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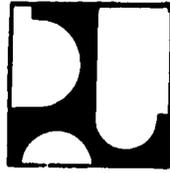
REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL CIPTA KARYA
DIRECTORATE OF SANITARY ENGINEERING

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

MONTHLY PROGRESS

REPORT NO. 40
JANUARY 1982

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



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A JOINT VENTURE

BURNS & McDONNELL Engineering Co.

Architect - Engineers

A JOINT VENTURE

Consultants - Planners

TRANS - ASIA Engineering Associates, Inc.

Please Reply to: Kotak Pos 105
Surakarta

018/EM/TAE/SKA/82
01 February 1982

Mr. Soesanto Mertodiningrat, Director
Directorate of Sanitary Engineering
Directorate General Cipta Karya
Jl. Pattimura No. 20
Kebayoran Baru
Jakarta Selatan

Subject Contract for the Consultant Services for
Surakarta Water System No. 01/WS-S/I/AID/78
dated 28 October 1978 as Amended 23 July 1981.

Dear Sir,

In accordance with Section 4.12 and Appendix I of the
subject Contract, we are pleased to submit fifteen
copies of the Monthly Report No. 40 for the month of
January 1982.

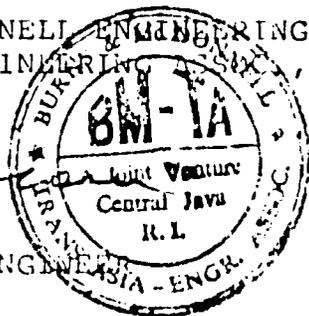
We trust that this report will meet with your approval.

Very truly yours,

BURNS & MC DONNELL ENGINEERING CO.
TRANS-ASIA ENGINEERING ASSOCIATES, INC.



J.F. BAUCOM
ACTING CHIEF ENGINEER



cc	:	CJWSP	Semarang	(10 copies)
		USAID	Jakarta	(5 copies)
		EM/TAE	Jakarta	(2 copies)
		Burns & Mc Donnell	Kansas City	(1 copy)
		CJWSP I	Surakarta	(1 copy)
		SWE	Surakarta	(1 copy)
		Mayor of Surakarta	Surakarta	(1 copy)
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JFB/yp.

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SECTION I
G E N E R A L

I-A NARRATIVE SUMMARY

The final bath house location was resolved in January. No. 3-1 will now be in the immediate vicinity of Pasar Nusukan, one of the highest rated areas in the City of Surakarta for cholera the last few years. This will provide not only bathing and sanitary facilities, but also a public hydrant for the citizens to obtain water. The tie-in for distribution Line "L-I" to Line "L" at that same intersection has been made and a new fire hydrant will be set there which will give the area needed fire protection. Tenders for the remaining public latrines are being delayed pending receipt of required information from Surakarta DPU. It is hoped negotiations for that work may be finalized in the month of February.

Steel beams and pipe for stream crossings were received by Phase I and II contractors in the latter half of January. Work is in progress to complete all stream crossings. Most of the activities of the Phase I contractor centered around installation of the replacement $\phi 450$ mm transmission main along Jl. Kol. Sutarto in Kelurahan Jebres. It was found the old piping only has 0.3 meters of cover on the north-south run from the reservoir. The total planned distribution main work in the Project now is 58% complete, with Phase I at 69.6 and Phase II 59%.

Price quotations were received and evaluated in January and by month's end, Cipta Karya had forwarded their request for approval to proceed

to USAID. Approval and notice to proceed should be issued the first week in February 1981.

Performance Specifications and Tender Documents for the deep well pumping equipment was issued to the prospective Suppliers the first week of January. Price quotations are expected to be received in Kansas City the first of February. It is anticipated that Cipta Karya Logistics will act in the same expeditious manner as they did regarding the O & M Equipment tenders.

The work and procurement of equipment for the Tiktomoyo swimming pool was rejected by USAID to be paid out of funds of Loan No. 497-U-044. It is assumed the Surakarta Water Enterprise and/or the City of Surakarta will be able to do this work in time and fund it from revenue received by the customers of the swimming pool.

The Project has been unable to get the Section C contractor on the transmission main to request a final inspection on his work. Both Sections A and C were done by the same contractor and are still carried as uncompleted although only minor items remain to be cleared up and do not affect operation of the new transmission main in any way.

The Surakarta Water Enterprise changed its management on the ninth of January with a new Director being sworn in by the Mayor of Surakarta on that day. Emphasis has been placed by the Surakarta Water Enterprise on installation of new house services. Doing so has made the leak survey stay at the previous months completion rate. It was agreed to begin survey work again 01 February.

Agreement has been given by USAID to Cipta Karya to accept the quoted price from P.T. Eselon Jaya Corporation to supply ø 250mm pipe and fittings to be used to complete a loop along Jl. Sumber and Jl. Adisucipto in Phase III, SY 1982/1983.

I-5 PROBLEMS AND PROPOSED SOLUTIONS

The Phase I and II contractors both have railway crossings to make, approval for which has not been received from the Railway Enterprise. The Project has requested the regional office in Yogyakarta to expedite the matter so as not to delay completion of the FY 1981/1982 work. The estimates for fees are under review and it is anticipated some action will be taken by mid-February.

The shortage of available personnel to perform the leak survey and repair deficiencies noted could possibly be overcome and not detract from the installation of new services if the Surakarta Water Enterprise would take those people out of Administrative duties and place them in their proper slots in the Technical Section.

SECTION II
ADMINISTRATION

II-A SUBMISSIONS/APPROVALS.

Consultant's Invoice No. 40 for December 1981 U.S. Dollar reimbursible expenses was submitted to Cipta Karya on 11 January 1982 and was approved by Cipta Karya on 18 January 1982.

Consultant's Rupiah Invoice No. 25 for December 1981 submitted to Cipta Karya on 12 January 1982 was approved on the same date. Payment of Rupiah Invoice No. 22 was received on 20 January 1982.

These submittals are in accordance with the Contract Appendix II, Page II-15.

II-B CONTRACT STATUS.

Appendix I shows the continuation of Consultant's effort in man-months from the beginning of the Contract.

Appendix II shows the billings of approved expenditures to date.

II-C PERSONNEL.

The Surakarta Office personnel in January 1982 were as follows :

Expatriates

- James F. Baucom, Acting Chief Engineer
arrived 26 September 1979
- Albert G. Ringler, O & M Specialist
arrived 09 May 1980

Indonesian Professional and Technical :

- Mohammad Khalil, Materials Coordinator
arrived 09 October 1978
- Mohamad Syarif Lembah, Construction Supervisor
arrived 01 May 1979
- Gatot Bramono, Inspector
arrived 19 November 1979
- Soewanto, Inspector
arrived 11 March 1980
- Abdul Rasyid, Inspector
arrived 11 June 1981
- Susena, Draftsman
arrived 20 October 1980

Administrative :

- Drajat Anardjo, Office Manager
arrived 02 October 1978

- Haryani Pudyastuti, Secretary
hired 17 November 1980

- Rubiyo, Clerk
hired 01 November 1978

- Pamudjo Bahardjo, Driver
hired 02 October 1978

- Sutrisno, Driver
hired 02 April 1979

- Puranto, Driver
hired 17 October 1980

- Tukino, Office Boy/Labor
hired 10 November 1980

SECTION III
ENGINEERING AND MANAGEMENT

III-A OFF-SHORE PURCHASED MATERIALS	US. \$ COMMITTED	% PAID (ASSUMED)	US. \$ BAL. DUE
III-A-1 Direct Cipta Karya Procurement Contract			
III-A-1-1 American Cast Iron Pipe Co. Ductile Iron Pipe & Fittings Contract certified complete 01/02/80	2,595,511.60	100	- 0 -
III-A-1-2 Colcorindo Raya Flow Metering Equipment Contract certified complete 07/04/80	3,462.00	100	- 0 -
III-A-1-3 Roben Corporation Water Meters, Repairs Parts- Tools & Equipment Contract certified complete 06/07/81	668,712.83	90	66,871.26
III-A-1-4 Clow Corporation Casting, Auto Air Vents & Valves. Contract certified complete 15/05/81	125,912.00	100	- 0 -
III-A-1-5 Ford Meter Box Company Brass Valves Parts & Acces- sories. Contract certified complete 12/02/81	390,775.15	100	- 0 -
Sub Total III-A-1 :	3,784,373.58	98.233	66,871.28

III-A-2 Special Equipment Procurement/Consultant Contract

III-A-2-1	Western International Leak Detectors & Pipe Locators	2,496.14	100	- 0 -
III-A-2-2	Kennedy/MacLane Distribution Network Valves Complete	58,546.40	100	- 0 -
III-A-2-3	Laboratory Equipment-Variou Sources - Complete	11,303.54	100	- 0 -
III-A-2-4	Publication & Reference Data Various Sources - Complete	1,465.85	100	- 0 -
III-A-2-5	Repair Parts For Clow Various Sources - Complete	228.51	100	- 0 -
III-A-2-6	O & M Facility Outfitting Various Sources - Partial	207.18	100	- 0 -
Sub Total III-A-2 :		74,247.62	100	- 0 -
Total US \$		3,858,621.20	98.267	66,871.28

III-B CONSTRUCTION SUPERVISION

The Phase I and II contractors are very close to having all of their piping in place with the rest to be done involving stream and railway crossings. The Project has given both contractors notice to proceed with additional work which will be done as the original Contract work gets nearer to completion. Effort is being made to make all original design work operational and hold inspections. Overall distribution system completion is 58%.

Activities that relate solely to the installation of pipe, valves and fitting have been done as is noted below :

<u>PHASE</u>	<u>KELURAHAN</u>	<u>% INSTALLED</u>	<u>% TESTED</u>
I	Jebres	89.4	47.6
I	Manahan	100	100
I	Kratonan	100	100
I	Gilingan	97.6	43.6
I	Jagalan	100	-0-
I	Kampung Sewu	99	-0-
I	Kestalan	77.4	-0-
I	Kepatihan Wetan	100	52.2
I	Replacement-Various Loc.	50.7	-0-
TOTAL PHASE I		99.1	45.7
II	Semanggi	100	100
II	Danukusuman	100	100
II	Serengan	100	67.8
II	Tipes	85.1	9.5
II	Panularan	100	16.0
II	Misc. Jalan-Various Loc.	84.3	-0-
TOTAL PHASE II		99.9	50

Testing will be the major effort for the next few weeks in order to be able to turn over as many mains as possible to the Surakarta Water Enterprise for new customers. This would even precede the final inspections which will be conducted by Kelurahan. "As Built" drawings are being prepared by the two contractors as each area is completed so that the information may be passed on to the Surakarta Water Enterprise for their records.

Work is now under way on all ten bath houses and 29 of the 60 public latrines under contract for restoration (see Appendix IV). Bath house No.3-1 has been relocated from Kecamatan Pasar Kliwon to Kecamatan Banjarsari in Kelurahan Nusukan just behind the pasar which has been first or second in the whole City the last few years in cases of cholera. The Surakarta Water Enterprise will install a short ϕ 100 mm main north from line "L" in order to service the new bath house site. Completion status is as follows :

<u>PHASE</u>	<u>ITEM</u>	<u>% PER ITEM</u>	<u>% TOTAL CONTRACT</u>
I	BH 3-4	45.6	10.328
I	BH 3-6	98.4	30.520
I	BH 3-8	28.4	7.228
I	14 Public Latrines	12.2	2.840
TOTAL PHASE I :			50.916
II	BH 3-1	26.0	5.060
II	BH 3-3	58.1	9.834
II	BH 3-5	19.7	3.515
II	BH 3-7	45.6	8.012
II	15 Public Latrines	15.5	4.353
TOTAL PHASE II :			30.830
III	BH 3-2	61.6	10.459
III	BH 3-9	62.0	9.543
III	BH 3-10	55.1	8.595
III	31 Public Latrines	6.8	3.528
TOTAL PHASE III :			32.125

The entire bath house/public latrine construction work is considered to be 37.5 % complete at this time. The bath houses overall are considered to be 53% complete as compared with 6 % completion of the planned 103 public latrines.

III-C GROUNDWATER EXPLORATION AND WELL DEVELOPMENT PROGRAM

Completed.

III-D MANAGEMENT ASSISTANCE PROGRAM

Completed.

III-E O & M TRAINING AND ASSISTANCE PROGRAM

Progress on the leak survey has remained at 12.5% completion due to the Surakarta Water Enterprise placing a higher priority on making house service connections and utilizing part of the technical work force in the administrative section.

A new Director for the Surakarta Water Enterprise was appointed the early part of January and a search is underway for a qualified individual to head up the technical section work. The slot is temporarily being filled by personnel of the Public Works Department of the City.

Work is continuing on Phase IV replacement of old distribution/transmission main piping (see Appendix V). At present, the completion status stands at 11.6 % with 34% of the proposed rehabilitation having been identified. The balance will become known as the leak survey progresses. The survey is supposed to be restarted the first of February.

Formal quotation for the O & M Equipment were received by the Consultant in January and an immediate evaluation was made and forwarded to the Director, Sanitary Engineering for approval to proceed. A meeting was held in Surakarta 20 January (see Appendix VI) to review procedures for completion of the procurement process. Balance of

the month was used to implement procedures. An approval to proceed is anticipated early February based upon the final negotiations noted in the Consultant's letter No. 10/BM/TAE/82 dated 26 January 1982 (see Appendix VI).

III-F METER REPAIR TRAINING PROGRAM

Completed.

III-G NEW WATER DISTRIBUTION NETWORK DESIGN

Completed.

III-H CONFERENCES

05 January 1982 : Coordination meeting with the two distribution main contractors and SWE wherein a new man was introduced to temporarily head up the technical section of SWE. It was requested that SWE make every effort to locate and disconnect the main connected to the old transmission main being replaced. The Phase I contractor was given instruction on the proper method of disassembling the old steel pipe. SWE was also cautioned to extend those existing lines across Jl. Kol. Sutarto disconnecting them from the old transmission main so that they will be looped.

06 January 1982 : Coordination meeting with the three contractors involved with bath houses and public latrines wherein it was stated the septic tank would have to be relocated at bath house 3-3 due to public complaints. A new location was established and the contractor was advised to change arrangement as may be required due to available space so long ~~and~~ ^{as} the volume remains the same as the design drawings.

09 January 1982 : Swearing-in ceremony for the new Director of the Surakarta Water Enterprise at City Hall followed by a coordination meeting with DSE, SWE and the Project (see Appendix VIII).

12 January 1982 : Coordination meeting with the two distribution main contractors and SWE wherein SWE was given sketches of the replacement piping near the Tirtomoyo swimming pool. The Project offered to supply the necessary piping materials in order to reconnect the ϕ 150 mm supply line which had to be disconnected from the old transmission main provided SWE made the installation. The contractors were instructed to secure the ϕ 450 mm MJ plug and the ϕ 400 mm flanged gate valve so that proper holes can be drilled as required before time to install same. It was also stressed that air should be bled before attempting hydrostatic testing. At the high point of the run of new ϕ 150 mm between lines "L" and "M" the contractor was instructed to install a service clamp in order to have a place to bleed off the air.

13 January 1982 : Coordination meeting with the three contractors involved with bath houses and public latrines wherein approval was given to the contractors for the water and sanitary pipe and/or fittings meeting Specifications. Work was halted on BH No.3-5.

Meeting with the Chief Engineer of DHV Consulting Engineers of the Perumnas Project and the Head of PAB I wherein it was advised the funds from DIP 1982/1983 would be used to install the ϕ 150 mm PVC water piping from Line "L" north to the Perumnas boundry line. It was also stated there would be no booster pump installation. Funds are also included in DIP 1982/1983 for setting the TW-1 pump and building the pump house and that the pump would probably be set approximately September 1982. A lot has been

set aside by the planners for the TW-1 pump house and a 10 m³ reservoir will be built by Perumnas so that the excess water from the well will go to Surakarta network. The DHV representative requested electrical requirements for TW-1 pump equipment so he could include same next week in his discussions with PLN for total Perumnas electrical requirements. Data will be obtained from the Consultant in Kansas City via telex as soon as possible. It is expected the improvements for access roads will done about mid-May and there will be facilities built into the new bridge to support the new pipeline.

Field meeting with City DPU representative at the new site of bath house No. 3-5 to determine course of action after flood from the nearby river crested 0.8m above existing foundation. The DPU representative stated that condition had occurred five times last year (which he changed the next day to "the first time in five years"). It was requested that DPU provide additional fill to raise the interior floor and adjacent exterior grade above flood level since the revised site had been their selection. The contractor will be requested to raise the rough brickwork and concrete columns by the same amount. All other dimensions of the structure would remain unchanged.

19 January 1982 : Coordination meeting with the two distribution main contractors and SWE wherein SWE was requested to extend a ϕ 100 mm PVC line north from Line "L" in Nusukan in order to service the new site for bath house No. 3-1 and to install fire hydrant No. 29 at the same time the Phase I contractor installs the replacement piping along Jl. Nusukan. The Project offered to supply the materials and the SWE agreed to make the installation. SWE was requested to leave closed all corporation stops on new service line constructions made to new

distribution mains until the line is tested and turned over to them for operation.

20 January 1982 : Coordination meeting with DSE Logistics, member of the Tender Committee, USAID, SWE and the Project concerning procurement procedures for the O & M Equipment Off-Shore purchases to be made. Also, the progress status was discussed (see Appendix VI).

Coordination meeting with bath house/public latrine contractors was cancelled due to other scheduled meeting.

22 January 1982 : Meeting with the Director of SWE as requested in 20 January meeting to explain the various O & M tools, equipment and facilities. The Director agreed to proceed with the total procurement.

25 - 29 January 1982 : Various meetings in offices of USAID and DSE concerning O & M Equipment to be purchased leading up to the Director's letter to USAID requesting confirmation on the approval to spend Loan Funds as detailed in the Consultant's Letter No. 10/EM/TAE/82 dated 26 January 1982 (see Appendix VII)

26 January 1982 : Coordination meeting with the two distribution main contractors and SWE wherein approval was given to tap the center of the \varnothing 450 mm MJ plug. The contractors were instructed to proceed with installing the bridge steel for stream crossings as soon as possible.

27 January 1982 : Coordination meeting with the three contractors concerned with the bath houses and public latrines wherein the contractors were advised water services could be done by SWE provided they pay the regular installation charge to SWE and the service line not exceed four meters in length.

III-J ACTIVITIES PLANNED FOR NEXT MONTH

Continue with all construction activity. Follow up on the procurement of O & M Equipment and $\phi 250$ mm pipe and fittings for Phase III. Define balance of Phase III work to be done in preparation of tendering that Phase of the distribution network. Call for tenders on the balance of public latrines. Receive and evaluate the bids received for the deep well pumping equipment and accessories. Restart the leak survey with SWE personnel as they are made available.

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

CONTRACT NUMBER OI/WS-S/AID/78 AID LOAN 497-U-044	MAN - MONTHS				
	FOR JANUARY 1982	CUMULATIVE THROUGH JANUARY 1982	TOTAL IN CONTRACT SCHEDULE	% OF TOTAL USED PER SCHEDULE	BALANCE
EXPATRIATES					
PROCUREMENT ENG. CHIEF ENGINEER	0.39 0	9.19 26.2	14.5 30	63.3 87.3	5.31 3.8
CONSTRUCTION SPECIALIST LIAISON OFFICER	1 0.15	28.1 4.83	36 7.5	78 64.4	7.9 2.57
PRINCIPAL	0	0.17	2	8.5	1.83
HYDROGEOLOGIST DRILLING SPECIALIST	0 0	8.1 10.2	12 12	67.5 87.5	3.9 1.5
O & M SPECIALIST METER SPECIALIST	1 0	35.4 8	41.1 8	85.3 100	6.1 0
MANAGEMENT SPECIALIST SPECIALIST	0 0	20.2 0	21 -	96.1 0	0.8 3
DESIGN SPECIALIST	0	12	12	100	0
EXPATRIATE TOTAL	2.55	162.69	199.5	81.5	36.81
INDONESIAN PROFESSIONAL & TECHNICAL					

COUNTERPART CHIEF ENG. CONSTRUCTION SUPERVISOR	0 1	28.6 18.5	33 38	86 51.3	4.4 17.5
HYDROGEOLOGIST	0	20.7	26	79.6	5.3
MATERIALS COORDINATOR	1	40	48	83.3	8
INSPECTORS	3	119	146	81.5	27
DRAFTSMAN	1	51	56	77.2	15
ACCOUNTANT	0	34	32	106.2	(2)
TECHNICAL TRANSLATOR	0	17.8	18	98.8	0.2
DESIGN ENGINEER	0	6	8	75	2
SPEC. / COST ESTIMATOR	0	4.6	3	153.3	(1.6)
SR. SURVEYOR / PLOTTER	0	5.4	5	108	(0.4)
SURVEYOR	0	5	5	100	0
INSTRUMENTMAN	0	6.3	5	120	(1.3)
INDON. PROF. & TECH.	6.0	355.9	131	32.8	74.1
INDONESIAN ADMINISTRATIVE			4		
OFFICE MANAGER	1	40	48	83.3	8
SECRETARY (BI-LINGUAL)	1	38.6	54	71.4	15.4
TYPIST	0	27.0	5	53.3	23.9
CLERKS	1	101.6	5	115.4	(13.6)
DRIVERS	3	159.3	2	71.4	63.7
LABORERS	1	167.2	254	64.8	90.8
RODMEN / CHAINMEN	0	13.0	3	138.0	(3.8)
ADMINISTRATIVE TOTAL	7	517.7	732	74.8	184.3

SURAKAR
REPORT OF
BURNS & McDONNELL/T

CONTRACT NO 01/WS-S/AID/70 SIGNED 26 OCT. 1978 START 1 JAN. 1978 END 30 SEP. 1982 REIMBURSABLE EXPENDITURES	COSTS FOR	CUMULATIVE COSTS THROUGH	
	JANUARY 1982	AMOUNT	% OF TOTAL BUDGET ESTIMATE
US			
Salaries and Related Costs	15,775.74	995,233.26	87.9
Transportation	-	73,631.72	88.3
Equipment	-	12,455.36	77.5
Miscellaneous	-	63,563.48	109.4
Contingencies	-	53,543.45	84.6
TOTAL DOLLARS	15,775.74	1,198,427.27	88.5
INDO			
Salaries	3,239,167	173,490,384	77.5
Transportation	983,970	71,205,503	84.8
Housing	-	64,000,000	101.6
Vehicle Costs	621,000	49,868,972	92.9
Equipment Costs	-	24,610,860	101.4
Miscellaneous	838,250	83,705,710	91.1
Contingencies	-	33,144,580	99.7
TOTAL RUPIAH	5,682,387*	500,027,009	87.1

* Through

** Partial

RTA WATER PROJECT
 ENGINEERING COSTS
 TRANS-ASIA ENGINEERING ASSOC.

CUMULATIVE PAYMENTS THROUGH				TOTAL BUDGET ESTIMATE FOR CONTRACT
AMOUNT RECEIVED IN JANUARY 1982	TOTAL AMOUNT RECEIVED THROUGH JANUARY 1982	% OF TOTAL BUDGET ESTIMATE		
DOLLARS				
16,517.60	979,457.52	36.5	1,132,179	
-	73,631.72	38.3	83,343	
-	12,455.35	77.3	18,000	
-	65,563.40	109.4	58,063	
-	53,470.70	84.5	63,271	
16,517.60	1,182,681.59	87.5	1,352,856	
INDONESIAN RUPIAH				
-	163,329,217	72.9	223,759,250	
-	68,331,483	81.4	93,952,600	
-	64,000,000	101.6	62,975,000	
-	48,029,472	89.4	53,675,000	
-	24,610,860	101.4	24,253,000	
-	82,362,140	89.7	91,810,000	
-	33,144,580	99.7	33,236,460	
10,380,000 **	483,807,752	84.3	573,661,310	

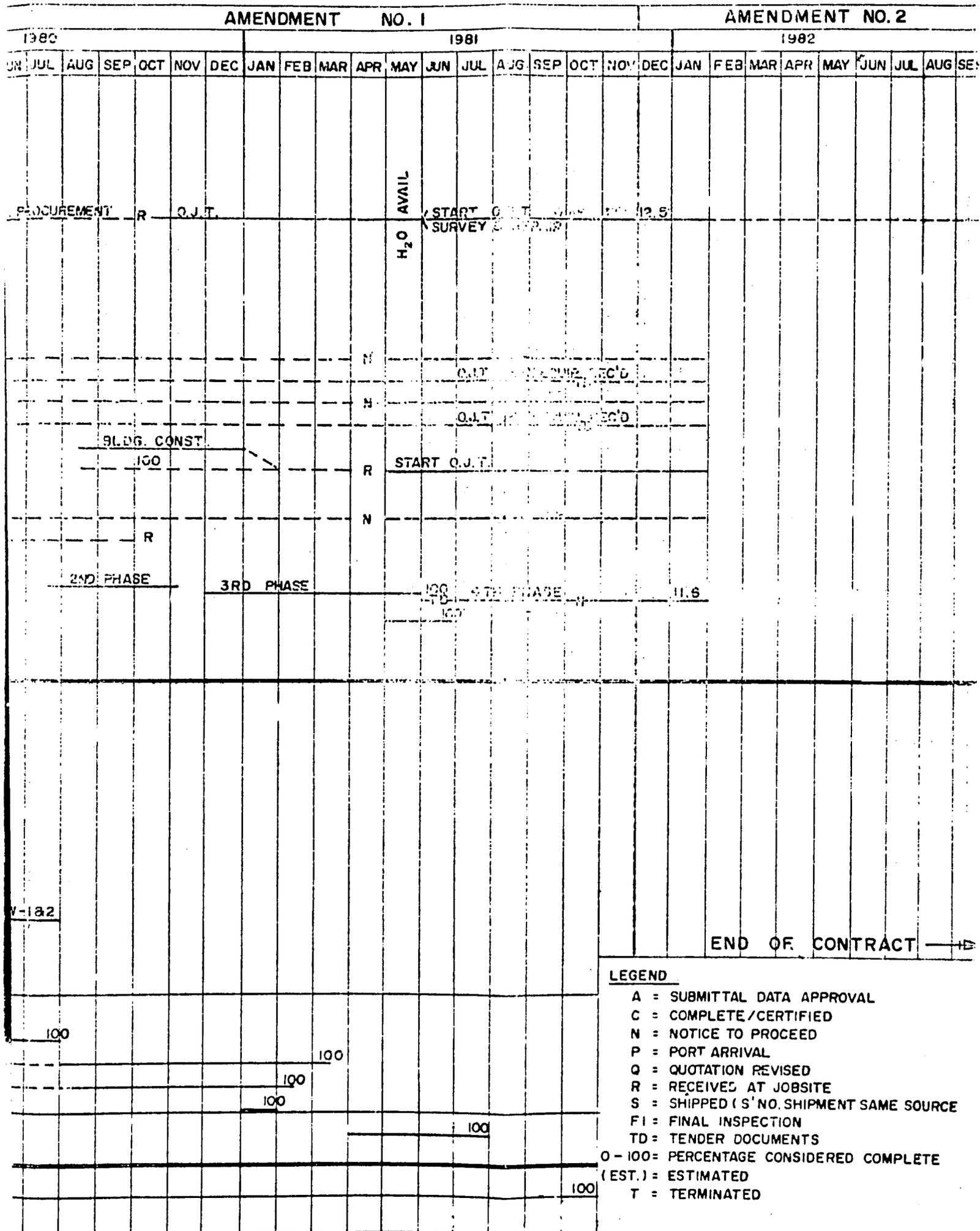
Invoice No. 25 December 1981.

Payment of Rp. Invoice No. 21 and 22.

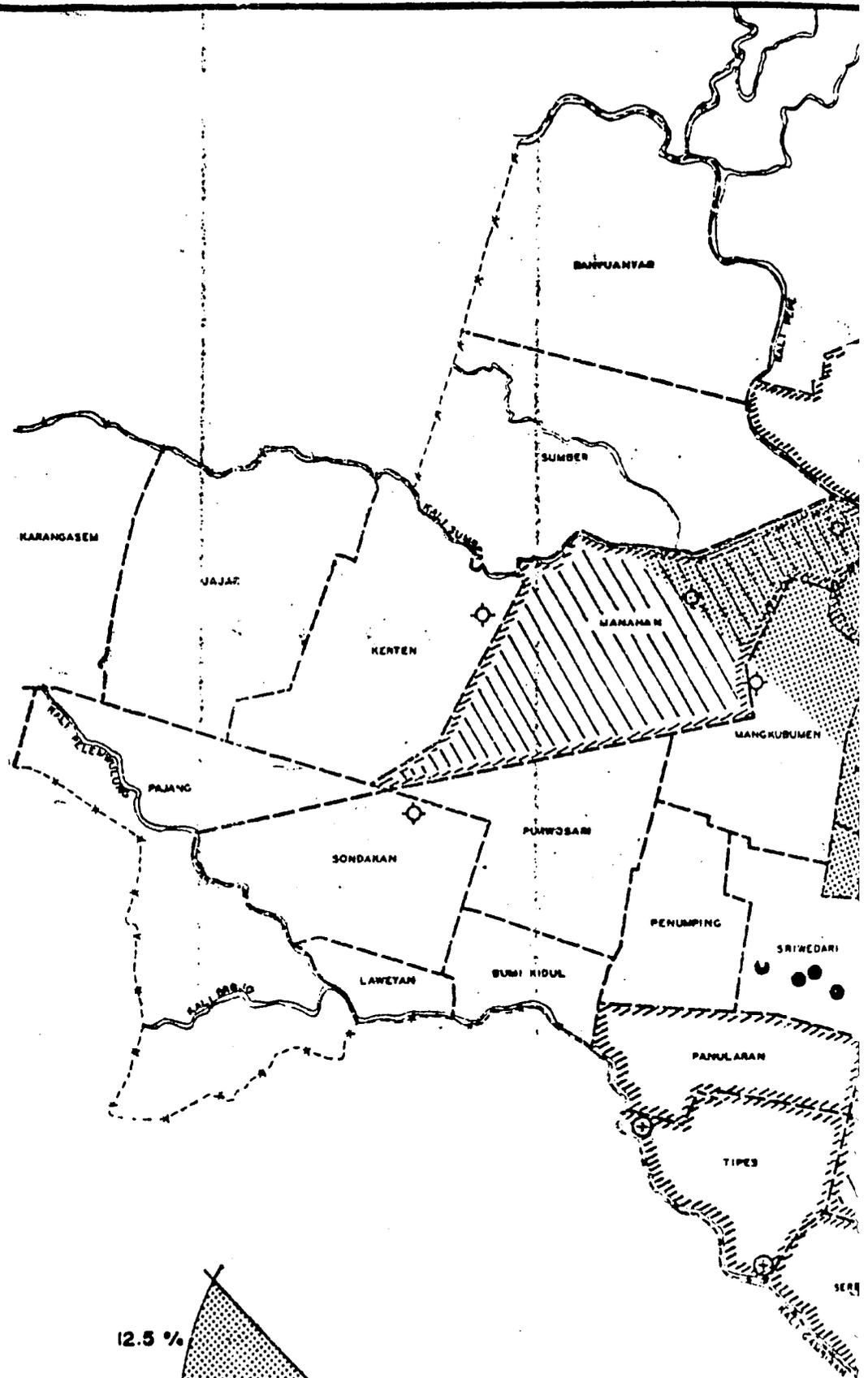
WATER PROJECT WORK APPROACH

AMENDMENT NO. 1												AMENDMENT NO. 2														
1980						1981						1982														
JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
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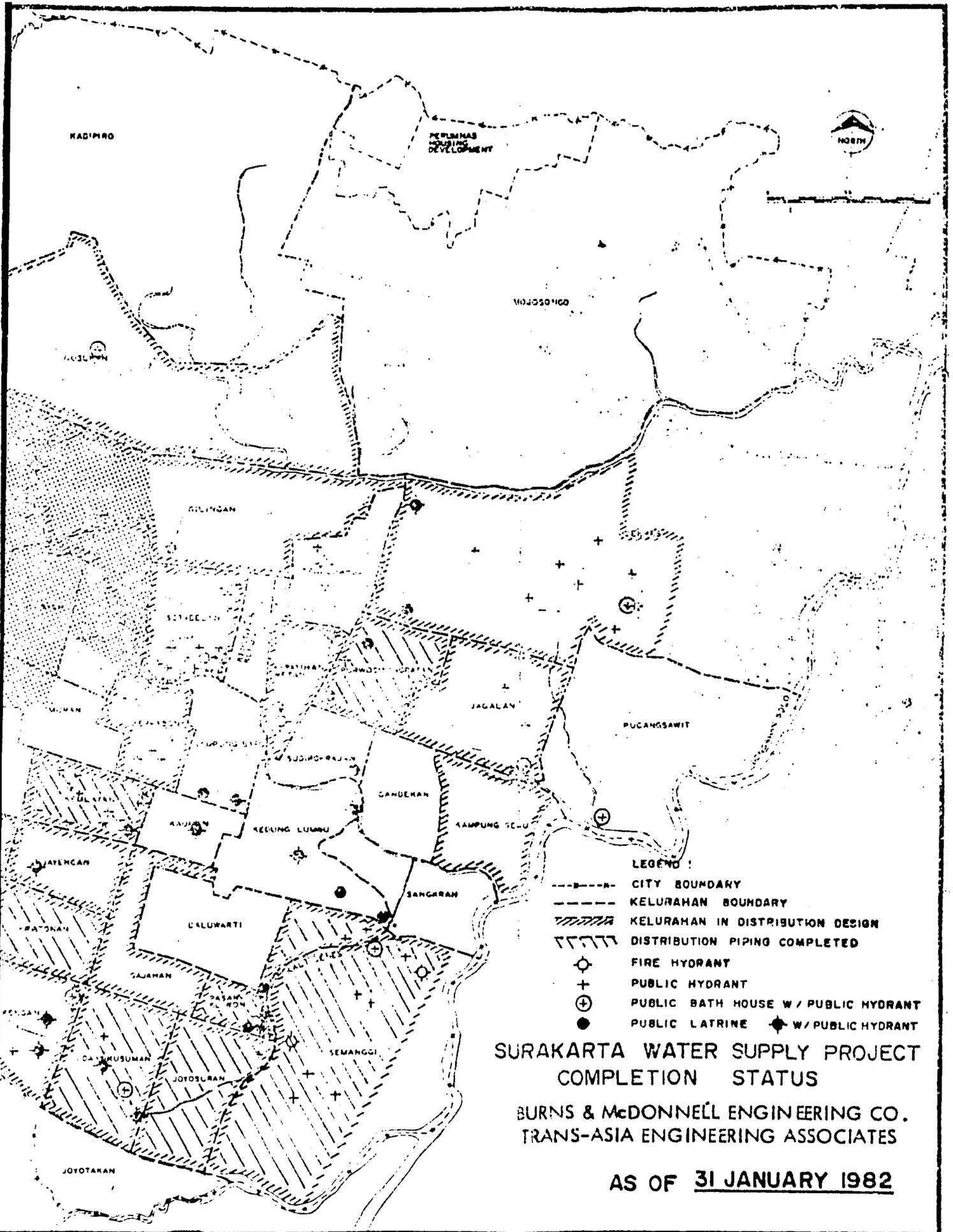
WATER PROJECT WORK APPROACH



- LEGEND**
- A = SUBMITTAL DATA APPROVAL
 - C = COMPLETE/CERTIFIED
 - N = NOTICE TO PROCEED
 - P = PORT ARRIVAL
 - Q = QUOTATION REVISED
 - R = RECEIVES AT JOBSITE
 - S = SHIPPED (S'NO. SHIPMENT SAME SOURCE)
 - FI = FINAL INSPECTION
 - TD = TENDER DOCUMENTS
 - 0-100 = PERCENTAGE CONSIDERED COMPLETE (EST.) = ESTIMATED
 - T = TERMINATED



LEAK SURVEY COMPLETION
(SHADED AREA)

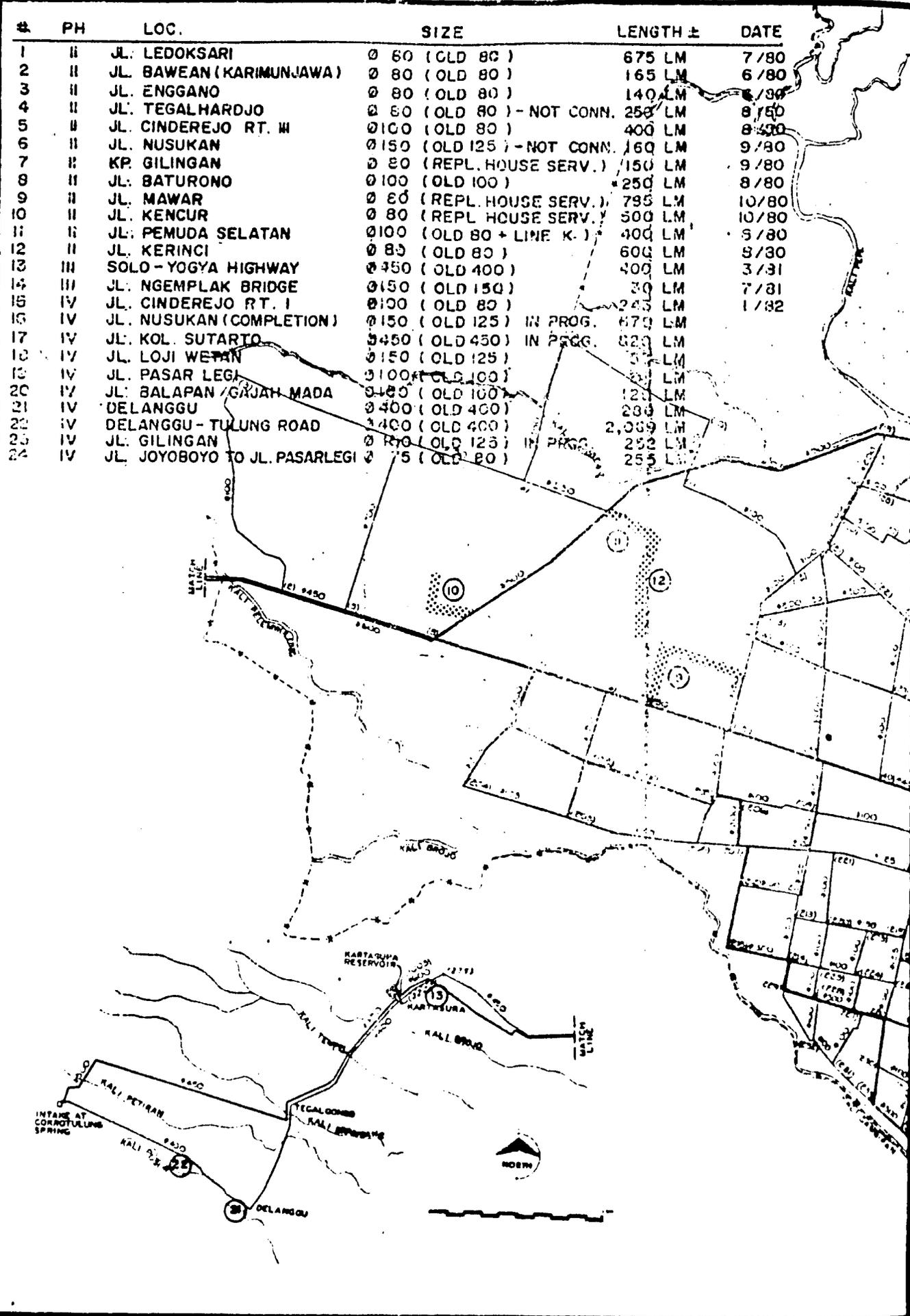


- LEGEND :
- CITY BOUNDARY
 - - - - - KELURAHAN BOUNDARY
 - ////// KELURAHAN IN DISTRIBUTION DESIGN
 - ||||| DISTRIBUTION PIPING COMPLETED
 - ◇ ● FIRE HYDRANT
 - +
 - ⊕ PUBLIC BATH HOUSE W/ PUBLIC HYDRANT
 - PUBLIC LATRINE ● W/ PUBLIC HYDRANT

**SURAKARTA WATER SUPPLY PROJECT
COMPLETION STATUS**

BURNS & McDONNELL ENGINEERING CO.
TRANS-ASIA ENGINEERING ASSOCIATES

AS OF 31 JANUARY 1982



#	PH	LOC.	SIZE	LENGTH ±	DATE
1	II	JL. LEDOKSARI	Ø 60 (OLD 80)	675 LM	7/80
2	II	JL. BAWEAN (KARIMUNJAWA)	Ø 80 (OLD 80)	165 LM	6/80
3	II	JL. ENGGANO	Ø 80 (OLD 80)	140 LM	8/80
4	II	JL. TEGALHARDJO	Ø 80 (OLD 80) - NOT CONN.	250 LM	8/80
5	II	JL. CINDEREJO RT. III	Ø 100 (OLD 80)	400 LM	8/80
6	II	JL. NUSUKAN	Ø 150 (OLD 125) - NOT CONN.	160 LM	9/80
7	II	KP. GILINGAN	Ø 80 (REPL. HOUSE SERV.)	150 LM	9/80
8	II	JL. BATURONO	Ø 100 (OLD 100)	250 LM	8/80
9	II	JL. MAWAR	Ø 80 (REPL. HOUSE SERV.)	795 LM	10/80
10	II	JL. KENCUR	Ø 80 (REPL. HOUSE SERV.)	500 LM	10/80
11	II	JL. PEMUDA SELATAN	Ø 100 (OLD 80 + LINE K.)	400 LM	5/80
12	II	JL. KERINCI	Ø 80 (OLD 80)	600 LM	5/80
13	III	SOLO - YOGYA HIGHWAY	Ø 450 (OLD 400)	400 LM	3/31
14	III	JL. NGEPLAK BRIDGE	Ø 150 (OLD 150)	30 LM	7/81
15	IV	JL. CINDEREJO RT. I	Ø 100 (OLD 80)	245 LM	1/82
16	IV	JL. NUSUKAN (COMPLETION)	Ø 150 (OLD 125) IN PROG.	675 LM	
17	IV	JL. KOL. SUTARTO	Ø 450 (OLD 450) IN PROG.	620 LM	
18	IV	JL. LOJI WETAN	Ø 150 (OLD 125)	50 LM	
19	IV	JL. PASAR LEGI	Ø 100 (OLD 100)	30 LM	
20	IV	JL. BALAPAN / GAJAH MADA	Ø 100 (OLD 100)	120 LM	
21	IV	DELANGGU	Ø 400 (OLD 400)	280 LM	
22	IV	DELANGGU - TULUNG ROAD	Ø 400 (OLD 400)	2,069 LM	
23	IV	JL. GILINGAN	Ø 150 (OLD 125) IN PROG.	252 LM	
24	IV	JL. JOYOBOYO TO JL. PASARLEGI	Ø 75 (OLD 80)	255 LM	

MONTHLY PROGRESS MEETING

=====

Date : 20 January 1982
 Hours : 10.00
 Place : PAB I Office
 Jl. Brig. Jen. Sudiarto 534 Surakarta

Participants :

1. Ir. Supeno Ichsan	DSE
2. Ir. Sorta Hutagalung	DSE
3. Locarno Wahid	Public Works, Jkt.
4. Ir. Hari Wahyuadi	CJWSP
5. Ir. Djaelani	SWE
6. Ichsan	SWE
7. Clare Copleman	BM/TAE
8. J.F. Baucom	BM/TAE
9. Albert G. Ringler	BM/TAE
10. D.E. Warner	USAID
11. Philip B. Tjakranata	USAID
12. Sudjiono	CJWSP

Notes :

Before formal opening of the meeting conversation on O & M equipment list while awaiting arrival of SWE representatives. Mr. Locarno asked whether the list has been approved by Mr. Soesanto, DSE which then answered by the Consultant that sometime in September 1981 a verbal approval has been given by Mr. Susanto in Jakarta for the Consultant to go ahead with the list. The Consultant then presented that letters have been sent for these equipment and a telex copy were shown and read of off-shore equipment which indicate approval has been given by USAID and Cipta Karya.

Mr. Locarno further asked if the purchase procedures and system is in accordance with USAID regulations, which then answered by the Consultant that this purchase will not differ with the purchase of the gate valves a few months back. Mr. Sorta then said that this purchase has two aspects, of first is the procedures of the purchase, the second is to bring/shipment

of the materials into the country, because as for example the gate valves purchase as of now, no permits from the Customs has been given yet which means that second application following procedures of the gate valves will not be accepted or is prohibited. Mr. Sorta suspects that by following the same procedures of the gate valves, the clearance of the goods may take more than one year. Mr. Supeno then explained that the Customs will give exemption to the goods provided that C.K. could produce the L/C figures and the L/C number.

Mr. Hutagalung then quipped that exemption from Custom duties are applicable to :

- personal effects
- grants
- project financed by Loan,

which is contained in Decree No. 95 for Exemption from Custom's duties.

The meeting then agreed on the solution that Burns & McDonnell shall be the main supplier, with letter of authority issued by original suppliers (Rohan, Wacker etc.)

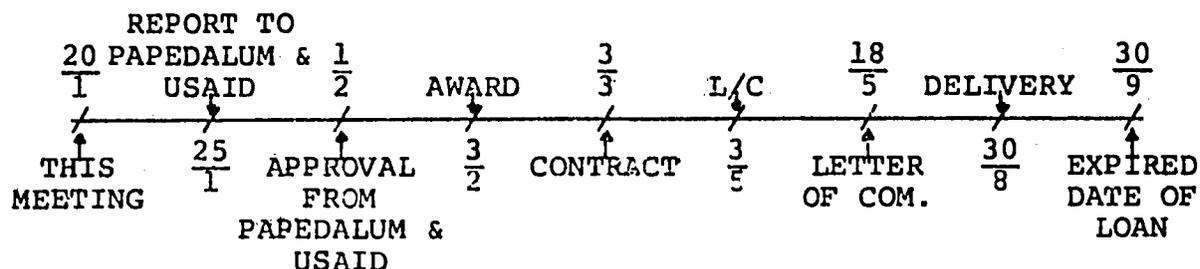
Mr. Sorta says that C.K. will need the amount of Contract in order they will be able to prepare the Contract then make a Contract award to Burns & Mc Donnell, and CK. will also prepare and open the L/C in the Bank of Indonesia. (May be classified : the Bank charges will be absorb by C.K., and the Stamp tax, on reimbursable basis, will be paid by Consultant but reimbursed by the Project. The procedures nominating Burns & McDonnell as supplies are acted and devised in order to anticipate the Customs difficulties.

Further procedures of payment to the original suppliers were also talked about, and concluded that USAID will pay the supplier through their beneficiary bank because the L/C were opened to Burns & McDonnell on behalf of the original suppliers. USAID sees no difficulties in changing the DRA to meet these requirements, all they need is copy of the Procurement Contract so action can be made to change the DRA so USAID can pay the suppliers.

Consultant then presented the Rohan list of equipment that they quoted and also letter from Rohan was produced in which stated that their prices were of the lowest compared with other companies.

Consultant suggested that procurement of Item 37, radio equipment, be made of local sources (in country), and also delete equipment of A, B and C from the proposed L/C list. These A, B, and C with approval from USAID can be purchased and sent in country using other means.

Schedule Presented by Mr. Sorta :



Further USAID requested that the procedures for the O & M procurement be prepared and made into a letter sent to the Consultant for acknowledgment or approval.

C.K. then asked the Consultant of Item 21 price, quoted by Rohan because Rohan price is almost 3 x other supplier price. Consultant said that prices may still be negotiated and other supplier quoted lower than price shown in the list (Item 21 price) then purchase order can be issued to the lowest bidder.

The Consultant then presented a Recap of the proposed L/C as follows :

Rohan	US \$ 78,025.00
Others	29,209.52
	<hr/>
	107,234.52
Less radio Item 37	(14,252)
	<hr/>
	92,982.52
Less A,B,C	5,406
	<hr/>
	87,576.52
Total of proposed L/C	87,576.52
Add local radio	4,600
	<hr/>
	92,176.52

A question rises why CB is preferred than VHF radios was answered that CB is preferred because of lower costs of the maintenance, registration, monthly fee and licensing costs.

The informal conversation then proceed to formal by opening of the meeting by Mr. Hari Wahyuadi who thanked those present of their coming and the meeting topic is O & M equipment off-shore procurement : Mr. Hari proceed that conversation of the last hour were : - explaining/discussing procedures of off-shore procurement.

- approval of the O & M equipment, item by item - of this SWE is requested to verify item by item of the equipment and give approval of any items which should be purchased.
- procedures of shipment of the equipment.

The Consultant then proceed to explain the use of the equipment item by item and also indicate that the building for the O & M has been approved and renovation to the building has been made and other changes will be made by the construction contractors to meet the requirements of an O & M building which left only the equipment foundations for the building which has not been decided and approved yet until equipment is purchased.

The list that the Consultant had prepared contained tools and equipment in order to make all SWE equipment in good working order. In question arised from Mr. Hari, should arrival of the equipment exceeding the Consultant's Contract then Consultant said that there's no obligation for the Consultant to stay unless a new contract is made or CK or SWE has to provide themself an instructor to train the SWE personnel.

The tools and equipment on the list is prepared and recommended by the Consultant to SWE, SWE will decide wether these equipment meet their need and requirement.

Because of the lack of quotes from other Company, other than Rohan, Wacker, and Mc-Lane then the Consultant agreed to try to negotiate the prices to make it lower. Quotes can not be obtained from other Company because of time limitation. Also, Rohan has an option that they will take the Contract for all of item or none.

The meeting then proceeded to scurtinize item by item's prices. A recap then resulted from the scurtinizing indicating supplier which will supply the requirement.

Rohan	McLane	Wacker	No bid	Cancelled
1-17	18 ABCD			
19	20			
(neg. 21)	21		
22- 32				
(neg. 33)	...33			
(neg. 34)	...34			
(neg. 35)			35
(neg. 36)			37

Mr. Sorta Hutagalung, Mr. Súpeno and Mr. Locarno had to leave the meeting so they could catch the 15.00 hours plane at Yogyakarta to fly back to Jakarta.

The meeting proceeded with the Consultant report of the Project progress up to date. Mr. Baucom produced the chart of the Project completion and through his explanation he indicated that the Distribution works has reached 58 % complete and the Construction of the Bath house and Public Latrines has reached 37.5 % complete. The Distribution lines laid down for the Phase I has reached 25.5 km and Phase II 22 km.

The Consultant requested approval of additional costs of construction of septic tank which in the drawing exists, but in actual was found none, and also approval to assign other site of a Public Latrine which was deleted from the original drawing.

Further the Consultant explained that Phase III works is being prepared and invitation to tender will be carried within this month, coming February for the tender, award may be made in March so the work of Phase III may start early April 1982.

The Consultant further reported their efforts in the leak survey since the SWE suffer lack of personnel and funds to do the repairing, at the moment leak survey is temporary stopped, until further solutions on the repair and personnel be made up.

The meeting was adjourned at 13:45.

BURNS & McDONNELL Engineering Co.

<u>Architect - Engineers</u>	A JOINT VENTURE	<u>Consultants - Planners</u>
<u>TRANS-ASIA Engineering Associates, Inc.</u>		

Please Reply to: C/O. Sahid Jaya Hotel
P.O. Box 41
JAKARTA.

Our Ref. : 40/BM/TAE/82

26 January 1982

Ir. H. Susanto Mertodiningrat,
Director of Sanitary Engineering,
Directorate of Sanitary Engineering,
Directorate General of Cipta Karya,
Ministry of Public Works,
Jalan Pattimura, 20,
JAKARTA SELATAN.

Dear Sir,

Subject : Request for Approval to Proceed with Procurement
of O&M Equipment for Surakarta Water Supply
Project

Reference : 1. Our Letter No. 011/BM/TAE/SKA/82
Dated 12 January 1982 of the same subject
2. Meeting in Solo 20 January 1982
3. Meeting this date with Mr. Sorta Hutagalung

We wish to advise you we have completed negotiations with the Rohan Co. as requested in referenced (2) meeting. Since that time we have obtained agreement with USAID to do the following pending your written approval on the above subject :

- A. The Rohan Company - P.O. Box 6363 - Moore, Oklahoma 73160 - Mr. Bill Gilles to supply Items 1 thru 17, 19, 22, 24 thru 32 and 36 for a total price CIF Semarang of U.S. Dollars Forty Three Thousand Four Hundred One and 12/100 (US\$ 43,401.12).
- B. Maclane International - 75 Lansing Street - San Francisco, California 94105 - Mr. C.L. Wilkerson to supply Items 18a, 18b, 18c, 18d, 18e, 20, 33 and 34 for a total price CIF Semarang of U.S. Dollars Twenty Two Thousand Three Hundred Twenty Eight and No/100 (US\$ 22,328.00).

cont'd/2

BURNS & McDONNELL Engineering Co.
Architect - Engineers A JOINT VENTURE Consultants - Planners
TRANS-ASIA Engineering Associates, Inc.

- 2 -

Ir. H. Susanto Mertodiningrat
 Director of Sanitary Engineering
 Dit. of Sanitary Engineering
 Dit. Gen. Cipta Karya
 Our Ref. : 40/BM/TAE/82

26 January 1982

- C. Wacker Corporation - P.O. Box 09402 - Milwaukee, Wisconsin 53209 to supply Items 21 and 23 for a total price CIF Semarang of U.S. Dollars Seven Thousand Nine Hundred Sixty Five and No/100 (US\$ 7,965.00).
- D. Total for offshore procurement listed above is Seventy Three Thousand Six Hundred Ninety Four and 12/100 U.S. Dollars (US\$ 73,694.12).
- E. Items 35 (Shop Air Compressor) and 37 (Base Station and Mobile CB type radios with antennae) to be purchased on the local market (in-country), provided USAID Code 941 requirements are met, with Loan Funds not to exceed Six Thousand Six Hundred Dollars (\$ 6,600.00).
- F. The other items added to the bottom of the price comparison attached to our reference (1) letter will have to be subject of separate procurement authorization due to shipping problems. The total price of US\$ 5,416.40 is still good, however it may be necessary to utilize air freight, therefore, USAID is making a total allowance of Ten Thousand Dollars (US\$ 10,000) for all these miscellaneous items.

Assuming we proceed with all of the above, of the one hundred thousand Dollars allowance for these things per Implementation Letter No. 8, the total budget would be as follows :

1. Agreed Offshore Procurement (A thru D above) :	\$ 73,694.12
2. In-Country Procurement (E above)	\$ 6,600.00
3. Allowance for Other Procurement (F above) ..	\$ 10,000.00
TOTAL BUDGET :	\$ 90,294.12

cont'd/3

BURNS & McDONNELL Engineering Co.
Architect - Engineers A JOINT VENTURE Consultants - Planners
TRANS-ASIA Engineering Associates, Inc.

- 3 -

Ir. H. Susanto Mertodiningrat
Director of Sanitary Engineering
Dit. of Sanitary Engineering
Dit. Gen. Cipta Karya
Our Ref. : 40/BM/TAE/82

26 January 1982

Of course any savings realized in 2 or 3 above would thereby reduce the loan amount accordingly.

We trust this will keep you well informed and look forward to receiving your early approval to proceed in this manner.

Very truly yours,
BURNS & MCDONNELL ENGINEERING CO./
TRANS-ASIA ENGINEERING ASSOC., INC.



J.F. BAUCOM
Acting Chief Engineer

JFB/ms.

cc. : - Mr. Azis Sasmitadihardja - DSE
- Mr. Sorta Hutagalung - DSE
- Mr. David Warner - USAID
- Mr. Krisno Darusman - CJWSP
- Mr. Hari W. - PAB-I
- Mr. Clare W. Copleman - BM/TAE
- Mr. Weston Goodnow - EMD, KCO
- File

Approved by :

.....
Ir. H. Susanto Mertodiningrat
Director of Sanitary Engineering

Date : _____

PROPOSAL EVALUATION
OFFSHORE PROCUREMENT OPERATIONS & MAINTENANCE EQUIPMENT
SURAKARTA WATER SUPPLY PROJECT
(UPDATED PER 26 JANUARY 1982 LETTER)

Equip. List Item No.	Qty.	Description Line Item	Bidders Price C.I.F. Semarang					
			ROHAN	MACLANE	DURKIN	WACKER	SHORING	AS NOTED
			US\$	US\$	US\$	US\$	US\$	US\$
1	1 ea.	Master Mechanics Tool Set	4,421.00	Incomplete				
2	1 ea.	Metric Double-Offset Box Wrench Set	470.00	See 1/15/82 Ltr.				
3	1 ea.	Small Engine Service and Overhaul Tool Set	841.00	Incomplete				
4	1 ea.	Impact Wrenches - 1/4" & 1/2" Size	470.00	See 1/15/82 Ltr.				
5	1 ea.	Rigid-Frame Dial-Type Torque Wrench	464.00	See 1/15/82 Ltr.				
6	2 ea.	Swivel-Grip Strap-Type Oil Filter Wrenches	59.00	See 1/15/82 Ltr.				
7	1 ea.	Clutch Alignment Tool Set	70.00	No Bid				
8	1 set	Wheel Balancer, Tool and Weights ..	358.00	See 1/15/82 Ltr.				
9a	1 set	Portable Tire Tools for Passenger Car	905.00	See 1/15/82 Ltr.				
9b	1 set	Portable Tire Tools for Trucks	incl.	See 1/15/82 Ltr.				
10	1 ea.	Wheel and Bearing Seal Driver Set .	163.00	See 1/15/82 Ltr.				
11	1 lot	Brake Maintenance Equipment	587.00	Incomplete				
12	1 ea.	Pistol-Grip Compression Tester	104.00	See 1/15/82 Ltr.				
13	1 ea.	Remote Starter Switch	48.00	See 1/15/82 Ltr.				
14	1 ea.	Engine Vacuum and Fuel Pump Tester	35.00	See 1/15/82 Ltr.				
15	1 ea.	(5) Test Hand-Held Engine Analyzer Set	729.00	No Bid				
16	1 ea.	Starter-Generator Current Tester ..	29.41	See 1/15/82 Ltr.				
17	1 ea.	Power Timing Light	152.00	See 1/15/82 Ltr.				
18a & b	1 ea.	Melting Furnace with Lead Pot and						

18a & b	1 ea.	Melting Furnace with Lead Pot and Pouring Hook	No Bid	4,936.00			
18c, d & e		Portable Melting Compound Furnace, Ladle & Runners	No Bid	5,652.00			
19	2 ea.	Field Lathe for Asbestos Cement Pipe	2,935.00	4,281.00			
20	2 ea.	Portable Pressure Recorders	Withdrawn**	2,402.00*	3,395.00		
21	2 ea.	Gasoline-Driven Breaker-Compactor .	Withdrawn	8,426.00		6,375.00****	
22	1 ea.	Air Compressor 100 cfm with Acces- sories - Portable	12,552.00	17,951.00*			11,277.78
23	1 ea.	Gasoline-Powered Diaphragm Pump 3" Size	Withdrawn	1,925.00*		1,590.00****	
24a	1 ea.	Welder with Power Plant - AC Model	5,494.00	6,207.75*			
24b	1 ea.	Welder w/ Power Plant - AC/DC Model	incl.	incl.			
25	1 ea.	Riggers-Type Heavy-Duty Chain Hoists 2 & 5 Tons	1,764.71	3,047.00*			
26	1 ea.	250 Amp. Combination AC/DC Welder .	1,829.00	4,512.00*			
27	1 ea.	Welding Hood	58.00	incl.			
28		Gas Welding Unit - General Descrip. Only					
29	1 ea.	Single-Stage Regulator Outfit	1,511.00	incl.			
30	1 ea.	Two-Stage Regulator Outfit	648.00	incl.			
31	1 ea.	Welding Cylinder Truck	176.00	incl.			
32	1 lot	Portable Disc Sander/Grinders and Sanding Discs	1,729.00	1,705.08*			
33	1 ea.	Lubrication Equipment w/ Grease & Oil Pump	Withdrawn	3,120.00*			
34	1 ea.	Twelve-Inch Metalworking Lathe with Stand	Withdrawn	6,218.00*			
35***	1 ea.	Air Compressor for Shop	Withdrawn	5,920.00*			(Conmaco) 4,042.00 3,810.15

PROPOSAL EVALUATION
 OFFSHORE PROCUREMENT OPERATIONS & MAINTENANCE EQUIPMENT
 SURAKARTA WATER SUPPLY PROJECT
 (UPDATED PER 26 JANUARY 1982 LETTER)

(Continuation)

Equip. List Item No.	Qty.	Description Line Item	Bidders Price C.I.F. Semarang					
			ROHAN	MACLANE	DURKIN	WACKER	SHORING	AS NOTED
			US\$	US\$	US\$	US\$	US\$	US\$
36	1 lot	No-Thread Couplings	4,789.00*	8,387.50*				
37***	1 lot	Mobile Radio Equipment Cancelled - Buy Local	No Bid	20,385.00*				(Ford Meter) 13,265.00 (Tactec System) 14,252.00 (General Elec.) 17,473.00 (Motorola) 19,897.00
		TOTAL PRICE PER SELECTED SUPPLIER :	43,401.12	22,328.00	0	7,965.00	0	

- Note : *) Agent quoted on more than one manufacturer - The lowest quoted bid is listed above.
 **) Not Portable.
 ***) In-Country Procurement not to exceed US\$ 6,600.00
 ****) Per 1-22-82 Telex.

ITEMS ADDED PER REQUEST OF CENTRAL JAVA WATER SUPPLY PROJECT :

A. 4 ea. Surveying Altimeters - 260 to + 3,000 Meters

(Paulin)

3,920.00

B. 1 ea. Leak Detector & Line/Valve Locator with Implements

(Western I)

1,329.90

C. 1 ea. Planimeter

(Lietz)

166.50

(Pcst)

189.00

(K & E)

284.69

FB/ms.

TTA
-
C
-

COORDINATION MEETING WITH S.W.E.

=====

Date : 09 January 1982
 Hours : 11.30
 Place : PAB I office
 Jl. Brig. Jen. Sudiarto 534 Surakarta

Participants :

1. Mr. Oemar Sidik	D.S.E.
2. Mr. Krisno Darusman	CJWSP
3. Mr. Hari Wahyuadi	CJWSP I
4. Mr. Djaelani Saberani	S.W.E.
5. Mr. Ichsan	S.W.E.
6. Mr. Hary S.	S.W.E.
7. Mr. J.F. Baucom	BM/TAE
8. Mr. A.G. Ringler	BM/TAE
9. Mr. Syarif Lembah	EM/TAE

Conclusions :

- Mr. Oemar Sidik gave suggestion that the new SWE director to immediately prepare or study the organization structure which exists at present and prepare an effective Time Schedule and also following instructions in the Manuals prepared by the Consultant for the SWE, or following recommendations made by the Consultant to SWE. Mr. Hary S. is not permanent.
- According to O & M Specialist, leak survey will be completed this year and this will solely depending upon the ability of the SWE itself. Staff absenteeism is causing loss of efficiency at SWE.
- According to Mr. Krisno for the use of circulation equipment to the swimming pool, approval has been given by Mr. Soesanto. And Mr. Krisno stresses that installation of this equipment should be completed before the Consultant's Contract ends (September 1982).
- The Consultant provided copies of charts and December Monthly Report Appendices to indicate present progress of Project. It was said the items still to be done mainly involve Phase III distribution piping, Phase IV Replacement program and the leak survey with O-J-T when the O & M Equipment arrives

as it applies to the machine and automotive repair shops. Of the replacement program it was said the SWE would have to provide the labor to install the pipe and fittings already purchased and on hand because the Project could not budget money for labor other than new work in order to complete Phase III piping.

- The Consultant repeated the need for SWE to follow the original plan and make Work Orders generated by the leak survey work top priority of the daily activity. If leak survey work orders have been taken care of by a special work order group then that group should proceed with the stand-by then that stand work orders.

- It was recommended by the Consultant that emphasis be placed on upgrading the meter reading section as they should not only read the meters but write up work orders on leaks or improper installations they see in their daily rounds. If there are ten meters readers, they will have less than thirty customer's meters to read per day and should be able to each month complete their assigned territory. It was further recommended that the meter readers be rotated each three months to another territory assignment to help increase efficiency.

- Finally it was pointed out the leak survey is defining many unmetered services-many of them previous customers who were disconnected by only removing a short section of the service pipe without properly plugging the distribution main. It was recommended that all such locations should either be reinstalled by setting a new meter and start charging the user or properly plug the main so the water will not be wasted.

Meeting adjourned shortly after 13.00.