



GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
BANGLADESH AGRICULTURAL DEVELOPMENT CORPORATION



AGENCY FOR INTERNATIONAL DEVELOPMENT

Grant Financed

FERTILIZER DISTRIBUTION IMPROVEMENT - I (388-0024)

**ENGINEER CONSULTANT SERVICES FOR CONSTRUCTION
OF BAGGED PRODUCT FERTILIZER WAREHOUSES IN
BANGLADESH-PHASE III**

PROGRESS REPORT NO. 27

28 FEBRUARY 1985



AMMANN & WHITNEY
CONSULTING ENGINEERS
NEW YORK

in association with



WORLDWIDE ENGINEERS LTD
ARCHITECT-ENGINEERS
DHAKA



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AMMANN & WHITNEY
CONSULTING ENGINEERS

AMMANN & WHITNEY
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P. O. BOX 348
DHAKA, BANGLADESH

WAREHOUSES PHASE III

Project Director, BADC
USAID Construction Project
20, Outer Circular Road
Rajarbagh, Dhaka

724-4.1.1/2990

05 March 1985

Subject : Monthly Progress Report No.27
- February 1985 .

Dear Sir,

In compliance with paragraph B.2 of Appendix A, Scope of Work, of Agreement for Engineer Consultant Services - Warehouses Phase III, fifteen (15) copies of subject Monthly Report are submitted to BADC and six (6) copies to USAID.

Very truly yours
AMMANN & WHITNEY



George A. Pecht
Project Manager

Encl: Eleven (11) copies

GAP/neh

- cc: Chairman, BADC w/encl.(1)
- Member-Director (Irri) BADC w/encl.(1)
- Manager (Storage) BADC w/encl. (1)
- Chief Engineer (C) BADC w/encl.
- Mr. David E. Warner, CE, AID/D w/encl. (6)
- File 724-1.4.2 w/encl.

AMMANN & WHITNEY
Consulting Engineers

FERTILIZER WAREHOUSES - PHASE III

Monthly Progress Report No. 27
Month of February 1985

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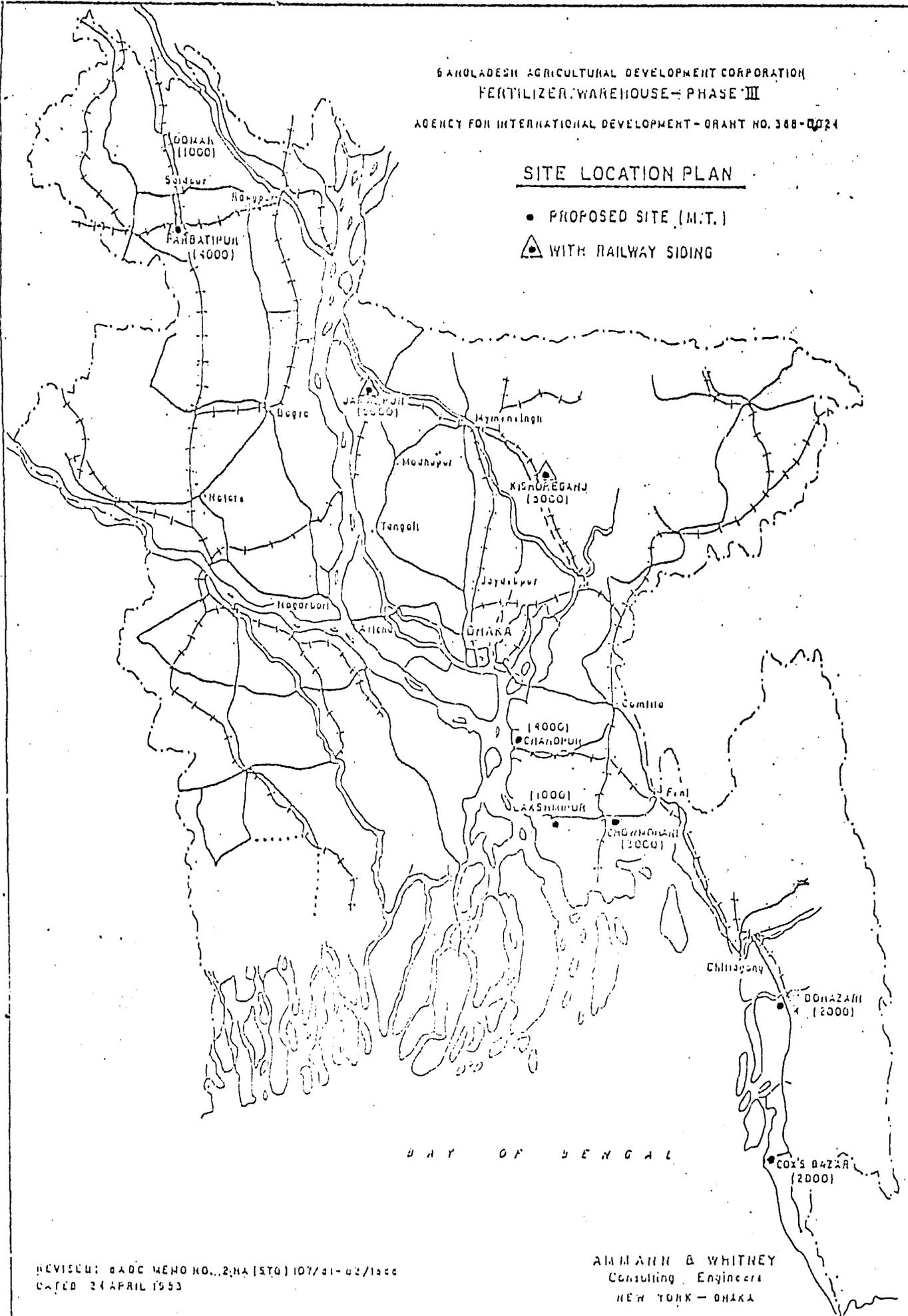
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BANGLADESH AGRICULTURAL DEVELOPMENT CORPORATION
 FERTILIZER WAREHOUSE - PHASE III
 AGENCY FOR INTERNATIONAL DEVELOPMENT - GRANT NO. 388-0024

SITE LOCATION PLAN

- PROPOSED SITE (M.T.)
- ▲ WITH RAILWAY SIDING



REVISION: BADC MEMO NO. 2, HA (STG) 107/51-02/1500
 DATED 24 APRIL 1953

ALMANN & WHITNEY
 Consulting Engineers
 NEW YORK - DHAKA

PROJECT DESCRIPTION

PROJECT : Construction of Bagged Product Fertilizer Warehouses
in Bangladesh - Phase III

EMPLOYER : Bangladesh Agricultural Development Corporation

FINANCED : United States Agency For International Development
Under Grant
Fertilizer Distribution Improvement-I (388-0024)

ENGINEER : Ammann & Whitney
Consulting Engineers
New York Dhaka

LIST OF SITES AND TONNAGE

| <u>NAME OF SITE</u> | <u>TONNAGE</u> | <u>NAME OF DISTRICT</u> | <u>SIZE OF GODOWN</u> |
|----------------------------|---------------------|-------------------------|------------------------------------|
| B1 KISHOREGANJ | 5000 | MYMENSINGH | 90'x 300' (27,000 sft) |
| C3 JAMALPUR | 5000 (3500+1500) | JAMALPUR | 120'x150'; 90'x90' (26,100 sft) |
| F1 DOHAZARI | 2000 | CHITTAGONG | 90'x 120' (10,800 sft) |
| F3 COX'S BAZAR | 2000 | CHITTAGONG | 90'x 120' (10,800 sft) |
| H2 CHOWMUHANI | 3000 | NOAKHALI | 90'x 180' (16,200 sft) |
| H3 LAKSHMIPUR | 1000 | NOAKHALI | 60'x 90' (5,400 sft) |
| I4 CHANDPUR | 4000 | COMILLA | 120'x 180' (21,600 sft) |
| O5 PARBATIPUR | 4000 | DINAJPUR | 90'x 240' (21,600 sft) |
| TOTAL | 26,000 M.T. | | 139,500 sft |
| <u>Contract Terminated</u> | | | |
| L4 DOMAR | 1000 | RANGPUR | 60'x 90' (5,400 sft) |

I. CONTRACTOR'S ACTIVITIES

CONSTRUCTION PHASE

1. Summary of Contractors' Activities

The total percentage of work completed this month was 5%, work and material 5.4%, as against 3.7% and 5% respectively for last month which reflects an improvement albeit small. The total percentage of work completed is 51% against 76% scheduled, a gap of 25% up from 21% last month.

The work at most sites continued at too slow a pace. The sites of particular concern to the Consultant are Kishoreganj, Chandpur and Parbatipur. Lakshmipur was substantially completed during February.

The ever increasing shortfall in meeting of monthly schedules by each of the Contractors has initiated the Engineer (Consultant) to take positive action to assist the Contractors in reorganizing their site with aim to introduce effective measures for the Contractors to efficiently carryout the work to completion.

This total involvement by the Engineer in the day by day Contractor's planning and scheduling operation has become necessary because of the apathy demonstrated by the Contractor's field personnel in planning the work and by Contractor's management in providing on timely basis funds and materials required for the work.

To implement this involvement the Engineer has assigned Mr. Y.O. Kim as Construction Advisor to the Parbatipur site (22% behind schedule as of 31.01.85). Mr. Kim's first task was to restack materials and clean-up the site, transform it into an orderly managable area. Concurrently, he made a total assessment along with Contractor's key full personnel of the work performed to date, work to be performed, and material and labour supply available. From this assessment the requirements of labor, materials, and equipment were defined for each work item to be performed. Realistic start-complete schedules for each task were established.

As a result of the Engineer's initiative, the site has become orderly; the daily work is programmed; the requirements for materials and labour are programmed; management is made aware when materials and labour are needed so lead time is allowed for procurement; and, their effort is spread over several works tasks required to be performed without diminishing the efforts on critical path work items.

Although there has been a marked increase in % of work done (9% in February) the exercise has not been totally successful. The lack of management to make funds, materials, and skilled labor available has decreased the total effectiveness of the Engineer's target to strengthen on-site construction management. None-the-less the Engineer is continuing in his efforts.

The Engineer, within the limitation of his available staff, is adopting the above one-on-one advisory service to other problem sites.

Kishoreganj

Godown masonry walls and concrete work continued. Rejected columns were removed and recast. The forming of the roof slab continued. The foundations of R1 were finished, some finishing done at R2 and R3. The brick work of the boundary wall was finished. Filling for the railway embankment and parking areas was started.

5% of the work was accomplished this month.

Jamalpur

The access road and railway embankment is being filled. All columns of both godown were cast, the brick work is being finished, the forming of the first part of the 3500T godown roof is in process. The structural work of all ancillary buildings was completed, the finishing is in process.

Only 4% of work was completed this month.

Dohazari

The filling of the parking area was taken up again at a slow pace.

At the godown all columns and canopies were cast and the brick work continues. The Contractor did not start the roof forming during this month due to lack of skilled labor and materials. The structural work at the ancillary buildings was completed, the finishing continues.

The percentage of work completed during this month is only 4%.

Cox's Bazar

There were three months left to complete this project but very little was accomplished during February.

Some, but much too little, pavement was cast. The last 60% of the godown roof was formed. The Contractor worked on this for 6 weeks now. The form is still not complete. The finishing of the ancillary building was pursued without any vigor. The houses on the land for the river access were removed and a complete take over of the land seems to be imminent.

The Contractor finished only 4% of the work. Work and material completed are at 73% with only 2 month remaining to completion !

Chowmuhani

The filling of the site continued. The Contractor worked on the guard house and the boundary wall. All godown columns were completed. Brick laying at the wall continues. The shuttering is in preparation. The structural work of the ancillary buildings was completed, the finishing has started.

The percentage of work completed was 5% during this month.

Lakshmipur

This project was substantially completed during February. The godown was finished, so was all paving, installation of doors and gates. After over one month drilling the strainer of the deep tube well was lowered to a depth of 910 ft. The pump house still has to be built the boundary wall type 'B' has to be finished. All punch list items have to be eliminated and the contractor has to demobilize his site installation.

Chandpur

The Contractor started the excavation of the retaining wall at the Sen Gupta road and filled at the Mehta road. Work at the river retaining wall and boundary wall is going on. The forming of the godown roof continued. The structural work at the ancillary buildings progressed.

Very little work was done during the last four months at the godown. The contractor does not put enough resources at this large site to work at all parts simultaneously. He has bad management. The managing directors do not pay enough attention to this project. There is no sufficient skilled and casual labor, there were not enough bricks to have the few masons at the site work continuously. The work accomplished during this month amount to 3% !

The change order for the retaining wall along the Sen Gupta road was approved by BADC.

Parbatipur

The filling of railway, road and parking continued at a good pace. At the godown grade beams, columns and canopies were cast, the brick work goes on. The structural work at R3 continues as does the finishing at R1 and R2.

There is still a lack of skilled labor and forcefull management. The contractor completed 9% of the work during this month.

2. RAILWAY SIDINGS

Kishoreganj

Railway land has been taken over and there are no apparent land problems with railway.

Jamalpur

Contractor has started railway embankment earthwork outside BADC property. No apparent railway land problems.

Parbatipur

BADC is requested to resolve the issue arising out of lease of Railway land including existing dead end meter gauge track to Coal Directorate. The existing dead end track is required for access to BADC warehouse. (724-4.1.1/2495, 03.11.84).

BADC to obtain approval from BR for manufacturer's drawing for mixed gauge turnout sent to BR by BADC.

Cost Estimates

BR's cost estimate for Jamalpur and Kishoreganj siding have been finalized in the meeting held with Divisional Engineer/BR, Executive Engineer/BADC and Railway Engineer/Ammann & Whitney on 23.02.85, 24.02.85 and 25.02.85. BR is to submit corrected estimate and detailed drawing for drain to BADC as per decisions taken in the meeting. BADC is continuing to follow up on this matter.

Engineer's comments on BR's cost estimate for Parbatipur siding have been sent to BADC. (724-4.1.1/2896, 16.02.85). BADC is following up finalization of this cost estimate.

Date: 28 February 1985

CONSTRUCTION CONTRACT AND FINANCIAL SUMMARY

| | <u>L.C. Amount</u> <u>US \$</u> | <u>L.C. Equivalent</u> <u>(Tk)</u> | <u>Revised</u> <u>Contract Amount</u> <u>(Tk)</u> | <u>Retention</u> <u>(Tk)</u> | <u>Accumulated Amount</u> <u>Invoiced (Tk)</u> |
|---------------------|------------------------------------|---------------------------------------|---|---------------------------------|---|
| Invitation No.1 | B1-Kishoreganj | National Construction & Consult Ltd. | | | |
| L.C. 388-002403 | 797,885.00 | 1,98,40,012.82 | - | | |
| Change Order B1-01 | | (- 88,848.31) | 1,97,51,164.51 | 8,21,469.58 | 92,93,561.20 |
| Invitation No.2 | C3-Jamalpur | Mostafa Brothers (Pvt) Ltd. | | | |
| L.C. 388-002404 | 711,599.00 | 1,76,94,451.01 | 1,76,94,451.01 | 6,00,581.07 | 76,79,229.62 |
| Invitation No.3 | F1-Dohazari | The Eastern Engineers Consortium Ltd. | | | |
| L.C. 388-002405 | 625,317.00 | 1,55,48,978.95 | - | 5,85,563.57 | 63,40,572.19 |
| Change Order F1-01* | | 50,135.50 | 1,55,99,116.45 | | |
| Invitation No.4 | F3-Cox's Bazar | Builders The Best Ltd. | | | |
| L.C. 388-002406 | 400,731.00 | 99,64,470.85 | - | | |
| Change Order F3-01 | | 5,01,819.78 | 1,04,66,290.63 | 4,51,893.09 | 49,97,537.82 |
| " " F3-02* | | 2,00,790.00 | 1,06,67,080.63 | | |
| " " F3-03* | | 25,110.00 | 1,06,92,190.63 | | |
| Invitation No.5 | H2-Chowmuhani | Technocon Limited | | | |
| L.C. 388-002407 | 567,863.00 | 1,41,20,342.60 | - | | |
| Change Order H2-01 | | 6,680.00 | 1,41,27,022.00 | 4,98,924.71 | 62,37,430.44 |
| Change Order H2-02 | | 3,80,099.25 | 1,45,07,121.25 | | |

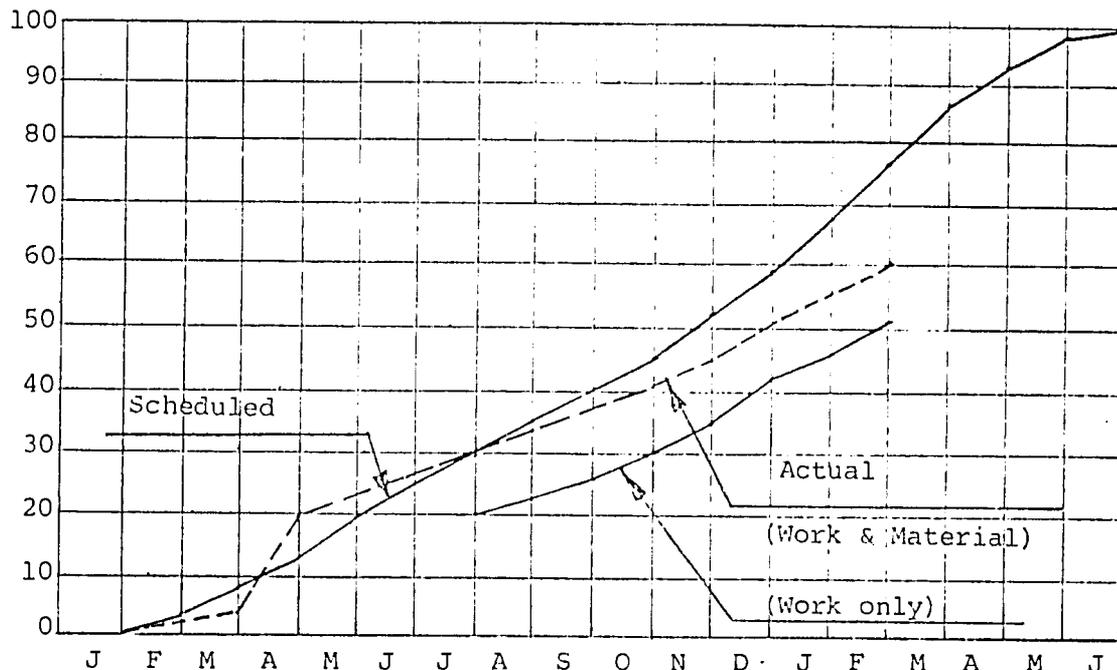
CONSTRUCTION CONTRACT AND FINANCIAL SUMMARY (Cont'd)

| | <u>L.C. Amount US \$</u> | <u>L.C. Equivalent (Tk)</u> | <u>Revised Contract Amount (Tk)</u> | <u>Retention (Tk)</u> | <u>Accumulated Amount Invoice (Tk)</u> |
|--|------------------------------|---------------------------------|---|---------------------------|--|
| Invitation No.6 | H3-Lakshmipur | Technocon Limited | | | |
| L.C. 388-002408 | 224,858.00 | 55,91,275.35 | - | | |
| Change Order H3-01 | | 5,000.00 | 55,96,275.35 | 2,82,208.01 | 36,01,263.27 |
| Change Order H3-02 | | 80,700.00 | 56,76,975.35 | | |
| Change Order H3-03 | | (- 32,815.00) | 56,44,160.35 | | |
| Change Order H3-04* | | 62,876.00 | 57,07,036.35 | | |
| Invitation No.7 | I4-Chandpur | Fazle Azim Engineers Ltd. | | | |
| L.C. 388-002409 | 686,398.00 | 1,70,67,822.35 | - | | |
| Change Order I4-01 | | 11,440.00 | 1,70,79,262.35 | | |
| Change Order I4-02 | | 2,45,520.00 | 1,73,24,782.35 | 6,31,519.89 | 82,39,278.99 |
| Change Order I4-03 | | 9,07,240.00 | 1,82,32,022.35 | | |
| Change Order I4-04 | | 5,39,043.50 | 1,87,71,065.85 | | |
| Change Order I4-05* | | 4,75,290.00 | 1,92,46,355.85 | | |
| Invitation No.8 | L4-Domar | M.S. Khan & Heirs Ltd. | | | |
| L.C. 388-002410 | 301,590.00 | 74,99,255.00 | - | | |
| Terminated: Engineer's Assessment of Claim | | | 5,83,083.62 | - | |
| Invitation No.9 | 05-Parbatipur | The Elite Engineers Limited | | | |
| L.C. 388-002411 | 683,759.00 | 1,70,02,196.40 | - | 6,08,219.40 | 65,25,974.60 |
| Change Order 05-01 | | (- 500.00) | 1,70,01,696.40 | | |
| TOTAL: | 5,000,000.00 | 12,76,98,386.05 | 12,07,82,216.07 | 44,80,379.32 | 5,29,14,848.13 |

* Pending Approval

43.8%

CONSTRUCTION PROGRESS - ALL SITES



| | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | Weighted Percent | Project % Complt. |
|-------------|---|----|----|----|----|----|----|----|----|----|----|----|-----|----|-----|----|-----|---------------------|-------------------------|
| Kishoreganj | 5 | 11 | 16 | 20 | 25 | 29 | 33 | 35 | 39 | 47 | 56 | 64 | 73 | 82 | 91 | 98 | 100 | 16.97 | 9.8 |
| | 0 | 1 | 20 | 20 | 20 | 26 | 28 | 33 | 35 | 45 | 51 | 53 | 58 | | | | | | |
| Jamalpur | 3 | 8 | 14 | 19 | 23 | 27 | 31 | 34 | 39 | 46 | 55 | 63 | 72 | 81 | 90 | 98 | 100 | 15.35 | 8.9 |
| | 0 | 2 | 18 | 19 | 21 | 25 | 31 | 36 | 40 | 44 | 50 | 55 | 58 | | | | | | |
| Dohazari | 4 | 10 | 16 | 22 | 30 | 38 | 43 | 48 | 51 | 55 | 60 | 69 | 79 | 87 | 94 | 99 | 100 | 13.31 | 7.9 |
| | 0 | 1 | 21 | 24 | 32 | 32 | 34 | 39 | 42 | 47 | 49 | 55 | 59 | | | | | | |
| Cox's Bzr | 2 | 7 | 12 | 18 | 24 | 32 | 40 | 50 | 59 | 67 | 76 | 85 | 93 | 98 | 100 | | | 8.53 | 6.2 |
| | 0 | 1 | 27 | 37 | 42 | 36 | 41 | 51 | 57 | 60 | 65 | 67 | 73 | | | | | | |
| Gowmuhani | 2 | 8 | 15 | 21 | 28 | 33 | 37 | 40 | 43 | 48 | 54 | 65 | 75 | 84 | 92 | 98 | 100 | 12.09 | 6.8 |
| | 0 | 1 | 13 | 18 | 33 | 33 | 34 | 39 | 39 | 41 | 48 | 52 | 56 | | | | | | |
| Lakshmipur | 2 | 9 | 16 | 22 | 30 | 37 | 46 | 56 | 67 | 77 | 88 | 98 | 100 | | | | | 4.79 | 4.6 |
| | 0 | 8 | 30 | 36 | 39 | 39 | 43 | 51 | 54 | 68 | 81 | 89 | 95* | | | | | | |
| Chandpur | 1 | 4 | 9 | 14 | 19 | 24 | 30 | 35 | 41 | 48 | 56 | 65 | 74 | 84 | 93 | 98 | 100 | 14.61 | 8.0 |
| | 0 | 1 | 11 | 18 | 26 | 29 | 34 | 38 | 43 | 47 | 49 | 52 | 55 | | | | | | |
| Parbatipur | 2 | 9 | 16 | 23 | 30 | 33 | 36 | 39 | 42 | 48 | 56 | 65 | 74 | 83 | 92 | 98 | 100 | 14.55 | 7.7 |
| | 0 | 1 | 17 | 17 | 27 | 28 | 29 | 30 | 30 | 32 | 38 | 43 | 53 | | | | | | |

Note : Schedule based on BADC allowing time extension to February/April/June 1985

Total : 59.9
 Last Month : 54.5

* Substantially complete

CONSTRUCTION PERCENT COMPLETION
(WORK ITEMS ONLY)

| Site | - A - SITE DEVELOPMENT | - B - WAREHOUSE | - C - ANCILLARY BUILDINGS | - D - WATER SUPPLY SANITARY | - E - ELECTRICAL | TOTAL |
|-------------|------------------------------|--------------------|---------------------------------|-----------------------------------|---------------------|-------|
| Kishoreganj | 80% | 31% | 45% | 8% | 1% | 48% |
| Jamalpur | 55% | 40% | 68% | 15% | 1% | 46% |
| Dohazari | 71% | 36% | 59% | 8% | 5% | 52% |
| Cox's Bazar | 72% | 66% | 86% | 32% | 25% | 68% |
| Chowmuhani | 64% | 33% | 54% | 11% | 2% | 47% |
| Lakshmipur | 98% | 100% | 100% | 64% | 62% | 95% * |
| Chandpur | 68% | 40% | 39% | 8% | 4% | 43% |
| Parbatipur | 64% | 28% | 63% | 13% | 2% | 46% |

Overall Project Completion - (Work Items Only) : 51%
Last Month : 46%

* Substantially complete

8-1

INVITATION NO. : B1-KISHOREGANJ

CONTRACTOR : National Construction & Consult Ltd.

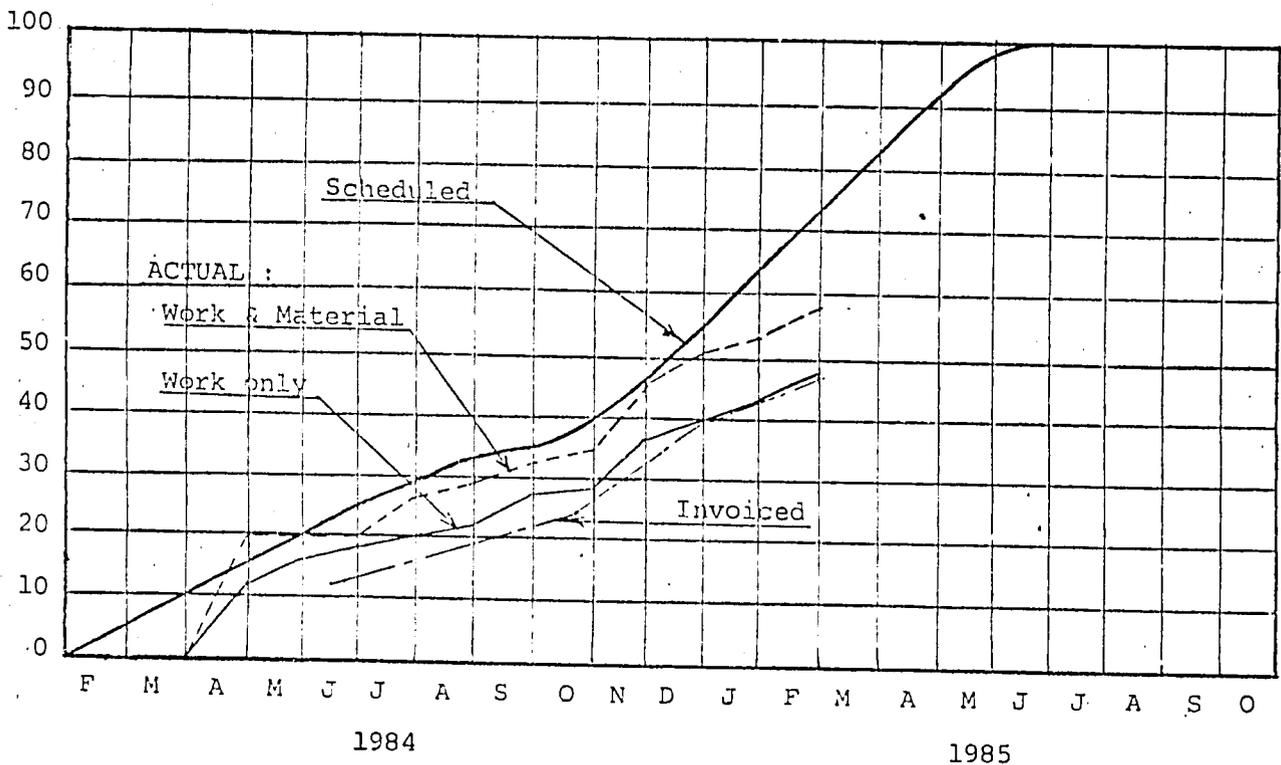
Total Contract Price : Tk.1,98,40,012.82
Change Order/Directives : (-) 88,848.31
Revised Contract Price : Tk.1,97,51,164.51
L/Com No. : 388-002403
Date of L/Com. : 31.01.84
Amount of L/Com. : Tk.1,98,40,012.82

Date of Contract : 16.01.84
Site Handed Over : 29.01.84
Notice To Proceed : 02.02.84
Scheduled Completion: 30.06.85 (494) \\
Elapsed Time : 393 days 80 %

(\$797,885.00)
L/Com. Amendment No.1 : 13.02.84
L/Com. Amendment No.2. : 03.02.85
Performance Guarantee : BCCI LG 84/75
Tk.19,84,002
Extended Expiry : 30.06.85
CAR/PL Insurance : DAC/CAR/P-09/4/84
Endorsement : -
Expiry : 11.03.85

| %Completion | | | |
|-------------|---------|-------------|---------|
| Scheduled | | Actual | |
| This Period | To Date | This Period | To Date |
| 9% | 73% | 5% | 58% |
| Work | : | 5% | 48% |
| Material | : | - | 10% |

CONSTRUCTION PROGRESS



| | <u>This Period</u> | <u>To Date</u> |
|-------------------------------------|--------------------|----------------|
| A. Site Development | 7% | 80% |
| B. Warehouse | 4% | 31% |
| C. Ancillary Buildings | 5% | 45% |
| D. Water Supply, Sanitary, Plumbing | 3% | 8% |
| E. Electrical | - | 1% |

Activities

The Contractor started to place fill for the railway embankment and for parking and finished the boundary wall brick work. The rejected godown columns were recast and the roof form work and placing of reinforcing continued. Some finishing work was done at the ancillary buildings R2 and R3. At R1 bricks were laid up to the ground floor level. The soak wells were started.

Action Required

BADC : . Pursue BR to remove abandoned rails and ties (their property).

Work Scheduled Next Month

At the godown the columns will be finished, brick walls and roof form work will continue. Brick laying at R1 up to floor slab. Finishing work at R2 and R3. Filling of railway embankment and parking.

Claim

No claims.

Financial

| <u>Invoice No.</u> | <u>Item</u> | <u>Amount Invoice (Tk)</u> | <u>Payment</u> | <u>USAID Voucher No.</u> |
|--------------------|---------------------|----------------------------|----------------|--------------------------|
| B1-01 | Material Prepayment | 21,57,900.00 | 21,57,900.00 | 1451 |
| B1-02 | Progress Payment | 28,31,830.22 | 28,10,013.22 | 171 |
| B1-03 | Progress Payment | 29,17,240.36 | 29,17,240.36 | 0514 |
| B1-04 | Progress Payment | 14,08,407.62 | | |

Variations (Change Orders, Overruns, Underruns)

None this month

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Feb. 1985

Site : Kishoreganj

| Material/Test | Spec. No. | No. of Tests | No. Approved | No. Dis-Approved | Remarks/Requirement |
|--|-----------|--------------|--------------|------------------|---------------------|
| A. Select Fill | 2E.01-a | 2 | 2 | 0 | F.M. > 1.5 |
| B. Concrete Coarse Aggregate | 3A.02-b.2 | 1 | 1 | 0 | |
| C. Bricks: | 4A.02 | 5 | 4 | 1 | |
| D. Field Density Tests: Select Fill | 2E.01 | 14 | 9 | 5 | 90% & 95% MDD |

No. of test at
3 days 7 days 28 days

| | | | | | |
|--|----------------|---|----|----|--|
| E. Concrete: Compressive Strength Test | 3A.03 3A.05 | - | 14 | 41 | |
|--|----------------|---|----|----|--|

Average 28 day Strength of Concrete:

1. Godown Columns - 4371 PSI (Av. of 15 cylinders)
2. Godown Canopy - 3722 PSI (Av. of 6 cylinders)
3. R2 roof slabs - 4026 PSI (Av. of 3 cylinders)
4. R3 Pent house roof slab - 5575 PSI (Av. of 3 cylinders)
5. Conc. core of Godown R.B. Wall - 3590 PSI (Av. of 10 cylinders)

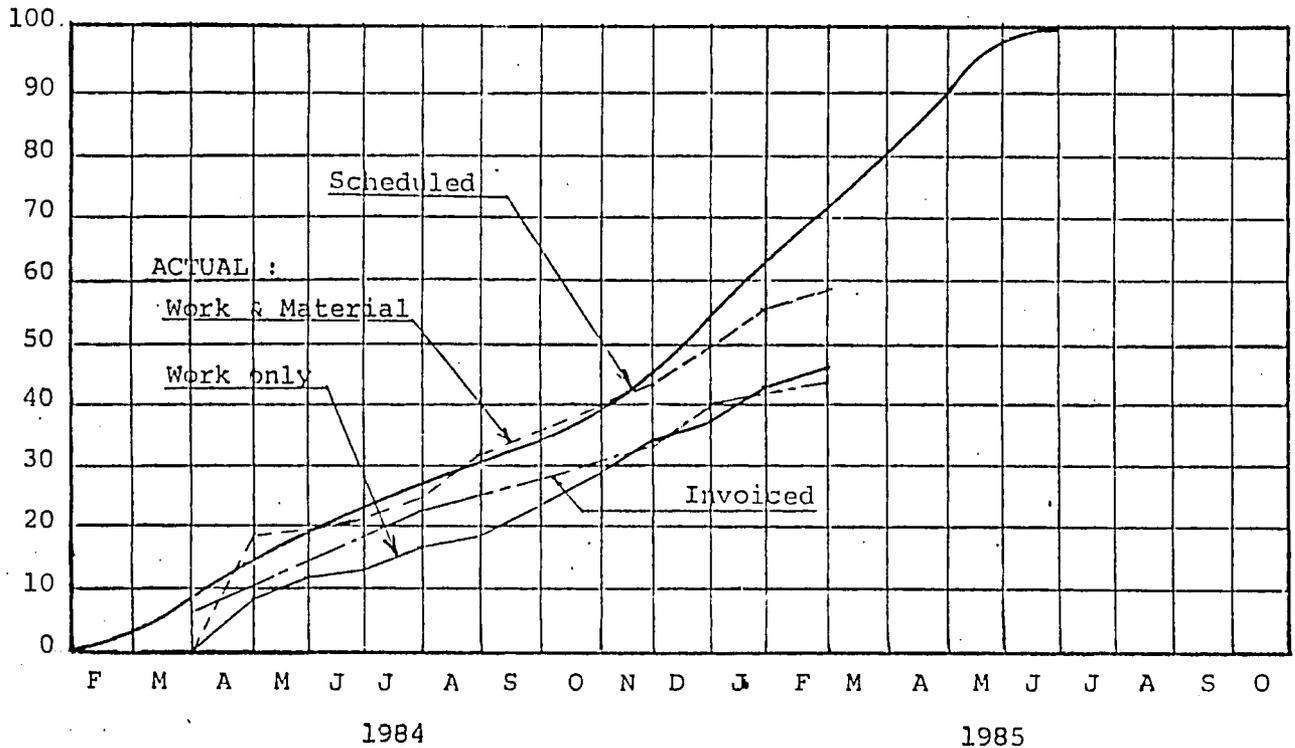
INVITATION NO. : C3-JAMALPUR

CONTRACTOR : Mostafa Brothers (Pvt) Ltd.
 Total Contract Price : 1,76,94,451.01
 Change Order/Directives :
 Revised Contract Price :
 L/Com No. : 388-002404
 Date of L/Com. : 31.01.84
 Amount of L/Com. : Tk.1,76,94,451.01
 (\$711,599.00)
 L/Com. Amendment No.1 : 14.02.84
 L/Com. Amendment No.2 : 03.02.85
 Performance Guarantee : Indosuez PB/TK/010
 Tk.17,69,446
 Extended Expiry : 30.06.85
 CAR/PL Insurance : DAC/CAR/P-8/84
 Endorsement : -
 Expiry : 15.02.85

Date of Contract : 12.01.84
 Site Handed Over : 19.01.84
 Notice To Proceed : 02.02.84
 Scheduled Completion: 30.06.85 (494)
 Elapsed Time : 393 days 80 %

| %Completion | | | |
|-------------|---------|-------------|---------|
| Scheduled | | Actual | |
| This Period | To Date | This Period | To Date |
| 9% | 72 | 3% | 58% |
| Work | : | 4% | 46% |
| Material | : | -1% | 12% |

CONSTRUCTION PROGRESS



| | <u>This Period</u> | <u>To Date</u> |
|-------------------------------------|--------------------|----------------|
| A. Site Development | - | 55% |
| B. Warehouse | 6% | 40% |
| C. Ancillary Buildings | 11% | 68% |
| D. Water Supply, Sanitary, Plumbing | 13% | 15% |
| E. Electrical | - | 1% |

16

Activities

The filling of access road and railway siding is in progress. The construction of brick guard walls was started. The work on the boundary wall, entrance gate and guard house continues. At the 3,500 T godown all columns and brick walls were completed. The formwork was started.

At the 1,500 T all columns and canopy slabs have been placed.

The structural work of the ancillary buildings was completed. The installation of the sanitary and electrical works is in process.

The Contractor still seems to have cash flow problems which are reflected in a lack of sufficient skilled laborers. The progress of work this month was 4%.

Actions Required

None

Work Scheduled Next Month

Filling of access road and railway siding. Start brick pavement at access road. Cast the first half of the 3,500 T godown roof, lay brick floor in part of it. Finish brick walls in the 1,500 T godown. Finishing work in the ancillary buildings.

Claims

None this month

Financial

| <u>Invoice No.</u> | <u>Item</u> | <u>Amount Invoice (Tk)</u> | <u>Payment</u> | <u>USAID Voucher No.</u> |
|--------------------|----------------------|--------------------------------|----------------|------------------------------|
| - | Mobilization Advance | 8,84,720.00 | 8,84,720.00 | 1059 |
| C3-01 | Material Prepayment | 13,27,696.00 | 13,27,696.00 | 1226 |
| C3-02 | Progress Payment | 18,64,836.23 | 18,64,836.23 | 1607 |
| C3-03 | Progress Payment | 8,62,230.34 | 8,62,230.32 | 127 |
| C3-04 | Progress Payment | 9,13,152.12 | 9,13,152.12 | 322 |
| C3-05 | Progress Payment | 11,46,930.49 | 11,46,930.49 | 0578 |
| C3-06 | Progress Payment | 6,79,664.48 | | |

Variations (Change Orders, Overruns, Underruns)

None this month.

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Feb. 1985

Site : Jamalpur

| Material/Test | Spec. No. | No. of Tests | No. App- roved | No. Dis- approved | Remarks/Requirement |
|--|---------------|--------------|-------------------|----------------------|---|
| A. Concrete Sand | 3A.02- b.1 | 1 | 1 | 0 | F.M. 2.3 to 3.1 |
| B. Mortar Sand | 4A.03 | 3 | 3 | 0 | F.M. 1.8 to 2.8 |
| C. Concrete Coarse Aggregate | 3A.02- b.2 | 2 | 2 | 0 | |
| D. Bricks: Frogmark: RBC | 4A.02 | 10 | 9 | 1 | Min. average compressive stre- ngth is 2200 PSI |
| E. Pea Gravel | 4A.05 | 2 | 2 | 0 | |
| F. Field Density Tests: Select Fill | 2E.01 | 48 | 44 | 4 | 90% & 95% MDD |

No. of test at
3 days 7 days 28 days

| | | | | | |
|--|----------------|--|---|----|--|
| G. Concrete: Compressive Strength Test | 3A.03 3A.05 | | 8 | 39 | |
|--|----------------|--|---|----|--|

Average 28 day Strength of Concrete:

1. 3500 MT Godown Columns - 3644 PSI (Av. of 6 cylinders)
2. 1500 MT Godown Columns - 3583 PSI (Av. of 14 Cylinders)
3. 3500 MT Godown Canopy - 3655 PSI (Av. of 6 cylinders)
4. R1 - Roof Slab - 3408 PSI (Av. of 3 cylinders)
5. R1 - Lintel & Sunshade - 3325 PSI (Av. of 3 cylinders)
6. Boundary wall C.C. - 3483 PSI (Av. of 3 cylinders)

28 February 1985

INVITATION NO. : F1-DOHAZARI

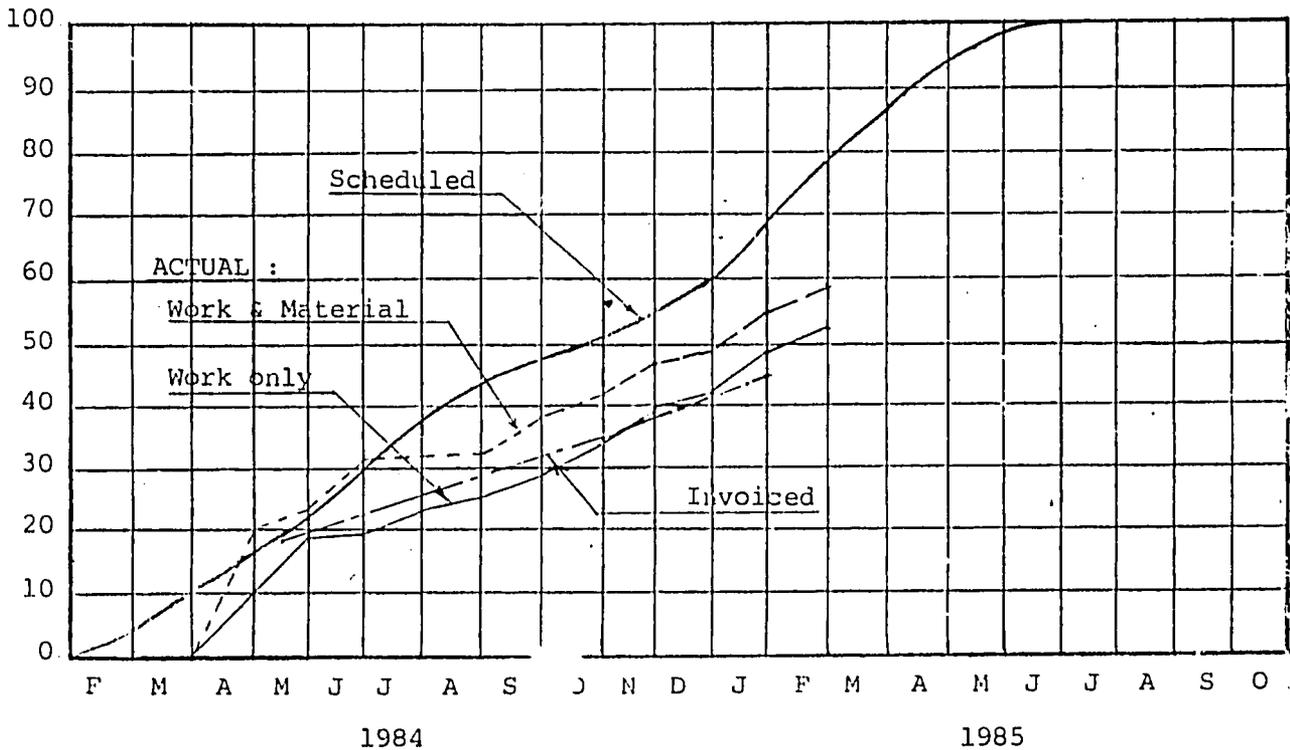
CONTRACTOR : The Eastern Engineers Consortium Ltd.

| | | | |
|-------------------------|----------------------|----------------------|-----------------|
| Total Contract Price | : Tk.1,55,48,978.95 | Date of Contract | : 16.01.84 |
| Change Order/Directives | : 50,135.50* | Site Handed Over | : 26.01.84 |
| Revised Contract Price | : Tk.1,55,99,116.45* | Notice To Proceed | : 02.02.84 |
| L/Com No. | : 388-002405 | Scheduled Completion | : 30.06.85(494) |
| Date of L/Com. | : 31.01.84 | Elapsed Time | : 393 days 80 % |
| Amount of L/Com. | : Tk.1,55,48,978.95 | | |

| | | | |
|-----------------------|---------------------|---------------------------------------|---------|
| | | <u>%Completion</u> | |
| | | Scheduled Actual | |
| L/Com. Amendment No.1 | : 14.02.84 | This | This |
| L/Com. Amendment No.2 | : 03.02.85 | Period | Period |
| Performance Guarantee | : Agrani 001/84 | To Date | To Date |
| | Tk.15,54,900 | 10% | 79% |
| Extended Expiry | : 30.06.85 | Work | : 3% |
| CAR/PL Insurance | : DAC/CAR/P-12/5/84 | Material | : 1% |
| Endorsement | : - | | |
| Expiry | : 31.12.84 | | |

* Pending Approval

CONSTRUCTION PROGRESS



| | <u>This Period</u> | <u>To Date</u> |
|-------------------------------------|--------------------|----------------|
| A. Site Development | 3% | 71% |
| B. Warehouse | 6% | 36% |
| C. Ancillary Buildings | 4% | 59% |
| D. Water Supply, Sanitary, Plumbing | 1% | 8% |
| E. Electrical | 1% | 5% |

Activities

The placing of the 24" Ø culverts was completed. Filling of the parking areas continues with brick paving being started.

At the godown all columns and canopy slabs were cast. The brick walls are about 70% complete. The structural work of the ancillary buildings was completed. The plastering, setting of windows, door frames and the placing of electrical conduits are in process. Two septic tanks and soak wells were completed.

Action Required

BADC: Clear last 10' of river access land from cultivation. The cultivator claims it is his land.

Work Scheduled Next Month

The filling of parking areas and access road shall continue. The brick work at the godown should be finished. The first half of the roof has to be formed and if possible cast. The finishing of the ancillary building will continue.

Claims

None

Financial

| <u>Invoice No.</u> | <u>Item</u> | <u>Amount Invoice (Tk)</u> | <u>Payment</u> | <u>USAID Voucher No.</u> |
|--------------------|---------------------|----------------------------|----------------|--------------------------|
| F1-01 | Material Prepayment | 27,15,000.00 | 27,15,000.00 | 1281 |
| F1-02 | Progress Payment | 11,71,789.83 | 11,71,780.00 | 1853 |
| F1-03 | Progress Payment | 13,50,596.94 | 13,50,564.27 | 242 |
| F1-04 | Progress Payment | 11,03,195.15 | 11,03,195.15 | |

Variations (Change Orders, Overruns, Underruns)

| | | | | |
|-----|--|--|----------------|--|
| A3 | Excavation to Waste | | - 1,06,874.50 | |
| A4 | Excavation | | - 89,830.87 | |
| A6 | Filling with imported materials (select) | | - 10,86,002.50 | |
| A21 | Surcharge | | - 46,970.00 | |
| | Total Underrun | | - 13,29,677.87 | |

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Feb. 1985

Site : Dohazari

| Material/Test | Spec. No. | No. of Tests | No. App- roved | No. Dis- Approved | Remarks/Requirement |
|--|---------------|--------------|-------------------|----------------------|---------------------|
| A. Concrete Sand | 3A.02- b.1 | 1 | 1 | 0 | F.M. 2.3 to 3.1 |
| B. Mortar Sand | 4A.03 | 2 | 2 | 0 | F.M. 1.8 to 2.3 |
| C. Concrete Coarse Aggregate | 3A.02- b.2 | 3 | 2 | 1 | |
| D. Bricks: | 4A.02 | 10 | 10 | 0 | |
| E. Pea Gravel | 4A.05 | 1 | 1 | 0 | |
| F. Field Density Tests: Select Fill | 2E.01 | 62 | 55 | 7 | 90% & 95% MDD |

| | Spec. No. | <u>No. of test at</u> | | |
|--|----------------|-----------------------|---------------|----------------|
| | | <u>3 days</u> | <u>7 days</u> | <u>28 days</u> |
| G. Concrete: Compressive Strength Test | 3A.03 3A.05 | - | 2 | 27 |

Average 28 day Strength of Concrete:

1. Godown Columns - 3528 PSI (Av. of 6 cylinders)
2. Godown Canopy (West side) - 3883 PSI (Av. of 3 cylinders)
3. R2 roof slab - 3796 PSI (Av. of 3 cylinders)
4. R3 roof slab - 3344 PSI (Av. of 3 cylinders)
5. R2 Pent house roof slab - 3769 PSI (Ave of 3 cylinders)
6. Godown R.B. wall core - 3232 PSI (Av. of 6 cubes)

21

INVITATION NO. : F3-COX'S BAZAR

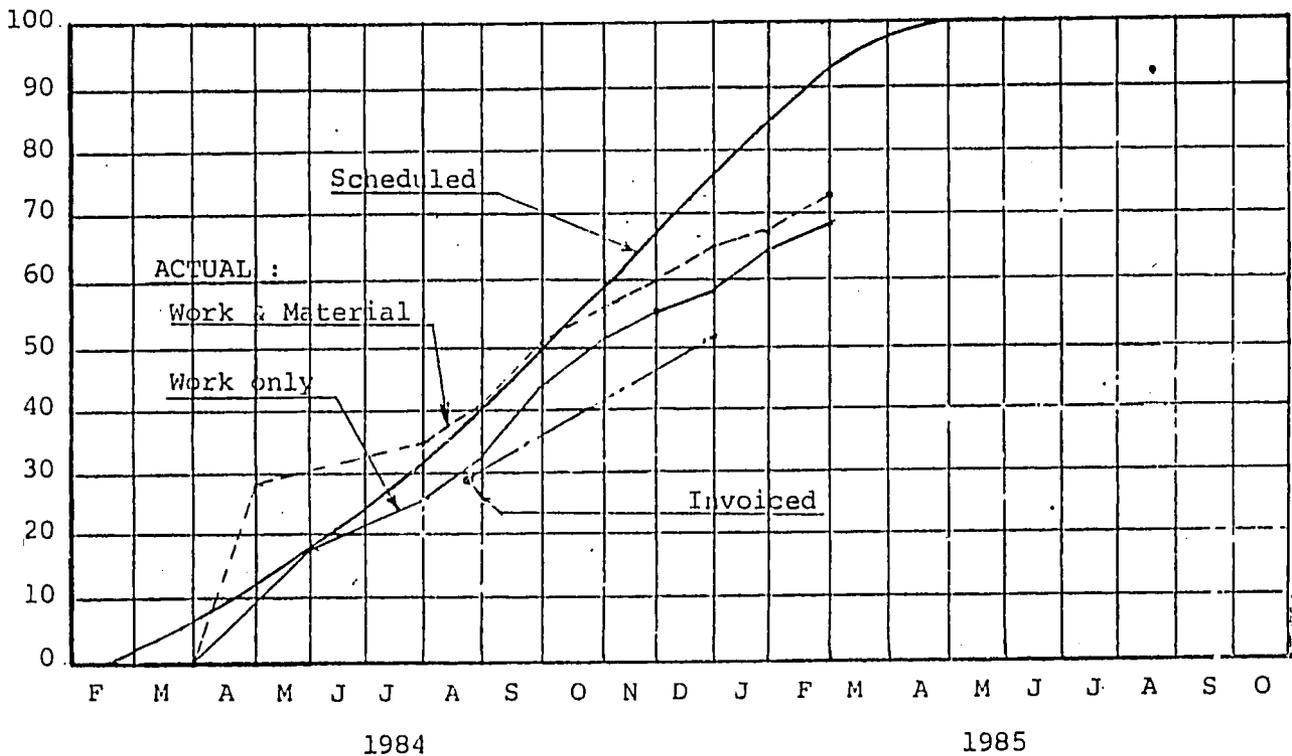
CONTRACTOR : Builders The Best Ltd.
 Total Contract Price : Tk.99,64,470.85
 Change Order/Directives : 7,27,719.78*
 Revised Contract Price. : Tk.1,06,92,190.63*
 L/Com No. : 388-002406
 Date of L/Com. : 31.01.84
 Amount of L/Com. : Tk.99,64,470.85
 (\$400,731.00)
 L/Com. Amendment No.1 :

Date of Contract : 12.01.84
 Site Handed Over : 26.01.84
 Notice To Proceed : 23.02.84
 Scheduled Completion:30.04.85(433)
 Elapsed Time : 372 days 86 %

Performance Guarantee : Indosuez PB/TK/009
 Tk.10,00,000
 Extended Expiry : 30.04.85
 CAR/PL Insurance : DAC/CAR/P-13/5/85
 Endorsement : DAC/CAR/E-18/12/84
 Expiry : 30.04.85

| %Completion | | Actual | |
|-------------|----------|-------------|---------|
| Scheduled | To Date | This Period | To Date |
| 8% | 93% | 6% | 73% |
| | Work | 4% | 68% |
| | Material | 2% | 5% |

*Pending Approval CONSTRUCTION PROGRESS



| | <u>This Period</u> | <u>To Date</u> |
|-------------------------------------|--------------------|----------------|
| A. Site Development | 3% | 72% |
| B. Warehouse | 4% | 66% |
| C. Ancillary Buildings | 2% | 86% |
| D. Water Supply, Sanitary, Plumbing | - | 32% |
| E. Electrical | - | 25% |

Activities

The Contractor placed some pavement around the godown.

The forms of the godown roof were removed and placed at the second part of the roof to be cast. The placing of rebars is in process there. Not enough supports are available to complete this form. They still have to be purchased. The concrete of the roof still has not been finished by rubbing. The pavement under the completed godown roof has not been started.

At the ancillary building very little was accomplished. The lime terracing of R3 is still not placed. Door and window frames were installed. Water lines have not been tested. The finishing is slow.

A test well was drilled to determine the depth of the deep tube well.

The land for the river access was cleared of houses. Some minor structures remaining have prevented BADC from taking full possession of the land.

Action Required

BADC : Hand over river access area.

Work Scheduled Next Month

Placing of pavement around and in the godown. Casting of the last 60% of the godown roof. Finishing of ancillary buildings. Drilling of the deep tube well.

Claims

None

Financial

| <u>Invoice No.</u> | <u>Item</u> | <u>Amount Invoice (Tk)</u> | <u>Payment</u> | <u>USAID Voucher No.</u> |
|--------------------|------------------|----------------------------|----------------|--------------------------|
| F3-01 | Progress Payment | 29,70,417.00 | 29,40,711.36 | 1854 |
| F3-02 | Progress Payment | 23,66,978.68 | 20,56,826.46 | 0513 |

Variations (Change Orders, Overrun, Underrun)

| | | |
|---|-----|-----------------------|
| Original Contract Price | Tk. | 99,64,470.85 |
| Change Order F3-01 | | 5,01,819.78 |
| Change Order F3-02 (Proposed) River Access | | 2,00,790.00 |
| Change Order F3-03 (Proposed) Boundary Posts | | 25,110.00 |
| | Tk. | <u>1,06,92,190.63</u> |

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Feb. 1985

Site : Cox's Bazar

| Material/Test | Spec. No. | No. of Tests | No. App- roved | No. Dis- Approved | Remarks/Requirement |
|--|---------------|--------------|-------------------|----------------------|---------------------|
| A. Concrete Sand | 3A.02- b.1 | 2 | 2 | 0 | F.M. 2.3 to 3.1 |
| B. Concrete Coarse Aggregate | 3A.02- b.2 | 6 | 2 | 4 | |
| C. Field Density Tests: Select Fill | 2E.01 | 3 | 3 | 0 | 95% MDD |

No. of test at
3 days 7 days 28 days

| | | | | | |
|--|----------------|-----|----|--|--|
| D. Concrete: Compressive Strength Test | 3A.03 3A.05 | - 8 | 23 | | |
|--|----------------|-----|----|--|--|

Average 28 day Strength of Concrete:

1. Godown roof slab - 4856 PSI (Av. of 10 cylinders)
2. R1, R2, R3 floor slab - 3640 PSI (Av. of 6 cylinders)

INVITATION NO. : H2-CHOWMUHANI

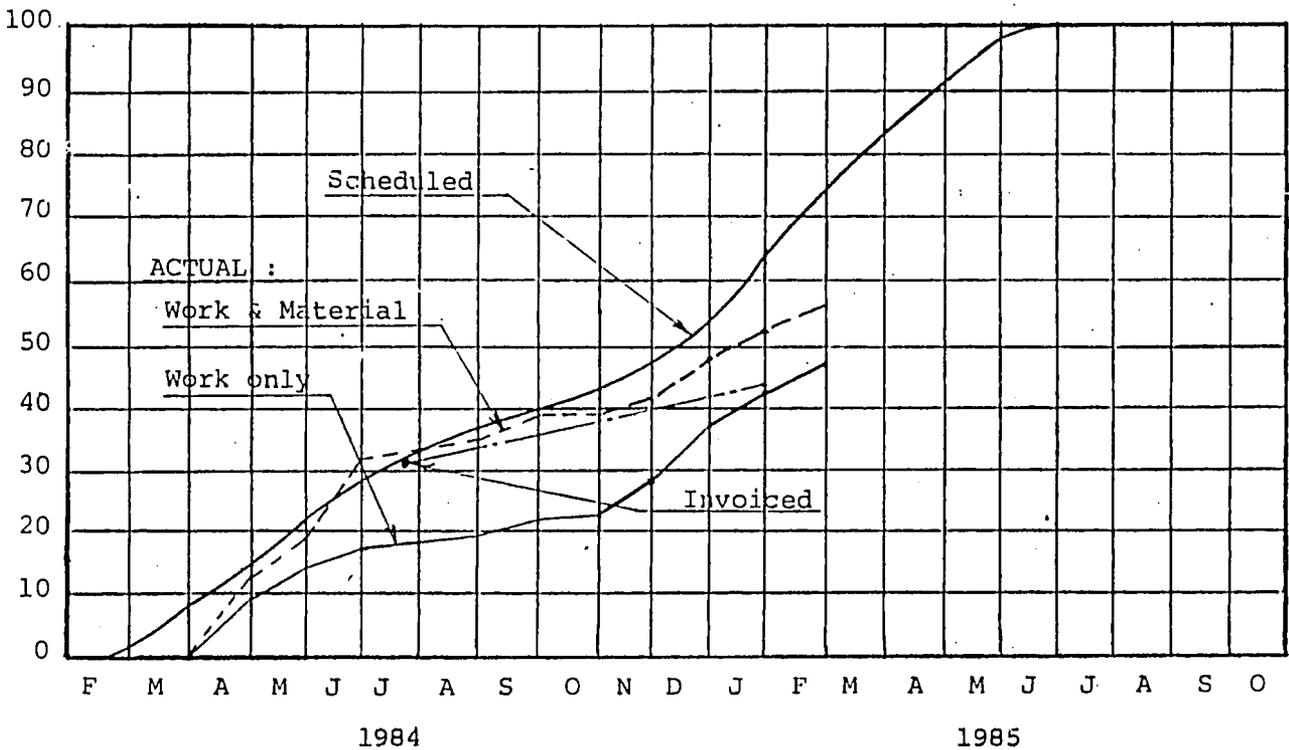
CONTRACTOR : Technocon Limited

Total Contract Price : Tk. 1,41,20,342.60
 Change Order/Directives : 3,86,779.25
 Revised Contract Price : 1,45,07,121.85
 L/Com No. : 388-002407
 Date of L/Com. : 31.01.84
 Amount of L/Com. : Tk.1,41,20,342.60
 (\$567,863.00)
 L/Com. Amendment No.1 : 03.02.85
 Performance Guarantee : Indcsuez PB/TK/006
 Tk.14,12,035
 Extended Expiry : 30.06.85
 CAR/PL Insurance : DAC/CAR/P-07/84
 Endorsement : DAC/CAR/E-17/12/84
 Expiry : 30.06.85

Date of Contract : 12.01.84
 Site Handed Over : 31.01.84
 Notice To Proceed : 23.02.84
 Scheduled Completion: 30.06.85(494)
 Elapsed Time : 372 days 75 %

| | | %Completion | |
|-------------|---------|-------------|---------|
| | | Scheduled | Actual |
| This Period | To Date | This Period | To Date |
| 10% | 75% | 4% | 56% |
| Work | : | 5% | 47% |
| Material | : | -1% | 9% |

CONSTRUCTION PROGRESS



| | <u>This Period</u> | <u>To Date</u> |
|-------------------------------------|--------------------|----------------|
| A. Site Development | 3% | 64% |
| B. Warehouse | 6% | 33% |
| C. Ancillary Buildings | 10% | 54% |
| D. Water Supply, Sanitary, Plumbing | 1% | 11% |
| E. Electrical | - | 2% |

25

Activities

The filling for the parking area continued. Some fill was placed between R1 and R2. Work continued on the guard house and the boundary wall

At the godown the column casting was completed. The masonry walls are being laid. The preparation of roof shuttering is slow.

The structural work of the ancillary building was finished. Some finishing was started of these buildings.

At this site the contractor worked forcefully at all phases of the project.

Action Required

None

Work Scheduled Next Month

The filling of parking and other areas will continue. The masonry walls of the godown should be continued. The first half of the roof will be formed.

The finishing of the ancillary building will continue.

Claims

None

Financial

| <u>Invoice No.</u> | <u>I t e m</u> | <u>Amount Invoice (Tk)</u> | <u>Payment (Tk)</u> | <u>USAID Voucher No.</u> |
|--------------------|------------------|----------------------------|---------------------|--------------------------|
| H2-01 | Progress Payment | 48,07,208.61 | 48,07,208.61 | 1572 |
| H2-02 | -do- | 14,30,222.28 | | |

Variations

None

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Feb. 1985

Site : Chowmuhani

| Material/Test | Spec. No. | No. of Tests | No. Approved | No. Dis-Approved | Remarks/Requirement |
|-------------------------|-----------|--------------|--------------|------------------|---------------------|
| A. Select Fill | 2E.01-a | 10 | 8 | 2 | F.M. > 1.5 |
| B. Concrete Sand | 3A.02-b.1 | 1 | 1 | 0 | F.M. 2.3 to 3.1 |
| C. Mortar Sand | 4A.03 | 1 | 1 | 0 | F.M. 1.8 to 2.8 |
| D. Ordinary Fill | 2E.01-b | 11 | 6 | 5 | |
| E. Field Density Tests: | | | | | |
| Select Fill | 2E.01-a | 18 | 15 | 3 | 90% & 95% MDD |
| Ordinary Fill | 2E.01-b | 8 | 8 | 0 | 85% MDD |

No. of test at
3 days 7 days 28 days

| | | | | | |
|---------------|-------|---|----|----|--|
| F. Concrete: | | | | | |
| Compressive | 3A.03 | - | 23 | 40 | |
| Strength Test | 3A.05 | | | | |

Average 28 day Strength of Concrete:

1. Godown Columns - 3428 PSI (Av. of 17 cylinders)
2. R1 - Floor slab - 3347 PSI (Av. of 3 cylinders)
3. R2 - Floor slab - 3503 PSI (Av. of 3 cylinders)
4. R1 - Lintel G.F. - 3485 PSI (Av. of 2 cylinders)
5. R3 - Lintel 1st floor - 3235 PSI (Av. of 2 cylinders)
6. R - Column - 3212 PSI (Av. of 2 cylinders)

MONTH ENDING
28 February 1985

INVITATION NO. : H3-LAKSHMIPUR

CONTRACTOR : Technocon Limited

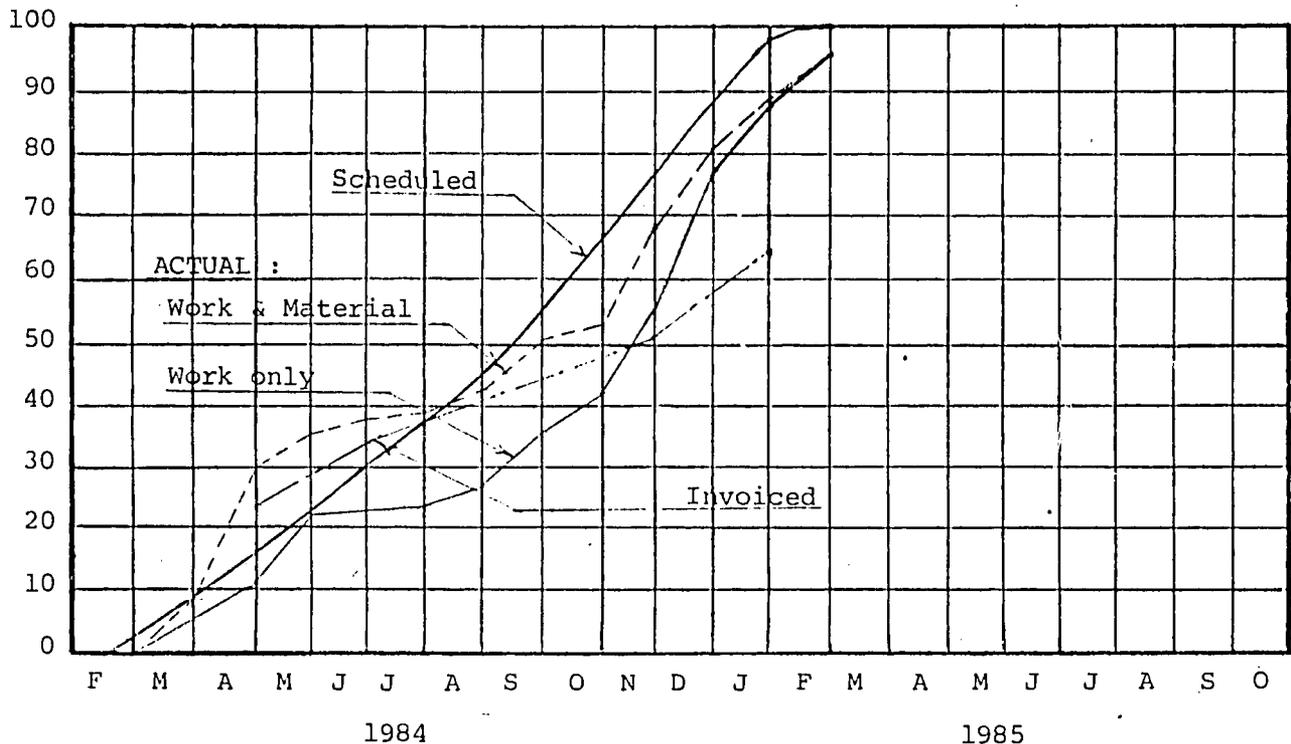
Total Contract Price : Tk.55,91,275.35
Change Order/Directives : 52,885.00
Revised Contract Price : 56,44,160.35
L/Com No. : 388-002408
Date of L/Com. : 31.01.84
Amount of L/Com. : Tk.55,91,275.35
(\$224,858.00)

Date of Contract : 12.01.84
Site Handed Over : 31.01.84
Notice To Proceed : 23.02.84
Scheduled Completion:28.02.85(371)
Elapsed Time :371 days 100 %

L/Com. Amendment No.1 :
Performance Guarantee : Indosuez PB/TK/007
Tk.5,59,130
Extended Expiry : 28.02.85
CAR/PL Insurance : DAC/CAR/P-06/4/84
Endorsement : -
Expiry : 11.03.85

| %Completion | | | |
|-------------|----------|-------------|---------|
| Scheduled | | Actual | |
| This Period | To Date | This Period | To Date |
| 2% | 100% | 6% | 95% |
| | Work | : 8% | 95% |
| | Material | : - 2% | - |

CONSTRUCTION PROGRESS



| | <u>This Period</u> | <u>To Date</u> |
|-------------------------------------|--------------------|----------------|
| A. Site Development | 7% | 98% |
| B. Warehouse | 8% | 100% |
| C. Ancillary Buildings | - | 100% |
| D. Water Supply, Sanitary, Plumbing | 29% | 64% |
| E. Electrical | 30% | 62% |

Activities

This project was substantially completed this month. The three main items still in process are the deep tube well, the boundary wall type B and the permanent power connection. The contractor is occupied with demobilisation and touch ups on various items.

All paving was completed this month. The bituminous roofing was installed on the godown.

The contractor worked the whole month on the deep tube well. After a cave-in in January a stone was hit and broken. The well was drilled to the considerable depth of 930 ft. Drilling to this depth wore out the cutter head and the well had to be redrilled to obtain the required diameter. The strainer and the well pipe were lowered on the first of March. The Contractor worked on the water pipes to the pump house and the electrical work at the site and the godown. Finishing and clean up of godown and site work was done. The gates to the site and the godown were installed. Grass and trees were planted.

Action Required

None

Work Scheduled Next Month

The pump house has to be built and the pump to be installed, boundary wall Type B to be finished. The power has to be connected by PDB. All punch list items to be completed. All contractor's quarters to be removed.

Claims

None

Financial

| <u>Invoice No.</u> | <u>I t e m</u> | <u>Amount Invoice (Tk)</u> | <u>Payment</u> | <u>USAID , Voucher No.</u> |
|--------------------|---------------------|----------------------------|----------------|----------------------------|
| H3-01 | Material Prepayment | 12,72,681.70 | 12,72,681.70 | 1248 |
| H3-02 | Progress to 16.06 | 7,16,085.93 | 7,16,085.93 | 1597 |
| H3-03 | Progress to 26.11 | 9,11,814.00 | 9,11,814.00 | 416 |
| H3-04 | Progress to 17.01 | 7,00,681.64 | | |

Variations (Change Orders, Overruns, Underruns)

No change from previous month.

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Feb. 1985

Site : Lakshmipur

| Material/Test | Spec. No. | No. of Tests | No. App- roved | No. Dis- Approved | Remarks/Requirement |
|---|--------------|-----------------|-------------------|----------------------|---------------------|
| <u>No. of test at</u> <u>3 days 7 days 28 days</u> | | | | | |
| A. Concrete: | | | | | |
| Compressive | 3A.03 | | | | |
| Strength Test | 3A.05 | - | 22 | 39 | |

Average 28 day Strength of Concrete:

1. Road pavement - 4548 PSI (Av. of 30 cylinders)
2. Roof slab (South side) - 3725 PSI (Av. of 6 cylinders)

INVITATION NO. : I4-CHANDPUR

CONTRACTOR : Fazle Azim Engineers Ltd.

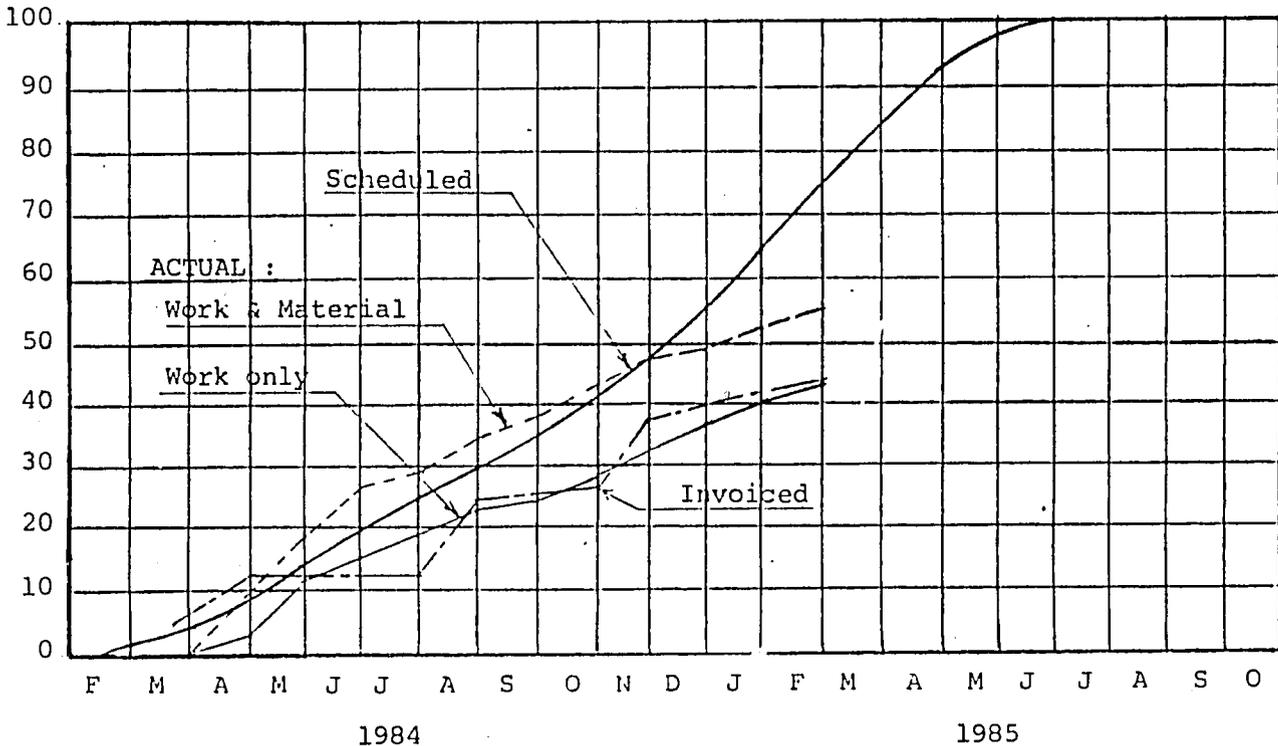
Total Contract Price : Tk.1,70,67,822.35
 Change Order/Directives : 21,78,533.50
 Revised Contract Price : 1,92,46,355.85
 L/Com No. : 388-002409
 Date of L/Com. : 31.01.84
 Amount of L/Com. : (\$686,398.00)

Date of Contract : 16.01.84
 Site Handed Over : 31.01.84
 Notice To Proceed : 23.02.84
 Scheduled Completion: 30.06.85 (494)
 Elapsed Time : 372 days 75 %

L/Com. Amendment No.1 : 01.04.84
 L/Com. Amendment No.2 : 03.02.85
 Performance Guarantee : Janata MCH/002/84
 Tk.17,10,000
 Extended Expiry : 30.06.85
 CAR/PL Insurance : DAC/CAR/P-10/84
 Endorsement : DAC/CAR/E-19/12/84
 Expiry : 30.06.85

| %Completion | | | |
|-------------|---------|-------------|---------|
| Scheduled | | Actual | |
| This Period | To Date | This Period | To Date |
| 9% | 74% | 3% | 55% |
| Work | : | 3% | 43% |
| Material | : | - | 12% |

CONSTRUCTION PROGRESS



| | <u>This Period</u> | <u>To Date</u> |
|-------------------------------------|--------------------|----------------|
| A. Site Development | 12% | 68% |
| B. Warehouse | 2% | 40% |
| C. Ancillary Buildings | 12% | 39% |
| D. Water Supply, Sanitary, Plumbing | 3% | 8% |
| E. Electrical | 2% | 4% |
| F. Change Orders | 2% | 4% |

Activities

The concrete work for the river side retaining wall was completed. Backfilling is going on there. Construction on boundary walls continued. The filling along the Mehta road is in slow progress. The excavation for the retaining wall along the Sen Gupta road was started.

Very little work has been done at the godown. A small amount of bricks were laid and the formwork was continued at a slow pace. Since four month the contractor has done very little work on the godown.

At the R1 and R2 building the ground floor slabs were poured, the brick work at R3 continued.

The contractor made very slow progress on this large site due to insufficient funds made available for this project, bad management at the site, lack of attention on the part of the managing directors, need of more bricks and skilled as well as casual labor ! The work accomplished amounts to only 3%.

The change order for the retaining wall along the Sen Gupta Road was approved. One more shop at the road was removed for the access bridge. A second shop should be removed since it is only 2.5 ft from the bridge.

Action Required

BADC : Remove one shop at the Sen Gupta Road next to the bridge.

Work Scheduled Next Month

Fill placement at the Mehta road. Excavate and start brick work at the retaining wall at the Sen Gupta road. Drive test pile and cast production piles for the access bridge. Cast first part of godown roof. Continue structural work at the ancillary buildings.

Claims

None

Financial

| <u>Invoice No.</u> | <u>Item</u> | <u>Amount Invoice (Tk)</u> | <u>Payment</u> | <u>USAID Voucher No.</u> |
|--------------------|----------------------|----------------------------|------------------------------|--------------------------|
| - | Mobilization Advance | 8,53,381.12 | 8,53,391.12 | 0097 |
| I4-01 | Material Prepayment | 14,06,400.00 | 14,06,000.00 | 1249 |
| I4-02 | Material Prepayment | 6,26,500.00 | (-6,26,500.00) ^{1/} | 1753 |
| I4-03 | Progress Payment | 24,68,664.86 | 24,68,664.86 | 1855 |
| I4-04 | Progress Payment | 18,19,286.50 | 18,19,286.50 | 0209 |
| I4-05 | Progress Payment | 7,30,793.84 | 7,30,793.84 | 2001 |
| I4-06 | Progress Payment | 9,60,742.67 | | |

^{1/} Amount recovered against Mobilization Advance. Interest to be determined by USAID, payable by Contractor on outstanding advance and delayed repayment.

Variations (Change Orders, Overruns, Underruns)

| | | |
|-------------------------------------|---------|----------------|
| Total Contract Price | Tk. | 1,70,67,822.35 |
| Change Order I4-01 | (+) Tk. | 11,440.00 |
| Change Order I4-02 | (+) Tk. | 2,45,520.00 |
| Change Order I4-03 (Bridge) | (+) Tk. | 9,07,240.00 |
| Change Order I4-04 (Retaining Wall) | | 5,39,043.50 |
| Change Order (Pending) | | 4,75,290.00 |
| | | <hr/> |
| Revised Estimated Contract Price | Tk. | 1,92,46,355.85 |

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Feb. 1985

Site : Chandpur

| Material/Test | Spec. No. | No. of Tests | No. Approved | No. Dis-Approved | Remarks/Requirement |
|-----------------------------|-----------|--------------|--------------|------------------|---------------------|
| A. Select Fill | 2E.01-a | 9 | 9 | 0 | |
| B. Concrete Sand | 3A.02-b.1 | 1 | 1 | 0 | |
| C. Mortar Sand | 4A.03 | 2 | 2 | 0 | |
| D. Bricks: Frogmark: JBC | 4A.02 | 15 | 15 | 0 | |
| E. Field Density Tests: | | | | | |
| Select Fill | 2E.01-a | 53 | 49 | 4 | |
| Ordinary fill | 2E.01-b | 110 | 97 | 13 | |

No. of test at

3 days 7 days 28 days

| | | | | | |
|---------------|-------|---|----|----|--|
| F. Concrete: | | | | | |
| Compressive | 3A.03 | | 24 | 33 | |
| Strength Test | 3A.05 | - | | | |

Average 28 day Strength of Concrete:

1. R1 Column, Stair Lintel - 3604 PSI (Av. of 8 cylinders)
2. R2 Lintel - 3571 PSI (Av. of 3 cylinders)
3. R3 roof slab - 4738 PSI (Av. of 3 cylinders)
4. Retaining wall stair - 3652 PSI (Av. of 18 cylinders)
5. Boundary wall foundation C.C.- 3774 PSI (Av. of 2 cylinders)

MONTH ENDING
28 February 1985

INVITATION NO. : 05-PARBATIPUR

CONTRACTOR : The Elite Engineers Ltd.

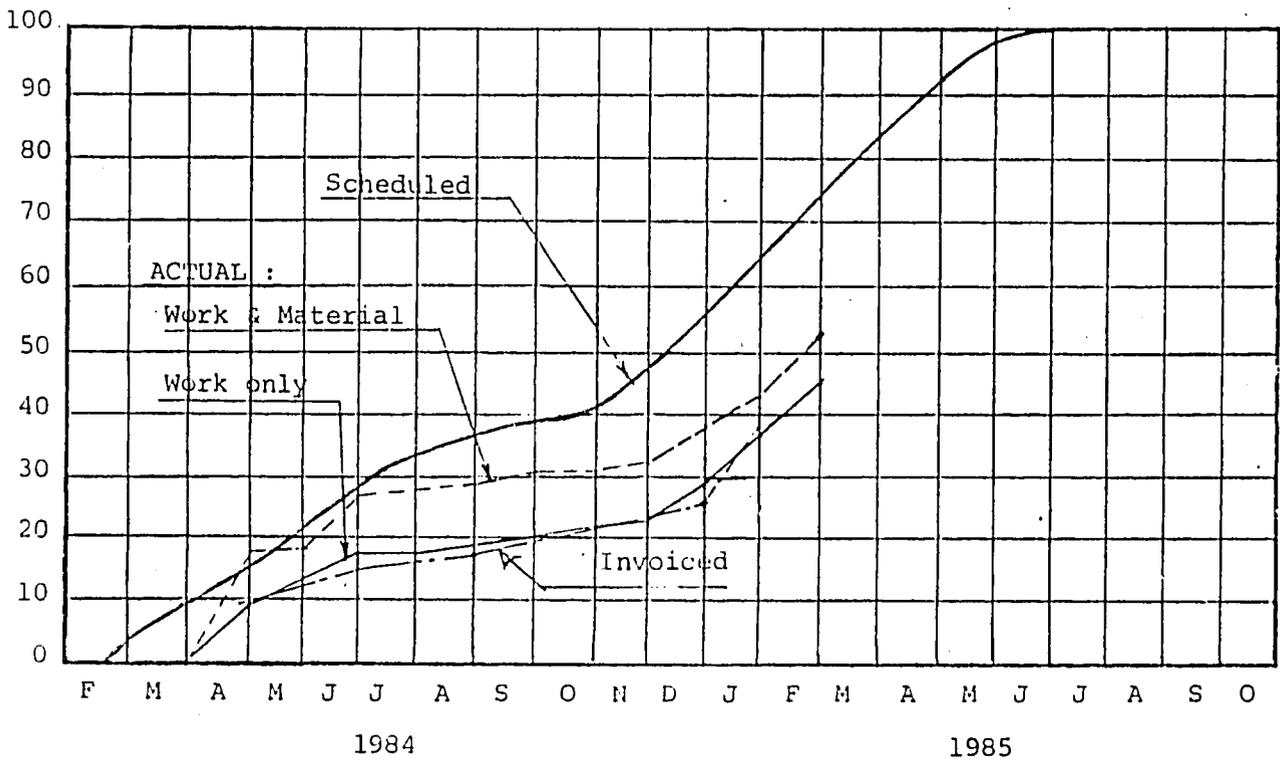
Total Contract Price : Tk.1,70,02,196.40
Change Order/Directives : - 500.00
Revised Contract Price : Tk.1,70,01,696.40
L/Com No. : 388-002411
Date of L/Com. : 31.01.84
Amount of L/Com. : Tk.1,70,02,196.40
(\$683,759.00)

Date of Contract : 12.01.84
Site Handed Over : 26.01.84
Notice To Proceed : 23.02.84
Scheduled Completion:30.06.85(494)
Elapsed Time :372 days 75 %

L/Com. Amendment No.1 :
L/Com. Amendment No.2 : 06.02.85
Performance Guarantee : LG 84/42 BCCI
Tk.17,00,220
Extended Expiry : 08.07.85
CAR/PL Insurance : DAC/CAR/P-11/5/84
Endorsement : DAC/CAR/E-01/1/85
Expiry : 30.06.85

| %Completion | | | |
|-------------|----------|-------------|---------|
| Scheduled | | Actual | |
| This Period | To Date | This Period | To Date |
| 9% | 74% | 10% | 53% |
| | Work | 9% | 46% |
| | Material | 1% | 7% |

CONSTRUCTION PROGRESS



| | <u>This Period</u> | <u>To Date</u> |
|-------------------------------------|--------------------|----------------|
| A. Site Development | 19% | 64% |
| B. Warehouse | | 28% |
| C. Ancillary Buildings | 8% | 63% |
| D. Water Supply, Sanitary, Plumbing | 2% | 13% |
| E. Electrical | - | 2% |

Activities

Select filling of Railway embankment, parking and permanent road is coming closer to completion. The construction of boundary wall type 'B' was started. At the godown the grade beams were finished 60% of the columns are placed. Canopies were poured. The brick walls progress. The brick work at ancillary building R3 continues as does the finishing at R1 and R2. Doors and windows are being fabricated and installed.

Even though there are still shortages of skilled labor and bad management the contractor completed 9% of work during this month as against 9% scheduled by the Engineer.

Action Required

- BADC: . To resolve issue arising out of lease of Railway land to the Coal Directorate.
- . To obtain BR's approval for manufacturer's drawings for mixed gauge turnout.

Work Scheduled For Next Month

Paving of road and parking areas. Construction of boundary wall type 'B'. Casting of remaining godown columns and laying of brick walls. Start to form the godown roof. Cast roof slab at R3. Continue finishing of R1 and R2.

Claim

None

Financial

| <u>Invoice No.</u> | <u>Item</u> | <u>Amount Invoice (Tk)</u> | <u>Payments (Tk)</u> | <u>USAID Voucher No.</u> |
|--------------------|---------------------|----------------------------|----------------------|--------------------------|
| 05-01 | Material Prepayment | 14,96,000.00 | 14,96,000.00 | 1225 |
| 05-02 | Material Prepayment | 12,16,750.00 | 12,16,750.00 | 1571 |
| 05-03 | Progress Payment | 16,45,747.00 | 16,45,071.71 | 1875 |
| 05-04 | Progress Payment | 1,78,402.39 | 1,78,402.39 | 4.7 |
| 05-05 | Progress Payment | 12,94,979.50 | 12,94,979.50 | 0518 |
| 05-06 | Progress Payment | 6,94,771.00 | | |

Variations (Change Orders, Overruns, Underruns)

Unchanged from last month.

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Feb. 1985

Site : Parbatipur

| Material/Test | Spec. No. | No. of Tests | No. Approved | No. Dis-Approved | Remarks/Requirement |
|--|-----------|--------------|--------------|------------------|---------------------|
| A. Select Fill | 2E.01-a | 16 | 13 | 3 | F.M. 1.5 |
| B. Concrete Sand | 3A.02-b.1 | 1 | 1 | 0 | F.M. 2.3 to 3.1 |
| C. Mortar Sand | 4A.03 | 1 | 1 | 0 | F.M. 1.8 to 2.8 |
| D. Concrete Coarse Aggregate | 3A.02-b.2 | 1 | 1 | 0 | |
| E. Bricks: Frogmark: | 4A.02 | 5 | 4 | 1 | |
| F. Field Density Tests: Select Fill | 2E.01 | 82 | 69 | 13 | 90% & 95% MDD |

No. of test at
3 days 7 days 28 days

| | | | | | |
|--|----------------|---|----|----|--|
| G. Concrete: Compressive Strength Test | 3A.03 3A.05 | - | 36 | 54 | |
|--|----------------|---|----|----|--|

Average 28 day Strength of Concrete:

1. Godown Column footing - 3889 PSI (Av. of 18 cylinders)
2. Godown Columns - 3784 PSI (Av. of 15 cylinders)
3. R3 - 1st floor slab - 3595 PSI (Av. of 3 cylinders)

INVITATION NO.8 : L4-DOMAR

CONTRACTOR : M.S. Khan & Heirs Ltd.

Total Contract Price : Tk. 74,99,255.00

Change Orders : Tk.

Revised Contract Price : Tk. 74,99,255.00

Date of Contract : 12.01.84

Site Handed Over : 25.01.84

Notice To Proceed : 02.02.84

Date Terminated : 04.03.84

L/Com. No. : 388-002410

Date of L/Com. : 31.01.84

Issue Date of L/Com. : 02.02.84

Amount of L/Com. : Tk.74,99,255.00
(\$301,590.00)

L/Com. Amendment No.1 : 14.02.84

CONTRACT TERMINATED by CE Memo No.2995, 04.03.84 under Clause 80 of Conditions of Contract.

CONTRACT CLOSED OUT

FINAL PAYMENT CLAIM SETTLEMENT

AID Voucher No. AID-0544

Tk. 5,83,083.62 (\$22,479.29)

II. CONSULTANT'S ACTIVITIES

A. FINANCIAL - PROGRESS SCHEDULE

FINANCIAL

| | |
|--|----------------|
| Total Procurement Budget | - \$ 2,117,343 |
| Special Project Activity | - \$ 142,722 |
| Total Contract Budget | - \$ 2,260,065 |
| Estimated Expenditures To-date | - \$ 1,636,428 |
| % Expenditure to Total Contract Budget | - \$ 72.4% |

PROGRESS

| | | |
|-------------------------|---------------------------|------------|
| Elapsed Contract Time | (28.02.85) | - 812 days |
| Remaining Contract Time | (30.06.85) | - 122 days |
| % Elapsed Time | Amendment No.1 | 86.9% |
| Remaining Contract Time | Amendment No.2 (31.12.85) | - 306 days |
| % Elapsed Time #2 | | - 72.6% |

B. ADMINISTRATION

1. The Consultant's Agreement

- . Contract Agreement Signed - 09 December 1982
- . Effective Date - 09 December 1982
- . AID Letter of Commitment No.388-0024-3-30381 - 15 December 1982
- . Duration (Amendment No.1 dated 28.03.84) - 30 June 1985(30.74) mos.
- (Amendment No.2 (Pending) - 31 Dec. 1985(36.74) mos.
- . Months Completed - 26.74

2. Expatriate Staff

| | | <u>Man-Months</u> | |
|-----------------|-------------------------------|-------------------|-----------------|
| | | <u>Allocated*</u> | <u>Utilized</u> |
| George A. Pecht | - Project Manager | 31 | 23.61 |
| Klaus Thieme | - Chief Construction Engineer | 26 | 20.43 |
| - | - Foundation Engineer | 11.2 | 11.17 |
| - | - Structural Engineer | 5 | 4.91 |
| Y.O. Kim | - Project Engineer | 18 | 11.62 |

3. Contract Administration

- . USAID extending Project Assistance Completion Date (PACD) to July 28, 1986 (AID Letter No.671, 03.05.84)
- . Pending BADC's action in executing amendment No.2 to Consultant's agreement. USAID has concurred with Consultant's proposal.

4. Meetings

- . BADC/USAID/A&W monthly review meetings
- . Consultant's periodic staff review meetings
- . Meetings with construction contractors

* Allocated as per Amendment No.2 (Pending)

5. Supporting Bangladeshi Personnel

5.1 WEL and SSL Personnel (Sub-Contractor)

| <u>Designation</u> | <u>Man-Months</u> | |
|--------------------------|--------------------|-----------------|
| | <u>Allocated**</u> | <u>Utilized</u> |
| Deputy Project Manager | 33 | 25.6584 |
| S&M Engineer | 33.5 | 28.2728 |
| Structural Engineer | 9 | 9.0388 |
| Architect | 4 | 3.8589 |
| Electrical Engineer | 10 | 9.3638 |
| Railway Engineer | 31 | 23.9089 |
| Office Engineer | 27 | 25.8656 |
| Land Procurement Officer | 24 | 23.1366 |
| Surveyor | 26.5 | 20.3879 |
| Instrument Man | 19 | 18.5664 |
| Rodman | 13 | 12.8222 |
| Chainman | 28 | 24.0939 |
| Draftsman | 79.5 | 65.1014 |
| Laboratory Technician | 117 | 83.8182 |
| Laboratory Assistant | 92 | 59.5880 |
| Estimator | 45 | 30.8943 |
| Senior Field Engineer | 93 | 64.9947 |
| Field Engineer | 77 | 57.6931 |
| Inspectors | 121 | 93.4168 |
| Drivers | 95 | 55.7760 |
| Messenger | - | - |
| Peon | - | - |
| Guard | - | - |
| Clerk | - | - |
| Typist | - | - |

5.2 Administrative Personnel

| | | |
|--|------|----------|
| Administrative Manager | 33.5 | 26.2324 |
| Senior Accountant | 34 | 26.5844 |
| Assistant Accountant | 32 | 24.5688 |
| Secretary | 34 | 26.3164 |
| Printer | 30 | 24.7291 |
| Typist | 72 | 61.5604 |
| Clerk | 48 | 37.8765 |
| Drivers | 116 | 94.5320 |
| Messenger | 31 | 23.8160 |
| Peon | 93 | 71.5110 |
| Guard | 159 | 120.7518 |
| Radio Operator | - | - |
| Office Superintendent/Asst. Accountant | 19 | 13.3478 |

* Allocated as per Amendment No.2 (Pending)

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II. Consultant's Activities

Project Expenditures
(Estimated Project Cost Incurred)

| <u>I t e m</u> | <u>Agreement Budget</u> | <u>Adjusted Budget #2</u> | <u>This Month</u> | <u>Cumulative</u> |
|-------------------------------------|-------------------------|---------------------------|-------------------|---------------------|
| Services in Bangladesh | \$ 746,180 | \$ 858,524 | \$ 28,264 | \$ 672,400 |
| Services in Home Office | 176,178 | 191,922 | - | 142,751 |
| International Travel, etc. | 85,740 | 71,438 | - | 32,027 |
| Housing Allowance Per Diem etc. | 91,075 | 99,294 | 5,258 | 77,714 |
| Logistic Cost | 223,400 | 166,633 | 3,546 | 115,021 |
| Supporting Staff | 382,404 | 359,626 | 12,723 | 200,505 |
| Misc. Direct Costs | 43,000 | 154,381 | 95 | 16,000 |
| Fixed Fee | 205,460 | 215,525 | 7,610 | 205,470 |
| | <u>\$ 1,953,445</u> | <u>\$ 2,117,343</u> | <u>\$ 57,496</u> | <u>\$ 1,528,432</u> |
| Percent of Estimated Budget | | | 2.72% | 72.19% |
| Percent Contract Time (To 30.06.85) | | | | 86.99% |
| Special Project Activity | \$ 306,620 | \$ 142,722 | \$ 627 | \$ 107,996 |
| | <u>\$ 2,260,065</u> | <u>\$ 2,260,065</u> | <u>\$ 58,123</u> | <u>\$ 1,636,428</u> |

Billing and Payment

| <u>Invoice</u> | <u>Period Ending</u> | <u>Billing</u> | <u>Payment</u> |
|----------------|----------------------|-----------------|-----------------|
| 01-22 | 31 Dec.'84 | \$ 1,471,487.32 | \$ 1,457,035.57 |
| 23 | 31 Jan.'85 | 53,034.79 | Under Process |

Reports

- Monthly Progress Report No.26 for January 1985 submitted by letter /2852, 06 February 1985.

C. TECHNICAL

Summary of Consultant's Activities During This Month

The Engineer continued monitoring the construction work of the Contractors at each of the sites. Concrete cylinders were prepared from each concrete pour and tested at 7-day and 28-day to determine if strength conformed to specification requirements.

Testing of brick samples continues to determine if they meet specification requirements as to strength and dimensions.

Testing of other materials (select fill, mortar sand, cement) continues in the field and Dhaka laboratory to determine acceptance level for the project.

The Project Manager and Deputy Project Manager, supplement the site monitoring by the Chief Construction and Project Engineer by weekly site inspection trips.

The Engineer posted Mr. Y.O. Kim, Project Engineer, as Construction Advisor in Parbatipur from 17.12.84.

In the office the Engineer is engaged in checking working (Shop) drawings submitted by the contractors, preparing supplemental and clarifying details, preparing Change Orders, and construction administrative functions. Work at each site is monitored by daily thru radio communication network and timely decisions made on site problems or questions raised.

Comments by BADC and USAID personnel on their site inspection visits receive immediate attention of the Project Manager.

- Analyzing contractor's claims and informing contractors of Engineer's decision.
- Preparing Change Orders as required.
- Determine variations (overruns and underruns) due to changed field conditions.
- Continuing testing at central laboratory and in field of materials to be incorporated in permanent work.
- Issued reminders to the contractors to comply with the Conditions of Contract and Technical Specifications by submitting required documents.
- Issued field message giving directions to contractors as required.
- Follow up on compliance with field message.
- Prepare instruction for contractors' and Engineer's personnel guidance in control of work and materials.

II. Consultant's Activities

- Prepare and submit Monthly Progress Report.
- Monitoring resolution of site possession and removal of obstructions.
- Kept Manager(Storage) BADC, informed of obstructions and other problems at site.
- Held scheduled meetings with each of Contractos' and Consultant's key personnel.
- Continued site inspection, construction surveillance, and filing reports for action by key staff members.
- Continued monitoring availability of construction materials.
- Key staff members continuing inspecting sites and instructing Engineer's, and Contractors' personnel on procedures.
- Spot checking materials and work approved by field staff.
- Checking shop drawings submitted.
- Monitoring contractors' progress against their construction schedules.
- Reviewing contractors' revised work schedule.
- Processing contractors' invoices for payments.

- Items requiring follow-up:
 - . Monitoring field testing procedures and test results
 - . Monitoring activity and performance of field staff
 - . Monitoring compliance to field message issued by field staff
 - . Resolving of land problems by BADC
 - . Obtaining clearance from BR by BADC
 - . BADC action in obtaining incoming power line to sites