

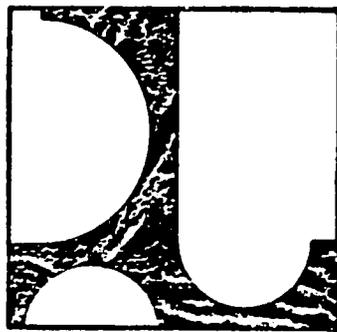
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REPUBLIK INDONESIA

DEPARTEMEN PEKERJAAN UMUM
DIREKTORAT JENDERAL BINA MARGA



JAGORAWI HIGHWAY STAGE II

**MONTHLY REPORT
SUPERVISION**

OCTOBER

**AMMANN & WHITNEY-TRANS ASIA ENGINEERING ASSOCIATES INC.
A JOINT VENTURE**

2-Way Memo

Subject: Jagorawi Highway Stage II
AID Loan 497-T-031

INSTRUCTIONS	
Use routing symbols whenever possible.	
SENDER (<i>Originator of message</i>): Use brief, informal language. Conserve space. Forward original and one copy.	
RECEIVER (<i>Replier to message</i>): Reply below the message, keep one copy, return one copy.	

To : Mr. Hasan Hasan
Chief Engineer
ASIA/PD
Agency for International Development
Washington, D.C., 20523

DATE OF MESSAGE	ROUTING SYMBOL
12/04/81	PTE
SIGNATURE OF ORIGINATOR <i>Philip B. T.</i>	
TITLE OF ORIGINATOR Civil Engineer	

FOLD

INITIAL MESSAGE

FOLD

Transmitted herewith are 2(two) copies each of Monthly Report Supervision, September and October for Jagorawi Highway Stage II.

Received 12/18/81
Happy New Year to
all of you!
Jack LeMair

REPLY MESSAGE

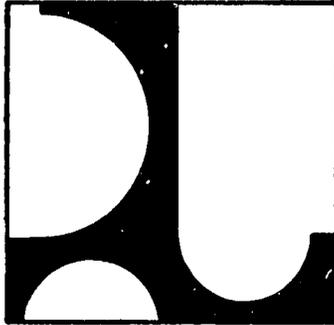
From : Philip B. Tjakranata
USAID/PTE
Jakarta, Indonesia

DATE OF REPLY	ROUTING SYMBOL
12/18/81	
SIGNATURE OF REPLIER <i>Philip B. T.</i>	
TITLE OF REPLIER	

REPUBLIK INDONESIA

DEPARTEMEN PEKERJAAN UMUM

DIREKTORAT JENDERAL BINA MARGA



**JAGORAWI HIGHWAY
STAGE II**

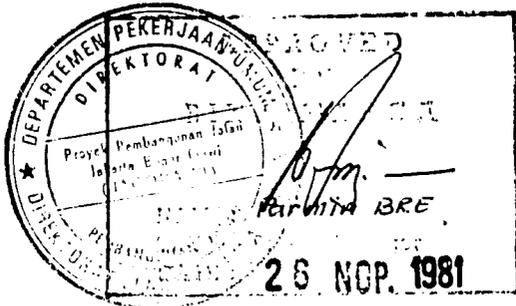
**MONTHLY REPORT
SUPERVISION**

OCTOBER

**AMMANN & WHITNEY-TRANS ASIA ENGINEERING ASSOCIATES INC.
A JOINT VENTURE**

CONSULTING ENGINEERING

JAGORAWI HIGHWAY PROJECT
CONSULTING SUPERVISION SERVICES



SUBMITTED BY :

Larry G. Buntun

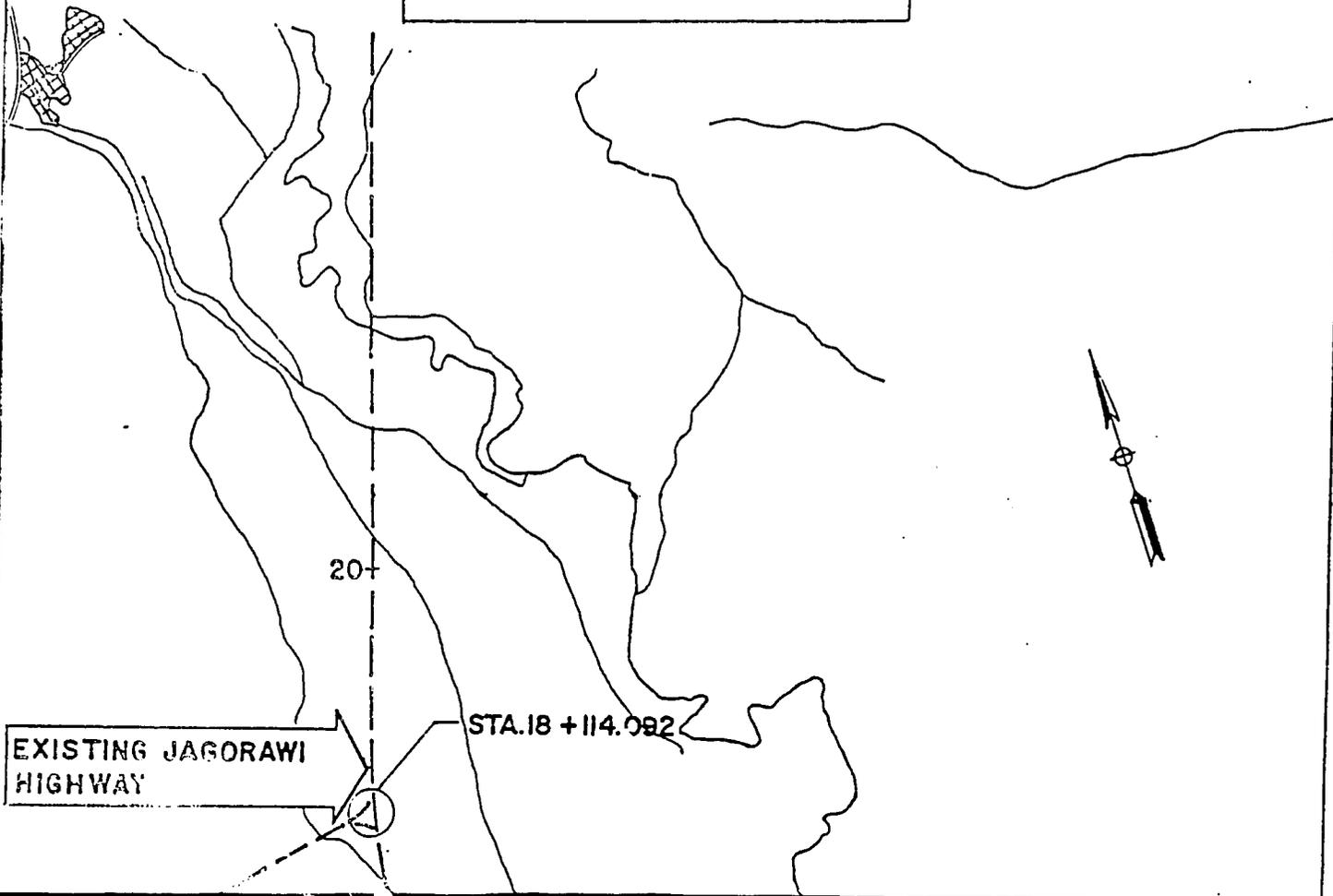
LARRY G. BUNTUN
Engineer in Charge

OCTOBER, 1981

Prepared by :

AMMANN & WHITNEY/TRANS-ASIA
ENGINEERING ASSOCIATES, INC.,
A Joint Venture
P.O. Box 44,
Bogor,
Indonesia

JAGORAWI HIGHWAY
STAGE II
SITE MAP
SCALE 1:50.000



EXISTING JAGORAWI
HIGHWAY

STA. 18 + 114.082

20+

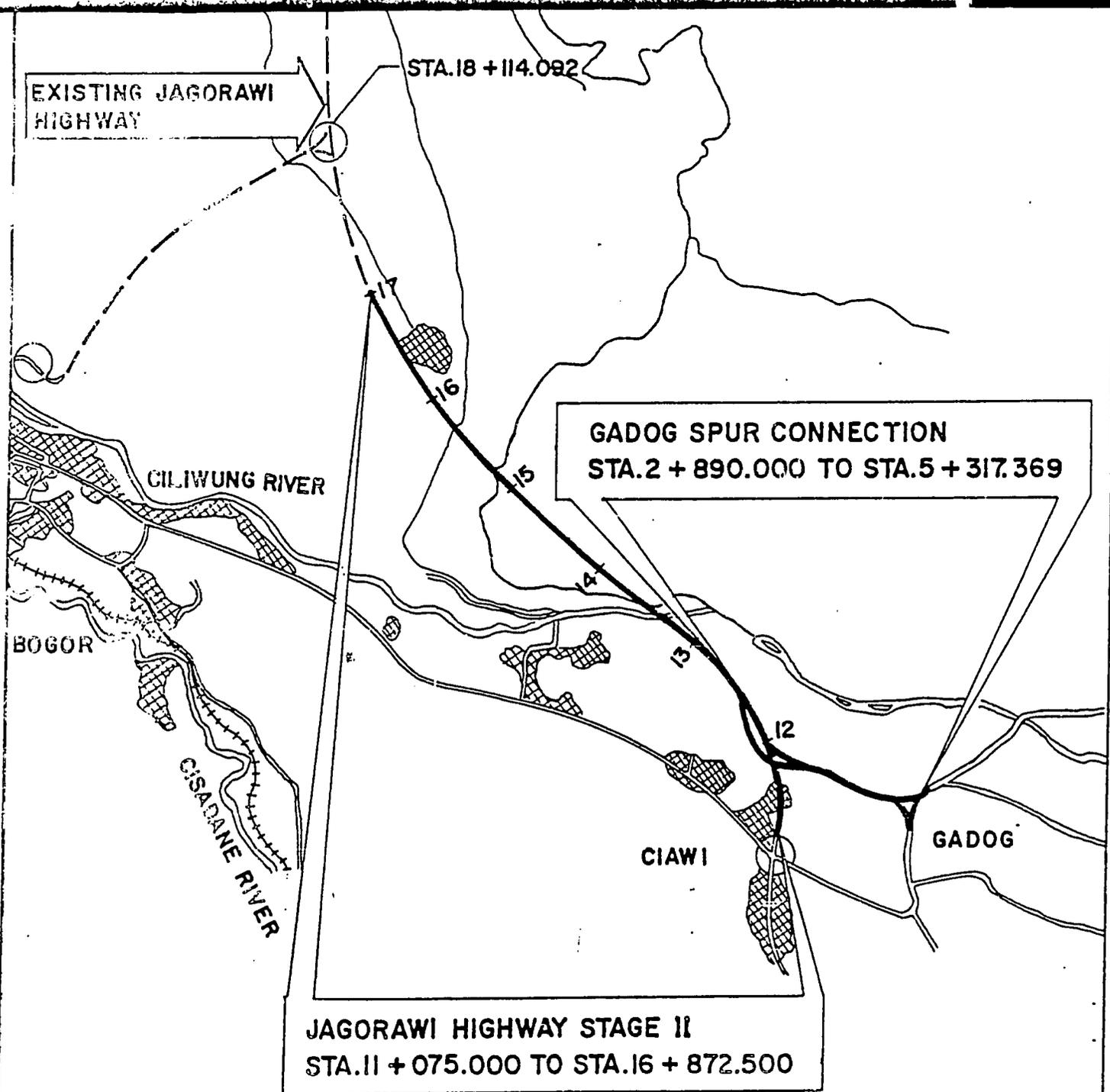


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SECTION I NARRATIVE SUMMARY

1. . . . STAGE II CONSTRUCTION

Progress jumped from 4.49 percent in September to 10.18 percent in October, due mainly to the arrival of all structural steel H-piles for the Project.

A crane, leads and pile hammer have been mobilized and pile driving got under way November 1st.

ICCI is making arrangements with Hutama Karya, a Consortium member, to rent both a concrete batch plant and a crusher. Both are now being erected at Sentul Quarry.

Concrete aggregate gradings, previously outside of specifications, have been corrected by the Contractor and casting of pipe is well under way.

The Contractor has submitted a revised schedule showing completion on time. The Engineer has assisted by preparing detailed schedules and CPM for the project and critical bridge work, along with recommendations for additional equipment.

US/AID Jakarta has submitted a letter to the Department of Foreign Affairs stating that Dollar funding for engineering services may be withdrawn.

1. 2. . . . STAGE I MAINTENANCE

Jasa Marga representative attends weekly project meetings. There has been no decision on implementation of a seal coat program to date.

SECTION II PROBLEM AREAS

II. 1. PROGRESS

Progress improved again this month. A revised schedule has been submitted by the Contractor. The Engineer has assisted by preparing a detailed schedule and CPM for the project and a CPM for critical bridge work.

The detailed schedule indicates that "substantial completion" could still be achieved by end of contract time (May 15, 1983). By substantial completion, we mean that public traffic would be placed on the new lanes and Gadog Spur. Work carried into the maintenance guarantee period to include filling in of gaps in the median barrier rail at the transitions Station 17 and Station 11, overlay of the inside shoulder on the existing lanes, seal coat and restriping of the existing lanes and general clean up. This work will require about 3 months time, so final completion would be about end of August, 1983.

The schedule shows a need for additional bridge construction equipment and earthwork compactors. The Contractor is reluctant to purchase equipment and receives little equipment support from other Consortium members (Hutama Karya may provide a crusher and concrete batch plant). Hutama Karya appears to be the only Consortium member contributing equipment to the project.

The Engineer feels that lack of spare parts and maintenance may result in equipment breakdowns and lowered progress.

Lack of current funding is another problem area that may result in lost production. (See Section III of this report).

II. 2. QUARRY AND AGGREGATES

The stop notice for removal of quarry material from Sentul Quarry has been removed. Payment of royalties and taxes may still be required.

SECTION II PROBLEM AREAS

II. 2. . . . QUARRY AND AGGREGATES (Cont'd)

Concrete aggregate gradations, reported last month as out of specifications, have now been corrected by the Contractor.

II. 3. . . . US/AID FINANCING OF ENGINEERING SERVICES

Bina Marga and the Engineer have received copies of a US/AID letter of October 19, 1981 to the Department of Foreign Affairs indicating that Dollar funding for engineering services may be withdrawn.

We note that Dollar payment for engineering services is covered by an irrevocable letter of credit which is valid until December 31, 1982.

Copy of the subject AID letter and implementation letters referred to in the AID letter follow.



UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT

AMERICAN EMBASSY
JAKARTA, INDONESIA

Letter No. II/2849.

OCT 19 1981

Departemen Luar Negeri
Jl. Taman Pejambon No. 6
Jakarta Pusat

Attention: Directorate General of Foreign Economic
Relations

Subject: AID Loan No. 497-H-031 Jagorawi Highway -
Stage II - Supervision of Construction

Gentlemen:

This is to advise you that after consultation with concerned Government of Indonesia officials, AID has determined to terminate its financing of consulting services for Phase II of the Jagorawi Highway Project. AID's decision in no way detracts from the successful implementation of the Jagorawi Highway project itself, from Jakarta to Ciawi. Our decision is taken with reluctance and is based on the fact that Phase II is not being carried out with due diligence and efficiency. Specifically:

A. By Implementation Letter No. 8 AID agreed to the use of loan funds to continue the services of the Consultant to design and supervise construction of Phase II (Phase II was not part of the original project). Implementation Letter No. 8 was signed on November 29, 1979 on the basis that construction of Stage II would start in April 1980.

B. A construction contract was negotiated with ICCI and a notice to proceed was issued in August 1980, but the actual signing of the contract did not occur until May 1981.

C. Construction progress as of August 31, 1981 is approximately 4.6% vs 16.8% planned. This represents an advance of only .4% per month since construction began in August 1980. Twenty four months had originally been scheduled for construction.

D. Apparently the Contractor lacks organization, management is fragmented and inexperienced, planning is poor and the budget is inadequate. We anticipate continued poor progress because of insufficient funding, insufficient equipment, and lack of planning.

AID sees no immediate solution to the situation outside of complete reorganization or obtaining a new contractor. In either case it would take six months to a year for the contractor to be able to achieve a reasonable rate of progress. As we indicated in Project Implementation Letter No. 9, the last extension of the terminal date would be the final one; no extension beyond August 1982 is feasible. Despite this, it now appears that there can be little progress on the project by that date.

In accordance with AID's decision to terminate its involvement in this project, Bina Marga should within 30 days instruct the Consultant to terminate his activities. The Consultant should demobilize and process all final invoices to the Letter of Commitment Bank within 90 days or no longer than 120 days from the date of this letter. After all of the Contractor's vouchers have been paid and contract claim settled AID will deobligate the relatively small amount of funds remaining and reduce the loan by that amount.

Sincerely yours,

Robert C. Simpson
Robert C. Simpson
Acting Director

cc:
Minister of Public Works
Director General Bina Marga
Ammann & Whitney
DEPLU-10
BAPPENAS-5
BINA MARGA-5

RECEIVED
OCT 24 1981
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TRANS-ASIA-ENG
A Joint Venture
022

UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT
AMERICAN EMBASSY
JAKARTA, INDONESIA

November 29, 1979

Departemen Luar Negeri
Jl. Taman Pejambon No. 6
Jakarta Pusat

Attention: Directorate General of Foreign Economic
Relations

Subject : AID Loan No. 497-H-031
Jagorawi Highway Construction
Implementation Letter No. 8

Gentlemen:

The purpose of this Implementation Letter is to amend the project elements eligible for financing under the Loan, as stated in Section 1.02 of the Loan Agreement. In addition to the project description as now stated in Section 1.02, the design and supervision of construction of two additional lanes on the Bogor-Ciawi link and the two kilometer section from Ciawi towards Bandung, are hereby included and referred to as Stage II.

The design and supervision of construction of the above stated two segments are added with the understanding that construction of the same two segments will be financed from GOI resources and that sufficient loan funds will be reserved to finance the highway maintenance engineering responsibilities remaining in the GOI/Ammann & Whitney-Trans Asia Contract No. 6/CTR/LN/BM/74.

It is further understood by AID that, should any shortfall of funds occur to finance the remaining work to be performed by the Engineer under Stage I, Bina Marga will cover that shortfall with its own resources to ensure that the work is fully carried out.

Please acknowledge receipt of this Implementation Letter and agreement with the above stated amendment to Section 1.02 of the Loan Agreement and AID's understanding of the financing implications by countersigning this Implementation Letter.

Sincerely yours,



Thomas C. Niblock
Director



J.B. Soemarga Soemaatmadja
Director of Construction

cc:
10-DEPLU
5-BAPPENAS
5-BINA MARGA

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
AMERICAN EMBASSY
JAKARTA, INDONESIA

June 30, 1981

Departemen Luar Negeri
Jl. Taman Pejambon No. 6
Jakarta Pusat

Attention: Directorate General of Foreign Economic Relations

Subject : AID Loan No. 497-H-031
Jagorawi Highway Construction
Implementation Letter No. 9

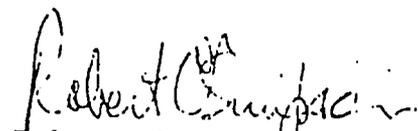
Gentlemen:

This is to advise you that pursuant to Section 7.04 of the Loan Agreement the terminal date for disbursements under this loan has been extended from April 30, 1981 to December 31, 1982.

In granting this extension, it is USAID's understanding that the Government of Indonesia will bear the cost of the consulting services required for the completion of Phase II, subsequent to the TDD of December 31, 1982 or upon depletion of the loan funds. This is the final extension of AID Loan No. 497-H-031. No further extensions will be granted.

Please give us your letter acknowledging receipt of this Implementation Letter.

Sincerely yours,


Robert C. Simpson
Acting Director

cc:
10-DEPLU
5-BAPPENAS
5 BINA MARGA

SECTION III ADMINISTRATION

III. 1. SUBMISSIONS/APPROVALS

The Engineer's Dollar and Rupiah Invoices for September were submitted to Bina Marga.

The Contractor's Rupian invoices No. 4 and 5 were certified by the Engineer and forwarded to Bina Marga. Invoice No. 4 only, was approved by Bina Marga for payment.

The Contractor's concrete mix design for perforated pipe was approved by the Engineer.

A request to begin wasting embankment material was disapproved by the Engineer.

A request for payment for compacting original ground at embankment locations was approved by the Engineer.

III. 2. DECISIONS

A request for reimbursement of toll costs was submitted by the Contractor. The Engineer evaluated the proposal and recommended to Bina Marga that toll costs should not be reimbursement. Final decision is pending.

Bina Marga has submitted draft specifications for rock asphalt, and asked the Engineer to comment. A final decision as to whether rock asphalt will be used on Jagorawi is pending.

III. 3. MAJOR CONFERENCES

Regular weekly meetings continued, with a Jasa Marga representative attending. Notes on the meetings are prepared by the Engineer and forwarded to Bina Marga with a copy to ICCI.

III. 4. OFFICIAL VISITORS

There were no official visitors this month. The last official site visit by US/AID personnel was during August.

SECTION III , , , , ADMINISTRATION

III. 5. FINANCIAL OVERRUNS/UNDERRUNS

Following is a status of payments invoiced by the Contractor.

Remaining 5% advance	Rp 407,500,000
Invoice No. 3 for July	Rp 90,793,037
Invoice No. 5 for September	Rp 71,894,479
Invoice No. 6 for October	<u>Rp 291,967,260</u>
T o t a l	Rp 862,154,776

The Engineer requests that Bina Marga obtain funds to pay these invoices so as not to delay the Contractor's progress.

III. 6. TRAINING

Two engineering students from Gajah Mada University have been assigned to the project for training purposes for a 3 month period beginning October 10th. The students will receive practical experience and instruction from both Bina Marga's project staff and the Engineer's staff.

SECTION IV ENGINEERING PROGRESS

IV. 1. SURVEYS

Our survey crew assisted ICCI in stake out of Bridge Station 11. Surveys for quantities, bridge excavation and unsuitable excavation, occupied the remainder of their time.

IV. 2. LABORATORY & QUALITY CONTROL

A- SOILS

The Engineer mobilized a second density crew this month.

Seven (7) soil samples were tested for optimum density and Atterberg limits in our laboratory.

One hundred seventeen (117) density tests for embankments under construction were made. Failure rate was 26.5 percent vs 22.5 percent failures last month.

B- AGGREGATES

Because of the gradations of concrete aggregates was out of specifications (reported last month) the Engineer assisted ICCI in checking gradations from their crusher and several other sources. In all, twenty eight (28) aggregate gradation tests were performed by our laboratory.

C- CONCRETE COMPRESSIVE STRENGTH

Fifty (50), concrete cylinders were tested this month. Most were for trial mixes prepared to assist ICCI.

Following are results of concrete cylinder tests made on concrete from the perforated pipe production :

SECTION IV ENGINEERING PROGRESS

IV. 2. . . . LABORATORY & QUALITY CONTROL (Cont'd)

C- CONCRETE COMPRESSIVE STRENGTH (Cont'd)

<u>Age</u>	<u>No. Cyl.</u>	<u>Aggregate size</u>	<u>Average Strength (Kg/cm²)</u>
7	2	3/4" *	173
14	3	3/4" *	285
28	4	3/4" *	361
7	1	1/2" **	374

*This aggregate did not meet grading specifications and resulted in rock pockets in the completed pipe.

**This aggregate is being produced by the Contractor at Sentul and meets grading specifications and has been used in the production of perforated pipe since October 21, 1981.

D- CONCRETE MIX DESIGNS

The following concrete mix designs were approved by the Engineer for use on the project :

<u>Description</u>	<u>Perforated Concrete Pipe</u>	<u>Reinforced Concrete Pipe</u>
Max. Aggr. Size	1/2"	3/4"
Design strength	275 Kg/cm ²	350 Kg/cm ²
Slump	3"	3"
Cement	396 Kg	355 Kg
Water	250 lt.	213 lt.
Sand	1014 Kg	990 Kg
Course Aggr.	676 Kg	810 Kg
W/C ratio	0.63	0.60
% fine aggr. to total aggr.	60%	55%

E- 3-EDGE BEARING TESTS

The hydraulic jack was calibrated and certified by the Department of Industries in Bandung this month.

Following are test results on perforated pipe cast to date :

SECTION IV ENGINEERING PROGRESS

IV. 2. LABORATORY & QUALITY CONTROL (Cont'd)

E-- 3-EDGE BEARING TESTS (Cont'd)

<u>Description</u>	<u>Age (days)</u>	<u>Aggregate Size</u>	<u>No. Tests</u>	<u>Ave Strength (Pounds)</u>	<u>Specs. (Pounds)</u>
ICCI Sentul pro-	7	3/4" *	2	2745	-
duction in Sept-	14	3/4" *	2	3713	-
ember	28	3/4" *	2	2745	5900
Waskita Karya production at Sanja	57 ave	3/4" *	2	4360**	5900

*Grading out of specifications.

**Previous test corrected for new jack calibration.

F-- CEMENT TESTING

Informal results of tests on portland cement from the Bandung Laboratory have been evaluated. Locally available cement is in close conformity to Type I cement; however, since Type II cement is also available and is more resistant to sulfates anticipated in ground water. The Engineer has requested that Type II cement be provided.

G-- REINFORCING STEEL TESTS

Samples of Krakatau Steel Type BJTD30 steel were submitted to Bandung for testing.

Information supplied by Krakatau Steel indicates that BJTD30 and BJTD40 steels have yield strengths far in excess of the 40,000 psi steel specified. The American Concrete Institute and the AASHTO Standard Specifications for Highway Bridges both place limits on maximum allowable tensile force to be carried by reinforcement in flexural members commonly found in bridge superstructures. Use of exceptionally high strength reinforcement would violate these code provisions.

It would appear that the high strength reinforcement could be used in bridge footings and piers provided the Contractor is willing to provide the reinforcement at no additional cost to Bina Marga.

IV. 3. STRUCTURES

The Senior Bridge Engineer has evaluated the effects of the increased embankment height at Station 3+900. A revised reinforcing plan & site layout for the double box culvert at this location have been forwarded to the Contractor.

The Senior Bridge Engineer has coordinated closely with Mr. Pika, ICCI's structural superintendent and prepared a detailed CPM for bridge work along with recommendations for additional equipment for this critical work.

The structural section has nearly completed preparation of bridge bar schedules to assist ICCI. This work is the responsibility of the Contractor. However, to provide some semblance of order and planning, the Engineer has performed this task for the Contractor.

IV. 4. OFFICE ENGINEERING

We have assisted ICCI in preparing shop plans for precasting of median barrier rail. Senior Highway Engineer has checked all existing pavement elevations and determined that one typical section for the median rail will suffice.

ICCI submitted a revised bar chart schedule which is being reviewed. The Engineer has assisted ICCI by preparing a detailed project schedule and CPM. Based on the CPM, revisions to ICCI's bar schedule have been requested.

The Engineer has coordinated with both PLN and the phone company and is revising the utility relocation plan for Gaddog Intersection.

ICCI's progress invoice No. 5 for September has been checked, but has not been certified by the Engineer because the Contractor's performance guarantee and bank guarantee for the

SECTION IV ENGINEERING PROGRESS

IV. 4. . . . OFFICE ENGINEERING (Cont'd)

advanced payment expired on November 1st. This is in accordance with letter instruction received from Bina Marga. A copy of the October invoice is contained in the appendix of this report.

There was no contract change order activity this month.

SECTION V CONSTRUCTION PROGRESS

V. 1. PROGRESS

Construction progress improved dramatically when imported H-piles from Japan were delivered and stockpiled on site. Thus, bid schedule No. 30, piles furnished, is 100 percent complete and represents 5.14 percent of the contract amount*. Total progress stands at 10.18 percent.

V. 2. RAINFALL

RAINFALL DURING OCTOBER

	<u>October</u>	<u>Ave. for Project Location</u>
- Number of rain days	19	15.4
- Max. rain in 24 hours	31.5 mm	-
- Total rainfall during the month	267.0 mm	335.7
- Lost working days due to rain this month	9	-
- Accumulative lost working days due to rain	60	-

V. 3. SCHEDULE

Total progress this month was 5.69 percent vs 4.76 percent scheduled. Thus, there was no slippage, instead the Contractor gained 0.93 percent on his schedule.

Scheduled completion	26.67 percent
Actual complete	<u>10.18 percent</u>
Amount behind schedule	16.49 percent
Percentage time elapsed thru October 31, 1981 :	
(173)/(730) =	23.70 percent
Progress gain, October =	0.93 percent

*Portion of the H-piles were furnished by Bina Marga from the first contract.

SECTION V CONSTRUCTION PROGRESS

V. 4. COMMENTS

The Contractor has submitted a revised schedule showing completion on time. The Engineer is preparing a detailed CPM for the project and bridges (separately) to assist ICCTI in scheduling the work and planning additional equipment to meet this schedule.

By careful planning and with additional equipment, the Engineer's CPM indicates that the Contractor could have the new lanes and the Gadog Spur open to public traffic by the original completion date of May 15, 1983. An additional 3 months for minor work are anticipated following opening of the roadways, making final acceptance about mid August, 1983.

SECTION VI CONTRACTOR

VI. 1. . . . CONSTRUCTION ACTIVITIES

A- MOBILIZATION

Mobilization continued to progress this month. :

- All of the planned (16 each) steel forms for RCP have been delivered.
- One of the P&H cranes provided by Bina Marga was made operational. Hammer and leads from Paku Bumi were rigged.
- The 100 ton per hour crusher owned by Hutama Karya (a Consortium member) has been erected and trial crusher runs were made. ICCI is negotiating an agreement with Hutama Karya to crush aggregate base and asphaltic concrete aggregate for Jagorawi; however, the agreement has not been concluded at the time of this writing.
- A 35 M³ per hour concrete batching plant also owned by Hutama Karya is being erected at Sentul Quarry.
- Work on the Contractor's field buildings and yard is nearly complete.
- Work on the Engineer's office extension and housing is progressing well.

B- CLEARING & GRUBBING

Clearing and grubbing was of minor consequence, requiring removal of grass prior to opening new earthwork areas.

C- QUARRY

Bina Marga reports that the Bupati has now released the stop order and the Contractor may haul material from Sentul Quarry.

SECTION VI CONTRACTOR

VI. 1. CONSTRUCTION ACTIVITIES (Cont'd)

C- QUARRY (Cont'd)

The Contractor made adjustments to his crusher operation and is now producing both 1/2 inch maximum and 3/4 inch maximum concrete aggregate. Production rates are very low. In order to meet schedule, the Contractor will have to supplement aggregates by purchasing from Ciapus.

D- EARTHWORK

Earthwork continues to progress; however, effective work can only be achieved where embankment areas have been covered with canvas. Additional canvas would help improve production. Excavation was obtained mainly from Ramp A with embankments being placed at the Toll area and from Ciawi Intersection to Bridge 11. We estimate that about 9,000 M³ of excavation and 7,000 M³ of embankment were completed this month.

E- PRECASTING

Six trial reinforced concrete pipes were cast this month. After adjustments to the crusher to obtain specification aggregate gradings, casting of perforated pipe resumed on October 21st and 454 pieces of perforated pipe were cast this month. A curing basin was excavated near the pre-cast building, and excellent curing is being achieved. Four (4) junction boxes for perforated pipes were also cast.

F- BRIDGE CONSTRUCTION

Imported H-piles from Japan were delivered. Supplemented by the H-piles provided by Bina Marga (reconditioned and spliced by ICCI), this item is now complete. The Contractor excavated pier number 2 at Bridge Station 11. The slope subsequently sluffed into the excavation area and

VI. 1. CONSTRUCTION ACTIVITIES (Cont'd)

F- BRIDGE CONSTRUCTION (Cont'd)

the Contractor then drove sheet piling supports. Pile driving began at Pier number 2 on November 1st when eight (8) piles were driven.

G- ENGINEER'S OFFICE & HOUSING

The Engineer's office extension has been subcontracted to C.V. CHAKRA TRADING CO., of Bogor. This subcontractor was asked to replace nailed truss connections with bolted connections and it was necessary for the Engineer to require replacement of defective truss timber with suitable timber. Otherwise, work on both items continues to progress.

VI. 2. EQUIPMENT

ICCI has not submitted an equipment guarantee, and the equipment rental agreement has not yet been signed. ICCI has had use of Bina Marga-owned equipment for more than one year. This reluctance on the part of the Contractor to complete an equipment rental agreement we find somewhat appalling.

ICCI has taken no action to provide a supply of fast moving spare parts for equipment furnished by Bina Marga.

The Engineer has asked ICCI to update their equipment list to provide additional bridge construction equipment and compactors. Both are needed to meet the schedule.

16 A

APPROVED EQUIPMENT LIST

NO.	DESCRIPTION	QT'Y	CAPACITY	BRAND NAME / TYPE
1.	Bulldozer	2	220 HP	Komatsu D-85
2.	Bulldozer	3	140 HP	Komatsu D-65
3.	Track Loader	2	1.6 M ³	Komatsu D-75-S
4.	Motor Grader	3	---	Komatsu GD-600-R
5.	Wheel Loader	6	1.6 M ³	Fiat Allis
6.	Dump Truck	50	5 tons	Isuzu TX-40
7.	Sheep Foot Roller	2	---	Caterpillar 815
8.	Vibratory Roller	2	9 tons	SP-42, SP-54 (Rex)
9.	Tandem Roller	3	12 tons	Sakai
10.	Rubber Tired Roller	2	8-12 tons	Sakai/Tanaka
11.	Water Tank Truck	3	4,000 ltrs.	Hino, Toyota
12.	T r a i l e r	2	30 tons	Isuzu
13.	Back Hoe	2	0.6 M ³	Int. Jumbo/Pool
14.	Back Hoe	1	1.6 M ³	Int. Jumbo/Pool
15.	Farm Tractor	2	---	Komatsu
16.	Crusher & Screening Plant	1	100 tons	K o b e

16 B

EQUIPMENT MOBILIZED OCTOBER 1981

BRAND NAME / TYPE	QT'Y	N A M E	R E M A R K S
Komatsu D-85	2	Cat-D7G AC HD-16B	Bina Marga Peter & John, arrived Oct. 3, '81
Komatsu D-65	3	Komatsu D-53-A	Bina Marga two (2) Zeni AD one (1), returned Oct. 22, 1981
Komatsu D-75-S	2	Komatsu D-57-S Case 1150 B, changed to JD-755	Bina Marga (track loader) David Saputra (track loader) Ratna Mutiara, arr'd Oct. 1, '81
Komatsu GD-600-R	3	Komatsu GD-600-R	Bina Marga
Fiat Allis	3	Fiat Allis 605-B	Bina Marga
Isuzu TX-40	21	Isuzu TX-40 (5 ton)	Bina Marga one (1) broken down
Caterpillar 815	1	Cat-815	Bina Marga
SP-42, SP-54 (Rex)	2	Ca 25-PD	ICCI one (1) David Saputra one (1)
Sakai	2	Sakai 8-10 tons	Hutama Karya one (1) Bina Marga one (1) broken down
Sakai/Tanaka	2	Sakai 9-17 tons	Bina Marga one (1) Pusbinal one (1)
Hino, Toyota			
Isuzu			
Int. Jumbo/Pool	2	Nikkon BH-70 (0.8 M ³) Int. Jumbo (0.6 M ³)	David Saputra, ret'd Oct. 7th. Pusbinal
Int. Jumbo/Pool	1	IHI 1S-220 (1.1 M ³)	David Saputra
Komatsu			
K o b e			Hutama Karya plant erected. Agreement to subcontract expected soon.

17A

APPROVED EQUIPMENT LIST

NO.	DESCRIPTION	QT'Y	CAPACITY	BRAND NAME/TYPE
17.	Crusher & Screening Plant	2	30 tons/hr	Kang Won
18.	Sandwasher	2		S a k a i
19.	Waterpump	10	Ø 4"	Y a n m a r
20.	Generator, Set	2	90 KVA	Mercedesz
21.	Generator, Set	1	50 KVA	Mercedesz
22.	Generator, Set	3	10 KVA	K u b o t a
23.	Asphalt Mixing Plant	1	90 tons/hr	Simesse
24.	Asphalt Finisher	2	60-100 t/hr	Allat C-300
25.	Asphalt Hand Sprayer	2	600 liters	L o c a l
26.	Asphalt Distributor	1	4,000 liters	M a r i n i
27.	Pavement Breaker	6	2 ³ / ₆₄ inch.	BR-20-Ingersoll Rand
28.	Pavement Saw	1	80 m/sec.	W a c k e r
29.	Road Marking Machine	1	---	M a r i n i
30.	Aggregate Drier	2	45 tons	Sakai/Tanaka
31.	Power Broom	1	20 HP	Mitsubishi
32.	Chips Spreader	1	---	Etnire
33.	Compressor	2	600 cfm	Broomwade
34.	Mechanical Hand Stamper	10	---	TV-808
35.	Spreader Box	1	---	E t n i r e
36.	Aggregate Cold Bins	4	5 cu. M.	L o c a l
37.	Forklift	1	3.5 tons	Komatsu
38.	Truck Crane	2	40 tons	P&H Linkbelt

17
A

17B

EQUIPMENT MOBILIZED OCTOBER 1981

AND NAME/TYPE	QT'Y	NAME	REMARKS
y Won	2	Kang Won	Bina Marga (incl. Gen Sets)
k a i			
n m a r	6	Kawamoto \emptyset 3" Alcon \emptyset 2" Four (4) Yanmar TS-80 \emptyset 4"	PT ICCI PT ICCI PT ICCI
edesz			
edesz	1	Perkins (50 KVA)	PT ICCI
b o t a	2	Yanmar (7.5 KVA)	PT ICCI
esse			
at C-300			
c a l			
r i n i			
0-Ingersoll			
c k e r			
r i n i			
i/Tanaka			
subishi			
re			
omwade			
B08	2	Mikasa MTR-120	PT ICCI
n i r e			
c a l			
atsu	1	TCM-VD-30	PT ICCI
Linkbelt			

18A

APPROVED EQUIPMENT LIST

NO.	DESCRIPTION	QT'Y	CAPACITY	BRAND NAME/TYPE
39.	Crawler Crane	2	75 tons	P&H 550
40.	Tire Crane	2	10 tons	H a l l a
41.	Diesel Hammer	2	7 ton/80 HP	---
42.	Pile Hammer	1	1200-1500 mkg	P&H Linkbelt
43.	Pile Hammer	1	3000-3500 mkg	P&H Linkbelt
44.	Batching Plant	1	35 cu.m/H	L a m b e r t
45.	Concrete Transit Mixer	4	5 cu.m	I s u z u
46.	Concrete Mixer	1	750 liters	Winget
47.	Concrete Bucket	2	500 liters	---
48.	Concrete Buggies	10	50 liters	---
49.	Concrete Internal Vibrator	14	Ø 3"	M i k a s a
50.	Concrete Internal Vibrator	12	Ø 1½"	M i k a s a
51.	J e e p	7	---	Daihatsu Taft
52.	Pick-up	1	---	Chevrolet Luv
53.	Mini Bus	1	---	Toyota Hi Ace
54.	S e d a n	1	---	Toyota Corolla
55.	Motor Cycle	11	---	Honda CB-100
56.	W i n c h	1	2T	Ingersoll-Rand K-5-UL
	<u>SURVEY EQUIPMENT</u>			
57.	Level plus Support Equip.	3	---	N i k k o n
58.	Transit plus Support Equip.	2	---	Nikkon & Wild

19

18B

EQUIPMENT MOBILIZED OCTOBER 1981

NAME/TYPE	QT'Y	N A M E	R E M A R K S
60 l a nkbelt nkbelt b e r t z u t	1	P&H 550 (50 ton)	Bina Marga
nkbelt b e r t z u	1	3000-3500 mkg	PAKU BUMI Being erected at Sentul, Hutama Karya
t	1	Golden Star (3/4 M ³)	PT ICCI
t	1	Hercules (0.3 M ³)	PT ICCI
a s a	3	2- Mikasa (1.5 HP) external 1- Wacker 5.9 KVA external	PT ICCI PT ICCI
a s a	1	Mikasa, Ø1½"	PT ICCI
tsu Taft	7		PT ICCI
olet Luv	1		PT ICCI
a Hi Ace	1		PT ICCI
a Corolla			
CB-100	3		PT ICCI
soll-Rand -5-UL			
k o n	1	N i k k o n	PT ICCI
n & Wild	2	W i l d	PT ICCI

19A

APPROVED EQUIPMENT LIST

NO.	DESCRIPTION	QT'Y	CAPACITY	BRAND NAME/TYPI
<u>PRECASTING EQUIPMENT</u>				
59.	RCP form \emptyset 60 cm	10	---	L o c a l
60.	RCP form \emptyset 80 cm	5	---	L o c a l
61.	RCP form \emptyset 120 cm	1	---	L o c a l
62.	External Concrete Vibrator	4	---	Wacker Arem 055
63.	PCP form \emptyset 20 cm	50	---	L o c a l
64.	Truck Crane	1	3 tons	T a d a n o
65.	Prestressing Unit Equipment	1	200 tons	---
66.	Generator, Set	1	300 KVA	Mercedesz
<u>WORKSHOP ACCESSORIES</u>				
67.	Welding Machine	2	250-400A	L i n c o l n
68.	G r i n d e r	2	---	Black & Decker
69.	D r i l l	1	---	Black & Decker
70.	Bar Cutter	1	---	Black & Decker
71.	J a c k	2	25 tons	Black & Decker
72.	Fuel Tank	2	10,000 ltrs.	L o c a l
73.	Compressor	1	200 cfm	H o n d a
74.	Generator, Set	1	150 KVA	Mercedesz
75.	Service Car	2	---	Mitsubishi
76.	T o r c h	2	---	---
77.	-----	-	---	---

198

EQUIPMENT MOBILIZED OCTOBER 1981			
RAND NAME/TYPE	QT'Y	N A M E	R E M A R K S
L o c a l	10	L o c a l	PT ICCI
L o c a l	5	L o c a l	PT ICCI
L o c a l	1	L o c a l	
Wacker Arex 055			
L o c a l	51	Made in Bogor	PT ICCI
Tadano	1	Tadano	Bina Marga

Mercedesz			
L i n c o l n	2	M u l l e r D e n y o	PT ICCI PT ICCI
Black & Decker	4	Mitsubishi	PT ICCI
Black & Decker	1	H i t a c h i	PT ICCI
Black & Decker			
Black & Decker	2	(2 & 5 tons)	PT ICCI
L o c a l	1	Local (8,000 ltrs.)	PT ICCI
H o n d a			
Mercedesz	1	Petter (12.5 KVA)	Bina Marga
Mitsubishi			

---	10	Philips Hallogen lights	PT ICCI

SECTION VI CONTRACTOR

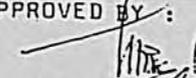
VI. 3. CONTRACTOR'S PERSONNEL

Following are personnel reports for September and October.
The Contractor lists 18 OJT employees for September and
3 OJT employees for October.

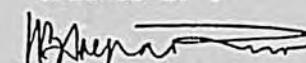
MONTHLY PERSONNEL REPORT
 SEPTEMBER 1981

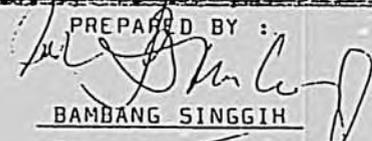
POSITION	MANAGER/ LEVEL	BACHELOR LEVEL	TECHNICAL STAFF				ADMINISTRATION & COST ACCOUNTING STAFF					TOTAL
			CIVIL	MECHANIC	ELECTRIC	LABOR	BOOK KEEPER	ASS. ADM	TYPIST	OFF. DRIV	HELPER	
PROJECT MANAGER	1	-	-	-	-	-	-	-	-	1	-	2
OFFICE ENGINEERING :												
2.1. Office Engineer	1	-	-	-	-	-	-	-	-	1	-	2
2.2. Design & Planning Engineer.	1	1	4	-	-	-	-	-	-	1	-	7
2.3. Cost Engineer	1	1	-	-	-	-	-	-	-	-	-	2
2.4. Contract Adm.	1	-	4	-	-	-	-	-	-	-	-	5
2.5. Surveying & Progress Report.	1	-	-	-	-	13	-	1	-	-	-	15
FIELD ENGINEERING :												
3.1. General Superintendent.	1	1	2	-	-	-	-	-	-	1	-	5
3.2. Superintendent for Road.	1	2	6	-	-	58	-	1	-	1	-	69
3.3. Superintendent for Bridge Const.	1	-	6	-	-	17	-	2	-	1	-	27
3.4. Superintendent for Drain Const.	1	-	4	-	-	23	-	1	-	-	-	29
3.5. Superintendent for Equipment.	1	4	-	20	3	32	-	-	-	26	-	86
TOTAL / SUB. TOTAL	11	9	26	20	3	143	-	5	-	32	-	249

REMARK

APPROVED BY :

 Ir. HUSODO SUHARTO
 Project Manager Road



CHECKED BY :

 Ir. WARRY M. SOEPARNO
 Design & Planning

PREPARED BY :

 BAMBANG SINGGIH
 General Affairs

MONTHLY PERSONNEL REPORT

SEPTEMBER 1981

P O S I T I O N	MANAGER/ LEVEL	BACHELOR LEVEL	TECHNICAL STAFF				ADMINISTRATION & COST ACCOUNTING STAFF					TOTAL
			CIVIL	MECHANIC	ELECTRIC	LABOR	BOOK KEEPER	ASS. ADM	TYPIST	OFF. DRIV	HELPER	
PROGNEMENT & LOGIS- TIC	11	9	26	20	3	143	-	5	-	32	-	249
4.1. Procurement Sup- ply Manager	1	-	-	-	-	-	-	2	-	1	-	4
4.2. Procurement & Purchasing	-	-	2	-	-	-	-	-	-	-	-	2
4.3. Storage & Suply	-	1	-	-	-	-	-	4	-	-	-	5
4.4. Transportation	-	1	-	-	-	-	-	-	-	-	-	1
ADMINISTRATION												
5.1. Manager of Adm.	1	-	-	-	-	-	-	-	-	1	-	2
5.2. General Affairs	-	1	-	-	-	-	-	4	2	1	-	44
5.3. Cost Accounting	-	1	-	-	-	-	1	-	-	-	36	2
OTHERS ;												
6.1. On The Job - Training	-	3	-	-	-	15	-	-	-	-	-	18
6.2. Labor Supplair	1	-	4	-	-	55	-	-	-	-	-	60
TOTAL / SUB TOTAL	14	16	32	20	3	213	1	15	2	35	36	387

REMARK :

APPROVED BY :

[Signature]
 Ir. HUSODO SUHARTO
 Project Manager Road



CHECKED BY :

[Signature]
 Ir. WARRY N. SOEPARNO
 Design & Planning

PREPARED BY :

[Signature]
 BAMBANG SINGGIH
 General Affairs

MONTHLY PERSONNEL REPORT
OCTOBER 1981

P O S I T I O N	MANAGER/ LEVEL	BACHELOR LEVEL	TECHNICAL STAFF				ADMINISTRATION & COST ACCOUNTING STAFF					TOTAL
			CIVIL	MECHANIC	ELECTRIC	LABOR	BOOK KEE	ASS. ADM	TYPIST	OFF. DRIV	HELPER	
PROJECT MANAGER	1	-	-	-	-	-	-	-	-	1	-	2
OFFICE ENGINEERING:												
2.1. Office Engineer	1	-	-	-	-	-	-	-	-	1	-	2
2.2. Design & Planning Engineer	1	1	4	-	-	-	-	-	-	1	-	7
2.3. Cost Engineer	1	1	-	-	-	-	-	-	-	-	-	2
2.4. Contract Adm.	1	-	4	-	-	-	-	-	-	-	-	5
2.5. Surveying & Progress Report.	1	-	-	-	-	13	-	1	-	-	-	15
FIELD ENGINEERING :												
3.1. General Superintendent.	1	1	2	-	-	-	-	-	-	1	-	5
3.2. Superintendent for Road.	1	2	6	-	-	58	-	1	-	1	-	69
3.3. Superintendent for Bridge Const	1	-	6	-	-	17	-	2	-	1	-	27
3.4. Superintendent for Drain Const	1	-	4	-	-	23	-	1	-	-	-	29
3.5. Superintendent for Equipment	1	4	-	20	3	32	-	-	-	26	-	86
TOTAL / SUB. TOTAL	11	9	26	20	3	143	-	5	-	32	-	249

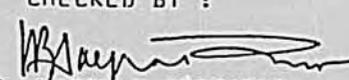
REMARK

APPROVED BY :

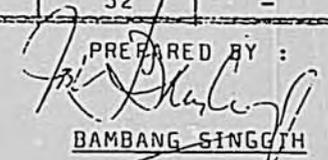

 Ir. HUSODO SUHARTO
 Project Manager Road



CHECKED BY :


 Ir. WARRY M. SOEPARNO
 Design & Planning

PREPARED BY :


 BAMBANG SINGGITH
 General Affairs

MONTHLY PERSONNEL REPORT

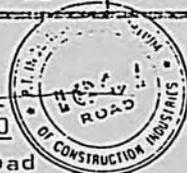
OKTOBER 1981

POSITION	MANAGER/ LEVEL	BACHELOR LEVEL	TECHNICAL STAFF				ADMINISTRATION & COST ACCOUNTING STAFF					TOTAL
			CIVIL	MECHANIC	ELECTRIC	LABOR	BOOK KEEPER	ASS. ADM.	TYPIST	OFF. DRIV.	HELPER	
PROGUREMENT & LOGIS- TIC	11	9	26	20	3	143	-	5	-	32	-	249
4.1. Procurement Sup- ply Manager	1	-	-	-	-	-	-	2	-	1	-	4
4.2. Procurement & Purchasing	-	-	2	-	-	-	-	-	-	-	-	2
4.3. Storage & Suply	-	1	-	-	-	-	-	4	-	-	-	5
4.4. Transportation	-	1	-	-	-	-	-	-	-	-	-	1
ADMINISTRATION :												
5.1. Manager of Adm.	1	-	-	-	-	-	-	-	-	1	-	2
5.2. General Affairs.	-	1	-	-	-	-	-	4	2	1	36	44
5.3. Cost Accounting.	-	1	-	-	-	-	1	-	-	-	-	2
OTHERS :												
6.1. Labor Supplier	1	-	4	-	-	50	-	-	-	-	-	55
6.2. On the Job Train- ning	-	3	-	-	-	-	-	-	-	-	-	3
TOTAL / SUB.TOTAL	14	16	32	20	3	193	1	15	2	35	36	367

REMARK :

APPROVED BY :

[Signature]
 Ir. HUSODO SUHARTO
 Project Manager Road



CHECKED BY :

[Signature]
 Ir. WARRY M. SOEPARNO
 Design & Planning

PREPARED BY :

[Signature]
 BAMBANG SINGGIH
 General Affairs.

SECTION VII STAGE I MAINTENANCE

VII. STAGE I MAINTENANCE

No formal meetings were requested. A representative of Jasa Marga generally attended the project meetings with ICCI. The Engineer again requested that Jasa Marga revise the timing of the Baranangsiang traffic signals; however, this has not been implemented as of this writing.

SECTION VIII PERSONNEL

VIII. 1. ENGINEER

The following Expatriate manmonth status includes manmonth approvals authorized thru Amendment No. 8. The estimated time required for completion is thru Stage II Supervision. ICCI's approved progress schedule shows completion on April 30, 1983.

FXPATRIATE MANMONTH STATUS

(Through Statement No. 77)

<u>Position</u>	(1) <u>Approved Through Aug. 1981</u>	(2) <u>Additional Through Oct. 1981</u>	(3) <u>Total Thru Oct. 1981 (1 + 2)</u>	(4) <u>Est'd to Completion</u>	(5) <u>Auth'd MM</u>	(6) <u>Balance (5-3-4)</u>
PRINCIPAL	5.50	.40	5.90	1.10	7.00	0
SPECIALIST	10.43	0	10.43	2.57	13.00	0
ENGR. IN CHARGE	91.32	2.00	93.32	19.00	104.50*	(-) 7.82
SEN. BRG. ENGR.	54.95	2.00	56.95	15.00	65.00**	(-) 6.95
SEN. CON. / PAV. ENGINEER	0	1.37	1.37	17.00	14.00**	(-) 4.37
SEN. HWY. ENGR.	0.47	2.00	2.47	18.00	15.00	(-) 5.47
O T H E R S	<u>370.81</u>	<u>0</u>	<u>370.81</u>	<u>0</u>	<u>371.00</u>	<u>+ 0.19</u>
	533.48	7.77	541.25	72.67	589.50	(-)24.42

* Two excess manmonths have been approved by Bina Marga to be transferred from the Senior Maintenance Engineer position to the EIC position. See Bina Marga letter BM-33/E dated May 29, 1981.

** One manmonth has been transferred from the Sen. Con./Pav. Engineer position to the Senior Bridge Engineer position.

Note : If Bina Marga implements use of Rock Asphalt on Jagorawi, a Pavement Specialist will be required.

VIII. 2. INDONESIAN STAFF

Local staffing during October follows :

BINA MARGA COUNTERPARTS

- | | |
|-------------------|--|
| --- | Counterpart Sen. Construction/
Paving Engineer. |
| 1. Mr. Gono Sarpo | Counterpart Senior Materials
Engineer. |
| --- | Counterpart Deputy Resident
Engineer. |

SECTION VIII , , , , PERSONNEL

VIII. 2. INDONESIAN STAFF (Cont'd)

BINA MARGA COUNTERPARTS (Cont'd)

Counterpart Senior Bridge Engineer.

FIELD PERSONNEL

2. Mr. Atang Suryana Party Chief (Archicons), November 24, 1980.
3. Mr. Jenal Mamad Chainman, September 8, 1980.
4. Mr. Sarji Sarjono Instrumentman, Sept. 8, 1980.
5. Mr. Ato Toha Rodman, September 8, 1980.
6. Mr. Susilo Budi Laboratory Aid, September 18, 1980.
7. Mr. Agus Sujalmaji Materials Technician, October 1, 1980.
8. Mr. S a m a n Laboratory Aid, Oct. 1, 1980.
9. Mr. Adang Jauhari Laboratory Technician (Archicons), October 6, 1980.
10. Mr. Wagiman Siswoyo Materials Inspector (Archicons) October 4, 1980.
11. Mr. Joko Purnomo Senior Materials Inspector (Archicons) July 1, 1980.
12. Mr. Johnny Manoch Bridge Inspector (Archicons), October 6, 1980.
13. Mr. Richard Daniel Materials Aid, June 2, 1981.
14. Mr. Abdul Karim Plant Inspector (Archicons), June 8, 1981.
15. Mr. Umu Halim Laboratory Technician (Archicons), June 29, 1981.
16. Mr. Haris Laboratory Aid, June 29, 1981.
17. Mr. Dalimin AR Lab Technician, June 29, 1981.
18. Mr. Joko Sartono Bridge Inspector (Archicons), July 16, 1981.
19. Mr. Luthfie Ali Bridge Technician (Archicons), September 7, 1981.
20. Mr. Dones Bridge Technician (Archicons), September 7, 1981.

SECTION VIII PERSONNEL

VIII. 2. INDONESIAN STAFF (Cont'd)

FIELD PERSONNEL (Cont'd)

21. Mr. Dahdan Materials Aid, Oct. 12, 1981.
22. Mr. Moh. Taufan Materials Aid, Oct. 12, 1981.

OFFICE TECHNICAL PERSONNEL

23. Mr. Akhmad Khudori Office Engineer (Archicons),
September 2, 1980.
24. Mr. Parmono Draftsman (Archicons), October
2, 1980.
25. Mr. Sentot Yudiantoro Highway Technician (Archicons),
June 2, 1981.
26. Mrs. Widiyaningsih Highway Technician,
June 8, 1981.
27. Mr. Hutomo Bridge Technician (Archicons),
June 10, 1981.

ADMINISTRATIVE PERSONNEL

28. Mr. Sukardi Wahyudi Administrative Manager,
July 1, 1980.
29. Mr. John M. Golluwola Secretary, July 1, 1980.
30. Mrs. Onny Pratiwi Clerk/Typist, July 1, 1980.
31. Mrs. Sri Soebianto Clerk/Typist, Aug. 1, 1981.
32. Mrs. Herny Widodo Bookkeeper, July 1, 1980.
33. Mr. Suryoseputro Accountant, July 1, 1980.
34. Mr. Irkin Mechanic, July 1, 1980.
35. Mr. Kodrat Muhtadi Translator (Archicons),
October 1, 1980.
36. Mr. Ujang bin Tawi Office Janitor, July 1, 1980.
37. Mr. Enan Setiana Chief Security Guard, October
1, 1980.
38. Mr. Lily Sulaeman Security Guard, July 1, 1980.
39. Mr. Sa'i Hidayat Security Guard, Oct. 1, 1980.
40. Mr. Ismail Security Guard July 1, 1980.

SECTION VIII PERSONNEL

VIII. 2. INDONESIAN STAFF (Cont'd)

ADMINISTRATIVE PERSONNEL

- | | | |
|-----|------------------|-------------------------------------|
| 41. | Mr. Sanan | Gardener, October 13, 1980. |
| 42. | Mr. Edy Djunaedi | Driver, November 12, 1980. |
| 43. | Mr. Abas Basuni | Driver, February 1, 1981. |
| 44. | Mr. Ayi Sukardi | Driver, [*] July 24, 1981. |
| 45. | Mr. Didi | Driver, August 20, 1981. |
| 46. | Mr. Ido Suhada | Driver, September 21, 1981. |

This month	45*
Previous	<u>429</u>
T o t a l		474

Authorized Amendment No. 9
thru October, 1981 815 m-m

Estimated additional Local Staff manmonth required for completion. Assumes completion on April 30, 1983 :

<u>MM</u> <u>Expended</u>	<u>Additional</u> <u>Required to</u> <u>Complete</u>	<u>Total</u>	<u>Authorized</u> <u>MM</u>	<u>Addition</u> <u>MM Required</u>
474	1,173	1,647	1,386	261

VEHICLES

Vehicle months expended thru October 1981 .. 112
Author'd vehicle months thru October 1981 .. 192

*One employee is on authorized maternity leave without pay.

SECTION IX

PHOTO SECTION

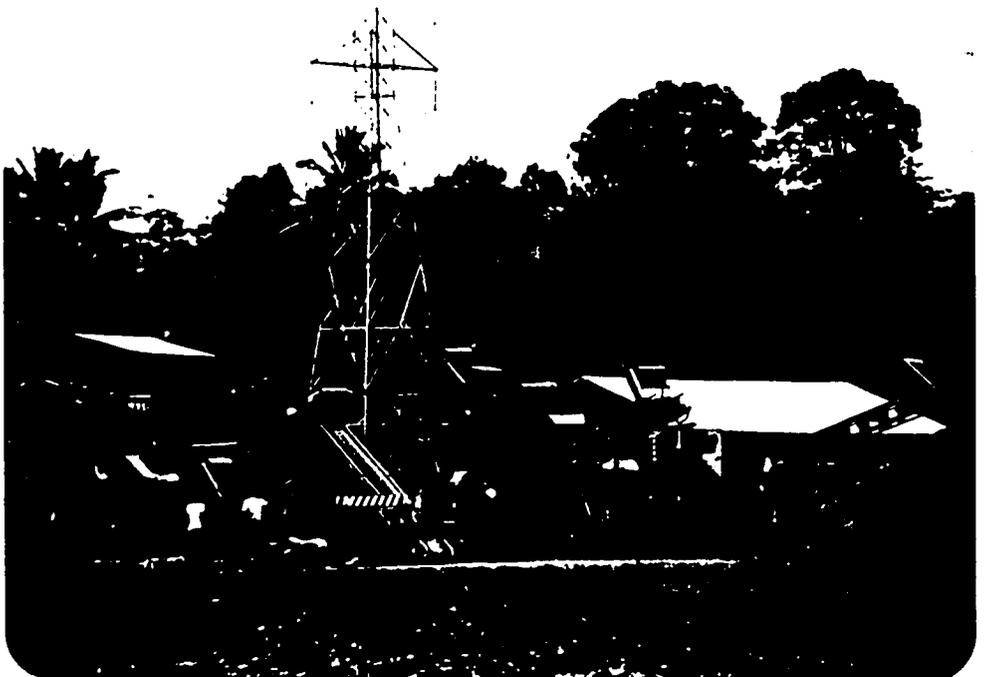
H - piles
stockpiled
near Bridge
Station 11+932



Connecting
pile hammer/
leads to
crane



Crushing
concrete
aggregate
at Sentul
Quarry



Dual cone
crushers.
Hutama Karya
crusher
at Sentul.



Hutama Karya
100 ton per hour crusher
being erected
at Sentul.

SECTION X

A P P E N D I X

SECTION X APPENDIX

X. 1. INCOMING CORRESPONDENCE

	<u>FROM</u>	<u>SUBJECT</u>	<u>D A T E</u>
1.	Bina Marga	Approval of the Engineer's Dollar Invoice No. 76/1981.	Oct. 1, 1981
2.	Bina Marga	Transmittal of the Approved CCO No. 3	Oct. 2, 1981
3.	PT ICCI	Order for small and big construction plans.	Oct. 3, 1981
4.	PT ICCI	Rainfall data at Ciawi-Gadog Area.	Oct. 7, 1981
5.	PT ICCI	Sample of aggregate for PCP.	Oct. 9, 1981
6.	PT ICCI	Sample of aggregate for RCP.	Oct. 9, 1981
7.	PT ICCI	Project Truck accident.	Oct. 9, 1981
8.	PT ICCI	Request.	Oct. 9, 1981
9.	Bina Marga	Training Program for 2 (two) students.	Oct. 10, 1981
10.	Bina Marga	Ayakan untuk Mesin Pemecah Batu. (Screenings needed for crusher).	Oct. 10, 1981
11.	Bina Marga	Perbaikan Dump Truk No. AE/212/III. (Repair of Dump Truck No. AE/212/III).	Oct. 10, 1981
12.	PT ICCI	Sample of Aggregate for PCP.	Oct. 13, 1981
13.	PT ICCI	Sample of Aggregate for PCP.	Oct. 13, 1981
14.	PT ICCI	SII Standard.	Oct. 13, 1981
15.	PT ICCI	Revision of Master Project Schedule.	Oct. 14, 1981
16.	PT ICCI	Sample of Materials.	Oct. 15, 1981
17.	PT ICCI	Monthly Schedule for October 1981.	Oct. 15, 1981
18.	PT ICCI	Shop Drawing.	Oct. 17, 1981
19.	PT ICCI	Daily Extra Work Report.	Oct. 17, 1981
20.	Bina Marga	Specifications hot mixed Butas rock asphalt concrete mixtures.	Oct. 19, 1981
21.	PT ICCI	Rebar from PT Krakatau Steel.	Oct. 20, 1981
22.	PT ICCI	Pengeluaran dalam rangka persiapan mesin Kran P&H dan Dump Truk. (Expense due Preparation of P&H Crane and Dump Trucks).	Oct. 21, 1981
23.	PT ICCI	Stockpile Plan.	Oct. 22, 1981

SECTION X APPENDIX

X. 1. INCOMING CORRESPONDENCE (Cont'd)

	<u>FROM</u>	<u>SUBJECT</u>	<u>D A T E</u>
24.	PT ICCI	Equipment Request.	Oct. 22, 1981
25.	PT ICCI	Start pouring PCP.	Oct. 24, 1981
26.	PT ICCI	Transmittal List of Equipment.	Oct. 26, 1981
27.	Bina Marga	Transmittal of the Approved Contractor's Rupiah Invoice No. 4.	Oct. 26, 1981
28.	PT ICCI	Sample of Material	Oct. 27, 1981
29.	PT ICCI	Overtime.	Oct. 27, 1981
30.	Bina Marga	Contractor's Fifteenth Request for Equipment.	Oct. 27, 1981
31.	PT ICCI	H-piles.	Oct. 28, 1981
32.	PT ICCI	Start Proceeding the pile driving.	Oct. 28, 1981
33.	Bina Marga	Results of Test on Steel Bars.	Oct. 30, 1981
34.	Bina Marga	Assignment of One Bina Marga Counterpart Engineer.	Oct. 31, 1981

SECTION X APPENDIX

X. 2. OUTGOING CORRESPONDENCE

	<u>TO</u>	<u>SUBJECT</u>	<u>D A T E</u>
1.	PT ICCI	Measurement and payment for compacting original ground.	Oct. 1, 1981
2.	Bina Marga	Testing concrete and reinforced concrete pipes.	Oct. 1, 1981
3.	PT ICCI	New Right of Way at Bridge Station 17.	Oct. 1, 1981
4.	JV NYC	Transmittal of Approved Dollar Invoice No. 76 for August.	Oct. 2, 1981
5.	Bina Marga	Transmittal of Additional Copy of Evaluation Report of Irrigation & Draft of Final Report.	Oct. 2, 1981
6.	PT ICCI	Request for Reimbursement of Toll Expense.	Oct. 3, 1981
7.	JV NYC	Weekly Administration Report No. 344.	Oct. 3, 1981
8.	PT ICCI	Transmittal of Approved CCO No. 3	Oct. 5, 1981
9.	PT ICCI	Rainfall data for September.	
10.	Bina Marga	Report on ICCI's Proposal for Bina Marga to Reimburse Tolls.	Oct. 6, 1981
11.	Bina Marga	Request for Engineer's Vehicle.	Oct. 6, 1981
12.	PT ICCI	Equipment Crossings.	Oct. 6, 1981
13.	Bina Marga	Notes of Meeting of September 29, 1981.	Oct. 7, 1981
14.	Bina Marga	Notes on Project Meeting of October 6, 1981.	Oct. 7, 1981
15.	Bina Marga	Submittal of Engineer's Rupiah Invoice No. 91 for September.	Oct. 7, 1981
16.	PT ICCI	Surveys, Bridge Station 11+932.	Oct. 7, 1981
17.	JV NYC	Bank Deposit Slips for Jimmy Caldwell.	Oct. 9, 1981
18.	Bina Marga	Submittal of Contractor's Rupiah Invoice No. 3 for August and No. 4 for September.	Oct. 10, 1981
19.	PT ICCI	Sample of Concrete Aggregate.	Oct. 10, 1981
20.	JV NYC	Weekly Administration Report No. 345.	Oct. 10, 1981
21.	PT ICCI	Bridge Pier 5 and 6 at Bridge Station 11+932.	Oct. 12, 1981

SECTION X APPENDIX

X. 2. OUTGOING CORRESPONDENCE (Cont'd)

	<u>TO</u>	<u>SUBJECT</u>	<u>D A T E</u>
22.	Mr. Ido Su- hada	Appointment to the position Driver.	Oct. 12, 1981
23.	Mr. Dahdan	Appointment to the position Materials Aide.	Oct. 12, 1981
24.	Mr. Mohamad Taufan	Appointment to the position Materials Aide.	Oct. 12, 1981
25.	Bina Marga	Contractor's Report on Truck Accident.	Oct. 12, 1981
26.	PT ICCI	Traffic Signs and Flagmen.	Oct. 12, 1981
27.	PT ICCI	Piers 2-9 inclusive Bridge Station 11+932.	Oct. 13, 1981
28.	PT ICCI	Transmittal of Stockpile Plan.	Oct. 13, 1981
29.	PT ICCI	Bridge Station 11+932 Framing Plan Section C-8 Sheet No. S-011.	Oct. 14, 1981.
30.	Bina Marga	Submittal of Engineer's Dollar Invoice No. 77 for September.	Oct. 15, 1981.
31.	JV NYC	Transmittal of Rupiah Accounting Reports for September.	Oct. 15, 1981
32.	Bina Marga	Report of Project Meeting of October 13 13th.	Oct. 15, 1981
33.	PT ICCI	Aggregate Gradations.	Oct. 15, 1981
34.	PT ICCI	Suggested Aggregates for PCP & RCP.	Oct. 16, 1981
35.	Bina Marga	Submittal of Engineer's Monthly Supervision Report No. 89 for September.	Oct. 17, 1981
36.	Bina Marga	Submittal of Corrected Dollar Invoice No. 77 for September.	Oct. 17, 1981
37.	PT ICCI	Aggregate Gradings, Sentul Crusher.	Oct. 17, 1981
38.	JV NYC	Weekly Administration Report No. 346.	Oct. 17, 1981
39.	PT ICCI	Cement Test.	Oct. 21, 1981.
40.	PT ICCI	Transmittal of Additional Copies of Construction Plan.	Oct. 21, 1981
41.	PT ICCI	Invoice for ICCI, Jagorawi Highway, Stage II.	Oct. 21, 1981
42.	Bina Marga	Notes on Project Meeting of 20 October	

X. 2. OUTGOING CORRESPONDENCE (Cont'd)

	<u>TO</u>	<u>SUBJECT</u>	<u>D A T E</u>
22.	Mr. Ido Suhada	Appointment to the position Driver.	Oct. 12, 1981
23.	Mr. Dahdan	Appointment to the position Materials Aide.	Oct. 12, 1981
24.	Mr. Mohamad Taufan	Appointment to the position Materials Aide.	Oct. 12, 1981
25.	Bina Marga	Contractor's Report on Truck Accident.	Oct. 12, 1981
26.	PT ICCI	Traffic Signs and Flagmen.	Oct. 12, 1981
27.	PT ICCI	Piers 2-9 inclusive Bridge Station 11+932.	Oct. 13, 1981
28.	PT ICCI	Transmittal of Stockpile Plan.	Oct. 13, 1981
29.	PT ICCI	Bridge Station 11+932 Framing Plan Section C-8 Sheet No. S-011.	Oct. 14, 1981.
30.	Bina Marga	Submittal of Engineer's Dollar Invoice No. 77 for September.	Oct. 15, 1981.
31.	JV NYC	Transmittal of Rupiah Accounting Reports for September.	Oct. 15, 1981
32.	Bina Marga	Report of Project Meeting of October 13 13th.	Oct. 15, 1981
33.	PT ICCI	Aggregate Gradations.	Oct. 15, 1981
34.	PT ICCI	Suggested Aggregates for PCP & RCP.	Oct. 16, 1981
35.	Bina Marga	Submittal of Engineer's Monthly Supervision Report No. 89 for September.	Oct. 17, 1981
36.	Bina Marga	Submittal of Corrected Dollar Invoice No. 77 for September.	Oct. 17, 1981
37.	PT ICCI	Aggregate Gradings, Sentul Crusher.	Oct. 17, 1981
38.	JV NYC	Weekly Administration Report No. 346.	Oct. 17, 1981
39.	PT ICCI	Cement Test.	Oct. 21, 1981.
40.	PT ICCI	Transmittal of Additional Copies of Construction Plan.	Oct. 21, 1981
41.	PT ICCI	Invoice for ICCI, Jagorawi Highway, Stage II.	Oct. 21, 1981
42.	Bina Marga	Notes on Project Meeting of 20 October 1981.	Oct. 21, 1981

SECTION X APPENDIX

X. 2. OUTGOING CORRESPONDENCE (Cont'd)

	<u>TO</u>	<u>SUBJECT</u>	<u>D A T E</u>
43.	PT ICCI	RCP Culverts at Mtations 16+436 and 14+932.	Oct. 21, 1981
44.	PT ICCI	Traffic Safety Barricade Signs and Moveable Traffic Safety Barricades.	Oct. 22, 1981
45.	Mr. Evanson	Transmittal of Copies of Joint Venture's Documents.	Oct. 23, 1981
46.	Bina Marga	Contractor's Fifteenth Request For Equipment.	Oct. 23, 1981
47.	PT ICCI	Wasting Embankment Material.	Oct. 23, 1981
48.	PT ICCI	Rebar on Site.	Oct. 23, 1981
49.	JV NYC	Weekly Administration Report No. 347.	Oct. 24, 1981
50.	PT ICCI	Engineer's Housing.	Oct. 26, 1981
51.	PT ICCI	Approval of Fifteenth Request For Equipment.	Oct. 27, 1981
52.	PT ICCI	Transmittal of Approved Rupiah Invoice No. 4.	Oct. 27, 1981
53.	PT ICCI	Concrete Mix Design for Perforated Pipe.	Oct. 27, 1981
54.	Citibank	Withdrawal of Dollar Time Deposit.	Oct. 28, 1981
55.	PT ICCI	Results of Test on Concrete Aggregate.	Oct. 28, 1981
56.	PT ICCI	Median Barrier Rail Control Elevation.	Oct. 28, 1981
57.	Bina Marga	Contractor's Equipment Use Report for October.	Oct. 30, 1981
58.	PT ICCI	Box Culvert at Sta. 3+900, Gadog Spur.	Oct. 31, 1981
59.	PT ICCI	Revised Subdrain Plan for Toll Plaza Area.	Oct. 31, 1981
60.	JV NYC	Weekly Administration Report No. 348.	Oct. 31, 1981

JAGORAWI
HIGHWAY PROJECT

PROJECT RECORD - ESTIMATE

RUPIAH
SHEET 1

Ammann & Whitney
Trans - Asia Engineering

Period No. 5 Estimate No. 6 Date November 1, 1981.
Period Dates September 26, thru October 25, 1981.

STAGE II

BID SECTION NO.	PAY ITEM NO.	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		BID SECTION NO.
						Quantity	Amount	Quantity	Amount	
BASIC TENDER										
1.	109(1)	Mobilization	L.S.		269,740,977			33 33	89,913,659	
2.	111(1)	Engineer's Facilities	L.S.		120,435,458	808	9,731,185	8957	103,053,353	
3.			L.S.	Deleted						
4.			L.S.	Deleted						
5.	201(1)	Clearing and Grubbing	Ac	16,406	11,156,080	180	2,953,080	99197	16,323,477	
6.	202(1)	Remove Existing Grouted or Loose Rip Rap	Cu.M.	11,456	4,582,400					
7.	202(2)	Remove Existing Headwalls	Each	99,728	897,552					
8.	202(3)	Remove Existing Wing Walls	Each	710,393	1,436,786					
9.	202(4)	Remove Existing Bridge Gadoy Spur Sta 3+005+ And Miscellaneous Grouted Rip-Rap on Puncakrti	L.S.		3,289,241					
10.	203(1)	Unclassified Excavation Class 1	Cu.M.	2,352	517,440,000	8,892	20,913,984	22,892	53,041,984	
11.	203(2)	Unclassified Excavation Class 2	Cu.M.	1,937	29,260,525					
12.	203(3)	Excavation Class 3	Cu.M.	2,245	37,049,760	2,24970	5,051,566	9,36911	21,037,811	
13.	203(4)	Roadway Embankment	Cu.M.	1,117	108,140,120	7,25634	8,106,420	17,25634	19,277,920	
14.	203(5)	Select Roadway Embankment	Cu.M.	0,654	139,329,400			1,661	14,400,256	
15.	206(1)	Structure Excavation	Cu.M.	4,022	25,740,800			5	20,110	
16.	206(2)	Bridge Excavation	Cu.M.	6,528	38,515,200					
17.	209(1)	Removal of Existing Pavement	Sq.M.	3,653	12,420,200					
18.	301(1)	Asphalt Treated Base Course	Ton	15,434	643,597,800					
19.	304(1)	Aggregate Base Course	Cu.M.	13,165	414,717,975			2	26,331	
20.	305(1)	Lime Treated Improved Subgrade, Processing	Cu.M.		DELETED	DURING	810	NEGOTIA	IONS.	
21.	305(2)	Hydrated Lime	Ton		DELETED	DURING	810	NEGOTIA	IONS.	
22.	305(3)	Curing Seal, Emulsified Asphalt Grade SS-1H	Ton		DELETED	DURING	810	NEGOTIA	IONS.	
23.	303(1)	Hot Bituminous Concrete Pavement	Ton	16,209	254,481,300					
24.	303(2)	Asphalt Cement 60-70 Penetration	Ton	300,126	984,415,707					
25.	307(1)	Tack Coat, Emulsified Asphalt Grade SS-1H	Ton	452,219	13,114,351					
26.	309(1)	Prime Coat, Liquid Asphalt Grade MC-70	Ton	524,848	57,733,280					
27.	309(1)	Seal Coat, Cover Aggregate, Grading B, Type 3	Ton	14,308	21,462,000					
28.	309(2)	Seal Coat, Liquid Asphalt Grade RC-250	Ton	535,468	34,805,420					
29.	309(3)	Seal Coat, Emulsified Asphalt Grade SS-1H	Ton	479,557	8,632,026					
30.	300A(1)	Structural Steel Piles Furnished	L.M.	46,625	404,238,750	6,312	294,297,000	6,312	294,297,000	
31.	300A(2)	Structural Steel Piles Driven	Each	132,460	109,411,960					
32.	300A(3)	Structural Steel Piles Test Driven	Each	132,460	397,380					
33.	300A(4)	Load Test	(Each)	2,192,576	2,192,576					
34.	300B(1)	Soil Borings (Other than Rock)	L.M.	52,074	2,603,700			9685	5,043,366	
35.	300B(2)	Soil Borings (Rock)	L.M.	106,888	5,344,400			3825	4,088,465	
36.	300B(3)	Mobilization & Demobilization of Boring Equipment, Each Bridge Site	Each	633,106	1,899,318			1	633,106	
37.	301A(1)	Structural Concrete, Class "M"	Cu.M.	120,282	637,494,600			315	3,788,883	
38.	301A(2)	Structural Concrete, Class "C"	Cu.M.	58,273	8,449,585					
Sheet No. 1						Sub-totals :				
								341,053,235	625,745,751	

SI - 5.2.1 R

X. 3. CONTRACTOR'S PAY ESTIMATES NO. 6

SECTION X APPENDIX

JAGORAWI
HIGHWAY PROJECT

PROJECT RECORD - ESTIMATE

RUPIAH
SHEET 2

Ammann & Whitney
Trenton - Auto Engineering

STAGE II

Period No. 5 Estimate No. 6 Date Nov 4, 1981
Period Dates September 26, 1981 thru October 29, 1981.

(5) (6) (7) (8)

BID SCOPE NO.	PAY ITEM NO.	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		BID SCOPE NO.
						Quantity	Amount	Quantity	Amount	
39.	601B(1)	East Bridge STA. 11 + 932, Superstructure	L. S		704,009,623	-	-	-	-	
40.	601B(2)	East Bridge STA. 13 + 587, Superstructure	L. S		396,511,817	-	-	-	-	
41.	601B(3)	East Bridge STA. 15 + 540, Superstructure	L. S		392,836,263	-	-	-	-	
42.	602(1)	Reinforcing Steel	Kg.	548	290,440,000	-	-	-	-	
43.	603(1)	Reinforced Concrete Pipe, Ø 60 cm	L. M	42,128	44,234,400	-	-	-	-	
44.	603(2)	Reinforced Concrete Pipe, Ø 80 cm	L. M	58,754	43,477,960	-	-	-	-	
45.	603(3)	Reinforced Concrete Pipe, Ø 120 cm	L. M	90,385	4,519,250	-	-	-	-	
46.	604(1)	Utility Manhole Type 1	Each	757,147	4,542,882	-	-	-	-	
47.	604(2)	Utility Manhole Type 2	Each	401,869	1,607,476	-	-	-	-	
48.	604(3)	Inlet, Type I	(Each)	1,039,600	27,029,600	-	-	-	-	
49.	604(4)	Inlet, Type II	(Each)	1,025,051	1,025,051	-	-	-	-	
50.	604(5)	Inlet, Type III	(Each)	1,025,051	10,250,510	-	-	-	-	
51.	604(6)	Inlet, Type IV	(Each)	1,085,888	8,687,104	-	-	-	-	
52.	604(7)	Grate Type I	Each	326,943	4,904,145	-	-	-	-	
53.	605(1)	20 cm. Perfor. Conc. Pipe in place, Incl. End Wall	L. M	19,913	46,591,100	-	-	-	-	
54.	605(2)	Underdrain Junction Box in place	Each	17,061	426,525	-	-	-	-	
55.	606(1)	Galvanized Beam Type Guardrail & Post	L. M	78,823	45,717,340	-	-	-	-	
56.	606(2)	Remove Existing Guardrail and Relocate	L. M	16,391	2,428,580	-	-	-	-	
57.	607(1)	Barbed Wire Fence	L. M	12,110	50,862,000	-	-	-	-	
58.	609(1)	Concrete Curb Gutter, Type 1	L. M	11,929	1,550,770	-	-	-	-	
59.	609(2)	Concrete Curb Gutter, Type 2	L. M	25,415	25,160,850	-	-	-	-	
60.	609(3)	Concrete Delineation Strip	L. M	7,360	8,096,000	-	-	-	-	
61.	609(4)	Concrete Median Barrier	L. M	39,398	169,411,400	-	-	-	-	
62.	609(5)	Concrete Median Barrier End Taper	Each	149,123	596,492	-	-	-	-	
63.	609(6)	Concrete Median Barrier Transition to Bridge	Each	95,439	4,172,634	-	-	-	-	
64.	619(1)	Rock Slope Protection	Cu.M	15,811	79,055,000	-	-	-	-	
65.	622(1)	Grouted Rip-Rap 20 cm. Thick for Channel Lining	Sq.M	8,251	255,781,000	-	-	-	-	
66.	622(2)	Grouted Rip-Rap	Cu.M	39,886	15,954,400	-	-	-	-	
67.	623(1)	Survey Control Monument	Each	67,796	3,796,576	-	-	-	-	
68.	624(1)	Placing Scalped Topsoil	Are	18,244	12,405,920	-	-	-	-	
69.	629(1)	Sodding	Are	81,800	98,160,000	-	-	-	-	
70.	630(1)	Concrete Block Slope Protection	Sq.M	18,456	15,687,600	-	-	-	-	
71.	631(1)	Roadway Marking, 10 cm, Striping	L. M	767	34,745,100	-	-	-	-	
72.	631(2)	Miscellaneous Pavement Marking Words, Arrow, Etc	Sq.M	6,829	136,580	-	-	-	-	
73.	632(1)	Standard Road Sign, Type A	Each	22,287	244,574	-	-	-	-	
74.	632(2)	Standard Road Sign, Type B	Each	41,296	1,412,960	-	-	-	-	
75.	632(3)	Standard Road Sign, Type C	Each	41,296	2,119,440	-	-	-	-	
76.	632(4)	Standard Road Sign, Type D	Each	108,421	816,842	-	-	-	-	
77.	632(5)	Standard Road Sign, Type E	Each	148,754	446,262	-	-	-	-	
78.	632(6)	Non Standard Road Sign No. 1	Each	247,550	742,650	-	-	-	-	
79.	632(7)	Non Standard Road Sign No. 2	Each	247,550	247,550	-	-	-	-	
80.	632(8)	Non Standard Road Sign No. 3	Each	309,927	309,927	-	-	-	-	
Sheet No. 2				Sub-Totals :		-6-		-6-		

X.
3. CONTRACTOR'S PAY ESTIMATES NO. 6

SECTION X APPENDIX

JAGORAWI
HIGHWAY PROJECT
STAGE II

PROJECT RECORD-ESTIMATE

RUPIAH
SHEET 3

Ammann & Whitney
Trans - Asia Engineering

Period No. 5 Estimate No. 6 Date Nov 4, 1981.
Period Dates September 26, 1981 thru October 25, 1981.

BID SCHD NO.	PAY ITEM NO.	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		BID SCHD NO.
						Quantity	Amount	Quantity	Amount	
81.	632(9)	Non Standard Road Sign No. 4	Each	223,178	223,178	-	-	-	-	
82.	632(10)	Non Standard Road Sign No. 5	Each	246,180	738,540	-	-	-	-	
83.	632(11)	Non Standard Road Sign No. 6	Each	317,797	953,391	-	-	-	-	
84.	632(12)	Remove Existing Single Post Sign & Relocate	Each	39,290	471,480	-	-	-	-	
85.	633(1)	Illumination System Complete, Gadag	L.S.	-	27,407,200	-	-	-	-	
86.	633(2)	Traffic Signal System Complete, Gadag	L.S.	-	45,221,900	-	-	-	-	
87.	634(1)	Utility Conduit (15 cm PVC)	L.M.	77,977	4,307,580	-	-	-	-	
88.	635(1)	Traffic Safety Plastic Cone	Each	6,685	668,500	-	-	60	401,100	
89.	635(2)	Striped Traffic Safety Barrel Barricade	Each	20,303	2,030,300	50	1,015,150	50	1,015,150	
90.	635(3)	Traffic Safety Barricade/Sign, Type 1	Each	61,820	1,236,400	10	618,200	10	618,200	
91.	635(4)	Traffic Safety Barricade/Sign, Type 2	Each	63,249	632,490	10	632,490	10	632,490	
92.	635(5)	Movable Traffic Safety Barricade, Type A	Each	35,321	1,236,235	18	635,778	18	635,778	
93.	635(6)	Movable Traffic Safety Barricade, Type B	Each	35,946	1,078,380	15	539,190	15	539,190	
94.	635(7)	Movable Traffic Safety Barricade, Type C	Each	41,488	414,880	5	207,440	5	207,440	
95.	636(1)	Headwall Type A-1 for 60 cm Culvert	Each	250,973	10,038,920	-	-	-	-	
96.	636(2)	Headwall Type A-1 for 80 cm Culvert	Each	800,771	4,653,252	-	-	-	-	
97.	636(3)	Headwall Type A-1 for 120 cm Culvert	Each	591,429	2,765,716	-	-	-	-	
98.	636(4)	Headwall Type B-1 for 60 cm Culvert	Each	272,164	272,164	-	-	-	-	
99.	636(5)	Headwall Type B-1 for 80 cm Culvert	Each	385,870	385,870	-	-	-	-	
100.	636(6)	Headwall Type B-1 for 120 cm Culvert	Each	699,980	699,980	-	-	-	-	
101.	636(7)	Headwall Type A-2 for 60 cm Culvert	Each	220,681	962,043	-	-	-	-	
102.	636(8)	Headwall Type A-2 for 80 cm Culvert	Each	163,839	2,783,034	-	-	-	-	
103.	636(9)	Headwall Type A-2 for 120 cm Culvert	Each	776,220	776,220	-	-	-	-	
104.	636(10)	Headwall Type B-2 for 60 cm Culvert	Each	348,077	348,077	-	-	-	-	
105.	636(11)	Headwall Type B-2 for 80 cm Culvert	Each	91,160	982,320	-	-	-	-	
106.	636(12)	Headwall Type B-2 for 120 cm Culvert	Each	863,267	863,267	-	-	-	-	
107.	637(1)	Sky Well for Existing Pedestrian Box. (Each)	2,	939,106	5,878,212	-	-	-	-	
		CCO Lump Sum Payments :								
		CCO no 3 Three-Edge Bearing.							1,295,268	
		Sheet No. 3 Sub Totals:					3,648,268		5,344,616	

X. 3. CONTRACTOR'S PAY ESTIMATES NO. 6

SECTION X APPENDIX

JAGORAWI
HIGHWAY PROJECT
STAGE II

PROJECT RECORD-ESTIMATE

RUPIAH
SHEET 4

Anderson & Whitely
Trans - Site Engineering

Period No. 5 Estimate No. 6 Date November 4, 1981
Period Dates September 26, 1981 thru October 25, 1981

(5) (6) (7) (8)

BID SCHEM NO.	PAY ITEM NO.	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		BID SCHEM NO.
						Quantity	Amount	Quantity	Amount	
		Sheet No. 1								
		Sheet No. 2 Sub Totals					341,053,235		625,745,751	
		Sheet No. 3 Sub Totals					3,648,248		5,347,619	
		Sheet No. Sub Totals								
		Sheet No. Sub Totals								
		Sheet No. Sub Totals								
		Sheet No. Sub Totals								
		SUB - TOTALS; CONTRACT ITEMS								
		(A) Time and Materials Extra Work				75	11,356,152	75	11,356,152	
		SUB - TOTALS WORK DONE					356,057,635		642,446,519	
		(B) Materials on hand								
		SUB - TOTALS; WORK DONE; MATERIALS					356,057,635		642,446,519	
		(C) Deduct 2/3 of 15% for Advance Payment.					35,605,764		14,373,304	
		(D) Deduct 10% Retention Payment					35,605,764		61,244,652	
		(E)								
		(F)								
		SUB - TOTALS; DEDUCTION					71,211,528		108,618,036	
		Sub Total					284,846,107		533,828,483	
		Add 2.5% PPN Tax.					7,121,153		13,345,712	
		TOTAL AMOUNT DUE CONTRACTOR					291,967,260		547,174,195	

DATE WORK STARTED: Sept 22, 81 ESTIMATED DATE FOR COMPLETION: May 11, 1981 WEATHER NON WORKING DAYS: 60 C.C.O DAYS: 0 OTHER ALLOWABLE DAYS: 0 PERCENT COMPLETED: 8.17% PERCENT TIME ELAPSED: 22.83% SIGNATURE:

X. 3. CONTRACTOR'S PAY ESTIMATES NO. 6

SECTION X APPENDIX

SECTION X . . . , APPENDIX

X. 5. STATUS OF FUNDS

I. DOLLAR FUNDING, ENGINEER'S CONTRACT

1- Approved Dollar Value of Engineer's Contract plus Amendments 1 thru 9	US \$	3,988,326
2- Actual Dollar Funds Available from US/AID Loan	US \$	3,979,054*
3- Amount of Services and Fee thru Invoice No. 78, October 1981	US \$	<u>3,581,986</u>
Dollar Funds Remaining as of October 31, 1981	US \$	397,068

II. RUPIAH FUNDING, ENGINEER'S CONTRACT

1- Approved Rupiah Value of Engineer's Contract plus Amendments 1 thru 9	Rp	1,555,628,569
2- Amount of Services and Fee thru Invoice No. 92, October 1981	(-) Rp	<u>1,265,718,484</u>
Rupiah Funds Remaining as of October 31, 1981	Rp	289,900,085

III. CONSTRUCTION CONTRACT

Approved Value of Contract	Rp	8,050,000,000
Value of Contract Change Orders approved to date	+ Rp	<u>9,208,345</u>
Approved Value of Contract	Rp	8,059,208,345

*Difference is due to banking fees.

CONTRACT No. 05/ETH/DI/M/81
 OWNER: DIRECTORATE GENERAL BINA HARDA
 ENGINEER: ANIMATI & WHITNEY
 TRAFIS ASIA ENGINEERING ASSOCIATES INC
 CONTRACTOR: P.T. INDONESIA CONSORTIUM OF CONSTRUCTION INDUSTRIES
 ("P.T.10CI")

CONSTRUCTION PR

NO	DESCRIPTION	QTY	DURATION (MONTH)	%	1981					
					MAY	JUN	JUL	AUG	SEP	OCT
1	MOBILIZATION NO 1-2-3-4-08-09-90 91-92-93-94 C.C.O NO 5	LS	9	5,516	0.672	0.037	0.917	0.437	0.772	0.667
2	QUARRY OPERATION (CRUSHING)	214,200 T	15	-						
3	CLEARING AND GRUBBING REMOVAL OF OBSTRUCTION NO. 5-6-7-8-9-17 C.C.O NO 1	LS	6	0.664	0.083	0.173	0.134	0.173	0.105	0.045
4	UNCLASSIFIED EXCAVATIONS NO. 10 C.C.O NO 1	200,000 CuM	31	5.984	0.406	0.818	0.911	0.818	0.721	0.611
5	REMOVE AND REPLACE UNSUITABLE MATERIAL NO 12-14	32,600 CuM	5.3	2,244	0.165	0.441	0.481	0.441	0.780	0.341
6	SOIL BORINGS NO. 24-25-26	100 LM	2	0.125	0.051	0.070				
7	BRIDGE NO 16-20-21-22-23-27-29-30-31-32	LS	66.3	26,676		1.529	3.384	3.058	2.640	2.162
8	PRECASTING	LS	7.5	-						
9	PERFORATED CONCRETE PIPE NO. 33-34	4,700 LM	9	0.508				0.150	0.129	0.116
10	ROADWAY EMBANKMENT NO. 35	96,800 CuM	17	1.378				0.120	0.104	0.031
11	AGGREGATE BASE COURSE NO. 36-38	31,500 CuM	14	6.010						
12	PAVING NO 39-42-44-45-47-48-50	62,292 TON	14	24,940						
13	CONCRETE MEDIAN BARRIER RAIL NO. 41-43-46	4,300 LM	9	2.216						
14	STRUCTURE EXCAVATION NO. 49	6,400 CuM	15	0.327	0.020	0.031	0.030	0.026	0.027	0
15	REINFORCED CONCRETE PIPE (R.C.P.) NO 48-49-48	1,840 LM	8	1.173				0.285	0.230	0.706
16	REINFORCED CONCRETE BOX (R.C.B.) NO. 57-62	10 EACH	17	0.590			0.053	0.249	0.042	0.818
17	MISC STRUCTURAL CONCRETE & REINFORCING STEEL NO. 57 28 45	LS	12	0.698						0.069
18	MISC DRAINAGE FACILITIES NO. 11-16-17-18-19-20-21-22-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87	145 EACH	17	1.510						0.116
19	ROAD SIDE APPURTENANCES NO 55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87	LS	14	9.353						
	PLANNED PROGRESS SCHEDULE			100.00%	1.171	3.872	5.861	5.908	4.758	3.300
	ACTUAL PROGRESS				1.171	8.533	15.514	21.914	29.670	29.4
	EST'D WORKABLE DAYS - 6 DAY WEEK				1.67	1.83	2.90	3.66	4.47	10.18
	EST'D HOURS WORKED PER DAY				15	72	26	72	19	17
					9	10	11	11	11	9

CONSTRUCTION PROGRESS SCHEDULE (2)

1981								1982										
MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0.572	0.637	0.912	0.637	0.722	0.647	0.495	0.380	0.14										
0.083	0.127	0.134	0.127	0.106	0.098													
0.106	0.618	0.916	0.618	0.734	0.648	0.496	0.382	0.116	0.353	0.343	0.229							
0.160	0.441	0.481	0.441	0.380	0.341													
0.951	0.076																	
1.529	1.734	1.958	2.048	2.263	1.808	1.389	0.617	0.545	1.250	1.608	1.084	3.266	3.331	3.054	2.849	2.842	2.842	
			0.150	0.129	0.116	0.089	0.068	0.036	0.017									
			0.120	0.104	0.071	0.076	0.058	0.016	0.027	0.048	0.071	0.082	0.129	0.126	0.138	0.164	0.193	0.177
							0.327	0.636	0.121	0.095	0.425	0.489	0.778	0.783	0.718	0.620	0.536	0.478
										1.167	1.607	1.388	2.843	3.702	2.843	2.705	2.377	1.688
								0.851	0.863	0.467	0.770	0.784	0.372	0.488	0.277	0.272		
0.630	0.637	0.630	0.626	0.627	0.646	0.671	0.667	0.667	0.666	0.612	0.618	0.621	0.676	0.633	0.636			
			0.745	0.738	0.701	0.657	0.611	0.636	0.648	0.605								
			0.651	0.646	0.642	0.638	0.629	0.627	0.607	0.609	0.600	0.619	0.613	0.619	0.651	0.649	0.642	0.638
					0.068	0.057	0.044	0.017	0.016	0.017	0.053	0.061	0.098	0.098	0.090	0.078		
					0.718	0.698	0.669	0.627	0.627	0.613	0.600	0.604	0.653	0.666	0.663	0.631	0.618	0.600
										0.437	0.618	0.776	1.008	1.361	1.766	0.970	0.872	0.796
1.171	3.977	5.891	4.908	5.891	2.788	3.884	2.868	0.918	1.063	2.921	3.254	5.791	8.496	9.270	8.496	7.312	6.187	7.824
1.171	5.143	7.057	6.074	7.057	2.670	3.976	2.842	0.915	1.060	2.916	3.249	5.786	8.491	9.265	8.491	7.307	6.182	7.819
1.67	1.85	2.40	3.66	4.47	12.18													
15	22	24	22	19	13	13	18	3	4	8	12	16	22	26	22	19	17	13
9	10	17	11	11	9	8	7	7	7	7	8	9	11	11	11	11	9	8

TITLE

DRAWN BY S. HIDAYAT
 PREPARED BY
 CHECKED BY
 APPROVED
 PROJECT MANAGER
 DATE JUN 1, 1981

DRAWING NO.
 DATE MAY 11, 1981

1982									1983				% PROGRESS	REMARK
APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR		
	13	14	15	16	17	18	19	20	21	22	23	24	100	PROGRESS SCHEDULE No. 1
													95	
													90	
													85	
													80	
													75	
	7 084	3 066	3 334	3 056	7 660	3 382							70	
													65	
													60	
													55	
	0 682	0 120	0 310	0 178	0 194	0 093	0 075	0 059					50	
													45	
	0 889	0 718	0 789	0 718	0 620	0 556	0 478	0 387	0 298				40	
													35	
	1 538	2 843	3 102	2 843	2 695	3 197	1 680	1 282	0 287	0 537	1 107	1 608	30	
													25	
													20	
	0 254	0 372	0 406	0 372	0 372								15	
													10	
	3 021	0 030	0 033	0 038									5	
													0	
	0 012	0 049	0 051	0 049	0 042	0 038	0 038							
	0 001	0 040	0 044	0 050	0 078									
	0 104	0 153	0 166	0 153	0 131	0 118	0 098	0 088	0 021	0 027				
	0 126	1 008	1 161	1 166	0 970	0 874	0 778	0 685	0 145	0 194	0 437	0 578		
51	5 791	8 496	9 270	8 496	7 292	6 189	7 824	7 778	0 431	8 738	1 608	2 318		
57	49 788	58 284	67 554	76 050	83 363	89 548	92 473	94 781	95 752	96 090	97 880	100		
15	22	28	22	18	17	18	10	3	4	8	13			
9	11	11	11	11	9	8	7	7	7	7	8			

APPROVED
 1 JUN 1981
 S. HIDAYAT
 Project Manager
 a joint venture