APPENDICES

APPENDIX **B-4**

SAMPLE OF QIP BID AND CONTRACT DOCUMENTS

APPENDIX B4-1: QIP CONTRACT COVER

BIDDING DOCUMENTS

Quick Impact Projects- PHASE II-Group1(subproject e)

IN

THE STUDY FOR SOCIO-ECONOMIC REHABILITATION AND DEVELOPMENT OF CONFLICT-AFFECTED AREAS IN MINDANAO

CONSTRUCTION OF COMMUNITY TRAINING CENTER

Barangay Mindupok, Maitum, Sarangani

Contents:

JICA SERD-CAAM STUDY TEAM

APPENDIX B4-2: QIP LETTER OF INVIT

Ref. No. QIP Ph II-005

04 August 2008

_____
_____
_____
_____

Subject: Invitation to Bid for the Construction of Quick Impact Projects (QIPs)

Dear _____:

Please be informed that your firm has been included among the prequalified construction firms to bid in the construction of the following QIPs:

a. ***Community Training Center in Barangay Mindupok, Maitum, Sarangani***;
b. Health Center in Barangay Kanipaan, Palimbang, Sultan Kudarat.

1. Background

The Japan International Cooperation Agency (JICA) is undertaking the study on Socio-Economic Reconstruction and Development of the Conflict Affected Areas in Mindanao (SERD-CAAM). Among the components of the study is the construction of identified QIPs in the areas.

2. Description of Work

The work to be performed under the foregoing projects includes furnishing of all materials, equipment, machineries, tools, labor, transportation, including fuel, power, air, water and any other means necessary to complete all the works required for the construction of the above-mentioned projects.

3. Bidding Documents

A copy of bidding documents will be furnished to each prospective bidder who has received this letter of invitation to bid. This can be ready for pick-up from the SERD-CAAM Study Team Office at the Pacific Heights Hotel, T.V. Juliano St., Cotabato City from 9**:00 AM to 5:00 PM on August 05, 2008** through Engr. Francisco Z. Villanueva.

4. Pre-Bid Conference at the Project Site

Pre-bid conference for any clarification on bidding documents and explanation to queries from prospective bidders shall be held at the site of each proposed QIP project on the following schedules:

a. Community Training Center, Barangayy. Mindupok, Maitum, Sarangani : **August 08, 2008, 1:00 PM;**
b. Health Center, Barangay Kanipaan, Palimbang, Sultan Kudarat : **August 08, 2008, 3:00 PM.**

If you wish to join the convoy in going to the project sites, our assembly area is at Bangsamoro Development Agency (BDA) Southern Mindanao Regional Management Office, No. 37 Atis St., Dadiangas West, Gen. Santos City at 9:30-10:00 AM on August 08, 2008. For further details please coordinate with our staff, Mr. Nemerlito D. Perez at Tel. No. (064) 421 1418.

5. Receipt and Opening of Bids
All bids must be received by the SERD-CAAM Study Team at its office. Closing time for receipt of bids is at **2:00 PM of August 13, 2008**. Bids will be opened at the same office soon after the closing.

6. Acknowledgement of Receipt of the Letter of Invitation to Bid
All prospective bidders who received this Letter of Invitation to Bid are requested to send acknowledgement to the SERD-CAAM Study Team, c/o:

DR. HANI ABDEL-HALIM
Team Leader
SERD-CAAM Study Team
Pacific Heights Hotel, T.V. Juliano St.,
Cotabato City
TeleFax No. (064) 421 1418
E-mail Address: frankyvil_888@yahoo.com

7. Please be informed also that under the principle of equitable sharing of opportunities, the Study Team and its partner the Bangsamoro Development Agency (BDA) may adopt the policy that one construction firm could only be awarded with one QIP project for construction.

Thank you.

Very truly yours,

DR. HANI ABDEL-HALIM
Study Team Leader

APPENDIX B4-3: QIP INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

1. INTRODUCTION
   - 1.1 Location of the project
   - 1.2 Scope of work
   - 1.3 Period of execution of the work

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   - 3.4 Postponement of bidding

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   - 4.3 Modification and alternative bids
   - 4.4 Disqualification of bidders
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   - 5.2 Evaluation confidentiality
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1. INTRODUCTION

1.1 Location of the project

The project site is located at Barangay Mindupok, Municipality of Maitum, Province of Sarangani. The site is about 120 kilometers from General Santos City through the Gen. Santos-Maasim-Kiamba-Maitum-Palimbang National Road. The 110-km. Gen. Santos-Poblacion Maitum Road is a good asphalt road; while the 10-km. Poblacion Maitum-Brgy. Mindupok Road is a gravel road.

The project shall be constructed within the existing madrasah compound along the Maitum-Palimbang national road; and is about 200 meters from the Mindupok barangay hall.

Electricity and water are accessible from the project site. The barangay is served with electricity through the South Cotabato Electric Cooperative, Inc. (SOCOTECO) II. Shallow well pitcher pumps are the main source of domestic water supply in the barangay.

1.2 Scope of Work

The project is consists of the following components:

- Construction of a community training center (10 meters by 20 meters dimension);
- Within the center are: a) two enclosed rooms which could be used as venue for small group meetings/trainings; b) semi-open training center (10 meters by 16 meters) with movable partition: c) two comfort rooms/toilets with fixtures (one for male and one for female);
- Construction of a shallow well water supply system with an electric motor pump, an automatic control system, a water tank of 240-liter capacity with associated plumbing works connection to the comfort rooms;
- Construction of sewerage system with a septic tank;
- Provision of electrical works and lighting fixtures;
- Provision of chairs and tables.

The power supply for the construction work could be tapped from a residential house with an existing electricity connection about 30 meters away from the project site. The Contractor, at his own expense shall be responsible in working out with the concerned household and authorities in availing electricity connection and use during project construction.

1.3 Period of Execution of the Work

The construction work shall be completed within three (3) months from the date as contained in the Notice to Proceed to the Contractor.

2. BIDDING DOCUMENTS

2.1 Composition of Bidding Documents

Section 1	Letter of Invitation
Section 2	Instruction to Bidders
Section 3	Bid Forms
Section 4	Basic Contract
Section 5	Conditions of Contract
Section 6	Specification
	Part 1 General Specification
	Part 2 Technical Specification
Section 7	Drawings

2.2 Inspection of Work Site

a. Inspection of Work Site and Pre-Bid Conference

Bidders shall inspect the site of the work in order to satisfy themselves by personal examination and/or by such other means as they may prefer, of the location of the proposed work and as to the actual conditions at the site of the work. If during the course of his examination, a bidder finds facts or conditions which appear to him to conflict with the letter or spirit of the Bidding Documents or with any other data furnished him, he may request from the SERD-CAAM Study Team for additional information and explanation before submitting his bid.

The submission of bid by the bidder shall constitute the acknowledgement that, if awarded the Contract, he has relied and is relying on his examination of: (a) the site of work, (b) the access to the site, and all other data, matters, and things requisite to the fulfilment of the work and on his own knowledge of existing services and utilities on and in the vicinity of the site of the work to be constructed under the Contract, and not on any representation of warranty of the Study Team. The contractor is not allowed to claim for any additional compensation based on a lack of knowledge of the conditions of the site.

The Study Team will conduct a pre-bid conference with the participating contractors on August 08, 2008 (but the actual prebid conference was conducted on September 4, 2008) at the project site (Barangay Mindupok, Maitum, Sarangani).

2.3 Examination of Bidding Documents

Each bidder shall thoroughly examine and be familiar with the requirements of the Bidding Documents. The submission of a bid shall constitute an acknowledgement that the bidder had thoroughly examined and is familiar with the Bidding Documents. The failure or neglect of a bidder to receive or examine any of the Bidding Documents shall in no way relieve him of any obligation with respect to his bid or to the Contract.

All information given on the drawings or in the Specifications are furnished only for information and convenience of bidders. If any variance may exist between the information offered and the actual condition encountered during construction work, the

Contractor will not use any of the information made available to him as a basis or ground for claim or demand of any nature against the Study Team.

2.4 Interpretation of Contract Documents

Except during the time of pre-bid conference, no oral interpretation shall be made to any bidder as to the meaning of the Bidding Documents. Request for interpretation, or correction of any ambiguity, inconsistency, discrepancy, omission, or error therein which may be discovered by the bidder after the conduct of the pre-bid conference shall be made in writing and delivered to the office of the Study Team at least three (3) days before the closing time for receipt of bids. Any interpretation or correction will be issued as an Addendum by the Study Team. All such addenda shall be part of the Contract. Only written interpretations or corrections shall be binding. No bidder shall rely on any interpretation or correction given by other method.

2.5 Addenda

The Study Team may modify the Bidding Documents by the issuance of an Addendum to all contractors who obtained a Bidding Documents not later than two (2) days prior to the closing time for receipt of bids.

Bidders must acknowledge receipt of any addendum and indicate it also in the space provided in Bid Form.

3. PREPARATION AND SUBMISSION OF BIDDING DOCUMENTS

3.1 Preparation of Bidding Documents

The bidder shall submit his basic proposal in the prescribed bid forms in two copies in a sealed envelope with the name of the bidder in capital letters and addressed to JICA SERD-CAAM Study Team.

a. Form of Bid
b. Implementation Schedule
c. Personnel Dispatch Schedule
d. Bill of Quantities

In case a representative of the owner/proprietor of the construction firm has prepared the bid and/or shall attend the opening of the bids, the owner/proprietor should have constituted and appointed that representative through a power of attorney showing the authority of his representative. This power of attorney must be presented to the Study Team prior to the opening of bids.

If the bid is made by a corporation or cooperative, a resolution of the board of directors of the corporation or cooperative shall be submitted to the Study Team showing the authority of the Officer representing the corporation or cooperative.

Bidders are warned against making erasures or alterations of any kind and bids which contain omissions, erasures or irregularities of any kind may be rejected. Provided,

however, that an unavoidable corrections/erasures was made, each correction/erasure must bear the initial signature of the person signing the Bid Form.

3.2 Procedure of Opening of Bids

Bids will be opened at the SERD-CAAM Study Team Office at Pacific Heights Hotel, T.V. Juliano St., Cotabato City soon after the closing time for receipt of bids. The owners/proprietors of participating construction firms or their designated persons appointed by the Power of Attorney shall be requested to participate in the opening of bids.

Bid price offered by each bidder shall be read aloud and recorded. The bidder who submits the lowest price within the ceiling price shall be designated as the prioritized negotiator for the contract. In the event that the prioritized negotiator is rejected as the result of the evaluation of the bids, the Study Team will invite the next lowest bidder to enter into negotiation for the contract. This procedure will be followed until the Study Team reaches an agreement with a bidder.

In the event that all bid prices offered exceed the ceiling price, the bidders are requested to submit the price again immediately after the opening of the first bids. In this case, bidders shall be requested to submit the bid price only. The form thereof will be prepared by the Study Team and give it to each bidder. The representative of each bidder participating in the opening of bids shall, therefore, be duly authorized by the company to submit these offers.

The second bidding shall follow the same procedure in the first bidding. In the event that all bid price offered exceed again the ceiling price, the third bidding shall be conducted following the same procedure as in the second bidding.

If all the bids again exceed the ceiling price, the bidder submitting the lowest price will be asked to enter into price negotiation in the stage of the bid evaluation. In case the negotiation has not been successful, the Study Team will invite the next lowest bidder to enter into price negotiation. This procedure will be followed until the Study Team reaches agreement with a bidder.

3.3 Term of Validity of Bid

The bids shall remain valid and irrevocable for a period of 30 days from the day of the opening of bids.

3.4 Postponement of Bidding

The Study Team reserves the right to postpone the date and time for submission and/or opening of bids at any time prior to the date and time announced in the Letter of Invitation and will give written notice of such postponement to each prospective bidder who submitted an acknowledgement of receipt of the Letter of Invitation.

4. BID EVALUATION AND CONTRACT AWARD

4.1 Bid Prices and Comparison of Bids

Bid prices shall include all costs necessary for the completion of construction and fulfilment of the contract including, but not limited to, furnishing all materials, equipments, tools, plant, and all other facilities, and management, superintendence, labor and services, and contractor's profit and overhead; except, as may be provided otherwise in other parts of the contract bid documents.

In the comparison of bids, the bid as read should be corrected if there are mathematical errors considering the following:

a. In the event of a difference between the bid price quoted in words and the bid price quoted in figures for the same quotation, the bid price in words shall prevail.

4.2 Variation in Quantities

Bidders are reminded that the quantities of items of work indicated are based on practical estimation. The Bill of Quantities will only be a reference document as part of the Contract Documents for the evaluation and verification of the prices. Payment to the Contractor will be made on a lump sum basis.

4.3 Modification and Alternative Bids

Unauthorized conditions, limitations, or provisions attached to a bid will render it non-responsive and may cause its rejection. The completed Bid Form shall be without interlineations, alterations, or erasures. Oral, telegraphic, or telephonic bids or modifications will not be considered. Alternative bids will not also be considered.

4.4 Disqualification of Bidders

Submission of more than one bid from an individual bidder will not be allowed. Any bidder with more than one bid for the work contemplated will cause his disqualification. If there is reason for believing that collusion exists among the bidders, the Study Team reserves the right to declare a failure of bidding there being no competition; and none of the participants in such collusion will be considered in the bidding for future SERD-CAAM QIP projects.

4.5 Award of Contract

The contract will be awarded to the responsive complying bidder who submits the lowest and most advantageous bid, subject to the condition of the next paragraph.

In line with the strategy of equitable sharing of opportunities, the Study Team and the Bangsamoro Development Agency (BDA) agreed that under this QIP Phase 2, Group 1 implementation, a contractor could only be awarded with one project. Hence, if one contractor has already awarded the contract for a construction of other project under QIP Phase 2, Group 1, and he also submits the lowest bid for this project, his bid will no longer be entertained, and the bidder who submits the second lowest bid has the priority

for the negotiation, provided that this bidder has not yet been awarded with a contract under QIP Phase 2, Group 1 implementation.

The Contract shall be awarded within four (4) calendar days after a successful negotiation has been reached with a bidder or within such extended period of time as agreed in writing between the Study Team and the bidder concerned and his surety. The award of the project and the ensuing contract shall be subject to the approval by JICA.

4.6 Execution of Contract

The bidder whom an award is made shall execute a written contract with the Study Team. Failure or refusal to enter into a contract as provided herein or to conform to any of the stipulated requirements in connection herewith shall be a just cause for annulment of the award. In the event of refusal, inability or failure of the bidder eligible for award to make good his bid by entering into contract, the next lowest complying bidder eligible for award shall be considered for award after a successful negotiation.

5. COMMON CONDITIONS

5.1 Philippine Taxes

The contractor shall pay any imposable tax for QIPs implementation under the present regulation in effect in the Philippines.

5.2 Evaluation Confidentiality

Information relating to the examination, clarification, and evaluation of bids, and recommendations for the award of the contract shall not be disclosed to bidders or any other persons who are not officially concerned with such process until the award is notified to the successful bidder.

5.3 Disclaimer

The Study Team or JICA assumes no obligation whatsoever to compensate or indemnify the bidders for any expenses or loss that they may incur on the preparation of their bids nor does the Study Team guarantee that an award will be made.

APPENDIX B4-4: QIP BID FORMS

Section 3

BID FORMS

CONTENTS

(Form-1)

POWER OF ATTORNEY

_____(date)_____

Project: Quick Impact Projects Phase II-Group1 (subproject e) under SERD-CAAM, Construction of Community Training Center.

Gentlemen,

I, the undersigned, hereby constitute and appoint (Name and Title), whose specimen signature appears at the lower left corner of this document, to sign the bid and all other related documents thereof which are subject of the Letter of Invitation for Quick Impact Project Phase II-Group 1 (subproject e) under SERD-CAAM, Construction of Community Training Center at Barangay Mindupok, Maitum, Sarangani, on behalf of the undersigned.

This Power of Attorney shall remain in force until the completion of afore-mentioned purposes.

(Signature of Principal)

(Printed Name of Principal)

(Title of the Principal)

(Name of Construction Firm)

Designated Representative/Attorney-in-fact

(Signature)

_____

(Printed Name of Representative/Attorney-in-fact)

(Title of Representative/Attorney-in-fact)

(Form-2)

IMPLEMENTATION SCHEDULE

Project: Quick Impact Projects Phase II-Group1 (subproject e) under SERD-CAAM, Construction of Community Training Center .

Construction Schedule

Work Item		August				September				October			
		1	2	3	4	1	2	3	4	1	2	3	4
I	Site Works												
II	Concrete and Masonry Works												
III	Strutural Steel												
IV	Carpentry Works												
V	Roofing Works												
VI	Doors and Windows												
VII	Painting Works												
VIII	Tile Works												
IX	Plumbing Works												
X	Electrical Works												
XI	Water Supply System												
XII	Temporary Facilities												

(Signature)

(Printed Name of Signer)

(Title of Signer)

(Name of Bidder)

(Form-3)

PERSONNEL DISPATCH SCHEDULE

Project: Quick Impact Projects Phase II-Group 1 (subproject e), under SERD-CAAM, Construction of Community Training Center, Barangay Mindupok, Maitum, Sarangani

We herein provide the following details concerning the full-time supervisory staff to be employed to execute the Works.

1. Project Manager

   Name: _____

   Nationality:_____ Age: _____

   Qualification: _____

   Previous Experiences: _____

2. Other Engineering Staff

Designation	Name	Nationality	Age	Qualification	Previous Experiences

(Signature)

(Printed Name of Signer)

(Title of Signer)

(Name of Bidder)

(Form-4)

FORM OF GUARANTEE BOND FOR ADVANCE PAYMENT

Project: Quick Impact Projects Phase II-Group 1 (subproject e), under SERD-CAAM, Construction of Community Training Center.

RE: Bond for Advance Payment

Gentlemen,

Having carefully examined and being familiar with the Bidding Documents, we, the undersigned, hereby submit the security for the advance payment, to execute and complete the works for the above described project in strict accordance with the Bidding Documents, for the following fixed lump sum amount of:

Philippine Pesos _____only

(Php) _____).

This offer is valid for the period of ninety (90) calendar days from the date of Notice to Proceed and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Dated this _____ day of _____, 2008

(Signature)

(Printed Name of Signer)

(Title of Signer)

(Name of Bidder)

(Form-5)

FORM OF BID

Project: Quick Impact Projects Phase II-1e, under SERD-CAAM,
Construction of Community Training Center, Barangay Mindupok, Maitum, Sarangani

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Gentlemen,

Having carefully examined and being familiar with the Bidding Documents, I, the undersigned, hereby offer to execute and complete the works for the above described projects in strict accordance with the Bidding Documents, for the following a lump sum amount of:

Philippine Pesos _____ only
(PHP_____).

This offer is valid for the period of thirty (30) calendar days from the date of closing of these bids, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Dated this _____ day of _____, 2008

(Signature)

(Printed Name of Signer)

(Title of Signer)

(Name of Bidder)

(Form-6)

BILL OF QUANTITIES

APPENDIX B4-5: QIP BASIC CONTRACT

CONTRACT AGREEMENT

FOR

THE CONSTRUCTION OF QUICK IMPACT PROJECTS, PHASE II, Group 1

(subproject e): Construction of Community Training Center

Location: Barangay Mindupok, Maitum, Sarangani

UNDER

THE STUDY FOR SOCIO-ECONOMIC RECONSTRUCTION AND DEVELOPMENT OF CONFLICT-AFFECTED AREAS IN MINDANAO (SERD-CAAM)

IN

THE REPUBLIC OF THE PHILIPPINES

BETWEEN

JICA SERD-CAAM STUDY TEAM

AND

_____(name of contractor)_____

Contract Agreement for the *Construction of a Community Training Center in Barangay Mindupok, Maitum, Sarangani*, a subproject under Phase II, Group 1 of Quick Impact Projects (QIPs) under the Study for Socio-Economic Reconstruction and Development of Conflict-Affected Areas in Mindanao (SERD-CAAM) in the Republic of the Philippines

This Agreement made and entered into this ____ day of _____, 2008 in Cotabato City, Philippines, by and between

JICA SERD-CAAM Study Team with its office located at Pacific Heights Hotel, T.V. Juliano Ave., Cotabato City, Philippines, hereinafter referred to as "Study Team"

-and-

_____, with its office located at _____, hereinafter referred to as "Contractor"

Whereas the Study Team is desirous that certain Works should be executed by the Contractor, viz Quick Impact Projects Phase II-Group 1 (subproject e) in SERD-CAAM, Construction of Community Training Center at Barangay Mindupok, Maitum, Sarangani, and has accepted a Tender by the Contractor for the execution and completion of such Works.

Now this Agreement witnesseth as follows:

1. In this Agreement words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:

   (1) Basic Contract;

   (2) Conditions of Contract;

   (3) General and Technical Specifications;

   (4) Drawings;

   (5) Bill of Quantities.

3. In consideration of the payments to be made by the Study Team to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Study Team to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

4. The Study Team hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the

Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed thereof.

5. The Contract Price is _____

   (in words) _____

   in Philippine Peso.

In witness whereof, the parties hereto have caused this Agreement to be executed on the day and year first before written.

For the Study Team:	For the Contractor:
_____	_____
Team Leader	_____
JICA SERD-CAAM Study Team	_____

APPENDIX B4-6: QIP BLANK BOQ

Community Training Center
Mindupok, Maitum, Sarangani

Bill of Quantities

	DESCRIPTION	UNIT	QUANTIT	UNIT PRICE (PESO)	TOTAL PRICE (PESO)
	CHAPTER 1 : LAND PREPARATION	sq.m.	600		
1.1	Clearing the construction area of trees, grass, stones, rocks and debris including removal of roots.				
	TOTAL : 1 Land Preparation				
	CHAPTER 2 : EARTHWORKS				
2.1	Excavation for foundation	cu.m	24		
2.2	Filling of approved material according to desired floor levels with proper compaction	cu.m.	135		
	TOTAL : 2 Earthworks				
	CHAPTER 3 : CONCRETE WORKS				
3.1	Mass concrete 1:3:6 in foundation	cu.m	8		
3.2	Concrete for Column footing and wall footing, concrete mix of 1:2:4	cu.m	11		
3.3	Structural concrete for column, beam, slab, lintel and others, concrete mix of 1:2:4	cu.m	41		
	TOTAL : 3 Concrete Works				
	CHAPTER 4 : REINFORCEMENT				
4.1	High tension steel bar	kg	3,300		
	TOTAL : 4 Reinforcement				
	CHAPTER 5 : FORM WORKS				
5.1	Forms work including scaffolding	sq.m	210		
	TOTAL : 5 Form Works				
	CHAPTER 6 : MASONRY WORKS				
6.1	4" CHB laying with filler cement and sand mortar mix of 1:3	sq.m	286		
	TOTAL : 6 Masonry Works				
	CHAPTER 7 : MORTAR FINISH				
7.1	20mm (average) thick plain cement plaster finish on masonry wall at 1:3 cement and sand mortar mix	sq.m.	379		
	TOTAL : 7 Mortar Finish				

Community Training Center
Bill of Quantities

	DESCRIPTION	UNIT	QUANTIT	UNIT PRICE (PESO)	TOTAL PRICE (PESO)
	CHAPTER 8 : ROOFING				
8.1	Class 1 Steel roof truss and pre-painted long span 0.4mm Rib Type x 1220 mm roof including all required materials such as purlins, rafters, and reefers.	sq.m.	306		
8.2	Suspension ceiling of marine plywood, size 300mm. X 300mm, with the support and accompanied materials	sq.m.	278		
	TOTAL : 8 Roofing				
	CHAPTER 9 : PAINTING				
9.1	Three coats of emulsion paint on exposed internal walls, including surface preparation with acrylic filler white washing.	sq.m	379		
9.2	Three coats for interior and exterior ceilings.	Sq.m.	278		
	TOTAL : 9 Painting				
	CHAPTER 10 : GUTTER AND DOWN SPOUT				
10.1	114 mm. square U.G.I eaves gutter including all angles, stoppers, ends outlet, with support brackets of 200 mm. pitches, and 90mm.dia U.G.I rain waterdown spout including all bents,goose neck,shoes, and leader head etc. fixed on wall with holder of 600 mm. piches,3 m height.	Lot	1		
	TOTAL : 10 Gutter and Down Spout				
	CHAPTER 11 : CARPENTRY WORK				
11.1	Panel Door with Accessories (800mm.x2,100mm.)	Nos.	2		
11.2	Wooden Divider	Sq.m	24		
	TOTAL : 11 Carpentry Works				
	CHAPTER 12 : WATER SUPPLY SYSTEM				
12.1	Plumbing work including all accessories, such as piping faucet with other associated accessories.	Lot	1		
12.2	Stainless water tank of 240 litters with on-off switch for pump motor with steel stand	Lot	1		
12.3	Shallow well of approx. 10m deep with a motor pump	Lot	1		
	TOTAL : 12 Water Supply System				
	CHAPTER 13: ELECTRICAL WORKS				
13.1	Electical installation including : a. Wiring	Lot	1		

Community Training Center
Bill of Quantities

	DESCRIPTION	UNIT	QUANTIT	UNIT PRICE (PESO)	TOTAL PRICE (PESO)
	b. Laying conduit pipe c. 8 fluorescent lamps (2*40W) d. 6 compact flourescent lamps (20W) e. 8 weather proof duplex outlet f. Power distribution board with 3 breakers of 60 Rated Amp. g. Pulling boxes and others				
	Total : 13 Electrical Works				
	CHAPTER 14 : MISCELLANEOUS ITEMS				
14.1	Steel works				
	a. Square bar iron grills on 1,200mm x 1,950mm (4units)	sq.ft	126		
	b. Steel frame window 600mm x 900mm (2 units)	sq.ft	12		
14.2	Glass Windows on Aluminium Frame (1/4" x 4" Blades)	Nos.	156		
14.3	Upson PVC Door	Nos.	2		
14.4	Tile work				
	a. Ceramic tile laying on wall	sq.m	24		
	b. Ceramic tile laying on floor	sq.m	8		
14.5	Septic tank with collection pits and soakway as per the drawing.	Nos.	1		
14.6	Office Furnitures				
	a. Long Tables (2' x 8')	Nos.	10		
	b. Wooden Chairs	Nos.	50		
14.7	Philippine standard water closet	Nos.	2		
14.8	Lavatory set with complete accessorry	Nos.	2		
14.9	Paper holder set	Nos.	2		
14.10	Other Requirements				
	a. Temporary Facilities for Const. Supervisor Quarter/Office	Lot	1		
	b. Billboards	Nos.	2		
	TOTAL14: Miscellaneous Items				
	GRAND TOTAL: Community Training Center				

APPENDIX B4-7: QIP CONDITIONS OF CONTRACT

CONDITIONS OF CONTRACT

Page

Article 1. Definitions

In interpreting or construing the provisions of this Contract, the following terms or expressions shall have the corresponding meaning unless their context provides otherwise:

"The Study" means "The Study for Socio-Economic Reconstruction and Development of Conflict-Affected Areas in Mindanao", which is composed of the implementation of Quick Impact Projects, assessment of the present conditions, In-depth analysis of selected barangays and formulation of Socio-Economic Development Plan for Conflict-Affected Areas.

"The Project" means the Quick Impact Projects Phase II-Group Ie in SERD-CAAM, (Construction of Community Training Center in Barangay Mindupok, Maitum, Sarangani) which is part of the Study.

"The GRP" means the Government of the Republic of the Philippines, its instrumentalities and organizations under it, including the Office of Presidential Adviser on Peace Process (OPAPP) and the Bangsamoro Development Agency (BDA).

"The Client" means the Japan International Cooperation Agency (JICA) and shall include any person or persons authorized by JICA.

"The Study Team" means Katahira and Engineers International (KEI), entrusted by JICA for "the Study" having its principal office at Taiko Building, 4-2-16, Ginza, Chou-Ku, Tokyo, Japan.

"The Contractor" means (name of the contractor) and shall include any person or persons authorized by (name of the contractor).

"The Sub-Contractor" means any person, firm or corporation entering into agreement with the Contractor for the performance of "the Project" described in the Description of Works, upon the approval of the Study Team prior to the commencement of the construction works.

"The Work" refers to the construction work for the Community Training Center to be performed by the Contractor as described in "Scope of Work" of this Contract. The Work includes the provision of labor, materials, equipment, transportation and all other activities necessary to complete "the Project".

"The Contract Documents" are the documents consisting of the following and are incorporated and made part of this Contract:

- Basic Contract;
- Conditions of Contract;

- General and Technical Specifications;
- Drawings;
- Bidding Documents Submitted by the Contractor (Bill of Quantities, Implementation Schedule, Manning Schedule, etc.)

"The Specifications" means the detailed Description of Works to be performed, including the description of the materials, tools, equipment, etc. to be furnished to complete the Project.

"The Drawing(s)" means those drawings accompanying the specifications, which show the location, nature, extent and form of the work together with applicable details.

"The Construction Plant" means all appliances or things required for the execution, completion or maintenance of the temporary works but does not include materials or other things intended to form part of the permanent work.

"The Temporary Works" means all works or structures of every kind which are impermanent in nature or intended to serve/exist for a limited time only, required for the execution, completion of the Project, but does not include materials or other things intended to form or forming part of the permanent work.

"The Site" refers to the lands and other places on, under, in or through which the work is to be executed or carried out and any other lands or places as may be specifically designated in the Contract Documents.

"The Approval" means the concurrence in writing including subsequent written confirmation of previous verbal approval.

"The Working Day" means working days in the government service. The term "Calendar Day" means the days in a week, including Saturdays and Sundays.

"The Supervising Engineer" means the authorized construction supervising engineer assigned by the RAL Engineering and Consultancy Services (RALECS) the local consultant for QIP design and construction supervision, the QIP Assistant Engineer recommended by BDA, and the QIP Engineer from the Study Team.

Article 2. Scope of Work

2.1 The project to be implemented under the Quick Impact Projects Phase II-Group I (subproject e) in SERD-CAAM is entitled:
Construction of Community Training Center in Barangay Mindupok**, **Maitum, Sarangani

2.2 The Contractor's works to be performed under this Contract shall consist of the following components:

- Construction of a community training center (10 meters by 20 meters dimension), The building shall be made up primarily of reinforced concrete, steel roof framing and pre-painted long span rib type roofing materials.

- Within the center are: a) two enclosed rooms which could be used as venue for small group meetings/trainings; b) semi-open training center (10 meters by 16 meters) with movable partition: c) two comfort rooms/toilets with fixtures (one for male and one for female);

- Construction of a shallow well water supply system with an electric motor pump, an automatic control system, a water tank of 240-liter capacity with associated plumbing works connection to the comfort rooms;

- Construction of sewerage system with a septic tank;

- Provision of electrical works and lighting fixtures;
- Provision of chairs and tables.

2.3 The scope of the Work prescribed in paragraph 2.1 and 2.2 above shall include site survey, design and supply for temporary works, permanent installation of the equipment and materials, performance test, process building permit, transportation, insurance and all other things required in and for the Project implementation in due conformity with the Contract Documents.

Article 3. Period of Execution of Work

3.1 The Contract shall be effective from the date of scheduled project start as stated in the Notice to Proceed issued by the Study Team to the Contractor.

3.2 The Contractor shall complete the Work within Ninety (90) calendar days from the date of scheduled start as stated in the Notice to Proceed.

Article 4. Contract Price

The Study Team shall remunerate the Contractor from the budget of the Study with a total amount of _____ Philippine Pesos (PHP_____) as the Contract Price for the Work, in accordance with the payment schedule stated in Article 5, 5.2 of this Contract.

Article 5. Payment

5.1 Terms of Payment

Due payment to the Contractor under this Contract shall be made in Philippine Peso to a bank account opened and designated for this project by the Contractor.

5.2 Payment Schedule

(1) Advance Payment

_____ Philippine Peso (PHP_____), which corresponds to forty percent (40%) of the Contract Price, shall be paid upon the custody of advance payment security provided from the Contractor.

(2) Second Payment

_____ Philippine Peso (PHP_____), which corresponds to thirty percent (30%) of the Contract Price, shall be paid upon accomplishing the roofing work.

(3) Final Payment

_____ Philippine Peso (PHP_____), which corresponds to thirty percent (30%) of the Contract Price, shall be paid upon completion of the Work. The request for the final payment shall be accompanied with the certificate of completion of the Work issued by the Study Team.

Article 6. Responsibilities of the GRP

6.1 The GRP, on behalf of the client, shall carry out the following works in time for the commencement of the Work or according to the progress of the Work.

(1) To facilitate the provision of the land for the Project prior to the commencement of the Work;
(2) To obtain right-of-way, if necessary for construction works.

6.2 The GRP, on behalf of the Client, shall coordinate and/or assist the Contractor or his representative in the facilitation and negotiation with concerned public offices and private organizations for the execution of the Work.

6.3 The GRP, on behalf of the Client shall provide data and information necessary for the execution of the Work.

Article 7. Obligation of the Study Team

7.1 The Study Team, acting as the authorized representative of the Client, will decide on such questions which may arise as to the quality and acceptability of materials and equipment furnished, work performed, rate of the progress of work, interpretation of the Specifications and Drawings, and those relating to the acceptability in the fulfilment of the Contract by the Contractor, from the commencement of the work for the Project until its turn-over to the beneficiaries. The Study Team after evaluation of the work accomplishments of the Contractor shall endorse the same to its Client and pay the corresponding due amount in accordance to the Schedule of Payment (sec. 5.2) after approval by the Client.

Article 8. Obligations of the Contractor

8.1 The Contractor shall perform the Work in accordance with the Contract Documents.

8.2 The Contractor shall prepare the construction drawings, progress schedules, as-built plans, and other technical documents required by the Study Team. The Contractor shall also prepare the documents required and facilitate the issuance of the building permit and other necessary permits from the concerned government offices.

8.3 The Contractor shall be responsible for the implementation means, methods techniques, sequences or procedures, and safety control in connection with the Work.

8.4 The Contractor shall be responsible for the acts or omissions of the Contractor's subcontractors, or any of Contractor's agents or employees, or any other persons performing any part of the Work for the Contractor.

8.5 The Contractor shall furnish one (1) resident representative with sufficient faculty to execute the Work at the Project site.

8.6 The Contractor shall, at his own expense, take necessary measures in accordance with the Contract Documents and relevant laws, ordinances and regulations to prevent damage to the Work, construction materials, adjacent structures, or third parties, until the completion and delivery of the Work.

8.7 The Contractor shall consider the hiring of available workers from the locality during the implementation of the project.

8.8 During the period of the observance of the Holy Month of Ramadhan, the Contractor is enjoined to hire workers from the locality who are fasting, in two shifts (morning shift and afternoon shift).

8.9 The Contractor shall provide the temporary facility that will be used by the supervising engineer of the local consultant (RALECS) and the BDA-recommended assistant QIP engineer y Team for the entire duration of the project.

Article 9. Inspection and Delivery

9.1 Upon completion of the Work, the Contractor shall request a final inspection for the Work by the Study Team.

9.2 When the Work has passed the final inspection and a certificate of completion has been issued by the Study Team and approved by the Client, the completed project shall be officially turned-over to the beneficiary (Barangay Mindupok and/or Madrasah School).

Article 10. Warranty Against Defects

10.1 The Contractor shall guarantee all the Work to be executed in accordance with the Contract Documents for a period of one (1) year from the date of issue of the certificate of completion of the Work.

10.2 The Study Team shall notify the Contractor in writing of any defects for which a claim is made under this guarantee as promptly as possible after discovery thereof.

The Study Team's written notice shall describe the nature and extent of the defects. The Contractor shall have no obligation for any defects discovered subsequent to the expiry date of the said one (1) year period, unless notice of such defects is received by the Contractor not later than twenty one (21) days after such expiry date.

10.3 The Contractor shall remedy, at his own expense, any defects against which the Work is guaranteed under this Article, by making, all necessary repair or replacement except when such defects resulted from GRP's negligence or failure.

Article 11. Advance Payment Security

11.1 The Contractor shall provide an advance payment security issued by a reputable Philippine financial institution, which secures the repayment of any sum advanced by the Study Team upon the Contractor's default from the date of the advance payment to the date of the issue of certificate of completion of the Work. The financial institution to issue the security shall be approved by the Study Team prior to the advance security application by the Contractor.

11.2 The amount of the advance payment security shall cover the amount to be paid as advance payment for the Work.

11.3 Prior to the request for the advance payment, the Contractor shall secure the advance payment security and this shall be submitted to the custody of the Study Team. Such security shall be returned to the Contractor immediately after the issue of the certificate of completion of the Work.

11.4 In making a claim under the advance payment security, the Study Team shall notify the financial institution that issued the security in writing, stating the nature of the default and the amount of damages in respect of the claim.

11.5 The amount to be paid under the claim shall be the amount of the actual damage incurred, and in no case shall exceed the amount of the advance payment security.

Article 12. Assignment and Subletting

12.1 Neither of the parties hereto shall assign this Contract or any part thereof to any third party without prior written consent of the other party. The Contractor shall not sublet the whole of the Work or a major part of the Work to any third party.

12.2 A copy of each subcontract shall be in writing upon the approval of the Study Team, and signed by the Contractor and his subcontractor. Each subcontract shall contain a reference to the Agreement between the Study Team and the Contractor, for the work applicable thereby.

The Contractor shall be responsible to the Study Team for the acts and omissions of his Subcontractor and their employees to the same extent that he is responsible for the acts and omissions of his employees, and shall never relieve the Contractor of any liability or obligation due under this primary Contract.

Article 13. Inspection and Testing

13.1 All materials and equipment furnished under this Contract shall be subject to inspection by the Supervising Engineer. Such inspection may include mill, plant or shop inspection of products and/or components during manufacture and assembly, witness of shop testing and checking quantities and packaging. The Supervising Engineer shall reject any materials or items not in conformity with the specifications found during such inspection, and the Contractor shall promptly replace them with appropriate materials in accordance to the specifications. The cost of all tests shall be borne by the Contractor.

13.2 The Contractor shall furnish the Study Team a certification from the manufacturer that all products and/or components thereof have passed the standard factory inspection and tests.

Article 14. Specification and Drawings

The intent of the Specification and Drawings is for reference to guide the bidders to furnish all the requirements of plant, labor, materials, equipment and services. Prior to the commencement of the construction work, the contractor shall submit the drawings necessary to perform the works within (14) days after the contract signing.

Two sets of Construction Drawings and specifications of equipment shall be submitted to the Study Team for approval.

Article 15. Insurance

15.1 The Contractor at its own expense shall carry and maintain necessary insurance in accordance with the conditions necessary for the performance of the Work and in accordance with the provisions of existing laws and regulations of the Government of the Republic of the Philippines, with insurance companies acceptable to the Study Team for the entire duration of the Work, including but not limited to the following:

a) Personal compensation insurance for employees of the Contractor engaged in the Work;
b) Property damage insurance, other than caused by automobile, including public utilities, private structures or any other assets;
c) Comprehensive automobile liability insurance covering owned, non-owned and hired automotive equipment used by the Contractor for damages against itself and injury, death or property damage caused against any third party. In spite of the aforesaid insurance, the Contractor shall still be fully responsible for the performance of all obligations as specified herein.

15.2 The insurance required under this section shall provide adequate protection for the Contractor and its subcontractors, respectively, against damage claims which may arise from operation under this Contract, whether such operations be, by the insured, or by anyone directly or indirectly employed by it.

Article 16. Force Majeure

16.1 Definitions

Neither party shall be deemed in default or in breach of this Contract if he is unable to perform his obligations under this Contract owing to the circumstances beyond his reasonable control. Such circumstances (hereinafter referred to as "Force Majeure") shall include, but shall not be limited to, the following:

a) Natural Calamities, including storm, earthquake, flood, or other forces of nature that the party affected could not reasonably foresee or prevented from happening.

b) Man-made Calamities, to include war (declared or undeclared), hostilities, invasion, act of any foreign enemy, threat of or preparation for war, riot, insurrection, civil commotion, rebellion, revolution, usurped power, civil war, and labor unrests or other industrial troubles, strikes, embargoes, blockades, and labor sabotage.

16.2 Monetary Obligations

Notwithstanding the foregoing, the occurrence of Force Majeure shall not prejudice nor otherwise affect either party's liability to pay remuneration or reimbursement of expenses to which the other party is entitled to during or before the occurrence of such force majeure.

16.3 Notice

The party affected by Force Majeure shall give the other party written detailed account of the circumstances of Force Majeure as soon as practicable, but not later than fourteen (14) days from the date of its occurrence.

16.4 Suspension

Upon occurrence of Force Majeure, the party affected may be allowed to temporarily suspend the performance of his duties under this Contract for so long a period as Force Majeure continues and as his performance is prevented thereby. In such instance, he shall make all reasonable efforts to mitigate the effect of Force Majeure upon his duties.

Article 17. Laws and Regulations

The Contractor shall observe and comply with all national, provincial and local laws, ordinances, codes, orders, and regulations which in any manner affect those engaged or employed on the work, the materials used in the work, or the conduct of the work. If any discrepancy and inconsistency should be discovered in this Contract in relation to any such law, ordinance, code, order, or regulation the Contractor shall report the same in writing to the Study Team. The Contractor shall indemnify and relieve the client, the Study Team and their officers, agents and employees, against all claims or liabilities arising from violation of any such laws, ordinance, code, order or regulation, whether by itself, by its employees or subcontractors. Any particular law or regulation specified or referred to elsewhere in these specifications shall not in any way limit the obligation of the Contractor to comply with all other provisions of the national, provincial and local laws and regulations.

Contractors and subcontractors shall comply with all applicable national and local laws and ordinances, regulations, customs and practices regarding safety and health.

Article 18. Permits and Licenses

All permits and licenses required for prosecution of the work shall be secured by the Contractor. However, the Study Team and the GRP shall extend such assistance as may be necessary towards the timely issuance of the required permits.

Article 19. Sales and Use Taxes

Unless otherwise provided for in the Contract, the Contractor shall pay all sales and use taxes assessed by national, provincial or local authorities on materials furnished by the Contractor in the performance of the work.

Article 20. Patents and Copyrights

The Contractor shall indemnify and save harmless the Client, The Study Team and their officers, agents, and employees, against all claims or liability arising from the use of any patented or copyrighted design, device, materials or process by the Contractor or any of its subcontractors in the performance of the Work.

Article 21. Public Safety and Convenience

21.1 Public Safety

Whenever the Contractor's operations create a condition hazardous to traffic or to public, it shall furnish at its own expense such flagmen and guards as necessary to give adequate warning to the public of any dangerous conditions to be encountered; it shall furnish, erect, and maintain such fences, barricades, lights, signs and other devices as necessary to prevent accidents and avoid damage or injury to the public.

21.2 Public Convenience

The Contractor shall so conduct its operations with least possible obstruction and inconvenience to public traffic, and perform the work properly taking into consideration the rights of the public. Convenient access to driveways, houses, and buildings along the line of work shall be maintained and temporary approaches shall be provided and kept in good condition.

Article 22. Disputes and Arbitration

22.1 This Contract shall be executed by the parties hereto in good faith, and in case of any doubt, dispute or disagreement will arise in the interpretation or performance of this Contract, such matter shall be settled amicably through consultation between the two parties.

22.2 In the event that an amicable settlement cannot be reached through consultation, the matter shall be referred to arbitration. The arbitration shall be conducted in English,

submitting all issues in dispute, in accordance with Executive Order No. 1008 dated February 4, 1985, otherwise known as the Construction Industry Arbitration Law.

22.3 The arbitration award shall be final and binding upon the parties and they shall comply in good faith with the decision. Judgment upon the award may be entered in any court having jurisdiction or application may be made to such court for judicial acceptance of the award or order of enforcement as the case may be.

22.4 As for fees for all proceedings for arbitration, each party shall bear the costs of his own counsel service and an equal share of the costs for the third arbitrator.

Article 23. Language and Measurement System

23.1 All correspondence between the two parties including notices, requests, consents, offers and demands shall be in English language. All drawings, specifications, reports, and other documents shall also be prepared in English.

23.2 All documents made under this Contract shall adopt the metric system and the Gregorian calendar day.

Article 24. Amendment and Modification

All amendments or modifications, if necessary, may be negotiated between the parties hereto and shall be agreed by a written document signed by both parties.

Article 25. Suspension of Work

The Study Team through a written notice to the Contractor may order the suspension of the Work, in whole or in part for such period as the Supervising Engineer may deem necessary. The grounds for such suspension may include the issue on land ownership and existence of other conditions considered unfavorable for prosecuting the Work, or failure of the Contractor to carry out the provisions of the contract to provide materials and/or workmanship according to the Specifications. Work should be resumed by the Contractor within 10 days after receipt from the Study Team of a written notice of work resumption.

The Contractor cannot claim for damages resulting from work suspension if the same is caused by his failure to carry out the provisions of the contract or to provide materials and/or workmanship according to the Specifications without termination of the contract. Also, the Contractor shall not receive any additional compensation because of such suspension.

Article 26. Early Termination

26.1 Should either party default in the execution of his obligations under this Contract, the other party shall give the party in default a notice in writing to remedy such default promptly.

26.2 Failure of the defaulting party to take corrective measures as required by the other party within fifteen (15) days after receipt of such notice, shall constitute a sufficient cause for the other party to terminate this Contract.

26.3 Either party may terminate this Contract without prejudice should the performance of his obligation under this Contract cannot be resumed within a cumulative period of thirty (30) days after its suspension due to Force Majeure as stipulated under Article 16 hereof.

26.4 The early termination of this Contract under this Article shall be subject to the approval of the competent authorities of the GRP and the approval of the Client.

26.5 In the event of early termination for reasons stated in paragraphs 26.2 and 26.3, the Contractor shall, with the approval of the Client, be paid by the Study Team a fair and reasonable proportion of the Contract Price that is calculated on the basis of the Contractor's accomplishments up to the termination date, instead of the Payment Schedule stipulated in Article 5 hereof.

Article 27. Interpretation

27.1 All general language or requirements embodied in the specifications are intended to amplify, explain and implement the requirements of this Contract. However, in the event that any language or requirements so embodied permit an interpretation inconsistent with any provisions of this Contract, the applicable provisions of this Contract shall prevail and govern.

27.2 The specifications and drawings are also intended to explain each other, and anything shown on the drawings and not stipulated in the specifications or vice versa shall be deemed and considered as if embodied in both. In the event of conflict between the specifications and drawings, the specifications shall prevail and govern.

Article 28. Entire Agreement

This Contract sets forth the entire agreement between the parties in respect of the subject matter hereof and supersedes and cancels any and all previous agreements, negotiations, commitments, and writings in respect of the subject matter thereof.

Article 29. Notice

All notices pertaining to this Contract between the Study Team and the Contractor shall be sent in writing by registered mail, courier, or facsimile or shall be personally delivered to the addresses so stated herein. Such notices shall take effect from the date of receipt by the other party. When either party hereto changes his address, the party concerned shall give such notice to the other party beforehand.

The Study Team:

Name	:	_____
		Team Leader
		JICA SERD-CAAM Study Team
Address	:	Pacific Heights Hotel
		T.V. Juliano Ave., Cotabato City
TeleFax	:	(064) 421 1418

The Contractor:

Name	:
Address	:
Telephone	:
Facsimile	:

APPENDIX B4-8: QIP GENERAL SPECIFICATIONS

GENERAL SPECIFICATIONS

Page

1. DESCRIPTION

The Quick Impact Projects (QIPs) Phase II, Group I will be implemented under the Study for Socio-Economic Reconstruction and Development of Conflict-Affected Areas in Mindanao (SERD-CAAM), with six (6) subprojects, under the finance of JICA. The implementation of QIPs aims to grasp the particularity in the area in carrying out the project and show the residents goodness living in peace.

The six subprojects under QIP Phase II, Group I implementation consist of the following:

Title of Project		Barangay	Municipality
QIP-Phase II-Ia	Construction of Water Supply System (Level II)	Padas	Pagayawan
QIP-Phase II-Ib	Renovation of School Buildings	Libungan	Northern Kabuntalan
QIP-Phase II-Ic	Construction of Multi-Purpose Building	Simone	Kabacan
QIP-Phase II-Id	Construction of Solar Dryer and Warehouse	Dungguan	M'lang
QIP-Phase II-Ie	Construction of Community Training Center	Mindupok	Maitum
QIP-Phase II-If	Construction of Health Center	Kanipaan	Palimbang

2. DRAWINGS AND DOCUMENTS

2.1 Drawings to be furnished by the Consultant

2.1.1 Contract Drawings

The Drawings in the Bidding Documents subsequently become the Contract Drawings which show the scope of the Works to be performed by the Contractor. The Contract Drawings may be used for execution of the Works or may be used as a basis for placing preliminary orders for materials.

2.1.2 Construction Drawings

The Contractor will prepare and submit two (2) full size prints of Construction Drawings, for approval of the Study Team, on the following schedules or as agreed with the Study Team:

For the three (3) months period of the Contract, within fourteen (14) days from the signing date of the contract.

Upon receipt of these Drawings, the Study Team shall check them carefully and advise the Contractor in writing of any discrepancies, errors or omissions. Full instruction will be furnished by the Study Team should discrepancies, errors or omissions be found.

After the issue of the Letter of Acceptance and subsequent receipt of acknowledgement, the Contract Drawings from time to time will be replaced by the Construction Drawings when necessary, with supplementary Specifications as may be needed. Such Drawings and Specifications shall be construed to be included in the expression "Amendment and Modification" under Article 24 of the Conditions of Contract. The Construction Drawings may include the Contract Drawings reissued or modified and additional Drawings as necessary to provide further details of the construction required.

The Contractor shall perform the Works strictly in accordance with the Construction Drawings and these Specifications. Although the Drawings are prepared to scale, work shall be based upon dimensions shown on the Drawings and not on dimensions scaled from the Drawings. The Drawings when read in conjunction with the Specifications and instructions that may be issued by the Study Team from time to time, will show basic dimensions and typical details to define the various features of the Works. Any further detailed and working drawings which are required by the Works shall also be prepared by the Contractor and all costs shall be borne by the Contractor.

2.2 Drawings to be Furnished by the Contractor

2.2.1 General

The Contractor shall prepare and submit the drawings required by the Study Team, including construction drawings, working drawings and others in due time, for the approval of the Study Team. The Contractor will submit all the detailed working drawings, and any supporting calculations, which are required to be submitted by the Contractor under the Contract. Those to be submitted shall be clearly readable prints and photocopies. Size of the drawings shall be unified as far as practicable. Two (2) copies each shall be submitted unless otherwise required elsewhere in the specifications.

The Contractor shall, except as specifically noted elsewhere in the Contract, submit his working drawings in a logical order to the Study Team for review and approval at least fourteen (14) calendar days prior to the execution of the works pursuant to said drawings.

2.2.2 Working Drawings

The Contractor shall use the Construction Drawings approved by the Study Team as a basis for preparing his working drawings. Such drawings shall be prepared by the Contractor for all items for which the design thereof is the obligation of the Contractor and shall show types of materials to be used, grades, stations, exact dimensions and any other details which may be required. The steel reinforcement drawings shall include reinforcement bending schedules, and bar placement for each concrete lift.

Working drawings for metal works shall consist of shop, erection and other drawings, showing details, dimensions, sizes and other information necessary for the complete fabrication and erection of the metal works. Working drawings for concrete works shall consist of such additional detailed drawings as may be required for the execution of the work and may include false work, bracing, centering and formwork and temporary access and layout diagrams.

2.2.3 Manufacturing Drawings

The Contractor shall submit for the approval of the Study Team the detailed fabrication drawings of the metal works and information related to the civil and building works such as foundations, anchor bolts, embedded metal works, size and shape of blackouts, cut-out and recesses in concrete walls, details of mounting and all field joints.

2.2.4 Layout Drawings of Temporary Works

Within fourteen (14) days from the signing date of the Contract, two (2) copies each of drawings showing the general layout of temporary facilities which the Contractor proposes to use shall be submitted to the Study Team for approval. The drawings shall show the location of the principal components of the construction plant, offices, storage buildings, housing facilities and storage areas which the Contractor proposes to construct at the Site or elsewhere for the purpose of the Works. The drawings shall also show appropriately the capacity and major features of the facilities. The Contractor shall subsequently submit detailed drawings and full particulars as stipulated in 6.1 of these Specifications.

2.2.5 Other Drawings

Drawings showing methods of construction and other drawings additional to those referred to hereinabove and required by the Specifications shall also be submitted by the Contractor to the Study Team for approval.

2.2.6 As-Built Drawings

Through the period of construction, the Contractor shall prepare As-Built Drawings for the various items of works which have been completed. Such drawings shall show any authorized change which may have been made in the Construction Drawings, to the extent that they correctly portray the true "as-built" condition of each item of the Permanent Works. The format of the As-Built Drawings shall be as approved by the Study Team.

As-Built Drawings shall be subject to inspection at the Site by the Supervising Engineer, and if found unsatisfactory and not updated, shall be re-checked within six (6) working days later. As each of the Permanent Works delineated on the Construction Drawings is completed, pertinent As-Built Drawings, after approval by the Study Team, shall be mutually signed by the Study Team and the Contractor or their representatives.

Within seven (7) days after the completion of the project, the Contractor shall provide the Study Team two sets of all As-Built Drawings which have been revised and updated to show the permanent construction actually made. One set of drawings and documents shall be of high quality material from which clear copies can be reproduced; while, the other set shall be a photocopy.

2.3 Documents to be Furnished by the Contractor

2.3.1 Specifications, Pamphlets and Data

The Contractor shall submit to the Study Team for approval two (2) sets of manufacturers' specifications, drawings, catalogs, pamphlets, cuttings, diagrams and other descriptive data for all materials and equipment to be furnished under the Contract at least Fourteen (14) days prior to the date of purchase. The approval of the specifications, drawings, catalogs, pamphlets, cuttings, diagrams and other descriptive data by the Study Team shall not relieve the Contractor of any of his responsibilities under the Contract.

2.3.2 Instruction Manuals for Installation, Operation and Maintenance

The Contractor shall submit instruction manuals concerning the correct manner for installing the permanent equipment as early as possible before such items are

transported to the Site, and those instruction manuals for the operation and maintenance of the installed equipment within fourteen (14) days before the delivery.

The instruction manuals shall describe in detail the methods and procedures to be followed and the use of all erection equipment, measurement devices or other items to be used in the installation/erection and in the operation and maintenance of the equipment supplied by the Contractor. The procedures for assembling, adjusting, operating and dismantling of each component system, machine or equipment shall be clearly described and illustrated. The maintenance to be performed for these items shall be described in detail including the recommended frequency of inspections and lubrication.

The instruction manuals shall include diagrammatic drawings of the equipment to facilitate understanding the descriptive information.

The instruction manuals shall include a complete list of all applicable drawings, spare parts lists, and a parts list for each component of each item of equipment. The parts lists shall include the manufacture's code, serial numbers and ordering instructions and shall be detailed as far as possible for the equipment supplied.

2.3.3 Test Procedure Instructions

The Contractor shall submit to the Study Team for approval, during or immediately following the submission of equipment drawings, test procedure instructions describing any test which may be required during manufacture and/or tests which may have to be performed.

Such instructions shall define the sequence of tests, equipment preparation, operation procedures to be followed and the detailed procedures for conducting the tests. Further details listed in the Specifications which pertain to test procedure instructions and types of tests to be performed shall be complied with.

3. SCHEDULE AND REPORTS

3.1 Construction Program

Within fourteen (14) days from the date of signing the Contract, the Contractor shall submit to the Study Team for consent his overall construction program in bar chart form.

During the Contract period, the construction program shall be closely monitored and kept current and, revised programs shall be furnished to the Study Team when directed.

In preparing the bar chart, the Contractor shall make due allowances for possible delays, which may be caused by inclement weather, all types of holidays, local working conditions, problems relating to maintaining equipment, problems relating to obtaining materials and supplies, and similar items. Under no circumstances shall the program show a completion date in excess of the "Period of Execution of Work" stated in the Article 3 of the Conditions of Contract.

Further, within the time specified above, the Study Team shall be given by the Contractor the following documents in the form agreed and approved by the Study Team for the purpose of monitoring the progress of the Works:

a) A program, in bar chart covering all activities.
b) Statements of construction methods;
c) List of construction equipment to be used;
d) Forecast of total labor requirements for the Works;
e) Site management organization chart.
f) Histogram of staff requirements;
g) List of drawings which the Study Team will require from the Contractor to issue during the Contract Period.

During the Contract Period, the Contractor shall submit to the Study Team:

a) A detailed construction program prior to the commencement of the construction work, with a histogram of staff requirements;
b) A list of drawings which the Contractor will submit to the Study Team during the construction periods prior to commencement of the relevant works.

In addition to the documents and information as required above, the Contractor shall supply to the Supervising Engineer at such times as the Study Team may direct such further or special written particulars and information, to enable a progress record to be maintained or required by the Supervising Engineer for the supervision of the Works.

3.2 Monthly Progress Reports

The Contractor shall, before the fifth (5) day of each month, submit two (2) copies of a monthly progress report detailing the progress of the Works for the previous month

on the Study Team's standard format which will be advised prior to the commencement of the construction works.

3.3 Progress Photos

The Contractor shall, throughout the Contract period, furnish the Study Team color photographs and copy of digital photo data of the work in progress. The color photographs shall be taken at the start, during and at completion of each major component of the work and other times as directed by the Study Team. Two (2) prints of each photograph and the digital computer floppy(ies) shall be furnished to the Study Team and shall be attached to the applicable monthly report. A brief description and the date of each photograph shall be included.

4. SETTING-OUT OF THE WORKS

4.1 General

The Contractor shall execute the check survey in the presence of the Supervisig Engineer. Such checking with the Supervising Engineer shall not relieve the Contractor of his responsibility to perform all work in accordance with the Specifications and Drawings and the lines and grades given therein.

4.2 Detailed Survey

The Contractor shall perform all calculations, surveying and setting out necessary to establish the accurate location of the structures to be constructed. The Contractor shall submit for the review of the Study Team the methods he intends to employ and the precision he will attain for the setting-out of the Works.

In checking the Contractor's survey results, the Contractor shall provide the Supervising Engineer all necessary assistance and services for such check surveys. The cost of all labor and materials required by the Supervising Engineer for this purpose shall be borne by the Contractor.

5. SECURITY, SAFETY AND HEALTH MEASURES

5.1 General

All security, safety and health measures necessary for the execution of the Works such as safe working practices, sanitary arrangements, land clearing of the Site, handling and storage of explosives and fuel, temporary fencing, lighting safety precautions and fire prevention, shall be established and maintained by the Contractor

throughout the period of the Contract. The Contractor shall be responsible for all security, safety measures and health controls and shall provide the personnel, equipment and written programs necessary to accomplish them.

All written programs for security, safety, etc. as required herein shall be submitted to the Study Team for approval fourteen (14) calendar days after receipt of the Study Team's order to commence the works. Approval of such programs shall not relieve the Contractor in any way from his responsibilities in this regard.

5.2 Security Control System

The Contractor shall establish a security control system for the Works and submit a written program regarding this to the Study Team for approval. The security control system shall be based on the laws and regulations of the Philippines.

The security control system shall be operated in accordance with the approved program.

The Study Team may request the Contractor to upgrade the operation of the approved security program and system whenever this is deemed necessary by the Study Team.

5.3 Medical Services

The Contractor shall in all respects be fully responsible for all medical treatment of his employees, subcontractors' employees and those of the Study Team resulting from accidents incurred on the work. The Contractor shall also be responsible for the transport of injured personnel to, and their treatment at hospitals or at other places for treatment.

The Contractor shall furnish and equip suitable staff and medical equipment, drugs and other consumable medical goods at the project site, and shall provide medical services to all his employees including those of his subcontractors, their dependents and other nominated personnel as specified hereunder, during the period of the Contract.

5.4 Sanitary Arrangement

The Contractor shall keep the Site in a clean and sanitary condition. He shall construct, operate, maintain, and subsequently remove, adequate sewerage systems and associated toilet facilities for use by his staff and employees on the Site. Details of the types and locations of the sewerage systems and toilet facilities which the Contractor proposes to use, and which meet the requirements of the Government health authorities, shall be submitted to the Study Team for approval.

5.5 Precautions for Safety

The Contractor shall take all necessary precautions against risks of injury or loss of life to any person employed on the Works or to employees of the Study Team, or to visitors or to persons having good and sufficient reasons to be at the project work site, and to this end he shall properly safeguard the Works to the satisfaction of the Study Team.

The Contractor shall at all times comply with any accident prevention regulations and any safety regulations peculiar to the various trades employed on the Works, and any safety regulations published by the Government.

The Contractor shall report promptly to the Study Team all accidents involving the death or serious injury to any person on the Site resulting from the Contractor's operations.

The Contractor shall hold regular safety meeting at least once every month with his construction supervisors and foremen, and those of his Subcontractors. When directed by the Study Team, additional meetings shall be held. The Contractor shall keep the Study Team informed as to when these meetings are to be held and shall provide the Study Team with a copy of the proposed agenda. The Study Team reserves the right to attend any of the meetings.

5.6 Signages

The Contractor shall provide all necessary signs for the Works. These shall include but not be limited to the following:

a) Name of Project and layout details
b) Warning signs
c) Danger signs

The Contractor shall erect and maintain two sign boards at locations assigned by the Supervising Engineer bearing the Project Title, and the names and titles of the Client, Study Team and the Contractor. Each signboard shall be painted on a separate steel sheets supported by steel posts as shown on the Drawings or as directed by the Supervising Engineer. Wording on all signs shall be in English. The size, color, lettering and locations of other signs shall be subject to the approval of the Study Team. The Contractor shall maintain all signs so placed as well as those placed by the Study Team.

6. TEMPORARY WORKS

6.1 General

All the Contractor's Temporary Works, including but not limited to site office, staff quarters, labor camps, buildings, water supply system(s), sewerage system(s), power supply system(s), telecommunication system, dewatering system, temporary roads and other temporary construction facilities, shall be installed, operated, maintained and subsequently removed by the Contractor as approved by the Study Team.

Within fourteen (14) days from the date of signing the Contract, the Contractor shall submit to the Study Team for initial review and comment two (2) copies of the general layout drawings of the Temporary Works. The drawings shall show the locations and other pertinent details of the principal components of the offices, camp quarters, buildings, storage areas, construction plants, roads, etc. which the Contractor proposes to construct at the Site. Following receipt of the Study Team's comments, the Contractor shall submit detailed drawings and full particulars of the Temporary Works for approval at least fourteen (14) days before he intends to commence such works. Particulars shall include plant and equipment capacities, foundation details, and a program of construction.

The Contractor shall also obtain any necessary approval or licenses from relevant Government authorities, and actual construction of any Temporary Works shall not be started without the Study Team's written approval for respective parts.

Unless otherwise specified, upon completion of the Works and upon the approval of the Study Team, all Temporary Works constructed by the Contractor shall be removed from the Site. The Contractor shall make safe all areas affected by the Temporary Works and reinstate natural drainage and re-vegetate the areas to the satisfaction of the Study Team.

No separate payment will be made for all temporary works.

6.2 Work Area

The Contractor will study and submit the map showing the area(s) of the temporary use for offices, ware houses, machinery yards and accommodation of the workers etc, for the approval of the Study Team.

All costs incurred including right of way, rent of land and the like shall be borne by the Contractor and any delay or restriction caused by such shall not relieve the

Contractor of his obligations to meet the requirements of the Contract and no extension of time will be allowed for any delay caused thereby.

Clearing and/or excavation of land or embankment and other establishment on land by the Contractor for construction of his Temporary Works shall not be made without the written approval of the Study Team and shall be kept to a minimum. Removal of vegetation, including cutting of tress and shrubs, shall be kept to a minimum as practicable.

6.3 Mobilization and Demobilization

6.3.1 Transport of Contractor's Equipment and Materials

The Contractor shall be responsible in transporting all his equipment, apparatus, and all materials needed for the execution of the Works which will be brought to and removed from the Site.

6.3.2 Temporary Buildings

The Contractor shall provide, maintain and subsequently remove his temporary buildings including site and field offices, staff quarters, first aid facility, repair shops, warehouses and other temporary buildings whatsoever required for execution of the Works.

Buildings and facilities shall be kept to a standard approved by the relevant Government authorities, and fully meet the Contractor's requirements for the execution of the Works.

The construction of the temporary buildings shall not be started without the Study Team's approval.

6.3.3 Construction Equipment

The Contractor shall supply, install, operate, maintain and subsequently remove all construction equipment required for the execution of the Works. In particular, the Contractor shall supply all those items listed on the Schedule of Major Construction Equipment in the Contract at the time stated therein or at such other time as may be deemed necessary in the opinion of the Study Team.

The construction equipment shall not be removed from the Site without the written approval of the Study Team.

The Contractor shall submit a Monthly Equipment Report which lists the following information about the construction equipment:

a) List of all equipment located at the Site;
b) Daily working and operation record of each item of equipment;
c) Inspection, repair and maintenance record;
d) Accident report.

6.3.4 Water Supply System(s)

The Contractor shall install, operate, maintain the temporary and permanent water supply system with drilled well in the site.

The Contractor shall also provide ample clean water for concreting, washing of the aggregates and rock materials and other purposes for the needs of construction works.

If the Contractor adopts an untreated water supply system to the work sites, he shall make suitable arrangements for an adequate supply of treated drinking water to be made available for his personnel at the work site.

The temporary water supply system shall be operated and maintained by the Contractor until the completion of the project, or for such longer period as may be directed by the Study Team.

6.3.5 Electric Power Supply and Distribution System

The temporary and permanent electric power supply system shall be designed, installed, and maintained by the Contractor for efficient execution of the Works.

The Contractor shall provide for his own use all necessary temporary electrical equipment and materials and temporary buildings, including his staff quarters.

The Contractor shall submit his plans and detailed drawings of his temporary electric power supply system, and his temporary distribution system, to the Study Team for approval.

Consumption of electric power supplied from the transmission line shall be paid by the Contractor at the rate of current tariff measured at the input supply line. Cost for such power consumption paid by the Contractor shall be deemed to be included in the Contract Price.

In case of power supply failure from the transmission line, the Contractor shall secure a generator set and the cost of its operation shall be borne by the Contractor.

6.3.6 Temporary Access Roads

The Contractor shall construct, maintain and subsequently demolish temporary access roads on the Site for access to work sites, crushing and concrete plants, spoil banks and other temporary facilities so as to meet his requirements for the execution of the Works.

6.3.7 Other Temporary Facilities

Other temporary facilities such as temporary gangways, ladders, staging, drains, safety covers and handrails, if any, necessary for execution of the Works shall be constructed, operated, maintained and subsequently removed by the Contractor. The Contractor shall submit to the Study Team for approval the details of such temporary facilities.

7. ENVIRONMENTAL CONSIDERATIONS

7.1 General

Monitoring will be made to ensure that the various environmental protection measures recommended in the approved environmental impact assessment are actually implemented. During the construction stage, it is necessary to ensure that the Contractor will comply with the requirements of environmental impact assessment applicable to the construction works.

The environmental protection measures to be monitored during the construction stage are contained in the following paragraphs.

7.2 Excavation face finishing

The excavated surfaces by constructing the various structures, access roads and construction facilities will be finally protected by masonry work, sod facing, concrete walls, etc., if required.

7.3 Waste water treatment measures

Waste water that will come from construction areas and others will be treated by appropriate methods in order to protect water quality of the downstream rivers.

7.4 Noise control

Noise caused by the construction works, including material and disposal transportation will be controlled and minimized by appropriate measures.

7.5 Safety management

Local people and the workers in the Project area will be protected from danger caused by the construction of the Project by taking appropriate measures.

APPENDIX B4-9: QIP TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

Page

1. MATERIALS

Materials to be used for the Work shall meet the requirements specified in the Standard Specifications (Blue Book) issued by the Department of Public Works and Highways of the Republic of the Philippines.

1.1 Water

The Contractor shall make his own arrangements for the provision of all water necessary for concrete, mortar or any other purpose on the works, at his own expense. Only clean water free from all deleterious matter shall be used for mixing mortar or concrete. The details shall be referred to Item 311, Part E of Volume II, Blue Book.

1.2 Cement

Unless otherwise specified "Cement" shall mean ordinary Portland Cement, and the details shall be referred to Item 700, Part I of Volume II, Blue Book.

The cement shall be stored in such manner that can prevent their deterioration or the intrusion of foreign matter and immediately upon arrival on the site of the work, in substantial waterproof bodegas, with floor raised from the ground sufficiently high to be free from dampness.

1.3 Aggregates

Concrete aggregate shall conform to the requirement of Item 311, Part E of Volume II, Blue Book. Samples of the fine and coarse aggregates to be used shall be submitted for testing before the actual concreting operations are to begin. It shall be the responsibility of the Contractor to designate the source of aggregates and submit them for testing. No concreting work shall commence unless an evidence of approved aggregates is confirmed by the Supervising Engineer .

The maximum size of the aggregates shall be not larger than 1/5 of the narrowest dimension between sides of forms of the number for which the concrete is to be used nor larger than 3/4 of the minimum clear spacing between individual reinforcing bar or bundles of bars.

Aggregates shall be stored in such a manner as to avoid the inclusion of foreign matter.

1.4 Concrete Masonry Blocks

Concrete masonry blocks shall conform to the requirements of Item 704, Part I of Volume II, Blue Book. Dimensions and tolerances shall be specified on the Drawings.

Concrete blocks shall be sound and free of cracks or other defects that would interfere with the proper placing of the block or impair the strength and performance of the

construction. Blocks that are intended to serve as a base for plaster or stucco walls shall have sufficiently rough surface to afford a good bond. Where the blocks are to be used in exposed wall construction, the face or faces that are to be exposed shall be free from chips, cracks or other imperfections. Concrete Hollow Block should be load bearing block.

1.5 Timber

Lumber of the different species herein specified for the various parts of the structure shall be all seasoned, sawn straight, sun-dried or kiln-dried and free from defects and other imperfections impairing its strength, durability, and appearance.

Unless otherwise specified on the plans, the lumber species shall be used as specified in Item 1003.2.1.2, Part C of Volume III, Blue Book. Rough lumber for framing and siding boards shall be air dried or sun-dried such that its moisture content shall not exceed 22 percent. Dressed lumber for exterior and interior finishing, for doors and windows, millwork, cabinet work and floor boards shall be kiln-dried and shall not have a moisture content of 14 percent at the time of installation of structure.

Plywood shall conform to the requirement of the Philippine Trade Standard 631-02. Thickness of a single layer laminate shall not be less than 2 mm. The laminate shall be superimposed in layers with grains crossing at right angle in successive layers to produce stiffness. The laminate and face veneers shall be bonded with water resistant resin glue, hot pressed and pressure treated. Ordinary tanguile or red lawaan plywood with good quality face veneers, 6 mm thick shall be used for double walling and ceiling not exposed to moisture; waterproof or marine plywood shall be used for ceiling exposed to moisture such as at toilets and eaves, and ceiling to be finished with acrylex.

1.6 Structural Steel

Structural steel to be used shall conform to the requirements of Item 712, Part I of Volume II, Blue Book. Unless otherwise specified in the Drawings, structural carbon steel for riveted, bolted or welded construction may be utilized.

Bolts shall be of sufficient length to have at least one complete thread projecting beyond the outer face of the nut when tightened up and sufficient washers and/or taper washers shall be provided in all cases. All bolt holes shall have a clearance not exceeding 1.5 mm.

Contractors shall make their own allowances for clearances between end of members. All cranking of angles, tees and other sections is to be carried out as far as possible at manufacturer's or fabricator's works and the use of heat for bending or cranking will not be allowed.

1.7 Reinforcing Steel

The reinforcing steel shall meet the requirements of Item 710, Part I of Volume II, Blue Book. Provided the minimum dimensions, cross sectional area and tensile properties shall meet the physical requirement for the size and grade of steel specified.

All reinforcing bars requiring bending shall be cold-bent to the shapes shown on the Drawings. Bars shall be bent around a circular pin having the appropriate diameters in relation to the diameter of the bar in accordance with the DPWH standards.

Steel reinforcement shall be stored above the surface of the ground upon platforms, skids, or other support and shall be protected as far as practicable from mechanical injury and surface deterioration caused by exposure to conditions producing rust.

1.8 Others

Materials to be used for the roofing, plumbing, sewerage, joinery and electrical power are mentioned in each work item or specified in the Construction Plans.

2. SITE PREPARATIONS AND EARTHWORKS

2.1 Site Works

The part of the site occupied by the works shall be cleaned of all trees, roots, vegetation, rocks, boulders etc., and as much surface soil as directed by Supervising Engineer . Cutting or filling of earth on the site shall be done to lines, levels and slopes as shown on the Drawings. Surplus earth from the excavations within the area, if found suitable may be utilized for filling, but any earth required in excess shall be obtained by the Contractor at his own expense, from dry earth; free from debris, plants and vegetable matter, and other organic materials.

The site shall be examined for field drains, and these when found, shall be either entirely removed or diverted and trenches filled with dry earth in 150 mm layers and consolidated.

At the completion of the work, the contractor shall tidy up and leave the sites of the works in a clean and sanitary condition to the satisfaction of Supervising Engineer .

2.2 Excavation

All excavations shall be carried out to the lines and levels, shown on the Drawings or as directed by Supervising Engineer . Excavation work includes necessary diverting of live streams, bailing, pumping, draining, sheeting, bracing, and furnishing the materials therefore, and placing of all necessary backfill. It shall also include the furnishing and placing approved foundation fill material to replace unstable material encountered below the foundation elevation of structures.

Trenches or foundation pits for structure or structure footings shall be excavated to the line and grades or elevations shown on the Drawings. The contractor shall notify the Supervising Engineer to check the depth of excavation and the character of the foundation material. When the foundation material is soft or mucky or otherwise unsuitable, the Contractor shall remove the unsuitable material and backfill with approved granular material. This foundation fill shall be placed and compacted in 150 mm layers up to the foundation.

Excavated area around structures shall be backfilled with free draining approved granular material and placed in horizontal layers not over 150 mm in thickness. Each layer shall be moistened or dried as required and thoroughly compacted with mechanical tampers.

All excavated materials, so far suitable, shall be utilized as backfill or embankment. The surplus materials shall be disposed off in such manner as not to obstruct the stream or otherwise impair the efficiency or appearance of the structure. No excavated materials shall be deposited at any time so as to endanger the partly finished structure.

2.3 Filling/Embankment

Prior to construction of embankment, all necessary clearing and grubbing in that area shall be performed in conformity with section 2.1 site work. Embankment and filling shall contain no muck, peat, sod, roots or other deleterious matter. The surface of the existing ground shall be compacted to a depth of 150 mm and to the specified requirement of this Item.

Each layer shall be leveled and smoothened with suitable leveling equipment and by distribution of spalls and finer fragments of earth. Filling shall be done in regular horizontal layers not exceeding 150 mm in thickness.

The contractor shall compact the material placed in all layers and material scarified to the designated depth in cut section, until a uniform density of not less than 95 mass percent of the maximum dry density determined by AASHTO method at a moisture content determined by the Supervising Engineer to be suitable for such density. The Supervising Engineer may during the progress of the work, make density tests of compacted material. Proper care shall be taken that the area immediately adjacent to the structure is not compacted nor subjected to excessive pressure to the extent that it will cause overturning of the structure.

The material used for filling under floors shall be clean, and good hard composition, perfectly free from all vegetation or other foreign matter.

3. REINFORCING STEEL WORK

All steel reinforcements shall be accurately placed in the position shown on the Drawings and firmly held there during the placing and setting of the concrete. Bars shall be tied at all intersections except where spacing is less than 300 mm in each direction, in which case, alternate intersections shall be tied.

Distance from the forms shall be maintained by means of stays, blocks, ties, hangers, or other supports, so that it does not vary from position indicated on the Drawing by more than 6 mm. Holding reinforcement from contact with the forms or separating layers of bars shall be precast mortar blocks or other equally suitable devices. Unless otherwise shown on the Drawings, the minimum distance between bars shall be 40 mm.

Splicing of bars shall be staggered as far as possible and with a minimum separation of not less than 40 bar diameters. Not more than one-third of bars may be spliced in the same cross section. Unless otherwise shown on the Drawings, bars shall be lapped a minimum distance of:

Splice Type	Grade 40	Grade 60	not less than
Tension	24 bar dia.	36 bar dia.	300 mm
Compression	20 bar dia.	24 bar dia.	300 mm

In lapped splices, the bars shall be placed in contact and wired together. Welding of reinforcing steel shall not be allowed.

Sheet of mesh or bar mat reinforcements shall be overlapped with each other sufficiently to maintain a uniform strength and shall be securely fastened at the ends and edges. The overlap shall not be less than one mesh in width.

4. CONCRETE WORKS

4.1 Mixing of Concrete

Five classes of concrete are provided, namely A, B, C, P and Seal. Each class shall be used in that part of the structure as called for on the Drawings. The classes of concrete will generally be used as follows:

Class A : All super structures and heavily reinforced substructures. The important parts of the structure included are slabs, beams, girders, columns, arch ribs, box culverts, reinforced abutments, retaining walls, and reinforced footings.

Class B : Footings, pedestals, massive pier shafts, pipe bedding, and gravity walls and unreinforced or with only a small amount of reinforcement.

Class C : Thin reinforced sections, railings, precast R.C. piles and cribbing and for filler in steel grid floors.

Class P : Prestressed concrete structures and members.

Seal : Concrete deposited in water

The requirement of materials for mixing shall be referred to Item 311, Part E of Volume II, Blue Book. The grading requirement shall be referred to Table 311.1 for fine aggregate and Table 405.1 for coarse aggregate in Volume II, and the strength requirement for each class of concrete are shown in Table 405.2 in Volume II, Blue Book.

All concrete shall be mixed in mechanically operated mixers. Materials shall be measured by weighing. The apparatus provided for weighing the aggregates and cement shall be suitably designed and constructed for this purpose. Concrete mixers shall be operated uniformly at the mixing speed recommended by the manufacturer. All concrete shall be mixed for a period of not less than 1-1/2 minutes after all materials, including water, are in the mixer.

As work progresses, at least one (1) sample consisting of three (3) concrete cylinder test specimens, 150 x 300 mm shall be taken for fraction thereof placed each day. The samples shall be tested in accordance with the standard method listed in Item 405.3, Part F of Volume II, Blue Book.

4.2 Placing of Concrete

Before the concreting is begun, the formwork shall be cleaned of all dusts, wood shavings, pieces of wire or other extraneous matter.

Concrete shall be placed so as to avoid segregation of the materials and the displacement of the reinforcement. Open troughs and chutes shall be of metal lined; where steep slopes are required, the chutes shall be equipped with baffles or be in short length that reverse the direction of movement to avoid segregation. When placing operation would involve dropping the concrete more than 1.5 m, concrete shall be conveyed through sheet metal or approved pipes. As far as practicable, the lower end of pipe shall be kept buried in the newly placed concrete.

The concrete shall be placed as nearly as possible to its final position and the use of vibrators for moving of the mass of fresh concrete shall not be permitted.

4.3 Compaction of Concrete

Concrete during and immediately after placing shall be thoroughly compacted. The concrete in walls, beams, columns and the like shall be placed in horizontal layers not more than 30 cm thick. Each layer shall be compacted so as to avoid the formation of a construction joint with preceding layer.

The compaction shall be done by mechanical vibration. The intensity of vibration shall be made so as to visibly affect a mass of concrete with a 3 cm slump over a radius of at least 50 cm. A sufficient number of vibrator shall be provided to properly compact each batch immediately after it is placed in the forms. The vibrator shall be inserted into and withdrawn from the concrete slowly. The vibration shall be of sufficient duration and intensity to compact the concrete thoroughly but shall not be continued till causing segregation and at any one point to the extent that localized areas of grout are formed.

4.4 Construction Joints

Concreting shall be carried out continuously to predetermined construction joints, in position shown on the Drawings or as may be approved by the Supervising Engineer .

Before depositing new concrete on or against concrete which has hardened, the forms shall be retightened. The surface of the hardened concrete shall be roughened as required, in a manner that will not leave loose particles of aggregate or damage concrete at the surface. It shall be thoroughly cleaned of foreign matter and laitance.

Vertical faces shall be similarly treated except that they shall be covered with freshly mixed cement grout immediately before the fresh concrete is placed in lieu of the cement mortar in the horizontal joint.

4.5 Curing

Concrete shall after being placed be suitably protected during the first state of hardening from the harmful effects of sunshine, drying winds, heavy rain, surface water shocks etc. Concrete made with normal cement shall be prevented from drying out for not less than 7 days by application of water. Cotton mats, rugs, carpets, or earth or sand blankets may be used to retain the moisture.

4.6 Concrete Surface Finishing

On all surfaces the cavities produced by form ties and all other holes, honeycomb spots, broken corners or edges and other defects shall be thoroughly cleaned, and after having been kept saturated with water for a period of not less than three hours shall be carefully pointed and made true with a mortar of cement and fine aggregate mixed in the proportions used in the grade of the concrete being finished.

The resulting surface shall be true and uniform. All repaired surfaces, appearance of which is not satisfactory to the Supervising Engineer, shall be rubbed with a minimum coarse carborundum stone using a small amount of mortar on each face.

4.7 Formwork

Concrete forms shall be mortar-tight, true to the dimensions, lines and grades of the structure and with the sufficient strength, rigidity, shape and surface smoothness in terms of finished works to be true to the dimensions shown on the Drawings.

The inside surface of forms shall be cleaned of all dirt, mortar and foreign material. Forms which will later be removed shall be thoroughly coated with form oil prior to use. The form oil shall be of commercial quality form oil or other approved coating which will permit the ready release of the forms and will not discolor the concrete.

Forms for exposed concrete surface shall be designed and constructed so that the form surface of the concrete does not undulate excessively in any direction between studs, joists, form stiffeners, form fasteners, or wales. Undulations exceeding either 2 mm or 1/270 of the center to center distance between studs, joists, form stiffeners, form fasteners, or wales will be considered to be excessive.

4.8 Removal of Forms

Forms and supports shall not be removed without the consent of the Supervising Engineer. Removal of forms and supports should not begin until the concrete has attained the percentage of the specified design strength in the table below.

	Minimum Time	Minimum Percentage To Design Strength
Under girders, beams, frames	14 days	80%
Floor slabs	14 days	70%
Walls	1 day	70%
Columns	2 days	70%
Sides of beams, vertical surface	1 day	70%

Forms and supports shall not be released from under concrete without first determining if the concrete has gained adequate strength without regard to the time element. In the absence of strength determination, the forms and supports are remained in place until removal is permitted by Supervising Engineer .

To facilitate finishing, forms used on exposed vertical surfaces shall be removed in not less than 12 nor more than 48 hours, depending upon weather conditions. In order to determine the condition of concrete in columns, forms shall always be removed from them before the removal of shoring from beneath beams and girders.

5. BLOCK WORK

Joint mortar shall be composed of one part of Portland Cement and two parts fine aggregate by volume to which hydrated lime has been added in an amount equal to 10% of the cement by weight. Sufficient water to make such consistency that it can be handled easily and spread with trowel. Mortar shall be mixed only in those quantities required for immediate use. Mortar that is not used within 90 minutes after the water has been added shall be discarded.

Concrete blocks shall be placed by hand and jointed by mortar. All joint and courses shall be well flushed up and no joints shall be wider than 9 mm. The courses shall be kept perfectly horizontal and every fourth course shall be checked for level and plumb.

6. WOOD WORK

Working drawings complete with essential dimensions and details of construction, as may be required by the Supervising Engineer in connection with carpentry work, shall be submitted for approval before proceeding with the work

6.1 Carpentry

Carpentry covers timber structural framing for roof, flooring, siding, partition and ceiling.

a) Rough carpentry shall be done true to lines, levels and dimensions. It shall be squared, aligned, plumbed and well fitted at joints.
b) Trusses and other roof framing shall be assembled, fitted and set to exact location and slope indicated on the Drawings. *(Roof framing is made of structural steel materials and not of timber)*
c) Fasteners, connectors and anchors of appropriate type and number shall be provided and fitted where necessary.
d) Structural members shall not be cut, bored or notched for the passage of conduits or pipes without prior approval by the consultant.
e) Timber framing in contact with concrete or masonry shall be treated with termite-proofing solution and after drying coated with bituminous paint.

6.2 Doors and Windows

Doors for the two rooms are Panel-type with guijo door jamb. While, doors at two toilets are PVC doors with corresponding PVC jamb.

Frames set in concrete/masonry shall be painted with hot asphalt at its contact surface and provide two rows of common wire nails 100 mm long for anchorage. Frames set in masonry work may be installed after laying concrete hollow blocks. Space between frames and masonry shall be filled with cement mortar proportioned at 1:3.

Hinged doors, whether panel or PVC type with standard height of 2100 mm and width of not more than 900 mm shall be hung with four (4) loose-pin butt hinges, 100 mm x 100 mm. Two hinges shall be fitted 150 mm from top and bottom edge of door. The other two hinges shall be fitted at third points between top and bottom hinges.

Windows are made of ½ inch glass jalousies on aluminum frames. Windows shall be protected with anti-burglar/iron grills made of 12 mm square plain steel bars.

7. METAL WORK

7.1 Structural Steel

Structural material shall be stored above the ground upon platforms, skids or other supports. Rolled material before being laid off or worked must be straight. Sharp kinks and bends will be cause for rejection of the material.

Unless otherwise shown on the Drawing, steel plate shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and or compressive stresses. Fabricated members shall be true to line and free from twists, bends, and open joints.

Preparation of edges by gas-cutting shall be done by machine gas-cutting. Manual gas-cutting shall be permitted only where machine gas-cutting is not practicable. The edge resulting from manual gas-cutting shall be inspected and smoothened with special care. The cut lines shall not extend beyond the fillet and cutting shall follow closely the line prescribed.

All holes for rivets or bolts shall be either punched or drilled. Material forming parts or a member composed of not more than five thickness of metal may be punched 1.6 mm larger than the nominal diameter of the rivets or bolts whenever the thickness of the material is not greater than 19 mm for structural steel. When more than five thickness or when any of the main material is thicker than 19 mm for structural steel, all holes shall either be sub-drilled or drilled full size. When required for field connections, all holes shall either be sub-punched or sub-drilled 4.8 mm smaller and, after assembling, reamed 1.6 mm large or drilled full size 1.6 mm larger than nominal diameter of the rivets or bolts.

The rivet shall be heated uniformly and shall be driven while hot. When a rivet is ready for driving, it shall be free from slag, scale and other adhering matter. Shop rivets shall be driven by direct-acting machines when practicable. When the use of a direct-acting machines is not practicable, pneumatic hammers of approved size shall be used.

The bolts and nuts shall be drawn tight against the work with full effort of a man using suitable wrench, not less than 381 mm long for bolts of nominal diameter 19 mm and over. A washer shall be provided under the nut. Heads of bolts shall be tapped with a hammer while the nuts are being tightened.

Welding shall be performed by the metal-arc process. Edges of material shall be trimmed by machining, chipping, grinding, or machine gas-cutting to produce a satisfactory welding edge wherever such edge is thicker than: 13 mm for sheared edge of material; 16 mm for toes of angles or rolled shapes; 25 mm for universal mill plate or edges of flange sections. The width of root face used, shall be not more than 1.5 mm for parts less than 10 mm in thickness nor more than 3 mm for parts 10 mm or more thickness. More details shall be referred to Item 409, Part F of Volume II, Blue Book.

The parts shall be accurately assembled as shown on the working drawings and any match marks shall be followed. The materials shall be carefully handled so that no parts will be bent, broken or otherwise damaged. Splices and field connections shall have one-half of the hole filled with erection bolts and cylindrical erection pin before placing permanent fasteners. The tension chord splices are fully connected with permanent fasteners and all other truss connections pinned and erection bolted. Splices of butt joints of compression members, that are milled to bear and of railing shall not be permanently fastened until the span have been swung, except that such permanent fastening may be accomplished for the truss members at any time that joint holes are fair.

7.2 Pre-painted Metal Roofing

Pre-painted metal roofing sheets shall be fabricated from cold rolled galvanized iron sheets specially tempered steel for extra strength and durability. It shall conform to the material requirements defined in PNS 67;1985. Profile section in identifying the architectural molded rib to be used are as follows: Regular corrugated, Quad-rib, Tri-wave, Rib-wide, Twin-rib, etc.

Fastening hardware shall be of galvanized iron straps and rivets. G.I. straps are of 0.500 mm thick x 16 mm wide x 267 mm long and standard rivets.

Start roofing installation by placing the first sheet in position with the down turned edge in line with other building elements and fastened to supports as recommended.

Place the down turned edge of the next sheet over the edge of the first sheet, to provide side lap and hold the side lap firmly in place. Continue the same procedure for subsequent sheet until the whole roofing area is covered and/or adopt installation

procedure provided in the instruction manual for each type of architectural molded rib profile section.

In case handling or transport consideration requires to use two or more end lapped sheets to provide length coverage for the roof run, install each line of sheet from bottom to top or from eave line to apex of roof framing. Provide 150 mm minimum end lap.

Gutter, valleys, flashing ridge and hip rolls shall be fastened where indicated on the Drawings by self-tapping screws or galvanized iron straps and rivets. Fastening pre-painted steel roofing for steel frame shall use self drilling screw or thread cutting screw No. 12 hexagonal head with neoprene washer. Side lap fastener use self drilling screw No. 10 by 16 mm long hexagonal head with neoprene washer.

8. FINISHING WORK

8.1 Cement Floor Finish

Before any mortar concrete topping is applied, the prepared concrete base surface shall first be wetted and grouted with Portland cement.

Mortar shall be one part Portland Cement and three parts fine aggregate by loose volume. Finish topping shall be pure Portland Cement properly graded mixed with water to approved consistency and plasticity. Cement floor finish floor hardener shall be premixed as required and applied in accordance with the manufacturer's instruction manual.

Metallic floor hardener shall be a mixture of oil-free special graded clean iron particles, mineral oxide pigment and Portland cement binder. Powder type hardener shall be a silica quartz aggregates, workability admixtures, mineral oxide pigment and Portland cement mixed. Epoxy type topping hardener shall be a combination of epoxy resins filled with hard and natural emery or silica quartz aggregates.

Mortar topping of the thickness specified on the Drawings shall be spread over the prepared concrete base and shall be float finished using wood hand trowel. Batches of mortar topping shall be emplaced within one hour of mixing thereof. As soon as the water sheen has disappeared the surface shall be lightly scratched with a stiff bristle broom. The finish topping mixture whether plain or with floor hardener shall be spread over the lightly scratched surface before final set taken place and hand troweled to produce a smooth surface. Finished surface shall be free of trowel marks, have uniform texture and true to plane within an allowable tolerance of 3 mm in 3.0 meters.

Cement floor finished surface shall be covered with burlap or appropriate covering to avoid injurious action by sun, rain, flowing water and mechanical injury.

8.2 Cement Plaster Finish and Cement Mortar

After removal of formworks concrete surface shall be roughened to improve adhesion of cement plaster. Surface cement plaster shall be cleaned of all projections, dust, loose particles, grease and bond breakers. Before any application of mortar is commenced all surface that are to be plastered shall be wetted thoroughly with clean water to produce a uniform moist condition.

Mortar mixture for wall finish shall be freshly prepared uniformly mixed in the proportion by volume of one part Portland cement, three parts sand.

Mortar mix shall be applied with sufficient pressure starting from the lower portion of the surface to fill the grooved and to prevent air pockets in the concrete/masonry work and avoid mortar mix dropping. The mortar coat shall be lightly broomed/ or scratch before surface had properly set and allowed to cure.

Finish coat shall not be applied until after the mortar coat has seasoned for seven (7) days. Just before the application of the finish coat, the mortar coat surface shall be evenly moistened with potable water. Finish coat shall be floated first to a toe and even surface, then troweled in a manner that will force the mixture to penetrate into the brown coat. Surface applied with finish coat shall then be smoothened with paper in a circular motion to remove trowel marks, checks and blemishes. All cement plaster finish shall be 10 mm thick minimum on vertical concrete and/or masonry walls.

8.3 Paint

Unless otherwise shown in the Drawings, painting work shall be followed according to the instruction of Supervising Engineer . All paint materials to be used are subject to prior approval by the Supervising Engineer following the color/s indicated in the specification of finishes shown in the construction plans.

Generally paint work will be scheduled as follow:

a) Mortar finish 3 coats Acrylic base masonry paint
b) Ferrous metal 1 coat prime and 2 coats enamel paint
c) Wood painted finish 3 coats oil based paint

Paints when applied by brush shall become non-fluid, thick enough to lay down as adequate film of wet paint. Brush marks shall flawed out after application of paint. Paint made for application by roller must be similar to brushing paint. It must be non-sticky when thinned to spraying viscosity so that it will break up easily into droplets.

Paint is atomized by high pressure pumping rather broken up by the large volume of air mixed with it.

At the time of application paint shall show no sign of deterioration. Paint shall be thoroughly stirred strained and kept at a uniform consistency during application. Paints of different manufacture shall not be mixed together.

Coats shall be of proper consistency and well brushed out so as to show a minimum of brush marks. All coats shall be thoroughly dried before the succeeding coat is applied. Where surface are not fully covered or cannot be satisfactorily finished in the number of coats specified such preparatory coats and subsequent coats as may be required shall be applied to attain the desired evenness of surface. Hardware, lighting fixture and other similar items shall be removed or protected during the painting and related work operation and re-installed after completion of the work.

9. PLUMBING WORK

Pipes shall be galvanized iron pipe scheduled 40 conforming to specification requirements defined in ASTM A-120 with threaded connection. Fitting shall be malleable iron Type II, galvanized iron conforming to specification requirements defined in ASTM A-338.

Pipes and fittings for sanitary and potable water lines as approved alternate shall be Unplasticized Polyvinyl Chloride Pipes and Fittings (UPVC). Pipes and fittings shall be made of virgin materials conforming to specification requirements defined in ASTM D-2241 and PNS 65:1986. Fitting shall be molded type and designed for solvent cement joint connection for water lines and rubber O-ring seal joint for sanitary lines.

The septic tank shall be provided as shown on the Drawings including all pipe vents and fittings. Inlet and outlet pipes shall conform to the latest edition of the National Plumbing Code.

9.1 Fixtures

Unless otherwise specified, all plumbing fixtures shall be made of vitreous china complete with fittings.

Water closet shall be vitreous china, round front bottom outlet siphonic washdown bowl with extended rear self and closed coupled tank with cover complete with fittings and mounting accessories.

Lavatory shall be vitreous china, wall hung with rear overflow and cast in soap dishes, pocket hanger with integral china brackets, complete with a faucet, supply pipes, S-trap and mounting accessories.

Floor drain shall be made of stainless steel beehive type, measuring 100 x 100 mm, and provided with detachable stainless strainer, extended metal lath type.

9.2 Fittings and Connections

All water piping inside the building and underground, 100 mm diameter and smaller shall be galvanized iron threaded pipe with malleable iron fittings. The water piping shall be extended to all fixtures, outlets, and equipment from the gate valves installed in the branch near the riser. All service pipes, valves and fittings shall be kept at sufficient distance from other work to permit finished covering not less than 12.5 mm from such work or from finished covering on the different service. Pipe drain shall consist of 12 mm globe valve with renewable disc and installed at low points on the cold water piping so that all piping shall have a slope of 100 mm in 30.5m.

All pipes shall be reamed before threading. All screw joints shall be made with graphite and oil or with an approved graphite compound applied to make threads only. Threads shall be full cut and not more than three threads on the pipe shall remain exposed.

Accessible contraction expansion joints shall be made whenever necessary. Horizontal runs of pipe over 15 m in length shall be anchored to the wall to the supporting structure about midway on the run to force expansion and contraction equally at the ends.

The type, size, capacity and power characteristics of well pump shall be directed by the Supervising Engineer . The water tank shall be provided with cover, drain pipes, distribution pipe outlet, overflow pipes and air vent. Suitable float switch or electrode shall be provided in the tank to stop and start the operation of the pump. A gate valve followed by a check valve shall be placed between discharge of well pump and water tank to prevent back flow of water when pump stops.

All fixtures and equipment shall be supported and fastened in a safe and satisfactory workmanship as practiced. All fixtures, where required to be wall mounted on concrete or concrete hollow block wall, fastened with brass expansion bolts. Expansion bolts shall be 6 mm diameter with 20 mm threads to 25 mm into solid concrete, fitted with loose tubing or sleeves of proper length to acquire extreme rigidity. Insert shall be securely anchored and properly flushed into the walls. Inserts shall be concealed and rigid. Bolts and nuts shall be horizontal and exposed. It shall be provided with washers and chromium plate finish.

9.3 Test and disinfection

The entire drainage and venting system shall have all necessary opening which can be plugged to permit the entire system to be filled with water to the level of the highest stack vent above roof. The system shall hold this water for a full 30 minutes during which time there shall be no drop greater than 102 mm.

Upon completion of the roughing-in and before connecting fixtures the entire cold water piping system shall be tested at a hydrostatic pressure one and a half times the expected working pressure in the system during operation and remained tight and leak-proofed. Where piping system is to be concealed the piping system shall be separately in manner similar to that described for the entire system and in the presence of the Supervising Engineer .

The entire water distribution system shall be thoroughly flushed and treated with chlorine before it is operated for the public use. Disinfection materials shall be liquid chlorine or hypochlorite and shall be introduced in a manner approved as practiced into the water distribution system. After a contact period of not less than 16 hours, the heavily chlorinated water shall be flushed from the system with potable water. Valves for the water distribution shall be opened and closed several times during the 16 hours chlorination treatment is done.

10. ELECTRICAL WORK

10.1 Conduits

All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark. The details of the requirements shall be referred to Item 1100, Part D of Volume III, Blue Book.

All works throughout shall be executed in the best practice in a workmanlike manner by qualified experienced electricians under the immediate supervision of a duly licensed Electrical Engineer.

Conduits should be cut square with a hacksaw and reamed. Bends shall be made with the required radius. In making bends only conduit bending apparatus will be used. No conduits shall be used in any system smaller than 12 mm diameter electric trade size nor shall have more than four (4) 90 degree bends in any one run and where necessary, pull boxes shall be provided.

On exposed work, all pipes and outlet boxes shall be secured by means of galvanized metal clamps which shall be held in place by means of machine screws. When running over concrete surfaces, the screws shall be held in place by means of expansion

sleeves for big pipes and rolled lead sheet for small pipes. Conduits shall be supported at 1,500 mm interval maximum.

10.2 Conduit Boxes and Fittings

Provide conduit boxes for pulling and splicing wires and outlet boxes for installation of wiring devices. As a rule, provide junction boxes or pull boxes in all runs greater than 30 meters in length, for horizontal runs. For other lengths, provide boxes are required for splices or pulling. Pull boxes shall installed in inconspicuous but accessible locations. Support boxes independently of conduits entering by means of bolts, red hangers or suitable means.

All convenience and wall switch outlet boxes for concealed conduit work shall be deep, rectangular flush type boxes. Four-inch octagonal flush type boxes shall be used for all ceiling light outlets and shall be of the deep type where three or more conduits connect to a single box.

All boxes shall be painted with antirust red lead paint after installation. All conduits shall be fitted with approved standard galvanized bushing and locknuts where they enter cabinets and conduit boxes. Junction and pull boxes of code gauge steel shall be provided as indicated or as required to facilitate the pulling of wires and cables.

All lighting fixtures and lamps are as specified and listed on lighting fixture schedule. For fluorescent lamp, it shall be 40-watt rapid start cool-with. All fluorescent ballast shall be 230 volt, high power factor, of good quality materials and approved by the Bureau of Product Standards (BPS).

All wiring installation herein shall be done under the direct supervision of a licensed Electrical Engineer at the expense of the Contractor. Upon completion of the electrical construction work, the Contractor shall provide all test equipment and personnel and to submit written copies of all test results. The Contractor shall guarantee that the electrical system are free from all grounds and from all defective workmanship and materials and will remain so for a period of one year from date and acceptance of works. Any defect shall be remedied by the Contractor at his own expense.

10.3 Wires and Wiring Devices

Wires and cables shall meet all the requirement of the Philippine Electrical Code and bearing PSA mark. All wiring devices shall be standard products of reputable electrical manufacturers. Wall switches shall be rated at least 10A, 250 volts and shall be spring operated, flush, tumbler type. Duplex convenience receptacles shall be rated at least 15A, 250 volts, flush, parallel slots. Single heavy duty receptacles shall be rated at least 20A, 250 volts, 3-wire, flush, polarized type.

All conductors of convenience outlets and lighting branch circuit homeruns shall be wired with a minimum 3.5 mm in size. Circuit homeruns to panelboard shall not be smaller than 3.5 mm but all homeruns to panelboard more than 30 meters shall not smaller than 5.5 mm. No conductor shall be less than 2 mm in size.

No splices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and taped with rubber and PVC tapes in a manner which will make their insulation as that conductor.

All wall switches and receptacles shall be fitted with standard Bakelite face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices.

11. SHALLOW WELL

11.1 Drilling

For shallow wells, the pipe casing can serve both as well casing and drop pipe of the pump.

Either of digging methods will be accepted, rotary or percussion, for the installation of a shallow well.

The depth of well is estimated to be 10m-20m. The final depth shall be determined in the presence of the Supervising Engineer.

12. OTHER FACILITIES (TO BE PROVIDED BY THE CONTRACTOR)

The Community Training Center shall also be provided with the following facilities:

- Fifty pieces vertical chairs (made of wooden material with paint and/or varnish);
- Ten pieces long tables (made of plyboard and wood frame with paint).

APPENDICES

APPENDIX **B-5**

PHOTOS BEFORE, DURING, AND AFTER CONSTRUCTION

APPENDIX B5-1: MANGGAHAN MULTI-PURPOSE BUILDING

Manggahan Multi-Purpose Building

Duration of Construction from Jun. 25, 2007 to Oct. 3, 2007

Before	During	After
		
		

APPENDIX B5-2: DARAPANAN WATER SUPPLY SYSTEM LEVEL II

Darapanan Water Supply System Level II

Duration of Construction from Jun. 15, 2007 to Oct. 3, 2007

Before	During	After
		
		

APPENDIX B5-3: SIMONE, KABACAN MULTI-PURPOSE BUILDING

Simone, Kabacan Multi-Purpose Building

Duration of Construction from Jan. 26, 09 to May 29, 09

Before	During	After
		
		

Simone, Kabacan Multi-Purpose Building

Duration of Construction from Jan. 26, 09 to May 29, 09

Before	During	After
		
		

APPENDIX B5-4: DUNGGUAN SOLAR DRYER & WAREHOUSE

Dungguan Solar Dryer & Warehouse

Duration of Construction from Mar. 2,2009 to Sept. 30,2009

Before	During	After
		
		

Dungguan Solar Dryer & Warehouse

Duration of Construction from Mar. 2,2009 to Sept. 30,2009

Before	During	After
		
		

APPENDIX B5-5: KANIPAAN HEALTH CENTER

Kanipaan Health Center

Duration of Construction from Jan. 26, 2009 to Jun. 20, 2009

Before	During	After
		
		

Kanipaan Health Center

Duration of Construction from Jan. 26, 2009 to Jun. 20, 2009

Before	During	After
		
		

APPENDIX B5-6: MINDUPOK COMMUNITY TRAINING CENTER

Mindupok Community Training Center

Duration of Construction from Jan. 26, 2009 to May 8, 2009

Before	During	After
		
		

Mindupok Community Training Center

Duration of Construction from Jan. 26, 2009 to May 8, 2009

Before	During	After
		
		

APPENDIX B5-7: PATAG SCHOOL BUILDING

Patag School Building

Duration of Construction from Mar. 12, 2009 to Sept. 1, 2009

Before	During	After
		
		

Patag School Building

Duration of Construction from Mar. 12, 2009 to Sept. 1, 2009

Before	During	After
		
		

APPENDIX B5-8: BACAYAWAN SCHOOL BUILDING

Bacayawan School Building

Duration of Construction from Apr. 20, 2009 to Aug. 9, 2009

Before	During	After
		
		

Bacayawan School Building

Duration of Construction from Apr. 20, 2009 to Aug. 9, 2009

Before	During	After
		
		

APPENDIX B5-9: NIAN SCHOOL BUILDING

Nian School Building

Duration of Construction from Apr. 20, 2009 to Aug. 10, 2009

Before	During	After
		
		

Nian School Building

Duration of Construction from Apr. 20, 09 to Aug. 10, 09

Before	During	After
		
		

APPENDIX B5-10: OMPAO SOLAR DRYER & WAREHOUSE WITH CORN MILL & CORN SHELLER

Ompao Solar Dryer & Warehouse with Corn Mill & Corn Sheller

Duration of Construction from Apr. 21. 09 to Oct. 7. 09

Before	During	After
		
		

Ompao Solar Dryer & Warehouse with Corn Mill & Corn Sheller

Duration of Construction from Apr. 21. 09 to Oct. 7. 09

Before	During	After
		
		

APPENDIX B5-11: MATIAO WATER SUPPLY SYSTEM LEVEL II

Matiao Water Supply System Level II

Duration of Construction from Jun. 15, 2009 to Oct. 12, 2009

Before	During	After
		
		

Matiao Water Supply System Level II

Duration of Construction from Jun. 15, 2009 to Oct. 12, 2009

Before	During	After
		
		

APPENDICES

APPENDIX **B-6**

GUIDELINES FOR PHASE 2
IMPLEMENTATION

APPENDIX B6-1: GUIDELINES FOR PHASE 2 IMPLEMENTATION

GUIDELINES FOR PHASE 2 IMPLEMENTATION

Agreed by the JICA study team and BDA through the series of workshops and Meetings

GUIDELINES FOR PHASE 2 IMPLEMENTATION

1. Over view of Process of the field activities for Phase 2

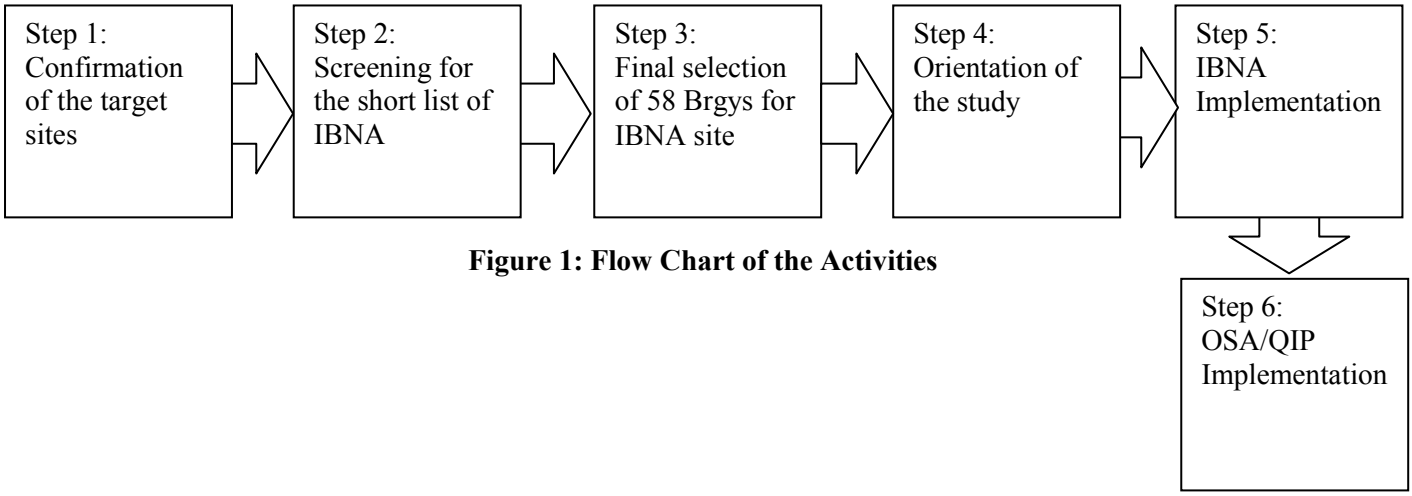

Figure 1: Flow Chart of the Activities

Step 1: Confirmation of the target sites:
The target barangays for the Phase II is 2,183 Barangays. The list of the target barangays is submitted by OPAPP and be checked by the study team and BDA.

Step 2: Screening for the short list of IBNA:
BDA and MILF shall select five barangays from each target municipalities using the criteria of IBNA. The detail process of selection is explained in the chapter 2.

Step 3: Final selection of IBNA site:
92 target Barangays will be selected by BDA and Study team using the same criteria. The step is to be done not only for the final selection but for the validation of the Step 2.

Step 4: **Orientation of the Study**:
In order that regional stake holders have the clear understanding of SERD-CAAM and help for its coordination, the study team and BDA hold the orientations both for the government structure and the MILF structure. For the government side, the orientation is held by province inviting governors and mayors in the target area. On another front, BDA will take care for the MILF regional, provincial and municipal committees.

Step 5: IBNA implementation:
The detail process of this step is explained in the chapter 3.

Step 6: OSA/QIP implementation:
The detail process of this step is explained in the chapter 4.

2. Steps and Criteria for the Selection of IBNA Target Barangays

The Table below shows the steps and criteria for the selection of IBNA Target Barangays.

Steps and Criteria	Consideration	Information source
Step1 Long list	● The MILF will recommend 5 barangays per each municipality in the target area. ● Total of 440 barangays out of 2,183 barangays in the CAA will be selected for the long list of candidates (5 Brgys. x 88 Municipalities). Note: The criteria (Steps 2-6) are used for this selection as well.	OPAPP
Step 2 Security Status	● JCCCH and BDA provide the information on the latest situation of security of the 440 potential barangays for IBNA. ● The study team and BDA will check the latest status but not eliminate any barangays at this step. Note: Security status is to be examined again prior to the IBNA field implementation.	JCCCH, BDA and other possible resources
Step 3 Effect of Conflict	● The effect of conflict is given a certain point in terms of the number of displacement incident, degree of damage in community and poverty, education and health status of each barangay. Note: Subject to availability of data which can be provided by TWG	TWG
Step 4 The number of the development projects by Foreign donors	● The number of the development project in the target barangays is given points based on the condition as follows; **The number of the development projects from Foreign donors** 0 donor agency 15 pts 1 donor agency 10 pts 2 or more donor agencies 0 pt Note: Pointing system is based on the number of the donors regardless of the number of the project implemented by each donor.	MEDCo and other donors
Step 5 Accessibility	● In order to prioritize remote barangays which usually face more difficulty in development, the weight is given based on the condition as follows; **Mainland area:** 5 km and above from the national road 10 pts Below 5 km from the national road 0 pt **Island area:** 5 km and above from the municipal center 10 pts Below 5 km from the municipal center 0 pt	SERD-CAAM GIS Data base
Step 6 Geographical Distribution	Fair distribution is one of the considerations of the selection. The consideration consists of two parts; 1. Fair distribution among the areas distribution	SERD-CAAM GIS Data base

Steps and Criteria	Consideration	Information source
	● The target number of IBNA barangays per each Province is calculated by the following formula in order to have fair distribution among the provinces; **The target number of IBNA barangays per each Province= (No.of Municipality in each province / Total No. of Municipality for Phase 2) x Total no. of IBNA** ● Maximum number of IBNA site shall be limited in one per Municipality for fair distribution. 2. Proportion of geographical character Every province shall have each geographical representative including coastal, highlands, flat or plain in order to have needs from different condition.	
Step 7 Final Selection	The matrix shall be made with the score and the information of steps 2-5. 58 IBNA barangays shall be selected based on the matrix.	

3. Implementation process for Barangay Profiling and IBNA

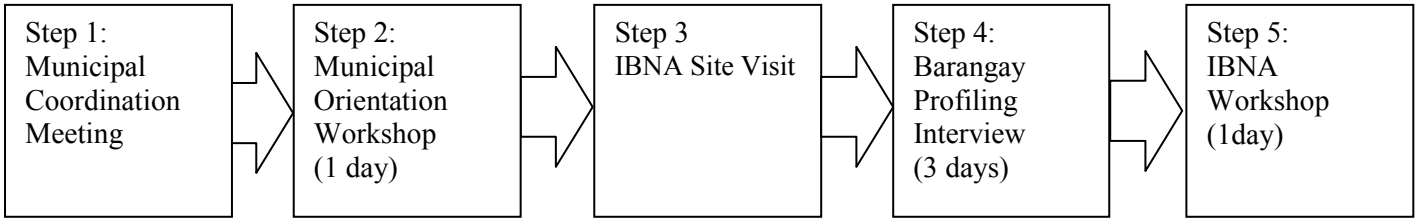

Figure 2: Flow Chart of IBNA and Barangay Profiling Implementation

Note: Step 3 and 5 will be skipped in the municipalities without the IBNA target site.

Step 1: Municipal Coordination: The letter from OPAPP indicating the presence of BDA with some Local Community Leaders in the ground.

The service provider (hereinafter referred to as field team) hold the municipal coordination meeting with the Mayor in every target municipality. The field team will explain to the mayor about the SERD-CAAM and the activities, barangay profiling and IBNA, in order to have assistance for the regional coordination. They will also distribute the secondary data sheet to the MPDC, or Municipal Planning and Development Coordinator, other line agencies so that the municipality can fill in the sheet by the orientation workshop.

Step 2: The Municipal Orientation Workshop:
In the work shop, the field team will explain the objective of the study and the contents of survey form of the barangay profiling. The field team shall prepare for some possible questions that may arise during the activity especially about IBNA, OSA and QIP selection.

Step 3: **IBNA Site Visit**:
After the Municipal orientation workshop, the field team will visit the IBNA target Barangay with the aim to discuss the issue regarding the IBNA coordination with the BLGU, Barangay Local Government Unit, as well as conduct ocular survey of the barangay situation especially on Infrastructure.

Step 4: Barangay Profiling Interview:
The field teams will have an interview with Barangay Captain and Secretary over the survey sheet for the data validation. The interview will be done three days more or less depending on the number of Barangay for each Municipality.

Step 5: The IBNA workshop:
The IBNA workshop will be held using the same methods as the Phase 1, the focus group discussion. The result of the discussion will be documented and to be reported to the Study Team and BDA.

4. Steps and Criteria for the Selection of OSA Target Barangays

The OSA for phase 2 shall be implemented in 14 barangays. The steps for selection are as follows;

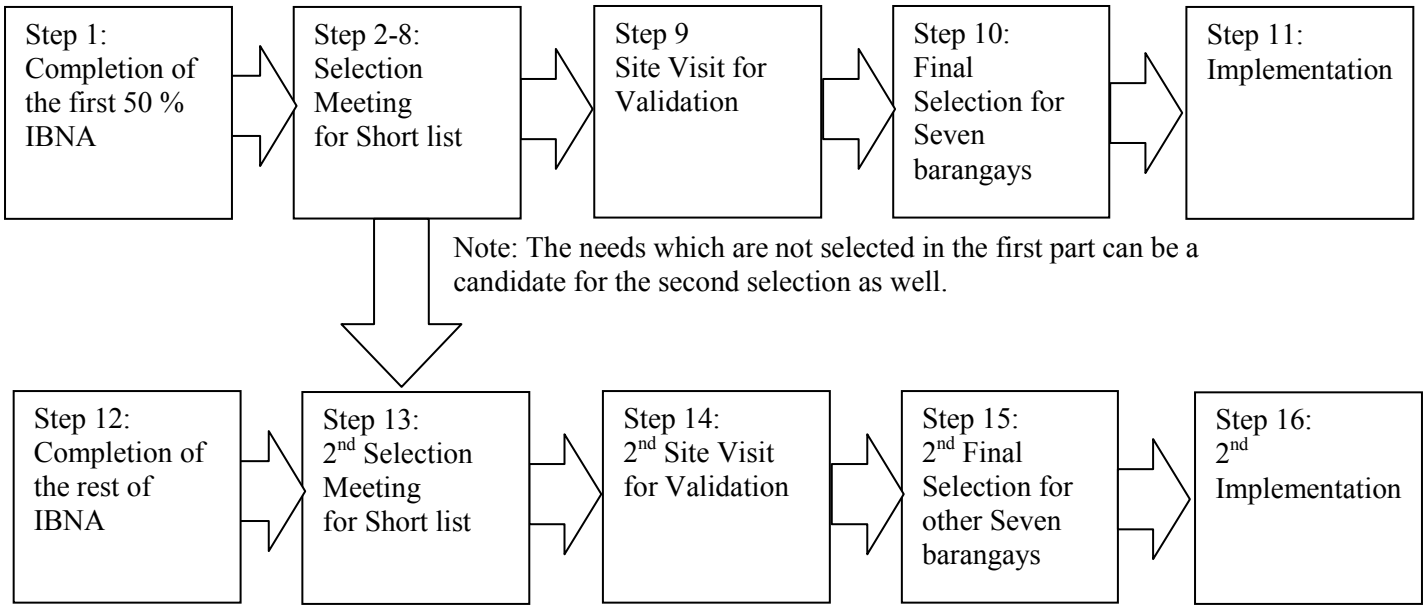

Figure 3: Flow Chart of OSA Selection

The Table below shows the steps and criteria for the selestion of OSA Target Barangays.

Steps and Criteria	Consideration	Information source
Step1 Long list	Needs from the first half IBNA site is to be candidates for the first selection, seven barangays, regardless of the rank & group as long as the need is included in the IBNA result.	IBNA result
Step 2 Check MUST Condition	Form the long lost, the needs which cannot meet the following condition is to be eliminated from the list. **1. JCCCH Guarantee** ➢ The security in the site must be guaranteed by the JCCCH ➢ BDA and the study team examine the security situation, even though JCCCH guarantee it. **2. Fare distribution** The maximum number of the OSA is 2 projects/ province for the. **3. Time framework** The project, from the social preparation up to the handing over, must be completed within two months. **4. Cost Ceiling** The average cost of the OSA project shall be P200, 000.00 and a maximum of P300, 000.00	JCCCH, IBNA

Steps and Criteria	Consideration	Information source
Step 3 Check NEGATIVE condition	Basically OSA is Open to all types of projects, however the following projects can not be recommended due to the past experience and the JICA policy. 1. **Land Acquisition:** The site of the project must not be contested and the owner must be identified. **2. Privately Own Facility** **3. Barangay Hall or related function facility** **4. Animal Dispersal** **5. Micro Finance** **6. Religious Related Projects** **7. Consumable Items** **8. Transportation Facilities**	IBNA
Step 4 Existence of similar functioning Socio-Economic Project by Foreign donors	The needs meets the condition of the Step 2 and 3 shall be given the points according to the criteria in step 4 to 7 **Pointing standard:** **Number of the foreign similar projects** No similar project 30 pts 1 similar project 10 pts 2 or more similar projects 0 pts	IBNA, Barangay Profiling
Step 5 Scope of Beneficiary	Scope of Beneficiary is to be judged from two points of view, in other words, the extent of target area and sector. **Pointing standard:** **Number of Target Barangays** 2 or more barangays 15 pts 1 barangay 10 pts Portion of the barangay (ex a sitio only) 5 pts **Number of Target Sectors (ex. women, farmer)** Whole sectors 10 pts 1 or limited Sectors 5 pts	IBNA
Step 6 Effect of Conflict	The effect of conflict is to be judged by the number of Displacement from Year 2000 to the present. **Pointing standard:** **Number of Displacement from Year 2000 to present** 3 or more conflict 20 pts 1 to 2 conflict 10 pts 0 conflict 0 pts	IBNA, Barangay Profiling
Step 7 Sustainability/ Capability of the Community	Sustainability of the project is subject to the community capability thus the existence of the related human resource and the People Organization is to be used as the pointing standard	IBNA, Barangay Profiling

Steps and Criteria	Consideration	Information source
	for sustainability. **Pointing standard:** **Human Resource** Presence of human resource related to the need 15 pts No related human resources 0 pts **People Organization (PO)** Presence of PO related to the needs 10 pts No related PO 0 pts	
Step 8 Ranking	The needs are to be sorted into the provincial based ranking based on the score of the Steps 4-7. After that each province has its ranking	
Step 9 Site Visit	The first priority site of each province ranking is to be visited. If the first one is disqualified after the site visit, the second one from the same province is to be visited. The purpose of the site visit is validation of the ranking criteria and gathering the necessary information for the OSA planning. The following condition is to be checked in the site visit. **1. Socio-Economic Infrastructure** **2. Scope of Beneficiary** **3. Effect of Conflict:** a. Number of IDP/ Percentage of IDP per total population b. Number of Displacement c. Extent of Damage of infrastructures and facilities **4. Sustainability** a. Human Resource related to the project b. PO in terms of following points; ➢ Governance ➢ Number of POs ➢ Target field of POs ➢ Identification of the responsible PO for the OSA project. c. Community commitment ➢ Availability of in kind counterpart ➢ Policy Related such as a barangay resolution for the project management	
Step 10 Final Selection	The final selection of the OSA will be done jointly by the Study Team and the BDA after Site validation.	
Step 11 Implementation	Detail Implementation Process is explained in the Chapter 5	
Step 12 to 16	After the completion of the later half of IBNA, the same step is to be taken for another seven OSA selection.	

5. Implementation process for OSA

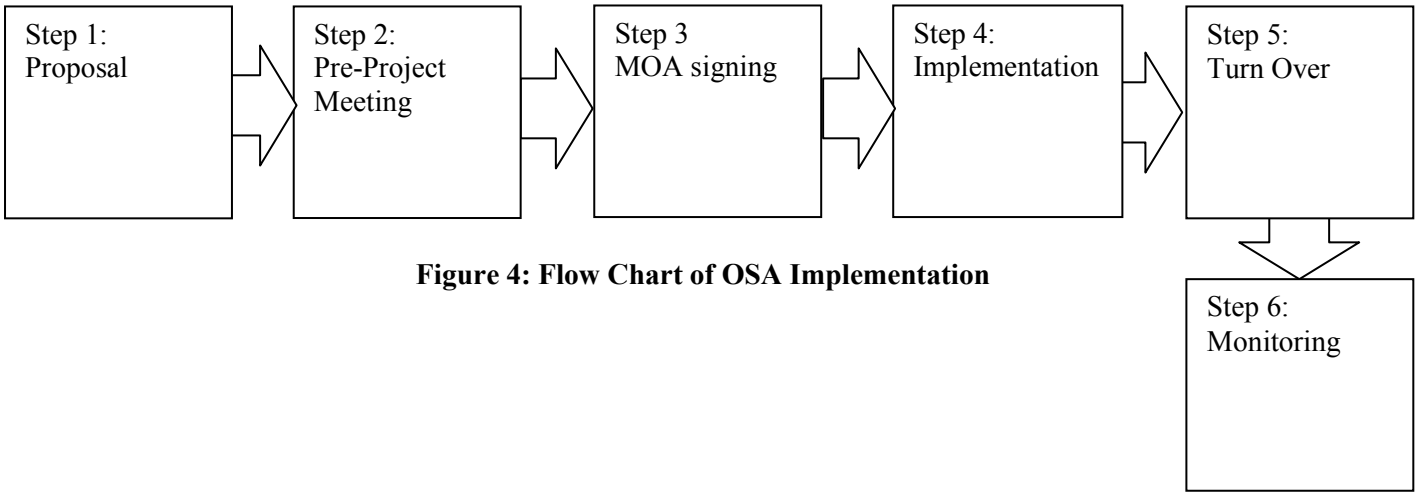

Figure 4: Flow Chart of OSA Implementation

Step 1: Proposal
There shall be a joint planning after the final selection of the OSA barangays among BDA, the Study Team and the Service Provider. The Service Provider shall be responsible for drafting the proposal based on the planning and the proposal is to be checked by BDA and the Study Team.

Step 2: Pre-Project Meeting
The project proposal is presented and discussed among the stakeholders including barangay officials, PO representative and mayor. The Memorandum of Agreement of the project, or MOA, is explained in the meeting as well.

Step 3: MOA signing
The MOA is to be signed by the stakeholders, the Study team, BDA, the barangay captain, the mayor and PO representative who is responsible for operation and maintenance of the project. The MOA includes the final project plan reflecting the discussion of the pre-project meeting.

Step 4: Implementation
The OSA implementation consists of the following activities;

Activity	Description	No. of days	In charge
Community Meeting	Discussion and clarify the followings; ・ Schedule ・ Project Plan ・ Responsible PO for the project ・ Community counter part ・ Sustainable Measure	1 day	The study team, BDA and Service Provider
Organizing PO	PO which will be responsible for operation and maintenance of the project is to be established or reorganized including election of the board members and formulating committee and policy for the project, . The service Provider and BDA will assist to register the PO to concern authorities in order that they can get possible assistance for the future..	1 day	Service Provider
Training (Community Driven Perspective)	The service provider will hold 3 days training for Community Driven Perspective, or CDP, for 3 days with the trainer from BDA. The aim of which is to enhance the responsibility of the community for the project.	3 days	BDA and Service Provider

Activity	Description	No. of days	In charge
Training on Operation and Maintenance	Training on Operation and Maintenance to PO – 1 day activity to be conducted by service provider so that the community will know how to manage the operation of the project.	1 day	Service Provider
Construction/Procurement	The service provider shall be responsible for purchasing of materials and supervision of the project under supervision of the Study team and BDA. Both the BDA catalyst and the Service provider shall monitor and report to the Study team and BDA.	2 to 3 weeks depends on the contents	Service Provider and BDA catalyst

Step 5: Turn Over
After the completion of the project, a turn over ceremony is to be held in each barangay in order to make community have ownership of the project. The responsible of community for the project is to be clearly stated and agreed by the community.

Step 6: Monitoring
After the turn over, monitoring is to be done. BDA shall collect the information through RPMO and BDA catalyst in the field in order to figure out issues of the OSA projects which cannot be seen at the time of the turn over.

6. Tentative Schedule of Imlementation for IBNA, Barangay Profiling and OSA

May	June	July	Aug	Sept	Oct	Nov	Dec
Barangay Profiling						reports	
IBNA + BP in IBNA Municipalities							
Identify 7 OSA target IBNA as Part 1	Identify 7 OSA or 50% of target IBNA as Part 2						
	Implementation of Part 1 OSA						
		Implementation of Part 2 OSA					

Note: Barangay Profiling will be concentrated in Municipalities which includes IBNA for the first two months in order to have QIP and OSA selection in the early stage of the Phase2.

7. Steps and Criteria for the Selection of QIP Barangays

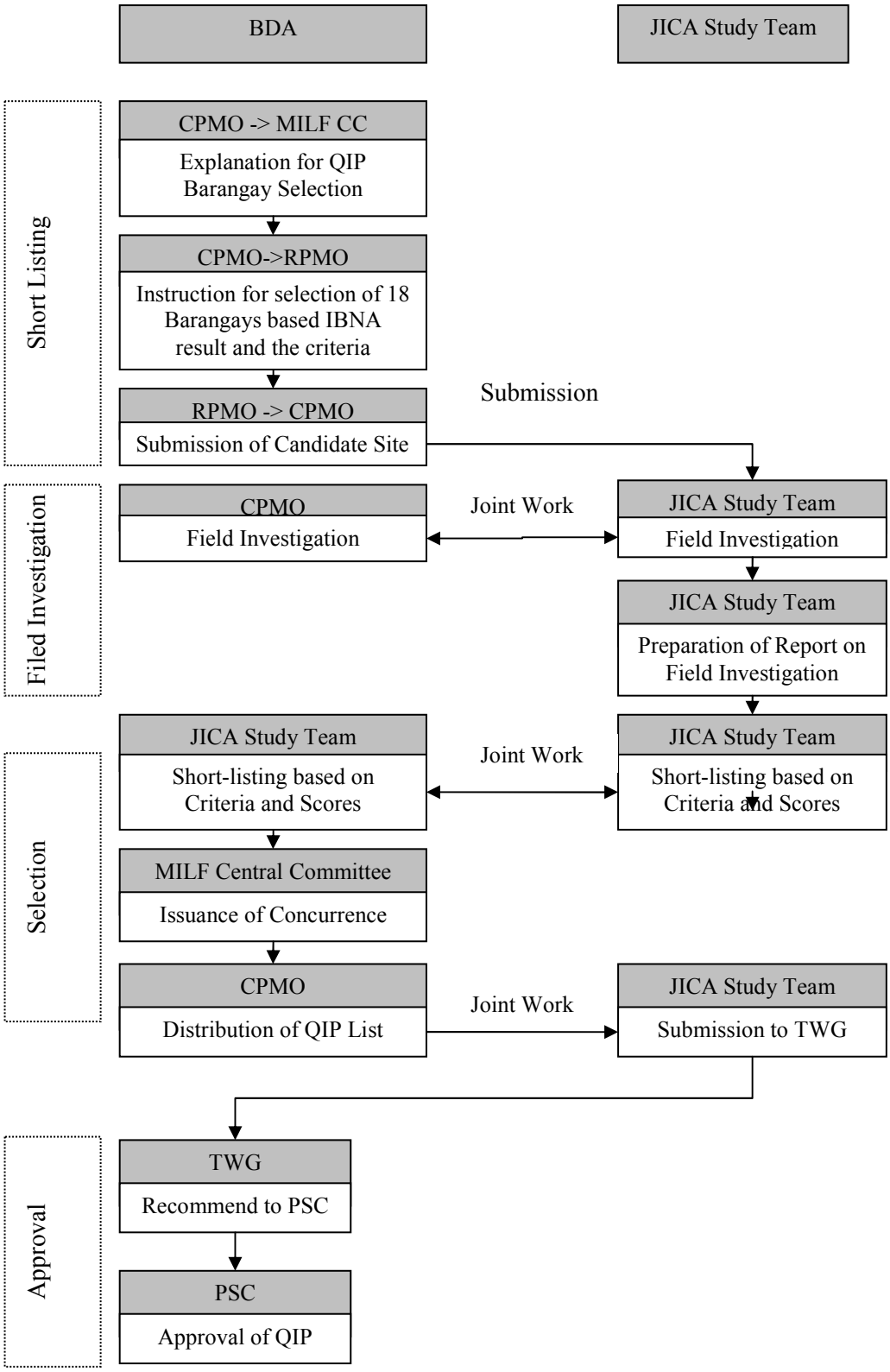

Figure 5: Flow Chart of QIP Selection

QIP Selection Procedure

Final selection will commence upon the completion of the short list for QIP candidates prepared by the BDA, on the following procedure:

(1) Short listing by BDA

Upon the submission of the IBNA Report which covers 92 barangays, BDA selects 18 barangays, based upon the selection criteria, nine (9) from Central Mindanao, six (6) from Southern Mindanao and three (3) from Lanao del Sur, for a total of eighteen.

(2) Field Investigation (by BDA and JICA-ST)

Upon the receipt of the Short List of 18 barangays, the JICA–ST conducts the field investigation together with BDA. throughinterviews barangay officials, MILF representations, officers of organizations and ordinary individuals.

(3) Selection (by BDA and JICA-ST)

Once the field investigation being over, the Report is to be prepared and submitted to BDA by JICA-ST, for ensuing joint evaluation. The selection procedure is as follows:

1) Review of the Priority Sub-Project List under SERD-CAAM QIP constrains

a. Prior to the joint evaluation for QIP selection, JICA-ST will explain the manner of evaluation to BDA members who are supposed to attend the evaluation, and JICA-ST and BDA will jointly carry out the QIP selection, upon their understanding.

b. In the primary evaluation, the followings are applied to each sub-project for the review of the list under JICA project constrains:

- Limited only to infrastructures

  Limit only to infrastructures, not extended to working animals and soft components, such as a scholarship.

- Budgetary constrain

Choose sub-projects which are within the reasonable range of project cost and exclude sub-projects which far exceed the average cost of the sub-projects.

c. The Study Team and BDA follow the prioritization of the development needs as identified in the IBNA. If the first priority is within the range of allowable budget and passes the criteria, it is scored and the second and third priority are no longer considered. Otherwise, the second priority is considered using the same procedure. If the second priority passes, the third priority is no longer considered. If the second priority still fails, the third priority is considered. If all development needs do not qualify, the barangay is not longer considered.

d. Prepare the final priority sub-project list for 18 barangays, which represents the revised top priority sub-project for each barangay, as a result of the above study.

2) Evaluation of Each Priority Sub-Project

a. The selection will be made toward the revised sub-projects of 18, based upon the investigation report and mutual discussion on the rating under the approved criteria.

b. Final selection is to be made, allocating the certain number of QIP barangays to three regions; one (1) for Lanao Areas, three (3) for Central Mindanao and two (2) for Southern Mindanao, the numbers varying under the constrain of the overall project budget.

c. The list of the final selection is to be submitted to TWG for the approval of SC.

(4) Approval

a. The list of selected sub-project is submitted to TWG for recommendation for approval to the PSC.

b. Members of TWG discuss due subjects required for the approval of the final list of barangay selection. If it is accepted, the result of their discussion is delivered to PSC for its approval, if otherwise, the comment for rejection on the final list is to be sent to BDA and JICA-ST, for their review.

c. This approval will activate the implementation of QIP, in design, tender preparation and implementation.

Criteria of QIP Barangay Selection

QIP and Barangay Selection Criteria is as follows;

(A) "MUST" Conditions for Barangay Selection:

1) Barangay that IBNA has been completed
2) Barangay that both CCCHs guarantee security
3) Two sub-projects as a maximum per province
4) Technical viability in terms of local contractors' construction technology
5) Financial viability with the project budget

(B) Individual "MUST" conditions for Sub-Project Selection

Common in all items

1.) Viability of sub-project technically and financially under the project budget with local contractor, in terms of construction capability
2.) No land acquisition cost from the QIP Budget

Individual sub-projects

a. School Project
    1) Accreditation by the Department of Education
    2) Improvement and renovation of school buildings and facilities
    3) Availability of faculty allocation
b. Health Care Center
    1) Accreditation by the Department of Health
    2) Improvement and renovation of health care center and facilities
    3) Availability of health worker allocation plan
c. Multi-Purpose Building
d. Water Supply System
    1) Assurance of water source
    2) Assurance of potable water
e. Farm road improvement
    1) Under barangay road classification

(C) Rating of Barangay Selection Criteria

No.	Criteria	Scoring considerations	Weight (points)
1	Lack of functioning socio-economic infrastructure	a) Socio-economic status of the barangay based on IBNA and barangay profile B) Degree of necessity of priority infrastructure	30
2	Sustainability of sub-project	a) Community counterpart b) Willingness of the community to establish a people's organization c) Support from the community leaders	25
3	More beneficiaries regardless of administrative boundaries	Highest number of beneficiary to be fully scored, and the rest to be computed in proportion	25

No.	Criteria	Scoring considerations	Weight (points)
4	Number of available local contractors capable of implementing the project	a) The lesser the number of contractors, who can implement the sub-project, the lesser the score.	10
5	Project cost per head	a) Full score to the highest priority sub-project within the cost of the project budget	10

(D) Evaluation Rate

Percentage	Status/Remarks
100	Most needed
70	Moderately needed
50	Need recognized
20	Less needed
0	Not needed

(E) Other conditions

1. In case that there are more than one barangay qualified for the QIP in a province, BDA and JICA Study Team will discuss, process, and apply the above criteria in the selecting the most qualified barangay.
2. School building and health center are limited to renovation and expansion only; renovation includes construction of a new building after demolishing the old one.

8. Selection Process of Service Provide/ Contractor

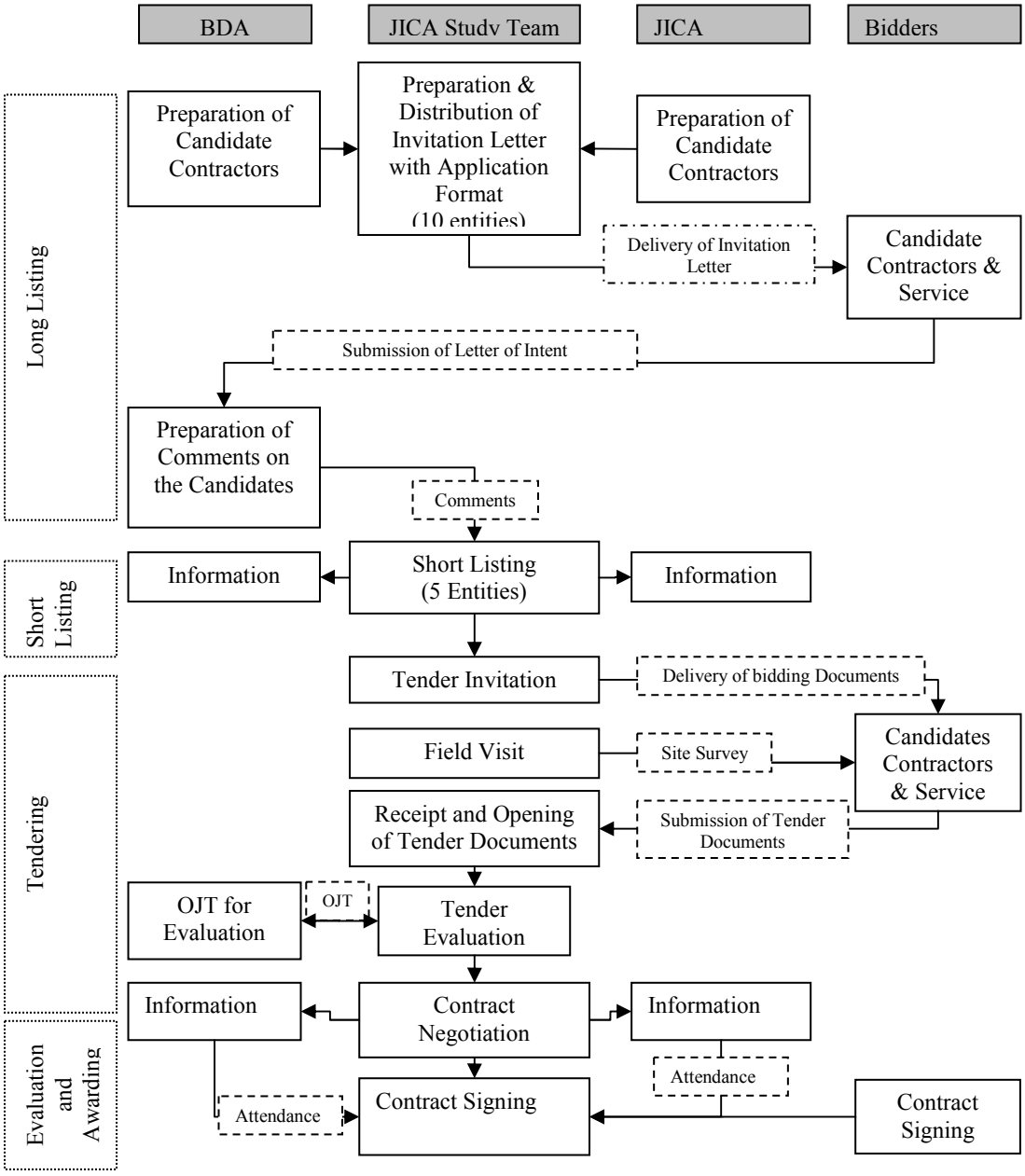

Figure 6: Flow Chart of Service Provide/ Contractor Selection

(1) Consolidation of Contractor and Service Provider List and Long Listing

BDA list of contractors and JICA list of candidate contractors and service providers will be consolidated. Invitation letter will then be sent to the identified candidates to submit their profile. A format to be filled-out by the candidates will be prepared by the Study Team/BDA and be attached in the letter.

Regional Project Monitoring Office (RPMO) of BDA or JICA-ST will receive (i) profile of candidates as well as (ii) the filled-out form. JICA-ST will then evaluate based on criteria, in the mean time, the RPMO will place some "remarks" on the candidates, but not authorized to reject any candidates at this step.

(2) Short listing of Service Provider/Con-tractor

The Study team/BDA will evaluate the contractors received from the RPMOs based on the criteria pre-approved by PSC (or TWG) for the short list of the candiates. Invitation to the bid is then issued to the candidates in the "short list". The consideration/criteria for the short listing are as follows;

1. Technical capability
2. Financial capability
3. Local experience/capability of local language

(3) Tendering

The Candiadtes in the "short list" will then be invited for tender explanation. Under this step, the following is explained: (i) project TOR, (ii) schedule to carry out activities, and (iii) other related.

During the period of the tender preparation, the Consultant will organize site visits for some project sites, in order for the bidders to grasp the site condition.

The bidders are obliged to visit all the sites for their bidding accuracy. Any failure in the bidding documents due to lack of the field knowledge, shall be born by the bidder.

Any inquiries raised from the field visit and any others, shall be verified upon the Consultation to JICA-ST. Such correspondence shall all be opened to all the Bidders.

(4) Evaluation and Awarding

Received proposals will then be checked for their compliance if they have complied with the TOR and technical requirements.

JICA-ST shall negotiate with the lowest bidder with the bidding documents technically and financially accepted, for contract agreement. If agreement could not be reached, the candidate having the second best score has the right for negotiation.

BDA will participate in the evaluation of the bids as part of capability-building.

(5) Social Preparation

Before and during the implementation, social preparation is to be held together with the JICA-ST, BDA and the awarded Service Provider or Contractor, in order to deepen the understanding of the local populace to the project and to maintain harmonized environment during the implementation, and post-project sustainability.

Implementation process for QIP

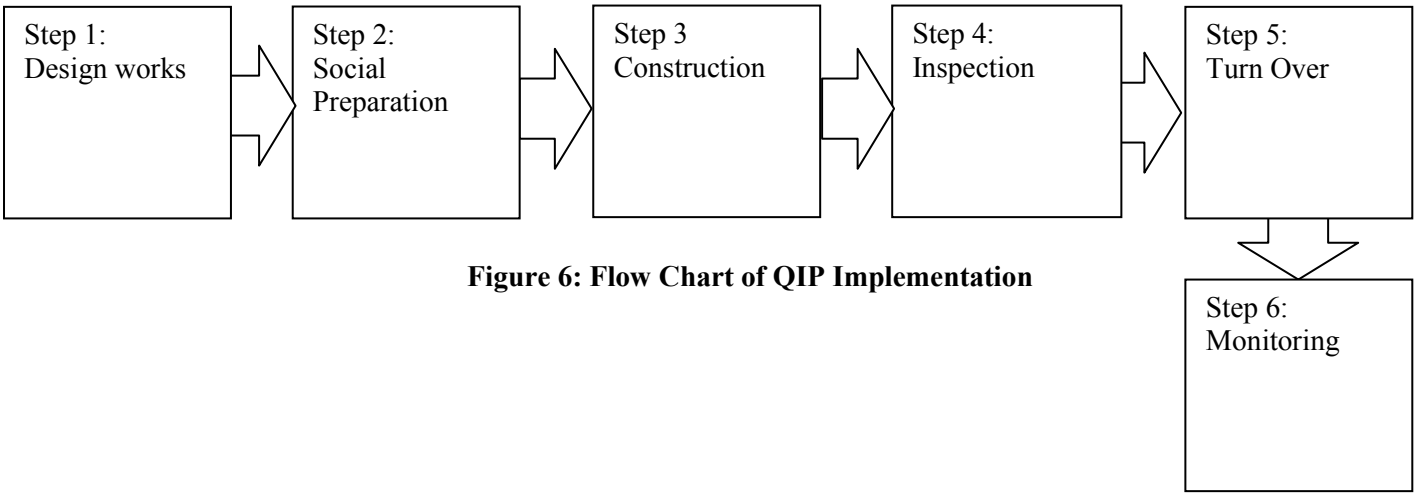

Figure 6: Flow Chart of QIP Implementation

Step 1: Design Works
Design works is commenced after the assurance of land acquisition for the construction site, and is carried out in accordance with the local standards, which is well adapted to the level of local contractors in construction.

As for potable water supply project, design work should take into account the local characteristics of water quality. In case of ground water to be used for water supply, the needs of such treatment facility should be judged upon the water analysis and exploration test yielded from the well drilled.

Step 2: Social Preparation
Activities for Social Preparation are assumed to start in the middle of March, adequately before the start of the implementation. The selection of service provider to carry out the social preparation activities should be made approximately two months before the commencement of the construction works. Selected service providers for the different QIPs will start their work on April.

Step 3: Construction
The contractor awarded is to commence the construction works in accordance with the contract made between the Consultant and the Contractor, and complete the project within the timeframe, complying with the requirements, stipulated in the contract documents, and under the instruction of the supervisor designated by the Consultant.

Step 4: Inspection
In addition to the supervisor stationed on the site, the Consultant will make regular site inspections for quality control in construction work. The Consultant checks the capability of the Supervisor and the Contractor, and gives them instruction for due performance specified in the contract documents.

Step 5: Turn Over
Upon the completion of the construction works, the Contractor is to make a request of final inspection, for a completion certificate to be issued by the Consultant. If there are some items outstanding, those should be recorded as pending items. Should those be minor, the Consultant might issue the certificate on the condition that the Contractor should complete those pending items within the certain promised period.

Step 6: Monitoring
A team of social preparation is to give training to the members of barangay project committee, in order for them to perform the monitoring, for operation and maintenance, after the completion of

the project. The monitor is to be made on inadequacy of the project performance within the requirement under the contract. Major defaults should be notified before the issuance of the completion certificate, but minor can be made as pending items, which should be followed during the guarantee period and others appeared during the period should be added as new pending items. Monitoring is to cover all this process.

9. Tentative Schedule of Imlementation for QIP

For the preparation of the overall schedule of Phase-2 Group-1 constrcution, the following assumption has been made:

(1) The design work of Phase-2 Group-1 is supposed to start within this budgeart year, March 10, 2008. The overall schedule of the Group-1 has been preparwed based upon the pressumption.

(2) Social preparation shoule be started, preferably two month before the commencement of the construction works.

Activity	March	April	May	June	July	August	Sept
1. Social Preparation							
1.1 Tender Activities							
1.2 Implementation							
2. QIP							
21. Design works							
2.1 Tender Activities							
2. 2 Construction							