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Zila Roads Maintenance and Improvement Project

(USAID PROJECT NO. 388-0056)

PROGRESS REPORT

FOR THE MONTH OF NOVEMBER'84

By
Wilbur Smith and Associates
In association with
Bangladesh Consultants Ltd.
and
Public Administration Service

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

USAID PROJECT No. 388-0056

PROGRESS REPORT

November 1984

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1.0 GENERAL

All three Districts have reported improved contractor performance and progress; some areas to a more marked extent than others. Those contractors who are still not in full production, particularly in Rangpur District, must be encouraged and assisted to get their projects underway so as to not lose any more of the best construction time.

Barring some unforeseen circumstance, both Sylhet and Faridpur will complete the major part of both the '82-'83 and '83-'84 schemes by the end of 1984. Rangpur estimates completion of the '82-'83 schemes early in 1985, and the '83-'84 schemes by late in the second quarter of 1985.

The shortage of bituminous material, particularly in Faridpur, was again an obstacle to full-scale maintenance activities. Other areas had difficulties with changes in trained maintenance personnel and a lack of full supervision.

The second-cycle, in-country training sessions were completed in all three Districts. There were 41 participants in Sylhet, 40 in Rangpur, and 51 in Faridpur, giving a total of 132 participants. This is 6 more than the scheduled total of 126 participants.

Evaluation Reports for both the Sylhet and Rangpur Second-Cycle Training Courses were completed during this reporting period. The Faridpur Evaluation Report will be submitted in December, and the compiled report will be submitted in January 1985.

The second AIT Training Course, scheduled as a part of the Third-Country Training Program, had to be suspended because the necessary BDG clearance was not obtained in time to meet the course schedule. Negotiations are now in process to re-schedule the course for sometime early in 1985.

2.0 ORGANIZATION AND MANAGEMENT

In October 1984, the Local Government Engineering Bureau (LGEB) was created to replace the Works Program Wing (WPW). In the Problem section of the October Monthly Report, the comment was made that this change had taken place and that it would be helpful if the Consultant could receive an organization chart of this new entity. No official organization charts or other descriptive material have yet been received.

However, IRWP has diagrammed the proposed new organization to the extent that it applies to the LGEB training strategy. Exhibit I, consisting of two pages, is an unofficial document, prepared by IRWP, which gives an insight into the magnitude of the decentralizing process that is underway. Columns 2, 3, and 4 are pertinent to this discussion, as the balance of the table refers to "ad hoc" divisions made for the convenience of training operations. Column 2 gives the former District name, while column 3 indicates the names of the new Districts included within the area encompassed by the old District, and column 3 shows the total number of Upazilas within each new District. Exhibit II is a map of Bangladesh which locates the zones to which reference is made in Column 1.

IRWP prepared the document which contains these Exhibits to demonstrate how the new organization will greatly increase the scope and responsibility of the LGEB training program. However, the new organization will also have a comparable impact on all other LGEB activities, of which the ZRMI Project is one. More specifically, the organization and management documents which have been prepared by the Consultant should now be reviewed in the light of this new scenario and possibly revised as soon as the relevant guidelines have been defined and stabilized.

3.0 MAINTENANCE SYSTEM AND SUPERVISION

3.1 General

The ZRMI Project maintenance work is currently being handled under the concept of a Pilot Maintenance Scheme, initiated early in 1984, which has a separate and independent component in each of the three Districts. The locations of the roads involved in the individual maintenance schemes are shown on the respective District maps, which are identified as follows :

- o Exhibit III - Sylhet District
- o Exhibit IV - Rangpur District
- o Exhibit V - Faridpur District

3.1.1 Sylhet District

A large part of the recommendations made to the XEN by the Consultant has not yet been implemented. It is not known whether this is due to inertia on the part of the Zila Parishad staff, a lack of interest, or some other cause. The Consultant recently received vouchers for certification for work performed over the past four months, but no progress information was included.

The recent addition of a Maintenance SAE to the Consultant's staff will ensure that necessary information does arrive in the Consultant's office, but this does not resolve the problem of the Consultant doing the work of the Zila Parishad staff. It has come to the attention of the Consultant that the SAE assigned to the Badarghat-Bariberbazar Road was following the LGEB office hours of 1000 to 1700

TRAINING ZONES AND DISTRICTS

Zone	Number of new Dists. in Zone	Name of old Districts	Name of new Districts	No. of Upa -zila in new Dist.	No. of Upazilas in Zone			
A	8	Rangpur	11. Rangpur -	8	58			
			2. Lalmonirhat	5				
			3. Gaibandha	7				
			4. Kurigram -	9				
			5. Nilphamari	6				
		Dinajpur	1. Dinajpur	13				
			2. Thakurgaon	5				
			3. Panchagarah	5				
B	8	Bogra	1. Bogra	11	65			
			2. Jaipurhat	5				
		Pabna	1. Pabna	9				
			2. Serajgonj	9				
		Rajshahi	1. Rajshahi	9				
			2. Natore	6				
			3. Naogaon	11				
			4. Nawabganj	5				
		C	10	Jessore		1. Jessore	8	58
						2. Jhenaidah	6	
						3. Magura	4	
						4. Narail	3	
Khulna	1. Khulna			9				
	2. Bagerhat			9				
	3. Satkhira			7				
Kushtia	1. Kushtia			6				
	2. Chuadanga			4				
	3. Meherpur			2				
D	11			Faridpur	1. Faridpur	8	65	
					2. Rajbari	4		
		3. Madaripur	4					
		4. Gopalganj	5					
		5. Shariatpur	6					
		Barisal	1. Barisal	9				
			2. Jhalakhati	4				
			3. Perojpur	7				
			4. Bhola	7				
		Patuakhali	1. Patuakhali	6				
			2. Barguna	5				

Exhibit I (Cont.)

Zone	Number of new Dists. in Zone	Name of old Districts	Name of new Districts	No. of Upa-zila in new Dist.	No. of Upazilas in Zone
E	6	Mymensingh	1. Mymensingh	11	58
			2. Metrokona	11	
			3. Kishoreganj	13	
		Jamalpur	1. Jamalpur	7	
			2. Sherpur	5	
		Tangail	1. Tangail	11	
F	6	Dhaka	1. Dhaka	5	34
			2. Gazipur	5	
			3. Manikganj	7	
			4. Munshiganj	6	
			5. Narayanganj	5	
			6. Narshingdi	6	
G	7	Sylhet	1. Sylhet	11	61
			2. Sunamganj	10	
			3. Moulavibazar	6	
			4. Habiganj	8	
		Comilla	1. Comilla	12	
			2. Brahmanbaria	7	
3. Chandpur	7				
H	8	Noakhali	1. Noakhali	6	61
			2. Luxmipur	4	
			3. Feni	5	
		Chittagong	1. Chittagong	14	
			2. Cox's Bazar	7	
		Bandarban	1. Bandarban	7	
		Rangamati	1. Rangamati	10	
		Khagrachari	1. Khagrachari	8	

PROPOSED TRAINING ZONES

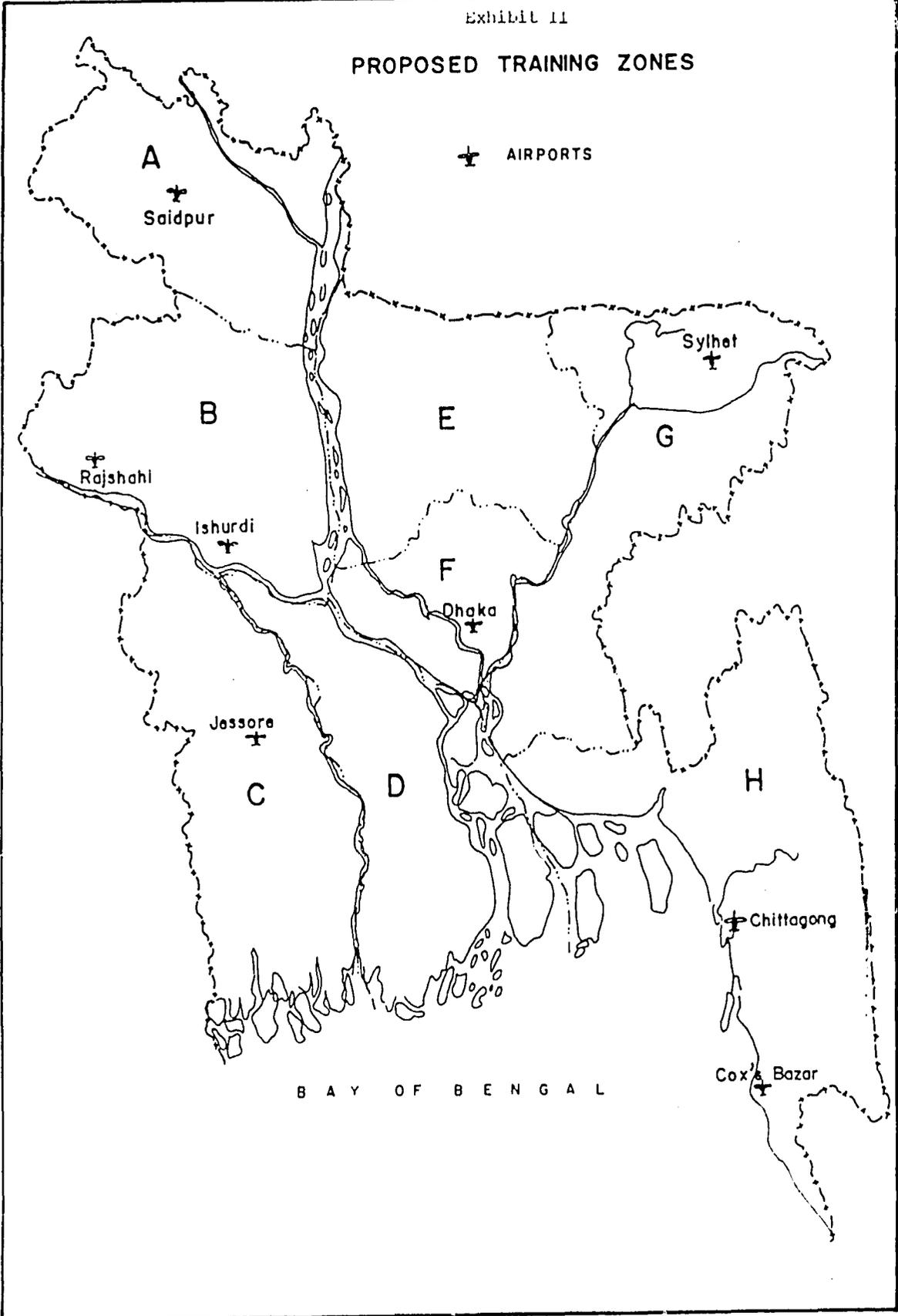
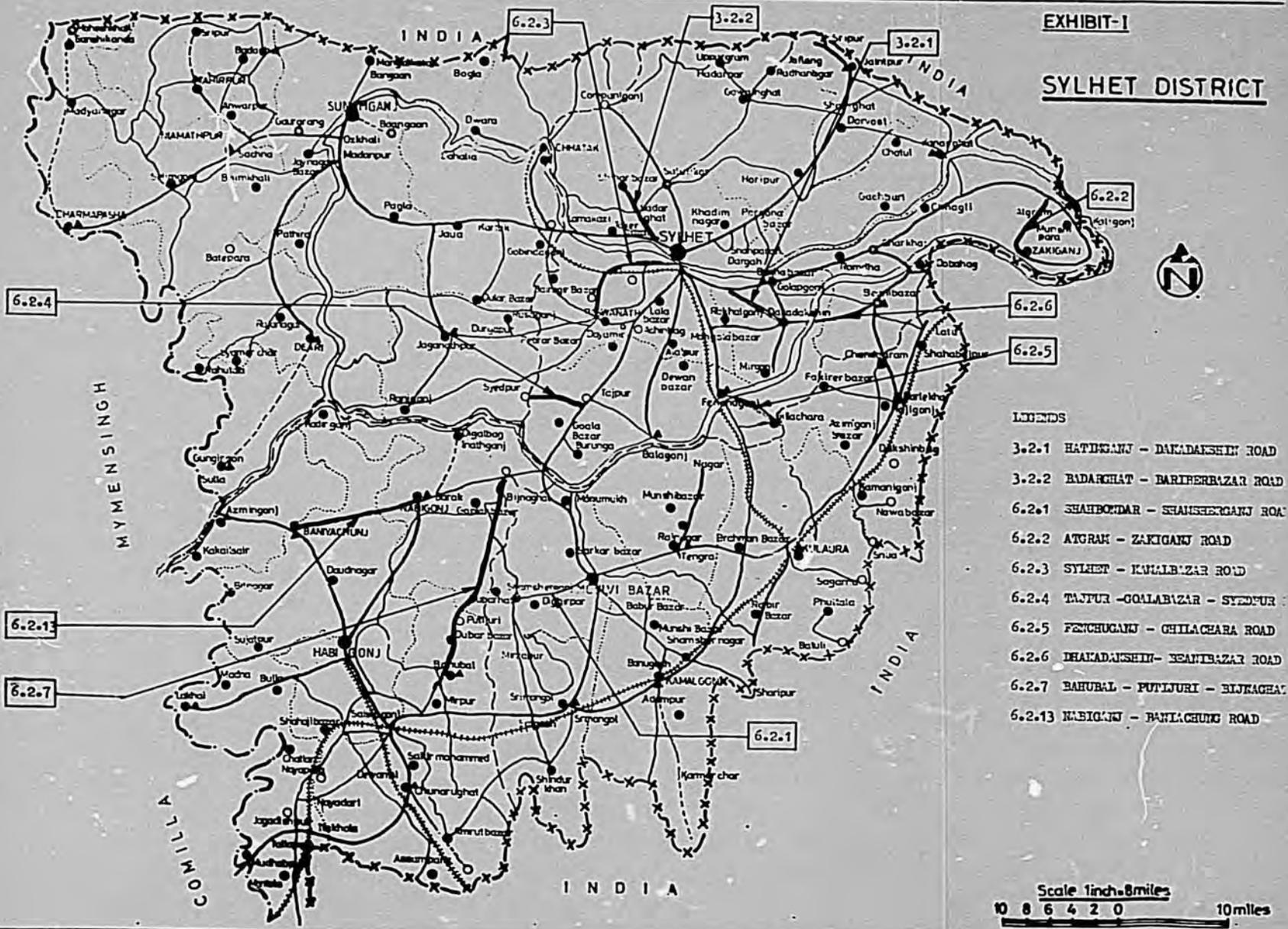


EXHIBIT-1

SYLHET DISTRICT



LEGENDS

- 3.2.1 HATINGANJ - DAKADAKSHIN ROAD
- 3.2.2 BADARGHAT - BARIHERBAZAR ROAD
- 6.2.1 SHAHABDAR - SHAHBERGANJ ROAD
- 6.2.2 ATGRAM - ZAKIGANJ ROAD
- 6.2.3 SYLHET - KUALIBAZAR ROAD
- 6.2.4 TALPUR - GOALABAZAR - SYEDPUR
- 6.2.5 FENCHUGANJ - CHILACHARA ROAD
- 6.2.6 DHAKADAKSHIN - SEANTIBAZAR ROAD
- 6.2.7 BAHUBAL - PUTIJJURI - BIJRGANJ
- 6.2.13 NABIGANJ - BANJACHUNG ROAD

Scale 1 inch = 8 miles
 10 8 6 4 2 0 10 miles

EXHIBIT-II

RANGPUR DISTRICT



LEGEND:

- 3.3.1 RANGPUR - KHEIGANJ ROAD
- 3.3.2 RANGPUR - BARDAGANJ ROAD
- 6.3.1 GAIBANDELA - KAMARJATI RO
- 6.3.2 NIRGANJ - JALDEHA ROAD
- 6.3.3 CHATRA - KHALASHFIR - HENDABARI ROAD
- 6.3.4 KANDIA - GEORAGHAT ROAD
- 6.3.5 RAJAREHAT - ULLAGHATA ROA

Scale: 1 inch = 8 Miles (Approx)

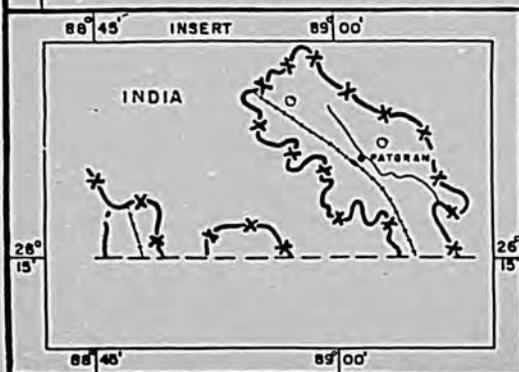
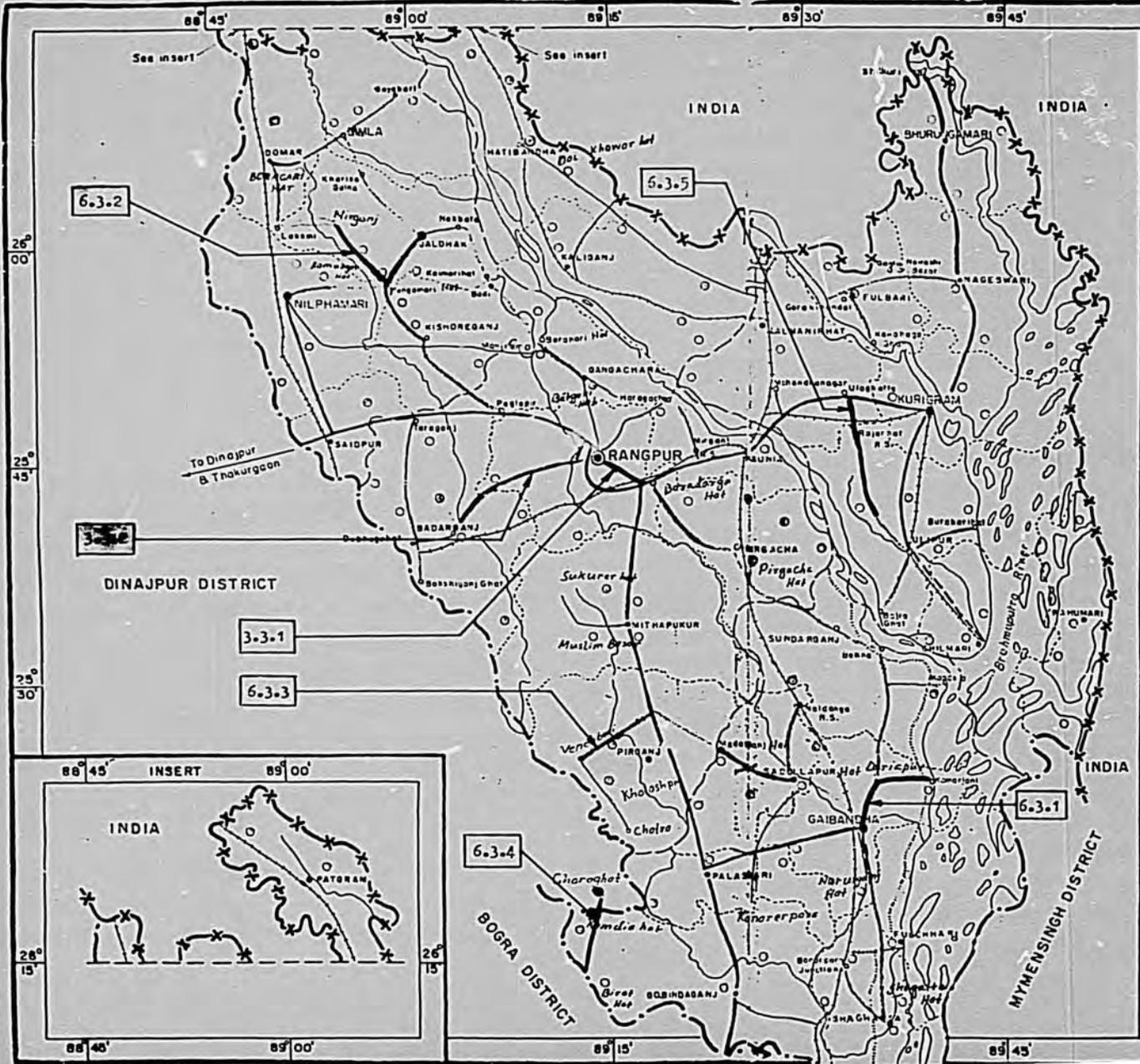
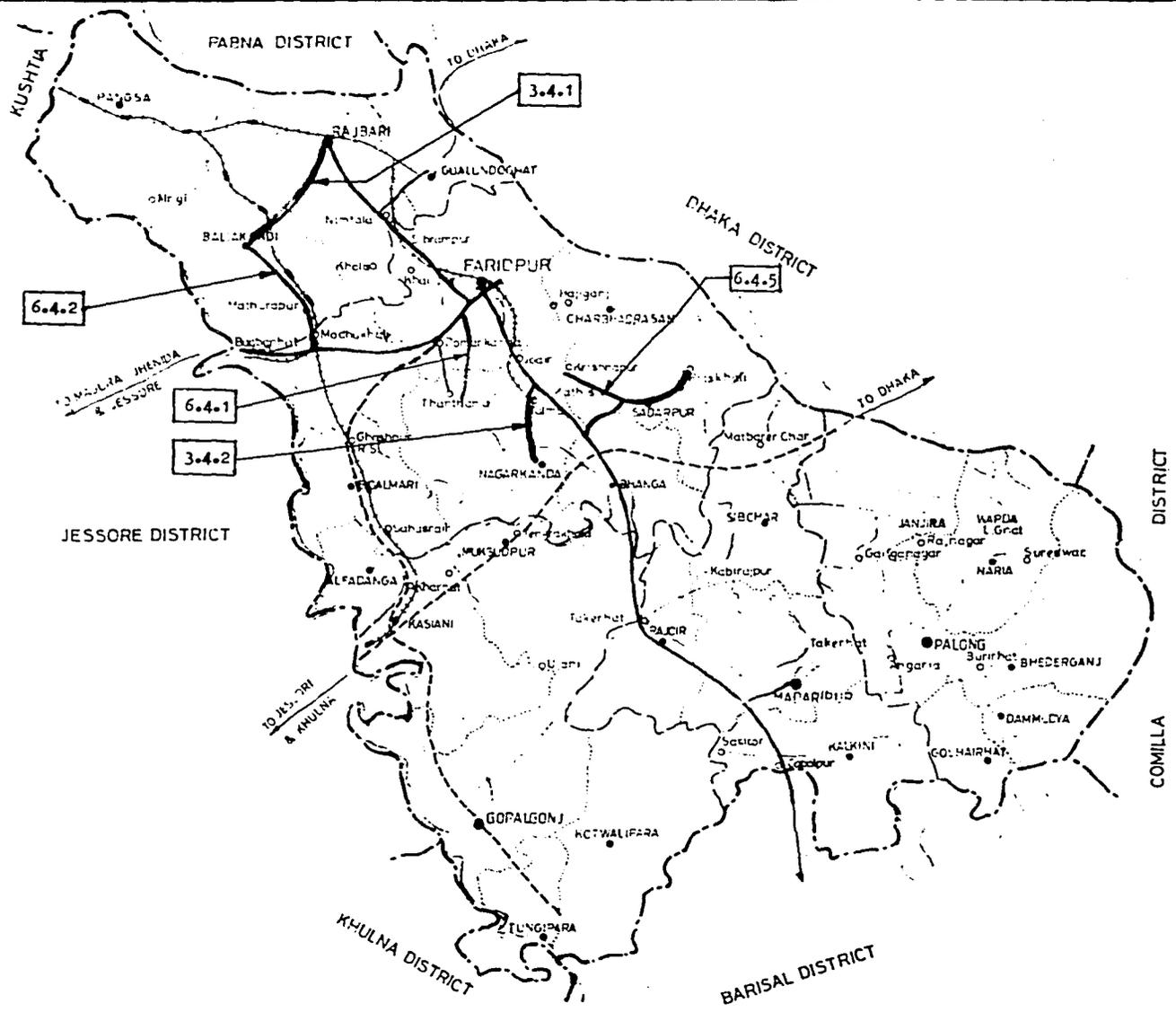
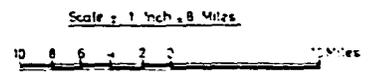


EXHIBIT - III
FARIDPUR DISTRICT



- LEGENDS
- 3.4.1 RAJBARI - BALLIKANDI ROAD
 - 3.4.2 TALHA - NAGARKANDA ROAD
 - 6.4.1 BADARPUR - SAITHA ROAD
 - 6.4.2 MADHUKHALI - BALLIKANDI ROAD
 - 6.4.5 HATKRISHNAPUR - PIJAKHALI R



hours. This is not a satisfactory practice, as the work crews must be supervised from the time that they start to work at 0800 hours, and especially until they are well trained in maintenance procedures.

There are no photographs of Sylhet District because the Camera fell in the river.

3.1.2 Rangpur District

The continued absence of the AE assigned to this work has delayed final completion of the work on the two roads in this program.

Photographs of maintenance work in Rangpur may be found in Appendix A.

3.1.3 Faridpur District

No bituminous material was available for repairs to flexible pavements. As a result, maintenance efforts during this reporting period were limited to shoulder regrading and HBB replacement. Cost estimates for both Pilot Schemes are being updated to include repairs of damages caused by the last monsoon season.

Photographs of maintenance work in Faridpur may be found in Appendix A.

3.1.4 Maintenance Management:

During this reporting period, the road lists for the three Districts were finalized for calculating a maintenance program. In agreement with the DE's, all road sections were classified by surface type, and mileage tables were developed. The inventory data sheets were completed and areas by surface types calculated, together with drainage elements and vegetation. From this a workload base sheet was compiled for each District, and computations made for numbers of crew-days required for each maintenance activity. Two new Performance Standards were prepared and some report text was written covering the above steps. A start was made on the collection of cost data for maintenance operations.

3.2 Sylhet District

3.2.1 Hatimganj - Dhakadakshin Road (Earth Road)

It was observed that all work on this maintenance project has been stopped. Approximately 6 km of road had been reconditioned under

preventive maintenance, and some routine maintenance was in progress. The improvement of this road resulted in a large increase in traffic, much of which was heavily loaded vehicles. This type of traffic compacted the subgrade, but left many depressions which collected water during the recent rains. These depressions should be filled as a routine maintenance procedure. As a result of the work stoppage, further preventive maintenance work will be required to bring the road back to a good condition.

Unless this type of work is organized on a systematic basis, the purpose of the Pilot Maintenance Program will be lost. Periodic interruptions for one reason or another, and the practice of replacing a trained supervisor and his crew with completely untrained personnel should be stopped.

3.2.2 Badarghat - Bariberbazar Road (Paved And Earth Road)

With the arrival of the small vibratory roller at the job site, it became possible to undertake the maintenance of the paved section of this road. The work started from the point where the pavement ends at the river and is progressing back towards the intersection with the Sylhet - Sunamganj highway. As of the date of this report, some 2.5 km had been repaired.

The XEN has received recommendations concerning repair crew organization and duties, and proper procedures to follow. The Maintenance SAE will monitor the work on a daily basis until it is determined that these recommendations are being followed. He will then assume responsibility for the maintenance work under the '84-'85 program.

3.3 Rangpur District

3.3.1 Rangpur - Mahiganj Road (Paved Road)

As previously reported, an additional portion of this road was added to the project to compensate for a portion which did not require immediate attention and consequently was deleted from the project. However, no arrangements were made to continue this work, so that the total progress remains at 75 percent.

3.3.2 Rangpur - Badarganj Road (Paved Road)

Except for some shoulder work that still remains to be done, this project may be considered to be complete. Zila Parishad will forward all necessary documents to request reimbursement.

3.4 Faridpur District

3.4.1 Rajbari - Baliakandi Road (Paved Road)

About 60 percent of the Khoa required for grouting has been manufactured and is stockpiled on the shoulder, but grouting operations remain halted because of the bitumen shortage. HBB replacement has been completed between the Matiapara Bridge and the Horai Bridge, a distance of about 5.2 km.

The stationing of this road has been reversed, and now starts at Baliakandi and runs to Rajbari with following significant points :

0	+	000	-	Baliakandi
0	+	000	-	10 + 550 - '84-'85 carpeting contract
10	+	550	-	15 + 707 - Pilot Maintenance Scheme
15	+	707	-	17 + 355 - '84-'85 carpeting contract
17	+	355	-	17 + 843 - District Engineer Carpeting Contract
17	+	843	-	18 + 300 - Pilot Maintenance Scheme
19	+	320	-	Rajbari, R & H Road

The DE Carpeting Contract has been completed and shoulder regrading is in progress from 10 + 550 to 11 + 600.

3.4.2 Talma - Nagarkanda Road (Paved Road)

No work was done on this road during this reporting period because of a lack of bitumen and bricks. A tender for 50,000 bricks to be delivered to Nagarkanda was accepted at the 24 November tender committee meeting. Delivery was to be completed within 15 days. This will allow maintenance work such as the filling of potholes with khoa to be resumed.

The DE has indicated that funds for a permanent repair of the wing-wall failure of the bridge at km 2.7 are not available. It is also noted that the maintenance estimate for this road does not include funds for bridge maintenance. A revised estimate to include the wingwall repairs, other bridge maintenance, and repairs of the extensive embankment failures near Nagarkanda is now being prepared.

4.0 PREPARATION OF TECHNICAL SPECIFICATIONS

4.1 Bridges

Plan preparation for bridges of span less than 40 feet has been completed in both Sylhet and Faridpur. Work on similar plans in Rangpur is still in progress.

4.2 Revision of Specifications

Intensive revision activities will be initiated in January 1985.

4.3 Revision Of Concrete Mixture Design

The RE, Sylhet, continues to express his concern over the inadequacy of the concrete mix presently incorporated in all contract specifications. Repeated tests of concrete specimens indicate that only 50 percent of the specified concrete strength is being achieved. Given the rudimentary methods employed in concrete mixing and placing, every effort should be made to ensure that specified concrete strength is obtained by modifying the mix design.

5.0 TRAINING

5.1 General

5.1.1 As shown on Exhibit VI, the overall progress of the ZRMI Project Training Program at the end of November 1984 was about 65 percent, compared to a scheduled progress of 70 percent. This slippage reflects a further slow-down in progress in the U.S.A/Third Country Training element, which has a relative weight of 25 percent of the entire Program.

5.1.2 The Domestic (In-Country) Training element, which has a relative weight of 55 percent of the total Program, is right on schedule. Two week sessions have been completed in Sylhet, Rangpur, and Faridpur. The evaluation for the first two sessions have been completed, and that for Faridpur will be completed in early December.

5.2 On-The-Job Training

5.2.1 General

On-the-job Training, being an on-going function, is treated as a straight line operation on the bar chart. At the end of this reporting period, it is estimated that this activity is about 79 percent complete

5.2.2 Summaries of the activities of the soils laboratories in Sylhet and Rangpur are attached as Appendix B. The quality control analysis performed in these laboratories under the supervision of the RE's, and with the assistance of their respective staffs, form an important part of the on-the-job training effort.

5.3 Domestic (In-Country) Training

5.3.1 System Assessment

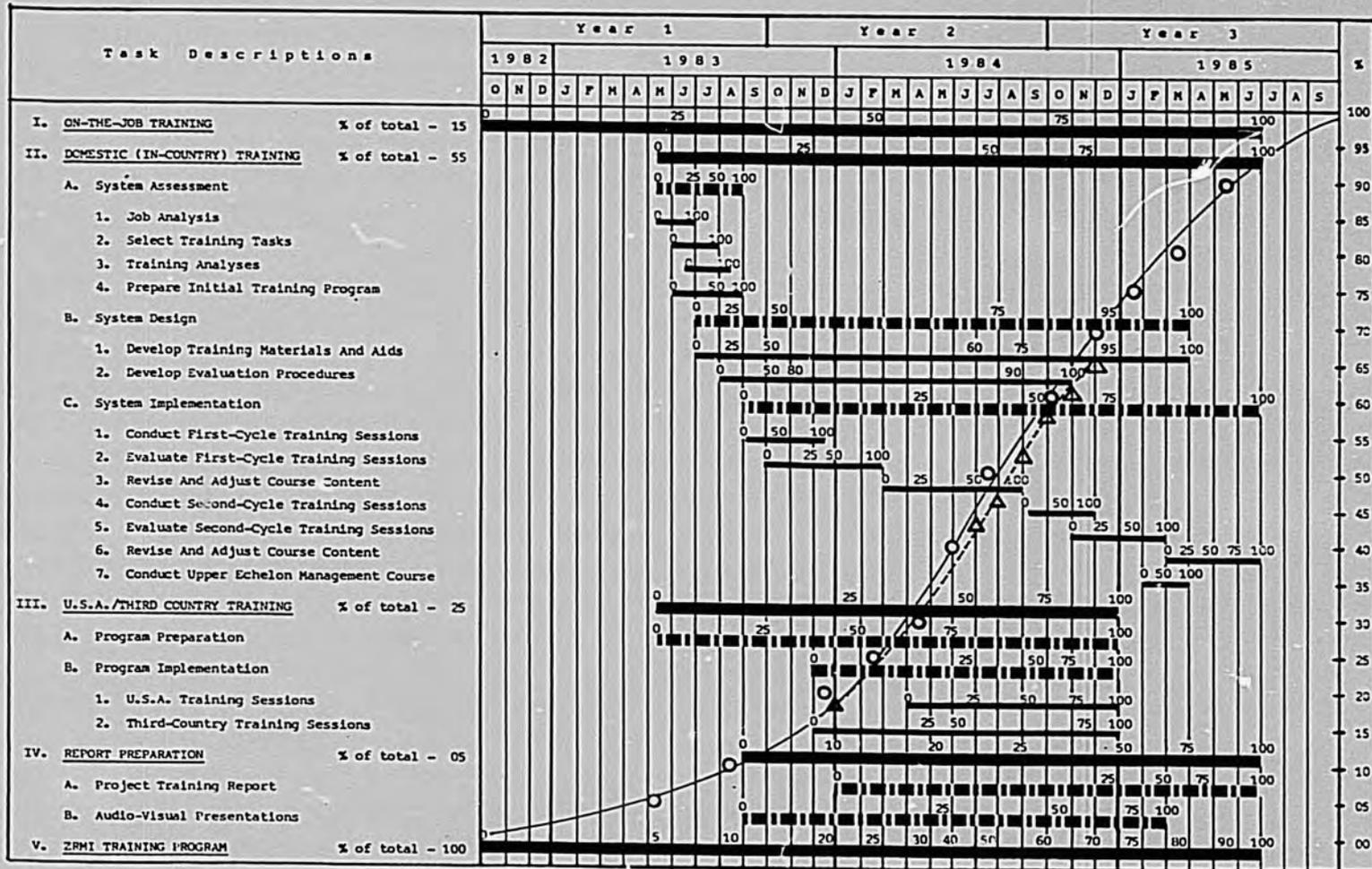
This secondary activity is 100 percent complete.

5.3.2 System Design

This secondary activity is about 90 percent complete. The second-cycle sessions are now complete. But some work on development of

Exhibit VI

ZRMI PROJECT TRAINING PROGRAM SCHEDULE AND CURRENT STATUS



13

training aids and materials remains to be completed in January 1985 in time for use in the Upper Echelon Management Course that is presently scheduled for the first quarter of 1985.

5.3.3 System Implementation

First-Cycle Training Sessions - 100 percent complete

First-Cycle Evaluations - 100 percent complete

(First) Course Revision And Adjustment - 100 percent complete

Second-Cycle Training Sessions - 100 percent complete

Sylhet - 41 participants

Rangpur - 40 participants

Faridpur - 51 participants

Second-Cycle Evaluations - 67 percent complete

Sylhet - Completed in October

Rangpur - Completed in November

Faridpur - Completion in December

Combined - Completion in January

(Second) Course Revision And Adjustment - This work, if any is indicated, will be undertaken in February 1985.

Upper Echelon Management Course - Scheduled to be presented during the first quarter of 1985.

5.4 U.S.A/Third Country Training

5.4.1 Program Preparation

This program remains at 85 percent complete. The Second AIT Training Course, scheduled for November/December 1984, had to be suspended because necessary BDG approval/clearance was not obtained in time to meet the schedule. Now a new time must be scheduled for sometime early in 1985. There has been no further action on the scope and venue of any subsequent U.S.A training/observation sessions.

5.4.2 Program Implementation

First U.S.A Session - 98 percent complete

No trip reports have yet been received from any of the participants

Second U.S.A Session - Since there has been no decision concerning U.S.A training/observation trips subsequent to the first session, there is no progress to report on this segment of the program.

First AIT Session - 98 percent complete

To-date, the DE, Rangpur, is the only participant to submit a trip report.

Second AIT Session - This segment remains at 20 percent complete on 01 November, AIT advised that it was possible to comply with the

Project's request to postpone the starting date from 18 November to 25 November. However, by mid-November it became painfully apparent that BDG clearance would not be obtained in time to even meet the revised starting date. Consequently, it was necessary to ask AIT to suspend the course until sometime early in 1985. Negotiations are now underway to set a new date for the Second AIT course.

5.5 Report Preparation

5.5.1 Project Training Report

This secondary activity is about 25 percent complete

5.5.2 Audio-Visual Presentations

Slide/Cassette Preparation - The first 80-slide carousel tray and synchronized tape cassette has been completed in the English language. It is planned that four more such combinations will be completed by the end of February 1985.

Overhead Projector Transparencies - Work continues on the framing of all transparencies used in training sessions. It is expected to be completed by the end of January 1985.

Cordless Microphone/Amplifier - This unit was received in late November and will be used in all future training activities.

6.0 CONSTRUCTION SYSTEM AND SUPERVISION

6.1 General

All three Districts have reported that the advent of good construction weather has been accompanied by an acceleration in contractor activity and work progress. While the Sylhet District was the most optimistic in this regard, the Rangpur District reported that progress, while improved, was not as much as it could have been.

Maps displaying the locations of the individual projects in Sylhet, Rangpur, and Faridpur are included as Exhibits III, IV, and V, respectively. Bar charts showing scheduled and achieved progress for projects in all three Districts may be found in Appendix C. Photos of typical site situations for Rangpur and Faridpur Districts may be found in Appendix D. There are no photos of Sylhet District because the camera fell in the river.

6.2 Sylhet District

1982-1983 Projects

6.2.1 Phahbondar - Shamsherganj Road

ZRMI/17/82-83 - Pavement

This project is 100 percent complete and the final bill processed.

6.2.2 Atgram - Zakiganj Road

ZRMI/18/82-83 - Pavement

With the exception of the completion of the extension of the access ramp as stipulated in final payment terms, this contractor has complied with the final remedial work required by his contract.

This project is 100 percent complete and the final bill processed.

6.2.3 Sylhet - Kamal Bazar Road

ZRMI/19/82-83 - Pavement

This project is 100 percent complete and the final bill processed.

6.2.4 Tajpur - Goalabazar - Syedpur - Khadimpur Road

ZRMI/20/82-83 - 13 nos. RCC Pipe Culverts (Revised)

The latest inspection trip to the project site revealed no further progress in final completion works. The RE, Sylhet, has spent an undue portion of his time rechecking this project to assure that the work has been done correctly; this should be the function of the Zila Parishad personnel. No further running bills will be processed until the following works have been completed :

Km 0.5)	These culverts require more backfill material (headwall
km 0.8)	to headwall)
km 1.9		Excavate defined inlet and outlet channels
km 2.8		Headwall repair on one end and additional backfill
km 4.3		Excavate inlet channel and additional backfill
km 4.8		Backfill conforming to embankment on both ends
km 9.1		Culvert installation is under construction
km 9.8		The installation of three additional pipe culverts should be started soon

This project is considered to be 80 percent complete and one running bill has been processed.

ZRMI/21/82-83 - Box Culvert

This project is 100 percent complete and the final bill processed.

6.2.5 Fenchuganj - Ghilachara Road

ZRMI/22/82-83 - Pavement

At the time of the last site visit, work on this project was limited to earth-filling on the shoulders. It seems that the supervisor had suffered an accident with boiling bitumen and had been taken to the hospital.

If the contractor continues to perform the same quality of work, it will be acceptable. The contractor's representative was advised to grade the side ditches and to finish the shoulders as he progresses with the pavement, so that when the end of the job is reached, it will be completed and there will be no necessity to go back for remedial work.

This project is considered to be 75 percent complete, and three running bills have been processed.

ZRMI/23/82-83 - 6 nos. RCC Pipe Culverts

After the first contract for this project had been rescinded, a second work order was issued on 30 July 1984. To date, there has been no appreciable progress.

6.2.6 Dhakadakshin - Beanibazar Road

ZRMI/24/82-83 - Earthwork And Pavement (Revised)

For the present, this project must be considered to be complete. The construction of a box culvert and retaining wall, programmed under the '84-'85 Schemes, will delay the paving of the last 100 m until these structures are complete. In the meantime, the contractor should repair and grade the shoulders and excavate side ditches where required.

This project is considered to be 90 percent complete, and three running bills have been processed.

ZRMI/25/82-83 - RCC Pipe Culverts (Revised)

There has been no further progress on this contract.

This project is considered to be 60 percent complete, and two running bills have been processed.

6.2.7 Bahubal - Putijuri - Bijnaghat Road

ZRMI/11/82-83 - Pavement

This project is 100 percent complete, and final payment has been made. However, as reported previously, the road shoulders have been badly eroded and require immediate maintenance. No efforts to this effect have been reported to date.

1983 - 1984 Projects

6.2.8 Bahubal - Putijuri - Bijnaghat Road

ZRMI/01/83-84 - Pavement

The work on this project is of poor quality. Despite repeated recommendations to correct and compact the subgrade, the contractor continues to try to correct the subsidence problem by applying more material and running the roller over the area. The mudholes which were not drained still exist under the material applied to cover them. This basic weakness must be corrected before this work will be accepted.

This project is considered to be 50 percent complete, and one running bill has been processed.

ZRMI/02/83-84 - Box Culvert (Putijuri)

A by-pass channel has been completed, foundation and base slab are complete, and form work for the divider walls is in progress. This contractor always advises the RE and XEN personnel when formwork is complete so that it may be inspected prior to the placing of concrete.

This project is considered to be 25 percent complete, and one running bill has been processed.

ZRMI/03/83-84- 2 nos. box culverts (Resurat And Burigao)

With the exception of final cleanup, both of these culverts have been completed. A final review was made on 15 November and the recommendations sent to the XEN.

This project is considered to be 99 percent complete, and the final bill is being processed.

ZRMI/04/83-84 - 2 nos Box Culverts (Fultoli And Kandigaon)

This contract was revised to 3 smaller box culverts near the original locations. Except for final cleanup and channel clearing, all have been completed.

This project is 99 percent complete and final bill is being processed.

ZRMI/05/83-84 - Box Culvert (Kargaon)

This project is 99 percent complete and final bill is being processed.

ZRMI/06/83-84 - 4 nos. Box Culverts (Gaznipur, Aingaon, Debpur)

Two of the four culverts have been completed, but no approach work or cleanup has been accomplished.

This project is considered to be 50 percent complete, and one running bill has been processed.

ZRMI/07/83-84 - 13 nos. RCC Pipe Culverts

There has been no significant progress during this reporting period. The inlet and outlet channels of the 3 culverts already placed have not been opened. The contractor should be advised that the placing of the culvert and headwalls does not constitute a finished job; the backfill must be properly placed and compacted to grade and the channels opened and cleaned before the structure can be accepted as complete. The contractor has a casting plant at Aingaon, and those pipe completed to date seem to be of good quality.

This project is considered to be 60 percent complete, and one running bill has been processed.

6.2.9 Atgram - Zakiganj Road

ZRMI/09/83-84 - Box Culvert

This contract has been awarded twice and rescinded twice. The contractor who is now working was obtained on the 8th call. He was mobilized and excavating for the foundation slab at the time of the last site visit. Alignment and location were checked and found to be adequate.

This project is considered to be 05 percent complete. No running bills have been processed.

ZRMI/10/83-84 - Pavement

The surface treatment for the paving of this contract is progressing well and is of good quality. The contractor is organized, listens to recommendations, and is working two areas simultaneously. This contract should be completed by the middle of January 1985.

This project is considered to be 78 percent complete, and 4 running bills have been processed.

ZRMI/11/83-84 - Leveling Course

After the Consultant refused to certify any payment for the sub-standard work on this project, the contractor returned to the job site and undertook the necessary remedial work on the portion already placed. His workmanship has shown marked improvement over past practices, and if he continues in this mode, the project will be acceptable. Some additional remedial work is required at the village intersection.

This project is considered to be 60 percent complete, and 3 running bills have been processed.

6.2.10 Tajpur - Goalabazar - Syedpur - Khadimpur Road

ZRMI/12/83-84 - Pavement (Revised)

The pavement portion of this project is complete and can be certified without restriction. However, the earthwork portion of the contract cannot be considered under USAID guidelines.

This project is 100 percent complete and final bill is being processed.

ZRMI/13/83-84 - Box Culvert 8(Revised) (New Market)

The smaller of the two box culverts included in this revised contract has been deleted as being inadequate. Work is now in progress to clean up and repair the base slab of the larger one before proceeding with the balance of the work.

This project is considered to be 22 percent complete, and one running bill has been processed.

6.2.11 Fenchuganj - Ghilachara Road

ZRMI/14/83-84 - Earthwork And Leveling Course (Revised)

Until a roller arrives to work on the final grading and cambering of the sub-base before base materials are placed, all work has been temporarily suspended. However, material collection and processing is still in progress.

This project is considered to be 85 percent complete, and one running bill has been processed.

6.2.12 Dhakadakshin - Beanibazar Road

ZRMI/15/83-84 - Box Culvert (Revised)

The last of the five box culverts in this revised contract was completed during this reporting period. This culvert, located at km 4, is the only one of the five that is certifiable as to workmanship and quality. The other four will not be certified by the Consultant because of unacceptable quality.

This project is considered to be about 65 percent complete. No running bills have been processed.

ZRMI/16/83-84 - Earthwork And Pavement (Revised)

Quality of workmanship on this contract has improved noticeably during this reporting period; principally because the PM has directed that all running bills must be certified by the Consultants.

This project is considered to be 55 percent complete, and two running bills have been processed.

6.2.13 Nabiganj - Baniyachung Road

ZRMI/17/83-84 - Box Culvert (Nabiganj)

The contractor began construction of this culvert at the end of October and is making good progress. The materials are up to specification and the workmanship is of good quality. The contractor always alerts the XEN and the RE when forming and reinforcing work is ready for the placing of concrete. The pouring of the top slab began on 29 November, so it is expected that this culvert will be completed by the end of 1984. Since this contractor has been awarded the construction of five culverts on this road under the '84-'85 Schemes, and access is over the culvert now under construction, the contractor has a sense of urgency.

The lack of adequate material for the approaches for this culvert poses a potential problem. When the siting of the culvert was under discussion, the local people promised to make the necessary borrow material available. However, now that the culvert is under construction, they have changed their minds. A tank, located about 150 m from the site, is being deepened, and this will supply some of the necessary borrow. The quality of the material is marginal and the quantity available is insufficient.

This project is considered to be 85 percent complete, and one running bill has been processed.

1984 - 1985 Projects

6.2.14 Shabondar - Shamsherganj Road

ZRMI/9A/84-85 - 2.825 km Leveling Course) Both contracts have
ZRMI/9B/84-85 - 2.825 km Leveling Course) been awarded, but no
work orders issued.

6.2.15 Bahubal - Putijuri - Bijnaghat Road

ZRMI/12/84-85 - Reconstruction Of 8 nos. Bridge Slabs

Work will involve the lowering of the height of existing culverts to conform with a more realistic road grade. Tk. 631,219 work order has been issued.

6.2.16 Atgram - Zakiganj Road

ZRMI/13/84-85 - Construction Of 31 m Bridge at Km 6.42

Tk. 893,420 work order has been issued.

ZRMI/14/84-85 -Construction of 15 nos. RCC Pipe Culverts

Tk. 258,978 work order has been issued.

6.2.17 Tajpur - Goalabazar - Syedpur - Khadimpur Road

ZRMI/16/84-85 - Construction of 31 m Bridge At Nayabondar

Tk. 920,000 work order has been issued.

6.2.18 Fenchuganj - Ghilachara Road

ZRMI/17/84-85 - Pavement Over Esisting Leveling Course, 0.925 km

Tk. 764,537 work order has been issued.

ZRMI/18/84-85 - 2.30 km Leveling Course

Tk. 455,829 work order has been issued.

ZRMI/19/84-85 - One Each Box Culvert At km 1.45 And Km 1.96

Tk. 518,874 work order has been issued. The contractor has started the demolition of the abutments of the old bridge and the construction of a detour. The RE assisted the contractor to site and align the structure. Experience with this contractor would indicate that good work can be expected.

This project is considered to be 05 percent complete. No running bills have been processed.

6.2.19 Dhakadakshin - Beanibazar Road

ZRMI/21/84-85 - Box Culvert And Retaining Wall At Dhakadakshin Bazar

Tk. 585,686 work order has been issued. Work has started on the excavation of the base of the retaining wall, and on the demolition of the damaged bridge that is to be replaced by the culvert.

This project is considered to be 05 percent complete. No running bills have been processed.

ZRMI/22/84-85 - Construction of 46 m Bridge Over Lula River

Tk. 1,269,600 work order has been issued.

6.2.20 Nabiganj - Baniyachung Road

ZRMI/24/84-85 - Box Culvert At Barrakhal

Tk. 429,128 work order has been issued.

ZRMI/25/84-85 - 3 nos. Box Culverts At Gujakhair And Omarpur

Tk. 822,547 work order has been issued.

6.3 Rangpur District

1982-1983 Projects

6.3.1 Gaibandha - Kamarjani Road - HBB

Maintenance of road embankment is essential.

This project is 100 percent complete.

6.3.2 Mirganj - Jaldhaka Road - Pavement

Groups A, B, And C

The bituminous carpeting is 100 percent complete.

Group D

WBM work was completed in October, but no further progress observed for this reporting period. Some stone chips have been collected at the site, but the material contains a high percentage of both dust and boulders.

6.3.3 Chatra - Khalashpir - Bhendabari Road - Bituminous Carpeting

Groups A And B

The Group A contractor completed the carpeting work during this reporting period, and the Group B contractor has this work in progress. The quality of work in both cases is questionable. In spite of repeated admonitions, the contractors have used oversize stone chips in the work. Compaction has been inadequate, and the thickness of the carpeting layers is not up to specification. Defective portions in Group A require correction, and shoulder improvement must be completed by both groups.

Group C-1

Bituminous carpeting is complete, but the defective work has not been corrected. In one area, the surface is undulating, and in some sections, the seal coat has not been properly applied. Shoulder improvement must also be completed.

Group C-2

Following a suspension of eight months, this contractor finally resumed work on 27 November. Progress of carpeting work is slow, but quality of work is improving. Shoulder improvement should be undertaken as quickly as possible.

Group D-1

Work on this project, also suspended for eight months, was resumed during this reporting period. This group still has some 200 lin. ft. of WBM to complete. Stone chips for bituminous carpeting are being stockpiled, but no shoulder improvement work has been started.

Group D-2

Bituminous carpeting is 100 percent complete, but some seal coat correction and shoulder improvement work remains to be done. These remaining tasks were undertaken by the contractor on 22 November.

6.3.4 Kamdia - Ghoraghat Road - HBB

Groups A, C, And D

HBB work is complete, but extensive shoulder repair is required.

Group B

Shoulder improvement and correction of some HBB work must be undertaken before this project is complete. It is considered that this project is now 95 percent complete.

6.3.5 Rajarhat - Ullaghata Road - HBB

Groups A And D

The work is 90 percent complete in both groups, but the quality of the work is sub-standard. The road embankment condition is very poor and must be improved along with needed shoulder improvements.

Group B And C

These work orders were cancelled and new tenders requested on 22 October, but no new work orders have yet been issued.

1983 - 1984 Projects

6.3.6 Gaibandha - Kamarjani Road - Bituminous Pavement

Group A

The contractor has completed WBM on 3060 lin. ft., but no further progress has been observed. No materials were found on site during the recent inspection. This is the ideal time for shoulder improvement operations, but no work of this type is in progress. This project is considered to be 35 percent complete.

Group B

About 700 lin. ft. of WBM have been completed, but there is not sufficient material on hand to complete this work. The contractor is not well organized, he is working in a haphazard manner and must be reminded to collect sufficient material in anticipation of the next operations. It is estimated that this work is only 08 percent complete.

Group C

The contractor has completed WBM work for 1950 lin. ft, but the work is not satisfactory. Compaction and thickness shortcomings must be corrected before the work will be acceptable. Shoulder improvement work is not complete. There is no material on site for the next operation, and work has been suspended since mid-November. This project is considered to be 25 percent complete.

6.3.7 Mirganj - Jaldhaka Road - Bituminous Carpeting

Group A

Following cancellation of the original work order, a new work order was issued on 21 November, with an allowable completion time of 37 days. This was not reasonable, especially in view of the fact that other contractors on the same road have not been able to complete the same type and scope of work within 8 months. As of the end of this reporting period, the new contractor had not yet undertaken any work at the job site.

Group B

This contractor is finally working in an acceptable manner; however, the accumulated material at the job site will not be sufficient for completion of his work. This project is considered to be 65 percent complete.

Group C- 1

A new work order was issued on 21 November, and the new contractor has started collecting materials for his work. However, as in the case of Group A, the time limit allowed for completion is not realistic.

Group C-2

This contractor has spread khoa for the second layer of WBM, but he has done nothing since that operation. Some under-burnt khoa was found in the khoa that has been placed, and this must be corrected before compaction is undertaken. It is estimated that this project is 43 percent complete.

Group D

The contractor has spread khoa on about 500 lin. ft., but the work is not acceptable. The work order was cancelled in mid-November and a new work order has not yet been issued.

6.3.8 Chatra - Khalashpir - Bhendabari Road - Bituminous Carpeting

Group A

About 1705 lin. ft. of WBM has been completed, but no material for the completion of the WBM is on site. Except for the stockpiling of pea gravel and some stone chips, no further work was accomplished during this reporting period. This project is considered to be 30 percent complete.

Group B

About 1955 lin. ft. of WBM has been completed, but no material is available on site for the completion of the balance of the WBM. Some pea gravel and stone chips have been accumulated on site, but no additional work is underway. This project is considered to be 35 percent complete.

Group C

About 1780 lin. ft of WBM has been completed, but there is no material on site for the completion of the rest of the work. Neither the contractor, nor his representative have been on-site for a long time. The project is considered to be 30 percent complete.

Group D

About 1050 lin. ft of WBM has been completed, but there is no material on site for the completion of the work. This project is considered to be 15 percent complete.

Group E

About 1500 lin. ft of WBM has been completed, but there is not sufficient material on site to complete the WBM work. This project is considered to be 20 percent complete.

Group F

About 1400 lin. ft of WBM has been completed, but there is not enough material on hand to complete the balance of the WBM work. This project is considered to be about 18 percent complete.

6.3.9 Kamdia - Ghoraghat Road - HBB

Group A

A call for new tenders was published in October, and a new work order was issued on 21 November. No progress to report.

Groups B And C

The HBB work has been completed in both groups, but the quality of the work is unacceptable. Corrective measures are in progress to bring the work up to specifications. Shoulder improvement must be undertaken immediately.

Group D

The first work order was rescinded and a call for new tenders on 06 November produced no acceptable bids. New tenders were received on 26 November, but no decision has yet been taken.

1984 - 1985 Projects

The tenders, opened on 06 November, were found to be generally unacceptable, and a new call was issued. The new tenders were opened on 26 November, but the RE was not represented because all personnel were on field inspection trips. The list of the tenders, with recommendations of the Commission as written by the XEN, are included as Exhibit VII.

6.4 Faridpur District

1982 - 1983 Projects

6.4.1 Badarpur - Saltha Road - Bituminous Paving

Group A

Project is 100 percent complete and final payment processed.

6.4.2 Madhukhali - Baliakandi Road - Bituminous Paving

Groups A, B, C, And D

Projects are 100 percent complete and final payment processed.

Exhibit VII - HANGPUR '84-'85 SCHEMUS

RESULTS OF TENDERING AND EVALUATION ON 26/11/84

Project Description	Estimated Price (Tk)	Name Of Tenderer	Tender Amount Difference (%)	Recommendations And Remarks XEN, LGEB (Paraphrased)
<u>Baradarga - Bhendabari Road</u>				
Construct 8' Span RCC Box Culvert At 2nd Mile Before Gurjiparahat	120,000	Mr. Abdul Hamid	7.54 % Less	The lowest tender of 7.54 % less may be accepted.
		Md. Kazi Ish	5.00 % Less	
		Mr. Abul Kalam Azad	5.00 % Less	
		Mr. Sultanul Alam	1.77 % Less	
		Mr. Ansar Hossain	As Per Estimate	
		M/S S.A. Construction	5.00 % Less	
		Mr. Abdul Halim	5.00 % Above	
Construct 13' Span RCC Slab At 2nd Mile Near Gurjiparahat	75,000	Mr. A. Salam	5.00 % Less	The lowest tender of 11.00 % less may be accepted.
		Mr. Abdus Salam	5.00 % Above	
		Mr. Abdul Halim	5.00 % Above	
		Mr. Hufto Mahmud	9.34 % Less	
		Mr. Sultanul Alam	As Per Schedule	
		Mr. Zakaria Khan	5.00 % Less	
		Mr. Saidur Rahman	5.01 % Less	
		Mr. Abul Kalam Azad	5.00 % Less	
		Mr. Abdul Hamid	11.00 % Less	
		Mr. Kazi Md. Ish	5.00 % Less	
Construct 30" RCC Ring Culvert At 2nd Mile	40,000	Mr. Rezaul Hassan	9.77 % Less	The lowest tender of 9.77 % less may be accepted.
		Mr. Soliman Ahamed	7.00 % Less	
		Mr. Abdul Malek Proddhan	9.35 % Less	
		Mr. Zakaria Khan	2.00 % Less	
		Mr. Shafiul Alam	5.00 % Less	
Construct 30' Span RCC Bridge At Sharifpur	345,000	M/S Momen Brothers	9.41 % Above	All 30' span RCC bridges are being redesigned by ECL, at the Dhaka office, so the decision of the tender may be kept pending.
		M/S Eastern Builders	5.00 % Less	
		Mr. Atiar Rahman	2.93 % Above	
		Mr. Ekramul Haque	3.98 % Above	
Construct Bituminous Carpeting Group A	545,110	M/S National Construction	11.94 % Above	Single tender received, so may be re-tendered.
		M/S Shahid Dhuli Construction	25.00 % Above	
Construct Bituminous Carpeting Group B	545,110	Mr. Shamsul Haque	23.00 % Above	The lowest bid is very high, and the number of bidders is inadequate, so re-tender.
		Mr. Moklessar Rahman	9.00 % Above	
Construct Bituminous Carpeting Group C	545,110	Mr. Shamsul Haque	23.00 % Above	Single tender received, so may be re-tendered.
		Mr. Shamsul Haque	23.00 % Above	
Construct Bituminous Carpeting Group A	546,776	Mr. Shamsul Haque	23.00 % Above	Single tender received is very high, so re-tender.
		Mr. Shamsul Haque	23.00 % Above	
Construct Bituminous Carpeting Group B	546,777	M/S Eastern Builders	11.94 % Above	The number of bidders is inadequate, so re-tender.
		Mr. Ekramul Haque	14.00 % Above	
Construct Bituminous Carpeting Group C	546,777	No Tenders Received	--	No tenders received, so this may be re-tendered.
		No Tenders Received	--	
<u>Gaibandha - Kamarjani Road</u>				
Construct 10' Span RCC Bridge At Darlapur	170,000	Mr. Mohiuddin Ashraf	8.00 % Above	The lowest tender of 5.00 % less may be accepted.
		Mr. Rasheda Khanim	5.00 % Above	
		Mr. Jelial Uddin	5.00 % Less	
Construct Bituminous Carpeting Group A	400,000	Mr. A.K.M. Showkat Ali	19.00 % Above	The lowest bid is high and the number of bidders is inadequate, so re-tender.
		Mr. M.H. Nabi Lulu	15.00 % Above	
Construct Bituminous Carpeting Group B	400,000	Mr. A.K.M. Showkat Ali	15.00 % Above	The lowest bid is high and the number of bidders is inadequate, so re-tender.
		Mr. M.H. Nabi Lulu	19.00 % Above	
<u>Gaibandha - Naldanga Road</u>				
Construct 20' Span RCC Bridge Under Kholahati Upazila	290,000	Mr. Shamul Kumr Ch.	5.95 % Less	Lowest bidder did not submit earnest money, so re-tender.
		Mr. Anowarul Azim	9.56 % Above	
		Mr. Zakaria Khan	12.00 % Above	
Construct 20' Span RCC Bridge Near Naldanga	290,000	Mr. Shamsul Haque	3.00 % Less	Lowest bid is acceptable, but number of bidders is inadequate. To be decided.
		Mr. Nuran Nabi Sarkar	3.11 % Above	
Construct 30' Span RCC Bridge Above Railway Bridge	345,000	Mr. Nuran Nabi Sarkar	8.77 % Above	All 30' span RCC bridges are being redesigned by ECL, at the Dhaka office, so the decision of the tender may be kept pending.
		M/S Momen Brothers	9.41 % Above	

Exhibit VII - RANGPUR '84-'85 SCHEMES (Cont.)

RESULTS OF TENDERING AND EVALUATION ON 26/11/84

<u>Project Description</u>	<u>Estimated Price (Tk)</u>	<u>Name Of Tenderer</u>	<u>Tender Amount Difference (%)</u>	<u>Recommendations And Remarks XEN, LGEB (Paraphrased)</u>
<u>Gaibandha - Ghoraghat Road</u>				
Construct 15' Span RCC Bridge At 3rd Mile	185,000	Mr. Shamsul Haque Mr. Ranjit Bakshi	12.00 % Above 9.56 % Above	The lowest bid is high and the number of bidders is inadequate, so re-tender.
<u>Kamia - Ghoraghat Road</u>				
Construct Bituminous Carpeting Group A	576,666	Mr. A.K.M. Showkat Ali Mr. Kasim Uddin	19.00 % Above 15.00 % Above	The lowest bid is high and the number of bidders is inadequate, so re-tender.
Construct Bituminous Carpeting Group B	576,667	Mr. A.K.M. Showkat Ali Mr. M.N. Nabi Lahu	15.00 % Above 19.00 % Above	The lowest bid is high and the number of bidders is inadequate, so re-tender.
Construct Bituminous Carpeting Group C	576,667	Mr. Amjad Ali	15.00 % Above	The bid is high and the number of bidders is inadequate, so re-tender.
Construct Bituminous Carpeting Group A	652,500	Mr. Mahub Elahi Mr. Shahidul Islam	15.00 % Above 19.00 % Above	The lowest bid is high and the number of bidders is inadequate, so re-tender.
Construct Bituminous Carpeting Group B	652,500	M/S Padma Enterprise Mr. Abdul Kayum Tipu	15.00 % Above 19.00 % Above	The lowest bid is high and the number of bidders is inadequate, so re-tender.
Construct Bituminous Carpeting Group A	652,500	M/S Momen Brothers Mr. Anwarul Azim	19.00 % Above 15.00 % Above	The lowest bid is high and the number of bidders is inadequate, so re-tender.
Construct Bituminous Carpeting Group B	652,500	Mr. Abdul Malek Sarkar Mr. Abdulleh Al Mamud	19.00 % Above 15.00 % Above	The lowest bid is high and the number of bidders is inadequate, so re-tender.
<u>Mirganj - Jaldhaka Road</u>				
Construct Bituminous Carpeting Group A	586,666	Mr. Nakib Hossain M/S Shahed & Co.	17.23 % Above 9.00 % Above	The lowest bid is high and the number of bidders is inadequate. The XEN feels that the lowest bid is very close to that in Group B in which there is competition, so this must be decided.
Construct Bituminous Carpeting Group B	586,667	Mr. Abul Hossain M/S Dillu & Co. Mr. Shamsul Haque	9.95 % Above 9.53 % Above 8.00 % Above	The lowest bid of B % above may be considered for acceptance.
Construct Bituminous Carpeting Group C	586,667	Mr. Atiar Rahman	4.91 % Above	Only one bid received, but the XEN considers that since this is less than the lowest bid of Group B, where there is competition, the Committee may consider acceptance.
<u>Ralerhat - Ullaghatta Road</u>				
Construct 30' Span RCC Bridge At Pangahat	345,000	Mr. Forhad Ali M/S Momen Brothers Mr. Mostafizur Rahman Mr. Serajul Islam Tuku	8.00 % Above 9.41 % Above 7.50 % Above 5.00 % Less	All 30' span RCC bridges are being redesigned by BCL, at the Dhaka office, so the decision of the tender may be kept pending.
Construct 30' Span RCC Bridge At Baddar Bazar	345,000	M/S Momen Brothers Mr. Kh. Md. Inhaque	9.41 % Above 7.50 % Above	All 30' span RCC bridges are being redesigned by BCL, at the Dhaka office, so the decision of the tender may be kept pending.

1983 - 1984 Projects

6.4.3 Badarpur - Saltha Road - Bituminous Paving

Group B

Project is 100 percent complete and final payment processed

Group C

Project is 100 percent complete and final payment processed

6.4.4 Madhukhali - Baliakandi Road - Bituminous Paving

Group E

Project is 100 percent complete and final payment processed

Group F

Project is 100 percent complete and final payment processed

Group G

Contractor has completed 4000 lin. ft of carpeting. Work was suspended on 20 November when the supply of pea gravel for the seal coat was exhausted. The project is considered to be more than 70 percent complete.

Group H

Project is 100 percent complete, but no final payment certificate has yet been received.

Group I

Project is 100 percent complete, but no final payment certificate has yet been received.

Group J

Carpeting began on 15 November, but work was suspended from 18 November to 26 November for poor workmanship. Some 500 lin. ft of carpeting have been completed to date. The project is considered to be more than 50 percent complete.

6.4.5 Hatkrishnapur - Piajkhali Road - Bituminous Paving

Group A

Some 2500 lin. ft of HBB has been completed. The contractor has now been removed from the job for non-performance and use of sub-standard materials. Examples follow :

Sand	:	Fineness Modulus	:	Specifications	-	0.8, Actual	-	0.31
Brick	:	Unit Weight	:	Specifications	-	120 lb/cu. ft		
				Actual	-	112 lb/cu. ft		
		Absorbtion	:	Specifications	-	16%, Actual	-	18.5%

Groups B, C, And F

These contracts have never been awarded.

Group D

This project is complete except for warranty maintenance and installation of an equalizer culvert. Local resistance to this culvert must be resolved before the work can proceed.

Group E

This project is complete except for warranty maintenance.

1984 - 1985 Projects

In the last monthly report, the results of the meeting of the Tendering Committee meeting of 21/10/84 were reported. The Tendering Committee met again on 24 November, and the results of this meeting are shown on Exhibit VIII. It should be noted that tenders for two groups of HBB pavement on the Hatkrishnapur - Piajkhal Road were called for 26 November.

7.0 PROCUREMENT OF EQUIPMENT

7.1 Local Procurement

7.1.1 Tar Boilers

LGEB must notify USAID the estimate of total cost so that USAID can proceed to issue a new PIL.

7.1.2 Trailer-Mounted Water Tanks

The local contractor is far behind his promised delivery date for these water tanks. If delivery is not soon forthcoming, it may be necessary to take some serious action.

Exhibit VIII - FARIDPUR '84-'85 SCHEMES

RESULTS OF TENDERS AND EVALUATIONS ON 24/11/84

Estimate Number	Description	Tenderer	Amount Of Tender (Tk)	Difference (%)
24*	Bonagram Bridge Appr.	A. Bari Miah	885,000	0
25**	Majumder Bari Bridge	Atiar Rahman	587,860	- 5.00
26**	Taltalar Bridge	K.M. Thrahim	621,015	- 5.00
27**	Khaigo Bridge	S.S. Construc.	564,604	- 7.29
28**	Sadarpur Bridge	Akter Hossain	980,400	- 5.00
	Sub-Total Awarded		3,638,879	
	Previously Awarded (21/10/84)		22,760,880	
	Total Awarded To Date		26,399,759	

- * Sole bidder
- ** Located on Hatkrishnapur - Piajkhal Road

7.2 International Procurement

7.2.1 Heavy Equipment And Tools

As agreed at a meeting on 13 November 1984, as soon as MLG notifies USAID of acceptance of USAID's proposed procurement procedures, orders can be placed.

7.2.2 Vehicles

The same procedure mentioned for Heavy Equipment And Tools, applies equally to vehicles. When agreement is received, the question of waiver for the purchase of left-hand drive vehicles will be resolved so that orders can be placed.

8.0 PERSONNEL

The current status of all personnel (WSA?BCL?PAS) is shown in Tabular form in Appendix E.

9.0 PROBLEMS AND PROPOSED SOLUTIONS

9.1 General

For the most part, it appears that both the contractors and the maintenance personnel are mobilizing to take advantage of the prevailing good construction weather. However, some contractors are losing valuable time for lack of planning and foresight. Again the XEN's and the RE's are exhorted to present a united front in encouraging and assisting the contractors to organize their work for the most rapid progress consistent with sound practices.

9.2 Organization And Management

With the abolition of WPW and the creation of LGEB, many problems of organization and management are beginning to surface. It is hoped that the new organization will soon be stabilized so that tables of organization will become available. This will assist the Consultant to finalize any proposed systems that may be sensitive to operating organization.

9.3 Maintenance System And Supervision

From some areas, it has been reported that maintenance operations have been handicapped by a lack of bituminous material, while other areas report that maintenance suffers from a lack of supervision and/or continuity of personnel. These are all problems of organization and scheduling that must be resolved before a viable maintenance system can be firmly established. The RE's are working with their respective XEN's to assist in the solution of these problems. The beneficial impact of road rehabilitation work can be quickly dissipated if it is not followed by adequate routine maintenance.

9.4 Preparation of Technical Specifications

The RE, Sylhet, reports that the problem of inadequate concrete mix design is still present. It is again emphasized that is a very real problem that involves not only the life of the structure, but its safety for use by heavy traffic as well. Experience has shown that road rehabilitation immediately generates a much heavier volume of traffic, and many of these additional vehicles are heavily loaded trucks. If the rehabilitation program is not to be self-defeating, the drainage structures must be capable of safely carrying these greater live loads.

9.5 Training

9.5.1 Third-Country Training

As reported earlier, the second AIT Training Course had to be suspended because the necessary CDG clearance was not obtained. When a new time schedule is obtained, all efforts must be made to obtain the clearance in time to meet the new schedule. Failure to do this will cause the program to lose all credibility with AIT.

9.5.2 U.S.A Training

The problem of scope and extent of any additional U.S.A training/observation courses still has not been resolved.

9.6 Construction System And Supervision

All Districts have reported that quality of contractor workmanship is improving. No doubt the positive action by the XEN's in cancelling the work orders of delinquent contractors was an important contributing factor to this improvement. However, the RE's, and their staffs, must continue to work closely with the XEN's, and their staffs, in promoting continued improvement in quality control.

9.7 Procurement of Equipment

9.7.1 Local Procurement

The principal problem here is to get the total estimate to USAID so that the PIL can be issued for the purchase of the tar boilers. The second problem is to push the local manufacturer to deliver the trailer-mounted water tanks as specified, or perhaps cancel the contract and search for a new supplier.

9.7.2 International Procurement

Problems connected with this element were all discussed at a meeting of all concerned. It was agreed that USAID would agree to immediate purchase as soon as the approval of the proposed procurement plan was received.

9.8 Personnel

No specific problems to mention at this time

9.9 Miscellaneous

No specific miscellaneous problems

10.0 MISCELLANEOUS

The Monthly Financial Statement may be found in Appendix



FRED L. BARNES
CHIEF OF PARTY

APPENDIX- A

PHOTOS OF MAINTENANCE ACTIVITIES

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

RANGPUR DISTRICT
RANGPUR-BADARGANJ ROAD



Fig. 1

Bituminous premixing going on before starting the patching work.



Fig. 2

Patching work started on the road near Rangpur Cantonment.

RANGPUR=BADARGANJ ROAD



Fig. 3

Same work in progress.

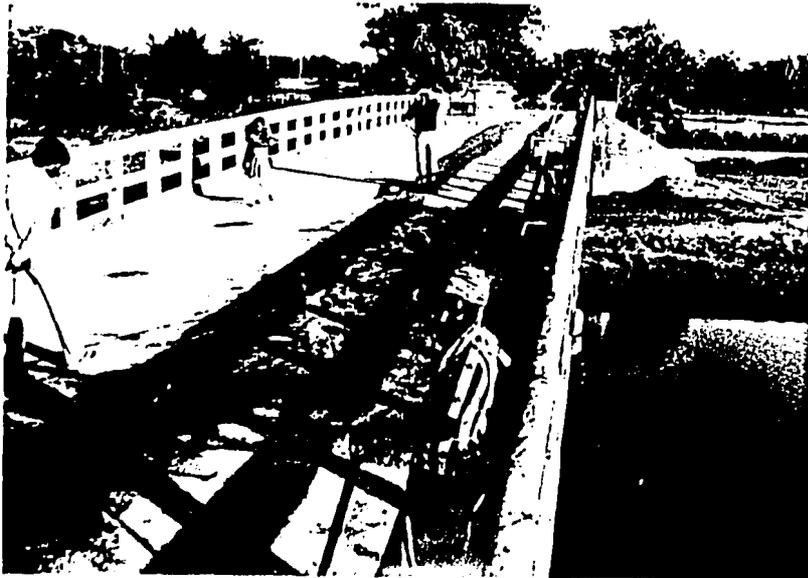


Fig. 4

Wearing Course being provided for Nisbetganj bridge.

FARIDPUR DISTRICT
TALMA=NAGARKANDA ROAD



Fig. 5

Emergency protection measures of the approach of the bridge near Talma Village is in progress.

TALMA-NAGARKANDA ROAD



Fig. 6

View of the bridge approach after completion of the protection work. The wing wall of this bridge has been collapsed during the recent flood.



Fig. 7

Bridge approach is now open for traffic after the protection work.

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TALMA-NAGARKANDA ROAD



Fig. 8

View after repairing the pot holes on bituminous pavement.

APPENDIX- B

SOIL LABORATORY ACTIVITIES

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

LABORATORY ACTIVITIES OF SYLHET DISTRICT FOR THE
MONTH OF NOVEMBER 1984

Name of road/area and location.	Test Result	Sieve /Hydro-meteor analysis.			Atterberg limits.			Field density.		Compaction test.		Compaction.		C.B.R. (%)		Remarks.
		Sand (%)	Silt (%)	Clay (%)	L.L. (%)	P.L. (%)	P.I. (%)	γ_d kg/m ³	W (%)	M.D.D. (kg/m ³)	C.M.C (%)	Modified.	Standard.	Unsoaked.	Soaked.	
Dhakadakhin- Beanibazar Road. (Kushiara River Sand, Sample no. S ₆₇)	F.M. =1.80	100	-	-	-	-	-	-	-	-	-	-	-	-	-	Sample tested for R.C.C. work.
Nabiganj- Baniyachung Road. (Maulvi Bazar Sand, Sample no. S ₆₈)	F.M. =1.13	99	1	-	-	-	-	-	-	-	-	-	-	-	-	Sample tested for R.C.C. Box Bridge.
Nabiganj- Baniyachung Road. (Shari River Sand, Sample no. S ₆₉)	F.M. =3.31	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-Ditto-
Nabiganj- Baniyachung Road. (Maulvi Bazar & Shari Sand, Sample no. S ₇₀)	F.M. =1.96	100	-	-	-	-	-	-	-	-	-	-	-	-	-	Trial mix of 2:1 proportion of fine (S ₆₈) & Coarse (S ₆₉) Sand.
Hajiganj- Bortakari Road (Kandigoan Chara, Sylhet Sadar Upazila, Sample no. S ₇₁)	F.M. =1.68	99	1	-	-	-	-	-	-	-	-	-	-	-	-	Sample supplied by Sylhet Sadar Upazila started R.C.C work.
Sylhet Osmani Airport, (Sample no. S ₇₂)	F.M. =1.58	99	1	-	-	-	-	-	-	-	-	-	-	-	-	Sample Supplied by A.D.A

γ_d = Dry density.
W = Water content.
MDD = Max dry density.
CFC = Optimum water content.

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LABORATORY ACTIVITIES OF SYLHET DISTRICT FOR THE
MONTH OF NOVEMBER 1984

Name of road and location from where materials collected.	Sample no.	Wt. of Cube/ Cylinder.	Size of sample.	Slump.	Proportion of mix.	Age in days	Load in lbs.	Compressive strength in PSI	Remarks.
Test Sample	T/S-A	8500	6"X6"	3"	1:2:4	10	90000	2500.00	Fine Aggregate + Coarse Aggregate (20-30mm down Graded) + Port land cement.
		8500	6"X6"	3"	1:2:4	10	85000	2361.11	
-Ditto-	T/S-B	8550	6"X6"	3½"	1:2:3	10	115000	3194.44	-Ditto-
		8600	6"X6"	3½"	1:2:3	10	105000	2916.67	
Dhakadakshin-Beani bazar Road.	S ₆	8550	6"X6"	3"	1:2:4	14	88000	2444.44	-Ditto- (Onatak Cement is used.)

ff

LABORATORY ACTIVITIES OF RANGPUR DISTRICT FOR THE
MONTH OF NOVEMBER 1984

Name of road and location from where materials collected.	Grading of pea gravels and stone chips by % of finer by sieve analysis.												Remarks.
	Sieve no. 1"	Sieve no. 3/4"	Sieve no. 1/2"	Sieve no. 3/8"	Sieve no. 1/4"	Sieve no. 4	Sieve no. 8	Sieve no. 10	Sieve no. 16	Sieve no. 40	Sieve no. 80	Sieve no. 200.	
Barodarga-Bhendabari Road. (Gr. A&B 1982-83)			100	99.5	89.5	71.5	16.5	-	10.5	-	-	-	This material (Pea Gravel) does not follow the specification.
-Ditto-	20.13	3.10	2.00	-	-	0.6	-	0.15	-	-	-	-	-Ditto-
Mirgang-Jaldhaka Road (Gr. B 1983-84)	93.68	86.31	70.52	-	-	19.99	-	9.56	-	4.20	2.10	0.94	Stone Chips does not follow the specification.
-Ditto-	100	93.33	82.91	-	-	43.74	-	10.45	-	2.08	1.25	0.42	-Ditto-
-Ditto-	100	93.33	85.00	-	-	45.83	-	25.00	-	10.00	3.75	0.83	This material may be used for carpetting.
-Ditto-	100	92.00	77.20	-	-	14.50	-	2.50	-	1.60	1.10	0.50	This material does not follow the specification.
-Ditto-	100	94.00	84.00	-	-	15.00	-	3.00	-	1.50	0.90	0.60	-Ditto-
Mirganj-Jaldhaka Road (Gr. D 1983-84)	100	78.46	51.54	-	-	28.46	-	13.84	-	11.54	6.92	3.84	-Ditto-

LABORATORY ACTIVITIES OF RANGPUR DISTRICT FOR THE
MONTH OF NOVEMBER 1984

Name of road/khal and location.	Test Result	Sieve /Hydro- meter analysis.			Atterberg limits.			Field density.		Compaction test.		% Compac- tion.		C.B.R. (%)		Remarks.
		Sand (%)	Silt (%)	Clay (%)	L.L. (%)	P.L. (%)	F.I. (%)	Yd kg/m ³	W (%)	M.D.D. (kg/m ³)	O.M.C (%)	Modi- fied.	Stan- dard.	Uncon- cod.	Con- cod.	
Rajarhat-Ullaghata Road. (Gr. B, 1982-83) Depth 0'-6"	Sp.Gr. =2.66	14	77	9.	-	-	-	1584.24	17.48	1732	16.75	89.39	-	-	-	Clayey Sandy Silt.
Barodarga-Bhendabari Road. (Gr. D) Depth 0'-6"	-	95.80	4.20	-	-	-	-	1616.82	8.89	1725	13.50	93.72	-	-	-	Material for Sand Cushion -ing Compacti- -on still not as per Speci- -fication.

Yd = Dry density.
W = Water content.
MDD = Max dry density.
O.M.C = Optimum water content.

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APPENDIX- C

BAR CHARTS, PROJECT SCHEDULES AND CURRENT STATUS

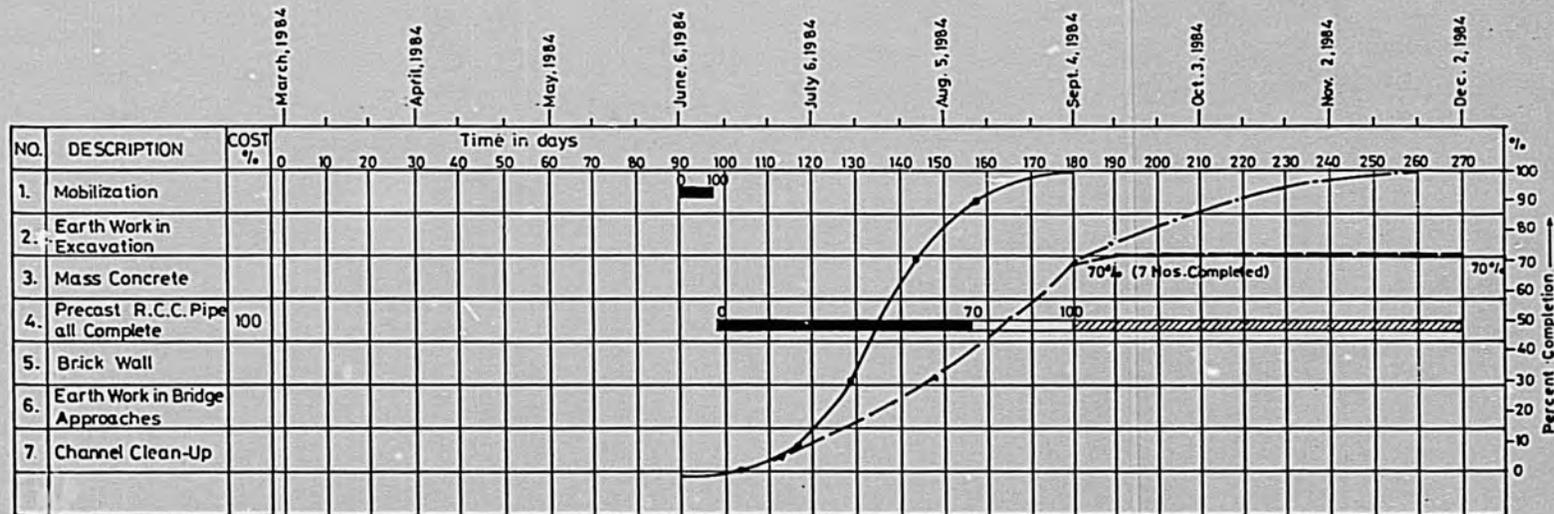
ZLA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

SYLHET DISTRICT

R.C.C. Pipe Culvert (10 NOS) On Tajpur-Khadimpur Road (1982-83)



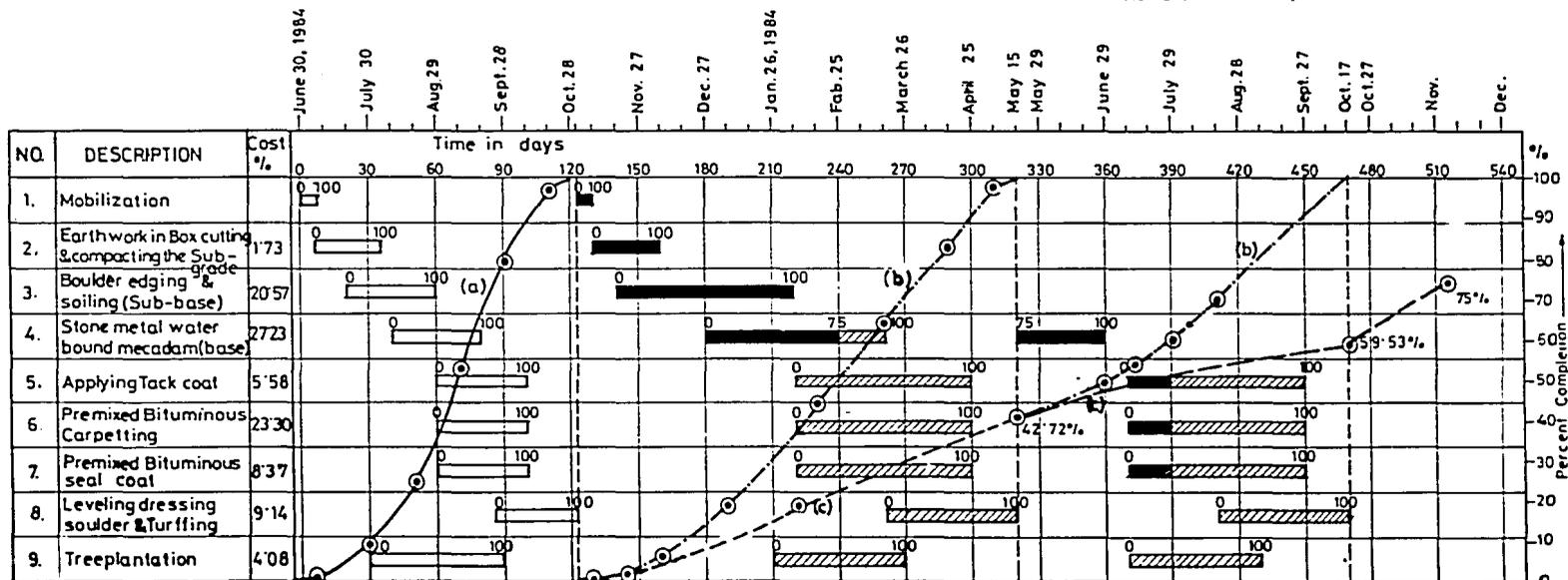
Estimated Cost :TK. 1,44,000/-
 Contract Cost :TK. 1,36,880/-
 Scheduled Starting Date 30, June 1984
 Actual Starting Date
 Scheduled Completion Date 30 Sept. 1984
 Revised Completion Date :
 Revised Cost :TK.
 Date Of Revision :



SYLHET DISTRICT
Bituminous Pavement Work on Fenchugonj- Gilachara Road
Total Length- 0.50 mile (1982-'83)

- (a) Schedule Progress
 (b) Revised Schedule
 (c) Actual Progress

Estimated Cost : TK. 8,36,180/00
 Contract Cost : TK. 7,47,545/00
 Scheduled Starting date : 30 June, 1983
 Actual Starting date : 7 July, 1983
 Scheduled Completion date : 31 Oct. 1983
 Revised Completion date : 15 Oct. 1984
 Revised Cost : TK.
 Date of Revision :



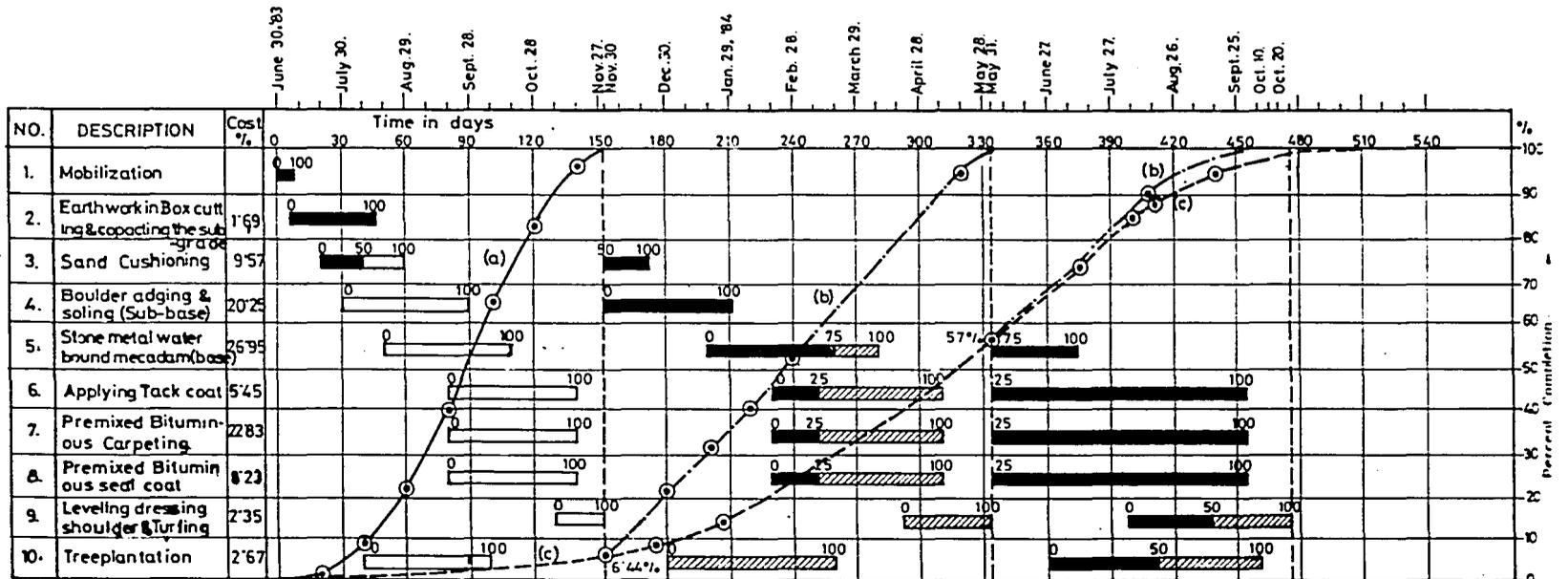
SYLHET DISTRICT

Bituminous Pavement Work on Shahbonder- Shamsharganj -Schindurkhan Road

Total Length 0.75mile (1982 - '83)

- (a) Schedule Progress
- (b) Revised Schedule
- (c) Actual Progress

Estimated Cost :TK. 12,80,000/00.
 Contract Cost :TK. 11,32,032/00.
 Scheduled Starting date : 30 June, 1983
 Actual starting date : July 7, 1983
 Scheduled Completion date: Nov. 30, 1983
 Revised Completion date: Oct. 20, 1984
 Revised Cost :TK.
 Date of Revision

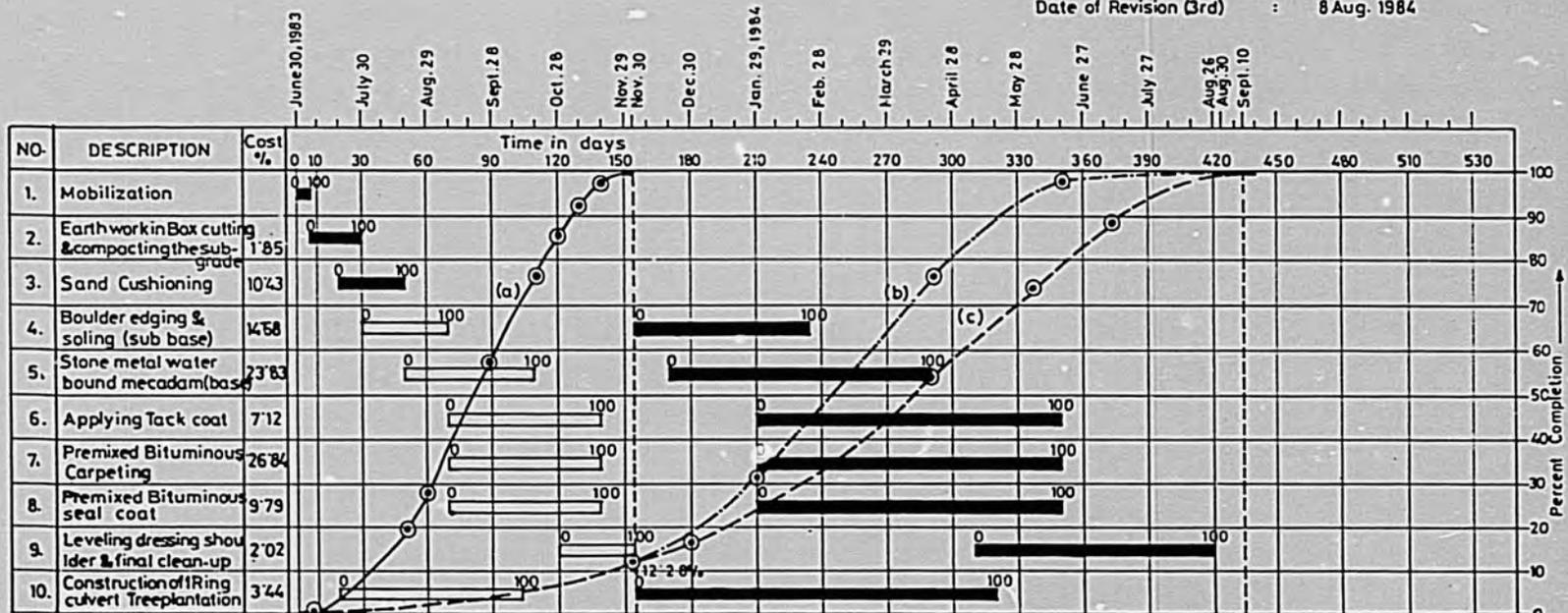


SYLHET DISTRICT

Bituminous Pavement Work on Sylhet-Kamal Bazar Road Total Length 11.4 miles & Construction of 1 Ring Culvert

- (a)  Schedule Progress
 (b)  Revised Schedule
 (c)  Actual Progress

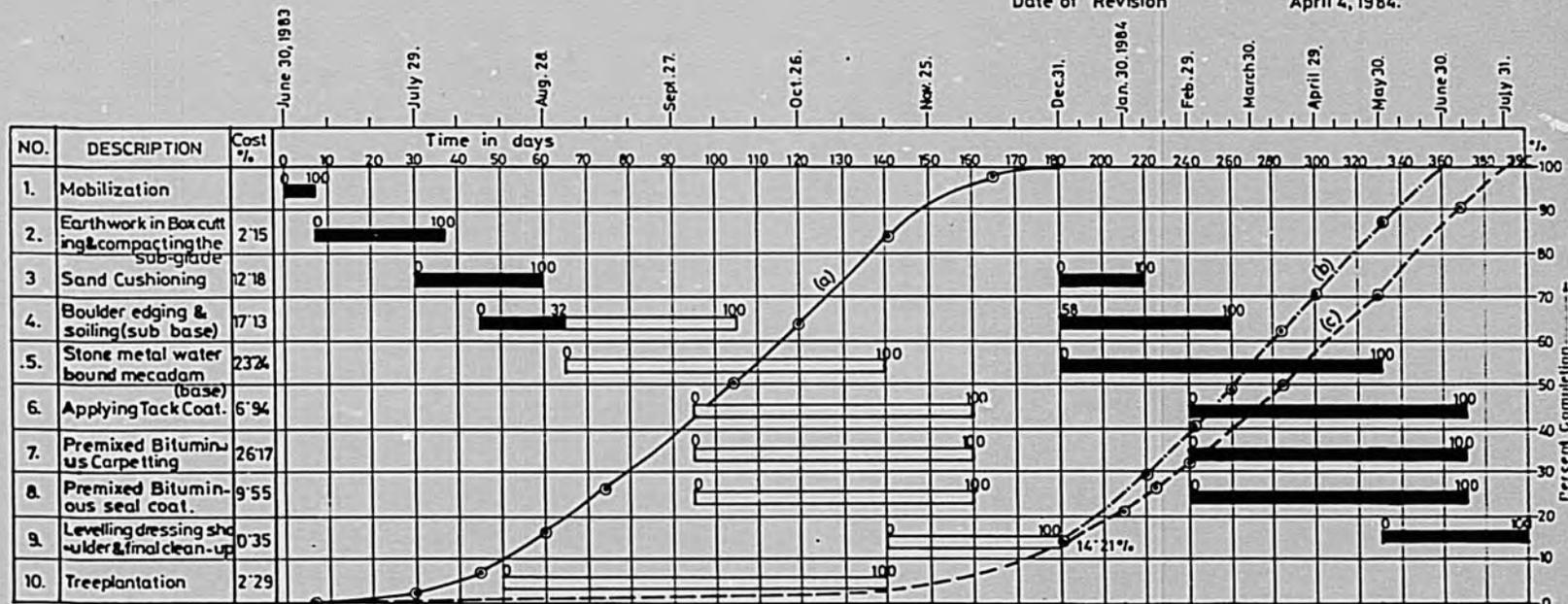
Estimated Cost : TK. 14,87,000/00
 Contract Cost : TK. 13,60,010/00
 Scheduled Starting date : 30 June, 1983
 Actual Starting date : 6 July, 1983
 Scheduled Completion date: 30 Nov. 1983
 Revised Completion date : 30 Aug. 1984
 Revised Cost : TK.
 Date of Revision (3rd) : 8 Aug. 1984



SYLHET DISTRICT
Bituminous Pavement Work on ATGRAM-ZAKIGONJ ROAD
Total length = 1.25 miles (1982 - 83)

- (a)  — Schedul Progress
 (b)  — Revised Schedule
 (c)  — Actual Progress

Estimated Cost :TK. 16,76,000/00
 Contract Cost :TK. 14,24,432/00
 Scheduled Starting date : June 30, 1983
 Actual Starting date : July 7, 1983
 Schedule Completion date : Dec. 31, 1983
 Revised Completion date : July 31, 1984
 Revised Cost :TK. 14,33,824/00
 Date of Revision April 4, 1984.



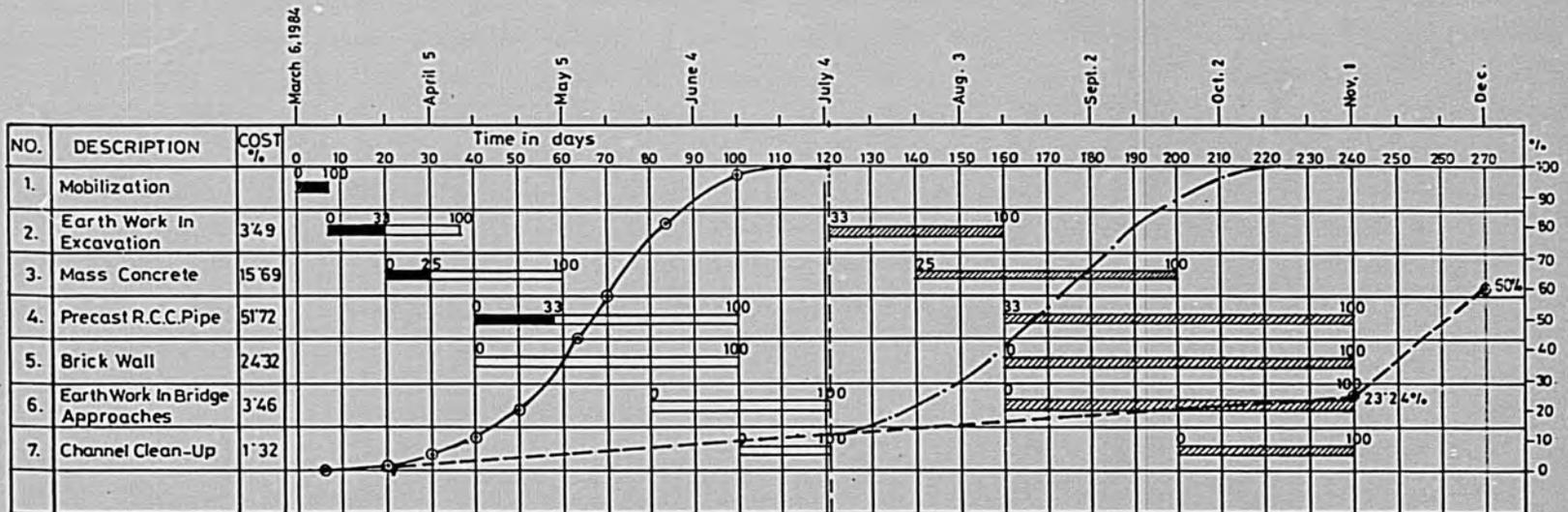
SYLHET DISTRICT

R.C.C. Pipe Culvert (13 Nos) On Bahubal - Bijnaghat Road

(1983 84)

- (a)  Schedule Progress
 (b)  Revised Schedule
 (c)  Actual Progress

Estimated Cost :TK. 2,08,000/00
 Contract Cost :TK. 2,18,400/00
 Scheduled Starting Date : 6.March,1984.
 Actual Starting Date :
 Scheduled Completion Date : 6.July,1984.
 Revised Completion Date :
 Revised Cost :TK.
 Date Of Revision :



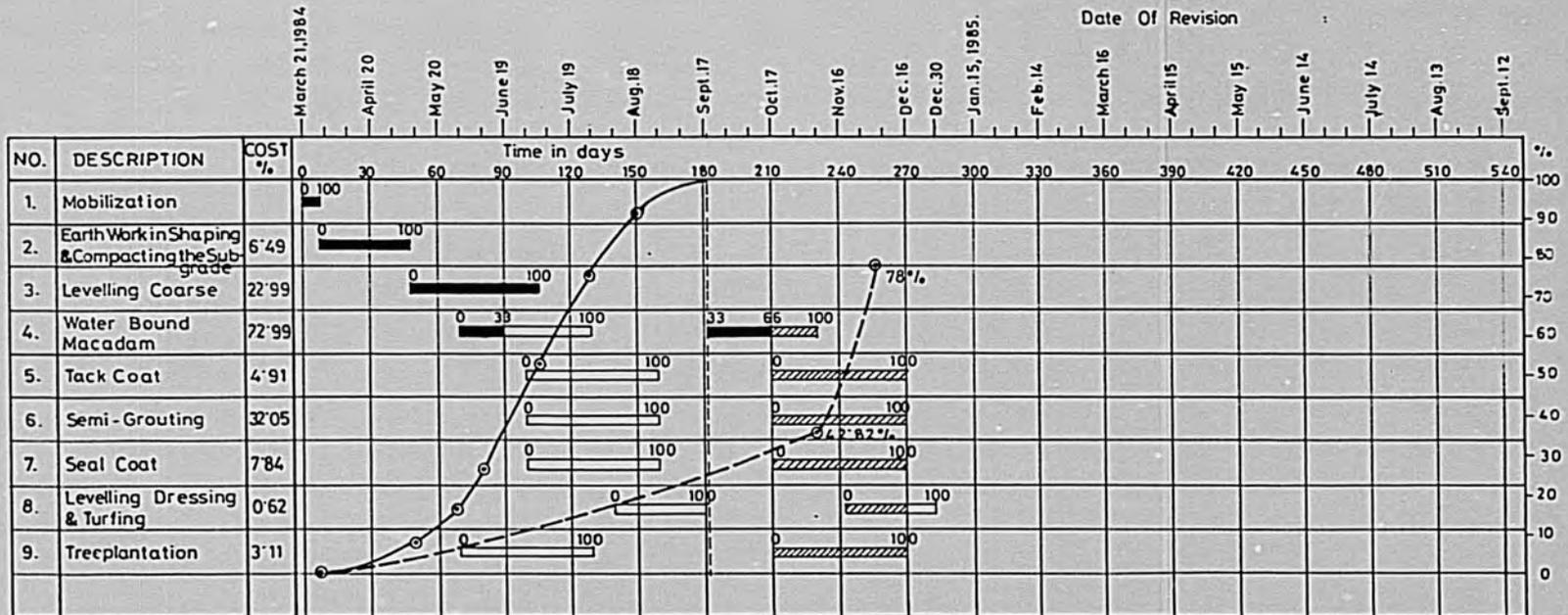
SYLHET DISTRICT

Bituminous Pavement Work On Atgram-Zakigonj Road

Total Length 1.78 km.(1983-84)

- (a)  Scheduled Progress
- (b)  Revised Schedule
- (c)  Actual Progress

Estimated Cost :TK. 16,18,750/00
 Contract Cost :TK. 15,94,469/00
 Scheduled Starting Date : 21. March. 1984
 Actual Starting Date :
 Scheduled Completion Date: 20 Sept. 1984
 Actual Completion Date :
 Revised Cost :TK.
 Date Of Revision :

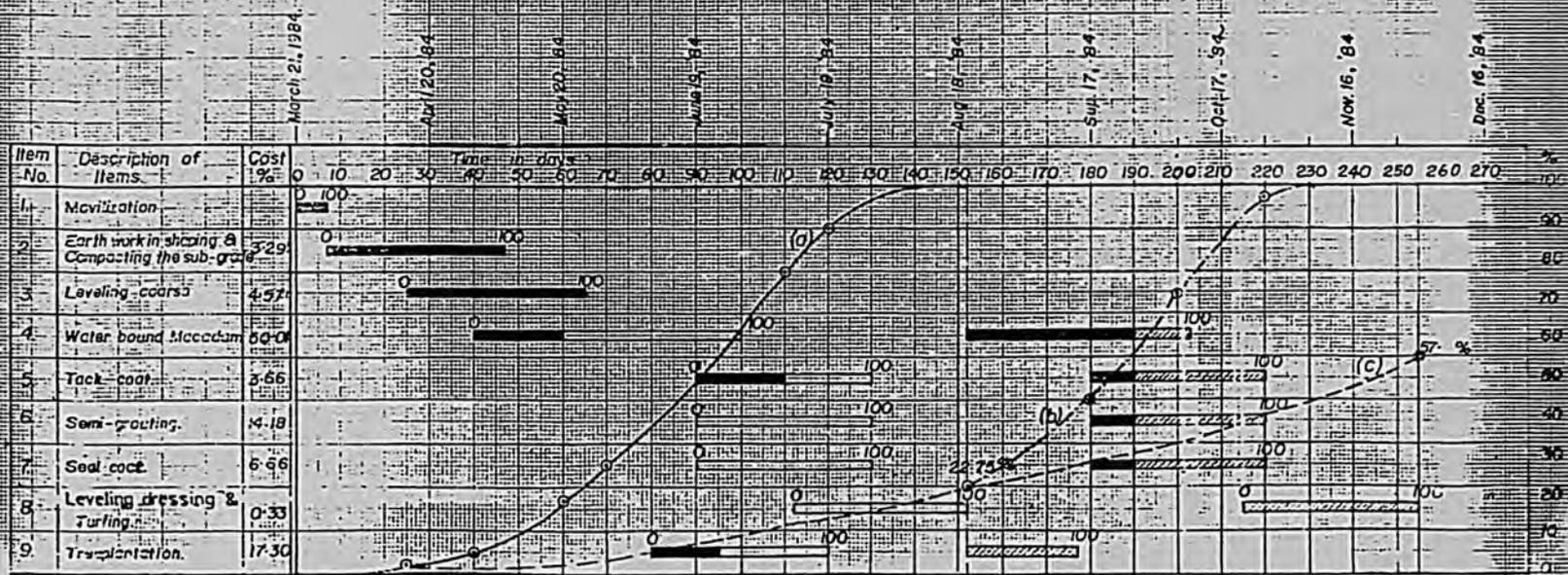


SYLHET DISTRICT

Bituminous Pavement work on Banubal-Putijuri-Bijnaghat Road Total length = 0.25 km. (1983-84).

- (a) Schedule Progress
- (b) Revised Schedule
- (c) Actual Progress

Estimated Cost: Tk. 2,91,400/00
 Contract Cost: Tk. 2,94,314/00
 Scheduled Starting date: 21, March, 1984
 Actual Starting date: _____
 Scheduled Completion date: 20, Aug. - 1984
 Actual Completion date: _____
 Revised Cost: Tk. _____
 Date of revision: _____

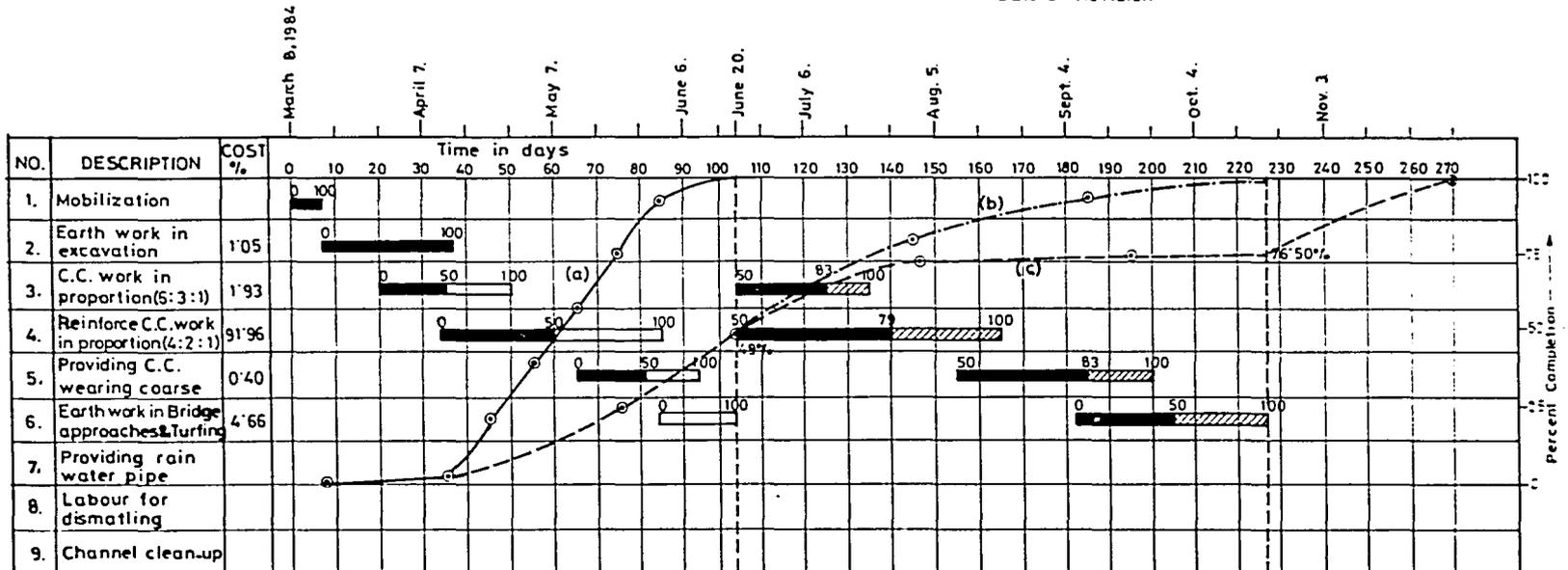


SYLHET DISTRICT

Construction of 5 Nos. 1'50m. span 1'50m. high Box Culvert instead of 6'83m. span 4'11m. high Box Culvert on Dhakadaksin-Beanibazar Road. 1983-'84

- (a)  Schedule Progress
 (b)  Revised Schedule
 (c)  Actual Progress

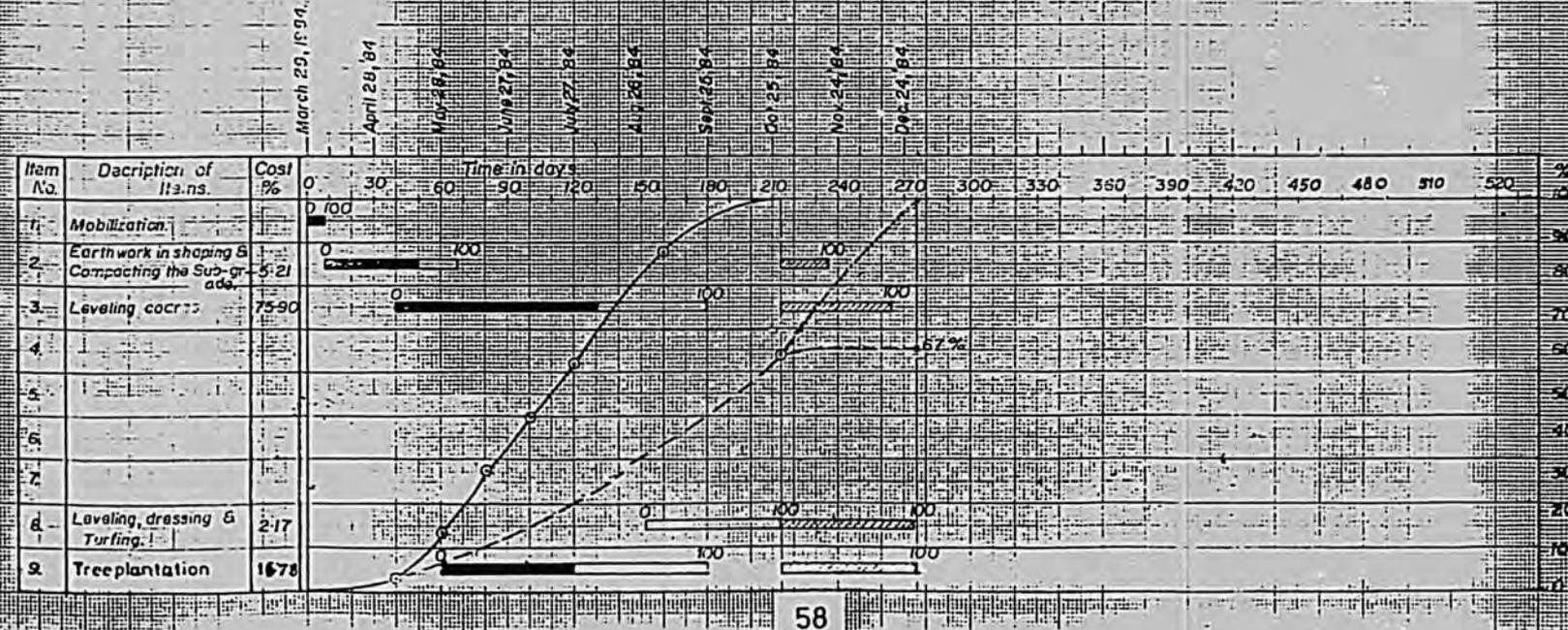
Estimated Cost :TK. 2,10,500/00
 Contract Cost :TK. 2,21,025/00
 Scheduled Starting date : 8 March, 1984
 Actual Starting date
 Scheduled Completion date: 20 June, 1984
 Revised Completion date : 3 Nov. 1984
 Revised Cost :TK.
 Date of Revision



SYLHET DISTRICT

Leveling Coarse work on Fanchugonj - Gilachara Road Total length = 2.30km. (R) (1983-'84).

(a)		Schedule Progress	Estimated Cost : Tk. 15,65,300.00
(b)		Revised Schedule	Contract Cost : Tk. _____
(c)		Actual Progress	Scheduled Starting date : 29 March, 1984
			Actual Starting date : _____
			Scheduled Completion date : 29 Oct, 1984
			Actual Completion date : _____
			Revised Cost : Tk. 4,14,300.00
			Date of revision : 11 Oct, 1984

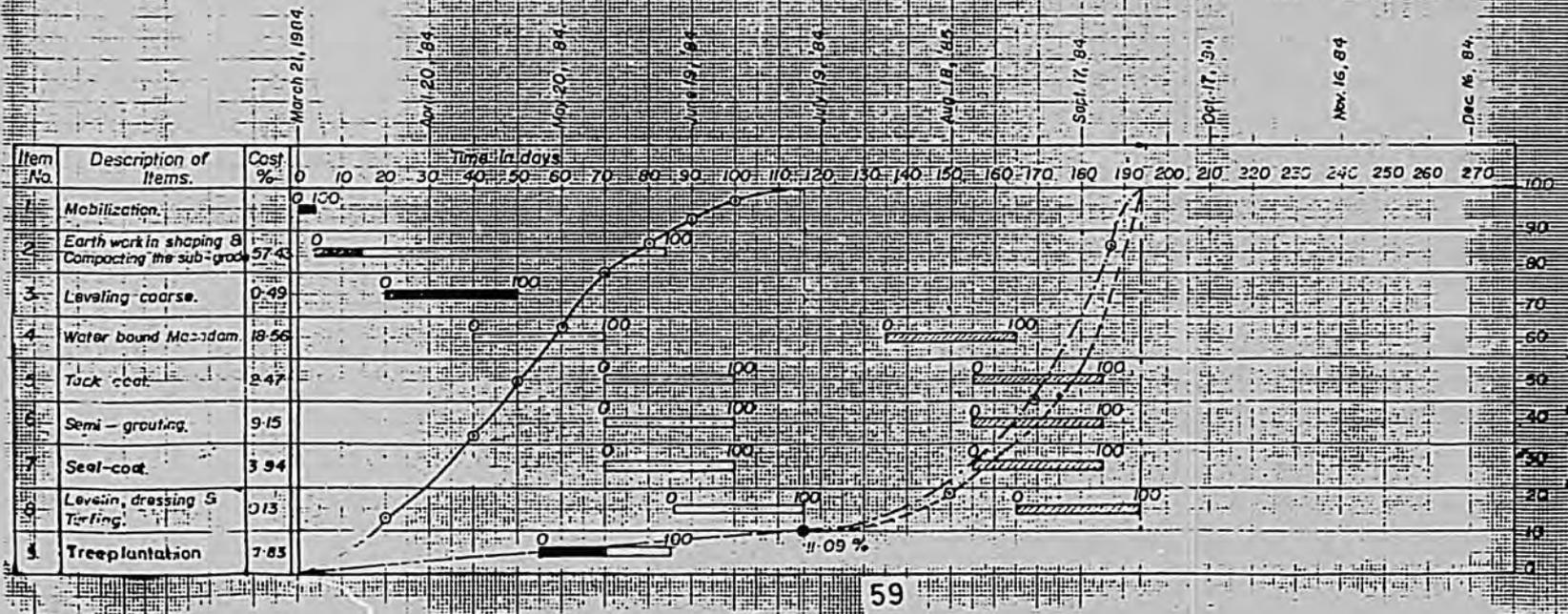


SYLHET DISTRICT

Bituminous Pavement work on Tajpur - Syedpur Road Total length = 0.355 km. (1983-84)

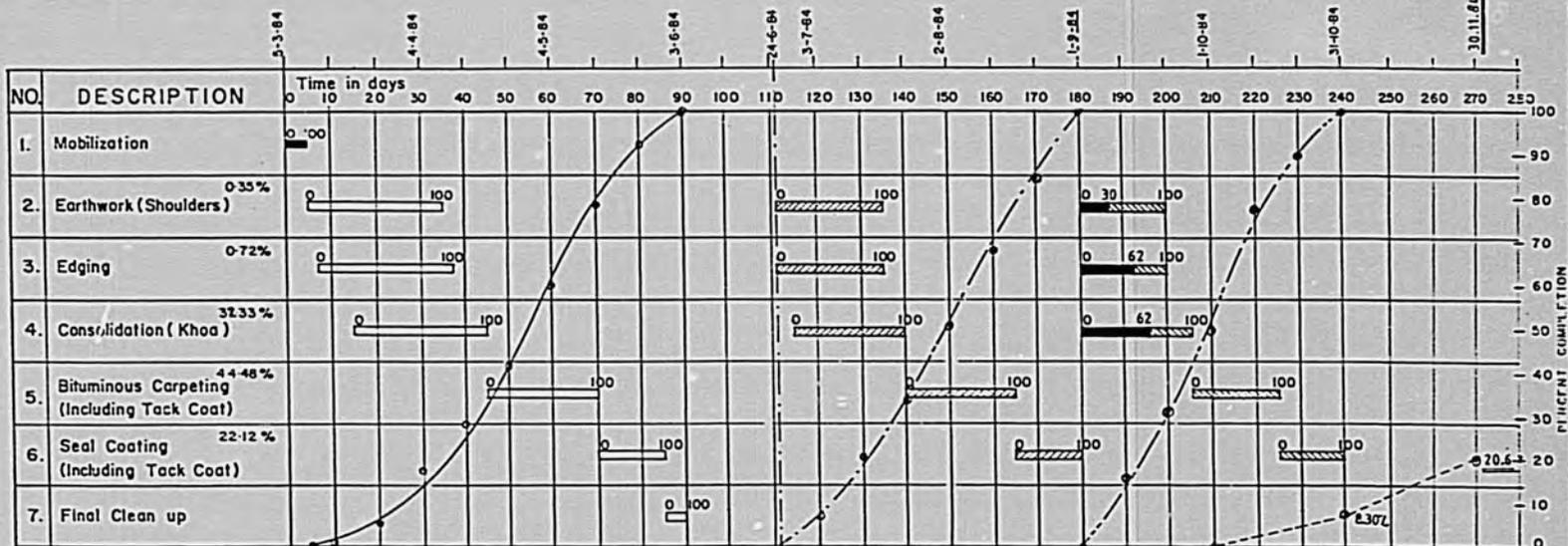
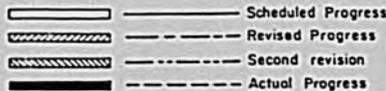
- (a)  Scheduled Progress.
- (b)  Revised Schedule.
- (c)  Actual Progress.

Estimated Cost : Tk. 6,43,500-00
 Contract Cost : Tk. 6,75,675-00
 Scheduled Starting date : 21 March, 1984
 Actual Starting date :
 Scheduled Completion date : 20 July, 1984
 Actual Completion date :
 Revised Cost : Tk. 2,10,099-00
 Date of revision : 28 Nov. 1984



RANGPUR
IMPROVEMENT OF GAIBANDHA KAMARJANI ROAD-1983-84
KHOA CONSOLIDATION AND BITUMINOUS CARPETING
ON EXISTING H.B.B

Estimated Cost : Tk = 16,90,000
 Contracted Cost : Tk = 17,57,598
 Scheduled Starting Date : March 5, 1984
 Actual Starting Date : —
 Scheduled Completion Date : June 5, 1984
 Revised Completion Date : August 31, 1984
 Second revision : October 31, 1984
 Dates of revision : Jun 24, 1984
 Sept. 1, 1984
 Total Length Scheduled : 9180 feet
 Total Length Contracted : 9180 feet

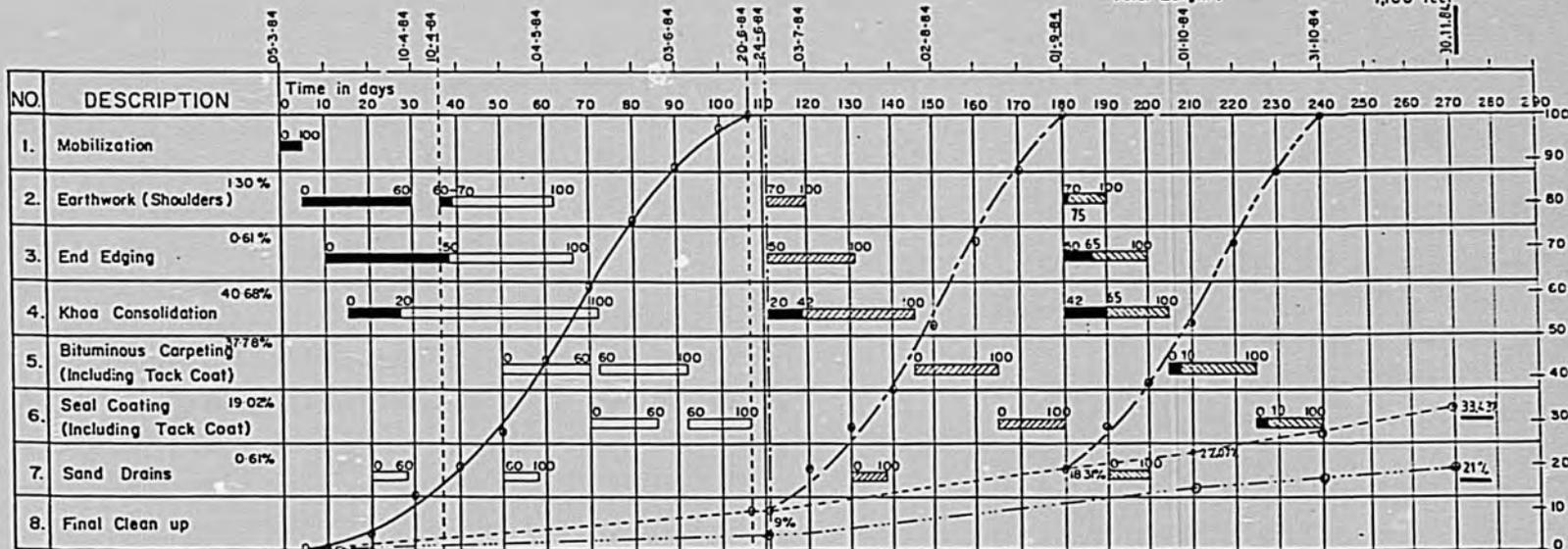
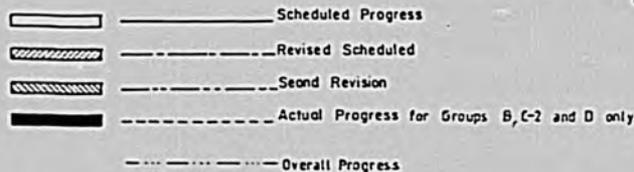


NOTE.— Except for some materials collected and some amount of bricks broken for khoa, no actual work has been performed by any group. Lock of a road roller is hampering progress of this road and the Contractors could not actually perform any work. Actual progress therefore is zero. If any credit is given to the material collection and khoa preparation, then an actual 5% could be assigned to this scheme.

Work has been started on October 1st, 1984. Compaction is being done with a small vibratory roller with acceptable results.

RANGPUR
IMPROVEMENT OF MIRGONJ-JOLDHAKA ROAD-1983-84
BITUMINOUS CARPETING

Estimated Cost : Tk=1563,692 (3 Groups)
 Contracted Cost : Tk=15,74,044
 Scheduled Starting Date :
 Group C2 & D : March 3, 1984
 Group B : April 7, 1984
 Actual Starting Date :
 Group C2 & D : March 10, 1984
 Group B : April 10, 1984
 Scheduled Completion Date :
 Group C2 & D : June 5, 1984
 Group B : April 10, 1984
 Revised Completion Date (all) : August 31, 1984
 Second Revision for completion : October 31, 1984
 Dates of revision : June 24, 1984
 September 1, 1984
 Total Length : 7,100 feet

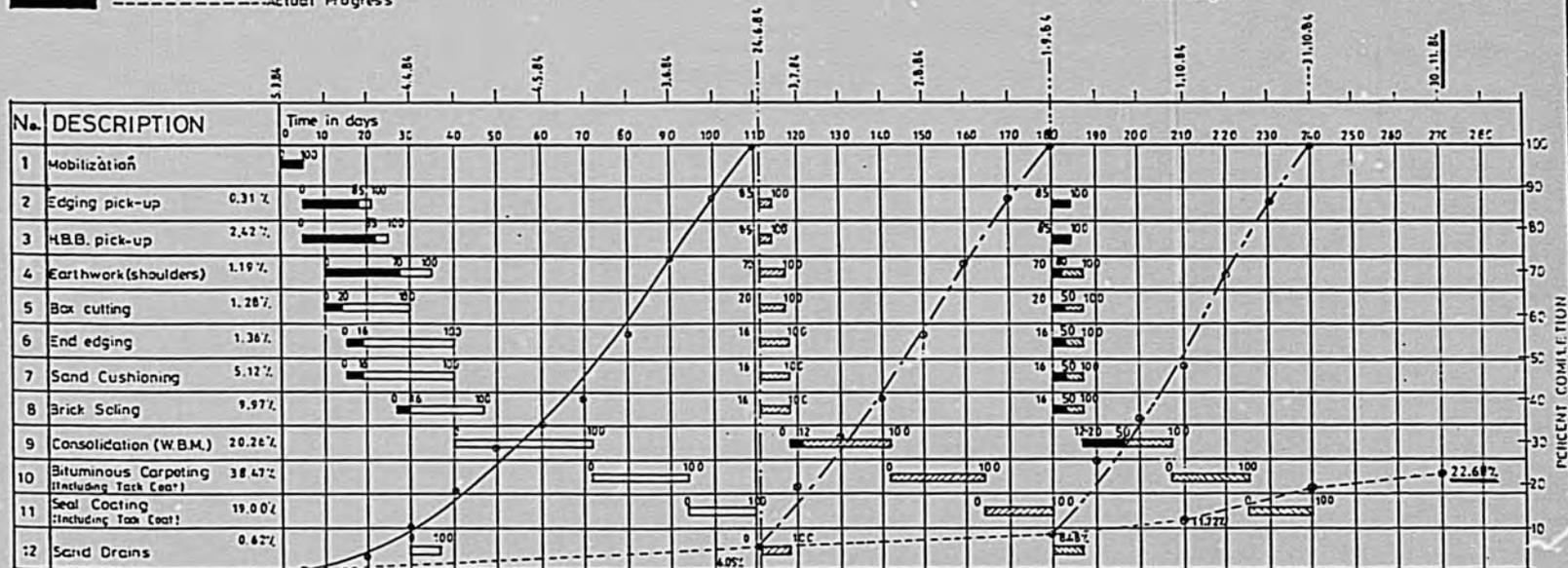
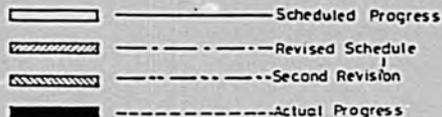


NOTE:- Curves and percent progress shown are for Groups B, C2 and D only, since the work order for Groups A and C1 have been cancelled by the Z.P.

Work Orders for Groups A and C-1 have been given by the Z.P. on November 21, 1984

RANGPUR IMPROVEMENT OF BARODARGA-BHENDABARI ROAD 1983-1984 BITUMINOUS CARPETING

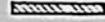
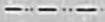
Estimated Cost: Tk. 495,621
 Original Contracted Cost: Tk. 420,890
 Revised Contracted Cost: Tk. 46,99,96
 Scheduled Starting Date: 5 March, 1983
 Actual Starting Date: 16 March, 1983
 Scheduled Completion Date: 5 June, 1984
 Revised Completion Date: 31 August, 1984
 Second Revised Date: 31 October, 1984
 Dates of Revision: 24 June, 1983
 15 Sept, 1983
 Total Length: 15000 feet

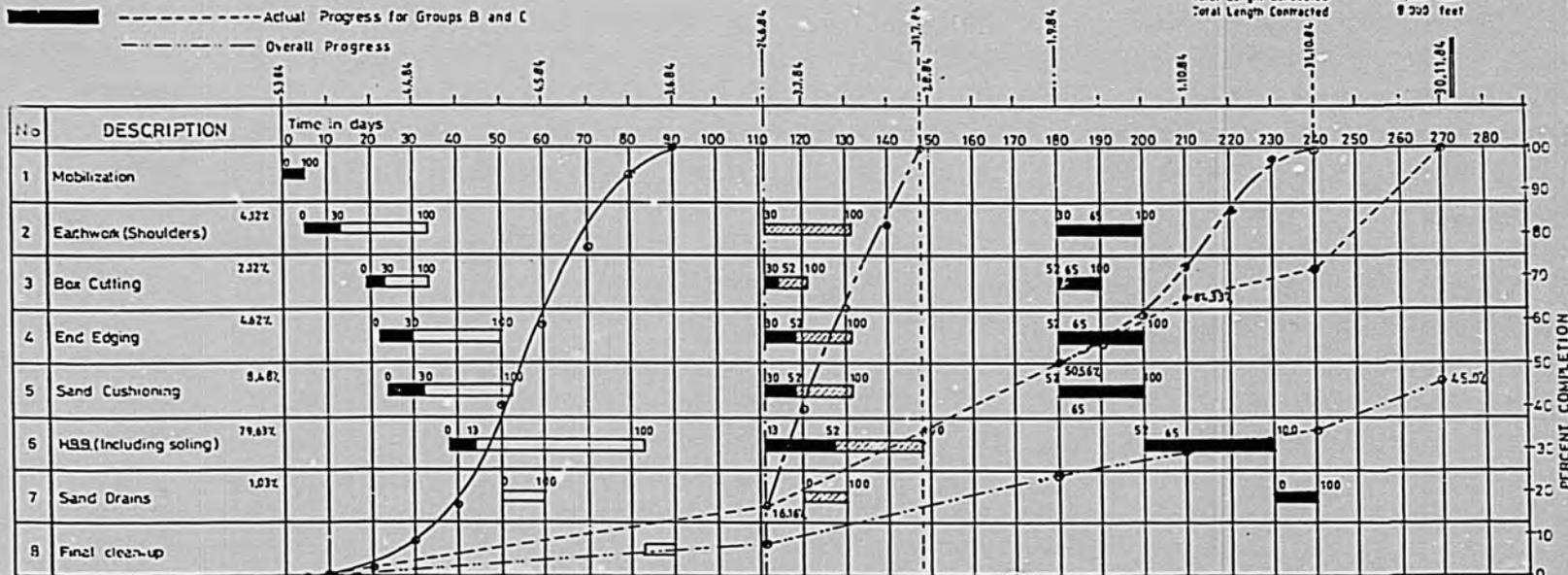


Note: Time for construction according to the Work Order, is 90 days. However, the minimum time required is 110 days. The Scheduled Progress shown has been prepared on the basis of 110 days

RANGPUR
IMPROVEMENT OF KAMDIA-GHORAGHAT ROAD 1983-1984
H.B.B. WORK

Estimated Cost Tk 14,45,870
 Contracted Cost Tk 10,89,668 (no tender for Group A)
 Scheduled Starting Date 5 March, 1984
 Actual Starting Date 10 March, 1984
 Scheduled Completion Date 5 June, 1984
 Revised Completion Date 31 July, 1984
 2nd. Revised Completion Date 31 October, 1984
 Dates of revision 24 June, 1984
 1st. September, 1984
 Total Length Scheduled 11,000 feet
 Total Length Contracted 9,200 feet

-  Scheduled Progress
-  Revised Schedule
-  Second Revision
-  Actual Progress for Groups B and C
-  Overall Progress

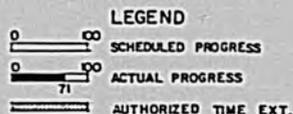


Notes: No tender has been submitted for Group A, and Work Order for Group D has been cancelled by the Chairman of the Zilla Parishad. Consequently, the curves and percentage of progress shown are for two groups: viz: Group B and Group C. After cancellation of Work Order for Group D, the total contracted cost became Tk 4,70,870, and the total length 5,600 feet. Work Order for Group A was given on November 21, 1984. Work Order for Group D will be given on December 4, 1984.

**FARIDPUR
MADHUKHALI - BALIAKANDI
ROAD
ALL GROUPS
83-84 SCHEMES**

DATE: 30 NOV. '84

% COMPLETION:
SCHEDULED = 100%
ACTUAL = 91.9%



NOTES:

1. ACTUAL COMPLETION DATE IS DEPENDENT
UPON THE AVAILABILITY OF BITUMEN

CONTRACT DATA

GROUP	E	F	G	H	I	J
LENGTH	5280 L.F.	5280 L.F.	5280 L.F.	5280 L.F.	5280 L.F.	3455 L.F.
COST (TK)	16,51,869	16,51,869	16,51,869	16,29,604	16,51,869	11,91,967
COMPLETE	10 SEPT 84	10 OCT 84		27 OCT 84	12 NOV 84	

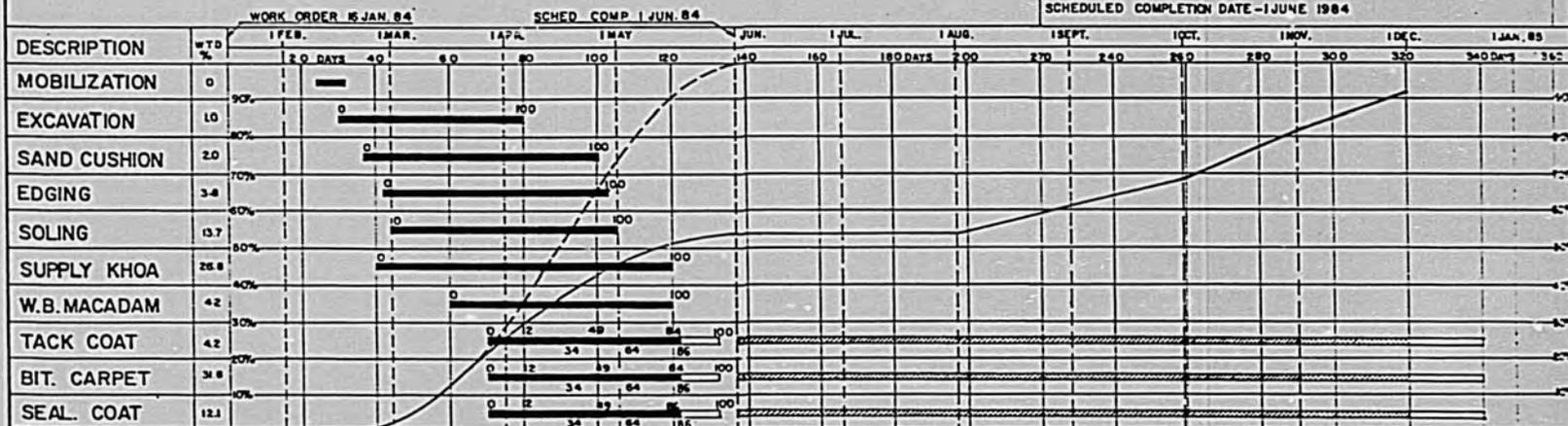
TOTAL LENGTH = 29855 L.F. = 5654 MILES

TOTAL COST = TK. 94,29,047

WORK ORDER DATE - 16 JAN. 1984

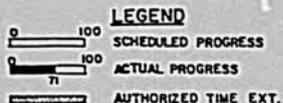
ACTUAL STARTING DATE - 17 FEB. 1984

SCHEDULED COMPLETION DATE - 1 JUNE 1984



FARIDPUR
HATKRISHNAPUR-SADARPUR-PIAJKHALI
ROAD
GROUPS-A, D & E
83-84 SCHEMES

DATE
% COMPLETION: 30 Nov 84
 SCHEDULED = 100%
 ACTUAL = 76.0%

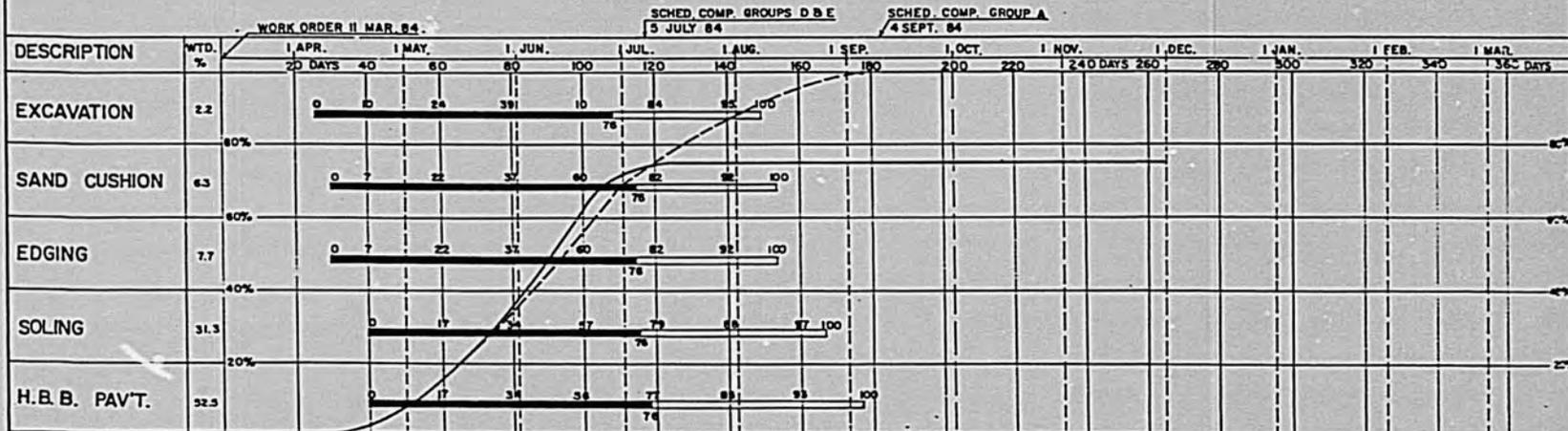


NOTES:

1. GROUPS D & E REQUIRE WARRANTY MAINTENANCE DURING THE DRY SEASON.
2. WITH LOCAL APPROVAL, A MULTIPLE CULVERT MUST BE INSTALLED TO REPAIR A WASHOUT IN GROUP D.
3. GROUP A SHUT DOWN IN MID JULY BECAUSE OF RAINS.
4. CONTRACTOR ON GROUP A REMOVED ON 24 NOV. NON PERFORMANCE

CONTRACT DATA

TOTAL	GROUP	A	D	E
21580 L.F.	LENGTH	7700 L.F.	3700 L.F.	10180 L.F.
302994	COST (TK)	112950	535018	147226
WORK ORDER DATE	12/5/84	11/3/84	11/3/84	
BEGIN WORK	6/6/84	6/4/84	6/4/84	
SCHED COMP.	4/9/84	5/7/84	5/7/84	
ACTUAL COMP.		15/6/84	25/6/84	



APPENDIX- D

PHOTOS OF CONSTRUCTION ACTIVITIES

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

RANGPUR DISTRICT
RAJARHAT-ULLAGHATA ROAD(1982-83)



Fig. 9

Proposed 30'-0" Span bridge location at Pangahat.(1 mile away from Khedabag towards Rajarhat)



Fig. 10

Proposed 30'-0" Span bridge site at Baddayer bazar.(about 2½ miles from Khedabag towards Rajarhat)

RAJARHAT-ULLAGHATA ROAD

Fig. 11

Proposed 70'- 0" span bridge site on a WBM road over drainage cum irrigation canal at about 4.5 miles away from Khadabag towards Rajarhat.

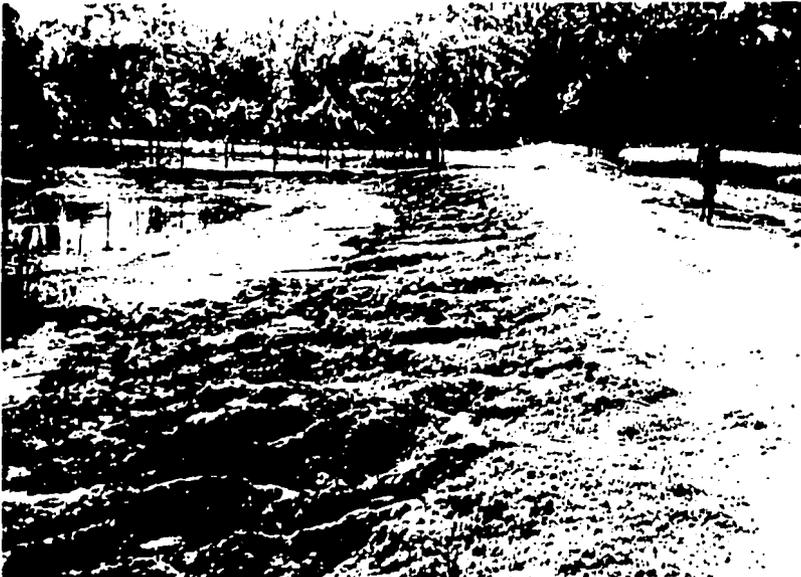


Fig. 12

Embankment condition of Rajarhat - Ullaghata road, a section between Pangahat and Boddayer Bazar.

RAJARHAT-ULLAGHATA ROAD

fig. 13

Shoulder and HBB work condition of group D . HBB done without Camber, quality control and no improvement of shoulder.



Fig. 14

Same problems as stated in Fig. 13 , also big clodes on the side of the edges of the pavement.

RAJARHAT-ULLABHATA ROAD

Fig. 15

Poor shoulder condition in group A , HEB done without controlling quality of bricks and maintaining camber.



Fig. 16

Condition of the embankment in group B . This is a view adjacent to group A. Embankment needs improvement before going for any work on top of it.

RAJARHAT-ULLAGHATA ROAD

Fig. 17

Soil sample is being collected for measuring Dry Density and CBR of top soil, this is in group B, a point adjacent to end of group A.

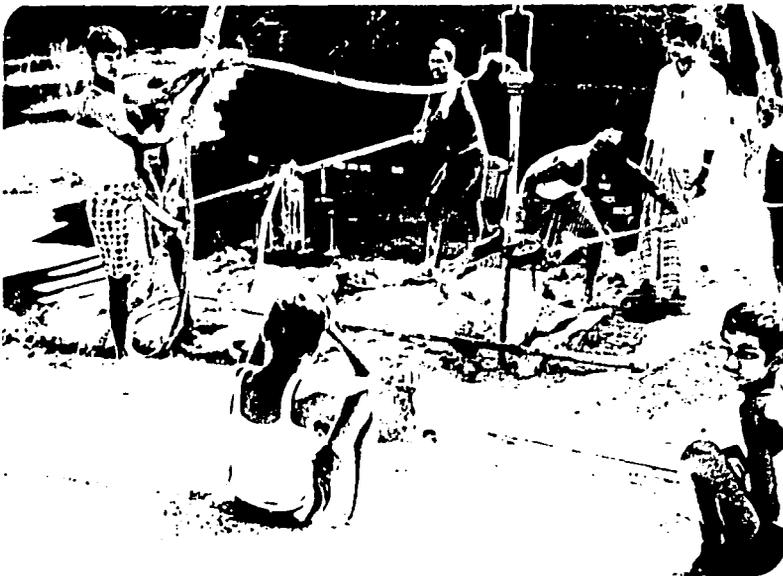


Fig. 18

Soil boring is in progress at Pangahat site on Rajarhat-Ullaghata road on 21.10.84 .

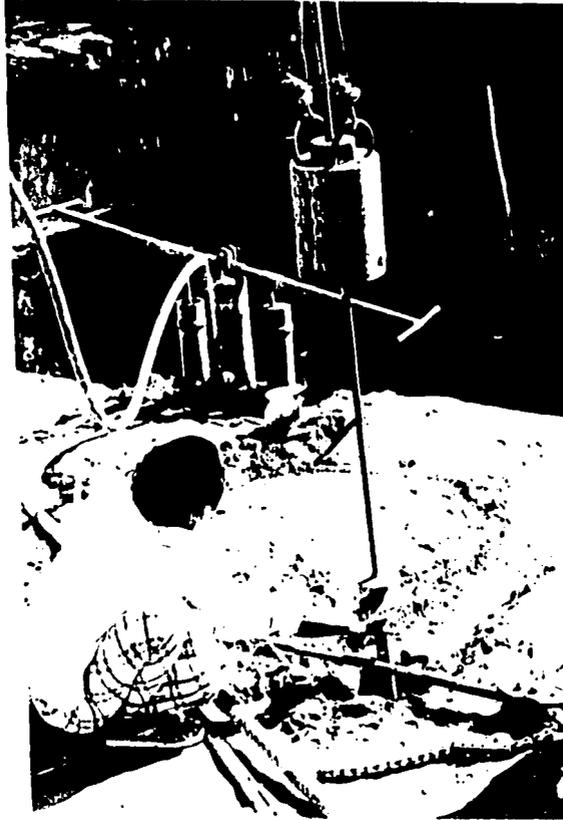
RAJARHAT-ULLAGHATA ROAD

Fig. 19

Standard weight hamar being used for penetration of sampler spoon.

KAMDIA-GHORAGHAT ROAD(1983-84)

Fig. 20

HBB work position in group C. Sand blinding yet to be furnished to fill up the interstices.



Fig. 21

Poor shoulder condition, edging bricks going away the edge line due to lack of side support . No proper camber provided during construction.(Gr. C)

KAMDIA-GHORAGHAT ROAD

Fig-22.
A view of HBB work in group C. There is no shoulder and the HBB work condition is easily visible.



Fig-23
A view of HBB, edging and shoulder in Group B.

KAMDIA-GHORAGHAT ROAD

Fig-24

Checking of HBB, brick soling and sand cushioning. Poor quality bricks and sand used in the work in group B.



Fig-25

A view of edging and HBB work in Group B. No shoulder improvement done.

KAMDIA-GHORAGHAT ROAD

Fig-26

Inferior quality bricks accumulated on the road for HBB work.

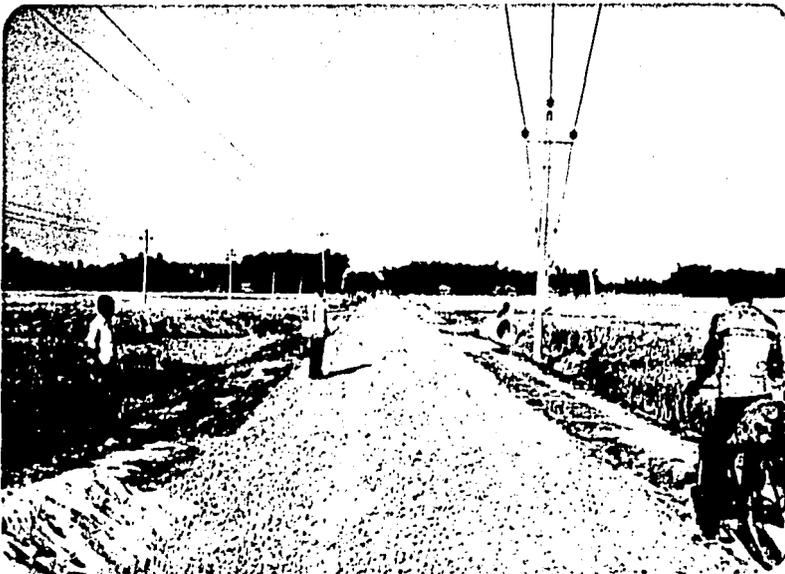
MIRGANJ-JALDHAKA ROAD

Fig-27

Materials for WBM spreaded in group C₂(83-84) at the end of October, but no rolling was done till the end of November, 1984.

MIRGANJ-JALDHAKA ROAD

Fig-28

Over size khoa needs breaking before rolling. This is also the work of group C₂ (83-84).

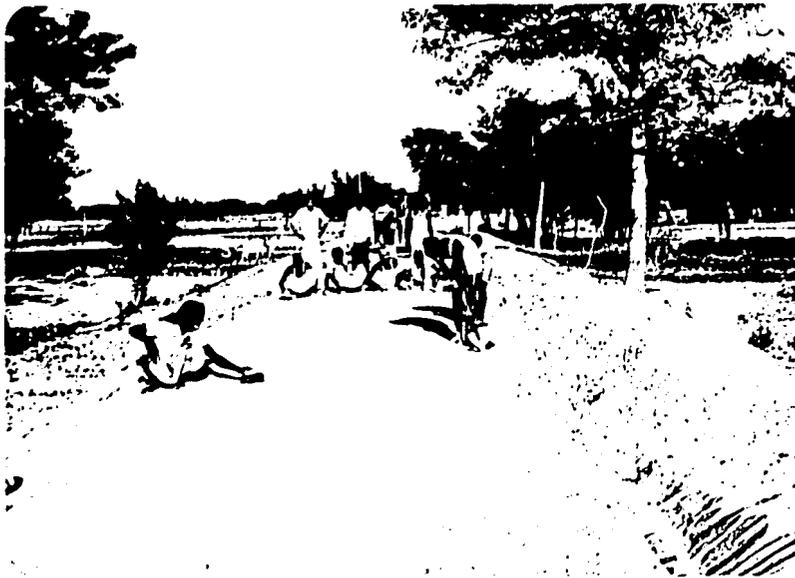


Fig-29

Preparation is being made for bituminous carpeting in group B (1983-84).

MIRGANJ-JALDHAKA ROAD

Fig-30

Bituminous carpeting and other works completed in group B
(1982-83).

BARODARGA-BHENDABARI ROAD

Fig-31

Bituminous carpeting work completed in this section of
road in Group A : (82-83 work).

BARODARGA-BHENDABARI ROAD

Fig-32

Bituminous carpeting and seal coat done at the starting point of group B (82-83), Quality of the work is very poor, compaction was not done as per requirement, thickness of layer is also less than the specified.



Fig-33

Khoa spreaded for WEM in group E (83-84), but during inspection, it was not ready for rolling.

BARODARGA-BHENDABARI ROAD

Fig-34

2nd layer khoa spreading is going on in group F(83-84), work running very slowly.

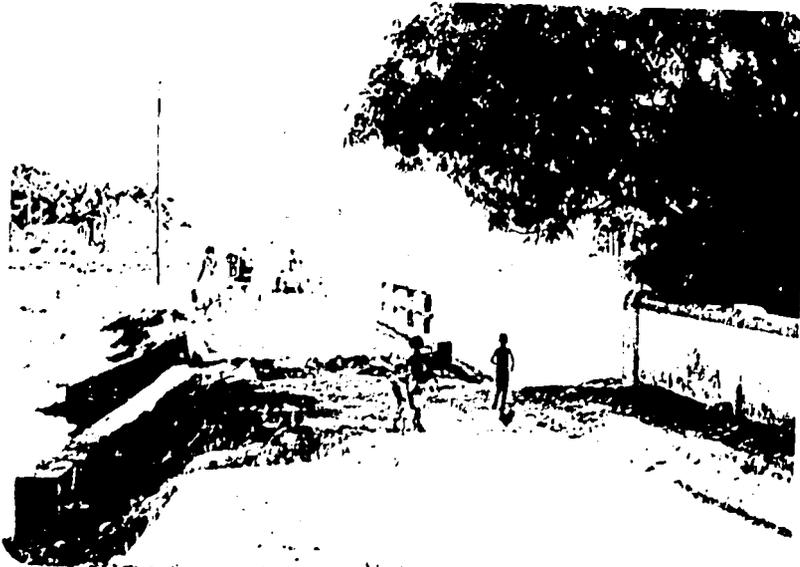


Fig-35

Proposed 30 ft. span bridge location at Sharifpur, new bridge will be constructed at 100 ft. distance from the existing partial damaged bridge to the back of the bullock cart in the picture.

BARODARGA-BIHENDABARI ROAD

Fig-36

Another view of above bridge site at Sharifpur.



Fig- 37

1000 ft. of WEM work completed in group D(83-84). No further work has been done up to the end of November, 1984.

- 82 -

GAIBANDHA - KAMARJANI ROAD



Fig-38

Rolling for WBM work underway in Group B (83-84), vibratory roller is used for compaction. Simultaneous checking of WBM thickness is also done.



Fig-39

Checking the thickness of WBM in group A and C (83-84). Thickness to be rectified in Group C.

GAIBANDHA-KAMARJANI ROAD

Fig-40

This slab damaged bridge at Kumarpara has disrupted the communication on the road. A new bridge will be constructed here.

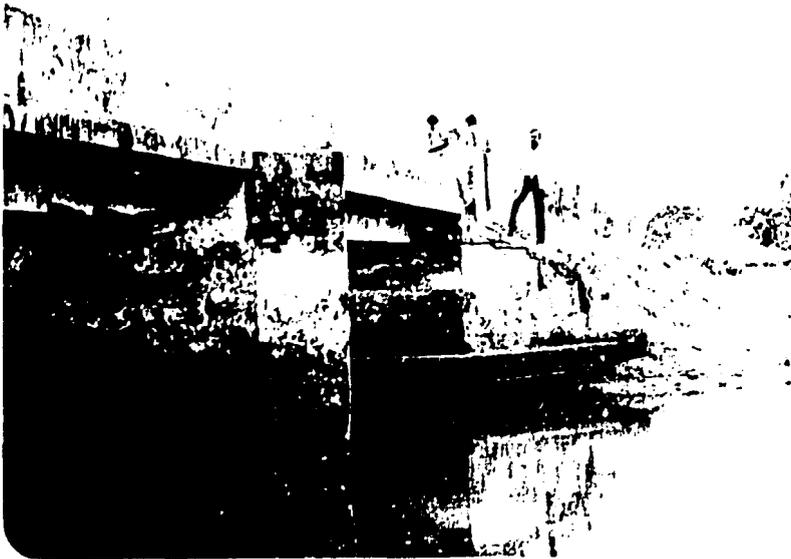


Fig-41

Abutment of the above bridge (bridge of fig-36) is also damaged. Damaged abutment and beam is visible in the picture.

FARIDPUR DISTRICT

MADHUKHALI - BALIAKANDI ROAD



Fig-42

Heating and mixing of bituminous premix in progress.



Fig-43

Laying of bituminous premix in progress.

MADHUKHALI - BALIAKANDI ROAD



Fig-44
Temperature of heated bituminous being checked.



Fig-45
Over-burning of bituminous seal coat material being observed.

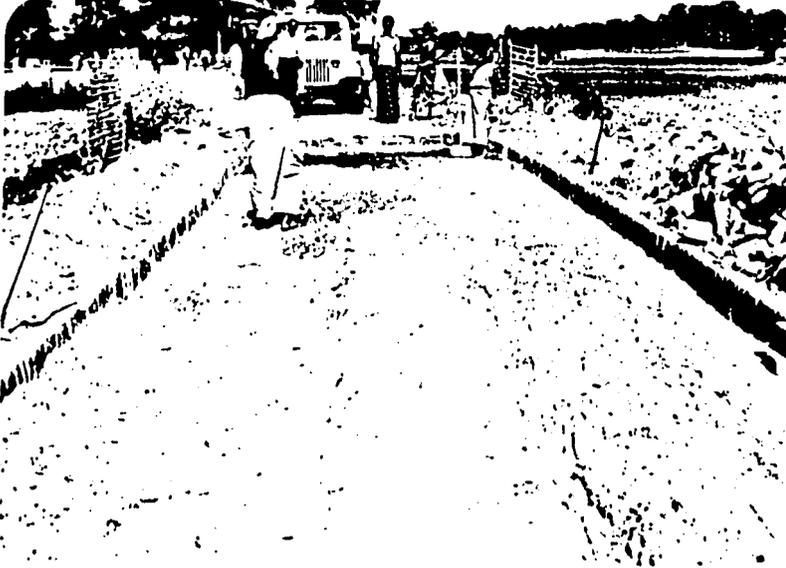
HAT-KRISHNAPUR-SADARPUR-PIAJKHALI ROAD

Fig-46

Preparation is in progress for placing HBB course on sand cushion.

APPENDIX- E

CURRENT STATUS OF PERSONNEL

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

88'

CURRENT STATUS OF PERSONNEL

Title.	Name.	Status.	Comments.
D H A K A O F F I C E .			
Chief of Party.	Fred L. Barnes.	On duty, 01/11-30/11	-
Training Adviser.	Gifford E. Rogers.	On duty, 01/11-30/11	-
Associate C.O.P.	K.M.Huque.	On duty, 01/11-30/11	Total 08 working days.
Soil/Materials Lab. Training Specialist.	M.Majid.	On duty, 01/11-30/11	Total 16 working days.
Structural Engineer.	M.A.Aziz.	On duty, 01/11-30/11	Total 14 working days.
Chief Surveyor.	M.A.Gafur.	" " Nov.9-21/84.	Total 13 working days.
Project Engineer/ Training Coordinator.	A.H.M.Abdullah.	On duty, 01/11-30/11	-
Office Engineer.	G.S.M.Habibur Rahman.	On duty, 01/11-30/11	-
Asstt.Engineer.	Dr.Kamruzzaman.	On duty, 17/11-30/11	Total 12 working days.
Asstt.Design Engineer.	K.U.Ahmed.	On duty, 01/11-30/11	Total 22 working days.
Asstt.Design Engineer.	A.Rashid.	On duty, 01/11-30/11	Total 15 working days.
Laboratory Engineer.	S.Arefin.	On duty, 01/11-30/11	-
Draftsman.	Nazimuddin Ahmed.	On duty, 01/11-30/11	-
Draftsman.	Md. Shafi.	On duty, 01/11-30/11	Total 16 working days.
Draftsman.	Mir Syod Ali.	On duty, 01/11-30/11	Total 16 working days.
Administrative Asstt.	Md. Harun.	On duty, 01/11-30/11	-
Accountant.	A.K.H.A.Taher.	On duty, 01/11-30/11	-
A/cs.Assistant.	M.H. Mohiuddin.	On duty, 05/11-30/11	-
Secretary.	Fahmida Chowdhury.	On duty, 01/11-30/11	-
Typist.	Andre Sarkor.	On duty, 01/11-30/11	-
Driver.	E.Hossain.	On duty, 01/11-30/11	-
Driver.	F.Rahman.	On duty, 01/11-30/11	-
Messenger.	A.Majid.	On duty, 01/11-30/11	-
Guard.	S.A.Khalifa.	On duty, 01/11-30/11	-
Guard.	A.Rashid.	On duty, 01/11-30/11	-
Carotaker.	Mokfaruddin Skr.	On duty, 01/11-30/11	-
Cleaner.	Anwara.	On duty, 01/11-30/11	-
Gardener.	N. Zaman.	On duty, 01/11-30/11	-
F A R I D P U R .			
Resident Engineer.	N.Ziegler.	On duty, 01/11-30/11	-
Asstt.Resident Engineer.	A.N.M.R.Habib.	On duty, 01/11-30/11	-
Asstt.Engineer.	A.Z.M.Amirul Islam.	On duty, 01/11-30/11	-
Inventory Engineer.	Shah A. Newaz.	On duty, 01/11-30/11	-
Laboratory Technician.	Mizamur Rahman.	On duty, 01/11-30/11	-
Surveyor.	Tajul Islam.	On duty, 01/11-30/11	-
Sub-Asstt.Engineer.	S. Afrad.	On duty, 01/11-30/11	-
Draftsman.	M.Rahman.	On duty, 01/11-30/11	-
Office Manager/ Accountant.	A.B.M.Kamaluddin.	On duty, 01/11-30/11	-
Secretary/Typist.	R.F.Khalifa.	On duty, 01/11-30/11	-
Driver.	B.A.Mollah.	On duty, 01/11-30/11	-
Driver.	M.Ali.	On duty, 01/11-30/11	-
Messenger.	S.Alam.	On duty, 01/11-30/11	-
Gardener.	J.K.Shill.	On duty, 01/11-30/11	-
Guard.	N.Khan.	On duty, 01/11-30/11	-
Guard.	I.Ali.	On duty, 01/11-30/11	-

CURRENT STATUS OF PERSONNEL

Sheet 2 of 2

Titlo.	N a m e.	S t a t u s.	Comments.
R A N G P U R.			
Resident Engineer.	R.Andres Taval.	On duty, 01/11-30/11	-
Assistant Resident Engineer.	S.S.Ahmed.	On duty, 01/11-30/11	-
Asstt.Engineer.	N.A.Jamad.	On duty, 01/11-30/11	-
Inventory Engineer.	Aminul Islam.	On duty, 01/11-30/11	-
Sub-Asstt.Engineer.	N.K.Das.	On duty, 01/11-30/11	-
Sub-Asstt.Engineer.	A.P.M.Zahiruddin.	On duty, 01/11-30/11	-
Sub-Asstt.Engineer.	Alauddin.	On duty, 01/11-30/11	-
Laboratory Technician.	B.Hossain.	On duty, 01/11-30/11	-
Surveyor.	Z. Abedin.	On duty, 01/11-30/11	-
Office Manager/ Accountant.	A.H.Majumdar.	On duty, 01/11-30/11	-
Typist.	R. Kabir.	On duty, 01/11-30/11	-
Messenger.	A.F.H.M.Haque.	On duty, 01/11-30/11	-
Driver.	Mahbubur Rahman.	On duty, 01/11-30/11	-
Guard.	A. Rahman.	On duty, 01/11-30/11	-
Guard.	H. Hossain.	On duty, 01/11-30/11	-
Caretaker.	G.C.Das.	On duty, 01/11-30/11	-
Cleaner/Gardener.	Rashida Begum.	On duty, 01/11-30/11	-
S Y L H E T.			
Resident Engineer.	Alex E. Neilson.	On duty, 01/11-30/11	-
Asstt.Resident Engineer.	K.M.Hasan.	On duty, 01/11-30/11	-
Sub-Assistant Engineer.	N.Nabi.	On duty, 01/11-30/11	-
Sub-Assistant Engineer.	H.A. Sobhan.	On duty, 25/11-30/11. Joined on 25 Nov.1984.	-
Sub-Assistant Engineer.	K.S.Ahmed.	On duty, 01/11-30/11	-
Surveyor.	Aminul Karim.	On duty, 01/11-30/11	-
Surveyor.	Abu Musa Mia.	On duty, 01/11-30/11	-
Laboratory Technician.	N.M.Siddique.	On duty, 01/11-30/11	-
Laboratory Technician.	Amjadul Haque.	On duty, 01/11-30/11	-
Draftsman.	M.Giasuddin.	On duty, 01/11-30/11	-
Office Manager/ Accountant.	Azizul Haque.	On duty, 01/11-30/11	-
Typist.	A.K.M.Munir Ahmed.	On duty, 01/11-30/11	-
Driver.	Fakrul Islam.	On duty, 01/11-30/11	-
Messenger.	Elias Ali.	On duty, 01/11-30/11	-
Guard.	A.A.Jamadar.	On duty, 01/11-30/11	-
Guard.	S.Alam.	On duty, 01/11-30/11	-
Cleaner/Gardener/ Caretaker.	Ahmed Minh.	On duty, 01/11-30/11	-

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APPENDIX- F

MONTHLY FINANCIAL STATEMENT, NOVEMBER 1984

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

SUMMARY FISCAL REPORT

Wilbur Smith And Associates, Inc.

Zila Roads Maintenance And Improvement Project.

US-AID Contract No. 388-0056-02-HCC.

Project Components.	Budget amounts.		Previous expenditures.		Expenditures-Current		Cumulative expenditures.	
	\$.	Taka.	\$.	Taka.	Reporting	Nov '84.	\$.	Taka.
					\$.	Taka.		
1. Technical Assistance.	2,709,030.00.	22,715,634.00.	1,823,431.00.	12,205,546.00.	90,540.00.	816,389.00.	1,913,971.00.	13,021,935.00.
2. Equipment.	674,299.00.	-	56,295.00.	-	-	-	56,295.00.	-
3. Training								
<u>US-AID</u>	300,000.00.	1,110,850.00.	55,867.00.	520,754.00.	2,548.00.	497,064.00.	58,415.00.	1,017,818.00.
EDG.		394,500.00.						
4. Road Maintenance Financed by EDG.	-	23,095,800.00.	-	-	-	-	-	-
5. Road Development Fund - <u>US-AID</u>	3,949,182.00.	-	-	19,572,485.00.	-	4,619,841.00.	-	24,192,326.00.
EDG	-	35,629,050.00.	-	-	-	-	-	-

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