

Zila Roads Maintenance and Improvement Project
(USAID PROJECT NO. 388-0056)

PROGRESS REPORT

FOR THE MONTH OF
DECEMBER '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-G056

PROGRESS REPORT

December 1984

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ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT
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PROGRESS REPORT

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ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

USAID PROJECT NO. 388-0056

PROGRESS REPORT

December 1984

1.0 GENERAL

One of the most significant events during this reporting period was the visit from 17 to 19 December to the ZRMI Project in Sylhet District by the Honorable Howard Bruner Shaffer, United States Ambassador to Bangladesh. The Ambassador and his family were guests of Mr. Alex Nielson, RE, Sylhet, who accompanied them on a tour of the project sites. One of the places visited was the Dhaka-dakshin area, where the local inhabitants petitioned the Ambassador for assistance from USAID for the construction of the bridge over the Radhajuri channel. The Ambassador indicated that he would bring the matter to the attention of the USAID officials.

All three Districts again report improved contractor progress during this reporting period. However, Rangpur District is still experiencing some problems with contractor mobilization and logistics. In an effort to improve this situation, the PM visited the Rangpur projects and discussed the problems with the contractors, the XEN, and members of the Consultant's staff.

A shortage of bituminous material, particularly in Faridpur, continues to be somewhat of a problem. However, it appears that the problem will be completely resolved early in January 1985.

All scheduled in-country training is now complete, and all individual evaluation reports have been submitted. A report covering a brief review of training activities to date and suggestions for additional training activities during CY 1985 was submitted during this reporting period.

2.0 ORGANIZATION AND MANAGEMENT

The conversion from WPW to LGEB, initiated in October 1984, is still in progress. Since no official organization charts or other descriptive material has yet been received, the Consultant is still relying on inference and hear-say to determine the final configuration of the new organization. At this point, it is pertinent to again recommend that the organization and management documents already prepared by the Consultant be reviewed in the light of these new developments and revised to conform to the new parameters.

Some concrete developments, reflecting the new organization, have been reported from the field offices :

- i Sylhet reports that a new Maintenance Engineer, Mr. Padma Sen Sinha, has been appointed to the Zila Parishad staff as the AE in charge of the four districts which comprised the old Sylhet District.
- o Rangpur reports that one XEN has been posted in the District to replace the previous arrangement of one XEN(WPW) and one DE (normal). This information has not yet been officially confirmed to the Consultant.

3.0 MAINTENANCE SYSTEM AND SUPERVISION

3.1 General

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

- o Exhibit I - Sylhet District
- o Exhibit II - Rangpur District
- o Exhibit III - Faridpur District

3.1.1 Sylhet District

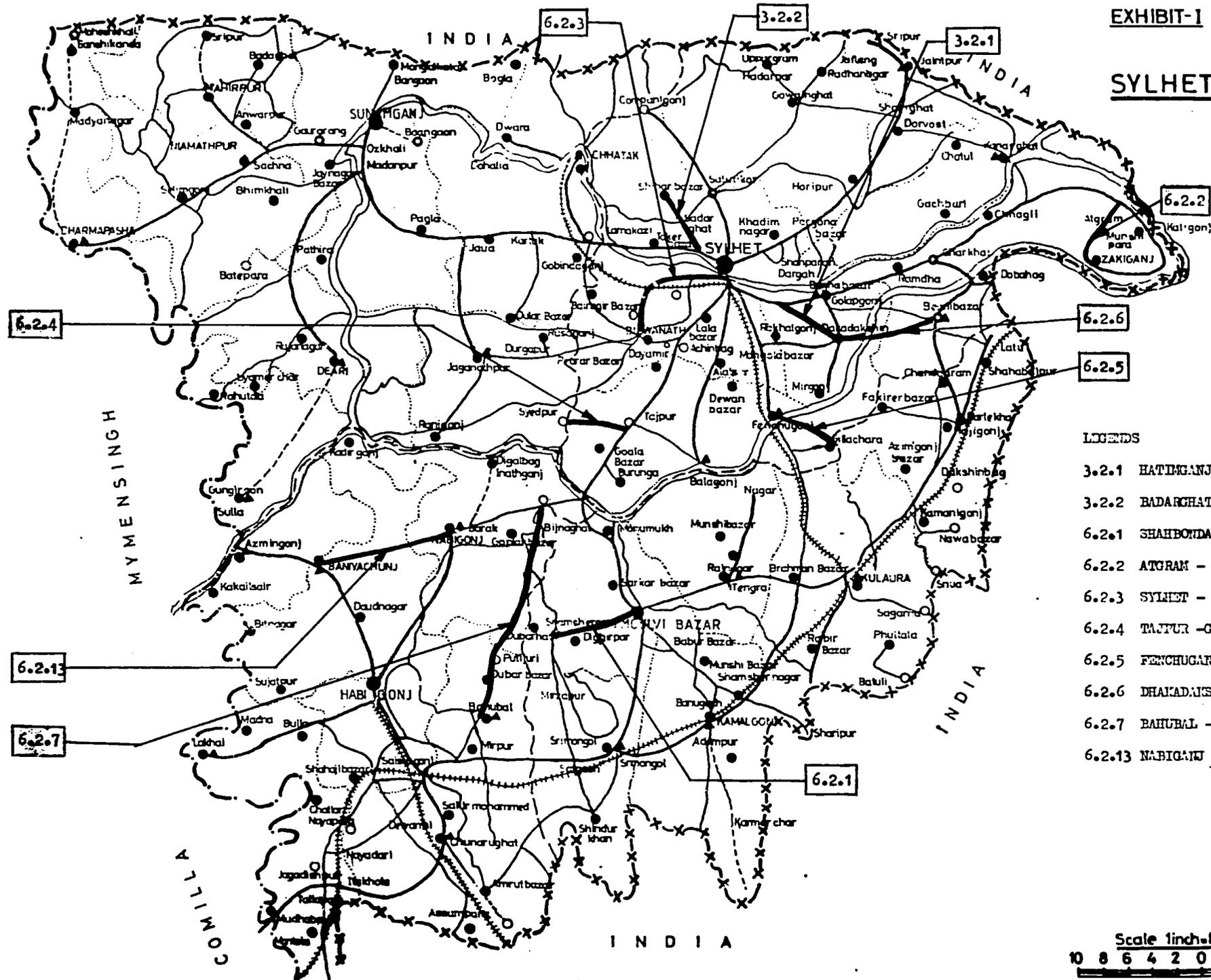
The maintenance schemes for F.Y. '84-'85 were finalized and approved during this reporting period, and some work has already been undertaken. The addition of a maintenance staff, comprising an AE and an SAE for each of the districts (old sub-districts), should help ensure that the maintenance work will be performed as planned. The presence of such a staff should also improve the timeliness of progress reporting by the Zila Parishad.

The assignment of this monitoring staff, with no duties other than maintenance, has improved the quality of execution of the work. By constant presence at the job site, this staff has been able to direct, or redirect, the untrained workers being utilized by the Zila Parishad. If this trained cadre of workers continues to be used in future work, much of the sub-standard and unsatisfactory maintenance work now found throughout the district will be eliminated.

Photographs of maintenance work in the Sylhet District may be found in Appendix A.

EXHIBIT-1

SYLHET DISTRICT



LEGENDS

- 3.2.1 HATIMGANJ - DAKADAKSHIN ROAD
- 3.2.2 BADARGHAT - BARIBERBAZAR ROAD
- 6.2.1 SHAHBONDAR - SHAMSHERGANJ ROAD
- 6.2.2 ATGRAM - ZAKIGANJ ROAD
- 6.2.3 SYLHET - KAMALBAZAR ROAD
- 6.2.4 TAJPUR - GOALABAZAR - SYEDPUR
- 6.2.5 FENCHUGANJ - GHILACHEARA ROAD
- 6.2.6 DHAKADAKSHIN - BEANIBAZAR ROAD
- 6.2.7 BAHUBAL - PUTLJURI - BIJRANGA
- 6.2.13 NABIGANJ - BANLACHUNG ROAD

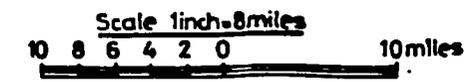


EXHIBIT-II

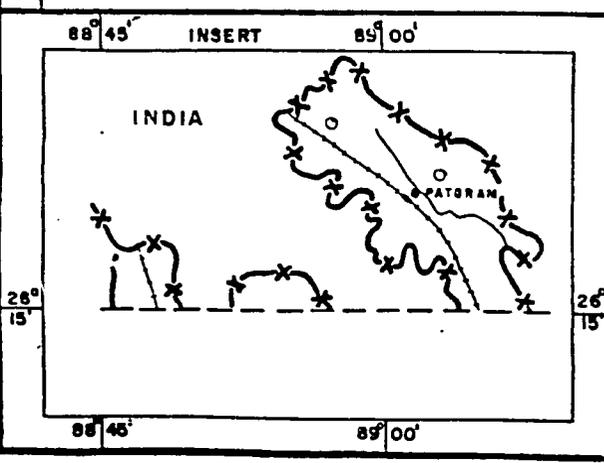
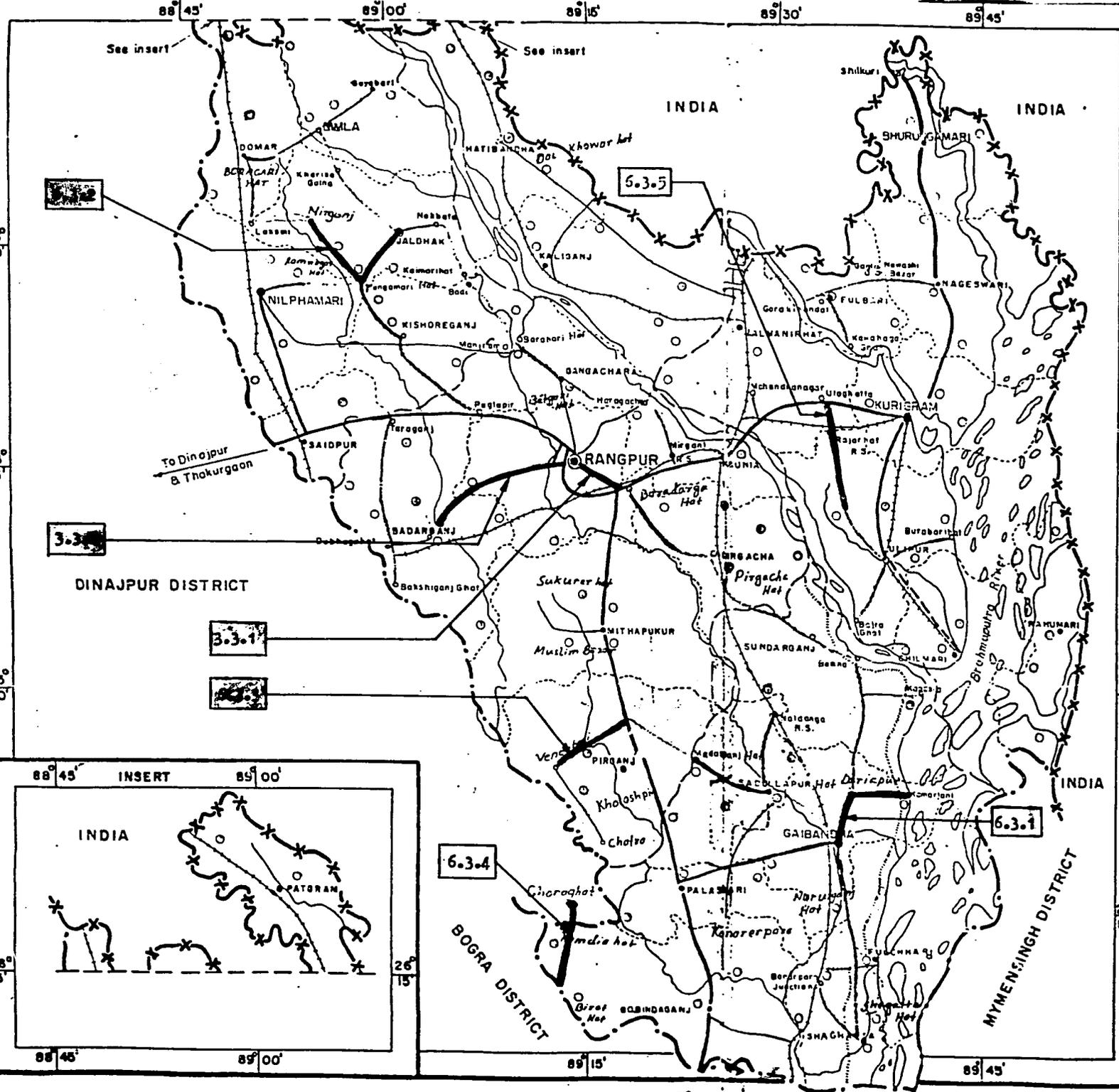
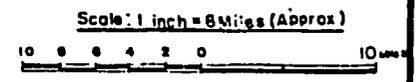
RANGPUR DISTRICT



LEGEND:

- 3.3.1 RANGPUR - KAMIRGANJ ROAD
- 3.3.2 RANGPUR - BADARGANJ ROAD
- 6.3.1 GAIBANDELA - KAMIRGANJ ROAD
- 6.3.2 MIRGANJ - JALDEHAKA ROAD
- 6.3.3 CHATRA - KHALASHPIR - BHENDABARI ROAD
- 6.3.4 KANDIA - GEORAGHAT ROAD
- 6.3.5 RAJAREHAT - ULLAGHATA ROAD

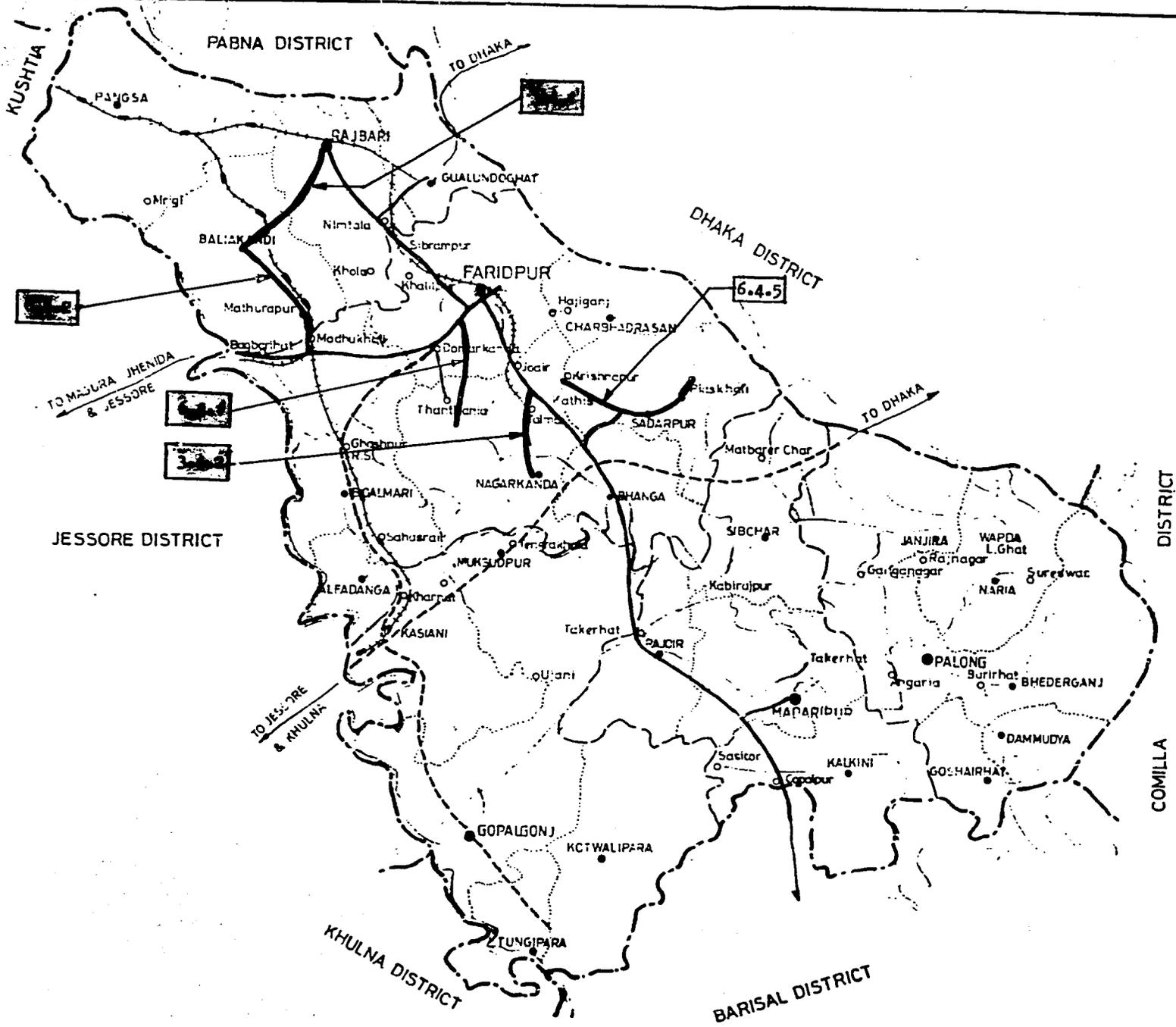
26° 00'
25° 45'
25° 30'
25° 15'



88° 45' 89° 00' 89° 15' 89° 30' 89° 45'

26° 00' 25° 45' 25° 30' 25° 15'

EXHIBIT — III
FARIDPUR DISTRICT



LEGENDS

- 3.4.1 RAJBARI - BALLIAKANDI ROAD
- 3.4.2 TALMA - NAGARKANDA ROAD
- 6.4.1 BADARPUR - SALTHA ROAD
- 6.4.2 MADHUKHALI - BALLIAKANDI ROAD
- 6.4.5 HATKRISHNAPUR - PIJAKHALI ROAD

Scale : 1 inch = 6 Miles



3.1.2 Rangpur District

As reported in November, maintaining satisfactory progress in maintenance work in this District. Because of a practically negligible level of activity, there are no photos of maintenance work underway in this District.

3.1.3 Faridpur District

A shortage of bituminous material precluded any bituminous pavement repair work in Faridpur during this reporting period. The XEN has accepted a quotation from Burmah Eastern for 450 metric tons of bituminous material, and a cartage contract was awarded on 24 December to deliver this material to Faridpur and to the work sites.

Performance standards have again been revised to show volumes, materials, and costs through 01 December 1984. Authorization to undertake the maintenance of the Sadarpur - Pukuria Road has not yet been received.

Photographs of maintenance work underway in this District may be found in Appendix A.

3.1.4 Maintenance Management

During this reporting period, work continued on the collection of cost data for maintenance operations. Preparation of the first draft of the maintenance management report was also undertaken.

3.2 Sylhet District

3.2.1 Hatimganj - Dhakadakshin Road (Earth Road)

With the replenishment of the revolving fund and the approval by the Deputy Commissioner of the '84-'85 maintenance schemes, routine maintenance work has again been undertaken. The rains of 14-15 December and heavy morning dews have assisted the earth road maintenance program by providing moisture required for better compaction by traffic.

3.2.2 Badarghat - Bariberbazar Road (Paved And Earth Road)

The maintenance work on this road has progressed at a uniform and rapid rate. Much of the pothole patching has been completed just ahead of the seal coating of the more deteriorated sections. Shoulder build-up, or grading, has kept pace with the asphalt repair work, so that progress is even and balanced among all work elements.

3.3 Rangpur District

3.3.1 Rangpur - Mahiganj Road (Paved Road)

No further work undertaken during this reporting period.

3.3.2 Rangpur - Badarganj Road (Paved Road)

No additional progress to report on this road.

3.4 Faridpur District

3.4.1 Rajbari - Baliakandi Road (Paved Road)

Work during this reporting period was limited to shoulder regrading. No problems were encountered on any of the field inspection trips. Bituminous material should be again available in January so that grouting operations can be resumed.

3.4.2 Talma - Nagarkanda Road (Paved Road)

H.B.B replacement on 0.3 km at Nagarkanda was completed during this reporting period. Pot hole repair to top of base level on the severely distressed bituminous pavement was started. A shoulder regrading crew began work on the heavily traveled area near Talma. The shortage of bituminous material was the only problem encountered on any of the field inspection trips.

A design for the wingwall replacement on the bridge at km 2.7 was completed. The estimated cost is Tk. 60,000, which should be contracted out of Pilot Maintenance funds.

4.0 PREPARATION OF TECHNICAL SPECIFICATIONS

4.1 Bridges

Work on plan preparation for bridges of less than 40-foot span is still in progress in Rangpur. This work has been completed in both Sylhet and Faridpur.

4.2 Revision of Specifications

Work on a thorough review and revision of specifications will get underway by the end of January 1985. Experience on the job has shown that extensive revisions are necessary in the interest of standardization, clarity, and conciseness.

4.3 Revision of Concrete Mixture Design

There is no further progress to report on the resolution of this critical problem which has been discussed in several previous reports. It is hoped that this problem will be addressed during the forthcoming general review and revision of specifications.

5.0 TRAINING

5.1 General

As shown on Exhibit IV, the overall progress of the ZRMI Project Training Program at the end of 1984 was about 70 percent complete, compared to a scheduled progress of 74 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.

5.2 On-The-Job Training

5.2.1 General

From an examination of Exhibit IV, it is estimated that the progress of this activity as of the end of this reporting period was about 81 percent.

5.2.2 District Soil Laboratory Activities

Summaries of the activities of the individual soil laboratories are attached as Appendix B. The quality control analyses 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

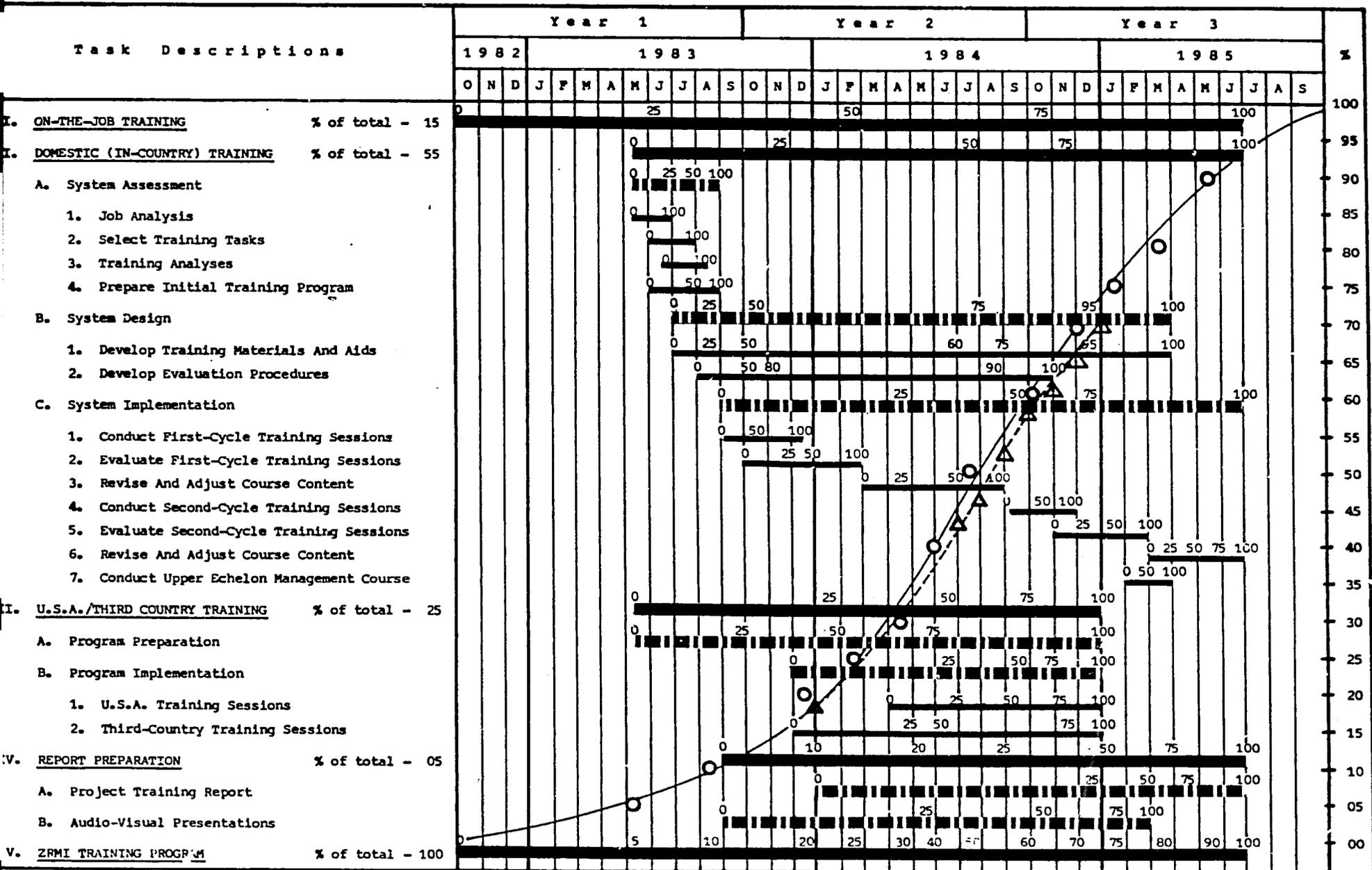
This secondary activity is about 95 percent complete.

5.3.3 System Implementation

First-Cycle Training Sessions - 100 percent complete
First-Cycle Evaluations - 100 percent complete

Exhibit IV

ZRMI PROJECT TRAINING PROGRAM SCHEDULE AND CURRENT STATUS



(First) Course Revision And Adjustment - 100 percent complete
Second-Cycle Training Sessions - 100 percent complete
Second-Cycle Evaluations - 75 percent complete
Combined evaluation scheduled for
January 1985.

(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 could not be obtained in time to meet the schedule. The course has been rescheduled for February 1985, but it is still subject to final BDG approval/clearance.

Proposals for additional programs were presented in a "Brief Review And Proposals For C.Y. 1985", which was submitted during this reporting period.

5.4.2 Program Implementation

First U.S.A Session - This may be considered to be 100 percent complete, although 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 - This may be considered to be 100 percent complete, although to date the only trip report received was that prepared by the DE, Rangpur.

Second AIT Session - This segment remains at 20 percent complete. As previously mentioned, this session has been rescheduled to February 1985. However, if all necessary approvals and clearances are not obtained by mid-January 1985, it may be necessary to again postpone this training session.

5.5 Report Preparation

5.5.1 Project Training Report

This secondary activity is about 30 percent complete

5.5.2 Audio-Visual Presentations

This secondary activity is about 65 percent complete

6.0 CONSTRUCTION SYSTEM AND SUPERVISION

6.1 General

All three Districts have reported improved progress on the part of the work contractors, although Rangpur still reports that progress could have been better than that actually achieved. As of the end of this reporting period, contractors on the '84-'85 schemes were making satisfactory progress in both Sylhet and Faridpur, but there was no progress on these schemes in Rangpur.

Acting on suggestions from LGEB, four of the five bridges tendered under the '84 - '85 schemes in Sylhet have been revised to box culverts. The fifth, the bridge over the Radhajuri on the Dhakadakshin Road will be remain as a bridge because of the size of the waterway required.

Maps displaying the locations of the individual projects in Sylhet, Rangpur, and Faridpur are included as Exhibits I, II, and III, respectively. Photos of typical site situations in all three Districts may be found in Appendix C.

Bar charts showing scheduled and achieved progress for projects in all three Districts may be found in Appendix D.

6.2 Sylhet District

1982-1983 Projects

6.2.1 Shahbondar - Shamsherganj Road

ZRMI/17/82-83 - Pavement

100 percent complete and final bill processed

6.2.2 Atgram - Zakiganj Road

ZRMI/18/82-83 - Pavement

100 percent complete and final bill processed. Pavement sections within the 700 m found to be unacceptable remain under observation.

6.2.3 Sylhet - Kamal Bazar Road

ZRMI/19/82-83 - Pavement

100 percent complete and final bill processed

6.2.4 Tajpur - Goalabazar - Syedpur - Khadimpur Road

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

Contractor has been making good progress; he has placed eleven to date and has cast sufficient pipe to complete the remaining two. However, he still persists in the shortcomings listed in some detail in previous reports. Site completion and cleanup must be accomplished before the work can be completely acceptable.

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

ZRMI/21/82-83 - Box Culvert

100 percent complete and final bill processed

6.2.5 Fenchuganj - Ghilachara Road

ZRMI/22/82-83 - Pavement

The contractor has been making slow, but steady, progress. During this reporting period, he suffered several interruptions due to lack of bitumen, mechanical failure of the roller, etc. Remedial work such as ditch excavation, shoulder build-up, and correction of erosion damage has been in progress. Completion is estimated by 15 January 1985.

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

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

No significant progress on this contract at any site. It is understood that the necessary pipe are being fabricated at Maulavi Bazar.

6.2.6 Dhakadakshin - Beanibazar Road

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

The final 100 m of pavement is still delayed by the proposed construction of a box culvert and retaining wall.

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

ZRMI/25/82-83 - 6 nos RCC Pipe Culverts (Revised)

A revised estimate and final bill are required for processing. 100 percent complete and one running bill processed.

6.2.7 Bahubal - Putijuri - Bijnaghat Road

ZRMI/11/82-83 - Pavement

100 percent complete and final bill processed

1983 - 1984 Projects

6.2.8 Bahubal - Putijuri - Bijnaghat Road

ZRMI/01/83-84 - Bituminous Pavement

Due to poor quality of workmanship, paving work was halted so that approximately 1200 ft² of roadbed could be excavated, dried, and reworked.

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

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

Construction has progressed satisfactorily; the top slab was cast on 22 December 1984. Backfilling and approach construction is now in progress.

This project is considered to be 85 percent complete and two running bills have been processed.

ZRMI/03/83-84 - 2 nos. Box Culverts (Resurat And Burigao)

Final cleanup has not yet been completed.

100 percent complete and two running bills processed

ZRMI/04/83-84 - 3 nos Box Culverts (Fultoli And Kandigaon) (Revised)

Consultant has recommended enforcement of final site cleanup by means of joint final inspection by Zila Parishad/Consultant team.

100 percent complete and two running bills processed.

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

100 percent complete and two running bills processed

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

These culverts are being constructed in a reach of the road presently accessible only by motorcycle. So far, only two of the culverts have been completed.

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

Eleven culverts have been placed, but not one is acceptable for final payment in its present condition. Bricks utilized for the headwall construction are also of poor quality. Appurtenant works and cleanup at each site must be completed before final acceptance.

This project is considered to be 65 percent complete and one running bill has been processed.

6.2.9 Atgram - Zakiganj Road

ZRMI/09/83-84 - Box Culvert

After this contract had been awarded for the third time, work got underway in late November, 1984. Aggregate samples submitted for testing were found to be acceptable, and the bottom slab was cast during this reporting period.

This project is considered to be 25 percent complete, but no running bills have yet been processed.

ZRMI/10/83-84 - Bituminous Pavement

This contractor is well organized and is doing quality work. He is about 300 m short of completing the contract.

This project is considered to be 80 percent complete and two running bills have been processed.

ZRMI/11/83-84 - Leveling Course

Lack of the full-time use of a roller has delayed progress on this work. Continuous monitoring by Zila Parishad and consultant personnel has encouraged the production of quality work.

This project is considered to be 70 percent complete and two running bills have been processed.

6.2.10 Tajpur - Goalabazar - Syedpur - Khadimpur Road

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

100 percent complete and final bill processed

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

This work, long delayed by flood waters, has now been progressing satisfactorily. In addition, the contractor has improved the bypass road so that traffic can now continue on to Nayabondar instead of being halted at New Market. The local government of Nayabondar has also undertaken to improve about 3 km of road embankment to ensure continued access to Nayabondar once the culvert has been completed.

This project is considered to be 30 percent complete and one running bill has been processed.

6.2.11 Fenchuganj - Ghilachara Road

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

There was no additional progress on this work during this reporting period because the contractor was still waiting for the arrival of a roller.

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 (Noakhal) (Revised)

All five of the box culverts covered by the revised contract have been completed, but only one is acceptable for reimbursement. The other four were rejected for poor quality of materials and poor workmanship.

100 percent complete and final partial bill has been processed.

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

This contract begins at the end of the '82-'83 paved section and continues to the bank of the Kushiya River at Chandapur. At approximately km 1.0, the contract is divided by the Radhajuri flood channel. With the end of the monsoon floods, the contractor

was able to build a temporary road across the channel and thus pass equipment and materials to the second reach of his contract. Much of the embankment east of the channel bank is of recent construction and will need to be allowed to stabilize before pavement can be applied. Pavement base material is being applied to the stabilized and compacted road embankment starting at Noakhal.

This project is considered to be 65 percent complete and two running bills have been processed.

6.2.13 Nabiganj - Baniyachung Road

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

Structural work on the culvert is complete and work on building the approaches is in progress. Earth backfill material has been difficult to obtain, and that which is available is completely saturated.

This project is considered to be 85 percent complete and two running bills have been processed.

1984-1985 Projects

6.2.14 Shabondar - Shamsherganj Road

ZRMI/9A/84-85 - Leveling Course

No work order received to date.

ZRMI/9B/84-85 - Leveling Course

Work Order issued on 01 December 1984, but no progress to date.

6.2.15 Eahubal - Putijuri - Bijnaghat Road

ZRMI/10/84-85 - Bituminous Pavement (Putijuri)

No Work Order received to date.

ZRMI/11/84-85 - 3 nos. Box Culverts

Work Order issued on 01 December 1984, but no progress to date.

ZRMI/12/84-85 - Reconstruction Of 10 nos. Existing Bridge Slabs

Work Order issued 22 November 1984; material gathering in progress.

6.2.16 Atgram - Zakiganj Road

ZRMI/13/84-85 - Construction Of 31 m Bridge (Revised To Culvert)

Contractor has mobilized and demolished the wooden bridge to clear the work site.

This project is considered to be 10 percent complete; no running bills processed to date.

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

Work Order issued 20 November 1984, but no progress to date.

ZRMI/15/84-85 - 66 m Bridge (Revised To 3 nos. Box Culverts)

Work Order issued 01 December 1984, but no progress to date.

6.2.17 Tajpur - Goalabazar - Syedpur - Khadimpur Road

ZRMI/16/84-85 - 31 m Bridge (Nayabondar) (Revised To Culvert)

Work Order issued on 20 November 1984, but no progress to date.

6.2.18 Fenchuganj - Ghilachara Road

ZRMI/17/84-85 - Bituminous Pavement

Work Order issued, but no progress to date.

ZRMI/18/84-85 - Leveling Course

Preparation of the subgrade is well underway, and the workmanship is of good quality.

This project is considered to be 05 percent complete; no running bills processed to date.

ZRMI/19/84-85 - 2 nos. Box Culverts

This contractor is well advanced with the work on the 5.2 m box culvert. He has demolished the old steel bridge and abutments, completed an excellent bypass road, and has completed the bottom slab of the new culvert.

This project is considered to be 25 percent complete; no running bills processed to date.

ZRMI/20/84-85 - 6 nos. Box Culverts

This contractor is well advanced with his work. The old culverts have been demolished to prepare the work sites, and some of the bypass roads have been completed.

This project is considered to be 15 percent complete; no running bills processed to date.

6.2.19 Dhakadakshin - Beanibazar Road

ZRMI/21/84-85 - Box Culvert And Retaining Wall (Dhakadakshin)

This work was progressing well despite a large flow of water through and around the site. The base and the lower portion of the retaining wall were well advanced and the base slab of the box

culvert had been cast, when the work was stopped by judicial order following a claim by a local landowner that he had not given title to the land being utilized. The XEN expects to resolve this problem in court in the very near future, but meanwhile all work has come to a standstill.

This project is considered to be 25 percent complete; no running bills processed to date.

ZRMI/22/84-85 - 46 m Bridge (Lula River) (Revised To Box Culvert)

Work Order issued 20 November 1984, but no progress to date.

ZRMI/23/84-85 - 86 m Bridge (Radhajuri)

A work order has been issued for the construction of this bridge as planned. The Deputy Commissioner, in agreement with the XEN, has decided that this structure must be built, even if it must be done with local funds.

This project is considered to be 05 percent complete; no running bills processed to date.

6.2.20 Nabiganj - Baniyachung Road

ZRMI/24/84-85 - Box Culvert (Barrakhal)

No access to site as yet, but gathering of material and mobilization are in progress.

This project is considered to be 02 percent complete; no running bills processed to date.

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

No access to site as yet, but gathering of material and mobilization are in progress.

This project is considered to be 02 percent complete; no running bills processed to date.

6.3 Rangpur District

1982 1983 Projects

6.3.1 Gaibandha - Kamarjani Road - HBB

All work completed April 1984. Damaged earth shoulders being reconstructed by the contractors of '83-'84 schemes.

6.3.2 Mirganj - Jaldhaka Road - Pavement

Group A, B, And C

Bituminous pavement 100 percent complete May 1984.

Group D

About 1,000 linear ft. bituminous pavement and seal coat complete.

Group E

Former Group D of '83-'84 work on the same road was transferred to '82-'83 schemes on 15 December 1984. Bricks have been transported to the site, and Khoa breaking is in progress. No actual construction work has yet been undertaken.

6.3.3 Barodarga - Bhendabari Road - Bituminous Carpeting

Group A, B, C-1, C-2, D-1, And D-2

For Groups A, C-1, and D-2, the bituminous carpeting work was completed in November 1984, while Groups B, C-2, and D-1 completed the same work during this reporting period. There are some problems with carpeting thickness in Groups A and B, and these problems must be corrected. Shoulder improvement work remains incomplete in Groups A, B, C-2, and D-1, and some minor seal coat correction remains in Groups, A, B, and D-1.

6.3.4 Kamdia - Ghoraghat Road - HBB

Groups A, C, And D

Work is 100 percent complete, but extensive shoulder repair work is still required.

Group B

This project is still considered to be only 95 percent complete; correction of some HBB work and shoulder improvement is still incomplete.

6.3.5 Rajarhat - Ullaghata Road - HBB

Groups A And D

These projects are still considered to be only 90 percent complete as the quality of work is sub-standard. Road embankment and shoulder improvement work is needed before any additional HBB work is attempted.

Groups B And C

No new work orders have yet been issued.

1983 - 1984 Projects

6.3.6 Gaibandha - Kamarjani Road - Bituminous Pavement

Group A

Since completion of the WBM work on 13 October 1984, work on this project has been limited to some shoulder improvement work. Quality

of the latter is inadequate as little or no compactive effort has been applied. Pavement materials have not yet been stockpiled at the site.

Group B

Less than 50 percent of the WBM work has been completed, and this is of sub-standard quality. During the PM's December site visit, soft materials were found. No pavement materials are being stockpiled on site. Shoulder improvement work has started, but is not being done according to specifications.

Group C

By the end of this reporting period, the contractor had completed some 2150 linear ft of WBM, but quality of the last portion of the work is sub-standard. On 27 December, the PM and the XEN, accompanied by the consultant's representative, visited the site and found poor quality khoa stockpiled by the contractor. The quality control by the monitoring officials is inadequate.

6.3.7 Mirganj - Jaladhaka Road - Bituminous Pavement

Group A

A new work order, with an allowable completion time of 35 days, was issued on 08 December 1984. The contractor has accumulated a considerable volume of WBM material at the job site, but to date has spread only 250 linear ft of khoa. It is obvious that the contractor will never be able to finish the work within the allotted time limit.

Group B

As of the end of this reporting period, bituminous pavement work was complete and shoulder improvement work was in progress.

Group C-1

As of the end of the reporting period, bituminous pavement work was complete and shoulder improvement work was in progress.

Group C-2

This work order was canceled and then reactivated by the XEN. The WBM work was completed several months previous to this reporting period, but no work was performed subsequently. The contractor is preparing to again undertake work early in January 1985.

Group- D

This contract has been canceled and transferred to the 1982-1983 projects as Group E.

6.3.8 Chatra - Khalashpir - Bhendabari Road - Bituminous Paving

Group A

Bituminous pavement work, now in progress, has been completed for a total length of 1550 linear ft. About 83 percent of the WBM work is complete. Roller problems have precluded even better progress on this project.

Group B

About 1500 linear ft. of bituminous pavement have been completed. The WBM work is about 84 percent complete. roller problems have also hampered progress on this project.

Group C

The WBM work is about 59 percent complete, and 1200 linear ft. of bituminous pavement have been placed. The breaking of khoa for additional WBM work is in progress. The progress on this project has also suffered from roller problems.

Group D

After about 1350 linear ft. of WBM work was completed some time ago, the contract was canceled on 20 December 1984 for lack of further progress. No new contractor has been named as yet.

Group E

As of the end of this reporting period, about 1650 linear ft. of WBM had been completed. No bituminous paving material was brought to the site until the end of the reporting period.

Group F

After about 1800 linear ft. of WBM work had been completed, the contractor has made no further progress. There is no material on site for any additional work.

6.3.9 Kamdia - Ghoraghat Road - HBB

Group A

This is a new contractor who was supposed to start his work on 25 November 1984 and complete it by 31 December 1984. The contractor made a token start on the occasion of the 28 December site visit by the PM, and then subsequently suspended operations. To the end of this reporting period, about 75 linear ft. of HBB work had been completed.

Group B And C

Correction of defective works was in progress in both groups. Some shoulder improvement work is also in progress.

Group D

A new work order, issued in December 1984, fixed the completion date at 31 January 1985 for this project. As of the end of this reporting period, the contractor had done little more than deliver a small volume of sand to the job site.

1984 - 1985 Projects

The status of all projects is shown on Exhibit V.

6.4 Faridpur District

1982 - 1983 Projects

6.4.1 Badarpur - Saltha Road - Bituminous Pavement

100 percent complete and final payment processed

6.4.2 Madhukhali - Baliakandi Road - Bituminous Pavement

100 percent complete and final payment processed

1983 1984 Projects

6.4.3 Badarpur - Saltha Road - Bituminous Pavement

100 percent complete and final payment processed

6.4.4 Madhukhali - Baliakandi Road - Bituminous Pavement

Groups E And F

100 percent complete and final payment processed

Groups G, H, I, And J

100 percent complete and awaiting documentation for processing of final payment.

6.4.5 Hatkrishnapur - Sadarpur - Piajkhali Road - Bituminous Pavement Group A - ZRMIP - 1/83-84

New contract awarded on 05/12/84. Project is now 100 percent complete, but certification for final payment not yet received.

Group D - ZRMIP - 10/83-84

This project was completed in June 1984, but subsequently suffered shoulder erosion and washouts during the last monsoon. The contractor is now performing warranty maintenance. The project has been certified for 50 percent completion.

Group E - ZRMIP - 13/83-84

This work was completed in July 1984, but has also suffered some erosion damage as well as pavement settlement. The contractor has practically completed warranty maintenance. The project has been certified as 75 percent complete, and processing of final payment documents is now underway.

Exhibit V - WORK ORDERS ISSUED DURING DECEMBER 1984, RANGPUR DISTRICT

Description Of Work	Contractor's Name	Construction Year	Work Order Issue Date	Date Commence	Date Complete	Remarks
Kamdia - Ghoraghat Road, Tree Plantation	Mr. Soliman Ahmed	1982 - 1983	08/12/84	15/12/84	31/12/84	Not yet started
Mirganj - Jaldhaka Road, Bituminous Pavement, Group E in place of Group D	M/S Nipa & Co.	1982 - 1983	15/12/84	20/12/84	31/01/85	No construction, some material stockpiled at site
Kamdia - Ghoraghat Road, H&B, Group D	Mr. Kazem Uddin Ah.	1983 - 1984	11/12/84	18/12/84	31/01/85	No construction, some sand at site
Mirganj - Jaldhaka Road, Bit. Pavement, Group A	M/S Shahed & Co.	1983 - 1984	08/12/84	12/12/84	15/01/85	Khoa spread on 25 linear ft
Barodarga - Bhandabari Road, KCC Boc Culvert at Gurjipara	Mr. A. Hamid	1984 - 1985	02/12/84	10/12/84	10/02/85	Not yet started
Barodarga - Bhandabari Road, 13 ft span RCC Slab, Mile 2	Mr. A. Hamid	1984 - 1985	02/12/84	10/12/84	10/02/85	Not yet started
Gaibandha - Naldanga Road, 20 ft span RCC Bridge	Mr. Shamsul Haque	1984 - 1985	02/12/84	10/12/84	10/02/85	Foundation excavation underway
Barodarga - Bhandabari Road, 50" RCC Ring Culvert, Mile 2	Mr. Rezaul Hasan	1984 - 1985	02/12/84	10/12/84	10/02/85	Not yet started
Gaibandha - Kamarjani Road, 10 ft span RCC Bridge, Dariapur	Mr. Gelal Uddin	1984 - 1985	02/12/84	10/12/84	10/02/85	Foundation excavation and khoa preparation underway
Chaperhat - Kaliganj Road, 10 ft span RCC Bridge	Mr. Mofazzal Hossain	1984 - 1985	24/12/84	07/01/85	07/03/85	Not yet started
Bamondanga - Sundarganj Road, 10 ft span RCC Box Culvert, Saitotola	Mr. A.K.M. Abdul Kashem	1984 - 1985	24/12/84	07/01/85	07/03/85	Not yet started
Barodarga - Bhandabari Road, 10 ft span RCC Box Culvert, Mile 1	Mr. Abdus Salam	1984 - 1985	24/12/84	07/01/85	07/03/85	Not yet started
Gaibandha - Saghata Road, 15 ft span RCC Bridge, Mile 3	Mr. Ranjit Bakahi	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Gaibandha - Kamarjani Road, Bit. Pavement, Group A	Mr. M.N. Nabi Lalu	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Mirganj - Jaldhaka Road, Bit. Pavement, Group A	Mr. Yakub Ali	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Mirganj - Jaldhaka Road, Bit. Pavement, Group B	Mr. Shamsul Haque	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Barodarga - Bhandabari Road, Bit. Pavement, Group A	M/S National Construction	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Barodarga - Bhandabari Road, Bit. Pavement, Group B	Mr. Exramul Haque	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Barodarga - Bhandabari Road, Bit. Pavement, Group C	Mr. Moklesur Rahman	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Kamdia - Ghoraghat Road, Bit. Pavement, Group C	Mr. Amjad Ali	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Barodarga - Bhandabari Road, Bit. Pavement, Group B	M/S Eastern Builders	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Barodarga - Bhandabari Road, Bituminous Pavement	Mr. Shamsul Haque	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Kamdia - Ghoraghat Road, Bit. Pavement, Group B	Mr. Abdullah Al-Mahmud	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Bit. Pavement, Group C	M/S United Enterprise	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Bit. Pavement, Group B	M/S Padma Enterprise	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Bit. Pavement, Group A	Mr. Mahbub Elahi	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Bit. Pavement, Group A	Mr. Kasim Uddin Sarkar	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Bit. Pavement, Group B	Mr. A.K.M. Showkat Ali	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Mirganj - Jaldhaka Road, Bit. Pavement, Group C	Mr. Atiar Rahman	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started
Gaibandha - Naldanga Road, 20 ft span RCC Bridge, under Kholahati Upazila	Mr. Anowarul Azim	1984 - 1985	24/12/84	07/01/85	07/04/85	Not yet started

1984 - 1985 Projects

6.4.6 Madhukhali - Baliakandi Road - Bituminous Pavement

Group K - ZRMIP - 1/84-85

The original contract called for 4" of WBM to be placed over the existing HBB, and then a bituminous pavement applied. It has now been revised to include picking up all existing HBB and processing it into khoa, which would result in a cost reduction of 8 percent. As of the end of this reporting period, all HBB had been picked up and processed into khoa, and 300 m of loose khoa are in place.

Group L - ZRMIP - 2/84-85

About one-third of this project is HBB, while the remainder is WBM. All of the existing HBB has been lifted and processed into khoa. Bituminous carpeting work on the existing WBM should begin in January 1985.

6.4.7 Baliakandi - Rajbari Road - Bituminous Pavement

Group 1 - ZRMIP - 14/84-85

This project is on an earth surface and has no salvageable brick. The contractor has a kiln in operation on the project, but no work has yet been undertaken.

Group 2 - ZRMIP - 15/84-85

All available brick on this project has been lifted and is being processed into khoa.

Group 3 - ZRMIP - 16/84-85

All available brick on this project has been lifted and is being processed into khoa.

Group 4 - ZRMIP - 17/84-85

All available brick on this project has been lifted and is being processed into khoa.

Group 5 - ZRMIP - 18/84-85

This project is on an earth surface and has no salvageable brick. No work has yet been undertaken.

Group 6 - ZRMIP - 19/84-85

All available brick on this project has been lifted and is being processed into khoa. Some 300 m of box cut with compaction have been completed, and sand is on site to begin the cushion course.

Group 7 - ZRMIP - 20/84-85

All available brick on this project has been lifted and is being processed into khoa.

Group 8 - ZRMIP - 21/84-85

This contract is for carpeting over existing WBM. Brick khoa is stockpiled on the shoulders to be used to bring the WBM to design thickness. The contractor is breaking boulders for bituminous carpeting aggregate.

6.4.8 Talma - Hatkrishnapur Road - WBM

Group A - ZRMIP - 5/84-85

Existing brick has been lifted on 2300 linear ft of this project

Group B - ZRMIP - 6/84-85

All but 300 linear ft of existing brick has been lifted, and khoa processing is in progress. Some 1500 linear ft of excavation has been completed.

Group C - ZRMIP - 7/84-85

All existing brick has been lifted and processed into khoa. Some 3000 linear ft. of excavation, sand cushion, edging, and soling is complete, and 2300 linear ft. of WBM has been placed.

Group D - ZRMIP - 8/84-85

No work has yet been undertaken

6.4.9 Bridge Approaches

Horai Bridge - ZRMIP - 22/84-85; Baliakandi - Rajbari Road

All brick has been lifted and stacked and about 20 percent of the embankment has been completed. Lift thickness is satisfactory, but the contractor is attempting to compact the material when the moisture content is higher than optimum.

Matiapara Bridge - ZRMIP - 23/84-85; Baliakandi - Rajbari Road

Work to date has been limited to clearing and grubbing.

Bonogram Bridge - ZRMIP - 24/84-85; Dignagar - Muksudpur Road

Approximately 30 percent of the embankment has been placed. There have been some problems with thickness of lift and moisture content, but the quality of the work is improving.

6.4.10 Bridges

Majumder - ZRMIP - 25/84-85; 30 ft span; Hatkrishnapur - Piajkhali Road

The groundwater table is still too high for foundation work.

Taltala - ZRMIP - 26/84-85; 30 ft. span; Hatkrishnapur - Piajkhali Road

The groundwater table is still too high for foundation work.

Khaigo - ZRMIP - 27/84-85; 30 ft span; Hatkrishnapur - Piajkhali Road

The abutment foundations are staked, and footing excavation is underway.

Baburchar - ZRMIP - 50/84-85; 30 ft span; Hatkrishnapur - Piajkhali Road

The contractor for this bridge was originally awarded the contract for the Sadarpur bridge. However, the Khulna Development Board has recently completed a bridge in Sadarpur which can be used as a detour around the proposed Sadarpur bridge site. The contractor has agreed to build the Baburchar bridge for the same unit prices he originally submitted for the Sadarpur bridge. Work will get underway as soon as the design is complete.

Matharapur - 48 ft span - Madhukhali - Baliakandi Road

The abutments for this bridge are of brick and are in good condition. The superstructure is of brick-aggregate concrete and is in poor condition, with cracks in the girders and the lower steel espesed in the deck. A contract for replacement of the superstructure will be let in January 1985.

7.0 PROCUREMENT OF EQUIPMENT

7.1 Local Procurement

7.1.1 Tar Boilers

No further progress to report

7.1.2 Trailer-Mounted Water Tanks

No further progress to report

7.2 International Procurement

7.2.1 Heavy Equipment And Tools

No further progress to report

7.2.2. Vehicles

No further progress to report

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

At this point in the present construction season, the field reports on contractor performance are much more optimistic than they were a year ago. Therefore, it must be concluded that the combined efforts of the XEN's and RE's staffs are resulting in a higher level of performance by the contractors. However, there still remain many problems to be alleviated; some in the areas of systems development and others in the field of organization and management.

9.2 Problems In System Development

9.2.1 Poor selection of Projects (Schemes)

The road inventory, performed in a responsible and thorough manner and updated periodically, is the basic foundation for the development of a project selection system based on technical considerations. Of course, economic, social, and political aspects must often be considered as well. Never the less, at the District level, the availability of a reliable and current road inventory would be a valuable, yet unsophisticated, tool for the selection of projects for annual work programs.

9.2.2 Excessive Delays In Project Preparation, Tendering, And Awarding

Again, it is suggested that the availability of a reliable District road inventory would help to eliminate some of the delays in project preparation, which would be reflected in an advancement of the tendering and awarding dates for the project contract.

9.2.3 Failure To Take Full Advantage Of Favorable Construction Weather

This problem is affected both by delays in project preparation and in the screening of qualified contractors. Any acceleration in the project preparation, tendering, and awarding process should enable an earlier project start-up, and thus better use of any favorable construction conditions. The problem of unqualified contractors will be discussed subsequently.

9.2.4 Poor Communications Between Field Staff, Contractors And Z.P.

This has often been cited as an underlying reason for failure to take prompt action to correct inadequate contractor performance. It is also a factor in poor maintenance performance. It is suggested that the RE's must redouble their efforts to see that adequate means of communication are built into the organization of both the construction and maintenance supervision systems. The problem has been recognized in the in-country training lectures on program and project supervision. Since many of these lectures were given by LGEB staff members, they also must assume the responsibility of following through on the application of the principles presented in the lectures.

9.3 Problems In Organization And Management

9.3.1 Poorly Qualified Contractors

Contractors who customarily bid on projects at the Zila Parishad level are a "fact of life", and therefore cannot be rejected and replaced with more competent ones. The training of these contractors to perform more reliable work is a part of the responsibility of the ZRMI Project. There are several remedial measures which may be taken; some by the RE's and some by the XEN's. One approach would be the preparation of more realistic cost schedules for both materials and labor, and another would be more timely provision of necessary heavy equipment. Both of these proposed solutions will be discussed in more detail in a subsequent section.

Other very obvious solutions would be the preparation of more precise and realistic specifications and the strict enforcement of the same. Another improvement to encourage better contractor performance would be the development of a more realistic time schedule for each contract and the application of penalties if the contractor, due to his own shortcomings, fails to meet the schedule. Finally, if a contractor consistently performs in a sub-standard manner, his future tenders should be carefully scrutinized to ascertain if he indeed has the necessary resources to complete the job on which he is bidding. If not, his bid should be rejected.

9.3.2 Failure To Take Prompt Action To Replace Unqualified Contractors

This problem has been the cause of much unwarranted delay in Project progress. If a contractor feels that he has a legitimate reason for delaying work on his contract, he should be expected to immediately report such reasons to the XEN, or his designated representative. There should be no vacillation in the cancellation of a contract if a contractor willingly suspends his own operations and fails to renew operations after reasonable notice to do so.

9.3.3 Unrealistic Cost Schedules For Materials And Labor

Project cost analysis should be based on a realistic assessment of current costs. To do otherwise encourages the contractor to attempt to supply inferior materials. This results either in rejection of the work performed with sub-standard materials, or a significant reduction in expected project life; neither alternative giving optimum benefits from the investment of limited program funds.

9.3.4 Delay in The Assignment Of Necessary Heavy Equipment

This is a common complaint from all three Districts. The problem is usually due to poor program and project planning and scheduling. Project scheduling through the use of sequence-of-events diagrams was presented as a subject in the second-cycle, in-country training sessions. The problem would be considerably alleviated if program and project scheduling would take into account equipment availability and material delivery.

9.3.5 Delay in Delivery Of Construction Materials

A shortage of bituminous materials caused significant delays in all three Districts, but especially in Faridpur. As mentioned previously, the source and delivery schedule of construction materials should be an integral part of the project planning and scheduling process.

9.3.6 Failure To Issue Timely Project Revisions And/Or Change Orders

In all three Districts, there were many instances of delayed compensation due to failure to supply the proper documentation. Prompt documentation of revisions and provision of adequate change orders would materially improve the speed with which payment requests are processed.

9.4 Preparation Of Technical Specifications

Problems associated with this element were discussed in the preceding sections.

9.5 Training

The principal training problems remain those associated with decisions concerning the scope and venue of future overseas training programs.

9.7 Procurement Of Equipment

This element of the contract continues to be plagued by lack of firm decisions concerning type and amounts of new equipment to be ordered.

9.8 Personnel

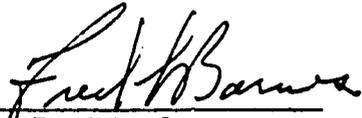
No specific problems to mention at this time.

9.9 Miscellaneous

No specific miscellaneous problems

10.0 MISCELLANEOUS

The Monthly Financial Statement may be found in Appendix F.


Fred L. Barnes
Chief of Party

APPENDIX A

PHOTOS OF MAINTENANCE ACTIVITIES

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

SYLHET DISTRICT

BADAGHAT ROAD PAVEMENT MAINTENANCE

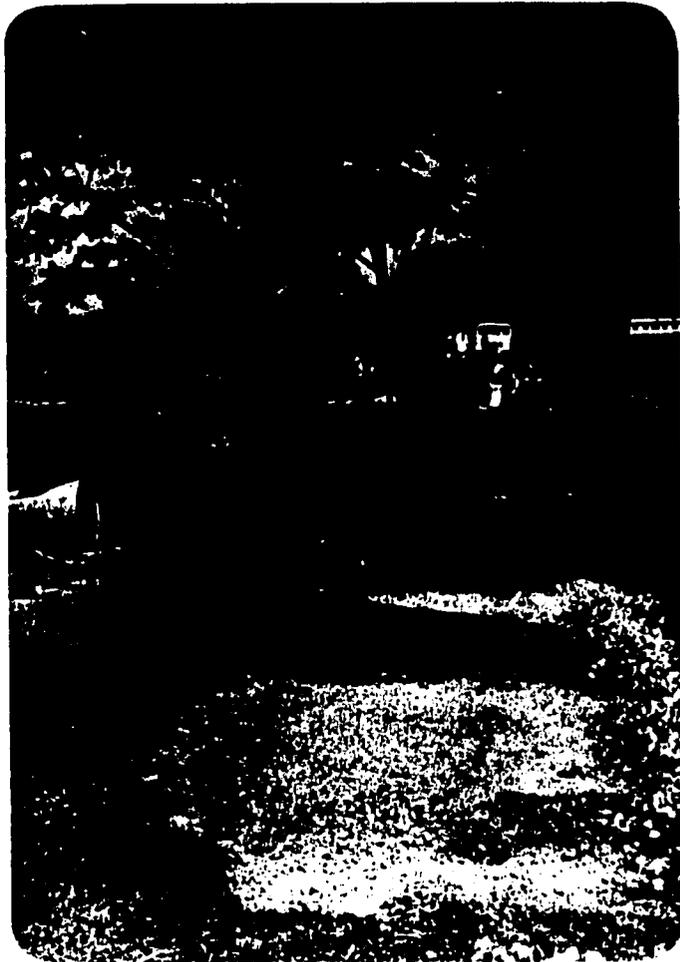


Fig-1

An illustration of the cleaning, filling to grade,
and repairing of the damaged pavement.

BADAGHAT ROAD PAVEMENT MAINTENANCE

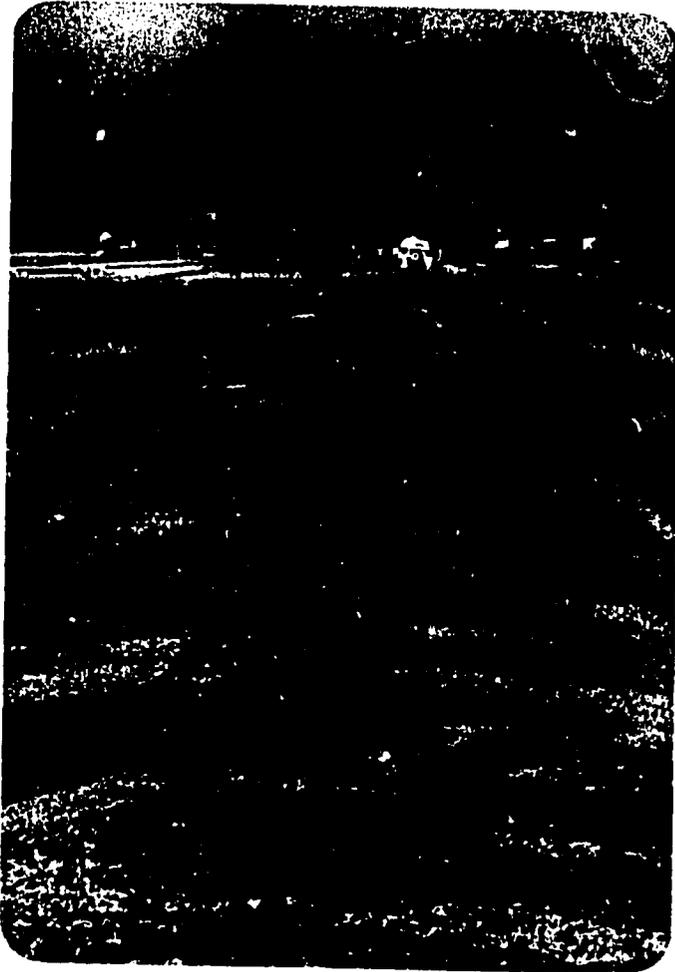


Fig-2

A section of repaired pavement prior to the application of seal coating.

BADAGHAT ROAD PAVEMENT MAINTENANCE

Fig-3

Another view of pothole repairing operation prior to seal coating.

BADAGHAT ROAD PAVEMENT MAINTENANCE

Fig-4

Traffic control sign board is in view during the seal coating operation. Sand has been spread over the premixed seal coating to absorb excess bitumen and fill in small voids.

FARIDPUR DISTRICT (83-84 Maintenance Schemes)

TALMA - NAGARKANDA ROAD



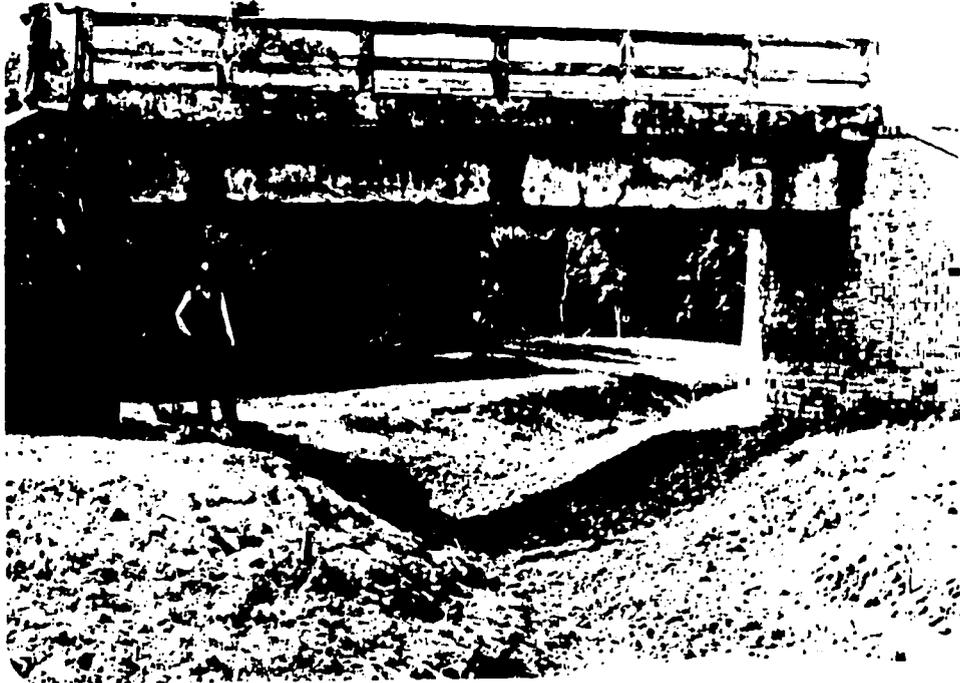
Fig-5

Regrading of shoulder in progress. Camber of shoulder being checked.



Fig-6

Vegetation grown up on wingwall which falls under this

TALMA - NAGARKANDA ROADFig-7

Channel base to be maintained in shape under this Scheme for ready passage of flood water during the next rainy season.

Fig-8

Uprooting the vegetation and maintaining the wing-wall properly will be done under this Schemes, also the channel bed will be kept clean for maintaining better flow.

APPENDIX B

SOIL LABORATORY ACTIVITIES

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

LABORATORY ACTIVITIES OF SYLHET DISTRICT FOR THE
MONTH OF DEC. 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. (%)	P.I. (%)	Yd kg/m ³	W (%)	M.D.D. (kg/m ³)	C.M.C (%)	Modi- fied.	Stan- dard.	Unsoa- ked.	Soa- ked.	
Chughanj-Gilachara Road. (Local Sand) - Sample no.S73.	F.M.= 1.61.	99	1	-	-	-	-	-	-	-	-	-	-	-	-	Sample tested for RCC work (Rejected).
Kakadakhin-Beanibazar Road. Sample no.S74.	F.M.= 1.54.	100	-	-	-	-	-	-	-	-	-	-	-	-	-	Tested for retaining work.
Kakadakhin-Beanibazar Road. (Shari River Sand). Sample no.S75.	F.M.= 2.96.	100	-	-	-	-	-	-	-	-	-	-	-	-	-	Tested for RCC work.
Kakadakhin-Beanibazar Road. (Local Sand), Sample no.S76.	F.M.= 1.04.	100	-	-	-	-	-	-	-	-	-	-	-	-	-	Tested for RCC work, (Rejected).
Chughanj-Ghilachara Road. (Gaghrachara Sand). Sample no.S77	F.M.= 1.25	98.22	1.78	-	-	-	-	-	-	-	-	-	-	-	-	Tested for RCC work, (Rejected).
Hubal-Putijuri Road. Depth 0.305 m - 0.457m 50 m unpaved gap of H Road). Sample no.S78.	Sp.Gr. =2.55.	29	51.30	19.70	34.98	23.45	11.53	1599.00	27.13	1853.68	16.12	86.25	-	-	-	30 m repair- ing work out of 250 m unpaved gap of R&H Road.
Chughanj-Ghilachara Road. (Gaghrachara Sand) Sample no.S79.	F.M.= 1.78.	100	-	-	-	-	-	-	-	-	-	-	-	-	-	Tested for RCC work(may be recommen- ded).

LABORATORY ACTIVITIES OF SYLHET DISTRICT FOR THE
MONTH OF DEC. 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.
Dhakadakhin-Beani-bazar Road. (Top Slab of 2nd Box Culvert).	S ₆	-	6" x 6"	3"	1:2:4	14	88000	2444.4	Fine aggregate (F.M.=1.8) + Coarse aggregate (20 mm-30 mm down graded) + Ordinary Portland Cement.
Dhaka Dakshin-Beani-bazar Road. (Top slab of 5th Box Culvert).	S ₇	-	6" x 6"	2½"	1:2:4	9	65200	1811.11	Fine aggregate (F.M.=1.8) + Coarse aggregate (20 mm - 30 mm down graded) + Ordinary Portland Cement.
Nabiganj-Baniachung Road.	S ₈	-	6" x 6"	2"	1:2:4	28	75500	2097.22	Fine aggregate (F.M.=1.96) + Coarse aggregate (20 mm - 30 mm down graded) + Ordinary Portland Cement.
Nabiganj-Baniachung Road.	S ₉	-	6" x 6"	2"	1:2:4	28	76500	2125.00	Fine aggregate (F.M.=1.86) + Coarse aggregate (20 mm - 30 mm down graded) + Ordinary Portland Cement.

LABORATORY ACTIVITIES OF RANGPUR DISTRICT FOR THE MONTH OF DEC. 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. 4	Sieve no. 8	Sieve no. 10	Sieve no. 16	Sieve no. 30	Sieve no. 40	Sieve no. 50	Sieve no. 80	Sieve no. 200.	
1. Mirganj-Jaldhaka Road-Group-D(old) in 82-83.	100.00	76.06	47.60	10.37	-	2.38	-	-	1.05	-	0.63	0.42	This material does not follow the specification.
2. Mirganj-Jaldhaka Road-Group-C ₁ , '83-84.	100.00	78.29	58.29	6.86	-	0.43	-	-	0.29	-	0.19	0.13	-do-
3. Mirganj-Jaldhaka Road-Group-D(old) '82-83.	82.90	72.50	51.17	13.48	-	0.51	-	-	0.34	-	0.27	0.24	-do-
4. Mirganj-Jaldhaka Road-Ist 1/2 in '83-84.	100.00	95.00	87.50	22.50	-	2.25	-	-	12.50	-	0.50	0.15	30% 1/2" down graded mix with this material. Then material may be used.
5. Barodarga-Bhendabari Road. Group-C, '83-84.	91.86	77.91	61.63	2.33	-	0.47	-	-	0.42	-	0.39	0.37	This material does not follow specification.
6. Mirganj-Jaldhaka Road-Group-C2, 1983-84.	100.00	75.56	44.45	4.45	-	0.85	-	-	0.45	-	0.41	0.32	-do-
7. Mirganj-Jaldhaka Road-Group C ₁ , 1983-84.	100.00	85.45	65.45	24.72	-	6.54	-	-	2.18	-	1.09	0.36	-do-
8. -ditto-	100.00	87.90	62.09	16.93	-	0.80	-	-	0.60	-	0.52	0.40	-do-

LABORATORY ACTIVITIES OF RANGPUR DISTRICT FOR THE
MONTH OF DEC. 1984

Name of road/dial 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. (%)	P.I. (%)	γ_d kg/m ³	W (%)	M.D.D. (kg/m ³)	O.M.C (%)	Modi- fied.	Stan- dard.	Unsoa- ked.	Soa- ked.	

Barodarga-Bhendabari
Road, near the
Nazrul Islam house-
new construction
bridge.
(Depth 0'-6").

Sp.gr. =2.68.	12%	68	20	-	-	-	-	-	1766.00	15.25	-	-	-	-	-
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γ_d = Dry density.
W = Water content.
MDD = Max dry density.
OMC = Optimum water content.

LABORATORY ACTIVITIES OF RANGPUR DISTRICT FOR THE
MONTH OF DEC.1984

Name of road and location from where materials collected.	Brick size.	Absorption capacity.	F.M.of sand/Pea gravels.	Water contents (%).	<u>Remarks.</u>
Kamdia- Ghoraghat Road-Group-A, '83-84.	-	-	0.67	-	This material does not follow the specification not useable for the sand cushioning.
Kamdia-Ghoraghat Road-Group-B, '83-84.	-	-	1.05	-	This material follow the specification may be used for the sand cushioning work.
-ditto-	-	-	1.01	-	-do-
Kamdia-Ghoraghat Road-Group-C,	-	-	0.99	-	-do-
Kamdia-Ghoraghat Road-Group-C	-	-	0.98	-	This material follow the specification may be used for the sand cushioning work.
Kamdia-Ghoraghat Road-Group-B(old), '82-83	-	-	1.00	-	-do-
Kamdia-Ghoraghat Road-Group-B(old), '82-83	-	-	1.02	-	-do-

LABORATORY ACTIVITIES OF FARIDPUR DISTRICT FOR THE
MONTH OF DEC. 1984

Name of road/khal and location.	Test Result	Sieve /Hydro-meter 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.	
Budpur-Bongram- (Edge Site).	-	-	-	-	-	-	-	1442.8	26.4	1748.6	12.55	-	82.51%	-	-	Sample of Bore hole no.1.
ditto-	-	-	-	-	-	-	-	1555.4	26.0	1707.5	12.78	-	91.68%	-	-	Sample of Bore hole no.2.
Krishnapur-Sadarpur d. (Group-C).	-	-	-	-	-	-	-	1630.1	17.86	1794.3	14.12	-	90.8%	-	-	-
ditto- (Group-A).	-	-	-	-	-	-	-	1526.6	13.1	1720.0	15.4	-	88.7%	-	-	-
ditto- (Group-A).	F.M.=.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Local Sand.
ditto- (Group-C).	F.M.=.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Local Sand.
bari-Baliakandi d. (Horai Bridge e.)	Sp.gr. = 2.69.	-	-	-	-	-	-	1534.5	25.5	1724.8	17.0	-	89.00	-	-	-
ditto- (Group-6).	F.M.=.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Local Sand.

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

APPENDIX C

PHOTOS OF CONSTRUCTION ACTIVITIES

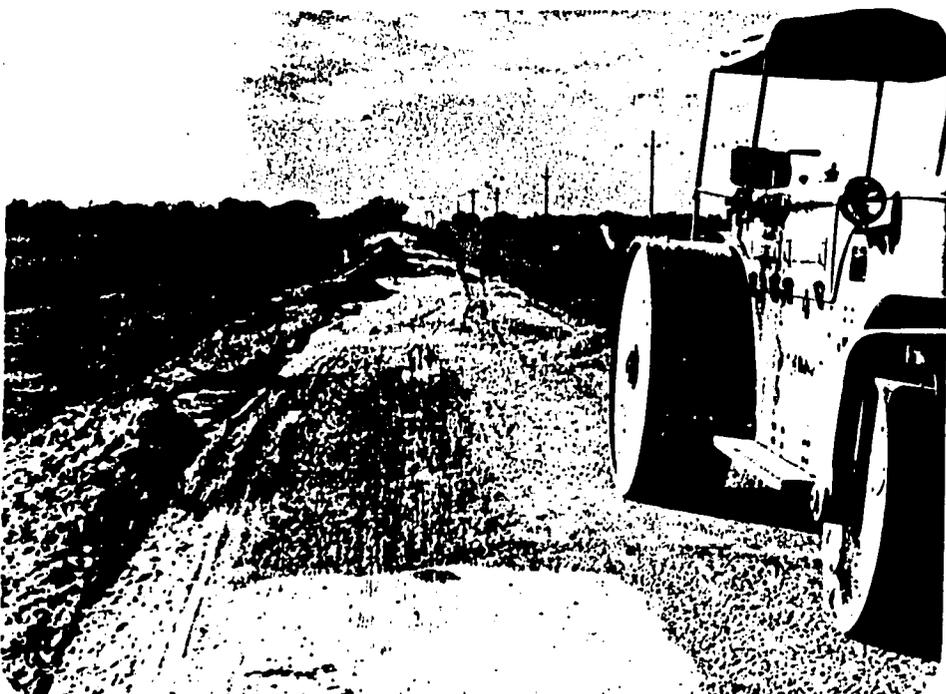
ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

SYLHET DISTRICTTAJPUR - SYEDPUR ROADFig-9

A view of the excavation and removal of the old CMP pipe culvert at this site. This new culvert has since been placed and completed with headwalls. (ZRMI/20/82-83).

BAHUBAL - PUTIJURI - BIJNAGHAT ROADFig-10

View of the inadequate preparation of subgrade before the application of paving materials. The XEN later instructed the contractor to remove all materials down to subgrade and reconstruct this section. (ZKMI/01/83-84).

Fig-11

View of the inadequate preparation of subgrade before the application of paving materials. The XEN later instructed the contractor to remove all materials down to subgrade and

BAHUBAL - PUTIJURI - BIJNAGHAT ROADFig-12

View of the work in progress on this large drainage structure. This structure has since been completed with finishing and cleanup work remaining to be completed. (ZRM/02/83-84).

Fig-13

A view of a completed 1.5 meter culvert with the approach work completed also. (ZRM/04/83-84).

BAHUEAL -- PUTIJURI -- BIJNAGHAT ROADFig-14

A view of the inlet to this culvert and the final cleanup work remaining to be executed before final acceptance. (ZRMI/05/83-84).

Fig-15

A view of the inlet to this culvert and the final cleanup work remaining to be executed before final acceptance.

ATGRAM - ZAKIGANJ ROADFig-16

A view of the site for the construction of this structure with workers excavating for the bottom slab, and aggregates for concrete stockpiled foreground. (ZRMI/09/83-84).

Fig-17

First layer of aggregate placed and ready for rolling.

AT'GRAM - ZAKIGANJ ROAD



Fig-18

Sand covering over freshly placed seal coat with shoulders ready to be completed to grade.
(ZRMI/10/83-84).



Fig-19

Recently placed levelling course ready for rolling.

ATGRAM - ZAKIGANJ ROADFig-20

A view of the site for the construction of a 24.40 meter box culvert which will replace the 31 meter girder bridge originally tendered. Work on the site preparation has already started, and the old bridge piers will be driven further into the subgrade for the use as piling. (ZRMI/13/84-85).

TAJPUR - SYEDPUR ROADFig-21

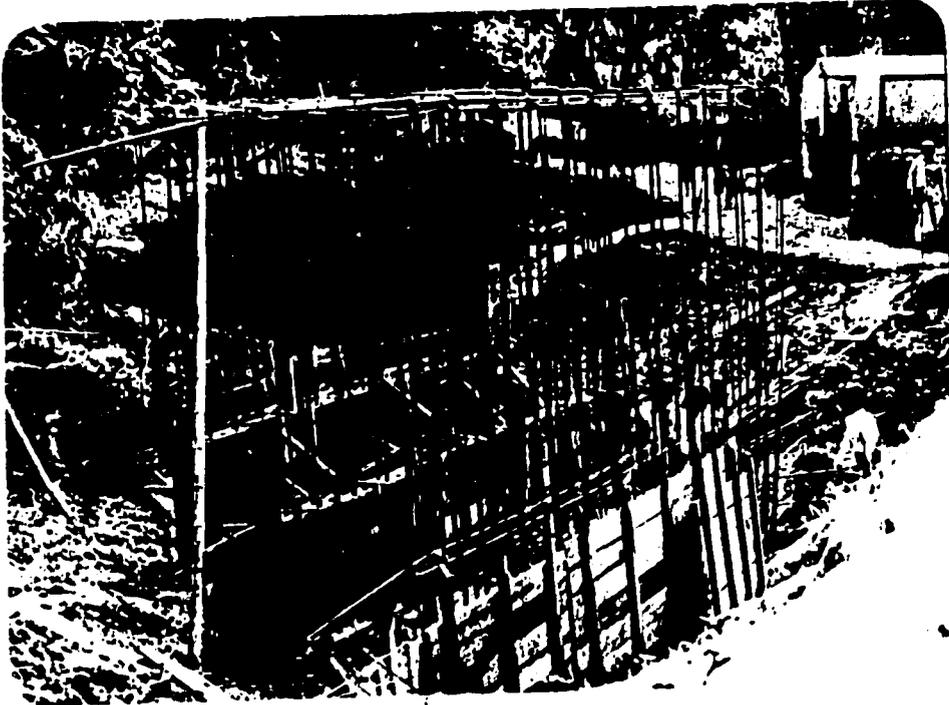
Workers reinitiating the construction work after monsoon season by cleaning the slab cast before flooding.

TAJPUR - SYEDPUR ROAD



Fig-22

workers removing sub-standard concrete cast with
substandard workmanship and materials.
(ZRMI/13/83-84).

TAJPUR - SYEDPUR ROADFig-23

A view of progress made by the Contractor since the monsoon. The old bridge in the background (right side) is being demolished. (ZRMI/13/83-84).

Fig-24

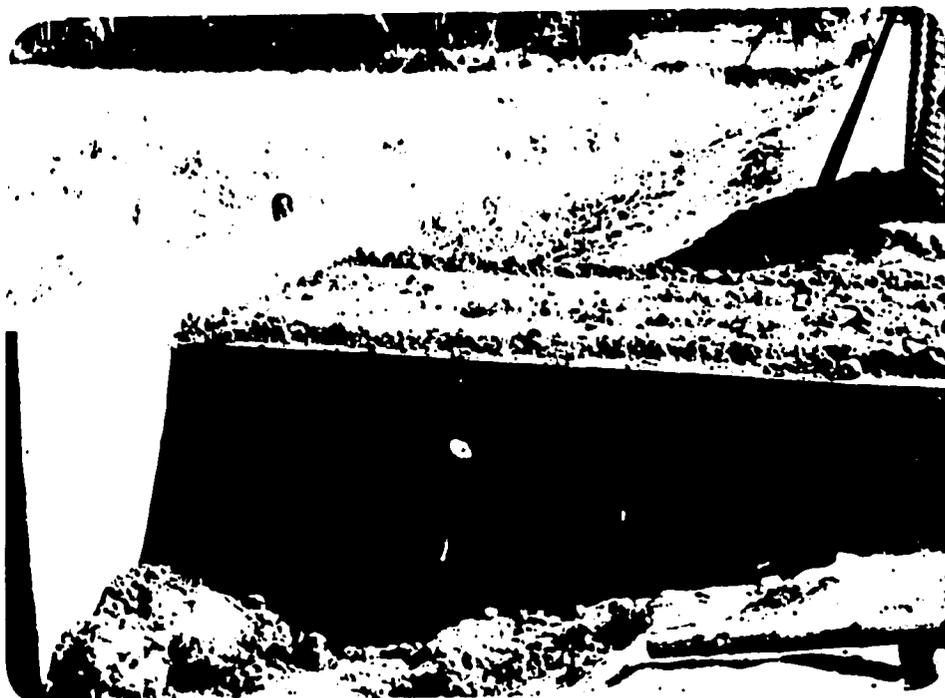
A view of the earth filling of the second culvert site. Studies made during monsoon indicated that this proposed structure could be eliminated.

FENCHUGANJ - GHILACHARA ROADFig-25

A view of the old 10 ft.wide, damaged, steel bridge to be replaced by a 5.2 meter RCC box culvert. work is, and has been in progress on the construction of a detour, and demolition of the old bridge abutments.
(ZRMI/19/83-84).

DHAKADAKSHIN - BEANIBAZAR ROADFig-26

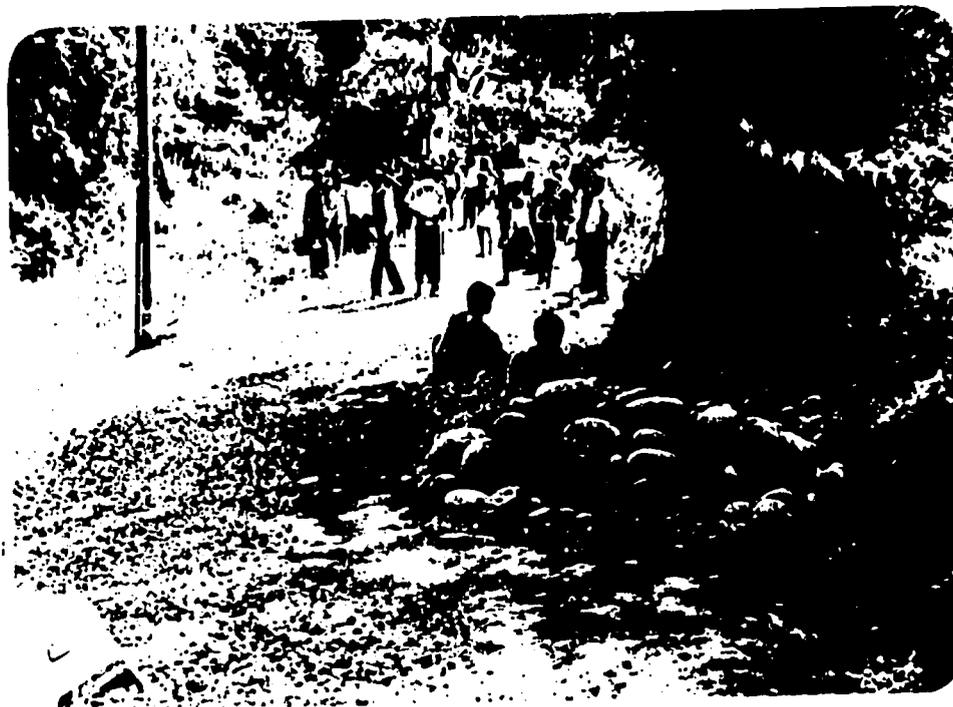
A view of the construction in progress of the last of these five - 1.5. meter box culverts. This culvert has been completed since and is the only one that was acceptable. (ZRMI/15/83-84).

Fig-27

A view of the concrete curing process of the top slab, with the typical type of headwall used in this District. (ZRMI/15/83-84).

DHAKADAKSHIN - BEANIBAZAR ROADFig-28

A view of the completed 1.5 meter box culvert with head-walls. (ZRMI/15/83-84). The approach in the foreground will be completed under (ZRMI/16/83-84).

Fig-29

Materials stockpiled on the roadbed prevented the uniform and systematic paving of this section. This type of situation has

DHAKADAKSHIN - BEANIBAZAR ROADFig-30

A very good illustration of the insufficient amount of bitumen that most contractors consider as adequate. Normal practice has a prime coat over the sub-base, and secondly a tack coat applied to that before placing aggregates. (ZRMI/16/83-84).

DHAKADAKSHIN - BEANIBAZAR ROADFig-31

Hand brushing the base material in preparation
for paving.
(ZRMI/16/83-84).

DHAKADAKSHIN - BEANIBAZAR ROADFig-32

A view of the recently built up and widened earth embankment on east side of the Radhajuri channel. (ZRFMI/16/83-84).

DHAKADAKSHIN - BEANIBAZAR ROAD

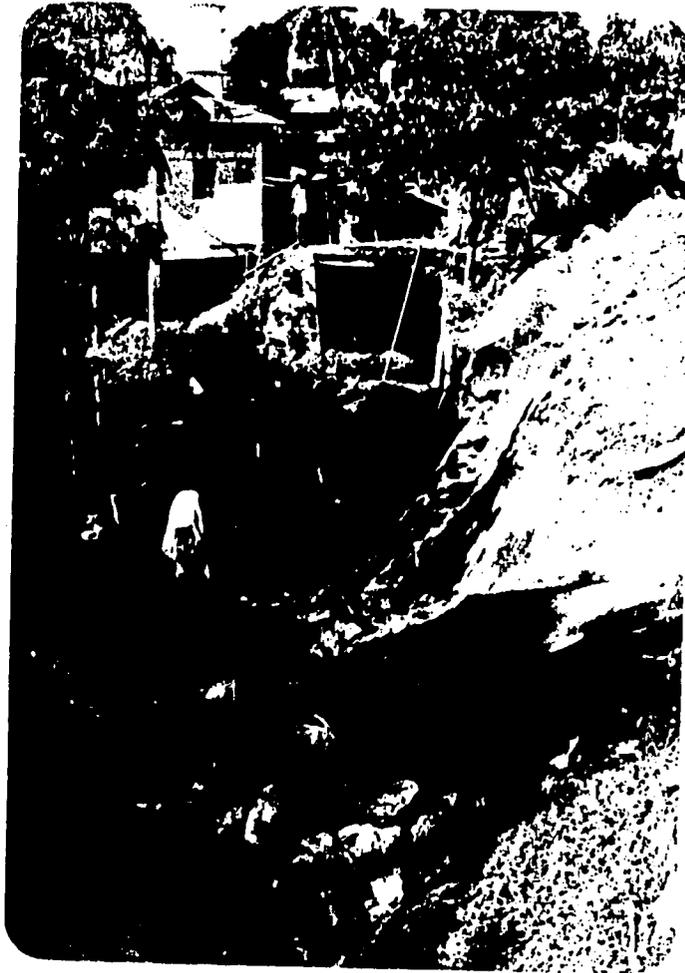


Fig-33

Illustrating foundation base preparation and demolition
of old damaged bridge.
(ZRMI/21/84-85).

DHAKADAKSHIN - BEANIBAZAR ROAD



Fig-34

An overall view of the retaining wal progress and preparation of the 5.2 meter box culvert site. (ZRMI/21/84-85).

DHAKADAKSHIN - BEANIBAZAR ROADFig-35

A view of the last stages of the demolition of the old-bridge abutment walls. Bottom slab and partial wing-walls have been cast since picture was taken.(ZRMI/21/84-85) (ZRMI/21/84-85).

Fig-36

An overall view of the bridge site(ZRMI/23/84-85) with diversion road at right, ZRMI/16/83-84) earth embankment in foreground and site preparation at the center of the

DHAKADAKSHIN - BEANIBAZAR ROAD

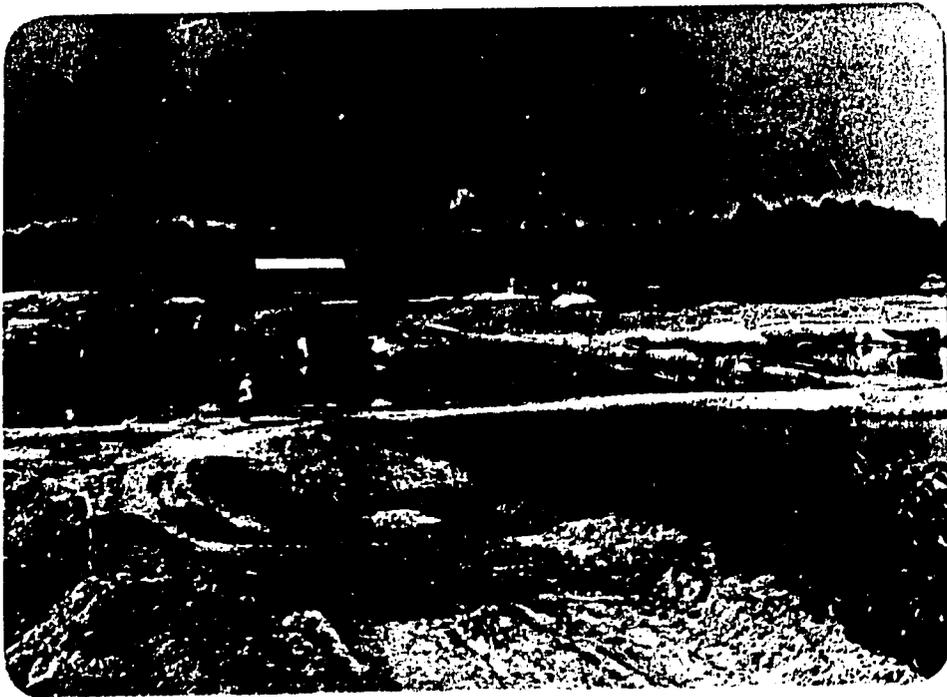
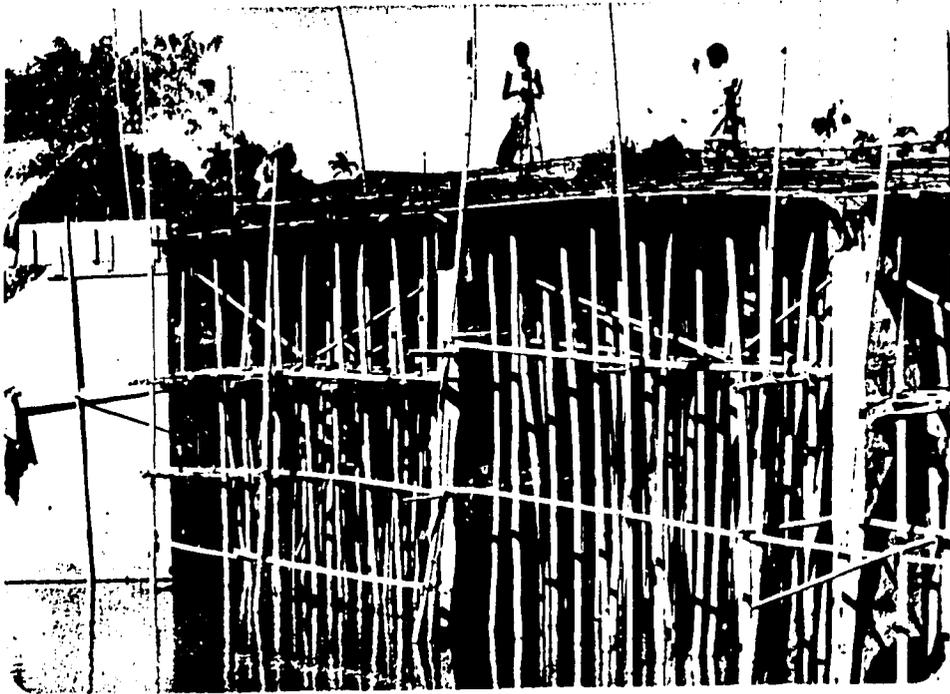


Fig-37

A view of the bridge site showing laborers preparing foundation sites. (ZRMI/23/84-85)

NABIGANJ - BANIACHUNG ROADFig-38

View of the final stages of construction of this important structure. This project has since been completed and the approach work is in the final stage of construction.
(ZRMI/17/83-84).

NABIGANJ - BANIACHUNG ROADFig-39

View of the final stages of construction of this important structure. This project has since been completed and the approach work is in the final stage of construction. (ZRMI/17/83-84).

RANGPUR DISTRICTBARODARGA - BHENDABARI ROADFig-40

Materials being laid for seal coat, with less or no application of tack coat. Compaction operation on this layer also not adequately undertaken. (Gr.D₁, 82-83).

Fig-41

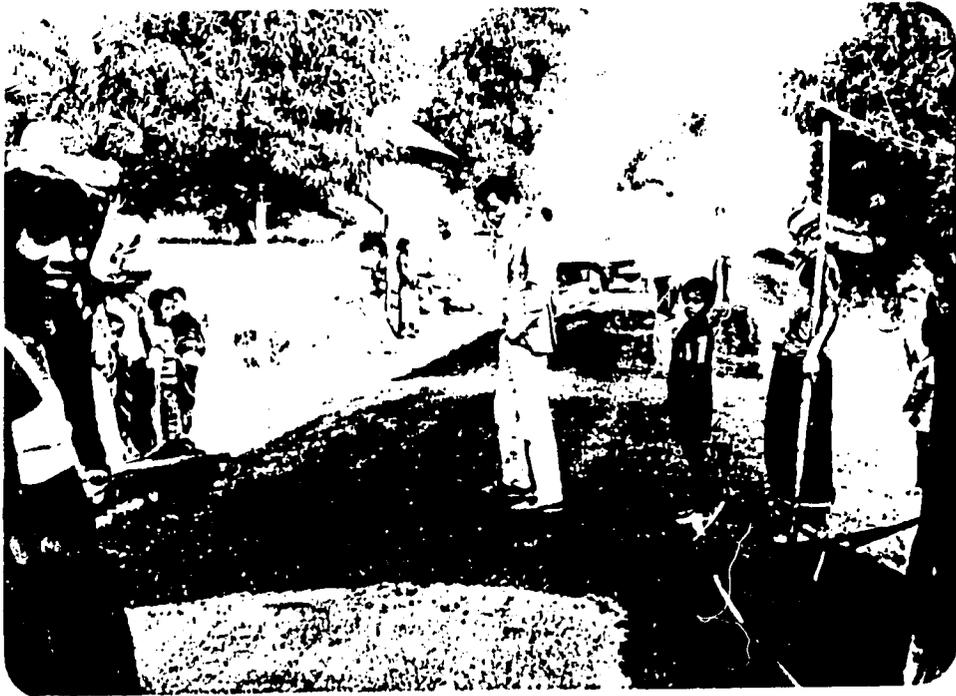
Below specified materials are in view on the mixing pan. Consultant suggested the contractor repeatedly for not using

BARODARGA- BHENDABARI ROADFig-42

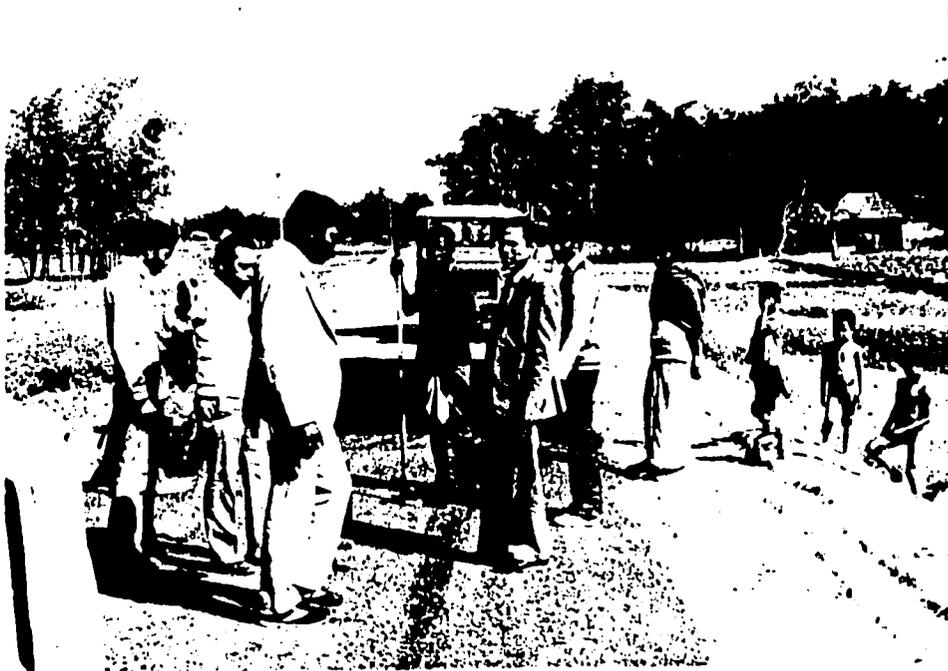
Spreading the carpeting materials was in process but road roller was not readily available for compaction. (Gr. B. 82-83).

Fig-43

Inferior quality material being taken away from the road surface. (Gr. B. 82-83).

BARODARGA - BHENDABARI ROADFig-44

Bituminous carpeting work is in progress. Immediate availability of road roller is also a problem for section. (Gr.C. 83-84).

MIRGANJ - JALDHAKA ROAD (Bitu.Carpet).Fig-45

Project Manager, Mr. R.N.Hasan, with local officials, ~~and~~ while visiting this Scheme on 26 Dec.'84. Work

MIRGANJ - JALDHAKA ROADFig-46

Progress is still not appreciable in this section.
(Gr.D. 82-83).

Fig-47

Preparation of khoa from bricks is seen in progress in
one section.

(Gr. C - 83-84).

MIRGANJ - JALDHAKA ROAD



Fig-48

Khoa spreading is in progress in another section of this contract.
(Gr. C₁, 83-84).



Fig-49

View of the completed carpeting section in Group C₁, 83-84.

MIRGANJ - JALDHAKA ROADFig-50

Rolling is in progress. (Gr.B. 83-84).

Fig-51

Completed carpeting section in Group B. (83-84).
Shoulder shaping and cleaning to be completed.

MIRGANJ - JALDHAKA ROADFig-52

Project Manager inspected the site on 26 Dec. '84, and ordered for immediate replacement of brick chips which were inferior in quality. (Group D, 82-83).

Fig-53

Attempt of hiding inferior quality brick chips, rejected by the Project Manager, by spreading some quality brick chips over the rejected stack.

MIRGANJ - JALDHAKA ROADFig-54

Mr. Alex E. Neilson inspected this section (Gr.E. 82-83) during this month. Both quality and inferior quality bricks are observed in site stacked for breaking.

RAJARHAT - ULLAGHATA ROAD (HBB).

Fig-55

Earth-work on shoulder is seen in progress without breaking of clods and without the benefit of compaction. Project Manager inspected the site during this month.

(Gr. A).

RAJARHAT - ULLAGHATA ROAD (HBB).Fig-56

View of a section without proper camber in HBB, without proper cross-fall in earth shoulder and uncompacted earth-work. Mr. R. N. Hasan, P.M., expressed his dis-satisfaction on the over-all quality of this work while visiting the site on 26 Dec. '84. (Gr.D).

Fig-57

Mr. Alex E. Neilson, R.E., Sylhet, visited similar section and observed similar deficiencies in the quality of work. (Gr. D).

RAJARHAT - ULLAGHATA ROAD (HBB).



Fig-58

A view of the wrong sequence of work.
(Gr. D).

KAMDIA - GHORAGHAT ROAD (HBB). HBBO



Fig-59

Attempt of dumping earth on uncleaned surface.
(Gr.B. 83-84).

KAMEIA - GHORAGHAT ROAD (HBB).



Fig-60

Checking of sand cushioning in Group C (83-84).



Fig-61

Earth shoulder improvement is in progress in Group-B(82-83).
But the progress is still very slow.

GAIBANDHA - KAMARJANI ROAD (Bitu.Carpet).



Fig-62

Poor quality brick chips are used in work in Group B(83-84). Project Manager visited the site and asked the local official to take immediate action for ensuring quality work.

FARIDPUR DISTRICT

TALMA - HATKRISHNAPUR ROAD (84 - 85 Scheme).



Fig-63

Picking up of existing HBB and FBS are in progress in Group B.



Fig-64

Box cutting for the new pavement is in progress in Group B.

TALMA - HATKRISHNAPUR ROAD (84 - 85 Scheme).



Fig-65

Completed box cut section in Group C.



Fig-66

Completed section of sand cushioning for new pavement construction in Group C.

TALMA - HATKRISHNAPUR ROAD (84 - 85 Scheme).



Fig-67

Single layer flat brick soling (FBS) is in progress in Group C.



Fig-68

Completed brick soling section in Group C.

HAT - KRISHNAPUR - SADARPUR - PIAJKHALI ROAD (84-85 Scheme).

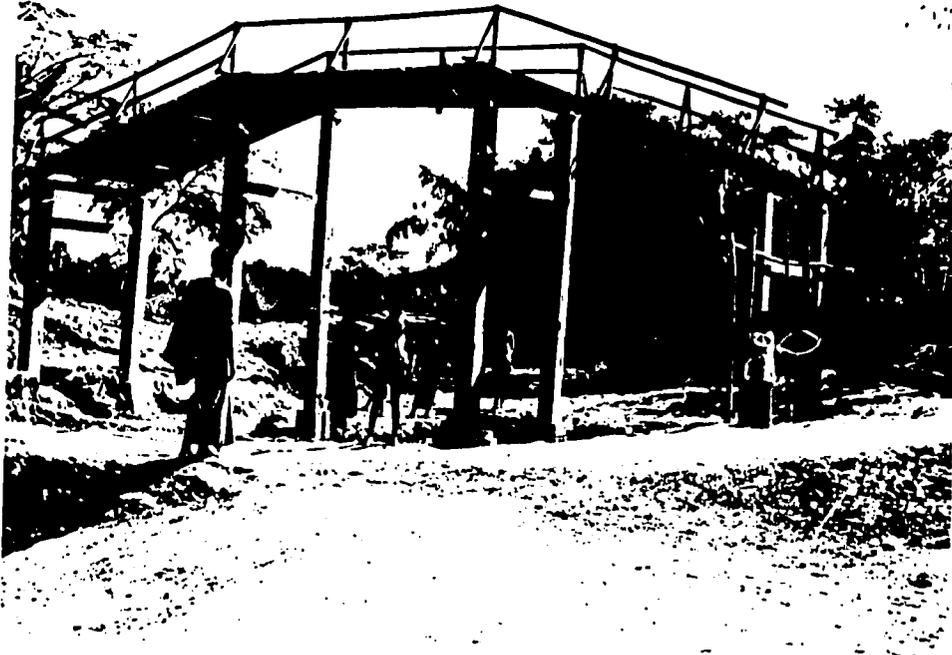


Fig-69

Proposed location of a 30'-0" long RCC bridge on this road.

BANOGRAM BRIDGE APPROACH



Fig-70

Construction of Banogram bridge approach is in progress.

APPENDIX D

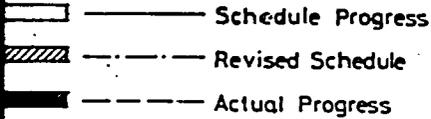
BAR CHARTS, PROJECT SCHEDULES, AND CURRENT STATUS

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

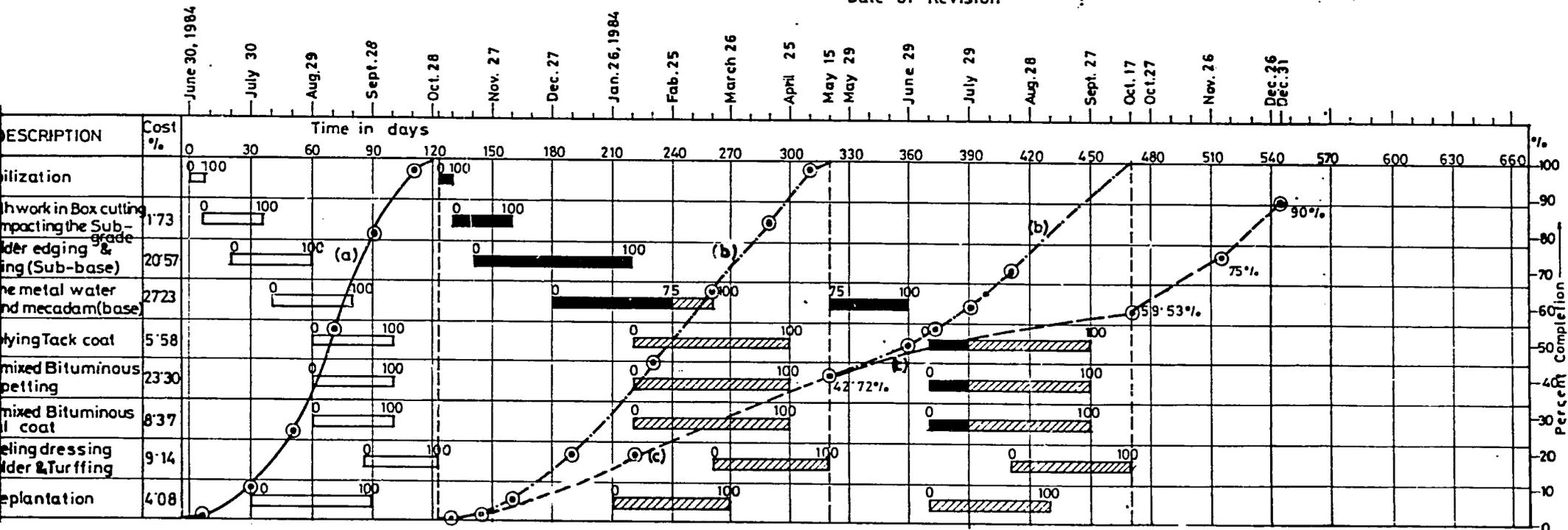
SYLHET DISTRICT

Bituminous Pavement Work on Fenchugonj- Gilachara Road

Total Length- 0.50 mile (1982-'83)



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 :



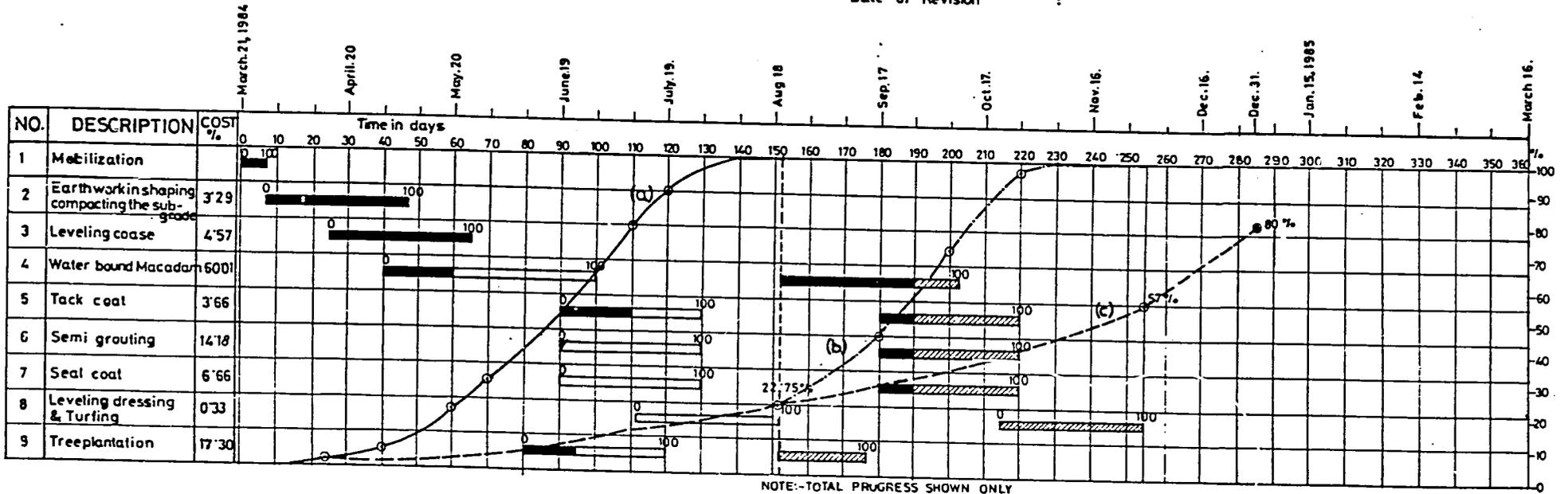
NOTE:-TOTAL PROGRESS SHOWN ONLY

SYLHET DISTRICT

Bituminous Pavement Work On Bahubal-Putijuri-Bijnaghat Road Total Length 0.25 km. (1983-84)

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

Estimated Cost :TK. 3,914,000/00
 Contract Cost :TK. 2,94,314/00
 Scheduled Starting date : 2. March-1984
 Actual Starting date :
 Scheduled Completion date : 20. Aug-1984
 Actual Completion date :
 Revised Cost :TK.
 Date of Revision :

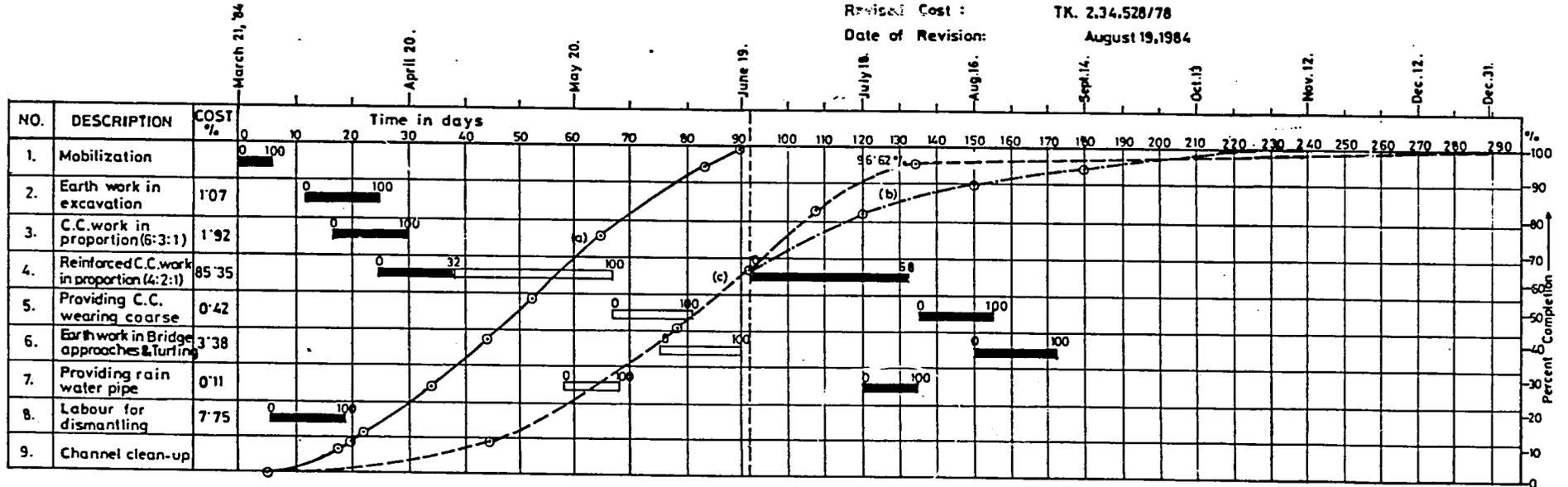


SYLHET DISTRICT

Bhahubal-Putijuri-Bijnaghat Road Construction of 5'20m. long & 3'65m.hight Box Cuivert at Korargoan

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

Estimated Cost: TK. 190,200/00
 Contract Cost : TK. 199,710/00
 Scheduled starting date: March 21, 1984
 Actual starting date: May 9, 1984
 Scheduled Completion date: June 20, 1984
 Revised Completion date: October 30, 1984
 Revised Cost : TK. 2,34,528/78
 Date of Revision: August 19, 1984



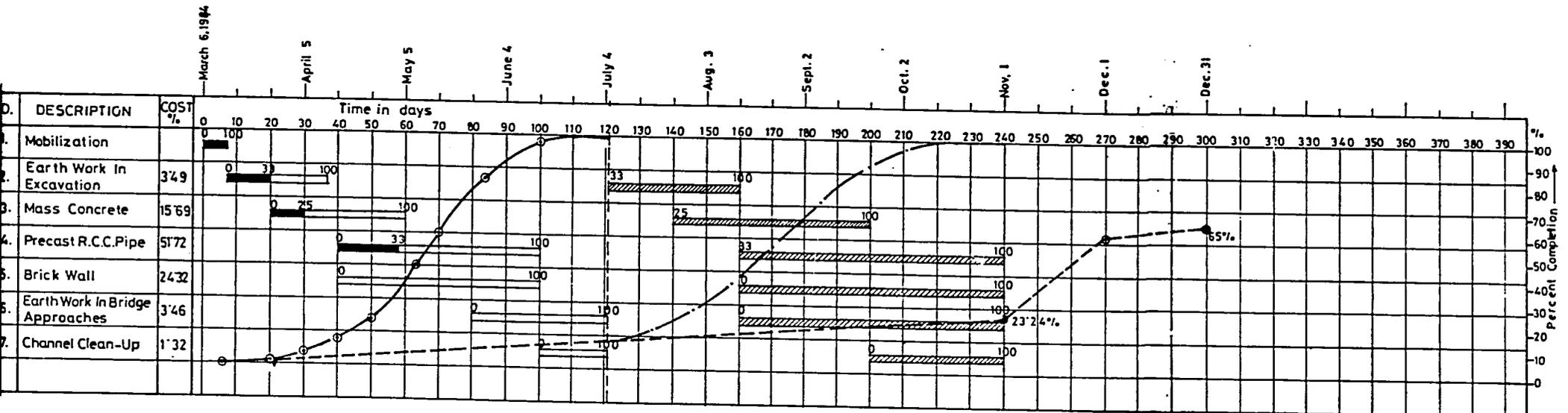
SYLHET DISTRICT

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. 2,0800/00
 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 :

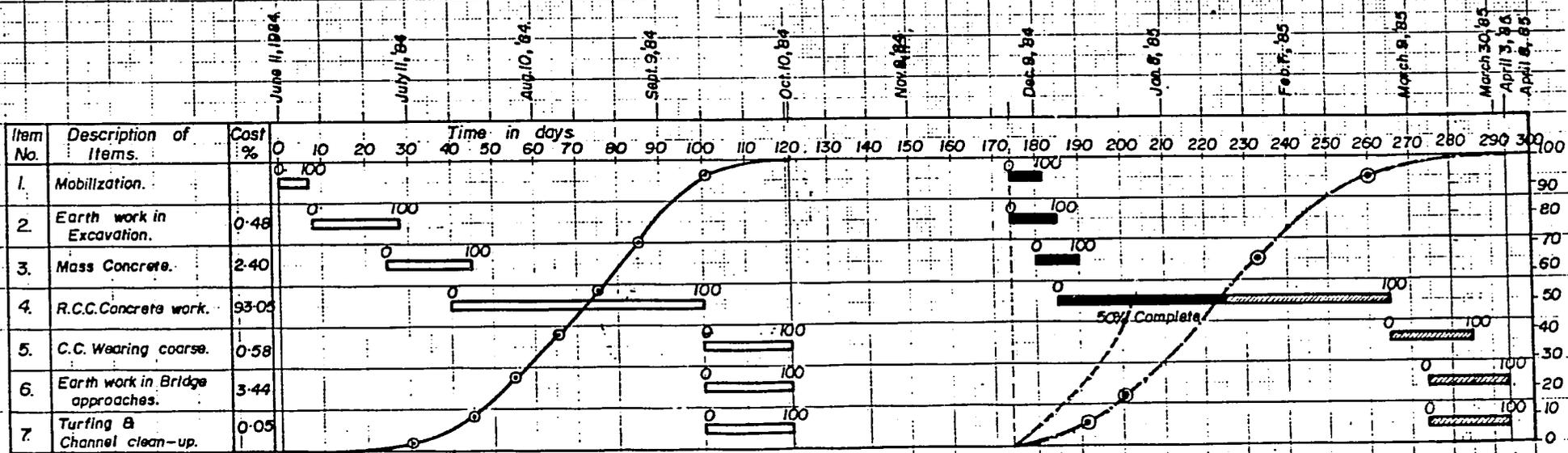


SYLHET DISTRICT

Construction of R.C.C. Box Culvert, Size 22.98m x 4.11m. on ATGRAM-ZAKIGONJ Road. (1983-'84)

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

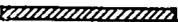
Estimated Cost Tk. 4,96,500.00
 Contract Cost Tk. 5,46,150.00
 Scheduled Starting date June 11, '84 & Dec 3, '84 (Revised)
 Actual Starting date Dec 3, 1984
 Schedule Completion date Oct 10, '84 & April 3, '85 (Revised)
 Actual Completion date _____
 Revised Cost Tk. 5,70,925.00
 Date of revision _____



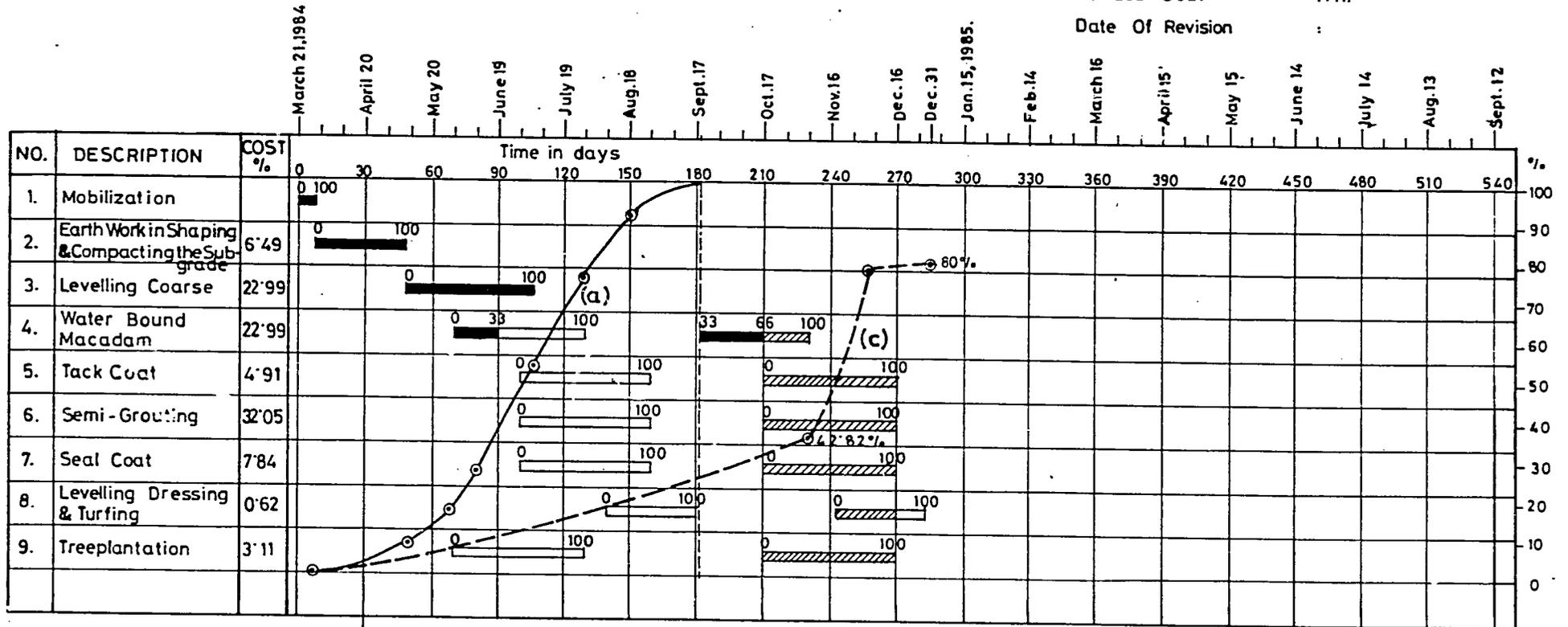
SYLHET DISTRICT

Bituminous Pavement Work On Atgram-Zakigonj Road

Total Length 1.78km.(1983-84)

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

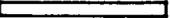
Estimated Cost :TK. 16,18,750/00
 Contract Cost :TK. 15,94,469/00
 Scheduled Starting Date : 21. March. 1984
 Actual Starting Date :
 Scheduled Completion Date: 20 Sept. 1984
 Actual Completion Date :
 Revised Cost :TK.
 Date Of Revision :



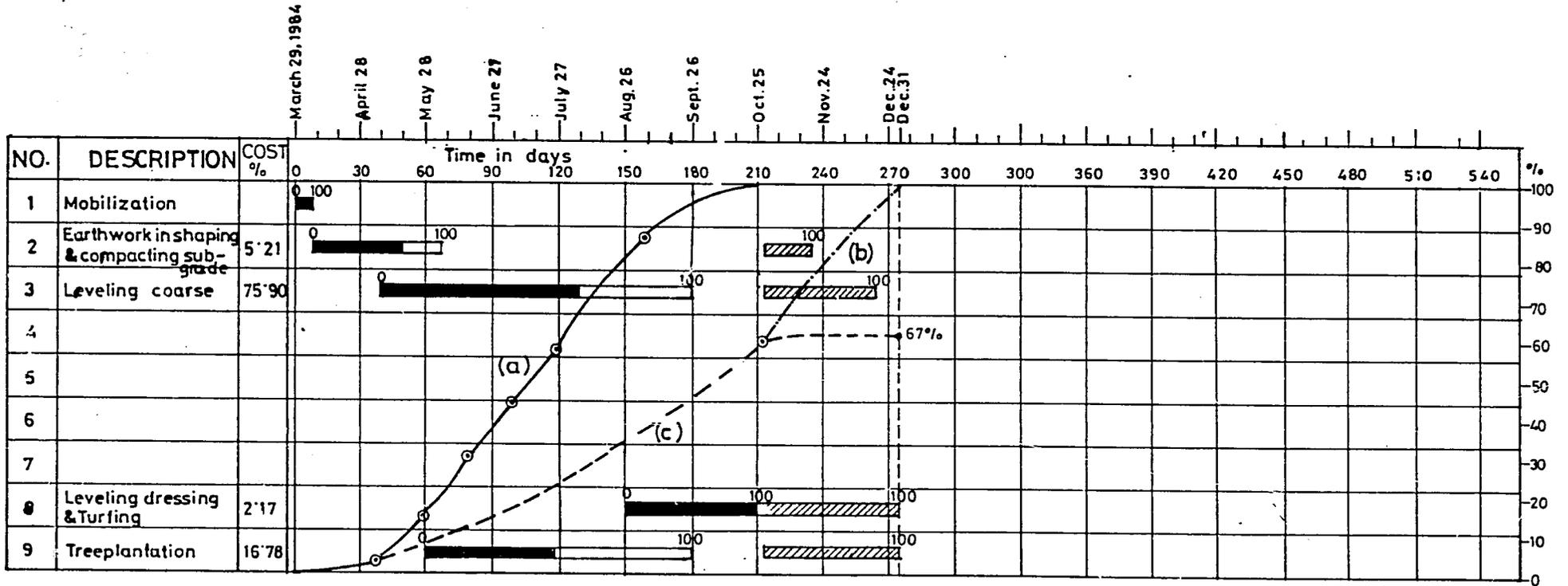
NOTE:-TOTAL PROCESS SHOWN ONLY

SYLHET DISTRICT

Leveling Coarse Work On Fenchugonj-Gilachara Road Total Length 2.30 km.(R) (1983-'84)

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

Estimated Cost :TK.15,65,300/00
 Contract Cost :TK.
 Schedule 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



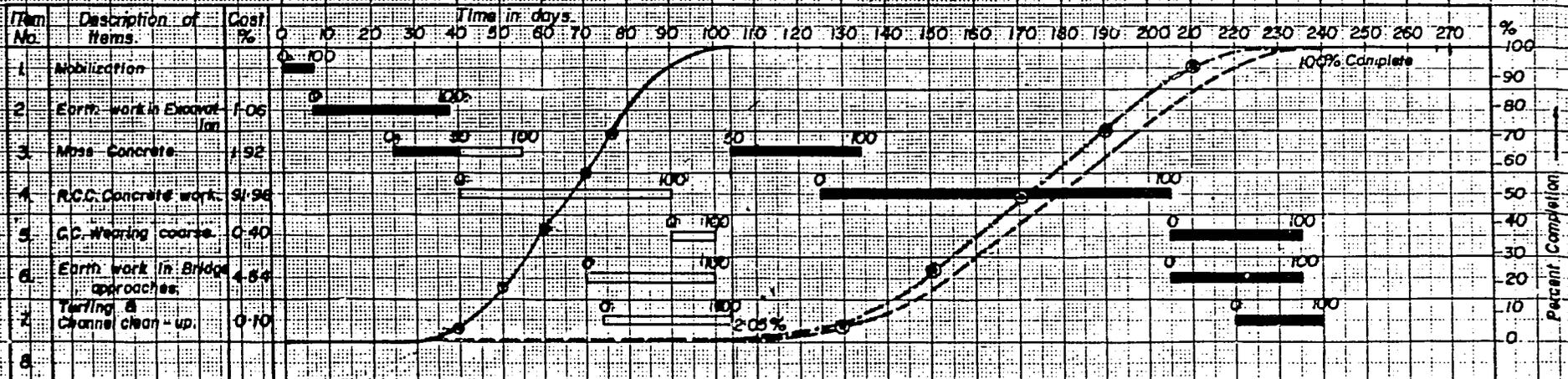
NOTE:-TOTAL PROGRESS SHOWN ONLY

SYLHET DISTRICT

Construction of R.C.C. Box Culvert, Size 6.83m x 4.11m, on Dhakadakhin-Banabazar 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		March 8, 1984.
Actual Starting date		May 15, 1984.
Scheduled Completion date		June 20, 1984.
Revised Completion date		
Revised Cost	TK	3,44,544.00
Date of revision		Nov. 11, 1984.

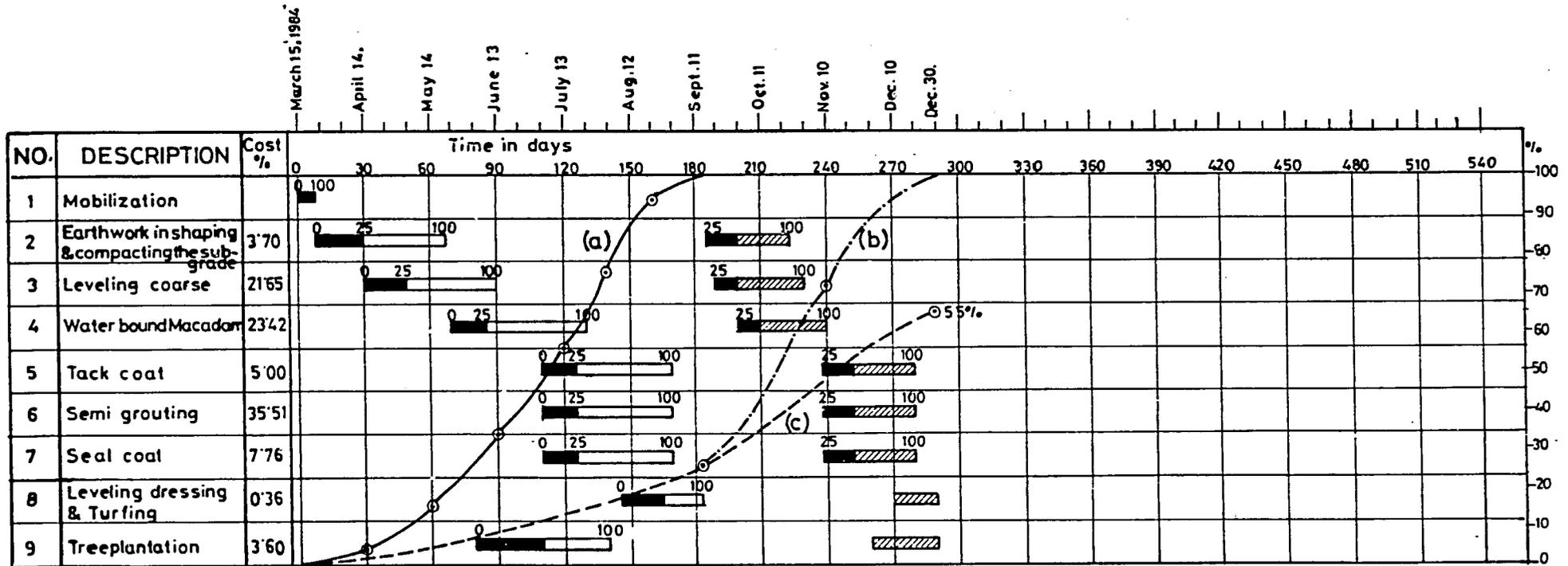


SYLHET DISTRICT

Bituminous Pavement Work On Dhakadashin Beanibazar Road Total Length 2.45 km. (1983-84)

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

Estimated Cost : TK.19,88,000/00
 Contract Cost : TK.19,81,042/00
 Scheduled Starting date : 15 March.1984
 Actual Starting date :
 Scheduled Completion date : 16 Sept.1984
 Actual Completion date :
 Revised Cost : TK.
 Date of Revision :

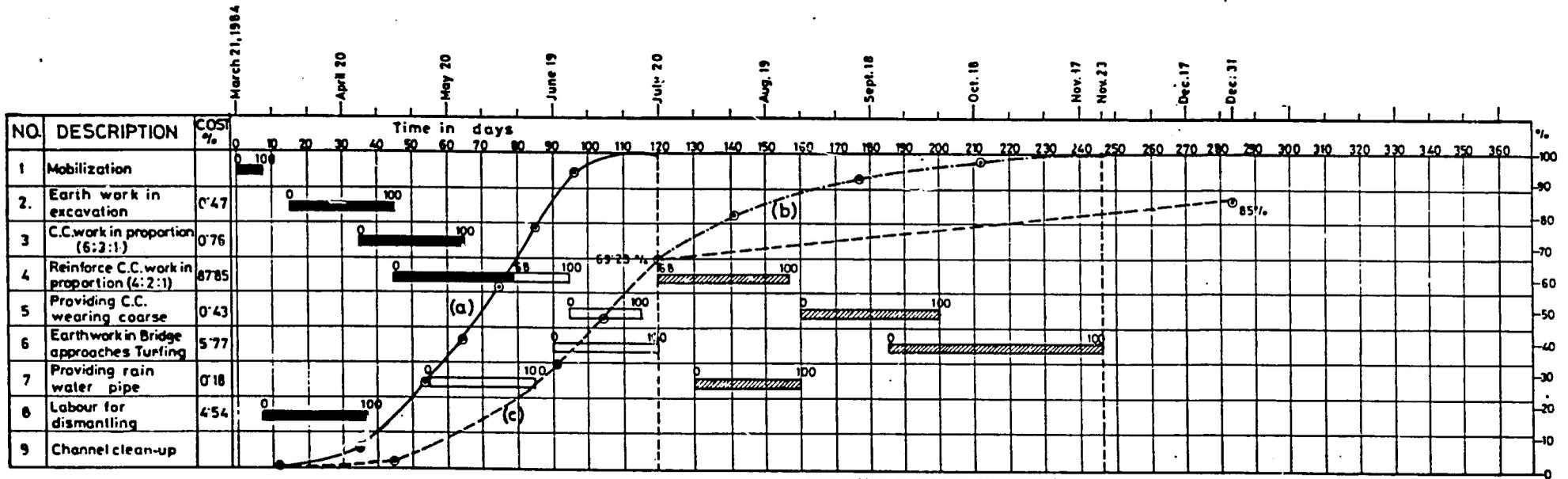


SYLHET DISTRICT

Nabigonj Baniachong Road Construction Of 14'76m. Long 6'00m. Height 3 Vent 4'50m. Vent Box Culvert (1983 '84)

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

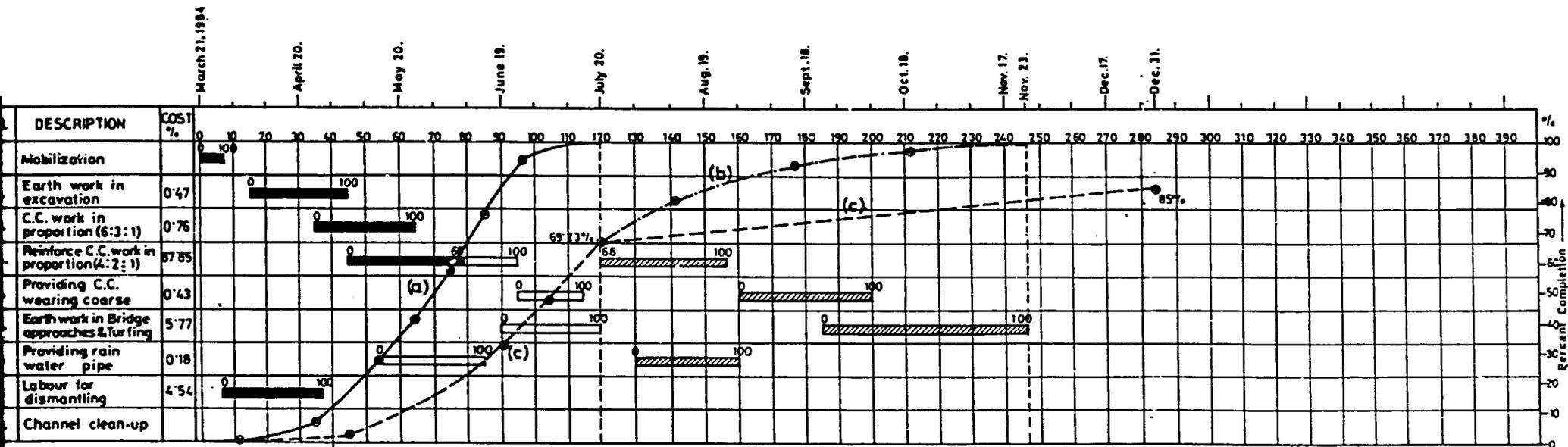
Estimated Cost : TK. 5,93500/00
 Contract Cost : TK. 6,23175/00
 Schedule Starting date : 21 March, 1984
 Actual Starting date : 20 March, 1984
 Scheduled Completion date: 20 July, 1984
 Revised Completion date: 23 Nov. 1984
 Revised Cost : TK.
 Date of Revision :



SYLHET DISTRICT
Nabigonj-Baniachong Road
Construction of 14'76 long 6'00m. height 3vent
4'50m. vent Box Culvert (1983 84)

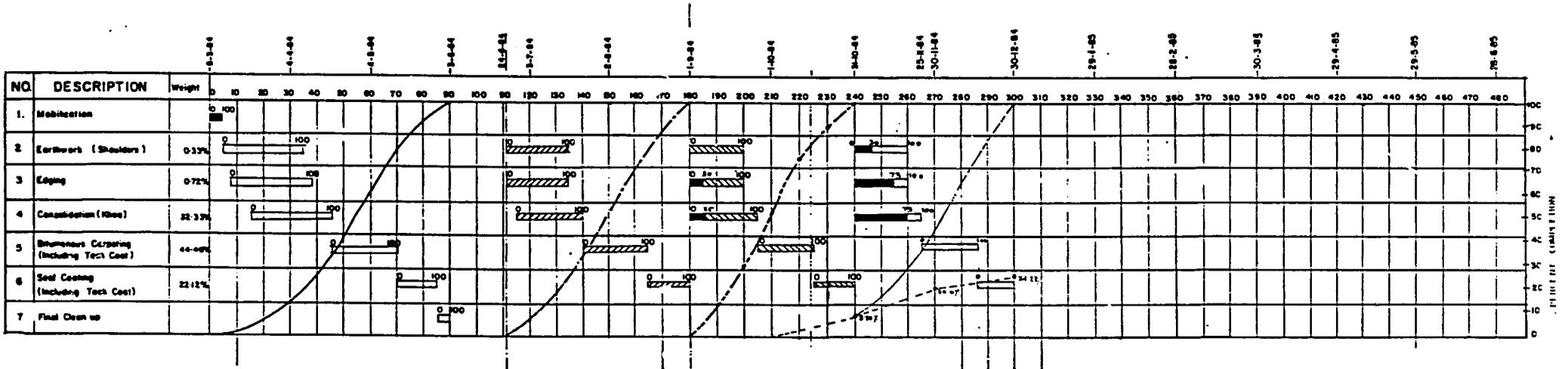
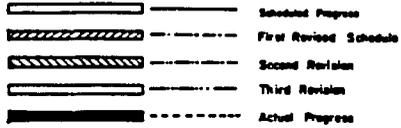
Schedule Progress
 Revised Schedule
 Actual Progress

Estimated Cost :TK. 5,93,500/00
 Contact Cost :TK. 6,23,75/00
 Schedule Starting date : 21 March, 1984
 Actual Starting date : 20 March, 1984
 Scheduled Completion date: 20 July, 1984
 Revised Completion date : 23 Nov. 1984
 Revised Cost :TK.
 Date of Revision :



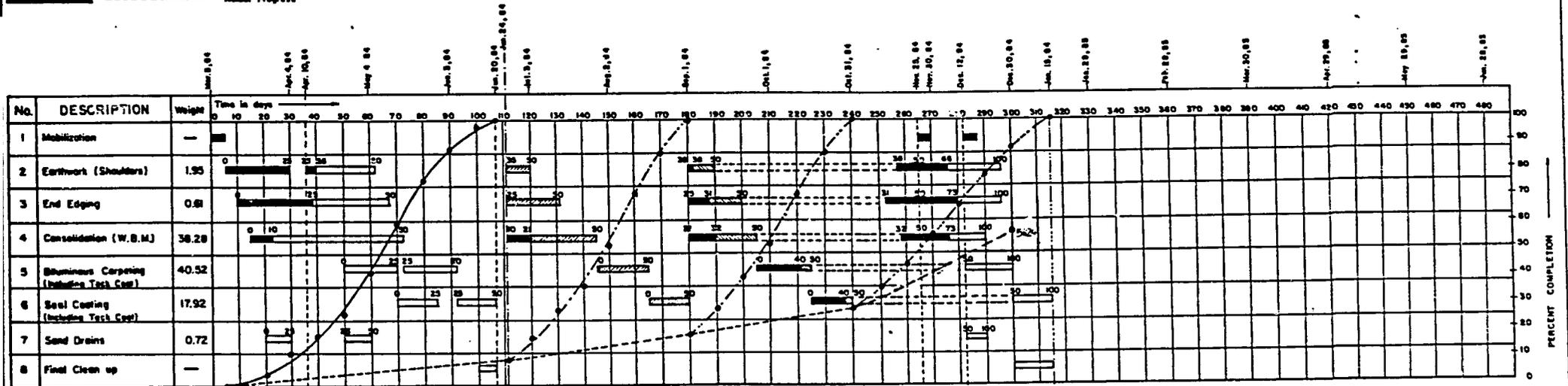
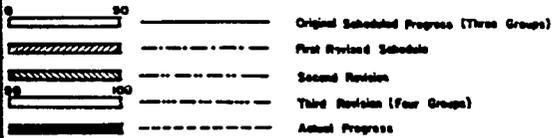
RANGPUR DISTRICT
IMPROVEMENT OF GAIBANDHA KAMARJANI ROAD 1983-84
KHOA CONSOLIDATION AND BITUMINOUS CARPETING
ON EXISTING H.B.B

Estimated Cost: Tk. 1620000
 Contracted Cost: Tk. 1752598
 Scheduled Starting Dates: March 5, 1984
 Actual Starting Dates: —
 Scheduled Completion Dates: June 5, 1984
 First Revised Completion Date: July 31, 1984
 Second Revised Completion Date: October 31, 1984
 Third Revised Completion Date: December 31, 1984
 Dates of Revision: June 24, Sept. 1st,
 Total Length: 9180 feet.



**RANGPUR DISTRICT
IMPROVEMENT OF MIRGONJ-JOLDHAKA ROAD 1983-1984
BITUMINOUS CARPETING
REVISED PROGRESS CHART**

Estimated Cost:	TL. 18,57,235
Corrected Cost:	TL. 18,42,450
Scheduled Starting Dates:	See Note (1)
Actual Starting Dates:	See Note (2)
Scheduled Completion Dates:	See Note (3)
First Revised Completion Date:	August 31, 1984
Second Revised Completion Date:	October 31, 1984
Third Revised Completion Date:	December 31, 1984
Date of Revision:	June 24, Sept. 1st, Oct. 15, 1984
Total Length:	8,400 feet

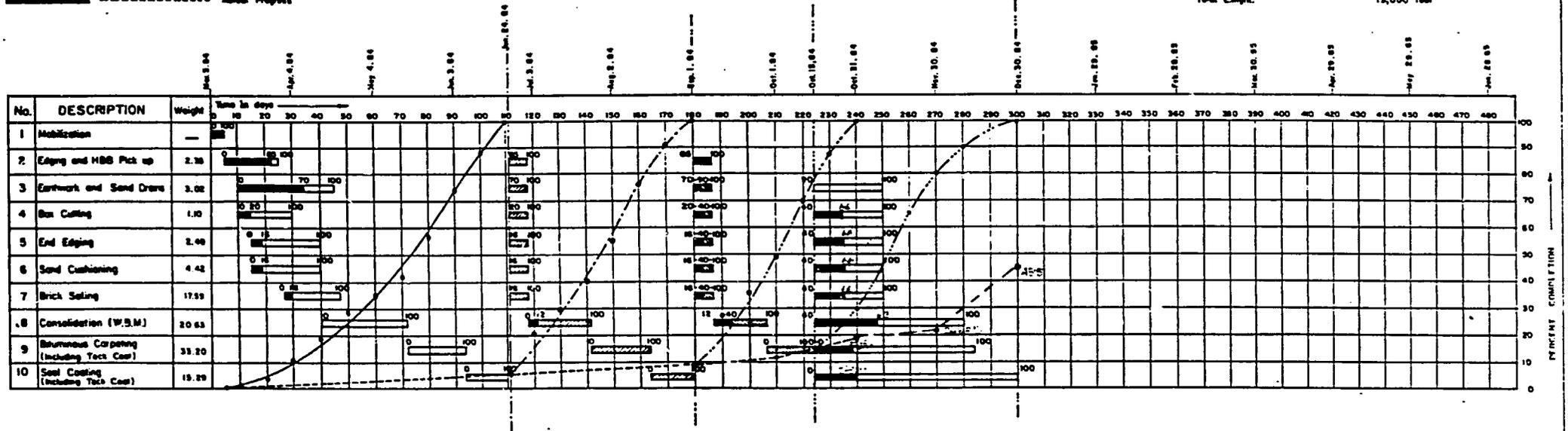
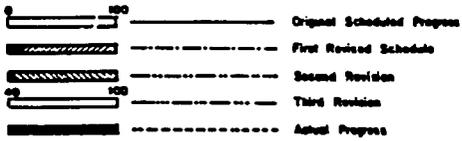


NOTES:

(1) Group C-E	March 3, 1984	(2) Group C-2	March 10, 1984	(3) Group O-2	June 3, 1984	(4) Work Order for Group D cancelled by the Z.P.
Group B:	April 7, 1984	Group B:	April 10, 1984	Group B:	June 20, 1984	Group D will no longer be part of this scheme for 1983-84
Group A:	December 12, 1984	Group A:	December 12, 1984	Group A:	January 15, 1985	
Group C-1:	November 25, 1984	Group C-1:	November 25, 1984	Group C-1:	December 31, 1984	

RANGPUR DISTRICT
IMPROVEMENT OF BARODARGA-BHENDABARI ROAD 1983-1984
BITUMINOUS CARPETING
REVISED PROGRESS CHART

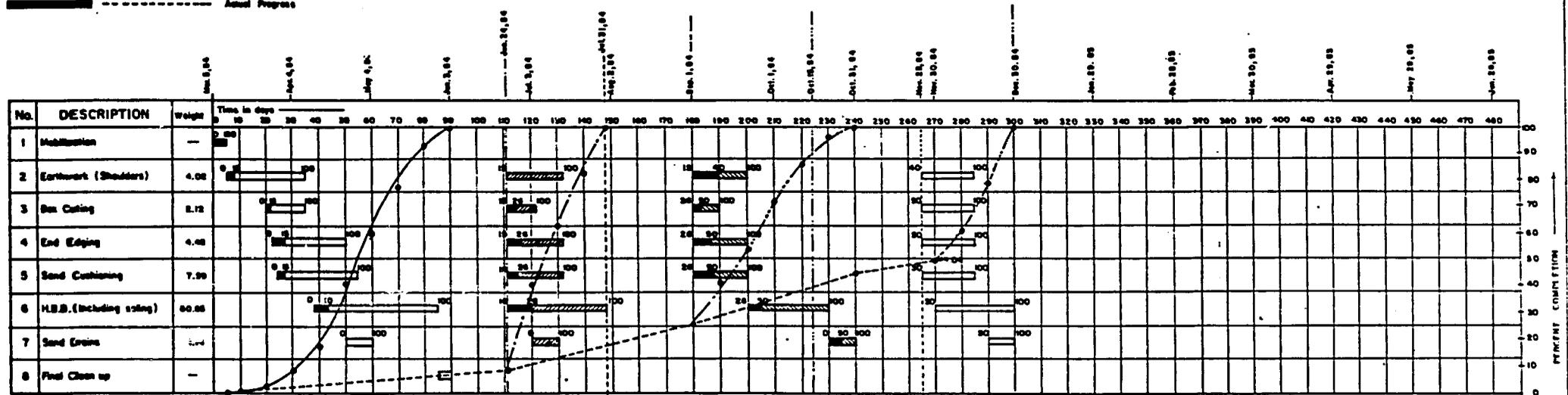
Estimated Cost: Tk. 47,43,633
 Original Contracted Cost: Tk. 42,02,190
 Revised Contracted Cost: Tk. 44,39,186
 Scheduled Starting Date: March 15, 1984
 Actual Starting Date: March 15, 1984
 Scheduled Completion Date: June 5, 1984
 First Revised Completion Date: August 31, 1984
 Second Revised Completion Date: October 31, 1984
 Third Revised Completion Date: December 31, 1984
 Date of Revision: June 24, Sept. 1st, Oct. 15, 1984
 Total Length: 19,000 feet



RANGPUR DISTRICT
IMPROVEMENT OF KAMDIA-GHORAGHAT ROAD 1983-1984
H.B.B. PAVEMENT
REVISED PROGRESS CHART

Revised Estimated Cost: Tk. 16,34,137
 Total Constructed Cost: Tk. 15,23,117
 Scheduled Starting Dates: See Note (1)
 Actual Starting Dates: See Note (2)
 Scheduled Completion Dates: See Note (3)
 First Revised Completion Date: July 31, 1984
 Second Revised Completion Date: October 31, 1984
 Third Revised Completion Date: December 31, 1984
 Dates of Revision: June 24, Sept. 1st, Oct. 15, 1984
 Total Length: 11,000 feet

Original Scheduled Progress
 First Revised Schedule
 Second Revision
 Third Revision
 Actual Progress

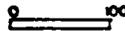


NOTES: (1) Groups B and C: March 5, 1984
 Group A: Nov. 23, 1984
 Group D: Dec. 18, 1984
 (2) Groups B and C: March 10, 1984
 Group A: Dec. 4, 1984
 Group D: Dec. 18, 1984
 (3) Groups B and C: June 5, 1984
 Group A: Dec. 31, 1984
 Group D: Dec. 31, 1984

FARIDPUR
MADHUKHALI-BALIAKANDI
ROAD
ALL GROUPS
84-85 SCHEMES

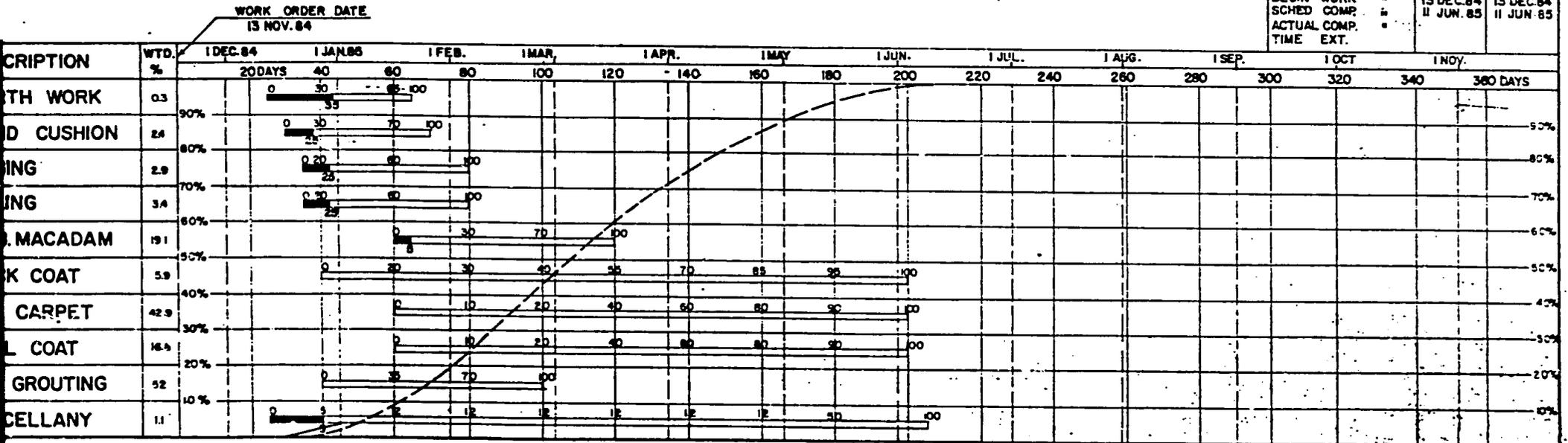
DATE: 31 DEC. 1984
 % COMPLETION:
 SCHEDULED = 3.6
 ACTUAL = 3.7

LEGEND

-  SCHEDULED PROGRESS
-  ACTUAL PROGRESS
-  AUTHORIZED TIME EXT.

CONTRACT DATA

TOTAL	GROUP	K	L
9782 L.F.	LENGTH	5328 L.F.	4454 L.F.
25,70,32	COST (TK)	14,00,97	11,55,736
WORK ORDER DATE		18 NOV.84	18 NOV.84
BEGIN WORK		13 DEC.84	13 DEC.84
SCHED COMP.		11 JUN.85	11 JUN.85
ACTUAL COMP.			
TIME EXT.			



**FARIDPUR
BALIAKANDI - RAJBARY
ROAD
ALL GROUPS
84-85 SCHEMES**

DATE : 31 DEC. 1984
% COMPLETION :
SCHEDULED = 0.5
ACTUAL = 0.5

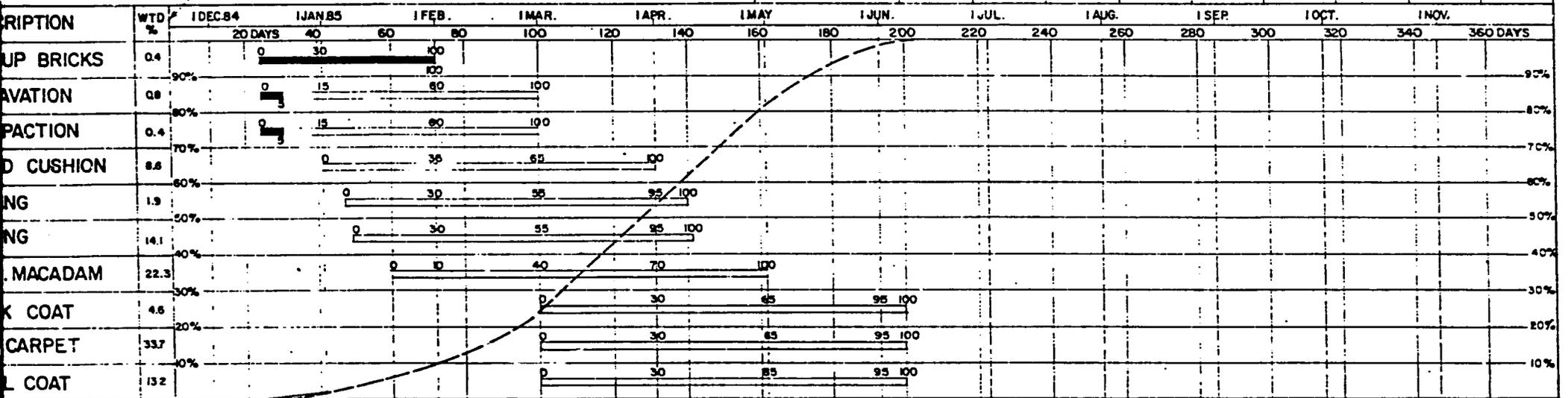
LEGEND

- SCHEDULED PROGRESS
- ACTUAL PROGRESS
- AUTHORIZED TIME EXT.

CONTRACT DATA

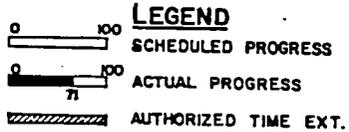
TOTAL	GROUP	1	2	3	4	5	6	7	8
11563 m.	LENGTH	1600 m.	5'40 m.	1425 m.					
1225395	COST (TK)	20,35,185	17,41,350	16,33,765	18,26,280	20,15,185	16,99,950	5,57,802	7,05,878
WORK ORDER DATE		19 NOV.84	20 NOV.84	20 NOV.84	18 NOV.84	19 NOV.84	19 NOV.84	20 NOV.84	19 NOV.84
BEGIN WORK		14 DEC.84	15 DEC.84	15 DEC.84	13 DEC.84	14 DEC.84	14 DEC.84	15 DEC.84	14 DEC.84
SCHED COMP.		12 JUN.85	13 JUN.85	13 JUN.85	11 JUN.85	12 JUN.85	12 JUN.85	13 JUN.85	12 JUN.85
ACTUAL COMP.									
TIME EXT.									

WORK ORDER DATE
19 NOV. 84



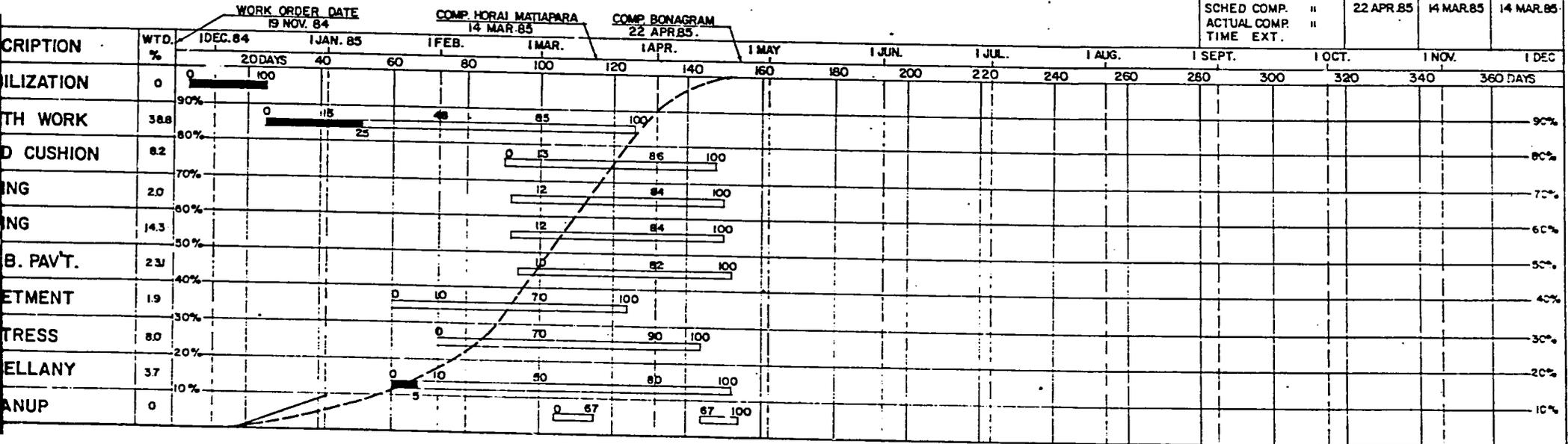
FARIDPUR
BRIDGE APPROACHES
BONAGRAM - HORAI-MATIAPARA
84-85 SCHEMES

DATE: 31 DEC. 1984
 % COMPLETION:
 SCHEDULED = 5.8
 ACTUAL = 9.9



CONTRACT DATA

TOTAL	BRIDGE	BONAGRAM	HORAI	MATIAPARA
1045 m.	LENGTH	410 m.	410 m.	225 m.
18,45,165	COST (TK)	8,85,000	6,69,940	2,90,225
WORK ORDER	DATE	29 NOV. 84	19 NOV. 84	19 NOV. 84
BEGIN WORK	"	23 DEC. 84	14 DEC. 84	14 DEC. 84
SCHED COMP.	"	22 APR. 85	14 MAR. 85	14 MAR. 85
ACTUAL COMP.	"			
TIME EXT.				



APPENDIX E

CURRENT STATUS OF PERSONNEL

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

CURRENT STATUS OF PERSONNEL
=====

Sheet 1 of 2

Title.	Name.	Status.	Comments.
D H A K A O F F I C E.			
Chief of Party.	Fred L. Barnes.	On duty, 01/12-10/12.	Left the country on 11 Dec. '84 on leave.
Training Adviser.	Gifford E. Rogers.	On duty, 01/12-17/12.	Left the country on 18 Dec. '84 on leave.
Associate C.O.P.	K.M.Huque.	On duty, 01/12-31/12	Total 08 working days.
Soil/Materials Lab. Training Specialist.	M.Majid.	On duty, 01/12-31/12	Total 16 working days.
Structural Engineer.	M.A.Aziz.	On duty, 01/12-31/12	Total 15 working days.
Project Engineer/ Training Coordinator.	A.H.M.Abdullah.	On duty, 01/12-31/12	-
Office Engineer.	G.S.M.Habibur Rahman.	On duty, 01/12-31/12	-
Asstt. Engineer.	Dr.Kamruzzaman.	On duty, 01/12-31/12	Total 15 working days.
Asstt. Design Engineer.	K.U.Ahmed.	On duty, 01/12-31/12	Total 22 working days.
Asstt. Design Engineer.	A.Rashid.	On duty, 01/12-31/12	Total 22 working days.
Laboratory Engineer.	S.Arefin.	On duty, 01/12-31/12	-
Draftsman.	Nazimuddin Ahmed.	On duty, 01/12-31/12	-
Draftsman.	Md. Shafi.	On duty, 01/12-31/12	Total 22 working days.
Draftsman.	Mir Syed Ali.	On duty, 01/12-31/12	Total 22 working days.
Administrative Asstt.	Md. Harun.	On duty, 01/12-31/12	-
Accountant.	A.K.M.A.Taher.	On duty, 01/12-31/12	-
A/cs. Assistant.	M.M.Mohiuddin.	On duty, 01/12-31/12	-
Secretary.	Fahmida Chowdhury.	On duty, 01/12-31/12	-
Typist.	Andre Sarker.	On duty, 01/12-31/12	-
Driver.	E.Hossain.	On duty, 01/12-31/12	-
Driver.	F.Rahman.	On duty, 01/12-31/12	-
Messenger.	A.Majid.	On duty, 01/12-31/12	-
Guard.	S.A.Khalifa.	On duty, 01/12-31/12	-
Guard.	A.Rashid.	On duty, 01/12-31/12	-
Caretaker.	Mokfaruddin Skr.	On duty, 01/12-31/12	-
Cleaner.	Anwara.	On duty, 01/12-31/12	-
Gardener.	N.Zaman.	On duty, 01/12-31/12	-

F A R I D P U R.

Resident Engineer.	N.Ziegler.	On duty, 01/12-31/12	-
Asstt. Resident Engineer.	A.N.M.R.Habib.	On duty, 01/12-31/12	-
Asstt. Engineer.	A.Z.M.Amirul Islam.	On duty, 01/12-31/12	-
Inventory Engineer.	Shah A. Newaz.	On duty, 01/12-31/12	-
Laboratory Technician.	Mizanur Rahman.	On duty, 01/12-31/12	-
Surveyor.	Tajul Islam.	On duty, 01/12-31/12	-
Sub-Asstt. Engineer.	S.Afrad.	On duty, 12/12-31/12	Joined on 12th Dec.
Sub-Asstt. Engineer.	A. Sayed.	On duty, 12/12-31/12	Joined on 12th Dec.
Sub-Asstt. Engineer.	S. Islam.	On duty, 01/12-31/12	-
Draftsman.	M.Rahman.	On duty, 01/12-31/12	-
Office Manager/ Accountant.	A.B.M.Kamaluddin.	On duty, 01/12-31/12	-
Secretary/Typist.	R.F.Khalifa.	On duty, 01/12-31/12	-
Driver.	B.A.Mollah.	On duty, 01/12-31/12	-
Driver.	N.Ali.	On duty, 01/12-31/12	-
Messenger.	S.Alam.	On duty, 01/12-31/12	-
Gardener.	J.K.Shill.	On duty, 01/12-31/12	-
Guard.	N.Khan.	On duty, 01/12-31/12	-
Guard.	I.Ali.	On duty, 01/12-31/12	-

CURRENT STATUS OF PERSONNEL

Sheet 2 of 2

<u>T i t l e .</u>	<u>N a m e .</u>	<u>S t a t u s .</u>	<u>C o m m e n t s .</u>
<u>R A N G P U R .</u>			
Resident Engineer.	R.Andres Tavel.	Left the country on 21st December,1984.	-
Assistant Resident Engineer.	S.S.Ahmed.	On duty, 01/12-31/12	-
Asstt.Engineer.	M.A.Samad.	On duty, 01/12-31/12	-
Inventory Engineer.	Aminul Islam.	On duty, 01/12-31/12	-
Sub-Asstt.Engineer.	N.K.Das.	On duty, 01/12-31/12	-
Sub-Assistant Engineer.	A.B.M.Zahiruddin.	On duty, 01/12-31/12	-
Sub-Assistant Engineer.	Alauddin.	On duty, 01/12-31/12	-
Laboratory Technician.	B.Hossain.	On duty, 01/12-31/12	-
Surveyor.	Z.Abedin.	On duty, 01/12-31/12	-
Office Manager/ Accountant.	A.H.Majumdar.	On duty, 01/12-31/12	-
Typist.	R.Kabir.	On duty, 01/12-31/12	-
Messenger.	A.F.M.M.Haque.	On duty, 01/12-31/12	-
Driver.	Mahbubur Rahman.	On duty, 01/12-31/12	-
Guard.	A.Rahman.	On duty, 01/12-31/12	-
Guard.	M.Hossainj.	On duty, 01/12-31/12	-
Caretaker.	G.C.Das.	On duty, 01/12-31/12	-
Cleaner/Gardener.	Rashida Begum.	On duty, 01/12-31/12	-
<u>S Y L H E T .</u>			
Resident Engineer.	Alex E. Neilson.	On duty, 01/12-31/12	-
Asstt.Resident Engineer.	K.M.Hasan.	On duty, 01/12-31/12	-
Sub-Assistant Engineer.	N. Nabi.	On duty, 01/12-31/12	-
Sub-Assistant Engineer.	M.A. Sobhan.	On duty, 01/12-31/12	-
Sub-Assistant Engineer.	K.S.Ahmed.	On duty, 01/12-31/12	-
Surveyor.	Aminul Karim.	On duty, 01/12-31/12	-
Surveyor.	Abu Musa Mia.	On duty, 01/12-31/12	-
Laboratory Technician.	N.M.Siddique.	On duty, 01/12-31/12	-
Laboratory Technician.	Amjadul Haque.	On duty, 01/12-31/12	-
Draftsman.	N.Giasuddin.	On duty, 01/12-31/12	-
Office Manager/ Accountant.	Azizul Haque.	On duty, 01/12-31/12	-
Typist.	A.K.M.MunirAhmad.	On duty, 01/12-31/12	-
Driver.	Fakrul Islam.	On duty, 01/12-31/12	-
Messenger.	Elias Ali.	On duty, 01/12-31/12	-
Guard.	A.A.Jamadar.	On duty, 01/12-31/12	-
Guard.	S. Alam.	On duty, 01/12-31/12	-
Cleaner/Gardener/ Caretaker.	Ahmed Miah.	On duty, 01/12-31/12	-

APPENDIX F

MONTHLY FINANCIAL STATEMENT, DECEMBER, 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.

<u>Project Components.</u>	<u>Budget amounts.</u>		<u>Previous expenditures.</u>		<u>Expenditures-Current</u>		<u>Cumulative expenditures.</u>	
	<u>\$.</u>	<u>Taka.</u>	<u>\$</u>	<u>Taka</u>	<u>Reporting- DEC. '84</u>		<u>\$.</u>	<u>Taka.</u>
					<u>\$</u>	<u>Taka</u>		
1. Technical Assistance.	2,709,030	22,715,634	1,913,176*	13,021,935	61,583	914,064	1,974,759	13,935,999
2. Equipment .	674,299	-	56,295	-	-	-	56,295	-
3. Training <u>US-AID</u> <u>BDG.</u>	300,000	<u>1,110,850</u> 394,500	62,400*	1,017,818	5,343	-	67,743	1,017,818
4. Road Maintenance Financed by BDG.	-	23,095,800	-	-	-	-	-	-
5. Road Development Fund - <u>US-AID</u> <u>BDG.</u>	3,949,182	- 35,629,050	- -	24,192,326	- -	1,623,532	- -	25,815,858

* After reconciliation .