

PD-AAN-573
ISN: 32649



REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL CIPTA KARYA
DIRECTORATE OF SANITARY ENGINEERING

CONTRACT FOR CONSULTANT SERVICES
FOR
SURAKARTA WATER SYSTEM
NO. 01/WS-S/1/AID/78
AID LOAN 497-U-044

MONTHLY PROGRESS

REPORT NO. 12
SEPTEMBER 1979

BURNS & McDONNELL ENGINEERING COMPANY, INC.
AND
TRANS-ASIA ENGINEERING ASSOCIATES, INC.
A JOINT VENTURE

USAID/Indonesia
Information Center



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TRANS-ASIA ENGINEERING ASSOCIATES, INC.
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BURNS & McDONNELL Engineering Co.

Architect - Engineers

A JOINT VENTURE

Consultants - Planners

TRANS-ASIA Engineering Associates, Inc.

Jalan Brigadir Jendral Sudiarto 534 - Phone : 5465 Surakarta

Please Reply to : Surakarta Water Project
Kota Pos 105
Surakarta

No. 205/BM/TAE/SKA/79
3 October 1979

Mr. Soesanto Mertodiningrat
Director of Directorate of Sanitary Engineering
Directorate General Cipta Karya
Jl. Pattimura no. 20
Jakarta Selatan

Subject : Contract for Consultant Services for Surakarta Water System,
No. 01/WS-S/1/AID/78, dated 26 October 1978.

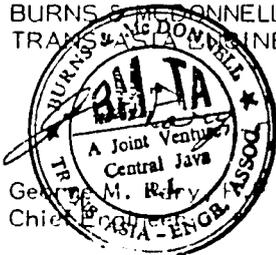
Dear Sir,

In accordance with Section 4.12 and Appendix I of subject Contract,
we are pleased to submit fifteen copies of Monthly Report No. 12 for the
month of September, 1979.

We hope, that the report will meet with your approval.

Very truly yours,

BURNS & McDONNELL ENGINEERING CO.
TRANS-ASIA ENGINEERING ASSOC. INC.



c/c :	CJWSP	Semarang	(10 copies)
	USAID	Jakarta	(8 ")
	BM/TAE	Jakarta	(2 ")
	Burns & McDonnell	Kansas City	(1 copy)
	CJWSP	Surakarta	(1 ")
	SWE	Surakarta	(1 ")
	Mayor of Surakarta	Surakarta	(1 ")
	File		

GMP/sh

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LIST OF ABBREVIATIONS

a.m.	Before noon
App	Appendix
AWWA	American Water Work Association
BM/TAE	Burns & McDonnell/Trans-Asia Engineering Associates
°C	Degrees Celcius (Centigrade)
CIF	Cost-Insurance- freight
CJWS	Central Java Water Supply (Management)
CK	Cipta Karya
FOB	Free-on-board
kg	Kilogram (s)
L/C	Letter of Credit
lpcd	Liters per capita daily
lps	Liters per second (or l/s)
m	Meters (lineal)
m ³	Cubic meters (Note : due to negligible difference in case of water m ³ and MT are used interchangeably)
Mfg	Manufacturer
M/M	Man/month (s)
msl	mean sea level
MT	Metric tons
MTD	Metric tons per day
mm	Millimeter
No.	Number
O & M	Operations and Maitenance
p.m.	After noon (afternoon)
Rp	Rupiah
SWE	Surakarta Water Enterprise
SWS	Surakarta Water System Project
TAE	Trans-Asia Engineering Associates, Inc.
US	United States (Government)
USA	United States of America
USAID	United States Agency for International Development

SECTION 1
NARRATIVE SUMMARY

1A GENERAL

TRANSPORTING OFF-SHORE PURCHASED MATERIALS

Bids, which were taken on July 31, 1979 were rejected by the Ministry. The work has been readvertised and bids were taken on Aug 15, 1979. Bid result has been sent to the Ministry for their approval. The Consultant is awaiting the Ministry's reply.

CONSTRUCTION OF THE TRANSMISSION PIPELINE

SECTIONS A & B

Bids were taken on September 13, 1979. Result of the bids has been evaluated and the Consultant's Recommendation for Award of the work to the lowest responsible bidders was sent to the Ministry for their approval.

GROUNDWATER EXPLORATION PROGRAM

The Consultant has submitted the final draft of the Groundwater Investigation Report on September 7, 1979 for the Ministry and USAID's review and comment. As of this date there is no written comment received yet.

MANAGEMENT ASSISTANCE PROGRAM

Advisory work is continuing

O & M ASSISTANCE PROGRAM

Advisory work is continuing. Schedule for On-site and Classroom Training has been submitted to the Ministry on September 21, 1979.

METER REPAIR PROGRAM

Scheduled to start on October 1, 1979

SECTION 2
ADMINISTRATION

2A SUBMISSION/APPROVALS

Consultant's Invoice No. 11 for August , 1979 U.S. Dollar reimbursible expenses was submitted to Cipta Karya on Sept. 12, 1979 and was approved by C.K. on Sept. 20 , 1979.

Consultant's Rupiah Invoice No. 6 for reimbursible expenses during the two months period of July and August 1979 was submitted to Cipta Karya in Semarang in Sept, 1979. This is in accordance with the Contract, Appendix. II, page 11 - 15.

2B CONFERENCES

2B1 Memorandum of Monthly Conference

Appendix. VIII

Transporting Off-Shore Purchased Materials Phase II

Appendix. IX

Report on Management Assistance Program

Appendix. X

Report on Geoelectrical Survey

Appendix. XI

Construction of the Transmission Pipeline

Appendix. XII

SECTION 3
SCHEDULES

3A PROGRESS

3A1 TRANSPORTING OFF-SHORE PURCHASED MATERIALS

For administrative and technical reasons the work has been delayed and is 2 months behind schedule. The Consultant is awaiting the Ministry's decision for selecting the transportation contractor

3A2 CONSTRUCTION OF THE TRANSMISSION PIPELINE

The Consultant is awaiting the Ministry's decision for awarding the contracts. The work is 2 weeks behind schedule.

3A3 GROUNDWATER EXPLORATION PROGRAM

Hydrogeological data taking and analysis is 100% complete. The Consultant has submitted the Final Draft of the Groundwater Investigation Report. The work is 6 weeks behind schedule.

3A4 WELL DRILLING PROGRAM

For administrative and technical reasons the work has been delayed. The Consultant is awaiting USAID and the Ministry's decision concerning International Tendering vs Local Tendering only.

3A5 MANAGEMENT ASSISTANCE PROGRAM

Work is on schedule and is 69% complete.

3A6 O & M ASSISTANCE PROGRAM

Advisory work is on schedule and is 43% complete.

3A7 METER REPAIR PROGRAM

Work scheduled to start on October 1, 1979.

3B WORK SCHEDULED FOR NEXT MONTH

Continue coordination of shipping, unloading and transporting the third and last shipment of pipes and fittings, purchased off-shore.

Commence the actual field construction of the Transmission Pipeline from Sta. 0 + 00 to Sta. 103 + 85.

Submit the Final Groundwater Investigation Report and all Hydrogeological data.

Continue Management Advisory services to the Surakarta Water Enterprise, supervise General Accounting and assist implementing the Organization Manual.

Submit the revised O & M Manual. Preco-ordinate the Classroom and On-site Training Program. Assist and supervise the 2nd phase O & M building construction.

Commence the Meter Repair Program.

SECTION 4
ENGINEERING AND MANAGEMENT

4A TRANSPORTING OFF-SHORE PURCHASED MATERIALS

Bids, which were taken on July 31, 1979 for transporting the third and the last shipment of 2107 MT of misc. size pipes and fittings from port of Semarang to Surakarta Storage Area were rejected by the ministry, due to insufficient number of proposals received at the Bid Opening.

In accordance with the Ministry's instruction, the work has been re-advertised, and on August 15, 1979 Bids were publicly opened.

The result of the bids has been sent to the Ministry without the Consultant recommendation for awarding the work to the lowest responsible bidder. (Evaluating Bids and Awarding the Contract will be done by the Ministry). The Consultant is awaiting the Ministry's decision.

4B CONSTRUCTION OF TRANSMISSION PIPELINE

Bids were taken on September 13, 1979 for the Construction of the Transmission Pipeline, Sections A & B.

Section " A " involves 2850 m. of pipeline construction and Section " B " involves 5000 m. of pipeline construction. In accordance with the instruction received from the Project, both pipelines are to be constructed under separate contracts.

For Section " A " the Consultant has received five formal proposals including the lowest bidder of P.T. TUKAD MAS with the offer to perform the work for Rp 46.688.000 which is 6% lower than the Consultant's estimate.

For Section " B " the Consultant also has received three formal proposals, including the lowest bidder of P.T. LEPEN KENCANA with the offer to perform the work for Rp 57.974.000 which is 2% higher than the Consultant's estimate. Result of the bids has been evaluated and with the recommendations the Consultant sent it to the Ministry for their approval. The Consultant is awaiting the Ministry's response, which is expected early in October.

4C GROUNDWATER EXPLORATION PROGRAM

The Consultant has submitted the Final Draft of the Groundwater Investigation Report, including Recommendations for drilling wells.
The Consultant is awaiting the Ministry's and USAID's comments.

4D MANAGEMENT ASSISTANCE PROGRAM

The Management Specialist is continuing to advise the Surakarta Water Enterprise on Management Procedures. Work done during the month of September. See Appendix X

4E O & M ASSISTANCE PROGRAM

The Consultant has submitted the Schedule of the O & M On-Site and Classroom Training Program for the Ministry's comment.

The O & M Specialist periodically reviewing and supervising the second phase O & M Building construction.

SCHEDULE FOR
TECHNICAL O & M TRAINING
PROGRAM

SCHEDULE FOR TECHNICAL O & M TRAINING PROGRAM
FOR THE SURAKARTA WATER ENTERPRISE
(CLASSROOM STUDIES)

Trainees : as selected by the Ministry and the Surakarta Water Enterprise

PROGRAM SCHEDULE :

November 5, 1979 Subjects :

- 1, Sources of water and their characteristics
- 2, Water Production, Water Treatment

November 6, 1979 Subjects :

- 1, Water Storage and Distribution
- 2, Reservoirs

November 7, 1979 Subjects :

- 1, Hydraulics and Operational Mathematics
- 2, Applied Hydraulics

November 8, 1979 Subjects :

- 1, Pipe, Types, Uses and Protection
- 2, Pipe Installation and Maintenance

November 9, 1979 Subject : (half day)

- 1, Pipe Installation and Maintenance (continues)

November 12, 1979 Subjects :

- 1, Pipeline Appurtenances
- 2, Pumps, Motors and Its Operation

November 13, 1979 Subjects :

- 1, Instrumentation and Control
- 2, Leak Survey

November 14, 1979 Subjects :

- 1, Leak Survey (continues)
- 2, Public Health

November 15, 1979 Subjects :

- 1, Chlorination
- 2, Chlorine Handling and Safety

November 26, 1979 Subject : (half day)

- 1, Maps, Drawings, Records

December 3, 1979 Subject : (final session)

- 1, Maps, Drawings, Records (continues)

December 4 - 5 , 1979

Questions - Answers

SCHEDULE FOR O & M TRAINING PROGRAM
FOR THE SURAKARTA WATER ENTERPRISE
(ON - SITE)

Trainees : as selected by the Ministry and the Surakarta Water Enterprise

December 6, 1979 Site Visit

- 1, Review of the Pipeline Construction in Surakarta
- 2, Case Studies - Construction Safety

December 7, 1979 Site Visit

- 1, Visit to the Office of the Director of Surakarta Water Enterprise
- 2, Discussion will include : Organization, Personnel, Equipment and Operational Cost of the Enterprise

December 8, 1979 Site Visit

- 1, Well Drilling Site
- 2, Kartosuro and Jebres Reservoirs
- 3, Sukrotulung Spring

December 10, 1979

Closing Session and Certificate Award

January 7, 1980

Departure to Manila, Philippines,
for reviewing of the Operation and Management of City Public Works Departments.

One month of training in Manila, Philippines for 3 Indonesian Professionals.

Return from Manila, Philippines, on February 7, 1980

SECTION 5
PERSONNEL

The Surakarta office personnel in September were as follows :

Expatriate

- George M. Pary, P.E., Chief Engineer
arrived 17 August 1979
- Thomas G. Fodor, O & M Specialist
arrived 25 December 1978 with spouse
- Bernardo B. Bayongan, Management Specialist
arrived 5 November 1978

Indonesian

Professional and Technical :

- A.F. Dengah, Counterpart Chief Engineer
arrived 8 November 1978
- Djoko Imbarno, Construction Supervisor
arrived 3 September 1979
- Suyatno Yuwono, Counterpart Hydrogeologist
arrived 5 January 1979
- Mohamad Khalil, Materials Coordinator
arrived 2 October 1978
- Bambang Agus Salam, Inspector
arrived 1 May 1979
- Mohamad Syarif Lembah, Inspector
arrived 1 May 1979

- Akhmad Aries, Draftsman
arrived 13 April 1979
- Hendradi, Translator
arrived 3 September 1979
- Yonathan Jowie, Accountant
arrived 2 December 1978

Administrative :

- Dradjat Ajmardjo, Office Manager
arrived 2 October 1978
- Sri Hartati, Secretary
hired 1 June 1979
- Dewi Yuliati, Typist
hired 7 February 1979
- Rubiyo, Clerk
hired 1 November 1978
- Pamudji Rahardjo, Driver
hired 2 October 1978
- Budi Dwi Putranto, Driver
hired 4 January 1979
- Djoni Santoso, Driver
hired 1 May 1979
- Sutrisno, Driver
hired 2 April 1979
- Ermita Taher, Supply Clerk/Labor
hired 19 March 1979

- Arum Munawar, Copy Machine Operator/Labor
hired 8 March 1979
- Djumhan Hardi, Expeditor/Labor
hired 2 January 1979
- Suwarno Hadi, Office Boy/Labor
hired 1 November 1978
- Mulyatmono, Watchman/Labor
hired 9 October 1978

SURAKARTA WATER PROJECT
 REPORT OF MAN-MONTHS EXPENDED BY CONSULTANT
 BURNS & McDONNELL/TRANS-ASIA ENGINEERING ASSOCIATES

CONTRACT NUMBER 01/76-S/AID/78 AID LOAN 497-11-044	MAN - MONTHS			
	FOR September 1979	CUMULATIVE THROUGH 30 September	% OF TOTAL SCHEDULE	TOTAL IN CONTRACT SCHEDULE
EXPATRIATES				
Principal	0	0.3	15	2
Liaison Engineer	0.09	1.89	63	3
Procurement Engineer	0	6.5	100	6.5
Chief Engineer	1	8.5	42.5	20
Pipeline Engineer	0.1	0.1	0.6	16
Hydrogeologist	0	5.7	47.5	12
Drilling Specialist	0	2.8	23.3	12
Management Specialist	1	10.6	66.2	16
O & M Specialist	1	9.4	44.7	21
Meter Specialist	0.1	0.1	0.6	8
EXPATRIATE TOTAL	3.29	45.89	39.3	116.5
INDONESIAN PROFESSIONAL & TECHNICAL				
Counterpart Chief Engineer	1	10.6	53	20
Construction Supervisor	0.9	0.9	6.6	14
Hydrogeologist	1	8.8	58.6	15
Materials Coordinator	1	12	85.7	14
Inspectors	2	10	20.8	48
Draftsman	1	7	43.7	16
Translator	0.9	7.7	64.1	12
Accountant	1	10	45.4	22
INDON. PROF. & TECH.				161
INDONESIAN ADMINISTRATIVE				
Office Manager	1	12	60	20
Secretary	1	11	55	20
Typist	1	7.6	34.5	22
Clerks	2	30.5	69.3	44
Drivers	4	34	42.5	10
Laborers	4	40.3	25.1	160
ADMINISTRATIVE TOTAL	13	135.4	39.1	346

APPENDIX I

15

SURAKARTA WATER
REPORT OF ENGINEER
BURNS & MCDONNELL/TRANS-AS

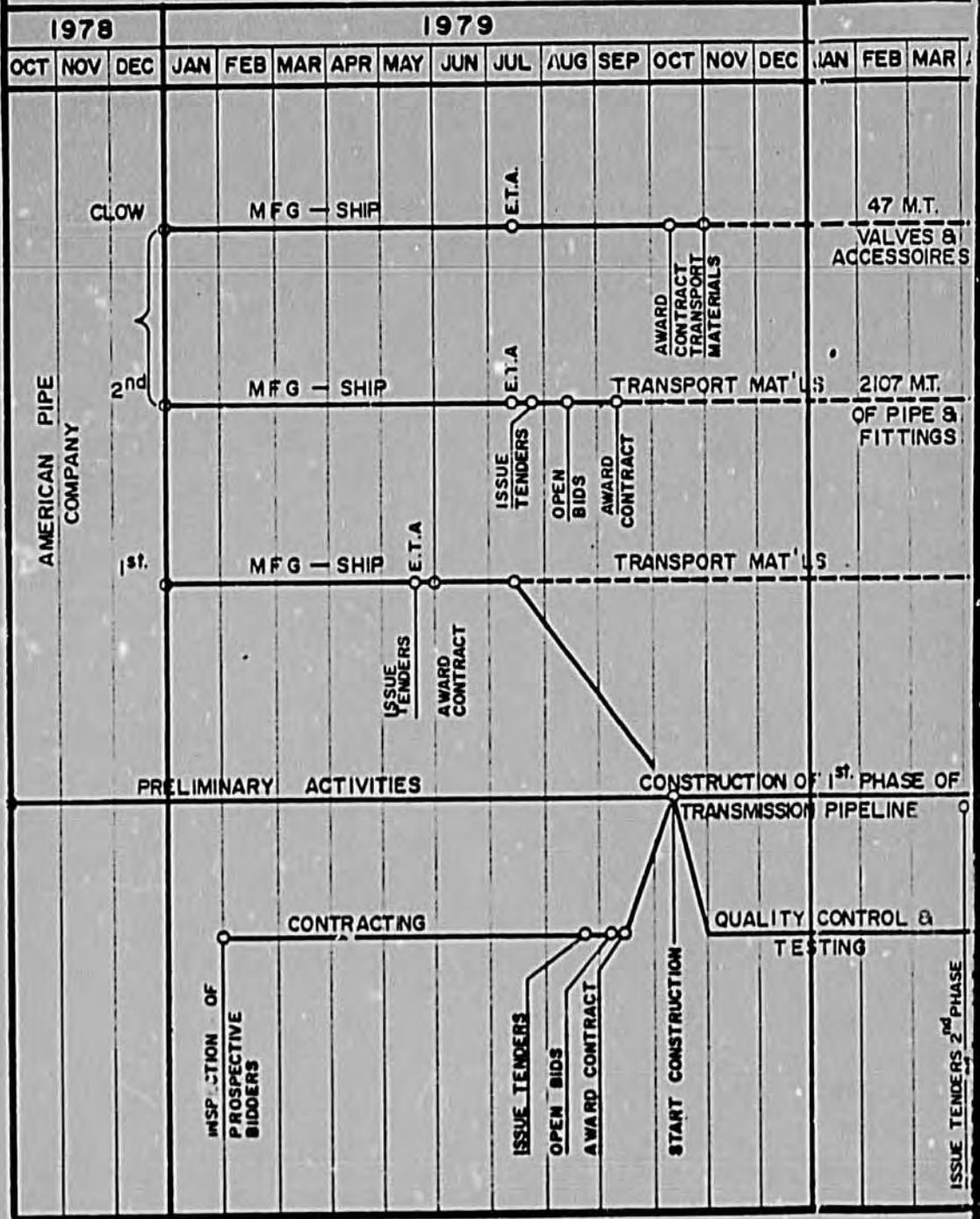
CONTRACT NO. 01/WS-S/AID/78 SIGNED 26 OCT. 1978 START 1 JAN. 1978 END 31 JAN. 1981	COSTS FOR SEPTEMBER 1979	CUMULATIVE COSTS THROUGH SEPTEMBER 1979	
		AMOUNT	% OF TOTAL BUDGET ESTIMATE
REIMBURSABLE EXPENDITURES			
U S DOLLARS			
Salaries and Related Costs	18,920.02	260,000.00	42.5
Transportation	4,284.10	16,010.45	26.4
Equipment	-	-	-
Miscellaneous	3,697.32	30,678.32	92.4
Training	-	-	-
Contingencies	-	-	-
TOTAL DOLLARS	26,901.44	307,313.23	36.9
INDONESIAN R			
Salaries	7,230,000	28,551,666	40.1
Transportation	1,591,914	13,912,033	49.3
Housing	-	23,200,000	72.6
Vehicle Costs	670,000	25,827,494	103.1
Equipment Costs	59,900	5,808,210	44.1
Miscellaneous	1,819,725	12,257,130	49.6
Contingencies	-	6,639,075	34.1
TOTAL RUPIAH	11,371,539	116,195,608	54.4

APPENDIX II

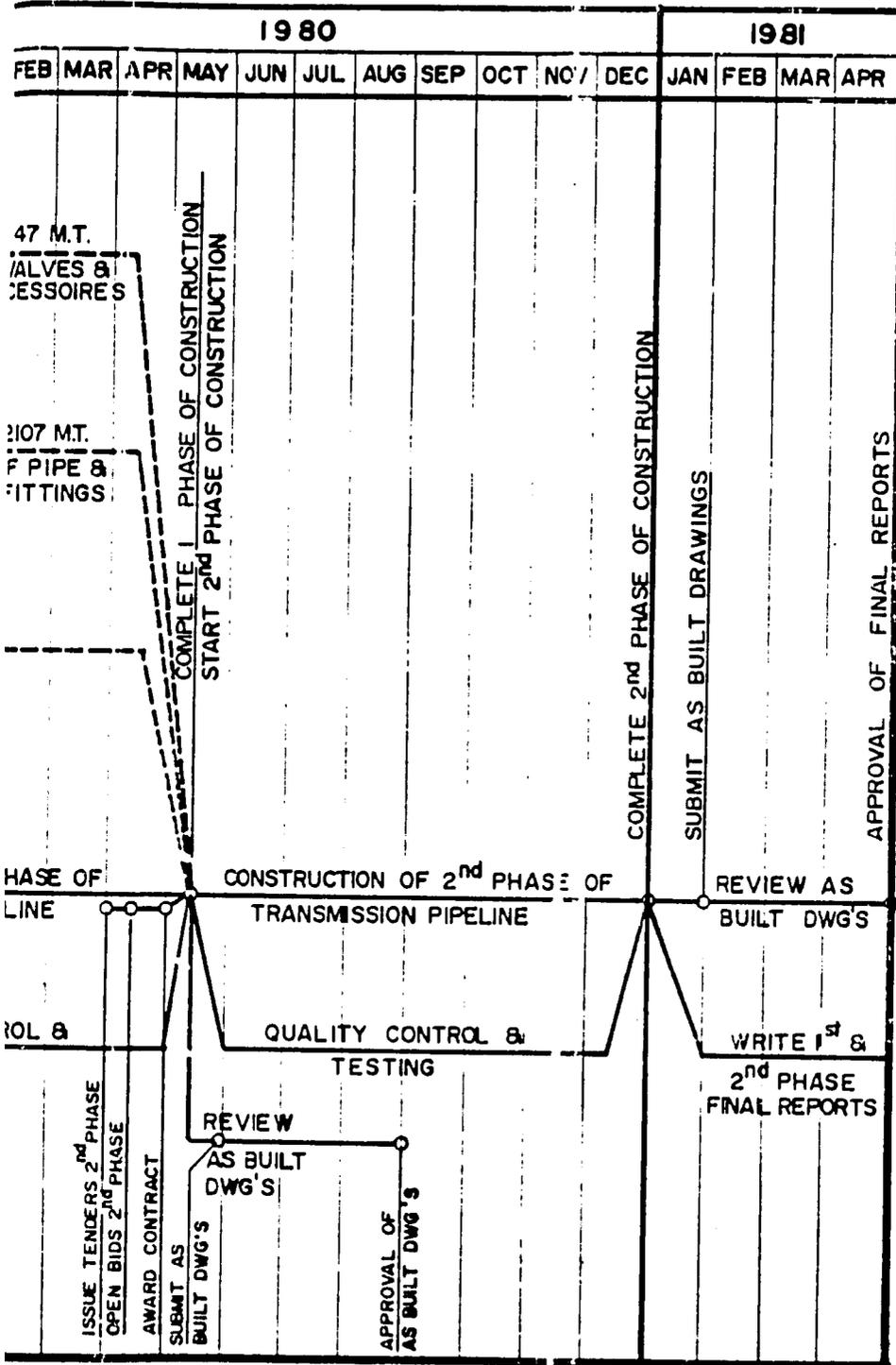
TER PROJECT
 ENGINEERING COSTS
 ASIA ENGINEERING ASSOC.

CUMULATIVE PAYMENTS THROUGH SEPTEMBER 1979			TOTAL BUDGET ESTIMATE FOR CONTRACT
AMOUNT RECEIVED IN SEPTEMBER	TOTAL AMOUNT RECEIVED THROUGH SEPTEMBER	% OF TOTAL BUDGET ESTIMATE	
DOLLARS			
13,730.73	241,460.56	39.4	5612,922
-	27,730.80	45.7	60,638
-	-	-	36,000
-	30,678.32	92.4	33,181
-	-	-	14,544
-	-	-	75,729
13,730.73	299,875.68	36.0	\$ 833,014
INDONESIAN RUPIAH			
12,896,667	21,321,666	29.9	71,150,000
4,488,786	12,320,119	43.6	28,195,000
-	23,200,000	72.6	31,950,000
8,324,674	25,157,494	100.4	25,050,000
1,001,700	5,748,310	43.7	13,153,000
3,014,100	10,437,405	42.3	24,670,000
853,275	6,639,075	34.1	19,416,960
30,669,202	104,824,069	49.0	213,586,560

SURAKARTA WATER PROJECT ACTIVITY FLOW DIAGRAM CONSTRUCTION OF TRANSMISSION PIPELINE

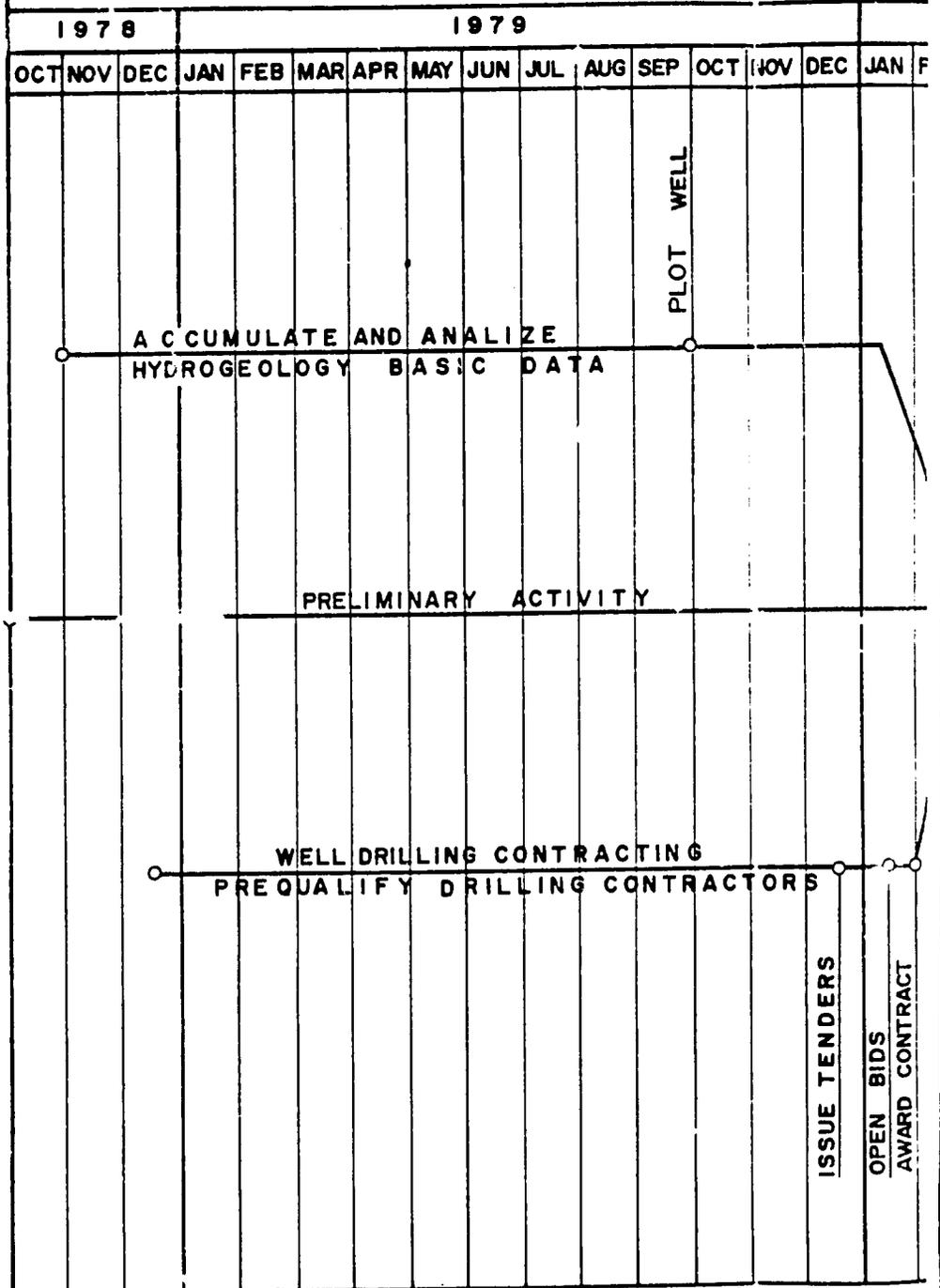


PROJECT
 DIAGRAM (PERT)
 TRANSMISSION PIPELINE

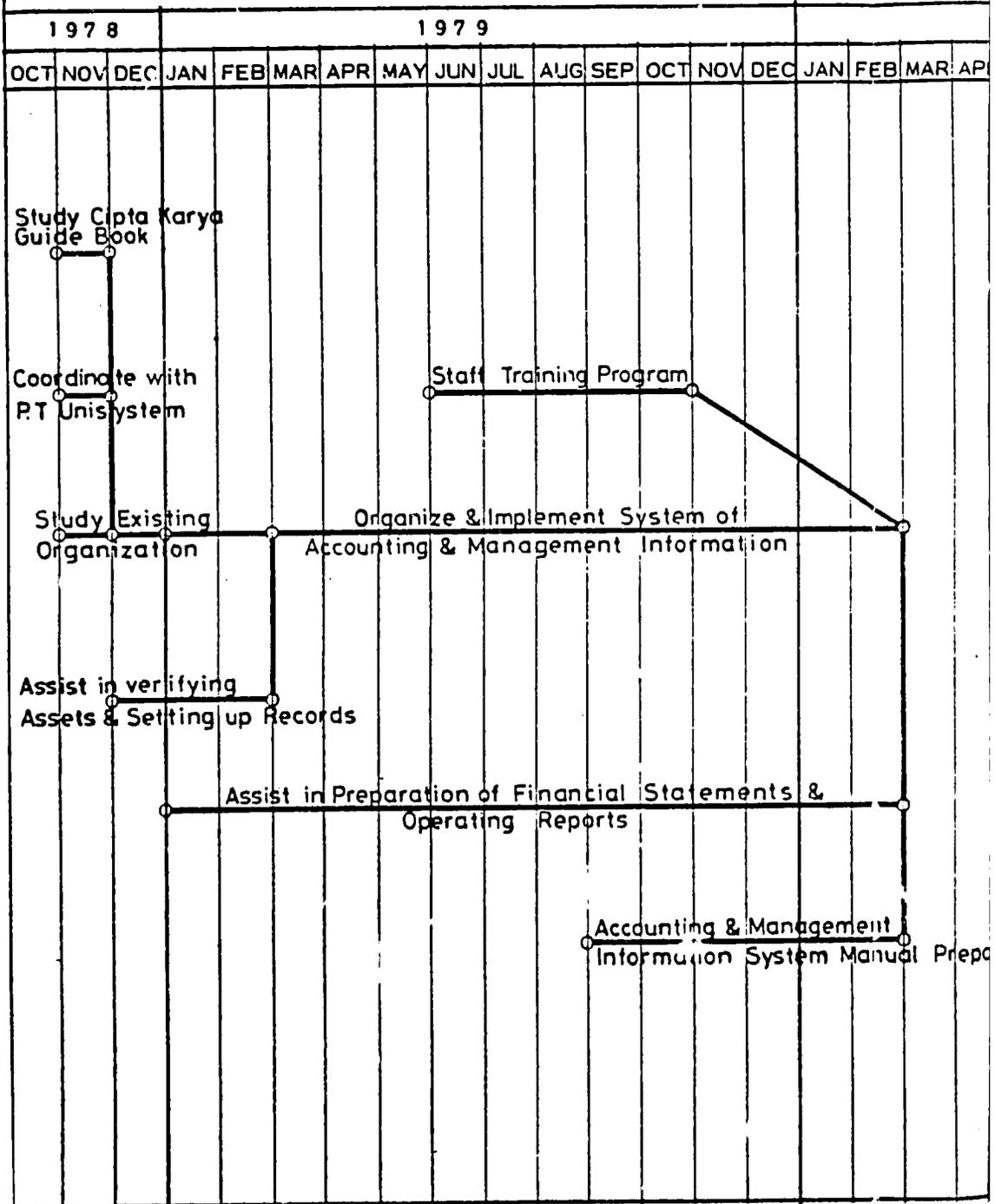


BURNS & McDONNELL ENGINEERING CO
 TRANS ASIA ENGINEERING ASSOCIATES, INC

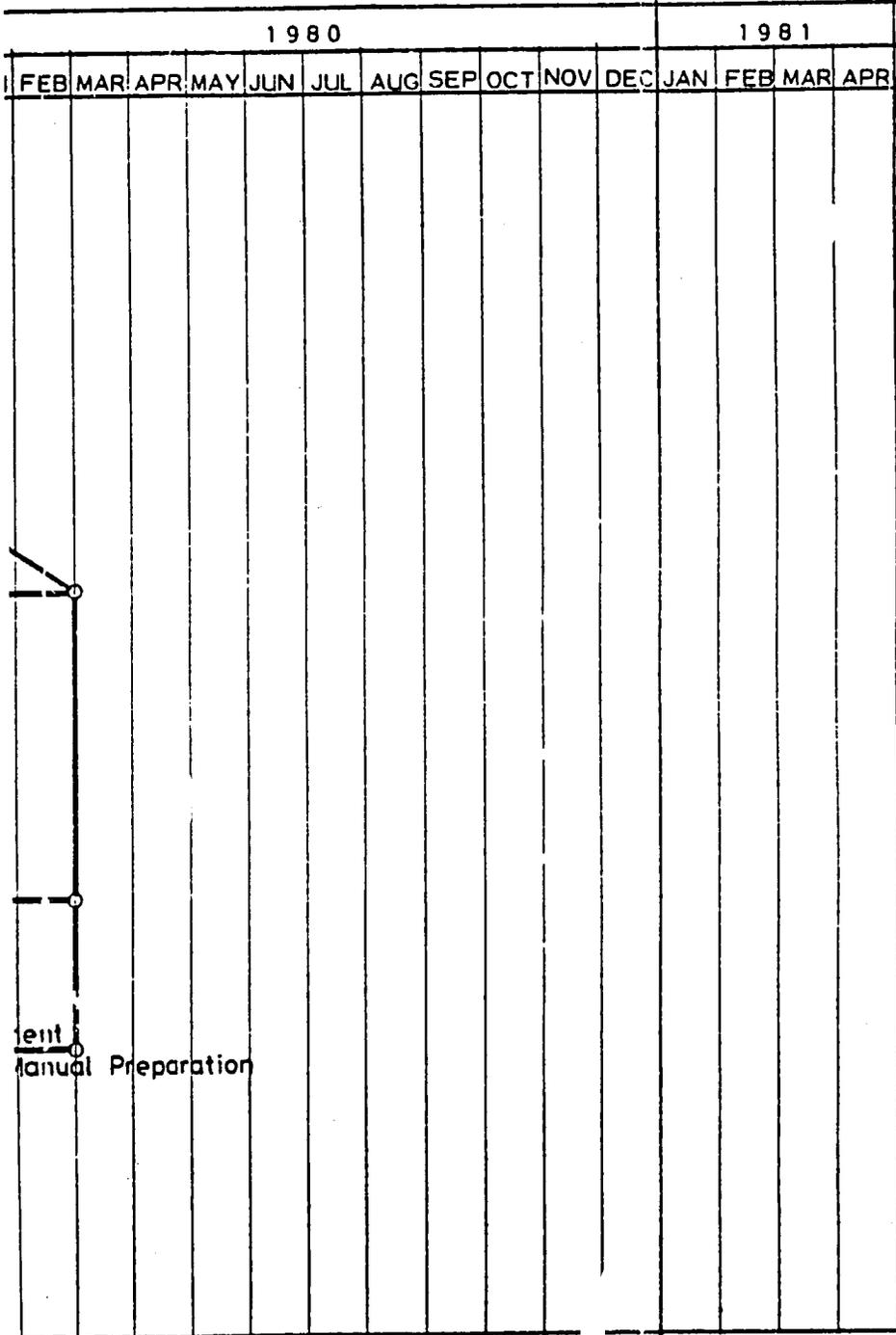
**SURAKARTA WATER
ACTIVITY FLOW
GROUND WATER EXPLORATION**



SURAKARTA WATER PROJECT
ACTIVITY FLOW DIAGRAM
MANAGEMENT ASSISTANCE TO SURAKARTA

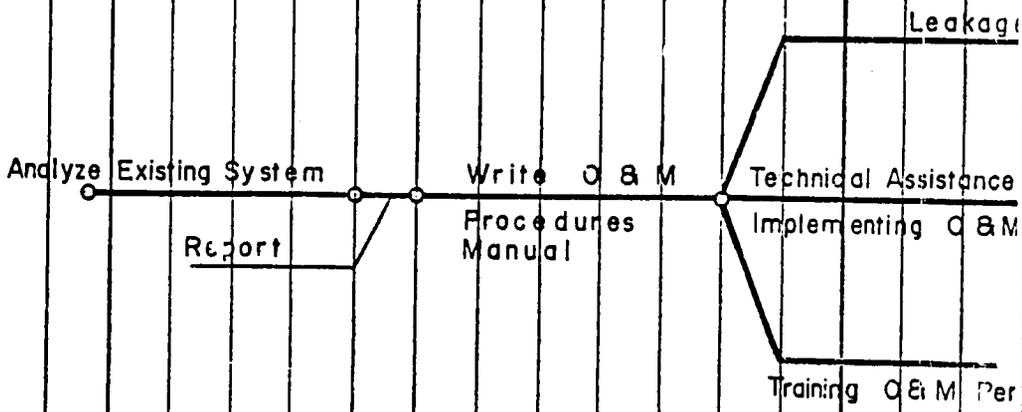


ER PROJECT
 DIA GRAM (PERT)
 URAKARTA WATER ENTERPRISE



SURAKARTA WATER P ACTIVITY FLOW DIA OPERATION AND MAINTENANCE ASS

1978			1979														
OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR



**SURAKARTA WA
SCHEDULE OF ENGINE
PERCENT COMPLETED**

CONTRACT NO. 01 / WS-S / AID/78 SIGNED 26 OCT 1978 END 25 OF APRIL 1981	1978			1979									
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
PROCUREMENT OF OFF-SHORE MATERIAL	0		99%										
OFF-SHORE COORDINATION													
ADVISE DURING UNLOADING AND TRANSPORTATION TO STORAGE			0					100%					
			0										90%
CONSTRUCTION OF TRANSMISSION PIPELINE													
ADVISE ON PREQUALIFYING, TENDERING & AWARDED CONTRACT		0						100%					
			0										90%
CONSTRUCTION SUPERVISION PREPARATION OF AS BUILT DRAWINGS AND FINAL REPORT													
GROUNDWATER DEVELOPMENT													
HYDROGEOLOGICAL DATA TAKING AND ANALYSIS, AND WELL SITE DETERMINATION		0						100%					
		0											100%
PREQUALIFYING, TENDERING AND AWARDED DRILLING CONTRACT		0						100%					
			0										92%
SUPERVISION OF DRILLING AND DEVELOPING WELLS													
PREPARE FINAL REPORT													
MANAGEMENT TRAINING PROGRAM		0											
		0											69%
OPERATION AND MAINTENANCE TRAINING			0										
			0										43%
METER REPAIR TRAINING													
TOTAL WORK SCHEDULED	0												
TOTAL WORK COMPLETED	0												45%

26

MEMORANDUM OF MONTHLY CONFERENCE

Place : Office of Cipta Karya, Jakarta
 Date : September 7, 1979
 Time : 10:45 a.m. to 12:45 p.m.

Attendance :

- | | | |
|-----|--------------------------|-------------------------------------|
| 1. | Mr. Aziz | Directorate of Sanitary Engineering |
| 2. | Mr. Oemar Sidik | Directorate of Sanitary Engineering |
| 3. | Mr. Suwandi Sanudi | Directorate of Sanitary Engineering |
| 4. | Mr. Prijono Salim | Directorate of Sanitary Engineering |
| 5. | Mr. Subandrio | Directorate of Sanitary Engineering |
| 6. | Mr. Djoko | Directorate of Sanitary Engineering |
| 7. | Mr. Paul Thorn | USAID |
| 8. | Mr. Robert Davis | USAID |
| 9. | Mr. Krisno Darusman | Central Java Water Supply Project |
| 10. | Mr. Harsono | Surakarta Water Supply Project |
| 11. | Mr. Soedarto | Surakarta Water Enterprise |
| 12. | Mr. George M. Pary | BM/TAE Surakarta |
| 13. | Mr. Bernardo B. Bayongan | BM/TAE Surakarta |
| 14. | Mr. AF Dengah | BM/TAE Surakarta |
| 15. | Mr. Robinson | USAID/C.K. Survey Team |
| 16. | Mr. Sihono | USAID/C.K. Survey Team |

The conference opened at 10:45 a.m.

An introduction was delivered by Mr. Aziz explaining that the meeting will be focused on the work of Groundwater Investigation and on the Construction of the Transmission Pipeline.

The Consultant stated that, the Final Draft of the Groundwater Investigation Report has been hand delivered to the Ministry for their review and comment.

Mr. Thorn requested about 7 to 10 days for reviewing the Report.

The Consultant has concurred.

After some discussion it was mutually agreed that the Bid Opening date for the Construction of the Transmission Pipeline, Sections A & B will be held on September 13, 1979.

Land easements for Right-of-Way were discussed. The Consultant has stated that the Project has received verbal approval from the Regencies and from all private parties for laying pipes from Sta. 0 + 00 to Sta. 103 + 85 but, Bina Marga's permit is still depending. The Consultant has requested to expedite it.

Scheduling of the Construction of the Transmission Pipeline was discussed. Mr. Aziz suggested the use of the Ministry's owned computer for monitoring the progress. The Consultant has stated that the job is probably too simple to warrant computer time, but will take the offer into advisement.

The Operation and Maintenance Training Program at the Surakarta Water Enterprise was discussed. Mr. Aziz requested that the Consultant's schedule for that Program be submitted as early as possible, since, Cipta Karya is planning to have additional personnel to be trained. The Consultant has agreed and stated that the Training Program will be in Cipta Karya's hand at the latest Sept. 20, 1979.

Transporting the Off-Shore Purchased Materials was discussed. The Consultant requested the acceptance of the first and second shipments of pipes and fittings to be finalized. Cipta Karya has agreed. The Consultant has also, requested Cipta Karya to prepare all necessary Custom Clearance Documents for importing two Pick-up's and one Truck for the Surakarta Water Enterprise. Cipta Karya has concurred.

Management program :

- Consultant to confirm preliminary report of USAID & CK Survey Team that the minimum collections to be expected from the poor people is Rp 300,-/family/month.
- Consultant to determine the possibility of installments in payment of the connection charge, or other means of financing.

- Consultant to study CK policy about Public Hydrants
- Consultant to report in more detail about SWE payments to the Municipality and make a separate report about the position of SWE profit/loss.

Distribution Design Program :

- Consulting to follow up addenda issued to CK
- Issue of addenda for Tertiary Distribution Design to be separated from the Well Drilling Program.

REPORT ON TRANSPORTATION OF OFF-SHORE PURCHASED
MATERIALS FOR SURAKARTA WATER PROJECT

A. AMERICAN CAST IRON PIPE COMPANY :

First and second shipments of pipes and fittings have been arrived to Semarang Port on May 20, May 28, and June 6, 1979, total weight of 2134.18 MT

Contract to transport those materials is awarded to P.T. VARUNA TIRTA PRAKARSYA, Semarang and all materials have been transported and stock piled at Surakarta Storage area. Final acceptance has been signed and submitted to the Project.

Third shipment has arrived to Semarang Port on July 23, 1979.

Total weight of 2106.5 MT

First Bids were rejected and the work has been readvertised.

Second Bids Opening was held on August 15, 1979 awaiting for the Ministry's decision.

B. CLOW CORPORATION :

First and last shipment has arrived to Semarang Port on August 6, 1979.

Total weight of 47.17 MT

Contract can be awarded directly or as an change order.

The Consultant is awaiting for the Project's decision.

C. ROHAN COMPANY :

First shipment has arrived to Semarang Port on August 7, 1979.

Total weight of 21.65 MT

Contract can be awarded directly or as an change order.

The Consultant is awaiting for the Project's decision.

D. COLCORINDO RAYA :

First and last shipment has arrived to Semarang Port on June 20, 1979.

Total weight of 80 LBS.

Contract can be awarded directly or as an change order.

The Consultant is awaiting for the Project's decision.

SURAKARTA WATER ENTERPRISE
MANAGEMENT ASSISTANCE PROGRAM
PROGRESS REPORT NO. 12

PERIOD COVERED

This report covers the period from September 1 to 30, 1979

II. WORK PERFORMED

A. General Accounting and Management Information System

Continued supervision and consulting to the accounting staff about the proper recording in the books of accounts of the transactions of the Water Enterprise. These include the proper classification of expenditures, that is, whether to treat them as operating expense during the period or as addition to the cost of property and equipment; proper charging of operating expenses to various responsibility centers; and others.

Continued monitoring and consulting in the preparation of the financial and other operating reports. These reports which are being prepared monthly and in the format recommended by the Consultant include the following :

- 1) Financial and Operating Highlights
- 2) Balance Sheet
- 3) Profit and Loss Statement
- 4) Cash Flow Statement
- 5) Monthly Collection Report
- 6) Monthly Billing Report
- 7) Collection Efficiency Report
- 8) Customers Movement Report (new connections, disconnections, reconnections and total customers at the end of month)
- 9) Water Production and Distribution Report
- 10) Monthly Inventory Report (prepared quarterly)

The financial and other operating reports for the month of August 1979 were distributed on September 21, 1979 to the following recipients :

- 1) Supervisory Board
- 2) Director and other officials of the Surakarta Water Enterprise
- 3) Sub-Directorate of Development, Department of Sanitary Engineering, Cipta Karya
- 4) Consultant.

B. Customer Services

Prepared revised procedures on Applications for New Service Connections and Installation of New Connections. Some of the advantages of these procedures over the present practice are :

- 1) better control in processing, approval and installation of new connections, and
- 2) reduction of the number of forms to be used.

Copies of the procedures were distributed to the Director, the Chief of the Technical Division, the Chief of the Finance and Administration Division, and other officials and staff concerned for them to study before implementation. These procedures will be discussed in October 1979 and implemented as soon as they are approved by the Director of the Water Enterprise.

C. Budget Preparation

Assisted and advised the officials of the Water Enterprise responsible for the preparation of the 1980 budget. As of September 30, 1979 the Profit and Loss budget is being reviewed by the Chief of the Finance and Administration Division. Other budgets such as Projected Cash Flow Statement, Materials and Supplies Inventory Budget, and Capital Expenditures Budget are in preparation. According to the Chief of the Finance Department these can be finished before the end of October 1979.

D. Accounting System and Management Information System Manual

Continued preparation of the final draft of the Accounting System and Management Information System Manual. The Manual consists of systems and procedures adopted by the Surakarta Water Enterprise and includes the following :

- 1) general accounting,

- 2) budgeting,
- 3) meter reading, billing, and collecting,
- 4) disbursement,
- 5) fixed asset accounting,
- 6) payroll
- 7) purchasing and inventory control
- 8) work order and construction accounting, and
- 9) management reports

The manual was prepared based on the general guidelines on the operations of a water enterprise issued by the Directorate of Sanitary Engineering, Cipta Karya.

As applicable, the systems and procedures in these phases of operations are already being implemented.

E. Financial Projections of the Water Enterprise

Compiled data needed in the preparation of the financial projections of the Surakarta Water Enterprise. Financial projections up to eight years starting 1980 will be prepared to determine the financial viability of the project for the improvement of the transmission and distribution system of the Water Enterprise which is being financed jointly by the U.S.A.I.D. and the Government of the Republic of Indonesia.

F. Transactions between the Water Enterprise and the Municipality of Surakarta

Analyzed the transactions between the Surakarta Water Enterprise and the Municipal Government of Surakarta for the period from April 1976 to July 1979. The Surakarta Water Enterprise was created through a decree of the Mayor of Surakarta dated February 16, 1976. It began to function as a separate entity starting April 1, 1976.

In chapter XII, article 20 of the said decree it is provided that " After being deducted by depreciation, purposed reserves and other normal deductions in the Enterprise, the net profit is applied as follows : a) for regional development fund, 30%, b) for regional budget, 25%, c) for general and social reserve, production service, pension fund, and donation, 45% (to be kept by the Surakarta Water Enterprise). The " region " mentioned in the decree refers to the Municipality of Surakarta.

Based on the above provision the Water Enterprise should remit to the municipality an amount equivalent to 55% (30% + 25%) of the profit. However, starting April 1976 and up to this date the Water Enterprise has been remitting money to the municipality based on the assessment made by the municipality and not based on 55% of the profit. Net cash remittance to the municipality for the period from April 1976 to July 1979 amounted to Rp 93,536,000,-. This composed of the total cash remitted to the municipality amounting to Rp 118,614,000,- less total cash received from the municipality amounting to Rp 35,078,000,-

Based on 55% of the profit embodied in the decree the Water Enterprise should have remitted only Rp 45,306,000,-. The difference between the two figures, Rp 93,536,000,- less Rp 45,306,000,- is Rp 38,230,000,-

I discuss the above analysis with the Director of the Water Enterprise giving emphasis on the Enterprise operating independently of the Municipal Government, that is, its revenue should be used only for its own operations. The Director informed me that he is making representation with the Municipal Government about the discontinuance of such remittance so that the revenue of the Water Enterprise could be used solely for the improvement for the water system.

The analysis of the transactions between the Surakarta Water Enterprise and the Municipal Government is presented in Exhibit 1.

III. PROGRAM FOR NEXT MONTH

- A. Continue assistance in the preparation of monthly financial and other reports.
- b. Continue assistance in the preparation of the 1980 budget of the Water Enterprise.
- c. Discuss with officials and staff concerned the revised procedures on Application for New Service Connection and Installation of New Connection; implement procedures after approval by the Director of the Water Enterprise.

- D. Continue preparation of the final draft of the Accounting System and Management Information System Manual.

- E. Continue compiling data needed in the preparation of the financial projections of the Water Enterprise; prepare the financial projections.

ANALYSIS OF THE TRANSACTIONS BETWEEN
THE MUNICIPAL GOVERNMENT OF SURAKARTA
AND THE SURAKARTA WATER ENTERPRISE

A. NATURE OF TRANSACTIONS

The transactions between the Surakarta Water Enterprise (SWE) and the Municipal Government of Surakarta (PEMDA)¹ for the period from April 1, 1976 to July 31, 1979 can be summarized as follows (refer to Exhibit 2 for actual figures) :

1. The PEMDA makes an assessment of the amount that the SWE should remit to PEMDA. This figure is based upon PEMDA's own calculation of how much it can get from the SWE. For the period from April 1976 to July 1979 the total levy amounted to Rp 167,609,000.
2. On the other hand, the PEMDA commits to pay a portion of the salaries and wages of the employees of the SWE who were former employees of the Municipal Government. In other words, the PEMDA subsidizes the SWE in the form of salaries and wages. For the period from April 1976 to July 1979 the total amount of salaries and wages that was supposed to be paid by PEMDA under this arrangement is Rp 67,269,000. However, starting April 1978, the PEMDA stopped the actual transfer of cash to the SWE. Beginning that date, the amount supposed to be transferred by PEMDA to SWE was offset against the levy of the PEMDA to SWE. For the period from April 1976 to July 1979 the salaries and wages offset against the levy amounted to Rp 32,190,000.
3. The PEMDA also does not pay its water bills to the SWE. The amount of the bill is being deducted from the levy of the PEMDA to SWE. For the period from April 1976 to July 1979 water bills offset against levy amounted to Rp 16,805,000.

¹ PEMDA is an acronym for Pemerintah Daerah which means Municipal Government.

4. The actual cash remittance to the PEMDA, therefore is Rp 118,614,000 computed as follows :

Total amount assessed (levy) by the Municipality	Rp 167,609,000
Less :	
a. Portion of salaries and wages of personnel transferred from the Municipality to SWE offset against the total levy	Rp 32,190,000
b. Water bills representing water consumption of the Municipality offset against the total levy	Rp 16.805,000
	<hr/>
Cash Remittance	Rp 118.614.000 =====

5. The PEMDA commits to pay a portion of the salaries of employees transferred from the Municipal Government to the SWE. In other words these employees receive salaries from two sources, namely, from the Municipal Government and from the Water Enterprise. For the period from April 1976 to July 1979 the total salaries and wages of these employees that was supposed to be paid by PEMDA amounted to Rp 67,268,000,- This total amount, however, was not all paid in actual cash to the SWE. Starting April 1978 the PEMDA stopped the actual transfer of cash to the SWE. Salaries and wages that were supposed to be paid by PEMDA are offset against the Municipal levy. Actual cash transferred by the PEMDA to SWE for the period from April 1976 to July 1979 was Rp 35,078,000 computed as follows :

Salaries and wages supposed to be paid by PEMDA	Rp 67,268,000
Amount offset against Municipal levy	Rp 32,190.000
	<hr/>
	Rp 35,078,000 =====

6. Based on the above analysis, the net remittance to the Municipality amounted to Rp 83,536,000 computed as follows :

Cash remittance to PEMDA	Rp 118,614,000
Cash received from PEMDA	Rp 35,078,000
	<hr/>
	Rp 83,536,000 =====

B. Effect of the Profit and Loss Statement of the Water Enterprise

In the preparation of the Profit and Loss Statement the SWE treats the subsidy from the Municipality as a non-operating income. The Municipal levy (assessment made by the Municipality) is treated as non-operating expense. Presented in Exhibit 3 is the Profit and Loss Statement of the SWE for the period from April 1, 1976 to July 31, 1979. It shows the loss from operations as recorded in the books and the profit that should have been accumulated if it remits to the Municipal Government 55% of the profit as provided for in the Mayor's decree creating the SWE.

As shown in Exhibit 3 the SWE has an accumulated loss amounting to Rp. 17,965,000 as of the end of July 1979. Included in the computation of the profit/loss was the total Municipal levy of Rp. 167,609,000 and subsidy from the Municipality amounting to Rp. 67,269,000.

If no remittance was made to PEMDA, and, likewise, no subsidy was received from PEMDA the SWE should have been operating profitably with an accumulated profit of Rp. 82,375,000 from April 1976 to July 1979.

If the SWE remitted to the Municipality, 55% of the net income as provided for in the decree creating the Water Enterprise, still it would have an accumulated profit of Rp. 37,069,000 during the same period
$$\text{Rp. } 82,375,000 - (82,375,000 \times 55\%)$$

C. Effect on the Cash Position of the Water Enterprise

During the period from April 1976 to July 1979 the Water Enterprise remitted to the Municipality a total of Rp. 118,614,000. During the same period it received from the Municipality a total of Rp. 35,078,000. As can be seen in the Cash Flow Statement in Exhibit 4, remittance to the Municipality accounted for 28% of the total disbursements of the SWE the second biggest disbursement next to salaries and wages.

As of July 31, 1979 the cash balance was Rp. 23,397,000.

If the remittance to the Municipality was based on the profit of the SWE and not as assessed by the Municipality the cash balance as of July 31, 1979 should have been Rp. 61,627,000 computed as follows :

Actual balance as of July 31, 1979	Rp 23,397,000
Add back remittance to the Municipality	Rp 118,614,000
Deduct subsidy received from the Municipality	Rp 35,078,000
	<hr/>
Adjusted Balance	Rp 106,933,000
Deduct amount that should have been remitted based on 55% of the Profit of SWE (from Exhibit 3)	Rp 45,306,000
	<hr/>
Cash balance as of July 31, 1979 if remittance was based on 55% of the profit of SWE	Rp 61,627,000
	=====

The difference between Rp 61,627,000 and the actual balance of Rp 23,397,000 is Rp 38,230,000. This is equivalent to 31% of the total cash disbursed for salaries and wages during the same period, or equivalent to 101% of cash disbursed for property and equipment.

SURAKARTA
ANALYSIS OF MUNICIPALITY
FROM THE MUNICIPALITY
(IN RUPIAH)

	<u>1976 - 1977</u> <u>APRIL - MARCH</u>	<u>APRIL</u>
Total Municipal levy assessed by the municipality, treated as non-operating expense in the preparation of Profit and Loss Statement	57.500,-	29
Less : Water bills of the municipality deducted from the total levy	-	
Portion of the salaries and wages of personnel transferred from the municipality to Surakarta Water Enterprise, deducted from the total levy	-	--
Cash Remittance to the Municipality	<u>57.500,-</u>	22 --
Subsidy received from the municipality representing portion of the salaries and wages of personnel trans- ferred from the municipality to Surakarta Water Enter- prise, treated as non-operating income in the prepa- ration of Profit and Loss Statement	11.677,-	17
Less : Amount not transferred to Surakarta Water Enterprise, but offset against municipal levy	-	--
Cash received from the municipality	<u>11.677,-</u>	17 --
Net Cash Remittance	45.823,- =====	4 ==

SURABAYA WATER ENTERPRISE
 MUNICIPAL LEVY AND SUBSIDY RECEIVED
 MUNICIPAL GOVERNMENT OF SURABAYA
 (IN Rp 1.000,-)

Exhibit 2

1977 <u>APRIL - DECEMBER</u>	1978 <u>JANUARY - DECEMBER</u>	1979 <u>JANUARY - JULY</u>	<u>TOTAL</u>
29.000,-	59.245,-	21.864,-	167.609,-
11.000,-	6.346,-	3.459,-	16.805,-
-	17.200,-	14.990,-	32.190,-
<u>22.000,-</u>	<u>35.699,-</u>	<u>3.415,-</u>	<u>118.614,-</u>
17.902,-	22.699,-	14.990,-	67.268,-
<u> </u>	<u>17.200,-</u>	<u>14.990,-</u>	<u>32.190,-</u>
<u>17.902,-</u>	<u>5.500,-</u>	<u> </u>	<u>35.078,-</u>
<u>4.098,-</u> =====	<u>30.199,-</u> =====	<u>3.415,-</u> =====	<u>83.536,-</u> =====

SURAKARTA WA
PROFIT AND LOSS
APRIL 1976
(In Rp.)

	<u>1976 - 1977</u> <u>APRIL - MARCH</u>	<u>1977</u> <u>APRIL - DECEMBER</u>
Revenue from operations		
Water Sales	83.608,-	100.77
Others	5.287,-	7.17
Total	<u>88.895,-</u>	<u>107.94</u>
Operating Expenses		
Operations and Maintenance	44.792,-	51.25
Depreciation	32.576,-	31.55
Total	<u>77.368,-</u>	<u>82.80</u>
Profit from Operations	<u>11.527,-</u>	<u>25.14</u>
Add Non-Operating Revenue		
Subsidy from municipality	11.677,-	17.90
Others	-	17
Total	<u>11.677,-</u>	<u>18.07</u>
Less Non-Operating Expenses		
Municipal Levy	57.500,-	29.00
Others	-	-
Total	<u>57.500,-</u>	<u>29.00</u>
Net Income (Loss) as recorded in the Books	(34.296,-)	14.219
Add back municipal levy ¹	57.500,-	29.00
Deduct subsidy from municipality ¹	<u>11.677,-</u>	<u>17.90</u>
Adjusted Income	11.527,-	25.31
Share of the municipal government, 55% of adjusted income based on Mayor's decree creating the Water Enterprise	<u>6.340,-</u>	<u>13.92</u>
Net Profit After Share of the municipal government ²	<u>5.187,-</u>	<u>11.39</u>

¹ These figures are added to or deducted from the Net Income (loss) as recorded in the Books to arrive at the adjusted income that should be the basis of computing the 55% remittance to the municipality.

² These figures represents the income of the Surakarta Water Enterprise if it remitted to the municipality an amount equivalent to 55% of its profit

WATER ENTERPRISE
LOSS STATEMENT
1976 - JULY 1979
(\$ in 1,000)

Exhibit 3

<u>1977</u> <u>- DECEMBER</u>	<u>1978</u> <u>JANUARY - DECEMBER</u>	<u>1979</u> <u>JANUARY - JULY</u>	<u>TOTAL</u>
10,771,-	131,171,-	66,353,-	381,903,-
<u>7,178,-</u>	<u>26,325,-</u>	<u>13,225,-</u>	<u>52,015,-</u>
<u>17,949,-</u>	<u>157,496,-</u>	<u>79,578,-</u>	<u>433,918,-</u>
51,250,-	84,675,-	52,244,-	232,961,-
<u>31,556,-</u>	<u>34,424,-</u>	<u>22,002,-</u>	<u>120,558,-</u>
<u>32,806,-</u>	<u>119,099,-</u>	<u>74,246,-</u>	<u>353,519,-</u>
<u>15,143,-</u>	<u>38,397,-</u>	<u>5,332,-</u>	<u>80,399,-</u>
17,902,-	22,700,-	14,990,-	67,269,-
<u>174,-</u>	<u>277,-</u>	<u>1,533,-</u>	<u>1,984,-</u>
<u>18,076,-</u>	<u>22,977,-</u>	<u>16,523,-</u>	<u>69,253,-</u>
19,000,-	59,245,-	21,864,-	167,609,-
<u>-</u>	<u>3,-</u>	<u>5,-</u>	<u>8,-</u>
<u>19,000,-</u>	<u>59,248,-</u>	<u>21,869,-</u>	<u>167,617,-</u>
4,219,-	2,126,-	(14,-)	(17,965,-)
19,000,-	59,245,-	21,864,-	167,609,-
<u>17,902,-</u>	<u>22,700,-</u>	<u>14,990,-</u>	<u>67,269,-</u>
25,317,-	36,671,-	6,860,-	82,375,-
<u>13,924,-</u>	<u>21,269,-</u>	<u>3,773,-</u>	<u>45,306,-</u>
<u>11,393,-</u>	<u>17,402,-</u>	<u>3,087,-</u>	<u>37,069,-</u>

arrive at
ity.

municipality

	<u>1976 - 1977</u> <u>APRIL - MARCH</u>	<u>1977</u> <u>APRIL - DECEMBER</u>
Cash Balance Beginning		<u>1.647,-</u>
Cash Receipts		
Collection of water bills	97.899,-	80.860,-
Swimming pool revenue	2.141,-	1.887,-
Penalty charges	-	314,-
Interest income	-	174,-
Miscellaneous Service revenue	3.146,-	3.274,-
Customers advances for connection		
Others receipts		
Customers deposit	589,-	
Subsidy from municipality	<u>11.677,-</u>	<u>17.902,-</u>
Total Receipts	<u>115.542,-</u>	<u>104.411,-</u>
Cash Disbursements		
Salaries, wages and employee benefits	11.677,-	31.680,-
Operations and maintenance expenses	21.711,-	12.467,-
Administration and general expenses	22.917,-	5.656,-
Purchase of materials and supplies inventory		10.635,-
Addition to property and equipment		6.543,-
Remittance to municipal government	<u>57.500,-</u>	<u>22.000,-</u>
Total Disbursements	<u>113.805,-</u>	<u>88.981,-</u>
Net Cash Receipts	<u>1.647,-</u>	<u>15.430,-</u>
Cash Balance End	<u>1.647,-</u> =====	<u>17.077,-</u> =====

WATER ENTERPRISE
 CASH FLOW STATEMENT
 1976 - JULY 1979
 Rp. 1.000)

Exhibit 4

<u>1978</u> <u>JANUARY - DECEMBER</u>	<u>1979</u> <u>JANUARY - JULY</u>	<u>TOTAL</u>	<u>PERCENT TO</u> <u>TOTAL (%)</u>
<u>17.077,-</u>	<u>4.911,-</u>		
113.603,-	83.679,-	376.041,-	84.94
5.479,-	3.543,-	13.050,-	2.95
1.797,-	1.430,-	3.541,-	0.80
278,-	103,-	555,-	0.12
1.328,-	2.781,-	10.529,-	2.38
	1.164,-	54,-	0.01
	1.345,-	1.345,-	0.30
539,-	260,-	1.389,-	0.31
<u>5.499,-</u>	<u> </u>	<u>35.078,-</u>	<u>7.92</u>
<u>128.523,-</u>	<u>94.305,-</u>	<u>442.691,-</u>	<u>100.00 %</u>
52.040,-	27.814,-	123.211,-	27.82
15.617,-	10.591,-	60.386,-	13.64
3.588,-	6.621,-	28.782,-	6.50
16.125,-	13.721,-	5.481,-	1.24
17.620,-	13.657,-	37.820,-	8.54
<u>35.699,-</u>	<u>3.415,-</u>	<u>118.614,-</u>	<u>26.80</u>
<u>140.689,-</u>	<u>75.819,-</u>	<u>419.294,-</u>	<u>94.71 %</u>
<u>(12.166,-)</u>	<u>18.486,-</u>	<u>23.397,-</u>	
<u>4.911,-</u> =====	<u>23.397,-</u> =====	<u>23.397,-</u> =====	

GROUNDWATER EXPLORATION AND DEVELOPMENT
MONTHLY PROGRESS REPORT

This report covers the period from September 1, 1979 up to September 30, 1979.

I. TASK ACCOMPLISHED

1. Reviewed and analyzed the Final Report of the Geoelectrical Investigation for Groundwater Studies. The Investigation was conducted by P.T. GEODATA.
2. Revision to the Final Report on Groundwater Investigation and Well Development.
3. Continuing to prepare the drilling specification.

II. EXISTING WELL ANALYSIS

The analysis of the existing wells in the vicinity of the project area indicates that the target of 13,000 MTD pumped water can be reached with 15 proposed test wells. The rough calculation of transmissibility of the aquifers encountered in the vicinity of the project area gives the permissible value for producing municipal water.

Test wells were drilled by P2AT (Groundwater Development Project) located about 20 km north of Surakarta City have sufficient quantity of water, more than 40 L/s water can be produced from each test well. These test wells mostly penetrated sedimentary rocks derived from volcanic sandstone, tuff, breccia etc.

The penetrated formations might be Notopuro, Kabuh and Pucangan Formations, and most probable Kalibeng Formatio

III. CONCLUSION

Groundwater Development can be continued according to geohydrologic condition in the investigated area.

IV. PROGRAM FOR NEXT MONTH

1. Completing and submitting the Final Report.
2. Continuing to prepare the well drilling program and specifications.

MEMORANDUM OF PREBID MEETING
TRANSMISSION PIPELINE CONSTRUCTION
SECTION A AND SECTION B
S U R A K A R T A

Place of Meeting : Surakarta Water Supply Project Office
Jl. Brig. Jen. Sudiarto 534
Surakarta

Day/Date : Wednesday, September 5, 1979

Time : 10:40 AM to 01:15 PM
Field reconnaissance : 02:30 PM to 05:30 PM

Head of Meeting : Ir. Iing Parvanaraya

Meeting opened by : Ir. Iing Parvanaraya

General Clarification by : Ir. Iing Parvanaraya

Technical Clarification by : Ir. AF Dengah

Attended by :

1. Ir. Iing Parvanaraya : Head of the Committee
2. Harseno, BE : Member of the Committee
3. Waluyo Sejati : " " "
4. HM Situmorang : " " "
5. George M. Pary : BM/TAE Surakarta
6. Ir. AF Dengah : " "
7. Ir. Djoko Imbarno : " "
8. Syarif L. : " "
9. Bambang Agus Salam : " "
10. Soelarno : Surakarta Water Enterprise
11. Sutardi : Central Java Public Works, Surakarta Section
12. Sukemi : " " " " , Klaten Section
13. Sujarwo : Surakarta Public Works
14. Sutignyo SW : PT Tukad Mas
15. S. Yohanes : PT Tukad Mas
16. Ir. Odilia : PT Tukad Mas

17. Harjito : PT Waskita Karya
18. Suyono : PT Waskita Karya
19. Basuki Winarno : PT Pembangunan
20. FX. S: Sigit Pramono : PT Pembangunan
21. Sumarsono : PT Cakra Enterprise
22. Martignyo : PT Cakra Enterprise
23. Ridwan : PT Lepen Kencana
24. Koesnama Dahlan : PT Lepen Kencana
25. Ir. Nindyo S. : PT Wijaya Karya
26. Sutopo Mg. : PT Wijaya Karya
27. Suwono : PT Tri Komodo
28. Imam Santoso : PT Tri Komodo

OFFICE CLARIFICATION

General clarification by : Ir. Iing Parvanaraya

1. Project duration is 210 calendar days
2. The work to be started within seven days upon the receipt of SPK (Letter of Assignment).
3. Bid Bond should be Rp 750.000,- for each section.
4. Bar Chart attached
5. Bid Bond and its enclosures : 1 original + 4 copies
6. The Bid Proposals should be submitted on September 13, 1979 at CJWSP Semarang.
7. In case the completion is delayed, the Contractor will be fined per day 0.1% of the total cost of Contract, maximum 5% of the total cost of the Contract.
8. Corrections :

1.02.02 Bid Bond

- a.2 Can use the official Form of Government Bank and should be completely filled out in accordance with the Bank regulations.

1.03.02 Prequalification Certificate from DSE or Central Java Public Works, or Recommendation Letter from CJWSP.

1.03.03 Fiscal Letter issued by Head of Tax Inspection Office Semarang.

If the Fiscal Letter is issued by Tax Office of outside Central Java, it should be legalized by Semarang Tax Office.

Technical clarification by : Ir. AF Dengah

1. Engineer's facilities :
 - a. The Contractor should provide one car manufacturing date not less than 1975 and up, complete with driver and fuel (for each section)
 - b. Contractor should also provide one motor cycle, 100 cc date 1978 and up (for each section).
 - c. Meal and drink for one Inspector per section
 - d. For each section, overtime for one Inspector should be paid by the Contractor.

II. The location of the Transmission Pipeline Construction is in accordance with the drawing (page 1).

III. Land exemption for section A is 850 square meters and section B is 1150 square meters, @ Rp 500,-

IV. Kinds of Work :

1. Temporary Office
2. Installation of Transmission Pipeline Sections A & B
3. Cokrotulung Spring and Grit Chamber
4. Tunnel
5. Stream Crossing
6. Kartosura Reservoir
7. Transportation from Storage Area to Job site.

V. Clarification of Specification (see Tender Document)

VI. Road replacement work to be supervised and to be in accordance with Central Java Public Works standards.

5. PT PEMBANGUNAN

- Tender's date and Project duration ?

6. PT WIJAYA KARYA

- No question

7. PT WASKITA KARYA

- gaskets
- kind of soil to be dug for a tunnel

ANSWERING QUESTIONS

1. Corrosion Protection is furnished/supplied by the Project.
The construction is in accordance with the Addendum # 1
2. Rip rap mortar ratio of 1 : 2
3. Thrust and Gravity block is non reinforced concrete.
4. The enclosures should be completely filled out and attached to the Tender documents.
5. There is no additional cost for the owner if boulders encountered during excavation.
6. Use PBI 1971 with K 225
7. For testing, use clean water.
The Contractor should provide clean water for flushing the pipes.
8. Contract duration : 210 calendar days.
9. It is not necessary to attach the cost breakdown to lump sum price.
10. Pipe cutter should be provided by the Contractor.
The weight of pipes :
16" = 1290 pounds
18" = 1485 "
20" = 1685 "
24" = 2120 "
11. Central Java Public Works refused to repave the roads.
12. Gaskets will be supplied by the Project.
13. Project will only provide the test instrument - Testing Pressure to be 12 atmosphere.

QUESTIONS

1. PT TUKAD MAS

1. Referring to the Specification page 11-5 no. 8, regarding Corrosion Protection, what kind of it ?
2. Page 11-5 no. 9 about rip rap.
3. Is the thrust block concrete, a reinforced concrete or non reinforced concrete ?
4. Page 11-5 no. 15, is it necessary to attach all enclosures to the Bid Proposal ?
5. Page V-6 no. 5.09.4 regarding the pipe clearance and excavation, if the boulder which may be encountered will be paid with change order or not ?
6. Page V-19 no. 5.17.1 regarding the Non Structural Concrete, how many kgs cement to be exactly needed for 1 m^3 of concrete ?
7. Page V-21 no. 5.19.2 the minimum and maximum length of pipe to be tested, what kind of water should be used, and Pressure to test it ?
8. Page V-27 no. 5-21 regarding flushing of pipeline.
9. Lump sum price - is the breakdown to be attached ?
10. Suggested to be lent the pipe cutter instrument.
11. Mark of PC to be used ? Under the condition of PBI .071 (Indonesian Concrete Code).

2. PT TRI KOMODO

1. Suggested that the Central Java Public Works should do the road replacement work and the cost to be borne by the Contractor.
2. Regarding the 210 calendar days of the Contract duration. Is it possible to complete the work during that period ?

3. PT CAKRA ENTERPRISE

- About the weight of each pipe (unit) .

4. PT LEPEN KENCANA

1. Suggested to extend the Contract duration .
 2. Pressure Testing the pipeline?
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14. Memorandum of the Prebid Meeting is requested to be signed by two representatives of the invited Contractors. Selected Contractors are PT Tri Komodo and PT Wijaya Karya.
15. Central Java Water Supply Project can issue a letter concerning the Contractor's qualification's together with the Memorandum dated on September 3, 1979, in Semarang.

FIELD CLARIFICATION

by : ir. AF Dengah

The team went together to Cokrotulung Spring and then drove along the new Transmission Pipeline :

- Pipes of Ø 500 mm for additional water input from intake is available . It should be added with valve and plug while it is not being used.
The reinforced concrete steels planned for screens should be completely removed, the concrete wall should be reworked. The new screen detail is in the detail drawings.
- The old pipe of Ø 450 mm to be cut later on at the same time when cutting out the old Transmission pipe at Cross Tie Sta. 76 + 25 and the existing pipe in front of Kartosuro Reservoir or as approved by the Engineer .
- Placing syphon at the crossing of the Pusur River, 5 m³ of rip rap should be repaired.
- The old weir wall in the " Grit Chamber " to be removed.
- Beginning from Sta. 4 + 50 up to Sta. 73 + 10 the pipe will pass the roads which is under jurisdiction of the Regency . One part of the excavated road to a distance of 30 cm above the trench should be rebuilt as was before and repaved in accordance with Bina Marga's standards.
- Trees can be cut by the Engineer's permission only. If the pipe passes beside the tree, try not to cut its root, so it will not die. In case the excavation crosses or lays along the road it should be maintained that the traffic will not be interrupted, so the bank of the trench of the road passed by the traffic should be supported with a retaining wall or slope protection and should be posted suitable signs for the maintenance of traffic.
- Rip rap as erosion protector at the river bank will remain 45^o, even though the original bank has different angles.

- In replacing the pipe of $\varnothing 500$ mm by $\varnothing 450$ mm a reducer should be installed at Sta. 22 + 00 (see the specification).
- The structural concrete should meet the K 225 provisions of PBI 1971.
- At Sta. 73 + 10 there is a BLOW OFF valve with drainage pipe of $\varnothing 150$ mm. Valve box to be installed. After passing the syphon of Wonosobo River, the pipe crosses through the brickwall where the compensation cost for renovation will be calculated later on. Same at Brambang River.
- There is a Cross Tie at Sta. 76 + 25, where the old transmission pipe is connected with the new transmission main.
A valve box to be installed on each valve.
- Beginning at Sta. 96 - 50, the distance from road centre line to pipe centre line is constantly 6.50 m, backfilling and the minimum pipe cover to be in accordance with the specifications.
- There are two alternative at Sta. 36 - 25 :
 - the pipe is bent up, therefore it should be protected by steel-piles.
 - the pipe is bent aside directed to the river, there is a bridge over reinforced concrete supporter.
 Which alternative should be chosen, will be decided in the work execution in accordance with the PUJT (Central Java Public Works) regulation.
- There is an iron bridge to cross the pipe at Sta. - 102 + 00.
Construction calculation to be done by the Contractor and shall be checked by the Engineer.
- The end of pipe is temporary closed at Sta. 103 + 85. It means that the pipe installation of Section A is complete.
- The exposed pipes (at Sta. 36 + 24 and Sta. - 102 + 00) should be protected with barbed wire, to avoid pedestrian crossings.

Kartosura Reservoir

The old transmission pipe will be connected to the reservoir by two connection pipes of $\varnothing 600$ mm (inlet and outlet), in accordance with the specification, completed with valves and plugs installed at the valves which will be connected to the new transmission pipe.

Removal of the connection pipe to the Break Tank should be at the same time with the removal of Division Chamber input pipe and the old transmission pipe at Cross Tie Sta. 76 + 25.

Finally the team went to Pajang Storage, a field for storing pipes and fittings. The distance is about 5 km from the intersection Solo - Yogyakarta.

In taking, lifting, transporting, and putting down the pipes it should be done carefully in order to keep the pipes in good condition.

The procedure of requesting pipes will be discussed with the awarded Contractor.

After the Prebid Meeting at the office was over at 01:15 p.m., was continued with the above mentioned field clarification, adjourned at 05:30 p.m. at Pajang Storage by the Head of the Committee.

Surakarta, 5 September 1979

Head of the Meeting

Tender Committee of the
Transmission Pipeline Construction
Surakarta

Contractor's representatives :

1. PT TRI KOMODO

(Ir. Iing Pravanaraya)

2. PT WIJAYA KARYA