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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. 3

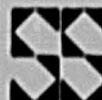


AMMANN & WHITNEY
CONSULTING ENGINEERS
NEW YORK

in association with



WORLDWIDE ENGINEERS LTD.
ARCHITECT-ENGINEERS
DHAKA



STHAPATI SANGSHAD LTD.
ARCHITECTS, ENGINEERS & PLANNERS
DHAKA

Project Director
USAID Construction Project
BADC
20 Outer Circular Road
Rajarbagh, Dhaka-17

724-2.1.1/166
6 March 1983

Subject : Monthly Report No.3
- February 1983

Dear Sir,

In compliance with paragraph B.2 of Appendix A, Scope of Work, of Agreement for Engineer Consultant Services - Warehouses Phase III, fifteen copies of the Monthly Report No.3 are submitted to BADC and six copies to USAID.

Very truly yours
ARMANN & WHITNEY



George A. Pecht
Project Manager

Encl: As Noted

GAP/neh

cc: Chairman, BADC w/encl. (1)
Manager (Storage) BADC
Chief Engineer (Construction) BADC
Mr. Paul B. Thorn, PO, AID/D w/encl. As Noted
File 724-1.4.2

AMMANN & WHITNEY
Consulting Engineers

FERTILIZER WAREHOUSES - PHASE III

Monthly Progress Report No.3
Month of February 1983

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EXECUTIVE SUMMARY

1. Project Designation : Construction of Bagged Product Fertilizer Warehouses in Bangladesh - Phase III
2. Financed by : Grant Funds : USAID Fertilizer Distribution Improvement I Project 388-0024
- Taxes and Duties : Government of Bangladesh
3. Owner : BADC (Facilities to be used by M.S. & S. Division)
4. USAID Fund Allocation : a) \$1.95 million for consultancy
\$0.31 million for vehicles/equipment/supplies
b) Estimate for construction work is under process by Consultant.
5. Proposed Warehouse Storage Capacity : 33,000 MT
6. Consultant : Ammann & Whitney
7. Consultant's Contract Duration : 9 December 1982 to 28 February 1985
8. Construction Contractor : Contractors to be prequalified
9. Construction Contract Period : 15 months (Estimated)
10. Scheme/Contract Administration/Commercial Aspects by : Manager (Storage) BADC, Dhaka
11. Time and Fund Spent:

<u>Consultant Services</u>		<u>Construction Works</u>	
<u>Time Elapsed</u>	<u>Estimated Cost Incurred</u>	<u>Time Elapsed</u>	<u>Estimated Cost Incurred</u>
2.75 month	\$126,117	-	-

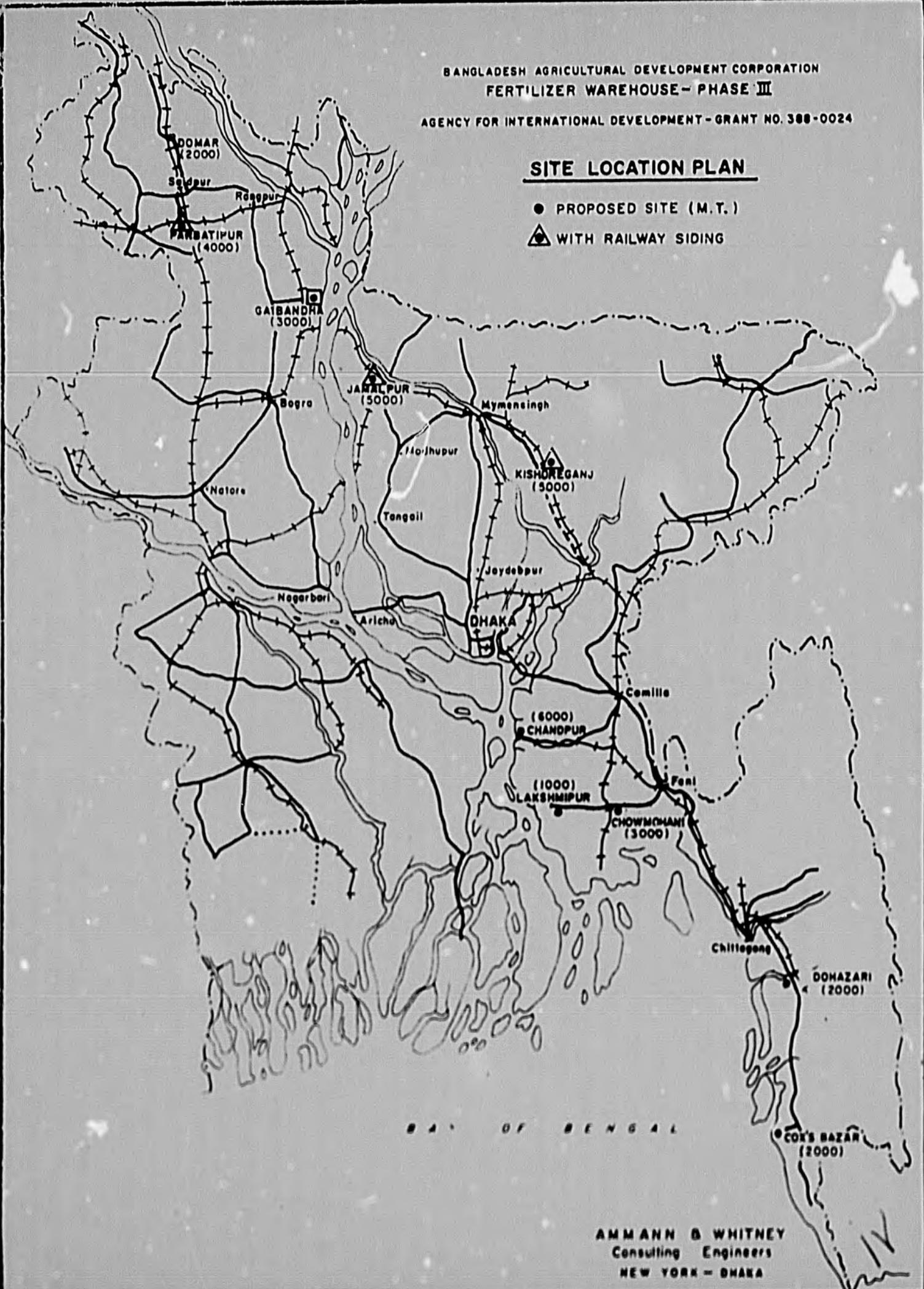
12. Comments:

The major bottleneck affecting the Consultant's method of procedure, execution and economic efficiency in carrying out the work is lack of prior permission from OCIAE to import the required essential materials/equipment/applian.

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SITE LOCATION PLAN

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



BAY OF BENGAL

1. ADMINISTRATION

1.1 The Consultant's Agreement

- . Contract Agreement Signed - 9 December 1982
- . Effective Date - 9 December 1982
- . AID Letter of Commitment
No. 388-0024-3-30381 - 15 December 1982
- . Duration - 28 February 1985

1.2 Expatriate Staff

The following expatriate personnel have been approved for the project by BADC and USAID and are in-country.

		<u>Arrival Date</u>
George A. Pecht	- Project Manager	Prior 9 December '82
Samuel Heyman	- Foundation Engineer	1 February 1983
Harry S. Allen	- Chief Construction Engineer	8 February 1983
Colin G. Landrigan	- Structural Engineer	18 February 1983

1.3 Contract Administration

1.3.1 For action by BADC:

- . Open Taka imprest account, paragraph 4.05.4 of Agreement, due to be opened by 7 January 1983. (724-1.1.11/007, 12 Dec 82; /130, 16 Feb 83)
- . Obtain CCI&E approval for prior permission, paragraph 4.04 and 4.10 of Agreement, to import equipment/materials/supplies necessary to carry out the Consultant's responsibilities (724-1.1.11/011, 13 Dec 82; /054, 9 Jan 83; /129, 16 Feb 83)
- . Amendment No.1 to Consultant's Agreement extending duration to 30 June 1983
- . Follow-up on GOB approval of expatriate personnel
- . Obtain T&T approval to extend wireless licence for radio communication
- . Obtain GOB approval to import vehicles conforming to "source" and "origin" USAID guidelines and project agreement
- . Allocation of contingency funds for survey soil exploration work. (724-1.1.11/152)
- . Obtain Privilege Person Status Pass Book for expatriate employees as per paragraph 4.04 of Agreement

1.3.2 For action Consultant:

- . Requested dealers for quotations for pick-up trucks and sedans.

1.4 Meetings

- . No meetings with BADC scheduled in February.

1.5 Supporting Bangladeshi Personnel

1.5.1 WEL and SSL Personnel (Subcontract)

Designation	Man-Months	
	Allocated	Utilized
Deputy Project Manager	27	2.6637
S&M Engineer	24	1.6364
Structural Engineer	6	0.3500
Architect	4	1.5000
Electrical Engineer	6	-
Railway Engineer	24	-
Office Engineer	26	1.9091
Land Procurement Officer	12	0.8500
Surveyor	25	0.8500
Instrument Man	25	0.8500
Rodman	25	0.7000
Chairman	25	0.7000
Draftsman	54	5.7273
Laboratory Technician	56	-
Laboratory Assistant	56	-
Estimator	48	-
Senior Field Engineer	60	1.0000
Field Engineer	80	-
Inspectors	128	-
Drivers	94	-
Messenger	34	-
Peon	34	-
Guard	68	-
Office Superintendent/Accountant	34	-
Clerk	34	-
Typist	34	-

1.5.2 Administrative Personnel

Administrative Manager	27	2.4546
Senior Accountant	27	2.7273
Assistant Accountant	44	1.4545
Secretary	27	2.7273
Printer	27	1.0000
Typist	72	4.1773
Clerk	45	2.7273
Drivers	103	7.8384
Messenger	45	-
Peon	72	2.7273
Guard	90	10.9091
Radio Operator	48	-

1.6 Project Expenditures
(Estimated Project Cost Incurred)

<u>Item</u>	<u>Budget</u>	<u>This Month</u>	<u>Cumulative</u>
Services in Bangladesh - \$	746,188	31,539	50,367
Services in Home Office -	176,178	8,673	22,876
International Travel, etc. -	85,740	1,136	5,036
Housing Allowances, Per Diem, etc. -	91,075	991	2,679
Logistic Costs -	223,400	3,940	7,776
Supporting Staff -	382,404	5,644	11,590
Misc. Direct Costs -	43,000	-	-
Fixed Fee -	205,460	7,610	22,830
	<u>1,953,445</u>	<u>59,533</u>	<u>123,154</u>
Percent of Estimated Budget		3.05%	6.30%
Percent Contract Time			8.87%
Special Project Activity -	306,620	457	2,963

1.7 Payments

- U.S. AID has prepared Voucher No.AID-398 on December 15, 1982 for Mobilization Advance to the Consultant of \$30,000. The Consultant has opened an account at BCCI (Overseas) Ltd., Dhaka. No interest has been earned.

1.8 Reports

- The Consultant has submitted for BADC and USAID review the Inception Report on 11 February 1983 in compliance with paragraph 8.1 of Appendix A, Scope of Work, of the Consultant's Agreement.
- By letter 724-2.1.1/153 dated 23 February 1983, the Consultant submitted for BADC and USAID review the Ancillary Buildings Design Concept Report.
- Under preparation is the Warehouse Design Concept Report due to be submitted by 11 April 1983.
- Monthly Progress Report No.2 for January 1983 submitted.

1.9 General

- Received survey equipment from BADC. (724-1.1.11/122, 10.02.83)
- Received alidade and plane table from IECCO. (724-1.3.3/155, 27.02.83)
- Land Procurement Officer engaged and deputed to assist Manager (Storage) BADC in project land acquisition problems.

2. PLANNING/DESIGN/PRODUCTION

2.1 Site Development Phase

2.1.1 Identification of Sites

- Pending with BADC is confirmation of the capacity and location of the godowns in reference to meeting in office of Project Director on 30.01.83. (724-2.1.1/135, 17.02.83)

The tentative revisions are:

Chandpur	- 6000 MT to 4000 MT
Gaibandha	- Exclude site
Domar	- 2000 MT to 1000 MT
Demra	- Add site, 6000 MT

- For other sites refer to Monthly Report No.2
- BADC to transmit to the Consultant for his review as per Scope of Work of Agreement the purchase, acquisition or other right of use documents and applicable mouza maps for each site.

2.1.2 Site Inspection

- The following sites were inspected on 2/3 February 1983. (724-2.1.1/109, 06.02.83)

H2 Chovvhanani

The site shown in Phase II Land Plan Drawing LS-H2-006 is preferred site. BADC to take over possession. (724-2.1.1/137, 17.02.83)

H3 Lakshmiapur

This site, within compound of Phase I godown is acceptable.

I4 Chandpur

This location on BADC land is acceptable. The existing G.I. metal, barrel roof warehouse at the river front shall remain and the other metal dilapidated structures demolished. Provisions for method and means of loading/unloading boats and barges will be recommended by the Consultant.

- Other sites inspected this month:

C3 Jamalpur

The 33 KV power line within the site is required to be relocated. BADC requested to take action. (724-2.1.1/136, 17.02.83)

A1 Demra

This site location is shown on Drawing LS-A1-001R, 15.11.80 Rev. and was inspected by representatives of BADC, USAID and A&W on 23.02.83 (724-2.1.1/154, 23.02.83). Access to site is a problem required to be resolved by BADC.

2.1.3 Management and Staffing Plan

By Memo No.2NA/STG)107/81-82/1380 dated 26.12.82 the Manager (Storage) BADC confirmed the requirement of the noted ancillary facilities at each site.

Site & Capacity	<u>Asst. Manager</u> <u>(750 sqt per unit)</u>		<u>Storekeeper</u> <u>Quarter</u> <u>(550 sqt/Unit)</u>	<u>Darwan</u> <u>Quarter</u> <u>(400 sqt/Unit)</u>
	<u>Office/</u> <u>Inspection</u>	<u>Residence</u>		
B1 Kishoreganj (5000)	1	1	4	4
O3 Jamalpur (5000)	1	1	4	4
F1 Dohazari (2000)	1	1	2	2
F3 Cox's Bazar (2000)	2	1	2	2
H2 Chowmahani (3000)	1	1	4	4
H7 Lakshmipur (1000)	-	-	-	2 ^{xx}
I4 Chandpur (6000) ^x	1	1	4	4
I4 Demra (2000) ^x	1	1	2	2
I6 Gaibandha (3000) ^x	1	1	2	2
O5 Parbatipur (4000)	1	1	4	4
A1 Demra (6000) ^x				

x Subject to revision.

xx On existing Darwan's Quarters.

2.1.4 Preliminary Site Drawings, Building Layouts and Land Plans

The Consultant is preparing drawings of preliminary building layouts at each site for discussion with BADC.

2.1.5 Soil Exploration and Land Surveys

- A soil boring sub-contractor, Foundation Consultants Ltd., has been engaged for soil exploration and testing and work has started at Chandpur site. The soils program of exploration and testing under supervision of the Foundation Engineer and Soils/Materials Engineer is scheduled for completion by 23 April 1983.

The exploration program is shown in attached Schedule of Work.

- Topographic survey at Jamalpur has been completed and the land plan is under preparation. The survey team is scheduled to complete the Chandpur, Chowmahani, Lakshmipur, Dohazari and Cox's Bazar sites this month
- Delay in obtaining possession of land would have detrimental affect and cause delay to program.

2.1.6 Railway Sidings

BADC requested to confirm requirements of railway sidings and method of unit train operation at following sites (724-2.1.1/133, 17.02.83).

Parbatipur	30 wagons MG and 30 wagons BG
Jamalpur	30 wagons MG
Kishoreganj	30 wagons MG

2.1.7 Land Acquisition Status

B1 Kishoreganj

The report of Land Procurement Officer indicates that land (1.96 acres) at Kishoreganj site to be turned over by Sugar and Food Industries Corp. is still outstanding.

Also, District Manager, BADC(Fertilizer) is yet to take possession of private land from District Commissioner, Mymensingh.

C3 Jamalpur

Removal of 33 KV line required. Certain lands under dispute. Survey information obtained in February 1983 in wide variance with Phase II site and land plan.

F1 Dohazari

BADC to take over land from Deputy Commissioner.

F3 Cox's Bazar

Land for access to river required.

H2 Chowmahani

BADC to take over land from Deputy Commissioner.

L4 Domar

BADC to take over land from S.H. Farm.

- Status of land to be taken over from railway at Jamalpur, Kishoreganj and Parbatipur not known.

2.2 Design and Estimate Phase

2.2.1 Design Review

The Structural Engineer and his staff are in the process of investigating and reviewing existing BADC, PWD and warehouses constructed by others. Additionally, new design alternatives are under investigation.

Design criteria based on a review of meteorological and seismic data and a review of various codes and standards is being finalized. Preliminary differential settlement criteria will be continually evaluated on a site by site bases as more data is obtained. Also under study are the corrosive effects of the different fertilizers on both steel and concrete and the ventilation requirements with respect to both toxic fumes and humidity absorption.

2.2.2 Contract Drawings

The Consultant is preparing site plans as the survey information is made available. Under preparation is site plan for Jamalpur site.

2.2.3 Bill of Quantities and Cost Estimates

The following cost comparison studies are in process:

Reinforced Concrete Panel vs. Conventional Brick Wall

Godown Floor : Brick Floor vs. Concrete Floor

Reinforced Concrete Slab Roof vs. Corrugated G.I. on Timber Frame

Reinforced Concrete Slab Roof vs. Corrugated G.I. Sheet on
Steel Frame

2.2.4 Specifications

Draft technical specifications are in preparation.

2.2.5 Conditions of Contract and Special Conditions

The Conditions of Contract (FIDIC) and Conditions of Particular Application are under review by the Consultant's staff

2.3 Contractor Document Phase

2.3.1 Proqualification Documents

BADC's comments were received on the draft documents. Further development of the document is held in abeyance pending USAID/W writer (requested by USAID/D) of paragraph 2.2.5.2.c. of Chapter 2 of AID Handbook 11, allowing Bangladeshi contractors to participate in the IFB.

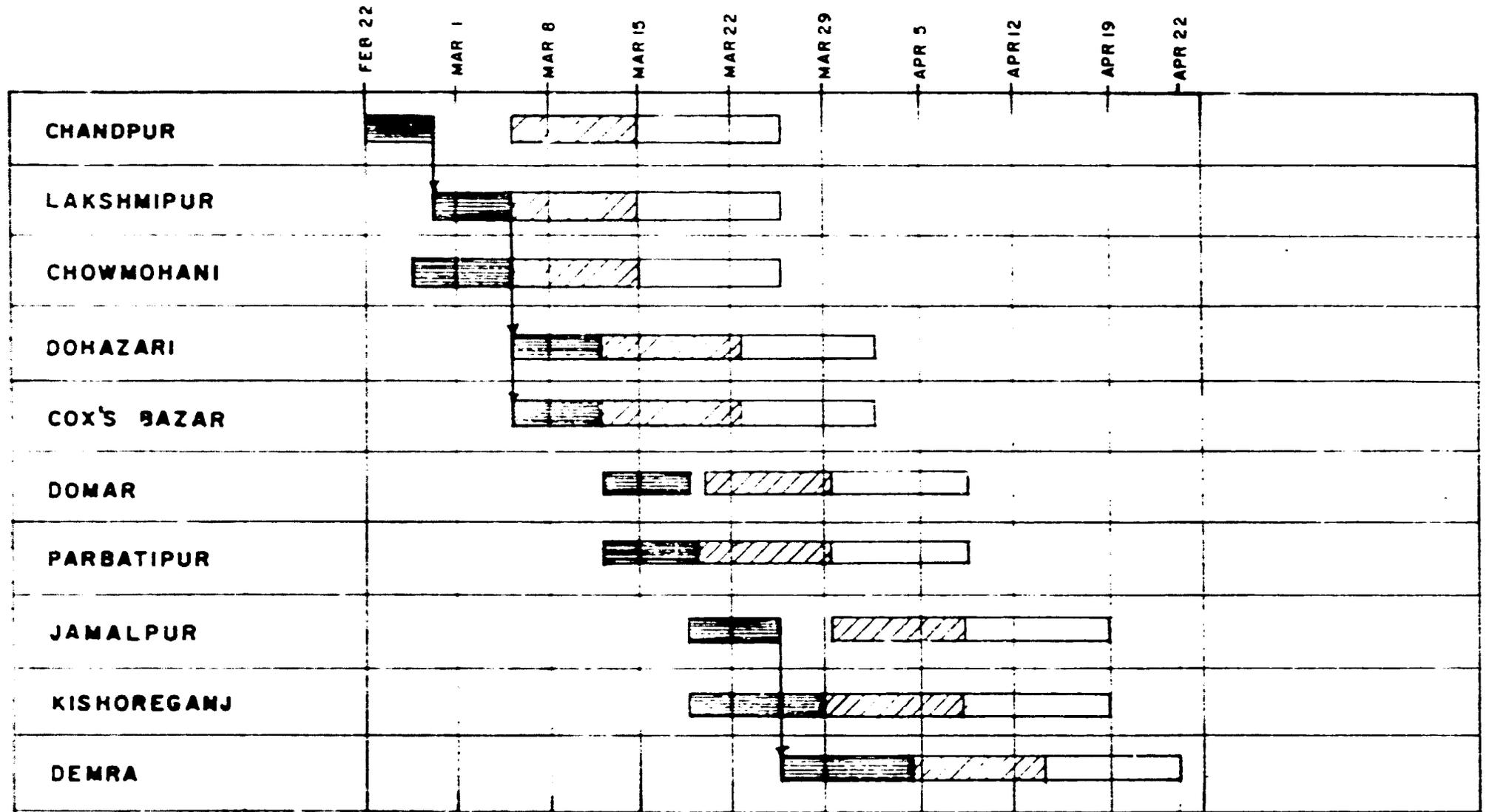
2.3.2 Invitation For Bids (IFB)

An outline draft of the IFB has been prepared and is under review by the Consultant's staff.

WAREHOUSES PHASE III PROJECT

SUB-SURFACE SOILS EXPLORATION, LABORATORY TESTS AND FINAL REPORT

SCHEDULE OF WORK



LEGEND:

- BORING
- TESTING
- REPORT

BORING SUB-CONTRACTOR :
FOUNDATION CONSULTANTS LTD.

CONSULTING ENGINEER :
AMMANN & WHITNEY