultivation; and Forest land.

The objective of this establishment is to determine whether the provincial prices are sufficient or not to purchase the same quality and quantity of land. The establishment of compensation for the loss of land is based on its market value. The best way to obtain this market value is to gather data of some sales of land, which have just taken place. However, the transfer of land use right does not always go along with such sales, which makes details of such sales not recorded. The team will make their best effort to collect sales evidence to support the verification of provincial prices. In addition, information to base the establishment will be collected from direct interviews with owners of land in Project affected area, including those, whose land is affected and those whose land is not. The interviews will cover the following issues: (i) recent land use rights transfer in the area and (ii) price, at which owners (affected and not affected persons) are willing to sell their land.

Apart from determining the rates for various types of land. The Land Valuer also need to determine the transaction costs involved such as administrative charges, taxes, registration and titling costs. The Land Valuer should bear in mind that when establishing replacement cost for each type of assets, transaction costs should be clearly specified and should be shouldered by the Project.

Crops and Trees. The objective of this establishment is to determine whether the provincial prices paid to DPs are equivalent, lower or higher than the average market price. The basis of the establishment is to determine the average market price for each type of crops and trees. The information to base the establishment will be collected from:

- Secondary sources: (a) publications of respective ministries (environment, agriculture, forestry and (b) publications of Price Committee (if available)
- Primary source: (a) interviews with people who own the same crops and trees in the locality. The interviews will cover price, at which owners are willing to sell each type of their crops and trees. The prices for perennial trees will be differentiated by the age of the trees and (b) market, team will investigate the sales price of outputs of different types of crops and trees in the market.

Replacement Cost = Current Market Value + Transaction Cost. Apart from determining the rates for land and non-land assets indicated above. The RCS team also needs to determine the transaction costs involved such as administrative charges, taxes, registration and building permit costs. The RCS team should bear in mind that when establishing replacement cost for each type of assets, transaction costs should be clearly specified to ensure that these expenses or costs are shouldered by the Project and should not be deducted from the compensation payment that each AP will receive. A separate section in the report should present how transaction costs are calculated.

### **III. Formal Outputs**

Based on the activities carried out, the consultant team should (i) present the methodology used and (ii) prepare a table and discuss among the team the unit rates to be applied for the project.

#### IV. Working Schedule

The tasks for the Replacement Cost Survey will be a critical input to the Detailed Measurement Survey (DMS) to be undertaken to prepare the detailed Resettlement Action Plan. To ensure that the results of the Replacement Cost Survey are available to be incorporated in the DMS it is expected that this work will be undertaken between December 2011 – May 2012 with the following inputs submission schedule:

No.	Output	Hard copies		Date
		Vietnamese	English	
1	Inception report	6	6	1 month after beginning of the assignment
2	Replacement cost survey	6	6	06 month after signing of contract

#### V. Qualification and Experience Requirements

The team will be composed of one senior social development consultant, at least 2 resettlement consultants and a team of enumerators, statistician and encoders. A licensed Land Valuer must be engaged as part of the team to prepare land valuations that are (i) prepared using internationally accepted methodologies, (ii) reflect market values and clear transaction costs and (iii) are independent.

Each member of the RCS team will have the following minimum qualifications and experience:

- (a) The consultants must hold a university degree with a minimum of Bachelor preferably with a major in social sciences;
- (b) The Land Valuer must hold all required licenses and registrations to practice as a land valuer in Vietnam;
- (c) The consultant must have at least 2 years working in similar field and that have experience in RCS for projects funded by WB or other international sponsors such as ADB;
- (d) Preferably RCS consultants should have experience in the management of projects;
- (e) Consultant must be fluent in written and spoken English.

#### VI. Client's Inputs

The consultant shall report to the PMU85 and VEC, who will provide, free of charge, the RAPs, and available related documents of the project.

PMU85/VEC will assist in arranging access to, and coordination with relevant departments, local authorities and organizations in the three project provinces of Da Nang, Quang Nam, and Quang Ngai.

## APPENDIX B - REPORTING REQUIREMENTS

The Consultant shall prepare and submit the following reports and documents in English and Vietnamese to Client:

(1) Inception Report

Within one (1) month after commencement of the services of the project, the Consultant shall submit the fifteen (15) copies of an Inception Report for guiding all the consulting services to be undertaken by the Consultant.

(2) Review of Previous Studies and Establishing the Detailed Design Framework

Within two (2) months after commencement of the services, the Consultant shall submit fifteen (15) copies of Review and Detailed Design Framework.

(3) Monthly Progress Reports

The Consultant shall submit fifteen (15) copies of a Monthly Progress Report in the accepted form describing briefly and concisely all activities and progress in the previous month. Problems encountered or problems anticipated shall be clearly stated, together with measures taken or recommendations for their correction. It will also indicate the works to be performed during the coming month.

(4) Environmental and Social Reports

The Consultant shall submit 15 copies of the Environmental Impact Statement, Environmental Management Plan, Ethnic Minority Development Plan (if required) and Resettlement Action Plan.

(5) Land Acquisition Staking Report

The Consultant shall submit 15 copies of Land Acquisition Staking Report to PMU85

(6) Survey Reports, Design Reports and Prequalification, Tender and Contract Documents

It is expected that the bidding process for each contract package will be started right after the completion of its detailed design and bidding documents.

Continuous detailed design for each contract package until its completion is carried out and the Consultant shall submit design reports, prequalification and tender documents for each contract package. The schedule of document submission is as follows: Within 6 months since the commencement date, the Consultant shall submit 3 sets of draft design report, prequalification and tender documents for the first three contract packages. Until the 12th month since the commencement date, the Consultant shall submit full sets of design reports, prequalification and tender documents for the whole project.

Survey reports, detailed design reports, prequalification and bidding documents prepared by the Consultant shall be submitted to PMU85 who will review the documents and arrange for review of the documents by appropriate authorities. In the review process, the Consultant shall be responsible for making clarifications of the documents to the

authorities. Based on their comments and recommendations, the Consultant shall update, revise and finalize the documents until these documents are approved by relevant authorities.

(7) Road Safety Audit

The Consultant shall submit 15 copies of a Road Safety Audit report setting out (i) issues identified during an safety audit of the expressway design, and (ii) measures taken to address the above issues.

(8) Updating the Environmental Impact Assessment and Management Plan

The Design Consultant is required to deliver interim reports to PMU85/VEC and the World Bank for review and comments. The interim schedule is as follows:

- 2 months after signing the Contract: A brief report on the appropriateness of the proposed alignment, adequacy of socio-environmental impacts assessment and the corresponding mitigation measures.
- 5 months after signing the Contract: Updated draft EIA and EMP reports
- 8 months after signing the Contract: Draft final updated EIA and EMP reports, subject to no final updated EIA and EMP reports for any individual segment being submitted no less than 2 months in advance of completion of detailed engineering design for any individual section or component of the project.

(9) The replacement cost survey

To ensure that the results of the Replacement Cost Survey are available to be incorporated in the Detailed Measurement Survey it is expected that this work will be undertaken between December 2011 – May 2012 with the following inputs submission schedule:

No.	Output	Hard copies		Date
		Vietnamese	English	
1	Inception report	6	6	1 month after beginning of the assignment
2	Replacement cost survey	6	6	06 month after signing of contract

**APPENDIX C - KEY PERSONNEL AND SUB-CONSULTANTS**

Foreign Key Personnel Attached

Local Key Personnel Attached

**APPENDIX D - COST ESTIMATE**

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**APPENDIX E - SERVICES AND FACILITIES PROVIDED BY THE CLIENT**

The Client shall co-ordinate and shall facilitate the Consultant to carry out services as follows:

- (1) The Client shall facilitate the Consultant to collect data and discuss with relevant authorities for project implementation purposes;
- (2) The Client shall support necessary procedures for the foreign experts of the Consultant working in Vietnam;