

**Bangladesh Agricultural Development Corporation  
USAID Fertilizer Distribution  
Improvement Grant 388-0024**

**Engineering Consultancy Services  
Contract for Bagged Product  
Fertilizer Warehouses Project**

MONTHLY PROGRESS REPORT NO. 35

**AUGUST 1982**

CONSULTING  
ENGINEERS

**INTERNATIONAL ENGINEERING COMPANY, INC.**

A MORRISON ANDERSON COMPANY

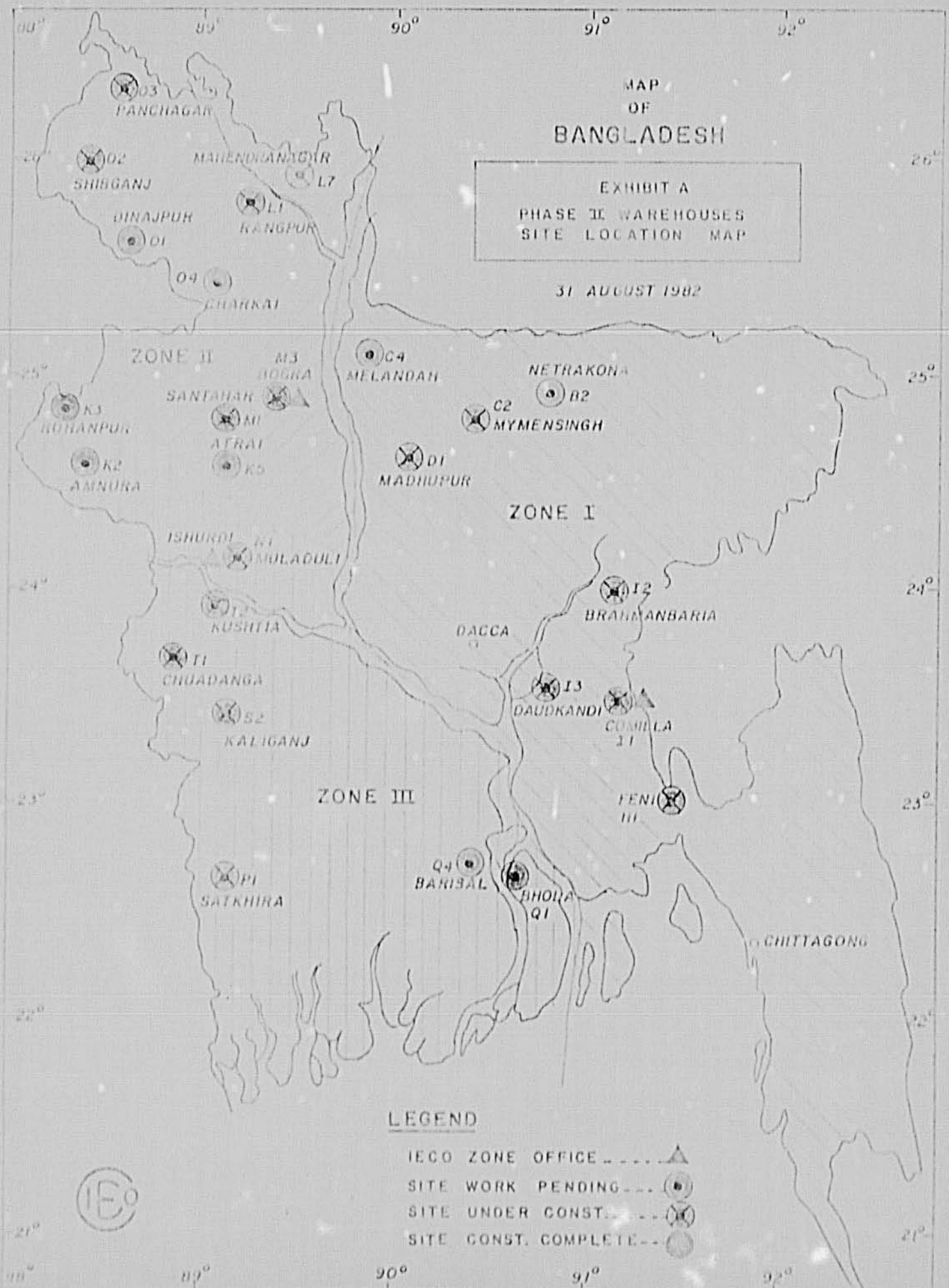
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MAP OF BANGLADESH

EXHIBIT A  
PHASE II WAREHOUSES  
SITE LOCATION MAP

31 AUGUST 1982

ZONE II

ZONE I

ZONE III

LEGEND

- IECO ZONE OFFICE ---▲---
- SITE WORK PENDING ---●---
- SITE UNDER CONST. ---X---
- SITE CONST. COMPLETE ---○---



INTERNATIONAL ENGINEERING COMPANY, INC.  
CONSULTING ENGINEERS

MONTHLY PROGRESS REPORT NO. 35  
MONTH OF AUGUST, 1982

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BANGLADESH AGRICULTURAL DEVELOPMENT CORPORATION  
ENGINEERING CONSULTANCY SERVICES CONTRACT  
FOR BAGGED PRODUCT FERTILIZER  
WAREHOUSE PROJECT

CONTRACT 9074  
16 SEPTEMBER, 1982

INTERNATIONAL ENGINEERING COMPANY, INC.  
CONSULTING ENGINEERS

MONTHLY PROGRESS REPORT NO. 35  
FOR THE PERIOD AUGUST 1-31, 1982

1. GENERAL

With the opening of Madhupur and Mahendranagar sites for initial mobilization and stripping and reactivation of Amnura site at end of August, eighteen sites were active. IECO hired and placed the site personnel to these new sites, as well as personnel for Dinspur and Bohanpur sites which are also to open at beginning of September.

In Zone-I principal activities included pile casting and driving, plus earthwork at Comilla; concreting of warehouse slabs and canopies, plus ancillary building roof slab at Brahmanbaria; warehouse columns & shear-walls and ancillary building construction at Daudkandi; and office building/public toilet construction plus stockpiling of materials at Feni. Mymensingh filling continued, and temporary site offices were constructed, but preparations for pile casting were not in evidence. Madhupur work began with temporary buildings under construction and stripping accomplished.

In Zone-II the principal activities at Gantahar, Boera, Shibeaj and Panchagar involved concreting of the warehouses and continue construction of ancillary buildings at the latter three sites. At Ranepur and Mahendranagar, mobilization and stripping were underway.

In Zone-III pile driving was completed at Muladuli, with pile caps and loading platform construction in progress. Filling was in progress at Kushtia, along with temporary site buildings. Chudanea warehouse footings and columns were in progress. At Kaliganj, temporary buildings were 80% completed, and initial engineered fill was placed. At Satkhira, column footings and wall foundations were completed and columns were underway, as well as placing sandfill for the warehouse floor. At Amnura, materials were received for a restart of work there on 1 September.

The overall program completion stands at about 10% with 10 months of the 27 month construction schedule elapsed. Revised program schedules planned for 19% completion, so the progress lags slightly. Some adjustments to the planned program will be made when detailed CPM schedules are developed for five remaining sites involving pile foundations.

Current concerns include (1) lack of detailed, planned schedules for five sites which must start within the next two months and (2) no signed construction agreement between BADC and BR for the rail sidings, which is mandatory for procurement of rail materials. Without this signed agreement the rail site warehouses will have no sidings when they are completed and ready to receive fertilizer stocks. This is an unhappy prospect which is now become almost inevitable.

With nineteen new site personnel and termination of three, DCS staff numbered 112 at end of August. IECO local staff increased by one, to eighteen. IECO and DCS force reports are appended.

## 2. CONTRACT ADMINISTRATION

- Change Orders - C2-007 Mymensingh concrete piles:  
At KDC for signature all month.
- HI-006 Peni sitwork: At KDC for signature  
all month.
- Amendment No. 1 to  
BADC/KDC Contract - KDC requested a meeting for finalization.  
BADC has not responded.
- Performance Bond - IECO issued initial certificates to permit  
reduction of bond amount as work is completed.
- Amendment No. 4 to  
BADC/KDC Contract - Discussions were held by BADC and IECO, but  
effective negotiations to settle points at  
issue were not conducted.
- BR/BADC Agreement - A meeting was held, chaired by the Secretary of  
the Ministry of Agriculture. The draft agree-  
ment has been revised by BADC.
- IECO Jeeps - Continue to await the import permit.
- Inventory - IECO made a physical inventory of all project  
property.

## 3. CONTRACT EXPENDITURES

August 1982 Taka expenditures reimbursable by USAID were:

|                                   |            |
|-----------------------------------|------------|
| Local salaries                    | 52,797.18  |
| Office supplies & expenses        | 31,021.60  |
| Dacca Office Rent/Maint/Utilities | 2,929.25   |
| Area Office Rent/Maint/Utilities  | 2,622.76   |
| Furniture & equipment             | 6,124.50   |
| Vehicle operation                 | 118,200.63 |
| House Rent/Maint/Utilities        | 44,906.25  |
| DCS                               | 438,674.85 |
| Local travel                      | 18,382.00  |
| Custom clearance                  | 1,333.00   |
| Expat Perdiem & Hotel             | 7,835.00   |
| International Air Travel          | 10,418.00  |
| Other                             | 1,747.00   |
| Total Taka                        | 737,062.02 |

Expenses reimbursable through BADC's Duties & Taxes Account were  
Taka 8,194.15.

July expenditure budget and schedule are appended.

4. EXPATRIATE STAFF - IECO

In-country expatriate staff during August:

|              |  |
|--------------|--|
| F.E. Isgrig  | Project Manager.   |
| D.H. Workman | Chief Construction Engineer<br>returned from leave on 10 August. |
| D. Lovely    | Contract Administrator.  |
| M. Lim       | Construction Engineer.   |
| S.J. Hewick  | Construction Engineer.   |
| A. Htay      | Materials Engineer.  |

5. MEETINGS

|           |   |   |
|-----------|---|---|
| 10 August | BADC/KDC/AID/IECO   | - Progress Meeting. BR/BADC agreement<br>CPM schedules. Amendment # 1 to BADC/<br>KDC contract. Materials testing<br>sand fill modification. concrete<br>pile C.O.'s. |
| 11 August | Ministry of Agriculture/-<br>BADC/BR/IECO                     | BR/BADC agreement. Secretary of<br>Ministry of Agriculture requested BR<br>to waive fees under paragraph 1050<br>of BR operating code.                                |
| 21 August | BADC/IECO   | - Amendment # 4 to the BADC/IECO<br>contract. budget discussions.   |
| 22 August | Ministry of Agriculture/-<br>Korean Embassy/BADC/<br>KDC/IECO | Project costs. possible work<br>deletions in the ancillary buildings.   |

6. PENDING ACTIVITIES AND ACTIVITIES IN PROGRESS

6.1 For Action By BADC

1. Final agreement by BR and BADC on the BADC/BR memorandum of understanding for construction of rail sidings. The inter-ministerial meeting was held and the secretary of the Ministry of Agriculture asked BR to review their fee - there is provision for this in their regulations. The draft memorandum was revised by BADC for resubmittal to the concerned Ministries.

2. Resolution of site possession and use rights and removal of obstructions to construction. Site status as follows:

Yangpur - Site work is impeded by on site railway quarters, sheds, and well-pumping machinery not yet dismantled. An agreement with the Burmah Eastern for extension of existing decantine pipelines is awaited. To facilitate site access road construction, telephone and power pole lines are to be relocated (per IECO drawings).

Comilla - The gummy phar requires removal to facilitate sidine fill construction.

Mymensingh - Telephone line overhanging the site is to be relocated by arrangement with T&T Board.

3. Respond to the proposed amendment No. 1 to the KDC Contract.
4. Complete negotiation of amendment No. 4 to the IECO Contract.
5. Expedite IECO's permit to import Jeeps and fund the Duties and Taxes due
6. Fund KDC's Duty and Tax account.

#### 6.2 For Action By IECO

1. Pursue site occupancy and obstruction removal problems in collaboration with BADC, BP, BE Rds. & Hwys., etc.
2. Complete a field check of site construction quantities: active sites. Complete an office check on ancillary buildings construction quantities (typical for all sites).
3. Daudkandi - Prepare and issue Change Order for modified foreshore works, based on revised drawings. KDC pricequote requested.
4. Bhole - Issue information Change Order modifyine (reducing) earthwork.
5. Barisal - Prepare Change Order for modified (relocated) site access road and related layout changes and modification to PC pile foundation. KDC requested to submit price quotation for piling works.
6. Netrakona - Prepare Change Orders covering modification to and Melandah PC pile foundations. KDC requested to submit price quotation for piling works.
7. Ranepur - Prepare plan details for diversion of a storm water channel to outlet away from the site.

### 7. ENGINEERING ACTIVITIES

#### 7.1 Materials and Foundations Engineering

Gradation tests on soils and concrete aggregates and field density test on fills were performed at Santabar, Muladuli, Satkhira, Kushtia, Kaliganj, Mymensingh and Madhupur.

Consistency and setting tests for cement (Elephant Brand) were made, with satisfactory results. Strength tests on hydraulic cement mortars were also performed with satisfactory results. Samples, collected from local suppliers and submitted by KDC, were tested for bricks, concrete sand and shingles proposed for use at Mymensingh, Bogra, Kaliganj, Muladuli, Satkhira, Santahar, Rangpur, Mahendranagar Charkai, Mymensingh and Madhupur sites.

CBR and direct shear tests were arranged for with the Water Development Board laboratory, on foundation materials at Mahendranagar. Results, to be available in early September, will determine the appropriate use of the on-site excavated material in the site construction.

IECO's soils crew carried out supplementary foundation investigations at Atrai to verify substrata conditions. Work included SPT and dynamic soundings at five holes, and collection of split-spoon samples for laboratory testing. Undisturbed samples were also collected for unconfined compression tests. This investigation was made at Atrai to confirm the existence of weak foundation soils in the south end of the godown siting. Weak soils of considerable thickness were found to underlie nearly half the godown area located towards the river. To maintain structural integrity of the godown building it was determined that precast concrete piles will be required. Preliminary design of pile lengths and bearing capacity requirements have been completed.

Dutch cone penetration test results for Kushtia and Kaliganj were analysed and design pile lengths established for these two sites. Melandah Bazar site has been scheduled for Dutch cone penetration tests in early September.

Pile driving records for Muladuli were reviewed to ensure that all piles have achieved satisfactory penetration into the bearing stratum and that necessary load bearing capacities have been developed. Pile driving has been scheduled to commence in Comilla later this month. Pile driving records will be reviewed and analysed as the work progresses for conformance with the design criteria.

Consolidated reports on materials testing programs undertaken in August at IECO laboratories at Dacca and in three zones are presented in the following pages of this section.

## 7.2 Office and Field Engineering

Forms were developed for laboratory reporting; scheduling charts were prepared. Excavation drawings were drafted for work at Rangpur and Mahendranagar; and a plan for storm water diversion prepared for Rangpur. Schematic drawings were prepared for water supply at Amnura.

Quantifications (rechecks) were in progress all month for the work items involved in the ancillary buildings. Office building plumbing layout was modified.

CONSOLIDATED REPORT  
MATERIALS TESTING

Laboratory Reporting  
Dacca

Reporting Period  
From 26.7.82 To 25.8.82

CONCRETE TEST

| Compressive Strength<br>Site | Location | No. of Tests at |         |         | Samples<br>Tested | Samples<br>Passed | Remarks |
|------------------------------|----------|-----------------|---------|---------|-------------------|-------------------|---------|
|                              |          | 7 days          | 14 days | 28 days |                   |                   |         |

| Materials & Tests    | Particulars                              | Samples<br>Tested | Samples<br>Passed | Remarks                                      |
|----------------------|--|-------------------|-------------------|--|
| <u>BRICK TEST</u>    | Free Marks -                             |                   |                   | Four samples                                 |
| Absorption           | A. BARI, KA, NDL,<br>ZAMAN, MSA, JUBLEE. | 13                | 6                 | JUBLEE(Kaliganj),<br>AH(Muladuli).           |
| Compressive Strength | AH, KA, VENUS, AKIZ,<br>JC' 82, E.JN' 82 | 13                | 4                 | KA(Muladuli) &<br>VENUS(Satkhira)<br>passed. |

FINE AGGREGATE TEST

|                  |  |   |   |   |
|------------------|--|---|---|---|
| Gradation        |  | 3 | 1 | Passed sample was<br>submitted for<br>Santahar, Ranpur,<br>Mahendranagar,<br>Charkai & Atrai. |
| Specific Gravity |  |   |   |   |
| Unit Weight      |  |   |   |   |
| Lab. Compaction  |  |   |   |   |

COARSE AGGREGATE TEST

|                  |                            |   |   |  |
|------------------|----------------------------|---|---|--|
| Gradation        | Crushed rock &<br>shingles | 2 | 2 | One sample<br>(crushed rock) for<br>Annura, Pohannur<br>and Muladuli & the<br>other (shingles)<br>for Santahar,<br>Ranpur, Mahendra-<br>nagar, Charkai &<br>Atrai. |
| Unit Weight      |                            |   |   |  |
| Specific Gravity |                            |   |   |  |

IMPORTED MATLS. TEST

|                  |  |   |   |                              |
|------------------|--|---|---|------------------------------|
| Gradation        |  | 1 | 1 | Passed.<br>(Madhupur sample) |
| Atterberg Limit  |  |   |   |                              |
| Natural M/C      |  |   |   |                              |
| Specific Gravity |  |   |   |                              |
| Lab. Compaction  |  |   |   |                              |

SPECIAL TEST

|        |                |   |   |   |
|--------|----------------|---|---|---|
| Cement | Elephant Brand | 1 | 1 | Passed.<br>Consistency test,<br>time of setting &<br>2" cube mortar test. |
|--------|----------------|---|---|---|

CONSOLIDATED REPORT  
MATERIALS TESTING

Laboratory Reporting  
Zone-I (Comilla)

Reporting Period  
From 1.8.82 To 30.8.82

CONCRETE TEST

| Compressive Strength |   | No. of Tests at |         |         |      | Samples Tested | Samples Passed | Remarks   |
|----------------------|---|-----------------|---------|---------|------|----------------|----------------|---|
| Site                 | Location  | 7 days          | 14 days | 28 days | days |                |                |   |
| Comilla              | Precast P.C. pile, Barbed wire post, sunshade & lintel. | 6               | 1       | 11      |      | 18             | 18             |   |
| Brahmanbaria         | Column, godown roof slab, Penthouse sunshade & lintel.  | 9               | 4       | 12      |      | 25             | 24             | Additionally, 6 tests at Comilla and 2 tests at Daudkandi were performed at 3 days. |
| Daudkandi            | Road pavement, sunshade & lintel, wall foundation.      | 11              | 2       | 14      |      | 27             | 26             |   |
| Feni                 | Shear wall & col., sunshade, lintel & trial mix.        | 3               | 2       | 3       |      | 8              | 6              |   |

| Materials & Tests    | Particulars                        | Samples Tested | Samples Passed | Remarks   |
|----------------------|------------------------------------|----------------|----------------|---|
| <u>BRICK TEST</u>    |                                    |                |                |   |
| Absorption           | Free Marks - AMD, A, KHALEQUE, CKB | 2              | 1              | AMD passed Absorption test. CYB passed compressive strength test. None passed both tests. |
| Compressive Strength |                                    | 2              | 1              |   |

FINE AGGREGATE TEST

|                  |    |    |  |
|------------------|----|----|--|
| Gradation        | 11 | 11 | Samples passed - four for Comilla, two for Brahmanbaria, four for Daudkandi & one for Feni |
| Specific Gravity |    |    |  |
| Unit Weight      |    |    |  |
| Lab. Compaction  |    |    |  |

COARSE AGGREGATE TEST

|                  |   |   |   |
|------------------|---|---|---|
| Gradation        | 8 | 8 | Samples passed - four for Comilla, two for Brahmanbaria, one for Daudkandi & one for Feni |
| Unit Weight      |   |   |   |
| Specific Gravity |   |   |   |

IMPORTED MATLS. TEST

|                  |   |   |                             |
|------------------|---|---|-----------------------------|
| Gradation        | 1 | 1 | Passed. (Daudkandi sample). |
| Atterberg Limit  |   |   |                             |
| Natural W/C      |   |   |                             |
| Specific Gravity |   |   |                             |

Lab. Compaction

SPECIAL TEST

Cement

CONSOLIDATED REPORT  
MATERIALS TESTING

Laboratory Report No.  
Zone-II (Bogra)

Reporting Period  
From 1.8.82 To 31.8.82

CONCRETE TEST

| Site      | Location                    | No. of Tests at |         |         | Samples Tested | Samples Passed | Remarks  |
|-----------|-----------------------------|-----------------|---------|---------|----------------|----------------|--|
|           |                             | 7 days          | 14 days | 28 days |                |                |  |
| Bogra     | Godown, Ancl.,<br>Building. | 20              | 1       | 24      | 45             | 40             | 5 cylinders from M3, 4 cylinders from M1 & 1 cylinder from M3 cured in lab. water tank for 28 days were failed. Field cured samples tested & passed. |
| Santahar  | Godown                      | 33              | 1       | 33      | 67             | 63             |  |
| Panchagar | Godown                      | 8               | 3       | 11      | 22             | 21             |  |
| Shibganj  | Godown, Ancl.<br>Building   | 11              | 9       | 24      | 44             | 44             |  |

| Materials & Tests    | Particulars  | Samples Tested | Samples Passed | Remarks  |
|----------------------|--|----------------|----------------|--|
| <u>BRICK TEST</u>    |  |                |                |  |
| Absorption           | From Marks -<br>BRC, NSB, W 82-A,<br>DBM, W 82, TK 82, | 4              | 4              | W 82-A (at 03) and NSB(at M1) passed both tests. BRC (at M3) and NW 82 (at 02) passed strength test and were not subjected to absorption test. |
| Compressive Strength | NW 82  | 7              | 5              |  |

FINE AGGREGATE TEST

|                  |    |    |   |
|------------------|----|----|---|
| Gradation        | 17 | 16 | Samples passed -<br>Two for Bogra,<br>seven for Santahar,<br>three for Panchagar & four for Shibganj. |
| Specific Gravity |    |    |   |
| Unit Weight      |    |    |   |
| Lab. Compaction  |    |    |   |

COARSE AGGREGATE TEST

|                  |    |   |   |
|------------------|----|---|---|
| Gradation        | 15 | 9 | Samples passed -<br>Four for Santahar,<br>two for Panchagar,<br>three for Shibganj<br>& none for Bogra. |
| Unit Weight      |    |   |   |
| Specific Gravity |    |   |   |

IMPORTED MATERIALS TEST

|                  |   |   |  |
|------------------|---|---|--|
| Gradation        | 9 | 6 | Samples passed -<br>Four for Santahar<br>& two for<br>Panchagar. |
| Atterberg Limit  |   |   |  |
| Natural M/C      |   |   |  |
| Specific Gravity |   |   |  |
| Lab. Compaction  |   |   |  |

SPECIAL TEST

Cement

CONSOLIDATED REPORT  
MATERIALS TESTING

Laboratory Reporting:  
Zone-III

Reporting Period:  
From 26 July To 25 Aug.

| CONCRETE TEST        |            |        | No. of Tests at |         |                   | Samples | Samples     | Remarks |
|----------------------|------------|--------|-----------------|---------|-------------------|---------|-------------|---------|
| Compressive Strength | Location   | 7 days | 15 days         | 28 days | Tested at 28 days | Passed  |             |         |
| Buladull             | Piles      |        | 4               | 21      | 21                | 21      | All passed. |         |
| Chudanga             | Foundation | 2      | 7               | 1       | 1                 | 1       | All passed. |         |
| Nakhira              | Foundation | 9      | 14              | 2       | 2                 | 2       | All passed. |         |

| Materials & Tests    | Particulars    | Samples Tested | Samples Passed | Remarks |
|----------------------|----------------|----------------|----------------|---------|
| <u>SOIL TEST</u>     |                |                |                |         |
| Absorption           | L.U. 81 (R1)   | 1              | 0              |         |
| Compressive Strength | P.W.D. 82 (P2) | 1              | 0              |         |

| <u>FINE AGGREGATE TEST</u> |  |    |    |  |
|----------------------------|--|----|----|--|
| Gradation                  |  | 10 | 10 | Passed,<br>(8 samples from K2 & 2 from T2) |
| Specific Gravity           |  |    |    |  |
| Unit Weight                |  |    |    |  |
| Lab. Compaction            |  |    |    |  |

| <u>COARSE AGGREGATE TEST</u> |  |   |   |                                      |
|------------------------------|--|---|---|--------------------------------------|
| Gradation                    |  | 1 | 1 | Passed,<br>(sample from Assura - K2) |
| Unit Weight                  |  |   |   |                                      |
| Specific Gravity             |  |   |   |                                      |

| <u>IMPORTED MATLS. TEST</u> |  |   |   |  |
|-----------------------------|--|---|---|--|
| Imp'd (III)                 |  |   |   |  |
| Gradation                   |  | 4 | 4 | Passed,<br>(3 samples from S2 & 1 from T2) |
| AASHTO Limit                |  |   |   |  |
| Natural M/C                 |  |   |   |  |
| Specific Gravity            |  |   |   |  |
| Lab. Compaction             |  |   |   |  |

| <u>SPECIAL TEST</u> |                     |   |   |                             |
|---------------------|---------------------|---|---|-----------------------------|
| Cement              | Cement in gunny bag | 1 | 1 | (Chudanga site).<br>Passed. |

### 3. CONSTRUCTION SURVEILLANCE

#### 8.1 General

IECO continued inspection of warehouse site construction activities in all three zones of operation in August. The number of active sites stood at seventeen with the opening of Madhupur in Zone I and Mahendranagar and Rangpur in Zone II.

KDC has been asked to supply approved shop drawings for use in zone offices and at currently active sites. Additional shop drawings are in preparation and the process of reviewing these for approval continues.

Site preparation work at Mymensingh and Madhupur and ancillary work at Shibganj have been subcontracted to local firms. IECO has asked KDC to forward these subcontracts for review.

While reviewing KDC progress report vis-a-vis CPM schedules, IECO identified that monthly progress percentages shown on KDC's sitewise progress charts in monthly reports and on the CPM schedules were not identical in case of several sites. KDC was advised to make realistic adjustments to progress percentages so that the progress charts and CPM schedules correspond.

In August, IECO approved a Rohanpur site schedule calling for beginning work in October, but preliminary work is beginning earlier. IECO has already appointed a construction supervision crew for Rohanpur scheduled for temporarily assisting the staff at Amnura where construction re-starts on 1 September.

In late August, IECO hired six additional Field Engineers, four Inspectors and several Soils/Material Technicians and Soils Assistants to augment IECO's field staff at on-going sites and take up positions at just-opened sites. Additional staff will be hired for field assignments at other sites scheduled to be activated in October and November.

Site-specific activity in August was as follows:

#### 8.2 Zone-I (Comilla)

##### Il Comilla

Engineered fill in the building C1 and B1 area was completed ahead of schedule, and in the A1 and the ghumty ghar area it is in progress. Preparation of the siding subgrade is underway, with compaction achieved exceeding 90%.

Casting of all 388 RC piles was accomplished with 121 piles cast in August. Out of 270 splices, 36 units were cast and the rest were in progress. During the month 10 barbed wire fence posts were cast, for a total of 345. Pouring of the remaining 95 posts was in progress. To date 120 boundary posts were erected at the existing rail siding area.

At month end 28 RC piles were driven. This work is 7 weeks behind schedule. In the B1 ancillary building lintels were cast and brickwork was continuing above lintel level.

Overall progress at this site is still lagging and a revision to the original CPM schedule is warranted.

### 12 Brahmanbaria

In the godown building, pouring of RCC beams and roof slab was completed, wall plastering of the exterior accomplished and of the interior 70% completed. Concrete pouring of slab on grade was initiated on 24 August and completed from line 16 to 11 A to H. Concrete was poured in two canopies, of a total of 12 to be accomplished between 6 to 7 and 12 to 13 on line H. Formwork for another two canopies was completed.

In the type A1 ancillary building, preparations for casting the first floor roof were underway at month end, plastering the exterior wall face was done up to a height of 10' and the exterior wall about 25% completed. In the type B1 building plastering the exterior wall face was done and the interior wall 70% completed.

Materials stockpiled at site during the month included cement, rebar, gravel and Sylhet sand.

The overall work accomplishment remains about 4 weeks behind the (original) CPM schedule.

### 13 Daudkandi

Sand fill inside the godown area and the type C1 ancillary building was completed.

In the godown building 72 columns (2') were poured during the month. Shear walls at the northeast and northwest corners were completed upto roof beam level. Three platforms along the north side of the godown were completed upto slab level.

In the B1 ancillary building, the suspended slab parapet and pent-house were completed. In the A1 building, foundation and superstructure brickwork progressed upto lintel level and shuttering work for lintels was underway. The roadway pavement on the east side of the godown was constructed this month.

Achieved progress was consistent with the progress targeted on the new revised CPM schedule for the site.

#### H1 Feni

In the ancillary building C1, brickwork was completed and roof was cast. In the public toilet, foundation excavation and brickwork was started. KDC started stockpiling construction materials like shingles, sand and engineered fill in August.

#### C2 Mymensingh

Principal site activity continued to be placing and compacting engineered fill which was approximately 90% completed in August. Mobilization was 55% accomplished.

KDC has subcontracted a part of sitework to M/s. H.K. International. The sub-contractor has started constructing temporary offices and facilities on a rented property adjacent to the site boundary. The telephone line overhanging the site was not yet relocated. Per the CPM, preparations for pile casting were scheduled for August, but were not begun, and no material or equipment was brought to site for these works. The continuing delay in proceeding with piling work is of concern, and was a matter of serious discussion with KDC during August. Prompt inception of this work is necessary.

#### D1 Madhupur

Site preparation at Madhupur began in August. Some work has been subcontracted to M/s. A. Khaleque & Co. Ltd. Mobilization was 20% completed at month-end.

Construction of temporary buildings and facilities are in progress. The jobsite office building has been erected upto roof level. The septic tank and soakwell construction are almost complete. A tube-well was installed. Stripping was completed, and this is a month ahead of schedule. No equipment except a water pump was brought to the site.

### 8.3 Zone-II (Bogra)

Principal activities at Santahar, Bogra, Shibganj and Panchagar consisted of forming and pouring Class A concrete foundations, columns, bond and beams and canopies as well as placing and compacting sand fill for floor slabs. Construction of ancillary buildings continued at Panchagar, Shibganj and Bogra. At Rangpur and Mahendranagar mobilization and stripping of topsoil are underway.

Updated construction schedules have been issued by the contractor and progress is now being measured in relation to them. Credit for on-going work not yet paid for is considered in reportine on the progress.

### M1 Santahar

West godown (10,000 tons)· all exterior column footings and wall foundations were completed, 32 exterior columns were poured up to roof level and the remaining 30 to a height of 9' · 126 interior columns were cast up to roof level and the remaining 28 to a height of 12'. All bond beams and canopies at elevation 10.0 were completed in August. The top row of bond beams in one-third of the godown area was cast. All shear walls were completed up to roof level. A 6" layer of sand fill for floor slab has been placed and compacted throughout the godown area and up to 2' height in one-fifth of the area.

East-1 Godown (6,000 tons)· all exterior and interior columns footings and wall footings were completed. Shuttering and placing of rebar for grade beams was underway. One 6" layer of sand fill for slab was placed and compacted.

East-2 Godown (6,000 tons)· no engineered fill was placed during this period due to intermittent rain. Two-thirds of this area requires another 6" of fill.

Grass-sod slope protection around the godown fill slopes was in progress. Per the revised CPM schedule, planned overall progress was set at 46.5% while actual progress stood at 41% at month-end.

### M3 Bogra

All interior columns and sixty-one exterior columns have been poured up to roof level. The remaining exterior columns have been poured to elevation 10.0. Bond beams at elevation 10.0 on 31 bays have been poured. Shear walls are 81% completed to date. Forming and placing rebar for roof beams and slab covering an area of 9,900 square feet, was underway. Three 6" layers of sand for floor slab have been placed and compacted.

The ancillary building M1 ground floor roof slab was poured, and sand fill for floor slab was in progress. In building A1, forming and placing re-bar for ground floor roof was underway. Building C foundation excavation was completed during this period and foundation brickwork 80% completed.

On the revised CPM schedule, overall progress for this site stands at 44.5% against a schedule 42% to date.

### 02 Shibganj

Excavation of interior and exterior column footings was completed. Forming and placing concrete for both interior and exterior columns was continuing. To date 70 interior columns have been poured up to roof level and another 70 to a height of 8'. Forty-six exterior columns have been poured to a height of 8'. Forming and pouring of shear walls, bond beams and canopies was in progress, and to date two shear walls, three canopies and sixteen bond beams have been completed, and two shear walls poured to a height of 15'. Placing and compacting of sand under the floor slab is proceeding.

Brickwork on ancillary building type A and C has been completed up to lintel level of the ground floor and on type B1 building up to lintel level of the first floor. The public toilet brickwork has been completed up to lintel level. One septic tank was completed and brickwork was underway for another one.

Overall progress now stands at 38% against a scheduled 31% on the revised CPM schedule.

### 03 Panchagar

Six exterior columns and four shear walls were completed up to roof level. Formwork for the remaining shear walls is progressing. Foundation excavation for type B1 and C1 buildings was completed and brickwork initiated. To date all interior columns have been poured to roof level and 26 exterior columns up to 10' elevation.

The completed work based on the new CPM schedule stands at 28.7% against a planned progress of 30%.

### L7 Mahendranagar

Stripping of topsoil started on 13 August. Land for constructing an offsite office has been acquired by the contractor. No equipment has been mobilized to date. Railway quarters have not yet been removed from site.

Progress achieved during this month stands at 1% against a scheduled 1.2%.

### L1 Rangpur

Stripping of topsoil has been completed at all available places except in the areas still occupied by the railway pump house and staff quarters. Pumping water from the ditch area continued during the month, but could not significantly improve the situation due to present high water table.

Off-site land for constructing a field office and a storage godown has been acquired by the contractor. Work accomplished in August stands at 4% against a scheduled 7.7% on the CPM.

#### 8.4 Zone III(Ishurdi)

##### N1 Muladuli

Pre-cast pile driving was completed on 16 August, six weeks ahead of schedule. The number of piles driven totalled 224, comprising 164 piles to a depth of 35', another 42 piles to 40', and the remaining 18 piles to 42' penetration. To date, forty-two pile caps have been completed. One third of the godown foundation concrete work was completed from grid lines 11 to 16 and A to G including internal and external column pile caps, and rail and truck loading platform footings. This work is eight weeks ahead of schedule.

Common fill was in progress and about 31% completed at month end. Engineered fill construction in the godown area was completed upto Elev. 0'-0". Godown foundation excavation was started in August and approximately 21% completed at month end.

Work accomplishment during the month was 10.7% bringing the overall to-date progress to 26.2%, ahead of the scheduled 25% on the revised CPM.

##### T2 Kushtia

In August, engineered fill progressed 5,000 cft or 3.9% to reach 18.4% accomplished. This quantity comprised engineered fill in parking areas which will serve as a pile casting bed. The contractor is still having difficulty in getting supplies of imported material to complete the godown fill to elevation 0'-0' which is the level from which piling work would start.

Temporary office construction resumed after the work was allotted to a new subcontractor, and the work was about 85% completed at month end. Formation of pile reinforcement cages was in progress with another new subcontractor engaged. Cement and coarse aggregates have not been mobilized to site. Pile casting is scheduled to start in last half of September, and considerable preparation for this needs to be done.

Progress achieved during the month was 0.9% against a planned 2%. Overall progress achieved was 5.2%, lagging the 7% planned.

### T1 Chuadanga

During the month another 3,300 cft of engineered fill was constructed bringing the total fill to 238,500 cft or 68% complete. In the godown area, all concrete footings and platform footings were completed. About 87% of wall foundations were accomplished and work is in progress. Four corner columns, 40 exterior columns and 58 interior columns were concreted up to 2'-2" height for 7% completion. Fabrication of column rebar was in progress. Sand fill in the godown area was 48% completed. Fabrication of rebar for shear walls commenced. The contractor now plans to complete the floor slab ahead of the roof slab and has been advised to revise the CPM schedule accordingly.

Progress achieved during the month was 7.5% and overall achievement was 20.1%, ahead of the scheduled 16%. However the boundary wall was not started due to non-availability of quality bricks, and this lags the schedule by 5 weeks. Other activities lagging at this site are common filling, and column and wall construction by 8, 3 and 2 weeks respectively.

### S2 Kaliganj

The temporary office building was about 80% completed. The water pump for construction tubewell went out of order and was under repair. The first layer of engineered fill was completed on the 24th. Engineered fill quantity totalled 33,500 cft representing 14.2% of the total fill. The contractor is experiencing difficulty in importing enough fill material to speed up the work.

Pile manufacture is to start in early October. No equipment and materials for this are yet on site. KDC continued to provide part-time Korean personnel drawn from Chuadanga site for supervision of this site. Work accomplished for the month was 2% and overall progress was 4.7% in value terms, against 4.0% planned.

P1 Satkhira

Overall site filling in August progressed 8,300 cft (2%) and totalled 223,700 cft (55%). Compacted sandfill under the godown foundation slab was about 58% done bringing the total to 78% (46,000 cft). Concrete class A footing, wall foundation and columns were initiated in August. By month end all column footings and all wall foundations and platform footings were completed. Of the 66 concrete columns five exterior columns were poured to a height of 6', sixteen interior columns to 10' and another 24 interior columns to 10'-6". Boundary wall construction, scheduled to begin in August, was not started due to failure to bring in specification bricks.

The contractor started sand filling the godown area ahead of the CPM schedule and plans to complete the floor slab ahead of roof slab construction. KDC has been advised to submit a revised CPM schedule reflecting the new program.

The contractor has not furnished shop drawings showing the electrical conduit layout. This may delay critical structural works in places where conduit is to be embedded.

Progress achieved in August was 11.1% to reach an overall accomplishment of 24.3%, ahead of a scheduled 20.6%.

K2 Amnura

Sitework is scheduled to restart on 1 September. Prior to work suspension 31 May, clearing and grubbing was completed, stripping substantially completed, and engineered fill 60% placed. Site mobilization at the end of August was 71.6% accomplished. KDC's on-site personnel received imported materials, coarse sand and coarse aggregates during the month. Overall progress stood at 9.3% at month end.

## 9. CONTRACTOR'S ACTIVITIES

The following are excerpts from KDC's monthly report No. 10 for the month of August 1982.

### 1. OVERALL PROJECT ACTIVITIES

#### 1.1 GENERAL STATEMENT OF PROGRESS

Overall project completion is estimated to date as 18% against a planned 19%.

Overall progress for each zone is approximately as follows:-

|          |             |
|----------|-------------|
| Zone - I | Planned 6%  |
|          | Actual 5%   |
| Zone II  | Planned 10% |
|          | Actual 10%  |
| Zone III | Planned 3%  |
|          | Actual 3%   |

As from 1 September 20 sites shall be in operation. These are as follows:-

Zone - I Comilla, Daudkandi, Brahmanbaria, Feni, Mymensingh and Madhupur.

Zone - II Santahar, Boera, Shibganj, Panchagar, Panepur, Mahendranagar and Dinajpur.

Zone III Muladuli, Chuadanga, Satkhira, Amnura, Kaliganj, Kushtia and Rohanpur.

Total expatriate staff now equals 90 persons against the original planned estimate of 75 persons.

#### 1.2 PROBLEMS AND DELAYS

1. Pre-cast concrete piling: The addition of pre-cast concrete piling in lieu of sand compaction piling at 4 sites and the possible addition of P.C. concrete piling at Mahendranagar site will seriously affect the contractual time for completion and an extension of time will be requested. The overall effect to the project is now being estimated and will be forwarded in due course.
2. In Rangpur site, the obstruction problems have not yet been removed. The BADC and Bangladesh Railways have not yet reached a final decision so far regarding demolition and transfer of these facilities. This problem is likely to affect the overall project completion time.

1.5 MATERIAL PROCUREMENT AND SHIPMENT

AS OF AUGUST 31, 1982

IMPORTED MATERIALS

| Description                        | Quantity (Tons)       |                      |                  | Grand Total       | Remarks<br>Shipment Number/<br>Vessel Name |
|------------------------------------|-----------------------|----------------------|------------------|-------------------|--|
|                                    | Arrival<br>Up to July | Arrival<br>in August | In Ship-<br>ment |                   |  |
| Cement                             | 1,003.000             | -                    | -                | 1,003.000         | 14th                                       |
| Rebar                              | 2,696.257             | -                    | 757.339          | 3,453.596         | 14th, 18th & 20th                          |
| Tie Wire                           | 80.320                | -                    | -                | 80.320            | 14th                                       |
| Wire Mesh                          | 779.870               | -                    | -                | 779.870           | 14th, 15th & 18th                          |
| Bar #5                             | 45.682                | -                    | -                | 45.682            | 14th                                       |
| Plywood                            | 857.041               | -                    | -                | 857.041           | 14th                                       |
| PVC Chamfer Strip                  | 23.200                | -                    | -                | 23.200            | 15th                                       |
| Form Tie and Sepa                  | 27.190                | -                    | -                | 27.190            | 15th                                       |
| Pecco Beam                         | 743.170               | -                    | -                | 743.170           | 15th & 16th                                |
| Steel Form and Angle               | 113.348               | 34.560               | -                | 148.108           | 15th, 16th, 18th & 19th                    |
| Steel Pipe Support                 | 461.680               | -                    | -                | 461.680           | 15th                                       |
| Form Oil                           | 9.390                 | -                    | 15.650           | 25.040            | 16th & 20th                                |
| Shuttering Board                   | 448.350               | -                    | -                | 448.350           | M/V Al-Salma (B.D. Flag)                   |
| C.S. Pipe and Socket               | 38.180                | -                    | -                | 38.180            | 18th                                       |
| Insert                             | 7.100                 | -                    | -                | 7.100             | 18th                                       |
| Vinyl Sheer                        | 33.779                | -                    | -                | 33.779            | 18th                                       |
| Asphalt Primer, etc.               | 67.818                | -                    | -                | 67.818            | M/V Robert E. Lee (USA Flag)               |
| Compound and Grout                 | 31.137                | -                    | -                | 31.137            | M/V Stonewall Jackson (USA Flag)           |
| CF Roofers base sheet etc.         | -                     | -                    | 1,286.224        | 1,286.224         | M/V Banelar Kakoli (B.D. Flag)             |
| G. Barbed Wire                     | -                     | 19.350               | -                | 19.350            | 19th                                       |
| Fench Post                         | -                     | 27.968               | -                | 27.968            | 19th                                       |
| H/P Asphalt                        | -                     | 269.200              | 316.100          | 585.300           | 19th & 20th                                |
| Steel Louver, Door & Window        | -                     | -                    | 257.141          | 257.141           | 20th                                       |
| Gravel Stop, Gangway Material etc. | -                     | -                    | 61.241           | 61.241            | 20th                                       |
| Miscellaneous                      | 54.900                | 9.912                | 0.420            | 65.312            | 14th, 15th, 18th, 19th & 20th              |
| <b>TOTAL</b>                       | <b>7,521.692</b>      | <b>360.990</b>       | <b>2,694.115</b> | <b>10,576.797</b> |  |

Summary

|                    |                   |
|--------------------|-------------------|
| Korean Flag        | 4,319.377         |
| Bangladesh Flag    | 1,984.604         |
| U.S.A. Flag        | 4,272.816         |
| <b>Total Tons:</b> | <b>10,576.797</b> |

Reference

14th Shipment Via M/V Ivory Dragon (Korean Flag)  
 15th Shipment Via M/V Button Gwinnett (U.S.A. Flag)  
 16th Shipment Via Banglar Swarna (Bangladesh Flag)  
 18th Shipment Via Benjamin Harrison (U.S.A. Flag)  
 19th Shipment Via George Wythe (U.S.A. Flag)  
 20th Shipment Via Sam Houston (U.S.A. Flag)

1.6 EQUIPMENT PROCUREMENT AND SHIPMENT

| <u>Vessel</u>                            | <u>Flag</u> | <u>From</u> | <u>Items</u>                   | <u>No.</u> | <u>B/I Ton</u> | <u>Remarks</u>           |
|--|-------------|-------------|--------------------------------|------------|----------------|--------------------------|
| o Ivory Dragon<br>Arrived on 23.1.82     | Korea       | Korea       | Diesel Engine                  | 8          | 3.2            | All Delivered<br>To Site |
| o Benjamin Harrison<br>Arrived on 6.3.82 | U.S.A.      | U.S.A.      | Vibratory Roller               | 3          | 20             | All Delivered<br>To Site |
| o Al-Sayesta<br>Arrived on 7.3.82        | Bangladesh  | Singapore   | Shaft for Concrete<br>Vibrator | 3          | 1.06           |                          |
|  |             |             | Freezer                        | 8          |                |                          |
|  |             |             | Refrigerator                   | 10         |                |                          |
|  |             |             | Air Conditioner                | 15         |                |                          |
|  |             |             | Water Heater                   | 9          | 27.22          |                          |
|  |             |             | Transformer                    | 2          |                |                          |
|  |             |             | Concrete Dumper                | 7          | 37.75          |                          |
|  |             |             | Generator                      | 10         | 87.98          |                          |
|  |             |             | Wheel Loader                   | 3          | 46.15          |                          |
|  |             |             | Truck Crane                    | 1          | 91.39          |                          |
|  |             |             | Tractor                        | 4          | 78.45          |                          |
|  |             |             |                                |            | <u>370.00</u>  | All Delivered<br>To Site |
| o Butter Gwinnett<br>Arrived on 1.3.82   | U.S.A.      | Korea       | Tower Winch                    | 8          | 43.18          | All Delivered<br>To Site |
|  |             |             | Plate Compactor                | 4          |                | All Delivered<br>To Site |
|  |             |             | Submersible Pump               | 4          |                |                          |
|  |             |             | Water Pump (Gasoline)          | 4          |                |                          |
|  |             |             | Conc. Vibrator                 | 15         | 10.92          | All Delivered<br>To Site |
|  |             |             | Conc. Vibrator Length          | 20         |                |                          |
|  |             |             | Conc. Vibrator (Electric)      | 15         |                |                          |
|  |             |             |                                |            | <u>54.10</u>   |                          |
| o Banglar Srapna<br>Arrived on 1.4.82    | Bangladesh  | Korea       | Concrete Mixer                 | 10         | 421.40         | All Delivered<br>To Site |
| o A-Silma<br>Arrived on 21.5.82          | Bangladesh  | Singapore   | Air Conditioner                | 54         |                | All Delivered<br>To Site |
|  |             |             | Refrigerator                   | 4          | 27.00          |                          |
| o Button Gwinnett<br>Arrived on 21.7.82  | U.S.A.      | U.S.A.      | Pick-up                        | 10         | 124.00         | All Delivered<br>To Site |

SUMMARY

| <u>Vessel</u>   | <u>Equipment</u> | <u>Material</u>   | <u>Total</u>      |
|-----------------|------------------|-------------------|-------------------|
| Korean Flag     | 3.20             | 4,319.377         | 4,322.577         |
| U.S.A. Flag     | 198.10           | 4,272.816         | 4,470.916         |
| Bangladesh Flag | 818.40           | 1,984.604         | 2,803.004         |
| Total Tons      | <u>1,019.70</u>  | <u>10,576.797</u> | <u>11,596.497</u> |

## II. SPECIFIC SITE ACTIVITIES

### 1. ZONE-I

#### 1.1 GENERAL STATEMENT OF PROGRESS

##### Comilla-II

Casting of piles is nearly complete. To date, out of a gross total length of 20,994 feet 17,527 feet have been cast constituting about 84%. Pile driving work is in progress and shall continue over the next month. So far 68 piles have been driven successfully. Preparatory work for pile caps has also commenced simultaneously.

Ancillary building type B1 first floor slab concrete pour shall be completed by end of September and type A1 and C1 foundation work shall start by mid-September.

Installation of barbed wire to fence post shall be completed at end of September.

Planned activity to date is 47%.

Actual achieved progress is 35%.

##### Brahmanbaria-12

Godown roof slab concrete pour and brick work in super-structure wall are complete. Concrete pour to floor slab is in progress and estimated to be completed by early October. Inside wall plastering and outside wall surface pointing and neat cement finishing shall be progressed during September. Concrete pour to canopy is in progress.

Ancillary building A, B1 & C1 brick work and roof completed. Pent-house shall be completed by end of September. Guard house shall be commenced in mid-September.

Concrete pour to road and parking areas shall be progressed during September.

Sanitary and plumbing and electrical work shall commence in mid next month.

Installation of barbed wire to fence post shall be completed next month.

Planned activity to date is 83%.

Actual achieved progress is 73%.

Daudkandi-I3

All column and shear wall concrete pour shall be completed by end of September. Compaction of coarse sand under floor is 100% complete.

Ancillary building type A1 brick work upto lintel level is complete. First floor slab shall be poured in mid-September. Type B1 penthouse work shall be progressed during September. Type C1 roof slab shall be poured next month.

Planned activity to date is 33%.

Actual achieved progress is 36%.

Feni-H1

Mobilization is now about 44% complete.

Disposal of excavated unsuitable material, being done on Engineer's instruction, was 80% completed.

Ancillary building roof slab concrete pour completed at end of August.

Planned activity to date is 5%.

Actual achieved progress is 7%.

Mymensingh-C2

Mobilization is now approximately 55% complete.

Preparatory work for precast concrete pile has commenced and shall continue in September.

Planned activity to date is 5%.

Actual achieved progress is 7%.

Madhupur-D1

Mobilization is now 20% complete.

Temporary building including facilities is now about 75% complete.

Engineered fill to the area has commenced and shall be progressed during September.

Planned activity to date is nil.

Actual achieved progress is nil.

### 1.3 PLANT AND EQUIPMENT

| <u>Site</u>     | <u>Description</u> | <u>No.</u> | <u>Description</u>  | <u>No.</u> |
|-----------------|--------------------|------------|---------------------|------------|
| Comilla-I1      | Batch Plant        | 1          | Crane 20 T          | 1          |
|                 | Dump Truck         | 1          | Crane 37 T          | 1          |
|                 | Soil Compactor     | 1          | Conc. Dumper        | 1          |
|                 | Pick-Up            | 2          | Vibrator Roller     | 1          |
|                 | Cargo Truck        | 1          | Bulldozer           | 1          |
|                 | Jeen               | 1          | Tractor             | 1          |
|                 | Payloader          | 2          | Trailer 60 T        | 1          |
|                 | Air Compressor     | 1          | Generator           | 1          |
|                 | Mixer Truck        | 2          | Welding Machine     | 1          |
|                 | Grinding Machine   | 1          | Bar Cutter & Bender | 2          |
|                 | Water Pump         | 4          | Diesel Pile Hammer  | 1          |
|                 | Dumper             | 1          |                     |            |
| Brahmanbaria-I2 | Water Pump         | 2          | Vibrator            | 4          |
|                 | Concrete Mixer     | 2          | Bar Cutter          | 1          |
|                 | Concrete Dumper    | 2          | Generator           | 1          |
|                 | Compactor          | 1          | Tower Winch         | 2          |
| Daudkandi-I3    | Dump Truck         | 1          | Bar Cutter          | 1          |
|                 | Payloader          | 1          | Air Compressor      | 1          |
|                 | Clam Shell Bucket  | 1          | Conc. Batch Plant   | 1          |
|                 | Mixer Truck        | 1          | Water Pump          | 3          |
|                 | Generator          | 1          |                     |            |
| Mymensingh-C2   | Vibration Hammer   | 1          |                     |            |
| Feni-III        | Payloader          | 1          | Generator           | 1          |
|                 | Bulldozer          | 1          | Water Pump          | 2          |

2. ZONE-II

2.1 GENERAL STATEMENT OF PROGRESS

Santahar-M1

Engineered fill is now approximately 88% complete.

Godown-West 120 interior columns, 35 exterior columns and 8 shear wall columns have been completed. Remaining work including bond beam/canopy shall be completed by early September. Form work to roof slab in the western half-section shall be commenced immediately. Compacted coarse sand filling under floor shall be progressed during September.

Godown-East-I grade beam is complete. First lift concrete pour to column commenced at end-August and shall be progressed during September. Compacted coarse sand filling under floor has commenced on 28 August and shall be progressed during September.

Godown-East-II engineered fill is 45% complete and shall continue during September.

Construction of septic tank and soak well attached to ancillary building type A1, B & C was completed.

Concrete pouring to bottom slab of box culvert No. 1 is complete and concrete pour to wall shall be progressed during September.

Concrete pouring to boundary wall R.C.C. posts is in progress.

Planned progress to date is 39%.

Actual achieved progress is 36%.

Bogra-M3

Engineered fill is approximately 96% complete.

Godown interior columns is 100% and exterior columns 90% complete. All columns shall be 100% completed by 4 September. Twelve shear wall columns are complete, remaining 4 shear walls at south-west and north-west corner shall be completed by the first week of September. Installation of steel/wooden form work for roof slab on the eastern half section has commenced and concrete pour is estimated to complete by end-September. Brick work to long wall has commenced in mid-August and shall be progressed during September. Compacted coarse sand filling under floor shall be completed next month.

Ancillary building type B1 first floor slab was poured on the 24th and A1 first floor slab shall be poured in the first week of September and B1 roof slab shall complete by next month's end. C type building foundation lean concrete was poured on 23 August. Brick work to foundation and superstructure wall shall be done next month.

Installation of angle iron and barbed wire fence in boundary wall including coping has commenced and shall be completed in September.

Planned progress to date is 42%.

Actual achieved progress is 45%.

#### Panchagar-03

All the interior columns of godown are 100% complete and exterior columns shall be completed by mid-September. Two shear walls are complete and remaining two shall be completed in the first week of September. Compacted coarse sand fill under floor slab shall be progressed during September.

Ancillary building type B1 foundation brick work commenced and superstructure brick wall including lintel shall be completed in September.

Installation of angle iron and barbed wire fence in boundary wall has commenced and estimated to complete next month.

Planned progress to date is 30%.

Actual achieved progress is 30%.

#### Shibganj-02

Interior columns of godown are 60% complete and remaining 40% is estimated to be completed by mid next month. Eight shear walls at south and north end are complete and eight at expansion joint shall be progressed during September. Concrete pour to bond beam and brick work is in progress. Compacted coarse sand fill under floor slab shall continue during September.

Ancillary building type A1 first floor slab, B1-roof and C1-roof slab are estimated to complete concrete pour by end of September. Guard house structure work completed in August.

Installation of angle iron and barbed wire fence including coping is in progress and completion by early October is expected.

Planned progress to date is 36%.

Actual achieved progress is 35%.

Ranapur-11

Mobilization is now 44% complete.

Stripping work is in progress. Dewatering the surface water from the depressed area is also in progress.

Removal of existing structures has commenced and shall continue in September.

Planned progress to date is 5%.

Actual achieved progress is 4%.

Mahendranagar-17

Mobilization has commenced in mid-August is 20% complete at month end.

Stripping is about 60% complete and shall be completed 100% by early September.

Engineered fill is to start in early September and shall continue all month.

Planned progress to date is 1%.

Actual achieved progress is also 1%.

Dinajpur-01

Mobilization shall commence on 1st September.

Temporary office building construction work and stripping work shall commence in early September.

2.3 PLANT AND EQUIPMENT

| <u>Site</u>    | <u>Description</u>   | <u>No.</u> | <u>Description</u>  | <u>No.</u> |
|----------------|----------------------|------------|---------------------|------------|
| SANTAHAR - M1  | Tower Crane          | 1          | Transmixer Truck    | 3          |
|                | Payloader            | 2          | Concrete Vibrator   | 10         |
|                | Vib. Roller          | 2          | Swaco Pump 4" Ø     | 1          |
|                | Compressor           | 2          | Water Pump 6" Ø     | 3          |
|                | Dump Truck           | 6          | Pick-Up             | 1          |
|                | Cargo Truck          | 1          | Welding Machine     | 1          |
|                | Tank Lorry           | 1          | Jeep                | 1          |
|                | Generator            | 3          | Tyre Roller         | 1          |
|                | Dumper               | 2          | Bar Cutter          | 1          |
|                | Screening Machine    | 2          | Grader 3.7 M        | 1          |
|                | Side Loom            | 1          | Electric Saw        | 1          |
|                | Conc. Batching Plant | 1          | Bulldozer           | 1          |
|                | Hand Carrier         | 21         | Concrete Mixer      | 1          |
| BOGRA - M3     | Payloader            | 1          | Water Pump          | 2          |
|                | Dump Truck           | 1          | Conc. Mixer Machine | 1          |
|                | Concrete Vibrator    | 6          | Transmixer          | 2          |
|                | Pick-Up              | 1          | Hand Carrier        | 13         |
|                | Electric Saw         | 1          | Dumper              | 1          |
|                | Generator            | 1          | Batch Plant         | 1          |
| PANCHAGAR - 03 | Dump Truck           | 2          | Soil Compactor      | 1          |
|                | Payloader            | 1          | Conc. Vibrator      | 6          |
|                | Generator            | 1          | Water Pump          | 3          |
|                | W.T. with Tractor    | 1          | Dumper Hand Carrier | 1          |
|                | Conc. Mixer          | 1          | Electric Saw        | 1          |
|                | Welding Machine      | 1          |                     |            |
| SHIBGANJ - 02  | Pick-Up              | 1          | Vib. Compactor      | 1          |
|                | Cargo Truck          | 2          | Road Roller         | 1          |
|                | Water Pump           | 3          | Tractor             | 2          |
|                | Conc. Mixer Machine  | 2          | Conc. Vibrator      | 2          |
| RANGPUR - L1   | Dump Truck           | 2          | Pick-Up             | 1          |
|                | Jeep                 | 1          | Water Pump          | 1          |
|                | Water Pump 6" Ø      | 1          |                     |            |

### 3. ZONE-III

#### 3.1 GENERAL STATEMENT OF PROGRESS

##### Muladuli-N1

Mobilization is now approximately 88% complete.

Precast concrete pile driving in the godown area was 100% completed in the third week of August. Pile cap concrete pour has commenced at end of August. Construction of columns shall commence early September.

Construction of ancillary building and boundary wall shall commence in mid-September.

Planned progress to date is 25%.

Actual achieved progress is 29%.

##### Chudadanga-T1

Mobilization is now about 88% complete.

Engineered filling to site is 95% complete.

Godown column concrete pouring shall be progressed during September. Compacted sand fill under floor area shall be completed by end of September.

Planned progress to date is 24%.

Actual achieved progress is 26%.

##### ANNURA-K2

Mobilization is approximately 75% complete.

Construction work is re-commencing on 1 September. Work was temporarily stopped due to access problems caused by monsoon rains. Construction materials are being stockpiled at site.

Planned progress to date is 13%.

Actual achieved progress is 13%.

##### Satkhira-F1

Mobilization is now approximately 88% complete.

Godown column footing was 100% completed in mid-August. Concrete pour to columns has commenced in the third week of August and shall be progressed during September. Compacted sand fill to floor area shall also be progressed during September.

Planned progress to date is 21%.

Actual achieved progress is 29%.

Kushtia-T2

Mobilization is approximately 52% complete.

Engineered site filling has completed at end-July.

Fabrication of rebar and formwork for precast piles has commenced and shall be progressed during September.

Planned progress to date is 7%.

Actual achieved progress is 7%.

Kaliganj-S2

Mobilization is now approximately 46% complete.

Construction of temporary building is 100% complete.

Engineered site filling was 14% complete and shall be progressed during September.

Planned progress to date is 2%.

Actual achieved progress is 5%.

Rohanpur-K3

Mobilization shall commence on 1st September, 1982.

Temporary office building construction work and stripping work shall commence in early September.

### 3.3 PLANT AND EQUIPMENT

| <u>Site</u>    | <u>Description</u> | <u>No.</u> | <u>Description</u>           | <u>No.</u> |
|----------------|--------------------|------------|------------------------------|------------|
| MULADULI - N1  | Payloader          | 1          | Welding Machine              | 1          |
|                | Tractor            | 2          | Drilling Rig.                | 1          |
|                | Cargo Truck        | 1          | Water Pump                   | 2          |
|                | Soil Compactor     | 1          | Concrete Dumper              | 1          |
|                | Compressor         | 1          | Saw Machine                  | 1          |
|                | Generator          | 1          | Jeep                         | 1          |
|                | Crane 45 T         | 1          | Pick-Up                      | 1          |
|                | Batch Plant        | 1          | Concrete Mixer               | 1          |
|                | Diesel Pile Hammer | 1          | Tyre Crane 20 T              | 1          |
|                | Dump Truck         | 1          |                              |            |
| CHUADANGA - T1 | Soil Compactor     | 2          | Pick-Up                      | 1          |
|                | Concrete Dumper    | 1          | Water Pump                   | 1          |
|                | Generator          | 1          | Welding Machine              | 1          |
|                | Dump Truck         | 1          | Vib. Roller                  | 1          |
|                | Payloader          | 1          | Bulldozer                    | 1          |
|                | Tower Winch        | 1          | Concrete Mixer               | 1          |
| AMNURA - K2    | Generator          | 1          | Excavator 0.6 <sup>m</sup> 3 | 1          |
|                | Tractor            | 1          | Conc. Mixer                  | 1          |
|                | Soil Compactor     | 1          | Conc. Dumper                 | 1          |
|                | Water Pump         | 2          |                              |            |
| SATKHIRA - P1  | Dump Truck         | 1          | Plate Compactor              | 1          |
|                | Bulldozer          | 1          | Concrete Mixer               | 1          |
|                | Payloader          | 1          | Pick-Up                      | 1          |
|                | Water Pump         | 2          |                              |            |
| KUSHTIA -- T2  | Bulldozer          | 1          | Diesel Welder                | 1          |
|                | Dumper             | 1          | Air Compressor               | 1          |
|                | Tractor            | 1          | Water Pump                   | 2          |
| KALIGANJ - S2  | Tractor            | 1          | Dump Truck                   | 1          |
|                | Roller             | 1          |                              |            |





Contract Financial Summary - Dollars

| <u>Site</u>          | <u>Contract Amount</u> | <u>Current Month</u> | <u>Job To Date \$</u> | <u>Job To Date %</u> |
|----------------------|------------------------|----------------------|-----------------------|----------------------|
| <u>ZONE-I</u>        |                        |                      |                       |                      |
| Daudkandi            | 1,658,552.00           | 82,309.60            | 538,594.69            | 32.47                |
| Brahmanbaria         | 1,478,514.00           | 189,101.52           | 877,253.28            | 59.33                |
| Comilla              | 2,442,360.52           | 77,640.84            | 630,584.28            | 25.82                |
| Mymensingh           | 871,031.00             | 9,446.92             | 61,506.07             | 7.06                 |
| Feni                 | 773,349.00             | 17,187.06            | 56,582.88             | 7.31                 |
| Madhupur             | 1,465,750.20           | 29,921.40            | 29,921.40             | 2.04                 |
| <u>ZONE-II</u>       |                        |                      |                       |                      |
| Santahar             | 6,205,593.00           | 252,896.28           | 1,596,369.86          | 25.72                |
| Bogra                | 2,939,369.00           | 254,580.80           | 1,063,168.18          | 36.17                |
| Panchagar            | 1,200,629.00           | 18,725.77            | 259,760.36            | 21.64                |
| Shibganj             | 2,067,631.00           | 129,635.34           | 593,400.32            | 28.70                |
| Rangpur              | 1,676,469.00           | 18,208.84            | 68,399.04             | 4.08                 |
| Mahendranagar        | 2,973,078.00           | 26,387.01            | 26,387.01             | .89                  |
| <u>ZONE-III</u>      |                        |                      |                       |                      |
| Muladuli             | 1,673,284.00           | 179,752.22           | 437,638.01            | 26.15                |
| Chuadanga            | 2,016,028.00           | 150,985.72           | 405,353.57            | 20.11                |
| Annura               | 1,584,027.00           | 1,838.03             | 147,854.67            | 9.33                 |
| Satkhira             | 1,081,278.00           | 120,533.97           | 262,508.77            | 24.28                |
| Kushtia              | 1,316,085.00           | 11,381.19            | 67,721.86             | 5.15                 |
| Kaliganj             | 1,356,079.00           | 27,330.70            | 64,045.91             | 4.72                 |
| TOTAL<br>(All Sites) | 49,485,499.35          | 1,597,863.21         | 7,187,050.16          | 14.52                |
| MATERIALS            | -                      | 29,755.24            | 900,553.34            | -                    |
| ALL SITES            | 49,485,499.35          | 1,627,618.45         | 8,087,603.50          | 16.34                |
| RETENTION            | 1,000,000.00           | 159,786.32           | 718,705.01            | -                    |

10. CONSTRUCTION CONTRACT CHANGE ORDER STATUS

| <u>Change Order Number</u> | <u>Date</u> | <u>Description</u>                                   | <u>Change</u>   | <u>Contract Amount</u> |
|----------------------------|-------------|--|-----------------|------------------------|
| -                          | 16 Oct. 81  | Contract signed                                      | -               | \$ 50,000,000.00       |
| 01-001                     | 23 Oct. 81  | Dinainur - 3000 ton<br>rod down eliminated           | \$ (561,500.17) | \$ 49,438,499.83       |
| 002                        | 26 Jan. 82  | Cost reduction                                       | Deleted         | \$ 49,438,499.83       |
| 11-003                     | 25 May 82   | Comilla - Change culvert                             | \$ (2,510.48)   | \$ 49,435,989.35       |
| 13-004                     | 18 May 82   | Daudkandi - Remove and<br>reconnect fill             | \$ 40,010.00    | \$ 49,485,409.35       |
| D1-005                     | 16 June 82  | Madhubur - Site relocated                            | \$ (4,293.00)   | \$ 49,481,205.55       |
| H1-006                     | 21 July 82  | Feni - Earthwork Modification                        | \$ 25,110.00    | (Pending)              |
| 02-007                     | 7 July 82   | Mymensingh - Modified foundation<br>to concrete pile | \$ (99,194.02)  | (Pending)              |

INTERNATIONAL ENGINEERING COMPANY, INC.  
FORCE REPORT  
31 AUGUST, 1982

A. Dacca Office

|                        |                  |
|------------------------|------------------|
| 1. K.F. Ahmed          | Sr. Accountant   |
| 2. A.H.M.R. Salam      | Accountant       |
| 3. A.K. Chowdhury      | Expeditor        |
| 4. Niranjan Paul       | Expeditor        |
| 5. Najma Anwar         | Secretary        |
| 6. Md. Delwar Hossain  | Secretary        |
| 7. Khurshid Ahsan      | Admin. Assistant |
| 8. Robert O'Brien      | Mechanic         |
| 9. Danzil Gonsalves    | Printer          |
| 10. Idris M. Khan      | Driver           |
| 11. Md. Arifullah Khan | Guard            |
| 12. Nuruzzaman Sarker  | Janitor          |

B. Zone I (Comilla)

|             |                     |
|-------------|---------------------|
| 1. M. Kabir | Area Office Manager |
|-------------|---------------------|

C. Zone II (Boera)

|                  |                     |
|------------------|---------------------|
| 1. R.A. Drayne   | Area Office Manager |
| 2. Robin Rozario | Driver              |

D. Zone III (Ishurdi)

|                        |                     |
|------------------------|---------------------|
| 1. N.C. Khan           | Area Office Manager |
| 2. Benjamin Gomes      | Messenger/Tyrist    |
| 3. Md. Moazzem Hossain | Driver              |

## DEVELOPMENT CONSULTANCY SERVICES LTD.

FORCE REPORT

31 AUGUST, 1982

A. Dacca Office & Lab.

|                            |  |
|----------------------------|--|
| 1. Quazi Hamidur Rahman    | Associate Project Manager<br>(Part Time) |
| 2. M.K. Zaman              | Office Engineer                          |
| 3. Fazlul Wahhab           | Tech. Asst. to P.M.                      |
| 4. Ashraf Ali              | Sr. Engineer(Design)                     |
| 5. Sk. Rezaul Haque        | Materials Engineer                       |
| 6. Mahbubur Rahman         | Engineer                                 |
| 7. Md. Mahmud Alam *       | Field Engineer                           |
| 8. Abdul Baset ***         | Field Engineer                           |
| 9. O. Ahmed Najee          | Land Procurement Officer(at BADC)        |
| 10. Moazzam Hossain Sarker | Land Procurement Officer(at BADC)        |
| 11. Sk. Zameul Haque       | Mat. Lab. Tech.                          |
| 12. Md. Shahid Khan        | Mat. Lab. Tech.                          |
| 13. Rebeka Sultana         | Mat. Lab. Tech.                          |
| 14. Akshay Kumar Roy       | Draftsman                                |
| 15. Rafia Akhter           | Draftsman                                |
| 16. Rezaul Karim           | Accounts Assistant                       |
| 17. T.I. Choudhury         | Accounts Assistant                       |
| 18. Aftab Alam             | Typist(at BADC)                          |
| 19. Mizanur Rahman Sikder  | Clerk                                    |
| 20. Moibur Rahman          | Mat. Lab. Assistant                      |
| 21. Abdur Rashid           | Mat. Lab. Assistant                      |
| 22. A. Motaleb             | Instrumentman                            |
| 23. Md. Nizamuddin         | Chainman                                 |
| 24. Md. Hanif              | Rodman                                   |
| 25. Shamim Ahmed           | Driver                                   |
| 26. Badruddin              | Driver                                   |
| 27. Rehmatullah            | Driver                                   |
| 28. Md. Haider             | Driver                                   |
| 29. Md. Aminul Islam       | Driver                                   |
| 30. Delvar Hossain         | Driver(at BADC)                          |
| 31. Faiz Chowdhury         | Messenger                                |
| 32. Ulfat Ali              | Messenger                                |
| 33. Jahanara Begum         | Messenger/Receptionist                   |
| 34. Aminuddin              | Guard                                    |

B. Zone I (Comilla)

|                            |   |
|----------------------------|---|
| 1. Amalendu Debnath        | Sr. Field Engineer                      |
| 2. Mozharul Islam          | Field Engineer (Comilla)                |
| 3. Munshi Abu Jaffar       | Field Engineer (Brahmanbaria)           |
| 4. Idris Majumder          | Field Engineer (Daudkandi)              |
| 5. S M. Khalilur Rahman ** | Field Engineer (Feni)                   |
| 6. Md. Rezaul Karim        | Field Engineer (M'mensineh)             |
| 7. Haider Farooq **        | Field Engineer (Madhupur)               |
| 8. Nazrul Islam            | Inspector (Comilla)                     |
| 9. Akhtaruzzaman           | Inspector (Brahmanbaria)                |
| 10. Azmal Khan             | Inspector (Daudkandi)                   |
| 11. Mukshed Khan           | Inspector (Feni)                        |
| 12. Mirai Chandra Paul **  | Inspector (M'mensineh)                  |
| 13. Sk. Shah Mohammad      | Inspector (Madhupur)                    |
| 14. Humayun Kabir Khan     | Mat. Lab. Tech. (Comilla)               |
| 15. Md. Abdur Rouf         | Mat. Lab. Tech. (M'mensineh & Madhupur) |
| 16. Nurul Momen Khan       | Mat. Lab. Asst. (Comilla)               |
| 17. Tahirul Islam Khan     | Mat. Lab. Asst. (Comilla)               |
| 18. Rafique Uddin Ahmed ** | Mat. Lab. Asst. (M'mensineh & Madhupur) |
| 19. Abdul Malek Fakir      | Driver                                  |
| 20. Sultan Ahmed           | Driver                                  |
| 21. Deliluddin Biswas      | Driver                                  |
| 22. Abdul Karim            | Driver                                  |

C. Zone II (Boera)

|                                 |                                |
|---------------------------------|--------------------------------|
| 1. Rafique Salehin              | Sr. Field Engineer             |
| 2. Nuruzzaman Khan              | Field Engineer (Sentabar)      |
| 3. Habibur Rahman Khan          | Field Engineer (Boera)         |
| 4. Qazi Mohiuddin Ahmed         | Field Engineer (Panchagar)     |
| 5. Noor Azam Khan **            | Field Engineer (Chibranj)      |
| 6. Mostafar Ali **              | Field Engineer (Dinajpur)      |
| 7. Abdur Razzaque               | Field Engineer (Rangpur)       |
| 8. Sagar Krishna Chakraborty ** | Field Engineer (Mahendranagar) |
| 9. Abdur Rashid Khan **         | Inspector (Curiev)             |
| 10. Anil Chandra Sarkar         | Inspector (Sentabar)           |
| 11. Md. Abdul Bari              | Inspector (Sentabar)           |
| 12. Babindranath Sarkar         | Inspector (Boera)              |
| 13. Khair Uddin **              | Inspector (Panchagar)          |
| 14. Susil Chandra Koolader      | Inspector (Chibranj)           |
| 15. Md. Bekendar Ali **         | Inspector (Dinajpur)           |
| 16. Sheikh Md. Farooq **        | Inspector (Rangpur)            |

|                                 |   |
|---------------------------------|---|
| 17. Mofazzal Hossain **         | Inspector (Mahendranagar)               |
| 18. Shamsur Rahman **           | Mat. Lab. Tech. (Santahar)              |
| 19. Abdur Rashid **             | Mat. Lab. Tech. (Ranapur/Mahendranagar) |
| 20. Shahjahan Sarker **         | Mat. Lab. Tech. (Boera)                 |
| 21. Sabbir Hossain **           | Mat. Lab. Tech. (Dinaipur)              |
| 22. Abu Taher                   | Mat. Lab. Tech. (Boera)                 |
| 23. Md. Raisuddin               | Mat. Lab. Asst. (Santahar)              |
| 24. Md. Abdul Nader **          | Mat. Lab. Asst. (Panchagar)             |
| 25. Shamimul Haque Chowdhury ** | Mat. Lab. Asst. (Ranapur/Mahendranagar) |
| 26. Abdus Sattar                | Driver                                  |
| 27. Golam Ahmed Dastagir        | Driver                                  |
| 28. Dulal Chandra Mohanta       | Driver                                  |
| 29. Yunus Mia *                 | Camp Asst.                              |
| 30. Md. Belal                   | Messenger                               |
| 31. Helal Chowdhury *           | Guard                                   |
| 32. Ali Ahmed                   | Guard                                   |

D. Zone III (Ishurdi)

|                                |                                      |
|--------------------------------|--------------------------------------|
| 1. Nazrul Islam                | Sr. Field Engineer                   |
| 2. Saiful Islam                | Field Engineer (Mulduli)             |
| 3. Kh. Anwar Hossain           | Field Engineer (Kushtia)             |
| 4. Alauddin Ahmed              | Field Engineer (Chuadanga)           |
| 5. Bhabesh Ch. Roy             | Field Engineer (Kaliganj)            |
| 6. S. Rubayet Islam            | Field Engineer (Satkhira)            |
| 7. Md. Muhiuddin Nasirabadi ** | Field Engineer (Amnura)              |
| 8. Md. Saifur Haque **         | Field Engineer (Bohanpur)            |
| 9. Meer Mozammel Hossain       | Inspector (Mulduli)                  |
| 10. Manwar Hossain Chowdhury   | Inspector (Kushtia)                  |
| 11. Siratul Islam Khan         | Inspector (Chuadanga)                |
| 12. S.A. Asghar                | Inspector (Kaliganj)                 |
| 13. Omar Ali                   | Inspector (Satkhira)                 |
| 14. Md. Badiuzzaman **         | Inspector (Amnura)                   |
| 15. S. Zahid Hossain           | Mat. Lab. Tech. (Mulduli)            |
| 16. Rafatullah                 | Mat. Lab. Tech. (Chuadanga/Kaliganj) |
| 17. Md. Golam Rabbani          | Mat. Lab. Tech. (Satkhira)           |
| 18. Talukder Obaidur Rahman ** | Mat. Lab. Tech. (Amnura/Bohanpur)    |
| 19. Anil Kumar Chowhan **      | Mat. Lab. Asst. (Mulduli)            |
| 20. Tofazzal Hossain Sarker    | Mat. Lab. Asst. (Chuadanga/Kaliganj) |
| 21. Md. Shahjahan Talukder     | Mat. Lab. Asst. (Satkhira)           |
| 22. Shamsul Islam **           | Mat. Lab. Asst. (Amnura/Bohanpur)    |
| 23. Ali Hossain                | Driver                               |
| 24. Shafiqur Rahman            | Driver                               |
| 25. Md. Karal                  | Driver                               |
| 26. Md. Mohamul Haque          | Guard                                |
| 27. Md. Zahiruddin             | Camp Assistant                       |

\* Resigned/was terminated in August.  
\*\* Assignment effective early September.  
\*\*\* Suspended

USAID IMPROVEMENT GRANT  
 IECO CONTRACT 9074

CONSULTANCY EXPENDITURE BUDGET

APPENDIX III  
 Sheet 1 of 4

| Schedule I                              | Budget      | JOB TO DATE  |                 | JULY 1992 |                 | Balance    |
|---|-------------|--------------|-----------------|-----------|-----------------|------------|
|   |             | Dollars      | Take As Dollars | Dollars   | Take As Dollars |            |
| <u>Resident Consultant Related Cost</u> |             |              |                 |           |                 |            |
| A. Salaries                             | 719,020     | 560,645.01   | -               | 19,077.17 | -               | 159,374.63 |
| B. Payroll :                            | 747,780     | 583,071.15   | -               | 20,663.11 | -               | 164,710.27 |
| C. Overhead :                           |             |              |                 |           |                 |            |
| D. Air Travel                           | 64,000      | 31,986.51    | 410.36          | -         | -               | 31,600.14  |
| E. Freight Cost                         | 54,000      | 27,500.00    | -               | -         | -               | 26,500.00  |
| F. Excess Baggage                       | 9,060       | 1,072.04     | -               | -         | -               | 7,987.96   |
| G. Processing Cost                      | 2,550       | 2,105.37     | 225.60          | -         | -               | 219.62     |
| H. Personal Automobiles                 | 10,000      | -            | -               | -         | -               | 10,000.00  |
| I. Settlement-in Cost                   | 31,620      | 31,240.91    | -               | -         | -               | 379.09     |
| J. Housing Allowance                    | 117,000     | -            | 95,741.67       | -         | 1,071.74        | 21,256.59  |
| K. Furniture & Equipment                | 88,000      | 29,300.06    | 30,836.47       | -         | 269.10          | 28,272.57  |
| L. Education Allowance                  | 10,000      | 1,075.00     | 649.28          | -         | -               | 16,975.72  |
| M. Terminal Leave                       | 47,940      | -            | -               | -         | -               | 47,940.00  |
| N. Medical Care                         | 13,220      | -            | 729.15          | -         | -               | 12,490.84  |
| O. Int'l Travel Per Diem                | 14,400      | 6,525.59     | 1,004.51        | -         | -               | 6,869.92   |
| P. In-country Travel Per Diem           | 15,680      | -            | 4,369.50        | -         | 130.62          | 11,311.41  |
|   | \$1,953,170 | 1,273,612.83 | 133,665.72      | 40,541.27 | 1,479.51        | 545,391.45 |
| Say                                     | \$1,953,000 |              |                 |           |                 | 545,721.45 |

USAID IMPROVEMENT GRANT  
IECO CONTRACT 9074

CONSULTANCY EXPENDITURE BUDGET

APPENDIX III  
Sheet 2 of 4

| Schedule II                               | Budget          | JOB TO DATE      |                 | JULY 1982 |                 | Balance         |
|---|-----------------|------------------|-----------------|-----------|-----------------|-----------------|
|   |                 | Dollars          | Take As Dollars | Dollars   | Take As Dollars |                 |
| <u>Short Term Consultant Related Cost</u> |                 |                  |                 |           |                 |                 |
| A. Salaries                               | 12,000          | 10,992.70        | -               | -         | -               | 1,007.30        |
| B. Payroll                                | 14,540          | 13,411.10        | -               | -         | -               | 1,128.90        |
| C. Overhead Cost                          |                 |                  |                 |           |                 |                 |
| D. Specialist Consultants Fees            | 14,700          | 17,529.72        | -               | -         | -               | (2,829.72)      |
| E. Air Travel                             | 6,000           | 6,988.00         | -               | -         | -               | (988.00)        |
| F. Excess Baggage                         | 906             | 87.40            | -               | -         | -               | 818.60          |
| G. Processing Cost                        | 600             | 24.00            | -               | -         | -               | 576.00          |
| H. Temporary Accommodation                | 10,640          | 9,313.69         | -               | -         | -               | 1,326.31        |
| I. Int'l Travel Per Diem                  | 1,350           | 1,520.65         | -               | -         | -               | (170.65)        |
|   | <u>\$60,836</u> | <u>59,867.26</u> | -               | -         | -               | <u>968.74</u>   |
| Say                                       | <u>\$61,000</u> |                  |                 |           |                 | <u>1,132.74</u> |

CONSULTANCY EXPENDITURE BUDGET

| Schedule III   | Budget             | JOB TO DATE |                 | JULY 1982 |                 | Balance     |
|--|--------------------|-------------|-----------------|-----------|-----------------|-------------|
|  |                    | Dollars     | Take As Dollars | Dollars   | Take As Dollars |             |
| <u>A. Office Rental, Equipment and Maintenance</u>       |                    |             |                 |           |                 |             |
| 1. Dacca Office  | 65,000             |             | 39,442.16       |           | 32,390          | 25,557.82   |
| 2. Area Office Including Lab.                            | 48,000             |             | 15,597.96       |           | 357.24          | 32,402.94   |
| 3. Furnishing & Equipment                                | 47,000             | 14,946.58   | 44,554.43       |           | 606.60          | (12,551.01) |
| 4. Office Supplies & Stationery                          | 9,500              | 11,842.00   | 20,516.17       | 12.75     | 375.99          | (22,859.85) |
| 5. Reproduction Costs                                    | 50,000             | 383.28      | 41,302.38       |           | 653.43          | 3,312.74    |
| 6. Communication Costs                                   | 11,400             | 60.00       | 3,467.64        |           | 500.04          | 2,672.36    |
| <u>B. Vehicle Operation &amp; Maint.</u>                 |                    |             |                 |           |                 |             |
| 1. Vehicle Rental  | 32,000             |             | 9,953.52        |           | 361.31          | 22,046.47   |
| 2. Consultant Purchased Vehicles                         | 211,200            |             | 169,366.23      |           | 10,909.56       | 50,833.77   |
| 3. Motorcycles   | 21,120             |             |                 |           |                 | 21,120.00   |
| 4. Boats   | 19,800             |             |                 |           |                 | 19,800.00   |
| <u>C. Direct Hire Local Admin. Personnel.</u>            | 89,180             |             | 92,965.23       |           | 3,007.05        | (3,785.23)  |
| <u>D. Soil Testine Charges</u>                           | 5,000              |             | 28,587.46       |           | 12.53           | (23,587.46) |
| <u>E. Subcontract DCS for Local Technical and Admin.</u> |                    |             |                 |           |                 |             |
| 1. Salaries Including Overhead and Fixed Fee             | 660,600            |             | 304,945.92      |           | 17,414.63       | 265,654.15  |
| 2. Per Diem & Site Allowances                            | 78,900             |             | 48,319.38       |           | 2,057.85        | 30,580.62   |
| 3. Local Travel  | 10,000             |             | 6,255.51        |           | 739.27          | 3,744.49    |
| <u>F. Misc. Field &amp; Office Expenses</u>              | 18,000             | 25.00       | 8,211.22        |           | 6.11            | 9,763.77    |
|  | <u>\$1,376,700</u> | 27,308.14   | 919,984.24      | 12.75     | 36,324.43       | 429,407.62  |
| Say  | <u>\$1,377,000</u> |             |                 |           |                 | 429,707.62  |

| Schedule IV                                       | Budget             | JOB TO DATE         |                     | JULY 1982        |                  | Balance             |
|---|--------------------|---------------------|---------------------|------------------|------------------|---------------------|
|   |                    | Dollars             | Take 's Dollars     | Dollars          | Take 's Dollars  |                     |
| <u>IECO Headquarter Related Cost</u>              |                    |                     |                     |                  |                  |                     |
| A. Salaries                                       | 74,500             | 87,317.03           | -                   | 212.00           | -                | (13,317.03)         |
| B. Payroll Cost                                   |                    |                     |                     |                  |                  |                     |
| C. Overhead Cost                                  | 90,890             | 106,895.32          | -                   | 267.18           | -                | (16,005.32)         |
| D. Officers' & Managers' Visits                   | 17,000             | 19,537.78           | -                   | -                | -                | (1,537.78)          |
| E. Computer Cost                                  | 5,000              | 11,352.00           | -                   | -                | -                | (6,352.00)          |
| F. Communication Cost                             | 9,500              | 8,587.30            | -                   | -                | -                | 912.70              |
| G. Reproduction Cost                              | 10,000             | 2,747.46            | -                   | 240.14           | -                | 7,252.54            |
| H. Bond Cost & Commission                         | -                  | 2,634.08            | -                   | -                | -                | (2,634.08)          |
|   | <u>\$206,890</u>   | <u>239,120.92</u>   |                     | <u>726.32</u>    |                  | <u>(32,230.95)</u>  |
| Say   | <u>\$207,000</u>   |                     |                     |                  |                  | <u>(32,120.98)</u>  |
| <u>Schedule V</u>                                 |                    |                     |                     |                  |                  |                     |
| <u>A. Equipment Purchased for Project</u>         |                    |                     |                     |                  |                  |                     |
| 1. Transportation Equipment                       | 135,800            | 75,520.00           | 14,975.71           | -                | -                | 45,304.29           |
| 2. Survey Equipment                               | 9,600              | 19,262.63           | 781.00              | -                | -                | (10,443.63)         |
| 3. Soils Lab. Equipment                           | 21,000             | 10,121.54           | 5,491.20            | -                | 130.30           | 5,307.26            |
| 4. Materials Lab. Equipment                       | 31,000             | 19,693.00           | 12,786.40           | -                | -                | (1,455.70)          |
| 5. Communication Equipment                        | -                  | -                   | -                   | -                | -                | -                   |
| 6. Minor Equipment, Tools and Spare Parts         | 35,000             | 14,771.93           | 160.30              | -                | -                | 20,067.77           |
| <u>B. Shipping, Insurance and Clearance Costs</u> |                    |                     |                     |                  |                  |                     |
|   | 95,600             | 51,892.98           | 4,905.05            | 33.00            | -                | 38,801.17           |
|   | <u>328,000</u>     | <u>191,266.38</u>   | <u>39,100.54</u>    | <u>33.00</u>     | <u>130.30</u>    | <u>97,631.00</u>    |
| <u>Schedule VI</u>                                |                    |                     |                     |                  |                  |                     |
| Fixed Fee   | 392,000            | 350,736.86          | -                   | 10,315.79        | -                | 41,263.14           |
|   | <u>\$4,318,000</u> | <u>2,141,914.45</u> | <u>1,092,750.50</u> | <u>51,620.13</u> | <u>37,042.30</u> | <u>1,088,305.05</u> |
| Total Expenditure to Date = 3,234,664.95          |                    |                     |                     |                  |                  |                     |
| Percent of Budget Spent to Date = 74.91%          |                    |                     |                     |                  |                  |                     |
| Contract Time Elapsed = 89.89%                    |                    |                     |                     |                  |                  |                     |

# IECO PHASE II SERVICES EXPENDITURE SCHEDULE

APPENDIX III  
DATE: 10 SEPT, 82

