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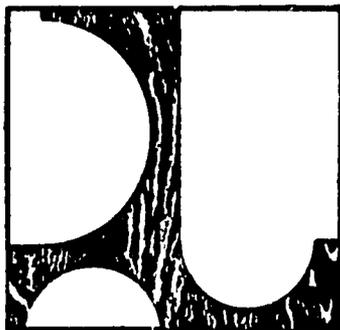
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REPUBLIK INDONESIA

DEPARTEMEN PEKERJAAN UMUM
DIREKTORAT JENDERAL BINA MARGA



JAGORAWI HIGHWAY STAGE II

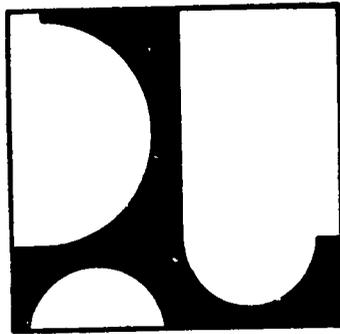
MONTHLY REPORT
SUPERVISION

SEPTEMBER

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

REPUBLIK INDONESIA

**DEPARTEMEN PEKERJAAN UMUM
DIREKTORAT JENDERAL BINA MARGA**



JAGORAWI HIGHWAY STAGE II

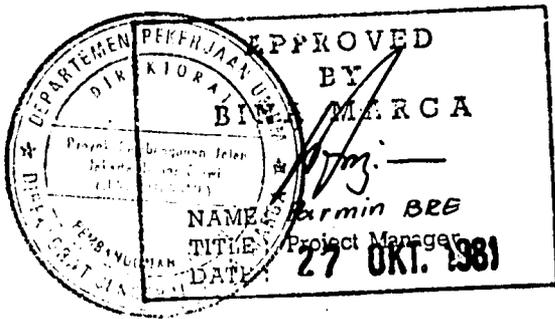
**MONTHLY REPORT
SUPERVISION**

SEPTEMBER

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

CONSULTING ENGINEERING

JAGORAWI HIGHWAY PROJECT
CONSULTING SUPERVISION SERVICES



SUBMITTED BY :

Larry G. Buntten

LARRY G. BUNTEN
Engineer -in- Charge

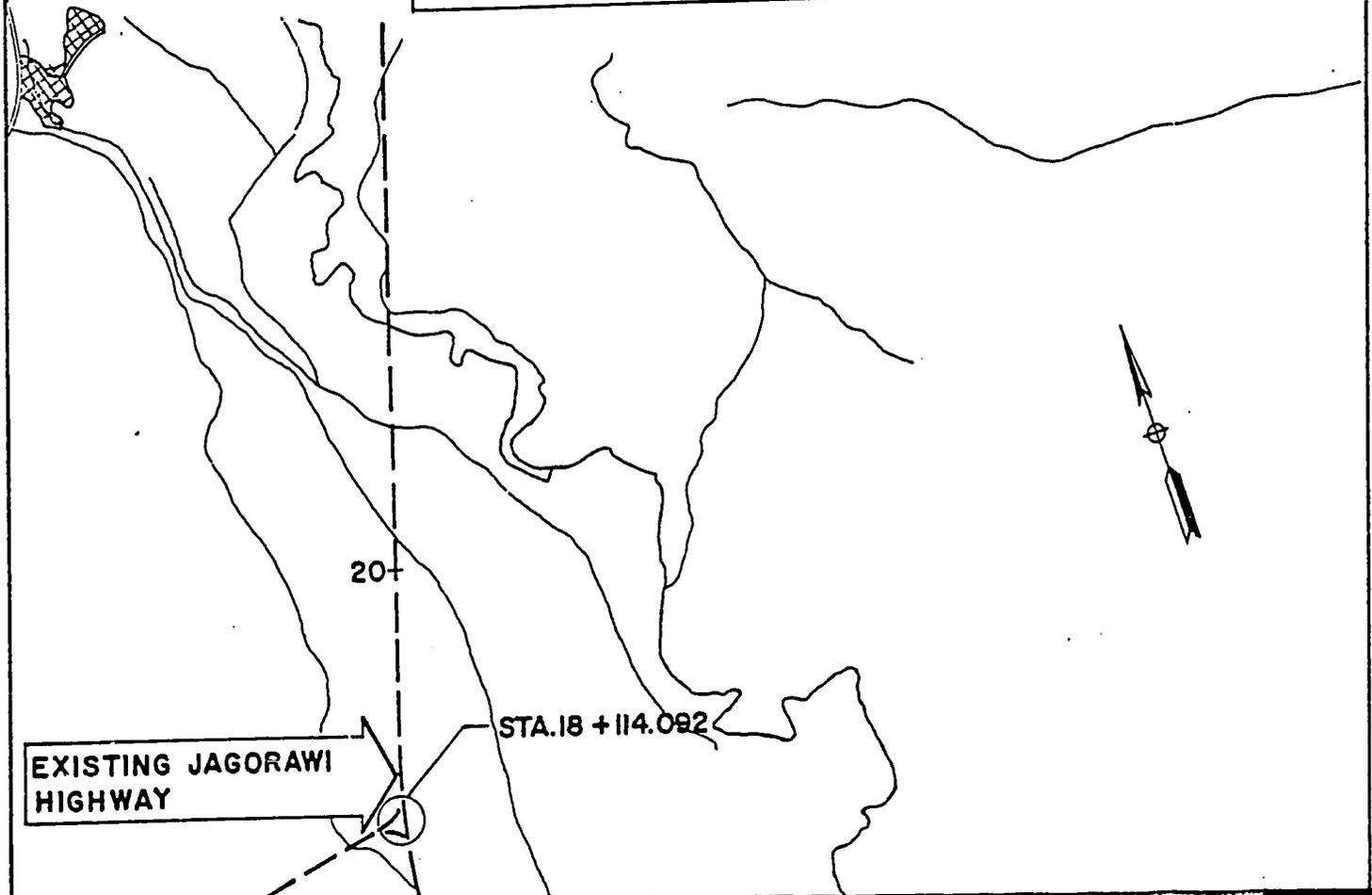
SEPTEMBER, 1981

Prepared by :

AMMANN & WHITNEY/TRANS-ASIA
ENGINEERING ASSOCIATES, INC.,
A Joint Venture

P.O. Box 44,
Bogor,
Indonesia

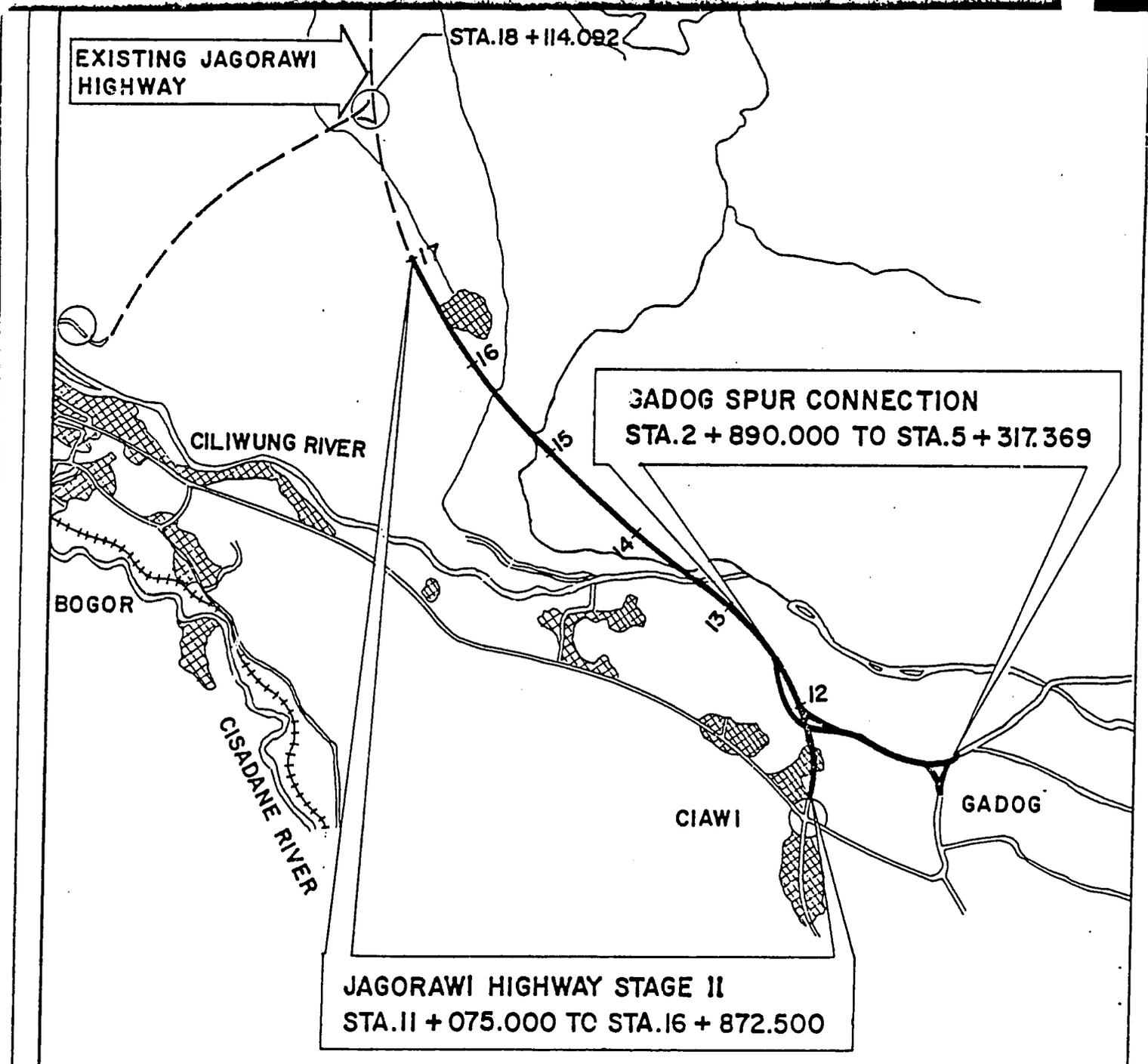
JAGORAWI HIGHWAY
STAGE II
SITE MAP
SCALE 1:50.000



EXISTING JAGORAWI
HIGHWAY

STA. 18 + 114.092

20+



EXISTING JAGORAWI
HIGHWAY

STA. 18 + 114.092

GADOG SPUR CONNECTION
STA. 2 + 890.000 TO STA. 5 + 317.369

CILWUNG RIVER

BOGOR

CISADANE RIVER

CIAWI

GADOG

JAGORAWI HIGHWAY STAGE II
STA. 11 + 075.000 TC STA. 16 + 872.500

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SECTION I NARRATIVE SUMMARY

I. 1. . . . STAGE II CONSTRUCTION

The Contractor has shown marked improvement in his work and mobilization effort. Casting of perforated pipe is now underway. Work is in progress on a field office, warehouse and shop and construction of the Engineer's housing and office extensions.

H-pile recondition is complete and H-piles are stockpiled on the site. Earthwork operations are better organized and density failures have dropped from 45 percent to 22.5 percent due mainly to the addition of a Cat 815 Compactor provided by Bina Marga and, we feel, improvements in operations suggested by Mr. Caldwell, Senior Construction/Paving Engineer.

18 additional pieces of heavy equipment were mobilized during the report period.

Problem areas continue. Low rate of progress (less than one percent per month for the first 5 months), will probably result in the Contractor not being able to complete on time.

The Bupati (Bogor) has placed a temporary stop order on further removal of quarry material from Sentul Quarry pending resolution of permits, taxes, and royalties, etc.

Preliminary tests of perforated pipe show continued low strength. Sieve analysis of aggregates from Sentul and Ciapus indicate a serious shortage of 3/8 inch rock size which may be resulting in low strengths.

All Expatriate staff are now on board, and the Dollar Letter of Credit has been extended until December 31, 1982.

The Engineer presented training films on Jagorawi to ICCI which were well received. More than 170 manhours of training were provided ICCI this month.

SECTION I NARRATIVE SUMMARY

I. 2. STAGE I MAINTENANCE

A cost proposal for fog sealing Jagorawi was received from Daimong Construction Co., Ltd. Costs were about three times higher than ICCI's bid price for Jagorawi Stage II. The Engineer prepared an evaluation report which, along with recommendations, has been forwarded to Jasa Marga.

SECTION II PROBLEM AREAS

II. 1. . . . LACK OF PROGRESS

The Contractor showed marked improvement in organizing and mobilizing the work this month. However, progress achieved has averaged less than 1 percent per month for the last 5 months (vs more than 5 percent per month scheduled). Thus, it is almost certain the Contractor can not complete the project on time.

II. 2. . . . SENTUL QUARRY

The Bupati (Bogor) has placed a stop notice on removal of quarry material from the Bina Marga-owned Sentul Quarry, pending payment of various requested taxes and royalties. Also, by Department of Rivers order, the Contractor is prohibited from quarrying directly from the river. Thus, an open pit-type quarry operation will be required.

Finally, the crushers provided by Bina Marga have suffered many breakdowns and are inefficient in operation. Aggregate produced is essentially one size. A deficiency of 3/8 inch size make the aggregate unsuitable for use as concrete (or asphalt) aggregate.

SECTION III ADMINISTRATION

III. 1. . . . SUBMISSIONS/APPROVALS

The Engineer's Dollar and Rupiah Invoices for August were submitted. The Dollar invoice has been approved.

The Contractor's Rupiah invoices No. 4 for August and No. 5 for September have been submitted to the Engineer.

Special reports on drainage, frontage roads in Gadog and review of the AID Loan Agreement were submitted to Bina Marga.

The Engineer's Dollar Letter of Credit was extended on September 10th. The Letter of Credit is valid until December 31, 1982.

III. 2. . . . DECISIONS

Bina Marga has issued instruction requiring the Contractor to comply with Department of Rivers directive which states that the Contractor may not quarry material from within the stream at Sentul.

Bina Marga has also issued instructions requiring the Contractor to comply with Jasa Marga regulations prohibiting equipment and vehicle crossings over the paved roadway in the Ciawi Section.

III. 3. MAJOR CONFERENCES

Regular project level meetings were held weekly. Notes on the meetings were prepared by the Engineer and forwarded to Bina Marga with a copy to the Contractor.

A maintenance meeting was held with Jasa Marga, Bina Marga, AID and the Engineer on September 23rd.

SECTION III ADMINISTRATION

III. 3. . . . MAJOR CONFERENCES (Cont'd)

Meetings and site inspections with the Contractor, Bina Marga Project Personnel, Engineer and Mr. Subaru were held on September 2 nd and 18th.

The EIC and Mr. Copleman of Trans-Asia met with Mr. Moelia on September 16th and 17th to discuss the possibility of AID terminating the Loan Agreement. There has been no decision on this matter as of the end of the report period. Reason given by AID officials was lack of progress on the part of the Contractor and new U.S. Government policies.

III. 4. . . . OFFICIAL VISITORS

Mr. George Gross departed Indonesia on September 10th.

Mr. Subaru visited the site on September 2nd and 18th.

III. 5. . . . FINANCIAL OVERRUNS/UNDERRUNS

Bina Marga has advised that a covering amendment must be prepared after every 5 change orders have been issued. Also, change order amounts are limited to 10 percent of contract value.

Copies of Contractor invoices are contained in the appendix of this report. The Contractor has still not received the remaining 5 percent of his advanced payment. The following invoiced amounts are outstanding :

Remaining 5% advance	Rp 407,500,000
Invoice No. 3 for Progress Payment #2	Rp 90,793,037
Invoice No. 4 for Progress Payment #3	Rp 3,400,241
Invoice No. 5 for Progress Payment #4	<u>Rp 71,894,479</u>

T o t a l Rp 573,587,757

SECTION III ADMINISTRATION

III. 5. FINANCIAL OVERRUNS/UNDERRUNS (Cont'd)

It is hoped that Bina Marga can provide payment of these invoices soon so as not to delay the Contractor's mobilization due to cash flow shortages.

III. 6. TRAINING

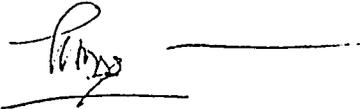
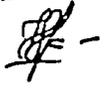
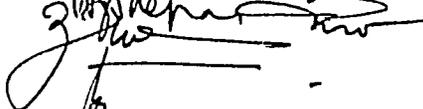
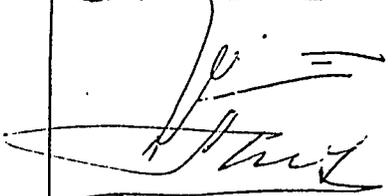
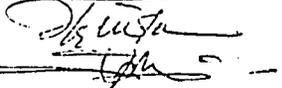
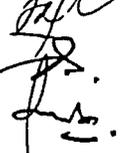
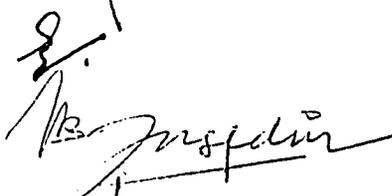
The Engineer showed the Jagorawi Indonesian Language training and documentary films to ICCI personnel on September 16th, 17th, and 18th. The Engineer's staff provided comments and answered questions. More than 170 manhours of training were provided.

Ir. J. Hendro Moeljono and Mr. Soepomo participated in the planned training trip to the U.S.A. during August and September.

Sign up sheets for participation in the training film program follow.

List of ICCI's Participants in the
Jagorawi Highway Construction film
show

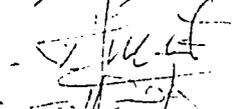
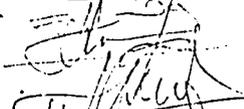
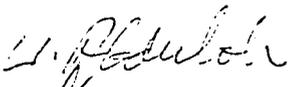
September 16, 1981

No.	Name	Position	Signature
1.	Husrat Subanto	Project Manager ICCI	
2.	Hasmul Fud	Contr. Adv.	
3.	Cuk Atunijana	Surveying & Progress Rep.	
4.	Warry M. Soeparno	Design & Planning Eng.	
5.	BUDI SAKITO SO	SUPT. ROAD CONST.	
6.	Salim S.	Procurement	
7.	A. Rudi Gani	SUPT. DRAINAGE	
8.	Woyo Prasongro	Equipment Supt.	
9.	ZYAINI MASLURIE	O.J.T	
10.	SIHNO	Head Drain	
11.	Soleh Kidayat A.	Quantity Report.	
12.	Soeprawoto	Ast DESIGN & Planning Engg.	
13.	J. Sardjono	Gen Spt	
14.	FIRDAUS.	OJT	
15.	Djoko Santosa	Off. Eng.	
16.	WIDIONO RIANCO	COST ENG.	
17.	KAMAL	QUARRY REPR.	
18.	Zetys Beteng	Equipment	
19.	LINTUNG SYAIFUDIN	COST ANALYST	
20.	Bella Kary S.	G.A. Cooristee	
21.	ZEIN		
22.			
23.			
24.			
25.			

List of ICCI's Participants in the
Jagorawi Highway Construction film
show

September 17, 1981

I.

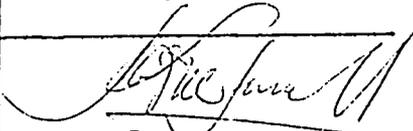
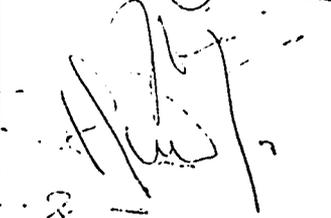
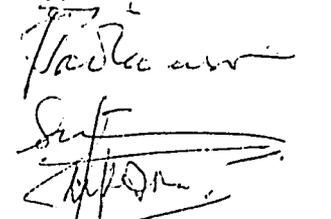
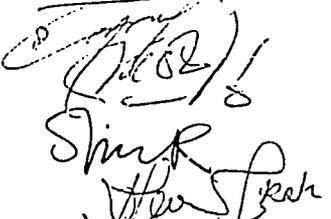
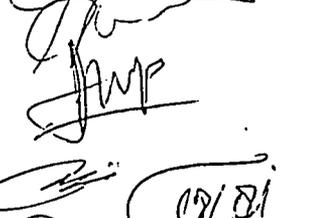
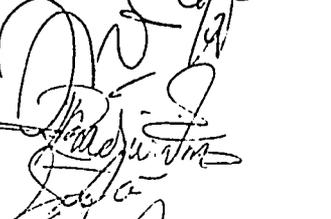
No.	Name	Position	Signature
1.	SCIKAMATO	OPERATOR.	
2.	SLAMET R.	H.E. MEKANIK.	
3.	TOMO	H. E MEKANIK	
4.		DRIVER	
5.	Kammat	>>	
6.	REIN	>>	
7.		>>	
8.	EDI.S	Welder	
9.	SUYANTO	-.-	
10.	HAMA I	labon	
11.	AJUK "	"	
12.	ANDA	"	
13.	KAMIN	"	
14.	JAJA	"	
15.	HERIHAN	Driver	
16.	MA'MUR	"	
17.	KUSWAR	Mekanik	
18.	ATUN	"	
19.	KARTUBI	Welder	
20.	BADRI	Farmen	
21.	MAHPUDI	labon	
22.	JAJA	"	
23.	WAHYU	Tk basri	
24.			
25.			
26.			



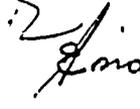
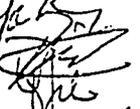
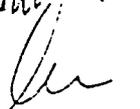
List of ICCI's Participants in the
Jagorawi Highway Construction film
show

II.

September 17, 1981

No.	Name	Position	Signature
1.	Lutfani	—	
2.	Subijano	OPERATOR	
3.	Pomtool	DRIVER	
4.	Widyatoleh	CAR TESTER	
5.	A. Katarani	operator	
6.	SUDYA	DRIVER	
7.	Siparudin	DRIVER	
8.	Basman	Labour	
9.	NASOR	OLIMAN	
10.	Adde HARJA	SURVEY	
11.	KAHONO	LOGISTIC	
12.	Apendi	DRIVER	
13.	alakman	DRIVER	
14.	TJETJE. KH.	SURVEY	
15.	Tolung	SURVEY	
16.	Owan Rm	SURVEY	
17.	JUNUS	SURVEY	
18.	D-MUCTOPH	SURVEY	
19.	Jusup	DeLoper.	
20.	Abd. Radj	SURVEY	
21.	SUHARDHONO	"	
22.	Bayun	DRIVER	
23.	Sufana		
24.			
25.	Soewirjo	operator	
26.	Joko Kartigatno	OPERATOR	

List of ICCI's Participants in the
 Jagorawi Highway Construction Film
 Show
 September 18, 1981

No.	Name	Position	Signature
1.	PICANT	BRIDGE	
2.	BARIDY B	— " —	
3.	MARYONO	— " —	
4.	B. Hidayat	Road way	
5.	WIKARTUBI	"	
6.	SAHDAN	— " —	
7.	H. Rahmat	"	
8.	Sluchtar	BRIDGE.	
9.	IKRAHIM	Road way.	
10.	Saktih	"	
11.	OLENG	Road way	
12.	Syfrineli	"	
13.	Azis	"	
14.	Schmidri.	Corp.	
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			

SECTION IV ENGINEERING PROGRESS

IV. 1. . . . SURVEYS

Because of poor survey practice by ICCI in staking out Bridge Station 11+932, the Engineer's survey crew assisted ICCI with this work. We also continue to find errors in slope stake notes prepared by ICCI and have requested corrections. Quantity surveys were made for excavation unsuitable material.

IV. 2. . . . LABORATORY & QUALITY CONTROL

A- Soils

Eight (8) soil samples from excavation locations were tested by the lab. Soil at Station 15+525 was found to be very wet (80% moisture) and of too low density for use as embankment material.

102 relative density tests were performed on embankments. Failure rate was 22.5 percent which is much improved over the 45 percent failure rate recorded in August.

B- Materials

Eight (8) gradations on concrete aggregates produced by the Contractor's crushers at Sentul or aggregate purchased from Ciapus were performed. All tests showed that the aggregate is seriously out of specifications on the 3/8 inch size (2-5% passing vs 20-55% passing required by specifications). This deficiency could be responsible for low pipe strengths measured by the 3-edge bearing test.

C- Perforated Pipe

Two (2) perforated pipes were tested by the 3-edge bearing test at 7 days. Projected 28-day strength is below specification, probably due to the nonspecification aggregate gradings mentioned above.

SECTION IV ENGINEERING PROGRESS

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

D- Concrete Batch Plant Calibration

The Engineer calibrated the batch scales for the Contractor's new 750 liter concrete batch plant.

IV. 3. . . . STRUCTURES

Preparation of bar lists continue. Recalculation of box culvert lengths resulting from the grade change and changes in typical section is in progress.

The Senior Bridge Engineer assisted ICCI in planning their RCP work and suggested use of wooden drums for winding rebar cages. This procedure worked well.

Shop plans for box culverts have been informally reviewed with ICCI and some changes have been requested by the Engineer.

Informal review of precast median barrier shop plans is in progress.

IV. 4. . . . OFFICE ENGINEERING

A revised mass diagram was prepared to assist the Contractor in planning his earthwork operation.

A special report on irrigation was prepared and submitted to Bina Marga.

A special evaluation report on the proposed frontage road in Gadog was also submitted to Bina Marga.

Contractor's Invoice No. 4 for August was checked by the Engineer.

Contract Change Order No. 3 for the 3-edge bearing test machine has been accepted by the Contractor, and approved by Bina Marga. A listing of all Contract Change Orders is contained in the appendix of this report.

SECTION V PROGRESS

V. 1. . . . SCHEDULE

The following important items are behind schedule :

<u>Item of Work</u>	<u>Amount behind schedule</u>	<u>R e m a r k s</u>
- quarry operation	3.9 months	crushing started August 11th.
- unclassified excavation	3.7 months	underway but low production.
- remove and replace unsuitable materials	3.3 months	underway.
- bridge construction	3.3 months	has not started.
- structure excavation	4.0 months	has not started.
- precasting	3.3 months	precasting of perforated pipe has started.
- RCB construction	3.0 months	not started.
- place perforated pipe	2.0 months	not started.
- embankment	1.2 months	underway but low production.
- place reinforce concrete pipe	2.0 months	not started.

Items contained in the Contractor's mobilization schedule which are behind schedule :

- Engineer's office and housing	3.5 months	work started.
- RCP form procurement	3.0 months	underway in Bogor.
- Contractor's shops, warehouses, field office	3.0 months	work started, good progress.
- procurement of H-piles, prestress cable	3.0 months	1529 lm of conditional H-pile on hand.
- procurement of heavy equipment	2.0 months	----

SECTION V PROGRESS

V. 2. . . . RAINFALL

Although rain fell almost daily, total rainfall for the month was about normal.

RAINFALL DURING SEPTEMBER

	<u>September</u>	<u>Average Project Location</u>
- Number of raindays	17	13.4
- Maximum rain in 24 hours	73.3 mm	--
- Total rainfall during the month	386.8 mm	302.2 mm
- Lost working days due to rain this month	10	--
- Accumulative lost work- ing days due to rain	51	--

V. 3. . . . AHEAD/BEHIND SCHEDULE

Slippage was 4.28 percent this month, and the Contractor is now 17.43 percent behind schedule with 19.45 percent of the contract time elapsed :

Scheduled completion	21.92 percent
Actual complete	<u>4.49 percent</u>
Amount behind schedule	17.43 percent
Percentage time elapsed thru Sept. 30, 1981 :	
(142)/(730)	19.45 percent
Slippage during August	4.28 percent

V. 4. . . . COMMENTS

The Contractor showed increased activity this month. Good progress was made on construction of equipment shop, warehouse, field office, precasting shop and Engineer's office and housing.

V. 4. . . . COMMENTS (Cont'd)

A precasting shop, generator, water supply and concrete mixer were quickly provided during the month. Fifty (50) perforated pipe forms and three (3) RCP forms were also delivered. Casting of perforated pipe began and one (1) RCP was cast this month.

Additional earthwork equipment was mobilized, and a new Cat 815 self propelled sheepsfoot compactor has been very effective. The earthwork operation is better organized and excavation equipment are working long hours, including work done at night under lighting.

The Contractor invoiced Rp 71.9 million for September vs Rp 3.4 million for August.

Bina Marga and the Engineer have requested that the Contractor prepare a revised progress schedule, including additional equipment requirements, which should be available by the next report period.

VI. 1. CONSTRUCTION ACTIVITIES

A- MOBILIZATION

The Contractor made improved efforts to mobilize this month :

- A precasting shop was constructed at Sentul Quarry.
- Steel forms for casting perforated pipe were delivered.
- Three 60 cm steel forms for reinforced concrete pipes were delivered.
- The Contractor's site yard (located near Bridge 11) has been graded and construction of a site office, equipment shop and warehouse are well underway.
- Work on the Engineer's office expansion and Engineer's housing is underway.
- The Contractor has mobilized 18 additional pieces of heavy equipment.

We estimate that 97 units of heavy equipment/plants and 166 units of minor equipment and vehicles are needed to meet schedule. Actual mobilization is 54 units of heavy equipment (56%) and 87 units of minor equipment (52%).

Major equipment and plants which have not yet been mobilized include :

- Concrete batch plant
- Transit mixers
- Pile drivers
- I-girder plant & forms
- 100 ton/hr crusher
- One additional Cat 815 compactor
- Asphalt mixing plant
- Paving Equipment

VI. 1. . . . CONSTRUCTION ACTIVITIES (Cont'd)

B- CLEARING & GRUBBING

Clearing of grass which grew after the initial clearing, was removed prior to opening new embankment areas.

C- QUARRY

Bina Marga has reported that the Bupati from Bogor has issued a stop order for removal of material from Sentul Quarry. The Contractor has been restricted from obtaining quarry material from within the stream, thus a pit type quarry operation will be needed. The Contractor was informed of this during the preconstruction conference and has since agreed to this requirement which is contained in the right of way hand over document. The Bupati is also requesting that royalties and taxes be paid for quarry material from Sentul.

Presently the Contractor is hand selecting stones and crushing small quantities of concrete aggregate (estimate 5 M³ per day).

The Kang Won crushers provided by Bina Marga have been a constant source of problems because of missing and broken parts and poor performance. A parts supplier is not available in Indonesia.

D- EARTHWORK

Earthwork is progressing well. A Cat 815 Compactor was provided by Bina Marga and has proven very effective in compacting embankments. Cut and fill operations are in progress Station 11+500 to 15+400 (excluding the Ciawi Toll Plaza). Granular embankment is being placed in local areas where unsuitable material has been removed. About 6,000 M³ of planned unsuitable excavation was removed in the vicinity of Station 15+900.

SECTION VI CONTRACTOR

VI. 1. . . . CONSTRUCTION ACTIVITIES (Cont'd)

We estimate about 7,000 M³ of unclassified excavation completed and 5,500 M³ of embankment constructed during the report period.

E- PRECASTING

Production of perforated concrete pipe got underway on September 14th. A new 750 liter concrete mixer with weigh batcher has been installed and 50 steel forms for perforated pipe were delivered. 205 pieces of perforated pipe were cast with 26 pieces rejected for cracks or honeycombs.

One 60 cm reinforced concrete pipe was also cast.

The Contractor has not reached agreement on subcontracting of I-girders.

F- H-PILES

H-pile recondition was completed this month and all reconditioned H-piles have been transported to the field. Total quantity salvaged is 1529 l.m. The Contractor is given credit for doing very well on this program.

PT PAKU BUMI SEMESTA has been approved to subcontract pile driving.

VI. 2. . . . EQUIPMENT

The equipment rental agreement between ICCI and Bina Marga has nearly been completed. ICCI has only to submit a bank guarantee before the agreement can be signed.

The Engineer has advised ICCI to purchase a supply of fast moving spare parts for the equipment provided.

Following is a tabulation of equipment mobilized compared to the approved equipment list for the project.

15 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.	Dozer Shovel	2	1.6 M ³	Komatsu D-75-S
4.	Motor Grader	3	---	Komatsu GD-600-IR
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/hr	K o b e
17.	Crusher & Screening Plant	2	30 tons/hr	Kang Won

15

A

EQUIPMENT MOBILIZED SEPTEMBER 1981

D NAME/TYPE	QT'Y	NAME	REMARKS
su D-85	1	Cat-D7G	Bina Marga
su D-65	3	Komatsu D-53-A	Bina Marga two (2) Zeni AD one (1)
su D-75-S	2	Komatsu D-57-S Case 1150 B	Bina Marga (truck loader) David Saputra (truck loader)
su GD-600-IR	3	Komatsu GD-600-R	Bina Marga
Allis	3	Fiat Allis 605-B	Bina Marga
TX-40	21	Isuzu TX-40 (5 ton)	Bina Marga one (1) broken down
pillar 815	1	Cat 815	Bina Marga
, SP-54 (Rex)	2	Cat 25-PD	ICCI one (1) David Saputra one (1)
	2	Sakai 8-10 ton	Hutama Karya two (2), one (1) re- turned to H.K., Sept. 12, 1981.
/Tanaka	2	Sakai 9-17 ton	Bina Marga one (1) Pusbinal one (1)
Toyota			
Jumbo/Pool	2	Nikkon BH-70 (0.8 M ³) Int. Jumbo (0.6 M ³)	Rental Pusbinal
Jumbo/Pool	1	IHI 1S-220 (1.1 M ³)	Rental
su			
e			
Won	2	Kang Won	Bina Marga (including Gen Sets)

16A

APPROVED EQUIPMENT LIST

NO.	DESCRIPTION	QT'Y	CAPACITY	BRAND NAME / TYPE
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 inches	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

16A

EQUIPMENT MOBILIZED SEPTEMBER 1981

EQUIPMENT NAME / TYPE	QTY	NAME	REMARKS
Kawai Yanmar	4	Kawamoto Ø 3" Alcon Ø 2" Yanmar TS-80 (3") Yanmar Ø 4"	ICCI ICCI ICCI ICCI
Edesz Edesz	1	Perkins (50 KVA)	ICCI
Botta	2	Yanmar (7.5 KVA)	ICCI
Esse at C-300			
Cal			
Rini			
20-Ingersoll Rand			
Cker			
Rini			
ai/Tanaka			
Mitsubishi			
Mire			
Domwade			

17A

APPROVED EQUIPMENT LIST

NO.	DESCRIPTION	QT'Y	CAPACITY	BRAND NAME/TYPE
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.	F o r k l i f t	1	3.5 tons	Komatsu
38.	Truck Crane	2	40 tons	P & H Linkbelt
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	2 T	Ingersoll-Rand K-5-UL

17B

EQUIPMENT MOBILIZED SEPTEMBER 1981

ME/TYPE	QT'Y	NAME	REMARKS
r e l	2	Mikasa MTR-120	ICCI
nkbelt O a	1	TCM-VD-30	ICCI
nkbelt nkbelt e r t u	1	Golden Star (3/4 M ³)	ICCI
	1	Hercules (0.3 M ³)	ICCI
s a	3	2 Mikasa (1.5 HP) external	ICCI
s a	1	1 Wacker 6.9 KVA external Mikasa, Ø 1½"	ICCI
a Taft	7		ICCI
et Luv	1		ICCI
Hi Ace	1		ICCI
Corolla			
B-100	3		ICCI
ll-Rand			
-UL			

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APPROVED EQUIPMENT LIST

NO.	DESCRIPTION	QT'Y	CAPACITY	BRAND NAME/TYPE
<u>SURVEY EQUIPMENT</u>				
57.	Level plus Support Equip.	3	---	N i k k o n
58.	Transit plus Support Equip.	2	---	Nikkon & Wild
<u>PRECASTING EQUIPMENT</u>				
59.	RCP form Ø 60 cm	10	---	L o c a l
60.	RCP form Ø 80 cm	5	---	L o c a l
61.	RCP form Ø 120 cm	1	---	L o c a l
62.	External Concrete Vibrator	4	---	Wacker Arem 055
63.	PCP form Ø 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	10000 liters	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.	-----	-	---	---

18

18B

EQUIPMENT MOBILIZED SEPTEMBER 1981

NAME/TYPE	QT'Y	NAME	REMARKS
on	1	N i k k o n	ICCI
Wild	2	W i l d	ICCI
l	3	L o c a l	ICCI
l			
l			
rem 055			
l	50	M a d e i n B o g o r	ICCI
no	1	T a d a n o	Bina Marga
z			
o l n	2	M u l l e r D e n y o	ICCI
Decker	4	M i t s u b i s h i	ICCI
Decker	1	H i t a c h i	ICCI
Decker			
Decker	2	(2 & 5 tons)	ICCI
l	1	P e r t a m i n a	R e n t a l
a			
z			
hi			
	10	P h i l i p s H a l l o g a n l i g h t s	ICCI

SECTION VII STAGE I MAINTENANCE

VII. MAINTENANCE

A cost proposal for fog seal work on Jagorawi were submitted by the Daimong Construction Co., Ltd. who are presently working on a construction project for Bina Marga near Surabaya.

The Engineer prepared an evaluation which showed that costs were about 3 times higher than ICCI's bid for the same work. Possibly, costs could be negotiated lower if Jasa Marga could provide most equipment and labor. The evaluation was submitted to Jasa Marga through Bina Marga.

SECTION VIII PERSONNEL

VIII. 1. . . . ENGINEER

Mr. Jimmy Caldwell reported to the Project to fill the Senior Construction/Paving Engineer position on September 20th. All expatriate engineering staff are now on board.

Mr. George Gross, Principal of Ammann & Whitney departed on September 10th.

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.

EXPATRIATE MANMONTH STATUS

(Through Statement No. 76)

Position	(1) Approved Through July 1981	(2) Additional Through Sept. 1981	(3) Total Thru Sept. 1981 (1 + 2)	(4) Est'd to Completion	(5) Auth'd MM	(6) Balance (5-3-4)
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	90.32	2.00	92.32	20.00	104.50*	(-) 7.82
SEN. BRG. ENGR.	53.95	2.00	55.95	16.00	65.00**	(-) 6.95
SEN. CON. / PAV. ENGINEER	0	0.37	0.37	18.00	14.00**	(-) 4.37
SEN. HWY. ENGR.	0	1.47	1.47	19.00	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>
	531.01	6.24	537.25	76.67	589.50	(-) 24.42

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

** One manmonth has been transferred from the Sen. Cons./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.

SECTION VIII PERSONNEL

VIII. 2. . . . INDONESIAN STAFF (Cont'd)

OFFICE TECHNICAL PERSONNEL (Cont'd)

- | | | |
|-----|-----------------------|--|
| 21. | Mr. Akhmad Khudori | Office Engineer (Archicons),
September 2, 1980. |
| 22. | Mr. Parmono | Draftsman (Archicons), Octo-
ber 2, 1980. |
| 23. | Mr. Sentot Yudiantoro | Highway Technician,
(Archicons), June 2, 1981. |
| 24. | Mrs. Widiyaningsih | Highway Technician,
June 8, 1981. |
| 25. | Mr. Hutomo | Bridge Technician (Archicons),
June 10, 1981. |

ADMINISTRATIVE PERSONNEL

- | | | |
|-----|---------------------|---|
| 26. | Mr. Sukardi Wahyudi | Administrative Manager,
July 1, 1981. |
| 27. | Mr. John Golluwola | Secretary, July 1, 1980. |
| 28. | Mrs. Onny Pratiwi | Clerk/Typist, July 1, 1980. |
| 29. | Mrs. Herny Widodo | Bookkeeper, July 1, 1980. |
| 30. | Mrs. Sri Soebianto | Clerk/Typist, Aug. 4, 1981. |
| 31. | Mr. Suryoseputro | Accountant, July 1, 1980. |
| 32. | Mr. Irkin | Mechanic, July 1, 1980. |
| 33. | Mr. Ujang bin Tawi | Office Janitor, July 1, 1980. |
| 34. | Mr. Enan Setiana | Chief Security Guard,
October 1, 1980. |
| 35. | Mr. Lily Sulaeman | Security Guard, July 1, 1980. |
| 36. | Mr. Sa'i Hidayat | Security Guard, Oct. 1, 1980. |
| 37. | Mr. Ismail | Security Guard, July 1, 1980. |
| 38. | Mr. Kodrat Muhtadi | Translator (Archicons),
October 1, 1980. |
| 39. | Mr. S a n a n | Gardener, October 13, 1980. |
| 40. | Mr. Edy Djunaedi | Driver, November 12, 1980. |
| 41. | Mr. Abas Basuni | Driver, February 1, 1981. |
| 42. | Mr. Aji Sukardi | Driver, July 24, 1981. |
| 43. | Mr. Didi | Driver, August 20, 1981. |
| 44. | Mr. Ido Suhada | Driver,
September 21, 1981. |

SECTION VIII PERSONNEL

VIII. 2. . . . INDONESIAN STAFF (Cont'd)

This month	43*
Previous	<u>386</u>
Total		429

Authorized Amendment No. 9
thru September, 1981 682 m-m.

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

<u>M-M Expended</u>	<u>Additional Required to Complete</u>	<u>Total</u>	<u>Authorized M-M</u>	<u>Addition M-M required</u>
429	1,218	1,647	1,386	261

VEHICLES

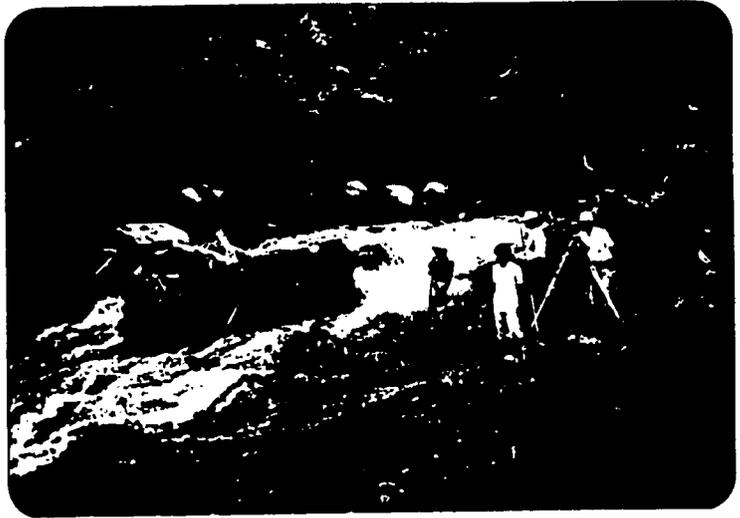
Vehicle months expended thru September 1981	101
Author'd vehicle months thru September 1981	178

* One employee is on authorized maternity leave without pay.

SECTION IX

PHOTO SECTION

Surveying
Bridge Station
11+932.



Contractor's
field office,
warehouse and
equipment
shop.



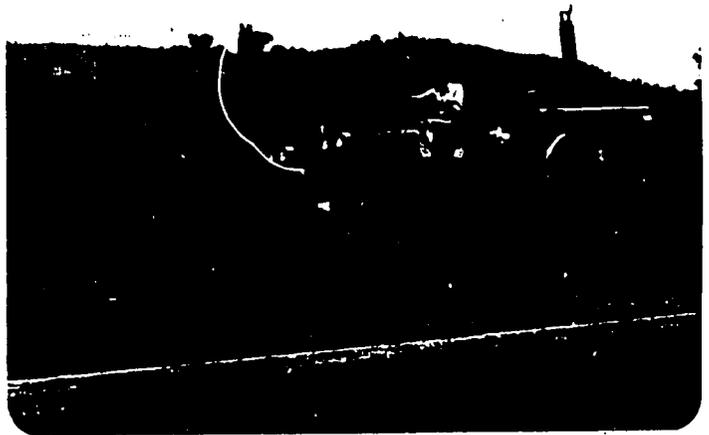
Engineer's
Office
extension



Earthwork.



Cat 815
Compactor.



Earthwork.



Perforated
pipe forms
at pipe casting
shop.



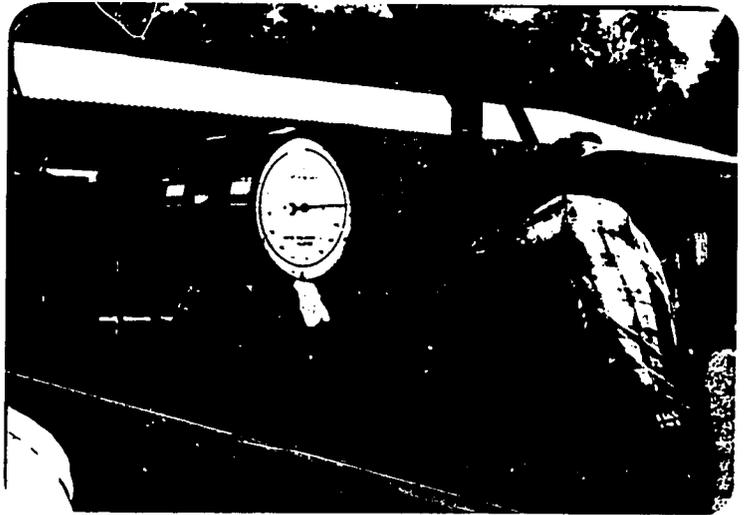
Close up
view of
perforated
pipe forms.



750 liter
concrete
batch plant
for precast
shop.



Calibrating
batch scales.



Reinforcing
for concrete
pipe.
Note
winding spools
in background.



Vibratory
Compactor.
Note canvas.



ICCI viewing
Jagorawi
training films.



SECTION X

A P P E N D I X

SECTION X APPENDIX

X. 1. INCOMING CORRESPONDENCE

	<u>FROM</u>	<u>SUBJECT</u>	<u>DATE</u>
1.	Bina Marga	Taking of quarry material from within the river banks at Bina Marga Sentul Quarry.	Sept. 2, 1981
2.	Bina Marga	Additional Compactor Cat D-815 from Jakarta-Parung Road Betterment Project.	Sept. 3, 1981
3.	TAE - Jkt	Invoice No. AW/TA 44-083 for Bina Marga - Jagorawi Highway Basic Contract.	Sept. 4, 1981
4.	Bina Marga	Cost of Compound Housing for 2 Expatriates families.	Sept. 10, 1981
5.	Bina Marga	Material Mining by the Contractor at Sentul Quarry.	Sept. 14, 1981
6.	PT ICCI	Additive Utilization for Concrete mixture.	Sept. 14, 1981
7.	PT ICCI	Reinforcing Bar Sample.	Sept. 14, 1981
8.	Bina Marga	Mrs. Herny Widodo Basic Salary.	Sept. 16, 1981
9.	PT ICCI	Request for Starting the Pouring of PCP Precasting.	Sept. 16, 1981
10.	PT ICCI	Requesting of Starting Bridge Excavation on East Bridge Sta. 11+932.	Sept. 16, 1981
11.	PT ICCI	Contract Change Order No. 3.	Sept. 16, 1981
12.	Bina Marga	Approval on Using Mobile Unit Radio.	Sept. 17, 1981
13.	Bina Marga	Approval of Contractor's Fourteenth Request for Equipment.	Sept. 17, 1981
14.	Bina Marga	3-ton Dump Truck Loan.	Sept. 17, 1981
15.	PT ICCI	Shop Drawings for Scale House.	Sept. 19, 1981
16.	PT ICCI	Transmittal of the List of Equipment.	Sept. 19, 1981
17.	PT ICCI	Contractor for Bridge Pile Driving Work.	Sept. 21, 1981
18.	PT ICCI	Electrification License.	Sept. 22, 1981

SECTION X APPENDIX

X. 1. INCOMING CORRESPONDENCE (Cont'd)

<u>FROM</u>	<u>SUBJECT</u>	<u>DATE</u>
19. PT ICCI	Toll Expenses for ICCI's Vehicles.	Sept. 23, 1981
20. PT ICCI	Notifications.	Sept. 23, 1981
21. PT ICCI	Monthly Personnel Report for August, 1981.	Sept. 24, 1981
22. PT ICCI	Sample of Material.	Sept. 24, 1981
23. PT ICCI	Request of Starting the Pouring of PCP Precasting.	Sept. 25, 1981
24. PT ICCI	Rainfall Data at Ciawi -- Gadog Area.	Sept. 25, 1981
25. PT ICCI	Request for Removal of Fence and Using of Excess H-piles and Concrete Abutments.	Sept. 28, 1981
26. PT ICCI	Night Overtime for Crusher Operation.	Sept. 28, 1981
27. PT ICCI	Report of Bina Marga Vehicle Collision.	Sept. 28, 1981
28. PT ICCI	Information for Rebar and Cement.	Sept. 29, 1981

SECTION X APPENDIX

X. 2. OUTGOING CORRESPONDENCE

	<u>TO</u>	<u>SUBJECT</u>	<u>DATE</u>
1.	JV NYC	Weekly Administration Report	Sept. 5, 1981
2.	Mr. Luthfie Ali	Letter of Appointment.	Sept. 7, 1981
3.	Mr. Dones	Letter of Appointment.	Sept. 7, 1981
4.	PT ICCI	Thirteenth Request for Equipment.	Sept. 7, 1981
5.	PT ICCI	Shop Plans for PCP & RCP Forms.	Sept. 7, 1981
6.	Bina Marga	Contractor 14th Request for Equipment.	Sept. 7, 1981
7.	Bina Marga	Power Specification for Jasa Marga Shop Equipment.	Sept. 10, 1981
8.	PT ICCI	Submittal of CCO No. 3.	Sept. 10, 1981
9.	Bina Marga	Submittal of Engineer's Dollar Invoice No. 76 for August.	Sept. 10, 1981
10.	Drs. Utomo, Mulia & Co.	Approval of the Agreement for Audit Costs.	Sept. 10, 1981
11.	PT ICCI	Revised Earthwork Quantities & New Mass Diagram.	Sept. 10, 1981
12.	Bina Marga	Notes on Project Meeting of September 7, 1981.	Sept. 11, 1981
13.	PT ICCI	Rainfall Records for August.	Sept. 11, 1981
14.	Bina Marga	Notes of the Project Meeting of September 1, 1981.	Sept. 11, 1981
15.	Bina Marga	Submittal of Engineer's Rupiah Invoice No. 90 for August.	Sept. 12, 1981
16.	JV NYC	Weekly Administration Report No. 341.	Sept. 12, 1981
17.	Bina Marga	Request for Radios.	Sept. 14, 1981
18.	PT ICCI	Reinforced Concrete Pipe Quantities.	Sept. 15, 1981
19.	Bina Marga	Maintenance Meeting.	Sept. 15, 1981
20.	Bina Marga	Memorandum on Jagorawi Loan Agreement.	Sept. 17, 1981

SECTION X APPENDIX

X. 2. OUTGOING CORRESPONDENCE (Cont'd)

<u>TO</u>	<u>SUBJECT</u>	<u>DATE</u>
21. JV NYC	Extension of Dollar Letter of Credit.	Sept. 17, 1981
22. Bina Marga	Transmittal of Contract Change Order No. 3.	Sept. 17, 1981
23. JV NYC	Transmittal of Rupiah Accounting Reports for August ---- Jagorawi Project.	Sept. 17, 1981
24. Bina Marga	Request for Testing Reinforcing Steel.	Sept. 17, 1981
25. PT ICCI	Approval of Fourteenth Request for Equipment.	Sept. 18, 1981
26. JV NYC	Weekly Administration Report No. 342.	Sept. 19, 1981
27. PT ICCI	Unauthorized Quarrying from within the Cigede River at Sentul.	Sept. 21, 1981
28. Bina Marga	Living Allowance for Expatriates Housed at the Baranangsiang Compound.	Sept. 21, 1981
29. PT ICCI	Start Up of Perforated Pipe Casting and Calibration of Concrete Batch Plant.	Sept. 21, 1981
30. Bina Marga	Contractor Equipment Hours May 26, 1981 thru August 25, 1981.	Sept. 22, 1981
31. Bina Marga	Transmittal of "Evaluation Report of the Proposed Gadog Spur Connection Frontage Road".	Sept. 23, 1981
32. Bina Marga	Submittal of Revised Memorandum on the Jagorawi AID Loan.	Sept. 23, 1981
33. PT ICCI	Surveys.	Sept. 24, 1981
34. Dainong	Fog Seal on Jagorawi.	Sept. 25, 1981
35. Jasa Marga	Cost Proposal for Fog Seal of Jagorawi Received from the Dainong Construction Co., Ltd.	Sept. 25, 1981
36. PT ICCI	Approval of Biro Teknik for House Wiring.	Sept. 25, 1981

SECTION X APPENDIX

X. 2. OUTGOING CORRESPONDENCE (Cont'd)

<u>TO</u>	<u>SUBJECT</u>	<u>DATE</u>
37. PT ICCI	Location of Field Inspector S Shack.	Sept. 25, 1981
38. PT ICCI	Subcontracting Pile Driving.	Sept. 25, 1981
39. PT ICCI	Bina Marga's Approval of Loan of 3-ton Dump Truck.	Sept. 25, 1981
40. PT ICCI	Shop Drawings for Scale House.	Sept. 25, 1981
41. PT ICCI	Second Request for Accident Report on Bina Marga-owned Truck.	Sept. 25, 1981
42. Bina Marga	Submittal of Engineer's Monthly Supervision Report No. 88 for August.	Sept. 26, 1981
43. Bina Marga	Notes from Project Meeting of September 22nd.	Sept. 26, 1981
44. Bina Marga	Notes from Project Meeting of September 15th.	Sept. 26, 1981
45. Bina Marga	Testing of Krakatau Reinforcing Steel Designation (RJTD 30).	Sept. 26, 1981
46. PT ICCI	Retesting of Krakatau Reinforcing Steel.	Sept. 26, 1981
47. JV NYC	Weekly Administration Report No. 343.	Sept. 26, 1981
48. Bina Marga	Transmitted of "Evaluation Report on Irrigation" dated September 1981.	Sept. 29, 1981
49. Bina Marga	Pay Raise for Mr. Joko Purnomo, Senior Inspector.	Sept. 29, 1981
50. Bina Marga	Adjustment of Indonesian Staff Salaries.	Sept. 29, 1981
51. PT ICCI	Crusher Overtime Works.	Sept. 30, 1981

SECTION X 3-a

CONTRACTOR'S PAY ESTIMATE NO. 1

Invoice 1



REPUBLIK INDONESIA
DEPARTEMEN PEKERJAAN UMUM
DIREKTORAT JENDERAL BINA MARGA

INVOICE
AND
MONTHLY CERTIFICATE OF PERFORMANCE

Project : JAGORAWI HIGHWAY STAGE II	Date : June 5, 1981
Contract : No. 06 / CTR / DN / BM / 81	Pay Estimate No. : 1.
Contractor : INDONESIAN CONSORTIUM OF CONSTRUCTION INDUSTRIES.	RUPIAH : -
Engineer : AMMANN & WHITNEY TRANS ASIA ENGINEERING ASSOC. INC.	Remarks : -

TOTAL RUPIAH VALUE OF CONTRACT : Rp. 8,050,000,000.--

Description	RUPIAH TOTAL
Total Amount of Work Completed	-
Total Amount Previously Credited	-
Total Amount Being Invoiced for Payment	-
Less 10% Retention	-
Less 15% Advance Payment	-
Advance Payment	Rp. 800,000,000.--

Total Amount to be paid to the Contractor Rp. 800,000,000.--

Invoice 1a

Less 15% Advance Payment	Rp. 800,000,000.--
Advance Payment	
Total Amount to be paid to the Contractor	Rp. 800,000,000.--
Separate Total Value of the Equipment and Materials delivered and Services performed under the Contract.	0
Separate Total Value since the date of the Previous Invoices of Goods delivered and Services Performed.	0

CONTRACTOR CERTIFICATION OF PERFORMANCE
 The undersigned certifies that the cost reimbursable to the Contractor and the Amount payable to the Contractor in accordance with the terms of the Contract, up to the date of this Certificate, are not less than the total Payments received or claimed by the Contractor under the Contract (including the payment claimed under this invoice), and that the Contractor has fully complied with the terms and conditions of the Contract, including the Plans and Specifications.


Ir. Husodo Suharto.
 Project Manager
JAGORAWI HIGHWAY STAGE II PROJECT

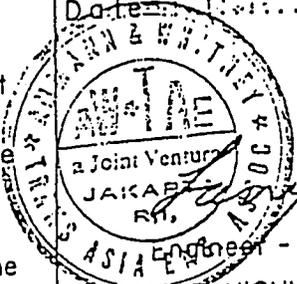
INVOICE RECEIPT

The Engineer acknowledges receipt of Indonesian Consortium of Construction Industries.
 Invoice No. covering Pay Estimate No.
 on the 6th day of June at 12:00 hours.

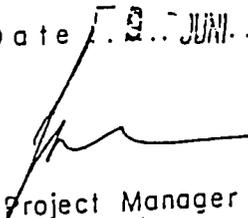

 Engineer - In - Charge
JAGORAWI HIGHWAY STAGE II PROJECT

ENGINEER CERTIFICATION OF PERFORMANCE
 The undersigned certifies that:

- The services (or equipment and materials) for which payment requested has been satisfactorily delivered;
- The costs there of are properly payable in accordance with the terms of the Contract;
- Any reports or recommendations required under the terms of the Contract have been received and are in accordance with the terms of the Contract;

Date:

Engineer - In - Charge
JAGORAWI HIGHWAY STAGE II PROJECT

Approved for Payment


 Project Manager
JAGORAWI HIGHWAY STAGE II PROJECT

Date: 15 JUN 1981

A. MOELLA AIDA
 Director of Construction
JAGORAWI HIGHWAY STAGE II PROJECT



P.T. INDONESIAN
 CONSORTIUM OF
 CONSTRUCTION INDUSTRIES

Jagorawi Highway Project Stage II.
 Complex Bina Marga No. 9
 Baranang Siang, Bogor. Phone 26854

Head office : Jaya Building 10 th floor Jl. M. H. Thamrin 12, Jakarta Telex 46244 P.T. Jaya Jkt. Phone 327508, 325316 ext. 258

SUMMARY OF PAYMENT
REVOLVING FUND ACCOUNT

Advance Payment as per Contract (1981)	Rp. 800,000,000.--
Payment Jan 1981 thru April 1981 Rp. -	
<u>May 1981.</u>	
- Invoice no : -	

Total Payment to date.

Rp.

REMAINING BALANCE DUE

Rp. 800,000,000.--

=====

PT. INDONESIAN CONSORTIUM
 OF CONSTRUCTION INDUSTRIES
 JAGORAWI HIGHWAY PROJECT ST II.

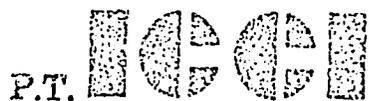


(SODO SUHARTO.)

PROJECT MANAGER ROAD.

SECTION X. 3-b

CONTRACTOR'S PAY ESTIMATE NO. 2



P.T. **INDONESIAN CONSORTIUM OF CONSTRUCTION INDUSTRIES**

Address: Jaya Building, 10th Floor - 12, Jalan M.H. Thamrin, Jakarta, Indonesia
Phone: 327508 Ext. 258, 323554 - Telex : 46244 PT JAYA JKT

July 25, 1981.

Ref no : 261/E - ICCI/R/VII/81.

Directorate General Bina Marga
Jalan Pattimura no : 20
Kebayoran Baru, JAKARTA.

Through : Mr. Larry G. Buntan
Engineer in Charge
Ammann & Whitney, Trans - Asia
A joint Venture.

Subject : Request for Monthly Rupiah
Progress Payment no 2
Jagorawi Highway Project Stage II

Dear Sirs,

In accordance with the Special Provisions 109.11 of the contract, we submit the monthly rupiah Progress Payment no 2 together with the related documents, covering the period from Sept, 1980 to June 25, 1981, the total amount requested in this invoice is as follows :

Total amount = Rp. 89,119,176.--

Your earliest approval and payment will be highly appreciated.

Very truly yours,

PT. INDONESIAN CONSORTIUM
OF CONSTRUCTION INDUSTRIES

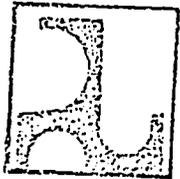
Project Manager Road.



MUSCODO SUHARTO)

Encls : 7 sets of estimate
no 2 and enclosures.

Invoice 2



REPUBLIC INDONESIA
DEPARTEMEN PEKERJAAN UMUM
DIREKTORAT JENDERAL BINA MARGA

INVOICE
AND
MONTHLY CERTIFICATE OF PERFORMANCE

Project : JAGORAWI HIGHWAY STAGE II Contract : No. 06 / CTR / DN / BM / 81 Contractor : INDONESIAN CONSORTIUM OF CONSTRUCTION INDUSTRIES. Engineer : AMMANN & WHITNEY TRANS ASIA ENGINEERING ASSOC., INC.	Date : July 25, 1981 Pay Estimate No. : 1 RUPIAH : Invoice no 2 Remarks : Progress Payment Sept 22, 1980 thru June 25, 1981.
--	--

TOTAL RUPIAH VALUE OF CONTRACT : Rp. 8,050,000,000.--

Description	RUPIAH TOTAL
Total Amount of Work Completed	Rp. 96,606,153.--
Total Amount Previously Credited	Rp. --
Total Amount Being Invoiced for Payment	Rp. 96,606,153.--
Less 10 % Retention	Rp. 9,660,615.--
Less 15 % Advance Payment	Rp. --
Deduct Bina Marga Equipment Rental	Rp. --
Total amount to be deducted	Rp. 9,660,615.--
Sub Total	Rp. 86,945,538.--
Add 2,5% PPN tax.	Rp. 2,173,638.--
Total Amount to be paid to the Contractor	Rp. 89,119,176.--
Separate Total Value of the Equipment and Materials delivered and Services performed under the Contract.	Rp. 216,283,000.--

Invoice 2a

Total amount to be deducted	Rp. 7,000,000.--
Sub Total	Rp. 86,945,538.--
Add 2,5% PPN tax.	Rp. 2,173,638.--
Total Amount to be paid to the Contractor	Rp. 89,119,176.--
Separate Total Value of the Equipment and Materials delivered and Services performed under the Contract.	Rp. 216,283,000.--
Separate Total Value since the date of the Previous Invoices of Goods delivered and Services Performed.	--o--

CONTRACTOR CERTIFICATION OF PERFORMANCE

The undersigned certifies that the cost reimbursable to the Contractor and the Amount payable to the Contractor in accordance with the terms of the Contract, up to the date of this Certificate, are not less than the total Payments received or claimed by the Contractor under the Contract (including the payment claimed under this invoice), and that the Contractor has fully complied with the terms and conditions of the Contract, including the Plans and Specifications.



W. S.

SUSODO SUHARTO.
Project Manager
JAGORAWI HIGHWAY STAGE II PROJECT

INVOICE RECEIPT

The Engineer acknowledges receipt of Indonesian Consortium of Construction Industries.

Invoice No. *2* covering Pay Estimate No. *1*
on the *30* day of *July* at *14:00* hours.

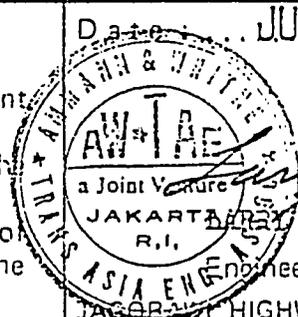
Lany & Bunter

Engineer - In - Charge

JAGORAWI HIGHWAY STAGE II PROJECT

ENGINEER CERTIFICATION OF PERFORMANCE

1. The services (or equipment and materials) for which payment requested has been satisfactorily delivered;
2. The costs there of are properly payable in accordance with the terms of the Contract;
3. Any reports or recommendations required under the terms of the Contract have been received and are in accordance with the terms of the Contract;

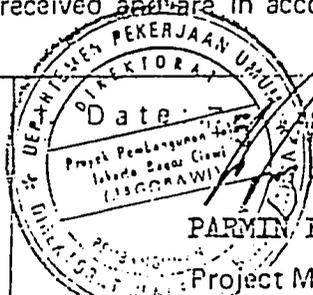


Lany & Bunter

G. BURTON
Engineer - In - Charge

JAGORAWI HIGHWAY STAGE II PROJECT

Approved for Payment



PARMIN BRE.

Project Manager

JAGORAWI HIGHWAY STAGE II PROJECT.

2. Date: **1.0. AUG. 1981**

Moelia Aida

Ir. MOELIA AIDA.

Director of Construction

JAGORAWI HIGHWAY STAGE II PROJECT



INDONESIAN CONSORTIUM OF CONSTRUCTION INDUSTRIES

Address: Jaya Building, 10th Floor - 12, Jalan M.H. Thamrin, Jakarta, Indonesia
Phone: 327508 Ext. 258, 323554 - Telex : 46244 FT JAYA JKT

SUMMARY OF PAYMENT

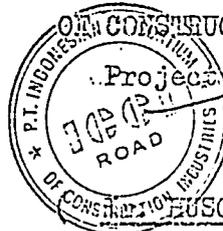
REVOLVING FUND ACCOUNT.

Advance Payment as per Contract (1981)	Rp. 1,207,500,000.--
Payment received <u>June 1981.</u>	Rp. 800,000,000.--
Deduction invoice no 2	Rp. --o--
Amount outstanding.	Rp. 800,000,000.--
REMAINING BALANCE DUE.	Rp. 407,500,000.--

PT. INDONESIA CONSORTIUM

OF CONSTRUCTION INDUSTRIES

Project Manager Road.



MUSOLO SUHARTO)

ROADWAY PROJECT

PROPOSED RECORD ESTIMATE

RUPIAH SHEET 1

Amazana & Whiteley
Town - Asia Engineering

Period No. 1 Estimate No. 2 Date July 25, 1981
Period Dates 22 Sept 1980 thru 25 June 1981

STAGE II

ITEM NO.	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		BID NO.	
					Quantity	Amount	Quantity	Amount		
BASIC TENDER										
(1)	Mobilization	L.S.		269,740,577	33	33	89,913,659	33	33	89,913,659
(1)	Engineer's Facilities	L.S.	A	120,435,458	-	-	-	-	-	-
		L.S.	Deleted	-	-	-	-	-	-	-
		L.S.	Deleted	-	-	-	-	-	-	-
(1)	Clearing and Grubbing	Are		11,156,080	59	3	972,875	59	3	972,875
(1)	Remove Existing Grouted or Loose Rip Rap	Cu.M.		4,582,400	-	-	-	-	-	-
(2)	Remove Existing Headwalls	Each		897,552	-	-	-	-	-	-
(3)	Remove Existing Wing Walls	Each		1,436,786	-	-	-	-	-	-
(4)	Remove Existing Bridge Girders Spur Sta 3+005+ And Miscellaneous Grouted Rip-Rap on Puncakad	L.S.		3,285,241	-	-	-	-	-	-
(1)	Unclassified Excavation Class 1	Cu.M.	2,352	517,440,000	-	-	-	-	-	-
(2)	Unclassified Excavation Class 2	Cu.M.	1,937	29,260,025	-	-	-	-	-	-
(3)	Excavation Class 3	Cu.M.	2,245	37,249,760	-	-	-	-	-	-
(4)	Roadway Embankment	Cu.M.	1,117	108,140,120	-	-	-	-	-	-
(5)	Select Roadway Embankment	Cu.M.	8,654	139,329,400	-	-	-	-	-	-
(1)	Structure Excavation	Cu.M.	4,022	25,740,800	-	-	-	-	-	-
(2)	Bridge Excavation	Cu.M.	6,528	38,515,200	-	-	-	-	-	-
(1)	Removal of Existing Pavement	Sq.M.	3,653	12,420,200	-	-	-	-	-	-
(1)	Asphalt Treated Base Course	Ton	15,434	643,597,800	-	-	-	-	-	-
(2)	Aggregate Base Course	Cu.M.	13,155	414,717,275	-	-	-	-	-	-
(1)	Lime Treated Improved Subgrade, Processing	Cu.M.		DELETED	DURING	BID	NEGOTIATIONS	-	-	-
(2)	Hydrated Lime	Ton		DELETED	DURING	BID	NEGOTIATIONS	-	-	-
(3)	Curing Seal, Emulsified Asphalt Grade SS-III	Ton		DELETED	DURING	BID	NEGOTIATIONS	-	-	-
(1)	Hot Bituminous Concrete Pavement	Ton	16,209	254,481,300	-	-	-	-	-	-
(2)	Asphalt Cement 60-70 Penetration	Ton	300,126	484,415,707	-	-	-	-	-	-
(1)	Tack Coat, Emulsified Asphalt Grade SS-III	Ton	452,219	13,114,351	-	-	-	-	-	-
(1)	Prime Coat, Liquid Asphalt Grade MC-70	Ton	524,848	57,733,280	-	-	-	-	-	-
(1)	Seal Coat, Cover Aggregate, Grading P, Type 3	Ton	14,308	21,462,000	-	-	-	-	-	-
(2)	Seal Coat, Liquid Asphalt Grade RC-250	Ton	535,458	34,805,420	-	-	-	-	-	-
(3)	Seal Coat, Emulsified Asphalt Grade SS-III	Ton	472,557	2,632,026	-	-	-	-	-	-
(1)	Structural Steel Piles Furnished	L.H.	46,635	404,238,750	-	-	-	-	-	-
(2)	Structural Steel Piles Driven	Each	32,430	105,411,260	-	-	-	-	-	-
(3)	Structural Steel Piles Test Driven	Each	32,430	357,380	-	-	-	-	-	-
(4)	Load Test (Each)		2,192,576	2,192,576	-	-	-	-	-	-
(1)	Soil Borings (Other than Rock)	L.M.	52,074	2,603,700	43	9	2,286,048	43	9	2,286,048
(2)	Soil Borings (Rock)	L.M.	106,838	5,344,400	26	2	2,800,465	26	2	2,800,465
(3)	Mobilization & Reconciliation of Boring Equipment, Each Boring Site	Each	633,106	1,899,318	1	1	633,106	1	1	633,106
(1)	Structural Concrete, Class "A"	Cu.M.	120,282	637,494,600	-	-	-	-	-	-
(2)	Structural Concrete, Class "C"	Cu.M.	58,273	8,440,585	-	-	-	-	-	-
Sheet No. 1 Sub-Totals :							96,606,153			96,606,153

X. 3-b CONTRACTOR'S 2ND PAY ESTIMATES

SECTION X APPENDIX

PROJECT RECORD-ESTIMATE

Period No. 1
 Period Dates 27 Sept 1980 thru 25 June, 1981
 July 25, 1981

Sheet
 2 of 2

Engineering

STAGE	ITEMS	CONTRACT UNITS	ORIGINAL UNIT-PRICED Amount	THIS ESTIMATE		TOTAL ESTIMATE	
				Quantity	Amount	Quantity	Amount
1	East Bridge STA. 11 + 932, Superstructure	L. S.	704,009.623	-	-	-	-
2	East Bridge STA. 13 + 537, Superstructure	L. S.	236,511.917	-	-	-	-
3	East Bridge STA. 15 + 540, Superstructure	L. S.	352,836.268	-	-	-	-
1	Reinforcing Steel	Sq. M.	555.1	293,440.000	-	-	-
1	Reinforced Concrete Pipe, Ø 60 cm	L. M.	42,126	44,234.400	-	-	-
1	Reinforced Concrete Pipe, Ø 90 cm	L. M.	58,754	43,477.960	-	-	-
1	Reinforced Concrete Pipe, Ø 120 cm	L. M.	90,385	4,519.250	-	-	-
1	Utility Manhole Type 1	Each	757,147	4,542.882	-	-	-
2	Utility Manhole Type 2	Each	401,869	1,607.476	-	-	-
3	Inlet, Type I (Each)	Each	1,039,600	27,029.600	-	-	-
4	Inlet, Type II (Each)	Each	1,025,051	1,025.051	-	-	-
5	Inlet, Type III (Each)	Each	1,025,051	10,250.510	-	-	-
6	Inlet, Type IV (Each)	Each	1,085,888	8,687.104	-	-	-
7	Grate Type	Each	326,943	4,904.145	-	-	-
1	20 cm. Perfor. Conc. Pipe in place, Incl. End Wall	L. M.	9,913	46,591.100	-	-	-
2	Underdrain Junction Box Inplace	Each	17,061	426.525	-	-	-
1	Galvanized Beam Type Guardrail & Post	L. M.	78,823	45,717.340	-	-	-
2	Remove Existing Guardrail and Relocate	L. M.	6,391	2,428.580	-	-	-
1	Barbed Wire Fence	L. M.	12,110	50,852.000	-	-	-
1	Concrete Curb Gutter, Type 1	L. M.	11,929	1,550.770	-	-	-
2	Concrete Curb Gutter, Type 2	L. M.	25,415	25,160.850	-	-	-
3	Concrete Delineation Strip	L. M.	7,360	8,056.000	-	-	-
4	Concrete Median Barrier	L. M.	32,398	169,411.400	-	-	-
5	Concrete Median Barrier End Taper	Each	149,123	536.492	-	-	-
6	Concrete Median Barrier Transition to Bridge	Each	695,439	4,172.634	-	-	-
1	Rock Slope Protection	Cu. M.	15,811	79,055.000	-	-	-
2	Grouted Rip-Rap 20 cm. Thick for Channel Lining	Sq. M.	8,251	255,781.000	-	-	-
2	Grouted Rip-Rap	Cu. M.	39,886	15,954.400	-	-	-
1	Survey Control Monument	Each	67,796	3,796.576	-	-	-
1	Placing Scalped Topsoil	Are	18,244	12,405.920	-	-	-
1	Sodding	Are	81,800	92,160.000	-	-	-
1	Concrete Block Slope Protection	Sq. M.	18,456	15,627.600	-	-	-
1	Roadway Marking, 10 cm. Striping	L. M.	767	34,745.100	-	-	-
2	Miscellaneous Pavement Marking Words, Arrow, Etc.	Sq. M.	6,829	136.580	-	-	-
2	Standard Road Sign, Type A	Each	22,287	244.574	-	-	-
2	Standard Road Sign, Type B	Each	41,296	1,412.960	-	-	-
2	Standard Road Sign, Type C	Each	41,296	2,119.440	-	-	-
2	Standard Road Sign, Type D	Each	408,421	816.842	-	-	-
2	Standard Road Sign, Type E	Each	48,754	48.754	-	-	-
2	Non Standard Road Sign No. 1	Each	247,550	742.650	-	-	-
2	Non Standard Road Sign No. 2	Each	247,550	247.550	-	-	-
2	Non Standard Road Sign No. 3	Each	309,927	309.927	-	-	-
	Sub-Totals:						

h

X. 3-b CONTRACTOR 2ND PAY ESTIMATES (Cont'd)

SECTION X APPENDIX

HIGHWAY PROJECT

TRUCK RECORD - ESTIMATE

SHEET 3

Contract & Estimate
 Truck Record Estimation

Period No. 1 Estimate No. 2 Date July 25, 1981.
 Period Dates 22 Sept. 1980 thru 25 June 1981

STAGE II

ITEM NO.	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	(a) THIS ESTIMATE		(b) TOTAL ESTIMATE		515 SCALE 80
					Quantity	Amount	Quantity	Amount	
(9)	Non Standard Road Sign No. 4	Each	223,178	223,178	-	-	-	-	
(10)	Non Standard Road Sign No. 5	Each	246,180	738,540	-	-	-	-	
(11)	Non Standard Road Sign No. 6	Each	117,797	253,391	-	-	-	-	
(12)	Remove Existing Single Post Signs Relocate	Each	39,290	471,480	-	-	-	-	
(1)	Illumination System Complete, Cadog	L.S.	-	27,407,200	-	-	-	-	
(2)	Traffic Signal System Complete, Cadog	L.S.	-	45,221,900	-	-	-	-	
(1)	Utility Conduit (1.5 cm PVC)	L.M.	7,977	4,307,580	-	-	-	-	
(1)	Traffic Safety Plastic Cone	Each	6,685	668,500	-	-	-	-	
(2)	Striped Traffic Safety Barral Barricade	Each	29,303	2,030,300	-	-	-	-	
(3)	Traffic Safety Barricade/Sign, Type 1	Each	61,820	1,236,400	-	-	-	-	
(4)	Traffic Safety Barricade/Sign, Type 2	Each	63,249	632,490	-	-	-	-	
(5)	Movable Traffic Safety Barricade, Type A	Each	35,321	1,236,235	-	-	-	-	
(6)	Movable Traffic Safety Barricade, Type B	Each	35,946	1,078,380	-	-	-	-	
(7)	Movable Traffic Safety Barricade, Type C	Each	41,488	414,880	-	-	-	-	
(1)	Headwall Type A-1 for 50 cm Culvert	Each	250,973	10,038,920	-	-	-	-	
(2)	Headwall Type A-1 for 80 cm Culvert	Each	80,771	4,653,252	-	-	-	-	
(3)	Headwall Type A-1 for 120 cm Culvert	Each	91,429	2,765,716	-	-	-	-	
(4)	Headwall Type B-1 for 60 cm Culvert	Each	272,164	272,164	-	-	-	-	
(5)	Headwall Type B-1 for 80 cm Culvert	Each	385,870	385,870	-	-	-	-	
(6)	Headwall Type B-1 for 120 cm Culvert	Each	699,980	699,980	-	-	-	-	
(7)	Headwall Type A-2 for 50 cm Culvert	Each	220,681	962,043	-	-	-	-	
(8)	Headwall Type A-2 for 80 cm Culvert	Each	153,839	2,783,034	-	-	-	-	
(9)	Headwall Type A-2 for 120 cm Culvert	Each	76,220	776,220	-	-	-	-	
(10)	Headwall Type B-2 for 60 cm Culvert	Each	248,077	348,077	-	-	-	-	
(11)	Headwall Type B-2 for 80 cm Culvert	Each	91,160	982,320	-	-	-	-	
(12)	Headwall Type B-2 for 120 cm Culvert	Each	253,267	253,267	-	-	-	-	
(1)	Sky Well for Existing Pedestrian Box	(Each)	2,939,106	5,278,212	-	-	-	-	

Sheet No. 3 Sub Totals:

-0-

-0-

X. 3-b CONTRACTOR 2ND PAY ESTIMATES (Cont'd)

SECTION X APPENDIX

Handwritten mark

PROJECT RECORD - ESTIMATE

RUPIAH
 SHEET 4

Lawson & Whitney
 Trans - Civil Engineering

Period No. 1 Estimate No. 2 Date July 25, 1981
 Period Dates 22 Sept 1980 thru 25 June 1981

ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	(5) THIS ESTIMATE		(7) TOTAL ESTIMATE		BID SHEET NO.
				Quantity	Amount	Quantity	Amount	
Sheet No. 1 Sub Total					96,606,153		96,606,153	
Sheet No. 2 Sub Totals					-		-	
Sheet No. 3 Sub Totals					-		-	
Sheet No. Sub Totals					-		-	
Sheet No. Sub Totals					-		-	
Sheet No. Sub Totals					-		-	
Sheet No. Sub Totals					-		-	
SUB - TOTALS; CONTRACT ITEMS					96,606,153		96,606,153	
(A) Time and Materials Extra Work					-		-	
SUB - TOTALS WORK DONE					96,606,153		96,606,153	
(B) Materials on Hand					-		-	
SUB - TOTALS; WORK DONE; MATERIALS					96,606,153		96,606,153	
(C) Deduct 15% Advance Payment					-		-	
(D) Deduct 10% Retention Payment					9,660,615		9,660,615	
(E)					-		-	
SUB - TOTALS; DEDUCTION					9,660,615		9,660,615	
Sub Total					86,945,538		86,945,538	
Add 2.5% PPA Tax					2,173,638		2,173,638	
TOTAL AMOUNT DUE CONTRACTOR					89,119,176		89,119,176	

SECTION X APPENDIX
 X. 3-b CONTRACTOR'S 2ND PAY ESTIMATES (Cont'd)

ESTIMATED DATE FOR COMPLETION 22 Sept '80 WEATHER HICH WORKING DAYS 19 C.C.O DAYS - OTHER ALLOWABLE DAYS - PERCENT COMPLETED 1.20 PERCENT TIME ELAPSED 6.2% SIGNATURE [Signature]
 1983

SECTION X. 3-c

CONTRACTOR'S PAY ESTIMATE NO. 3



INDONESIAN CONSORTIUM OF CONSTRUCTION INDUSTRIES

Address: Jaya Building, 10th Floor - 12, Jalan M.H. Thamrin, Jakarta, Indonesia
Phone: 327508 Ext. 258, 323554 - Telex : 46244 PT JAYA JKT

July 29, 1981

Ref no : 264/E -ICCI/R/VII/81.

Directorate General Bina Marga
Jalan Pattimura no : 20
Kebayoran Baru, J A K A R T A

Through : Mr. Larry G. Buntan
Engineer in Charge
Ammann & Whitney, Trans - Asia
A joint Venture.

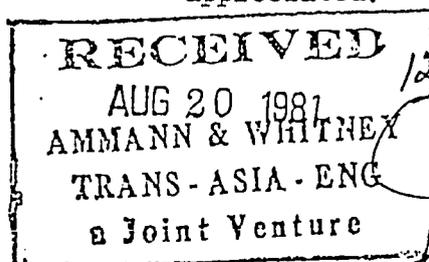
Subject : Request for Monthly Rupiah
Progress Payment no 2; Invoice no 3.
Jagorawi Highway Project Stage II.

Dear Sirs,

In accordance with the Special Provisions 109.11 of the contract, we submit the Monthly Rupiah Progress Payment no 2, invoice no 3 together with the related documents, covering the period from June 26, 1981 up to July 25, 1981, the total amount requested in this invoice is as follows :

Total amount = Rp. 90,793,037.--

Your earliest approval and payment will be highly appreciated.



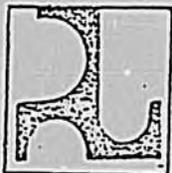
Very truly yours,

PT. INDONESIAN CONSORTIUM
OF CONSTRUCTION INDUSTRIES
Project Manager Road



Encls : 7 sets of estimate
no 3 and enclosures.

Invoice 3



REPUBLIC INDONESIA
 DEPARTEMEN PEKERJAAN UMUM
 DIREKTORAT JENDERAL BINA MARGA

INVOICE AND MONTHLY CERTIFICATE OF PERFORMANCE

Project : JAGORAWI HIGHWAY STAGE II	Date : July 29, 1981
Contract : No. 06 / CTR / DN / BM / 81	Pay Estimate No. : 2
Contractor : INDONESIAN CONSORTIUM OF CONSTRUCTION INDUSTRIES.	RUPIAH : Invoice no. 3.
Engineer : AMMANN & WHITNEY TRANS ASIA ENGINEERING ASSOC. INC.	Remarks : Progress Payment June 26, 1981 thru July 25, 1981.

TOTAL RUPIAH VALUE OF CONTRACT : Rp. 8,050,000,000.--

Description	RUPIAH TOTAL
Total Amount of Work Completed	Rp. 195,026,790.--
Total Amount Previously Credited	Rp. 96,606,153.--
Total Amount Being Invoiced for Payment	Rp. 98,420,637.--
Less 10 % Retention	Rp. 9,842,064.--
Less 15 % Advance Payment	-0-
Deduct Bina Marga Equipment Rental	-0-
Total amount to be deducted.	Rp. 9,842,064.--
Sub Total	Rp. 88,578,573.--
Add 2.5% PPN tax.	Rp. 2,214,464.--
Total Amount to be paid to the Contractor	Rp. 90,793,037.--

Invoice 3 a

Less 10 % Retention	Rp. 9,842,064.--
Less 15 % Advance Payment	-o-
Deduct Bina Marga Equipment Rental	-o-
Total amount to be deducted.	Rp. 9,842,064.--
Sub Total	Rp. 88,578,573.--
Add 2,5% PPn tax.	Rp. 2,214,464.--
Total Amount to be paid to the Contractor	Rp. 90,793,037.--
Separate Total Value of the Equipment and Materials delivered and Services performed under the Contract.	Rp. 285,793,000.--
Separate Total Value since the date of the Previous Invoices of Goods delivered and Services Performed.	Rp. 69,510,000.--

CONTRACTOR CERTIFICATION OF PERFORMANCE;
 The undersigned certifies that the cost reimbursable to the Contractor and the Amount payable to the Contractor in accordance with the terms of the Contract, up to the date of this Certificate, are not less than the total Payments received or claimed by the Contractor under the Contract (including the payment claimed under this invoice), and that the Contractor has fully complied with the terms and conditions of the Contract, including the Plans and Specifications.



[Signature]
SUSILO SUHARTO.
 Project Manager
 JAGORAWI HIGHWAY STAGE II PROJECT

INVOICE RECEIPT

The Engineer acknowledges receipt of Indonesian Consortium of Construction Industries.
 Invoice No. 3 covering Pay Estimate No. 2
 on the 20 day of AUG. at hours.

[Signature]
Engineer - In - Charge
 JAGORAWI HIGHWAY STAGE II PROJECT

ENGINEER CERTIFICATION OF PERFORMANCE
 The services (or equipment and materials) for which payment requested has been satisfactorily delivered;
 The costs there of are properly payable in accordance with the terms of the Contract;
 Any reports or recommendations required under the terms of the Contract have been received and are in accordance with the terms of the Contract;

Date AUG 22 1981



a Joint Venture
 JAKARTA
 R.I.
[Signature]
LARRY G. BUNTEN.
 Engineer - In - Charge
 JAGORAWI HIGHWAY STAGE II PROJECT

Approved for Payment

I. Date:

PARMIN BRE.
 Project Manager
 JAGORAWI HIGHWAY STAGE II PROJECT.

JAGORAWI HIGHWAY STAGE II PROJECT



P.T. **ICEI**
INDONESIAN CONSORTIUM OF CONSTRUCTION INDUSTRIES

Address: Jaya Building, 10th Floor - 12, Jalan M.H. Thamrin, Jakarta, Indonesia
Phone: 327506 Ext. 258, 323554 - Telex : 46244 PT JAYA JKT

SUMMARY OF PAYMENT

REVOLVING FUND ACCOUNT.

Advance Payment as per contract (1981)	Rp. 1,207,500,000.--
Payment received	Rp. 800,000,000.--
<u>July 1981.</u>	
Deduction invoice no 3	" "
..	_____
Amount outstanding.	Rp. 800,000,000.--

REMAINING BALANCE DUE.	Rp. 407,500,000.--
	=====

PT. INDONESIAN CONSORTIUM
OF CONSTRUCTION INDUSTRIES

Project Manager Road



HUSODO SUHARTO)

PROJECT RECORD - ESTIMATE

STAGE : II

Period No. 2 Estimate No. 3 Date July 29, 1981
Period Dates June 26, 1981 thru July 25, 1981

ITEM NO.	ITEMS	Unit	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		BID SCHEM NO.
					Quantity	Amount	Quantity	Amount	
BASIC TENDER									
9(1)	Mobilization	L.S.	-	269,740,977	-	-	-	-	-
1(1)	Engineer's Facilities	L.S.	-	120,435,458	70 89	85,373,428	33 83	85,913,659	-
		L.S.	Deleted	-	-	-	70 89	85,373,428	-
1(1)	Clearing and Grubbing	L.S.	Deleted	-	-	-	-	-	-
2(1)	Remove Existing Grouted or Loose Rip Rap	Are	16,406	11,156,080	158 88	2,606,585	218 18	3,579,160	-
2(2)	Remove Existing Headwalls	Cu.M.	11,456	4,582,400	-	-	-	-	-
2(3)	Remove Existing Wing Walls	Each	99,728	897,552	-	-	-	-	-
2(4)	Remove Existing Bridge Gadog Spur Sta 34005+ And Miscellaneous Grouted Rip-Rap on PuncakRD	Each	718,393	1,436,786	-	-	-	-	-
3(1)	Unclassified Excavation Class 1	L.S.	-	3,289,241	-	-	-	-	-
3(2)	Unclassified Excavation Class 2	Cu.M.	2,352	517,440,000	-	-	-	-	-
3(3)	Excavation Class 3	Cu.M.	1,937 75	29,260,025	-	-	-	-	-
3(4)	Roadway Embankment	Cu.M.	2,245 44	37,049,760	-	-	-	-	-
3(5)	Select Roadway Embankment	Cu.M.	1,117 19	108,140,120	-	-	-	-	-
6(1)	Structure Excavation	Cu.M.	8,654	139,329,400	739	6,395,306	739	6,395,306	-
6(2)	Bridge Excavation	Cu.M.	4,022	25,740,800	-	-	-	-	-
9(1)	Removal of Existing Pavement	Cu.M.	6,528	38,515,200	-	-	-	-	-
01(1)	Asphalt Treated Base Course	Sq.M.	3,653	12,420,200	-	-	-	-	-
04(1)	Aggregate Base Course	Ton	15,434	643,597,800	-	-	-	-	-
05(1)	Lime Treated Improved Subgrade, Processing	Cu.M.	13,165 65	414,717,975	-	-	-	-	-
05(2)	Hydrated Lime	Ton	-	DELETED	DURING	BID	NEGOTIA	IONS.	-
05(3)	Curing Seal, Emulsified Asphalt Grade SS-1H	Ton	-	DELETED	DURING	BID	NEGOTIA	IONS.	-
03(1)	Hot Bituminous Concrete Pavement	Ton	-	DELETED	DURING	BID	NEGOTIA	IONS.	-
03(2)	Asphalt Cement 60-70 Penetration	Ton	16,209	254,481,300	-	-	-	-	-
07(1)	Tack Coat, Emulsified Asphalt Grade SS-1H	Ton	300,126 74	984,415,707	-	-	-	-	-
08(1)	Prime Coat, Liquid Asphalt Grade MC-70	Ton	452,219	13,114,351	-	-	-	-	-
09(1)	Seal Coat, Cover Aggregate, Grading B, Type 3	Ton	524,848	57,733,280	-	-	-	-	-
09(2)	Seal Coat, Liquid Asphalt Grade RC-250	Ton	14,308	21,462,000	-	-	-	-	-
09(3)	Seal Coat, Emulsified Asphalt Grade SS-1H	Ton	535,468	34,805,420	-	-	-	-	-
00A(1)	Structural Steel Piles Furnished	Ton	479,557	8,632,026	-	-	-	-	-
00A(2)	Structural Steel Piles Driven	L.M.	46,625	404,238,750	-	-	-	-	-
00A(3)	Structural Steel Piles Test Driven	Each	132,460	109,411,960	-	-	-	-	-
00A(4)	Load Test	Each	132,460	397,380	-	-	-	-	-
00R(1)	Soil Borings (Other than Rock)	(Each) 2,	192,576	2,192,576	-	-	-	-	-
00B(2)	Soil Borings (Rock)	L.M.	52,074	2,603,700	52 95	2,757,318	96 85	5,041,360	-
00B(3)	Mobilization & Demobilization of Boring Equipment, Each Bridge Site	L.M.	106,888	5,344,400	12 05	1,288,000	38 25	4,000,165	-
01A(1)	Structural Concrete, Class "AA"	Each	633,106	1,899,318	-	-	1	633,105	-
01A(2)	Structural Concrete, Class "C"	Cu.M.	120,282	637,494,600	-	-	-	-	-
		Cu.M.	58,273	8,449,585	-	-	-	-	-
Sheet No. 1 Sub-Totals :						98,420,637		195,026,790	

SECTION X APPENDIX
X. 3-C CONTRACTOR'S 3RD PAY ESTIMATES

PROJECT RECORD - ESTIMATE

Period No. 2 Estimate No. 3 Date July 29, 1981
 Period Dates June 26, thru July 25, 1981

STAGE II

ITEM	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	(5) THIS ESTIMATE		(7) TOTAL ESTIMATE		DIS. SCHE. NO.
					Quantity	Amount	Quantity	Amount	
01(1)	East Bridge STA. 11 + 932, Superstructure	L. S		704,009,623					
01(2)	East Bridge STA. 13 + 507, Superstructure	L. S		396,511,817					
02(3)	East Bridge STA. 15 + 540, Superstructure	L. S		392,836,268					
01(1)	Reinforcing Steel	Kg.	548	290,440,000					
01(1)	Reinforced Concrete Pipe, Ø 60 cm	L. M	42,128	44,234,400					
02(2)	Reinforced Concrete Pipe, Ø 80 cm	L. M	58,754	43,477,960					
03(3)	Reinforced Concrete Pipe, Ø 120 cm	L. M	90,385	4,519,250					
01(1)	Utility Manhole Type 1	Each	757,147	4,542,882					
02(2)	Utility Manhole Type 2	Each	401,869	1,607,476					
03(3)	Inlet, Type I	(Each)	039,600	27,029,600					
04(4)	Inlet, Type II	(Each)	1,025,051	1,025,051					
05(5)	Inlet, Type III	(Each)	1,025,051	10,250,510					
06(6)	Inlet, Type IV	(Each)	1,085,888	8,687,104					
07(7)	Grate Type I	Each	326,943	4,904,145					
05(1)	20 cm. Perfor. Conc. Pipe in place, Incl. End Wall	L. M	9,913	46,591,100					
05(2)	Underdrain Junction Box Inplace	Each	17,061	426,525					
05(1)	Galvanized Beam Type Guardrail & Post	L. M	78,823	45,717,340					
05(2)	Remove Existing Guardrail and Relocate	L. M	6,391	2,428,580					
07(1)	Barbed Wire Fence	L. M	12,110	50,862,000					
09(1)	Concrete Curb Gutter, Type 1	L. M	11,929	1,550,770					
09(2)	Concrete Curb Gutter, Type 2	L. M	25,415	25,160,850					
09(3)	Concrete Delineation Strip	L. M	7,360	8,096,000					
09(4)	Concrete Median Barrier	L. M	39,398	169,411,400					
09(5)	Concrete Median Barrier End Taper	Each	149,123	596,492					
09(6)	Concrete Median Barrier Transition to Bridge	Each	695,439	4,172,634					
09(1)	Rock Slope Protection	Cu.M	15,811	79,055,000					
02(1)	Grouted Rip-Rap 20 cm. Thick for Channel Lining	Sq.M	8,251	255,781,000					
02(2)	Grouted Rip-Rap	Cu.M	39,886	15,954,400					
03(1)	Survey Control Monument	Each	67,796	3,796,576					
04(1)	Placing Scalped Topsoil	Are	18,244	12,405,920					
09(1)	Sodding	Are	81,800	98,160,000					
00(1)	Concrete Block Slope Protection	Sq.M	18,456	15,687,600					
01(1)	Roadway Marking, 10 cm, Striping	L. M	767	34,745,100					
01(2)	Miscellaneous Pavement Marking Words, Arrow, Etc	Sq.M	6,829	136,580					
02(1)	Standard Road Sign, Type A	Each	22,287	244,574					
02(2)	Standard Road Sign, Type B	Each	41,296	1,412,960					
02(3)	Standard Road Sign, Type C	Each	41,296	2,119,440					
02(4)	Standard Road Sign, Type D	Each	108,421	816,842					
02(5)	Standard Road Sign, Type E	Each	148,754	446,262					
02(6)	Non Standard Road Sign No. 1	Each	247,550	742,650					
02(7)	Non Standard Road Sign No. 2	Each	247,550	247,550					
02(8)	Non Standard Road Sign No. 3	Each	309,927	309,927					
Sheet No. 2		Sub-Totals :							

X. 3-C CONTRACTOR'S 3RD PAY ESTIMATES (Cont'd)

SECTION X APPENDIX

PROJECT RECORD - ESTIMATE

STAGE : II

Period No. 2 Estimate No. 3 Date July 29, 1981
 Period Dates June 26, 1981 thru July 25, 1981.

PAY ITEM NO.	ITEMS	Units	CONTRACT PRICES		ORIGINAL AUTHORIZED Amount		THIS ESTIMATE		TOTAL ESTIMATE		DID SCID NO.
							Quantity	Amount	Quantity	Amount	
							(5)	(6)	(7)	(8)	
2(9)	Non Standard Road Sign No. 4	Each	223,178	-	223,178	-	-	-	-	-	-
2(10)	Non Standard Road Sign No. 5	Each	246,180	-	730,540	-	-	-	-	-	-
2(11)	Non Standard Road Sign No. 6	Each	317,797	-	953,391	-	-	-	-	-	-
2(12)	Remove Existing Single Post Sign & Relocate	Each	39,290	-	471,480	-	-	-	-	-	-
3(1)	Illumination System Complete, Gadag	L.S.	-	-	27,407,200	-	-	-	-	-	-
3(2)	Traffic Signal System Complete, Gadag	L.S.	-	-	45,221,900	-	-	-	-	-	-
4(1)	Utility Conduit (15 cm PVC)	L.M.	-	-	4,307,500	-	-	-	-	-	-
5(1)	Traffic Safety Plastic Cone	Each	7,977	-	668,500	-	-	-	-	-	-
5(2)	Striped Traffic Safety Barrel Barricade	Each	6,685	-	2,030,300	-	-	-	-	-	-
5(3)	Traffic Safety Barricade/Sign, Type 1	Each	20,303	-	632,490	-	-	-	-	-	-
5(4)	Traffic Safety Barricade/Sign, Type 2	Each	61,820	-	1,236,400	-	-	-	-	-	-
5(5)	Movable Traffic Safety Barricade, Type A	Each	63,249	-	1,236,235	-	-	-	-	-	-
5(6)	Movable Traffic Safety Barricade, Type B	Each	35,321	-	1,078,380	-	-	-	-	-	-
5(7)	Movable Traffic Safety Barricade, Type C	Each	35,946	-	414,880	-	-	-	-	-	-
6(1)	Headwall Type A-1 for 60 cm Culvert	Each	41,488	-	10,038,920	-	-	-	-	-	-
6(2)	Headwall Type A-1 for 80 cm Culvert	Each	250,973	-	4,653,252	-	-	-	-	-	-
6(3)	Headwall Type A-1 for 120 cm Culvert	Each	80,771	-	2,765,710	-	-	-	-	-	-
6(4)	Headwall Type B-1 for 60 cm Culvert	Each	291,429	-	272,164	-	-	-	-	-	-
6(5)	Headwall Type B-1 for 80 cm Culvert	Each	272,164	-	385,870	-	-	-	-	-	-
6(6)	Headwall Type B-1 for 120 cm Culvert	Each	385,870	-	699,980	-	-	-	-	-	-
6(7)	Headwall Type A-2 for 60 cm Culvert	Each	699,980	-	962,043	-	-	-	-	-	-
6(8)	Headwall Type A-2 for 80 cm Culvert	Each	20,681	-	2,783,034	-	-	-	-	-	-
6(9)	Headwall Type A-2 for 120 cm Culvert	Each	63,839	-	776,220	-	-	-	-	-	-
6(10)	Headwall Type B-2 for 60 cm Culvert	Each	76,220	-	348,077	-	-	-	-	-	-
6(11)	Headwall Type B-2 for 80 cm Culvert	Each	48,077	-	982,320	-	-	-	-	-	-
6(12)	Headwall Type B-2 for 120 cm Culvert	Each	91,160	-	863,267	-	-	-	-	-	-
7(1)	Sky Well for Existing Pedestrian Box. (Each)	2	2,939,106	-	5,878,212	-	-	-	-	-	-
Sheet No. 3 Sub Totals:											

SECTION X APPENDIX
X. 3-c CONTRACTOR'S 3RD PAY ESTIMATES (Cont'd)

JAGORAWI
 HIGHWAY PROJECT
 STAGE II

PROJECT RECORD-ESTIMATE

Period No. 2 Estimate No. 3 Date July 29, 1981
 Period Dates June 26, 1981 thru July 25, 1981.

RUPIAH
 SHEET 4

Amman & Whitney
 Trans-Asia Engineering

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

ITEM	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		BID SCHEM. NO.
					Quantity	Amount	Quantity	Amount	
	Sheet No. 1 Sub Total					98,420,637		195,026,790	
	Sheet No. 2 Sub Totals					-		-	
	Sheet No. 3 Sub Totals					-		-	
	Sheet No. Sub Totals					-		-	
	Sheet No. Sub Totals					-		-	
	Sheet No. Sub Totals					-		-	
	Sheet No. Sub Totals					-		-	
	SUB - TOTALS; CONTRACT ITEMS					98,420,637		195,026,790	
	(A) Time and Materials Extra Work					-		-	
	SUB - TOTALS WORK DONE					98,420,637		195,026,790	
	(B) Materials on Hand					-		-	
	SUB - TOTALS; WORK DONE; MATERIALS					98,420,637		195,026,790	
	(C) Deduct 15% Advance Payment					-		-	
	(D) Deduct 10% Retention Payment					9,842,064		19,502,679	
	(E)					-		-	
	(F)					-		-	
	SUB - TOTALS; DEDUCTION					9,842,064		19,502,679	
	Sub Total					88,578,573		175,524,111	
	Add 2.5% PPN tax.					2,214,464		4,308,104	
	TOTAL AMOUNT DUE CONTRACTOR					90,793,037		179,912,214	

X. 3-C CONTRACTOR'S 3RD PAY ESTIMATES (Cont'd)

SECTION X APPENDIX

ESTIMATED DATE FOR COMPLETION Sept 22, 80 WEATHER NON WORKING DAYS May 1983 OTHER C.C.O DAYS - ALLOWABLE DAYS - PERCENT COMPLETED 2.48% PERCENT TIME ELAPSED 10.3% SIGNATURE

SECTION X. 3-d

CONTRACTOR'S PAY ESTIMATE NO. 4

P.T. 
INDONESIAN CONSORTIUM OF CONSTRUCTION INDUSTRIES

Address: Jaya Building, 10th Floor - 12, Jalan M.H. Thamrin, Jakarta, Indonesia
Phone: 327508 Ext. 258, 323554 - Telex : 46244 PT JAYA JKT

August 31, 1981.

Ref no : 284/E - ICCI/R/VIII/81.

Directorate General Bina Marga
Jalan Pattimura no : 20.
Kebayoran Baru, J A K A R T A.

Through : Mr. Larry G. Buntan.
Engineer in Charge,
Ammann & Whitney, Trans - Asia.
A Joint Venture.

Subject : Request for Monthly Rupiah
Progress Payment no 3, Invoice no 4.
Jagorawi Highway Project Stage II.

Dear Sirs.

2

Subject : Request for Monthly Rupiah
Progress Payment no 3, Invoice no 4.
Jagorawi Highway Project Stage II.

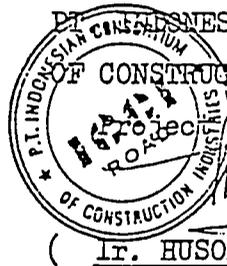
Dear Sirs,

In accordance with the Special Provisions 109.11 of The contract, we submit the Monthly Rupiah Progress Payment no 3, invoice no 4 together with the related documents, covering the period from July 26, 1981 up to August 25, 1981, the total amount requested in this invoice is as follows :

Total amount Rp. 3,400,241.-

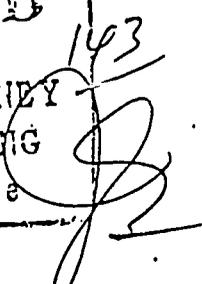
Your earliest approval and payment will be highly appreciated.

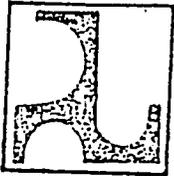
Very truly yours,

PT. INDONESIA CONSTRUCTION CONSORTIUM
OF CONSTRUCTION INDUSTRIES
Project Manager Road

(Ir. HUSODO SUHARTO)

Encls : 7 sets of estimate
no 3 and enclosures.

JS/Srb.-

RECEIVED
SEP 15 1981
AMMANN & WHITNEY
TRANS-ASIA-ENG
a Joint Venture




REPUBLIK INDONESIA
DEPARTEMEN PEKERJAAN UMUM
DIREKTORAT JENDERAL BINA MARGA

INVOICE
AND
MONTHLY CERTIFICATE OF PERFORMANCE

Project : JAGORAWI HIGHWAY STAGE II
Contract : No. 06 / CTR / DN / BM / 81
Contractor : INDONESIAN CONSORTIUM OF
CONSTRUCTION INDUSTRIES.
Engineer : AMMANN & WHITNEY
TRANS-ASIA ENGINEERING ASSOC. INC.

Date : August 31, 1981
Pay Estimate No. : 3
RUPIAH : Invoice no 4.
Remarks : Progress Payment July 26,
thru August 25, 1981.

TOTAL RUPIAH VALUE OF CONTRACT :

Rp. 8,050,000,000.--

Description	RUPIAH TOTAL
Total Amount of Work Completed	Rp. 198,712,689.--
Total Amount Previously Credited	Rp. 195,026,790.--
Total Amount Being Invoiced for Payment less 10 % Retention	Rp. 3,685,899.--
15 % Advance Payment	Rp. 368,589.--
Total Amount to be deducted	" -0-
	" 368,589.--
Sub Total.	Rp. 3,400,241.--
Add 2.5% PPN Tax.	Rp. 82,932.--
Total Amount to be paid to the Contractor	Rp. 3,400,241.--
Separate Total Value of the Equipment and Materials delivered and Services performed under the Contract.	Rp. 355,303,000.--

2

Add 2.5% PPn Tax.	Rp.	82,932.-
Total Amount to be paid to the Contractor	Rp.	3,400,241.-
Separate Total Value of the Equipment and Materials delivered and Services performed under the Contract.	Rp.	355,303,000.-
Separate Total Value since the date of the Previous Invoices of Goods delivered and Services Performed.		16.511.000.-

CONTRACTOR CERTIFICATION OF PERFORMANCE

The undersigned certifies that the cost reimbursable to the Contractor and the Amount payable to the Contractor in accordance with the terms of the Contract, up to the date of this Certificate, are not less than the total Payments received or claimed by the Contractor under the Contract (including the payment claimed under this invoice), and that the Contractor has fully complied with the terms and conditions of the Contract, including the Plans and Specifications.



MUSODO SUHARTO.

Project Manager

JAGORAWI HIGHWAY STAGE II PROJECT

INVOICE RECEIPT

The Engineer acknowledges receipt of Indonesian Consortium of Construction Industries.

Invoice No. covering Pay Estimate No.
on the day of, at hours.

Engineer - In - Charge

JAGORAWI HIGHWAY STAGE II PROJECT

ENGINEER CERTIFICATION OF PERFORMANCE

- The services (or equipment and materials) for which payment requested has been satisfactorily delivered;
- The costs there of are properly payable in accordance with the terms of the Contract;
- Any reports or recommendations required under the terms of the Contract have been received and are in accordance with the terms of the Contract;

Date :

LARRY G. BUNTEN.

Engineer - In - Charge

JAGORAWI HIGHWAY STAGE II PROJECT

Approved for Payment

1. Date :

PARMIN BRE.

Project Manager

JAGORAWI HIGHWAY STAGE II PROJECT.

2. Date :

Ir. MOELIA AIDA.

Director of Construction

JAGORAWI HIGHWAY STAGE II PROJECT

PROJECT RECORD - ESTIMATE

Period No 3 Estimate No. 4 Date August 31, 1981,
Period Dates July 26, 1981 thru August 25, 1981.

STAGE : II

NO	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		DID SCITE NO.
					Quantity	Amount	Quantity	Amount	
	BASIC TENDER								
(1)	Mobilization	L.S.		269,740,877			3333	89,913,659	
(1)	Engineer's Facilities	L.S.		120,435,458			7089	85,373,428	
		L.S.	Deleted						
		L.S.	Deleted						
(1)	Clearing and Grubbing	Are.	16,406	11,156,080	6292	1,030,625	281	4,610,085	
(1)	Remove Existing Grouted or Loose Rip Rap	Cu.M.	11,456	4,582,400					
(2)	Remove Existing Headwalls	Each	99,728	897,552					
(3)	Remove Existing Wing Walls	Each	718,393	1,436,786					
(4)	Remove Existing Bridge Gadog Spur Sta 3+005+ And Miscellaneous Grouted Rip-Rap on PuncakRD	L.S.		3,289,241					
(1)	Unclassified Excavation Class 1	Cu.M.	2,352	517,440,000					
(2)	Unclassified Excavation Class 2	Cu.M.	1,937	29,260,025					
(3)	Excavation Class 3	Cu.M.	2,245	37,049,750	1,003	2,254,174	89	2,254,174	
(4)	Roadway Embankment	Cu.M.	1,117	108,140,120					
(5)	Select Roadway Embankment	Cu.M.	8,654	139,329,400			739	6,395,306	
(1)	Structure Excavation	Cu.M.	4,022	25,740,800					
(2)	Bridge Excavation	Cu.M.	6,528	38,515,200					
(1)	Removal of Existing Pavement	Sq.M.	3,653	12,420,200					
(1)	Asphalt Treated Base Course	Ton	15,434	643,597,800					
(1)	Aggregate Base Course	Cu.M.	13,165	414,717,975					
(1)	Line Treated Improved Subgrade, Processing	Cr.M.		DELETED	DURING	DID NEGOTIA	IONS.		
(2)	Hydrated Lime	Ton		DELETED	DURING	DID NEGOTIA	IONS.		
(3)	Curing Seal, Emulsified Asphalt Grade SS-LH	Ton		DELETED	DURING	DID NEGOTIA	IONS.		
(1)	Hot Bituminous Concrete Pavement	Ton	16,209	254,481,300					
(2)	Asphalt Cement 60-70 Penetration	Ton	300,126	984,415,707					
(1)	Tack Coat, Emulsified Asphalt Grade SS-LH	Ton	452,219	13,114,351					
(1)	Prime Coat, Liquid Asphalt Grade MC-70	Ton	524,848	57,733,280					
(1)	Seal Coat, Cover Aggregate, Grading B, Type 3	Ton	14,308	21,462,000					
(2)	Seal Coat, Liquid Asphalt Grade RC-250	Ton	535,468	34,805,420					
(3)	Seal Coat, Emulsified Asphalt Grade SS-LH	Ton	479,557	8,632,026					
(1)	Structural Steel Piles Furnished	L.M.	46,625	404,238,750					
(2)	Structural Steel Piles Driven	Each	132,460	109,411,960					
(3)	Structural Steel Piles Test Driven	Each	132,460	397,380					
(4)	Load Test	(Each)	2,92,576	2,192,576					
(1)	Soil Borings (Other than Rock)	L.M.	52,074	2,603,700			96	5,043,368	
(2)	Soil Borings (Rock)	L.M.	106,888	5,344,400			38	4,008,165	
(3)	Mobilization & Demobilization of Boring Equipment, Each Bridge Site	Each	633,106	1,899,318			1	633,106	
(1)	Structural Concrete, Class "AA"	Cu.M.	120,282	637,494,600					
(2)	Structural Concrete, Class "C"	Cu.M.	58,273	8,449,585					
	Sheet No. 1		Sub Totals :				3,284,799	198,311,589	

SECTION X APPENDIX
X. 3-d CONTRACTOR'S 4TH PAY ESTIMATES

PROJECT RECORD-ESTIMATE

GHWAY PROJECT

Period No. 3 Estimate No. 4 Date August 31, 1981
 Period Dates July 26, 1981 thru August 25, 1981

STAGE II

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

ITEM NO.	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		BID PRICE NO.
					Quantity	Amount	Quantity	Amount	
D(1)	East Bridge STA. 11 + 932, Superstructure	L. S		704,009,623	-	-	-	-	
D(2)	East Bridge STA. 13 + 507, Superstructure	L. S		396,511,817	-	-	-	-	
B(3)	East Bridge STA. 15 + 540, Superstructure	L. S		392,836,268	-	-	-	-	
2(1)	Reinforcing Steel	Kg.	548	290,440,000	-	-	-	-	
B(1)	Reinforced Concrete Pipe, Ø 60 cm	L. M	42,128	44,234,400	-	-	-	-	
B(2)	Reinforced Concrete Pipe, Ø 80 cm	L. M	58,754	43,477,960	-	-	-	-	
B(3)	Reinforced Concrete Pipe, Ø 120 cm	L. M	90,385	4,519,250	-	-	-	-	
4(1)	Utility Manhole Type 1	Each	757,147	4,542,882	-	-	-	-	
4(2)	Utility Manhole Type 2	Each	401,869	1,607,476	-	-	-	-	
4(3)	Inlet, Type I (Each)		1,039,600	27,029,600	-	-	-	-	
4(4)	Inlet, Type II (ch)		1,025,051	1,025,051	-	-	-	-	
4(5)	Inlet, Type III (Lch)		1,025,051	10,250,510	-	-	-	-	
4(6)	Inlet, Type IV (Each)		1,085,888	8,687,104	-	-	-	-	
4(7)	Grate Type I	Each	326,943	4,904,145	-	-	-	-	
5(1)	20 cm. Perfor. Conc. Pipe in place, Incl. End Wall	L. M	9,913	46,591,100	-	-	-	-	
5(2)	Underdrain Junction Box Inplace	Each	17,061	426,525	-	-	-	-	
6(1)	Galvanized Beam Type Guardrail & Post	L. M	78,823	45,717,340	-	-	-	-	
6(2)	Remove Existing Guardrail and Relocate	L. M	6,391	2,428,580	-	-	-	-	
7(1)	Barbed Wire Fence	L. M	12,110	50,862,000	-	-	-	-	
9(1)	Concrete Curb Gutter, Type 1	L. M	11,929	1,550,770	-	-	-	-	
9(2)	Concrete Curb Gutter, Type 2	L. M	25,415	25,160,850	-	-	-	-	
9(3)	Concrete Delineation Strip	L. M	7,360	8,096,000	-	-	-	-	
9(4)	Concrete Median Barrier	L. M	39,398	169,411,400	-	-	-	-	
9(5)	Concrete Median Barrier End Taper	Each	149,123	596,492	-	-	-	-	
9(6)	Concrete Median Barrier Transition to Bridge	Each	695,439	4,172,634	-	-	-	-	
19(1)	Rock Slope Protection	Cu.M	15,811	79,055,000	-	-	-	-	
22(1)	Grouted Rip-Rap 20 cm. Thick for Channel Lining	Sq.M	8,251	255,781,000	-	-	-	-	
22(2)	Grouted Rip-Rap	Cu.M	39,886	15,954,400	-	-	-	-	
23(1)	Survey Control Monument	Each	67,796	3,796,576	-	-	-	-	
24(1)	Placing Scalped Topsoil	Are	18,244	12,405,920	-	-	-	-	
29(1)	Sodding	Are	81,800	98,160,000	-	-	-	-	
30(1)	Concrete Block Slope Protection	Sq.M	18,456	15,687,600	-	-	-	-	
31(1)	Roadway Marking, 10 cm, Striping	L. M	767	34,745,100	-	-	-	-	
31(2)	Miscellaneous Pavement Marking Words, Arrow, Etc	Sq.M	6,829	136,580	-	-	-	-	
632(1)	Standard Road Sign, Type A	Each	22,287	244,574	-	-	-	-	
632(2)	Standard Road Sign, Type B	Each	141,296	1,412,960	-	-	-	-	
632(3)	Standard Road Sign, Type C	Each	141,296	2,119,440	-	-	-	-	
632(4)	Standard Road Sign, Type D	Each	408,421	816,842	-	-	-	-	
632(5)	Standard Road Sign, Type E	Each	148,754	446,262	-	-	-	-	
632(6)	Non Standard Road Sign No. 1	Each	247,550	742,650	-	-	-	-	
632(7)	Non Standard Road Sign No. 2	Each	247,550	247,550	-	-	-	-	
632(8)	Non Standard Road Sign No. 3	Each	309,927	309,927	-	-	-	-	
Sheet No. 2 Sub-Totals :					-	-	-	-	

X. 3-d CONTRACTOR'S 4TH PAY ESTIMATES (Cont'd)

SECTION X APPENDIX

PROJECT RECORD-ESTIMATE

Period No. 3 Estimate No. 4 Date August 31, 1981
 Period Dates July 26, 1981 Thru August 25, 1981

RUPIAH
SHEET 2

Ammon & Whitney
Trans - Ase Engineering

ITEM NO.	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	(5) THIS ESTIMATE		(7) TOTAL ESTIMATE		DIO SCHEM NO.
					Quantity	Amount	Quantity	Amount	
2(9)	Non Standard Road Sign No. 4	Each	223,178	223,178	-	-	-	-	-
2(10)	Non Standard Road Sign No. 5	Each	246,180	738,540	-	-	-	-	-
2(11)	Non Standard Road Sign No. 6	Each	317,797	953,391	-	-	-	-	-
2(12)	Remove Existing Single Post Sign & Relocate	Each	39,290	471,480	-	-	-	-	-
1	illumination System Complete, Gadog	L.S.	-	27,407,200	-	-	-	-	-
2	Traffic Signal System Complete, Gadog	L.S.	-	45,221,900	-	-	-	-	-
1	Utility Conduit (15 cm PVC)	L.M.	7,977	4,307,580	-	-	-	-	-
6(1)	Traffic Safety Plastic Cone	Each	6,685	668,500	60	401,100	60	401,100	-
6(2)	Striped Traffic Safety Barrel Barricade	Each	20,303	2,030,300	-	-	-	-	-
6(3)	Traffic Safety Barricade/Sign, Type 1	Each	61,820	1,236,400	-	-	-	-	-
6(4)	Traffic Safety Barricade/Sign, Type 2	Each	63,249	632,490	-	-	-	-	-
6(5)	Movable Traffic Safety Barricade, Type A	Each	35,321	1,236,235	-	-	-	-	-
6(6)	Movable Traffic Safety Barricade, Type B	Each	35,946	1,078,380	-	-	-	-	-
6(7)	Movable Traffic Safety Barricade, Type C	Each	41,488	414,880	-	-	-	-	-
6(1)	Headwall Type A-1 for 60 cm Culvert	Each	250,973	10,038,920	-	-	-	-	-
6(2)	Headwall Type A-1 for 80 cm Culvert	Each	380,771	4,653,252	-	-	-	-	-
6(3)	Headwall Type A-1 for 120 cm Culvert	Each	291,429	2,765,716	-	-	-	-	-
6(4)	Headwall Type B-1 for 60 cm Culvert	Each	272,164	272,164	-	-	-	-	-
6(5)	Headwall Type B-1 for 80 cm Culvert	Each	385,870	385,870	-	-	-	-	-
6(6)	Headwall Type B-1 for 120 cm Culvert	Each	699,980	699,980	-	-	-	-	-
6(7)	Headwall Type A-2 for 60 cm Culvert	Each	320,681	962,043	-	-	-	-	-
6(8)	Headwall Type A-2 for 80 cm Culvert	Each	63,839	2,783,034	-	-	-	-	-
6(9)	Headwall Type A-2 for 120 cm Culvert	Each	776,220	776,220	-	-	-	-	-
6(10)	Headwall Type B-2 for 60 cm Culvert	Each	348,077	348,077	-	-	-	-	-
6(11)	Headwall Type B-2 for 80 cm Culvert	Each	491,160	982,320	-	-	-	-	-
6(12)	Headwall Type B-2 for 120 cm Culvert	Each	863,267	863,267	-	-	-	-	-
7(1)	Sky Well for Existing Pedestrian Box. (Each)		2,939,106	5,878,212	-	-	-	-	-
Sheet No. 3 Sub Totals:						401,100		401,100	

X. 3-d CONTRACTOR'S 4TH PAY ESTIMATES (Cont'd)

SECTION X APPENDIX

JAGORAWI
 HWAY PROJECT
 STAGE II

PROJECT RECORD-ESTIMATE

RUPIAH
 SHEET 4

Ammann & Whitney
 Trans - Asst Engineering

Period No 3 Estimate No. 4 Date August 31, 1981.
 Period Dates July 26, 1981 thru August 25, 1981.

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

ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		BID SCHEM. NO.
				Quantity	Amount	Quantity	Amount	
Sheet No. 1 Sub Total.					3,204,799		198,311,589	
Sheet No. 2 Sub Totals					1,01,100		1,01,100	
Sheet No. 3 Sub Totals					-		-	
Sheet No. Sub Totals					-		-	
Sheet No. Sub Totals					-		-	
Sheet No. Sub Totals					-		-	
SUB - TOTALS; CONTRACT ITEMS					-		-	
(A) Time and Materials Extra Work					-		-	
SUB - TOTALS WORK DONE					3,685,899		198,712,689	
(B) Materials on Hand					-		-	
SUB - TOTALS; WORK DONE; MATERIALS					3,685,899		198,712,689	
(C) Deduct 15% Advance Payment					-		-	
(D) Deduct 10% Retention Payment					368,589		19,871,268	
(E)					-		-	
(F)					-		-	
SUB - TOTALS; DEDUCTION					368,589		19,871,268	
Sub Totals.					3,317,309		178,841,420	
Add 2.5% Ppn. Tax.					82,932		4,471,035	
TOTAL AMOUNT DUE CONTRACTOR					3,400,241		183,312,455	

WORK ED Sept 22, 81 ESTIMATED DATE May 11, 1983 FATHER HIGH FOR COMPLETION 1983 WORKING DAYS -11 C.C.O DAYS -0- OTHER ALLOWABLE DAYS -0- PERCENT COMPLETED 2.53% PERCENT TIME ELAPSED 14.52% SIGNATURE

X. 3-d CONTRACTOR'S 4TH PAY ESTIMATES (Cont'd)

SECTION X APPENDIX

SECTION X. 3-e

CONTRACTOR'S PAY ESTIMATE NO. 5



P.T. INDONESIAN
CONSORTIUM OF
CONSTRUCTION INDUSTRIES

Jagorawi Highway Project Stage II.
Complex Bina Marga No. 9.
Baranang Siang, Bogor. Phone 26854

Head office : Jaya Building 10 th floor Jl. M.H. Thamrin 12, Jakarta Telex 46244 P.T. Jaya Jkt. Phone 327508, 325316 ext. 258

Our ref : 308/E - ICCI/R/IX/81.

September 28, 1981.

Directorate General Bina Marga
Jalan Pattimura no : 20
Kebayoran Baru, J A K A R T A.

Through : Mr. Larry G. Buntan
Engineer in Charge
Ammann & Whitney, Trans - Asia.
A Joint Venture.

Subject : Request for Monthly Rupiah
Progress Payment no 4, Invoice no 5
Jagorawi Highway Project Stage II.

Dear Sirs,

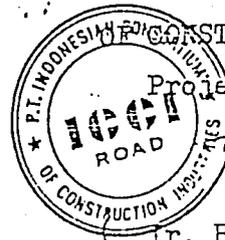
In accordance with the Special Provisions 109.11 of the contract, we submit the Monthly Rupiah Progress Payment no 4, invoice no 5 together with the related documents, covering the period from August 26, 1981 up to September 25, 1981, the total amount requested in this invoice is as follows :

Total amount Rp. 71,894,479.--

Your earliest approval and payment will be highly appreciated.

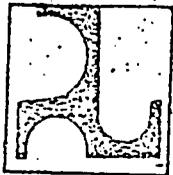
Very truly yours,

PT. INDONESIAN CONSORTIUM
OF CONSTRUCTION INDUSTRIES
Project Manager Road



ir. HUSODO SUHARTO)

Encls : 7 sets of estimate
no 4 and enclosures.



REPUBLIK INDONESIA
DEPARTEMEN PEKERJAAN UMUM
DIREKTORAT JENDERAL BINA MARGA

INVOICE
AND
MONTHLY CERTIFICATE OF PERFORMANCE

Project : JAGORAWI HIGHWAY STAGE II
Contract : No. 06 / CTR / DN / BM / 81
Contractor : INDONESIAN CONSORTIUM OF
CONSTRUCTION INDUSTRIES.
Engineer : AMMANN & WHITNEY
TRANS-ASIA ENGINEERING ASSOC. INC.

Date : September 28, 1981.
Pay Estimate No. : 4
RUPIAH : Invoice no 5.
Remarks : Progress Payment August 26
thru Sept 25, 1981.

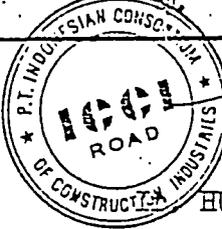
TOTAL RUPIAH VALUE OF CONTRACT : Rp. 8,050,000,000.--

Description	RUPIAH TOTAL
Total Amount of Work Completed	Rp. 286,388,881.--
Total Amount Previously Credited	Rp. 198,712,689.--
Total Amount Being Invoiced for Payment	Rp. 87,676,195.--
Less 10 % Retention	Rp. 8,767,620.--
Less 15 % Advance Payment	Rp. 8,767,620.--
Total Amount to be deducted	Rp. 17,535,240.--
Sub Total.	Rp. 70,140,955.--
Add 2,5% PPh Tax.	Rp. 1,753,524.--
Total Amount to be paid to the Contractor	Rp. 71,894,479.--
Separate Total Value of the Equipment and Materials delivered and Services performed under the Contract.	Rp. 371,814,000.--

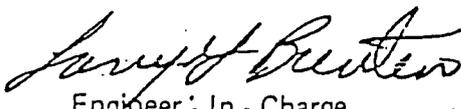
2

Add 2,5% PPh Tax.	Rp.	1,753,524.--
Total Amount to be paid to the Contractor	Rp.	71,894,479.--
Separate Total Value of the Equipment and Materials delivered and Services performed under the Contract.	Rp.	371,814,000.--
Separate Total Value since the date of the Previous Invoices of Goods delivered and Services Performed.	Rp.	49,430,000.--

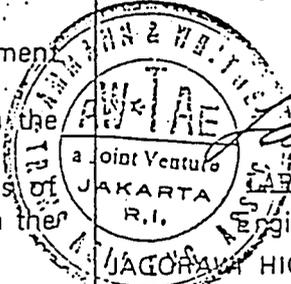
CONTRACTOR CERTIFICATION OF PERFORMANCE.
 The undersigned certifies that the cost reimbursable to the Contractor and the Amount payable to the Contractor in accordance with the terms of the Contract, up to the date of this Certificate, are not less than the total Payments received or claimed by the Contractor under the Contract (including the payment claimed under this invoice), and that the Contractor has fully complied with the terms and conditions of the Contract, including the Plans and Specifications.


 HUSODO SUHARTO.
 Project Manager
 JAGORAWI HIGHWAY STAGE II PROJECT

INVOICE RECEIPT
 The Engineer acknowledges receipt of Indonesian Consortium of Construction Industries.
 Invoice No. 5 covering Pay Estimate No. 4
 on the 5 day of ... Oct ... '81 at ... 1700 .. hours.


 Larry G. Buntien
 Engineer - In - Charge
 JAGORAWI HIGHWAY STAGE II PROJECT

ENGINEER CERTIFICATION OF PERFORMANCE
 1. The services (or equipment and materials) for which payment requested has been satisfactorily delivered;
 2. The costs there of are properly payable in accordance with the terms of the Contract;
 3. Any reports or recommendations required under the terms of the Contract have been received and are in accordance with the terms of the Contract;

Date : .OCT. 1 .0. 1981.....

 Larry G. Buntien
 Engineer - In - Charge
 JAGORAWI HIGHWAY STAGE II PROJECT

Approved for Payment

1. Date :
 PARMIN BRE.
 Project Manager
 JAGORAWI HIGHWAY STAGE II PROJECT.

2. Date :
 Ir. MOELIA AIDA.
 Director of Construction
 JAGORAWI HIGHWAY STAGE II PROJECT

PAY ITEM NO.	ITEMS	Units	CONTRACT PRICES		ORIGINAL AUTHORIZED		THIS ESTIMATE		TOTAL ESTIMATE		BID SCHEM NO.
					Amount		Quantity	Amount	Quantity	Amount	
BASIC TENDER											
109(1)	Mobilization	L.S.			269,740,977					3333	89,913,659
111(1)	Engineer's Facilities	I.S.			120,435,450		65	7,248,740		7749	93,322,168
		L.S. Deleted									
		L.S. Deleted									
201(1)	Clearing and Grubbing	Are	16,406	-	11,156,080		53397	8,760,312		81197	13,370,397
202(1)	Remove Existing Grouted or Loose Rip Rap	Cu.M.	11,456	-	4,582,400						
202(2)	Remove Existing Headwalls	Each	99,728	-	897,552						
202(3)	Remove Existing Wing Walls	Each	718,393	-	1,436,786						
202(4)	Remove Existing Bridge Gadoq Spur Sta 3+005+ And Miscellaneous Crouted Rip-Rap on PuncakRD	L.S.	-	-	3,289,241						
203(1)	Unclassified Excavation Class 1	Cu.M.	2,352	-	517,440,000		14,000	32,928,000		14,000	32,928,000
203(2)	Unclassified Excavation Class 2	Cu.M.	1,937	79	29,260,025						
203(3)	Excavation Class 3	Cu.M.	2,245	44	37,049,760		6,115	13,732,101		7,119	15,986,275
203(4)	Roadway Embankment	Cu.M.	1,117	15	108,140,120		10,000	11,171,500		10,000	11,171,500
203(5)	Select Roadway Embankment	Cu.M.	8,654	-	139,329,400		925	8,004,950		1,664	14,400,256
206(1)	Structure Excavation	Cu.M.	4,022	-	25,740,800		5	20,110		5	20,110
206(2)	Bridge Excavation	Cu.M.	6,528	-	38,515,200						
209(1)	Removal of Existing Pavement	Sq.M.	3,653	-	12,420,200						
301(1)	Asphalt Treated Base Course	Ton	15,434	-	643,597,800						
304(1)	Aggregate Base Course	Cu.M.	13,165	65	414,717,975		2	26,331		2	26,331
305(1)	Lime Treated Improved Subgrade, Processing	Cu.M.			DELETED		DURING	BID	NEGOTIA	IONS.	
305(2)	Hydrated Lime	Ton			DELETED		DURING	BID	NEGOTIA	IONS.	
305(3)	Curing Seal, Emulsified Asphalt Grade SS-IIH	Ton			DELETED		DURING	BID	NEGOTIA	IONS.	
303(1)	Hot Bituminous Concrete Pavement	Ton	16,209	-	254,481,300						
303(2)	Asphalt Cement 60-70 Penetration	Ton	300,126	74	984,415,707						
107(1)	Tack Coat, Emulsified Asphalt Grade SS-IIH	Ton	452,219	-	13,114,351						
108(1)	Prime Coat, Liquid Asphalt Grade MC-70	Ton	524,848	-	57,733,280						
109(1)	Seal Coat, Cover Aggregate, Grading B, Type 3	Ton	14,308	-	21,462,000						
109(2)	Seal Coat, Liquid Asphalt Grade RC-250	Ton	535,468	-	34,805,420						
109(3)	Seal Coat, Emulsified Asphalt Grade SS-IIH	Ton	479,557	-	8,632,026						
500A(1)	Structural Steel Piles Furnished	L.M.	46,625	-	404,238,750						
500A(2)	Structural Steel Piles Driven	Each	132,460	-	109,411,960						
500A(3)	Structural Steel Piles Test Driven	Each	132,460	-	397,380						
500A(4)	Load Test	(Each) 2,	92,576	-	2,192,576						
500B(1)	Soil Borings (Other than Rock)	L.M.	52,074	-	2,603,700					9685	5,043,366
500B(2)	Soil Borings (Rock)	L.M.	106,888	-	5,344,400					3825	11,088,465
500B(3)	Mobilization & Demobilization of Boring Equipment, Each Bridge Site	Each	633,106	-	1,899,318						633,106
501A(1)	Structural Concrete, Class "AA"	Cu.M.	120,282	-	637,494,600		315	3,788,883		315	3,788,883
501A(2)	Structural Concrete, Class "C"	Cu.M.	58,273	-	8,449,585						
Sheet No. 1		Sub-totals :						86,380,927			284,692,516

X. 3-e CONTRACTOR'S 5TH PAY ESTIMATES

SECTION X APPENDIX

PROJECT RECORD-ESTIMATE

Period No. 4 Estimate No. 5 Date September 28, 1981.
Period Osten August 26, 1981 thru September 25, 1981.

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

PAY ITEM NO.	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		DID SCHEDULE
					Quantity	Amount	Quantity	Amount	
01B(1)	East Bridge STA.11 + 932, Superstructure	L. S		704,009,623					
01B(2)	East Bridge STA.13 + 587, Superstructure	L. S		396,511,817					
01B(3)	East Bridge STA.15 + 540, Superstructure	L. S		392,836,268					
02(1)	Reinforcing Steel	Tg.	548	290,440,000					
03(1)	Reinforced Concrete Pipe, Ø 60 cm	L. M	42,128	44,234,400					
03(2)	Reinforced Concrete Pipe, Ø 80 cm	L. M	58,754	43,477,960					
03(3)	Reinforced Concrete Pipe, Ø120 cm	L. M	90,385	4,519,250					
04(1)	Utility Manhole Type 1	Each	757,147	4,542,882					
04(2)	Utility Manhole Type 2	Each	401,869	1,607,476					
04(3)	Inlet, Type I (Each)	Each	1,039,600	27,029,600					
04(4)	Inlet, Type II (Each)	Each	1,025,051	1,025,051					
04(5)	Inlet, Type III (Each)	Each	1,025,051	10,250,510					
04(6)	Inlet, Type IV (Each)	Each	1,085,888	8,687,104					
04(7)	Grate Type I	Each	326,943	4,904,145					
05(1)	20 cm. Perfor. Conc. Pipe in place, Incl. End Wall	L. M	9,913	46,591,100					
05(2)	Underdrain Junction Box Inplace	Each	17,061	426,525					
06(1)	Galvanized Beam Type Guardrail & Post	L. M	78,823	45,717,340					
06(2)	Remove Existing Guardrail and Relocate	L. M	6,391	2,428,580					
07(1)	Barbed Wire Fence	L. M	12,110	50,862,000					
09(1)	Concrete Curb Gutter, Type 1	L. M	11,929	1,550,770					
09(2)	Concrete Curb Gutter, Type 2	L. M	25,415	25,160,850					
09(3)	Concrete Delineation Strip	L. M	7,360	8,096,000					
09(4)	Concrete Median Barrier	L. M	39,398	169,411,400					
09(5)	Concrete Median Barrier End Taper	Each	149,123	596,492					
09(6)	Concrete Median Barrier Transition to Bridge	Each	695,439	4,172,634					
19(1)	Rock Slope Protection	Cu.M	15,811	79,055,000					
22(1)	Grouted Rip-Rap 20 cm. Thick for Channel Lining	Sq.M	8,251	255,781,000					
22(2)	Grouted Rip-Rap	Cu.M	39,886	15,954,400					
23(1)	Survey Control Monument	Each	67,796	3,796,576					
24(1)	Placing Scalped Topsoil	Are	18,244	12,405,920					
29(1)	Sodding	Are	81,800	98,160,000					
30(1)	Concrete Block Slope Protection	Sq.M	18,456	15,687,600					
31(1)	Roadway Marking, 10 cm, Striping	L. M	767	34,745,100					
31(2)	Miscellaneous Pavement Marking Words, Arrow, Etc	Sq.M	6,829	136,580					
32(1)	Standard Road Sign, Type A	Each	22,287	244,574					
32(2)	Standard Road Sign, Type B	Each	41,296	1,412,960					
32(3)	Standard Road Sign, Type C	Each	41,296	2,119,440					
32(4)	Standard Road Sign, Type D	Each	108,421	816,842					
32(5)	Standard Road Sign, Type E	Each	48,754	446,262					
32(6)	Non Standard Road Sign No. 1	Each	247,550	742,650					
32(7)	Non Standard Road Sign No. 2	Each	247,550	247,550					
32(8)	Non Standard Road Sign No. 3	Each	309,927	309,927					

X. 3-e CONTRACTOR'S 5TH PAY ESTIMATES (Cont'd)

SECTION X APPENDIX

PROJECT RECORD - ESTIMATE

Period No. 4 Estimate No. 5 Date September 28, 1981.
Period Dates August 26, 1981 thru September 25, 1981.

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

PAY ITEM NO.	ITEMS	Units	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		DID SCID NO.
					Quantity	Amount	Quantity	Amount	
32(9)	Non Standard Road Sign No. 4	Each	223,178	223,178	-	-	-	-	
32(10)	Non Standard Road Sign No. 5	Each	246,180	738,540	-	-	-	-	
32(11)	Non Standard Road Sign No. 6	Each	317,797	953,391	-	-	-	-	
32(12)	Remove Existing Single Post Sign & Relocate	Each	39,290	471,480	-	-	-	-	
33(1)	Illumination System Complete, Gadog	L.S.	-	27,407,200	-	-	-	-	
33(2)	Traffic Signal System Complete, Gadog	L.S.	-	45,221,900	-	-	-	-	
34(1)	Utility Conduit (15 cm PVC)	L.M.	7,977	4,307,580	-	-	-	-	
35(1)	Traffic Safety Plactic Cone	Each	6,685	668,500	-	-	60	401,100	
35(2)	Striped Traffic Safety Barrel Barricade	Each	20,303	2,030,300	-	-	-	-	
35(3)	Traffic Safety Barricade/Sign, Type 1	Each	61,820	1,236,400	-	-	-	-	
35(4)	Traffic Safety Barricade/Sign, Type 2	Each	63,249	632,490	-	-	-	-	
35(5)	Movable Traffic Safety Barricade, Type A	Each	35,321	1,236,235	-	-	-	-	
35(6)	Movable Traffic Safety Barricade, Type B	Each	35,946	1,078,380	-	-	-	-	
35(7)	Movable Traffic Safety Barricade, Type C	Each	41,488	414,880	-	-	-	-	
36(1)	Headwall Type A-1 for 60 cm Culvert	Each	250,973	10,038,920	-	-	-	-	
36(2)	Headwall Type A-1 for 80 cm Culvert	Each	380,771	4,653,252	-	-	-	-	
36(3)	Headwall Type A-1 for 120 cm Culvert	Each	591,429	2,765,716	-	-	-	-	
36(4)	Headwall Type B-1 for 60 cm Culvert	Each	272,164	272,164	-	-	-	-	
36(5)	Headwall Type B-1 for 80 cm Culvert	Each	385,870	385,870	-	-	-	-	
36(6)	Headwall Type B-1 for 120 cm Culvert	Each	699,980	699,980	-	-	-	-	
36(7)	Headwall Type A-2 for 60 cm Culvert	Each	320,681	962,043	-	-	-	-	
36(8)	Headwall Type A-2 for 80 cm Culvert	Each	63,839	2,783,034	-	-	-	-	
36(9)	Headwall Type A-2 for 120 cm Culvert	Each	776,220	776,220	-	-	-	-	
36(10)	Headwall Type B-2 for 60 cm Culvert	Each	348,077	348,077	-	-	-	-	
36(11)	Headwall Type B-2 for 80 cm Culvert	Each	91,160	982,320	-	-	-	-	
36(12)	Headwall Type B-2 for 120 cm Culvert	Each	863,267	863,267	-	-	-	-	
37(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	1,295,268		
Sheet No. 3 Sub Totals:						1,295,268	1,696,368		

X. 3-e CONTRACTOR'S 5TH PAY ESTIMATES (Cont'd)

JAGORAWI
HIGHWAY PROJECT
STAGE II

PROJECT RECORD-ESTIMATE

RUPIAH
SHEET 4

Amann & Whitney
Trans-Asia Engineering

Period No. 4 Estimate No. 5 Date September 28, 1981.
Period Dates August 26, 1981 thru September 25, 1981.

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

PAY ITEM NO.	ITEMS	Unit	CONTRACT PRICES	ORIGINAL AUTHORIZED Amount	THIS ESTIMATE		TOTAL ESTIMATE		BID SCHEM NO.
					Quantity	Amount	Quantity	Amount	
	Sheet No. 1					86,380,927		284,692,516	
	Sheet No. 2 Sub Totals					1,295,268		1,696,368	
	Sheet No. 3 Sub Totals					-		-	
	Sheet No. Sub Totals					-		-	
	Sheet No. Sub Totals					-		-	
	Sheet No. Sub Totals					-		-	
	SUB - TOTALS; CONTRACT ITEMS					-		-	
	(A) Time and Materials Extra Work					-		-	
	SUB - TOTALS WORK DONE					87,676,195		286,388,884	
	(B) Materials on hand					-		-	
	SUB - TOTALS; WORK DONE; MATERIALS					87,676,195		286,388,884	
	(C) Deduct 2/3 of 15% for Advance Payment					8,767,620		8,767,620	
	(D) Deduct 10% Retention Payment					8,767,620		20,670,888	
	(E)					-		-	
	(F)					-		-	
	SUB - TOTALS; DEDUCTION					17,535,240		37,406,508	
	SUB Total					70,140,955		248,982,376	
	Add 2.5% PPN Tax					1,753,524		6,224,559	
	TOTAL AMOUNT DUE CONTRACTOR					71,894,479		255,206,934	

X.
3-e CONTRACTOR'S 5TH PAY ESTIMATES (Cont'd)

SECTION X APPENDIX

DATE WORK STARTED Sept 22, 81 ESTIMATED DATE FOR COMPLETION May 1, 1981 OTHER PERCENT COMPLETED 3.17% PERCENT TIME ELAPSED 18.77% SIGNATURE

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. 77, Sept. 1981	US \$	<u>3,554,109</u>
Dollar Funds Remaining as of Sept. 30, 1981	US \$	424,945

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. 91, Sept. 1981 (-)	Rp	<u>1,251,461,745</u>
Rupiah Funds Remaining as of Sept. 30, 1981	Rp	304,166,824

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 difference.

CONTRACT No. 06/017/011/11/71
 OWNER : DIRECTORAT GENERAL BINA MARGA
 ENGINEER : AMANN & WHITNEY
 TRANS ASIA ENGINEERING ASSOCIATES INC
 CONTRACTOR : P.T. INDONESIA CONSORTIUM OF CONSTRUCTION INDUSTRIES
 (P.T. IOCI)

CONSTRUCTION

NO	DESCRIPTION	QTY	DURATION (MONTH)	%	JOB	1981					
						MAY	JUN	JUL	AUG	SEP	OCT
						1	2	3	4	5	6
1	MOBILIZATION NO 1-2-3-4 08-09-10-11-12-13-14 C.C.O NO.5	L.S.	9	5,516	0.572	0.837	0.912	0.437	1.727	0	
2	QUARRY OPERATION (CRUSHING)	214,200 T	15	-							
3	CLEARING AND GRUBBING REMOVAL OF OBSTRUCTION NO 5-6-7-8-9-17-CCO NO.1	L.S.	6	0.664	0.083	0.173	0.136	0.13	0.1	0	
4	UNCLASSIFIED EXCAVATIONS NO 10-CCO NO.1	200,000 CuM	11	5.984	0.106	0.838	0.974	0.818	0.701	0.6	
5	REMOVE AND REPLACE UNSUITABLE MATERIAL NO 12-18	32,600 CuM	5,5	2.244	0.160	0.441	0.481	0.441	0.760	0.7	
6	SOIL BORINGS NO 21-25-26	100 LM	2	0.125	0.051	0.076					
7	BRIDGE NO 16-30-31-32-33-37-39-40-41-42	L.S.	16,5	36.676		1.579	3.134	3.056	2.640	2.1	
8	PRECASTING	L.S.	7,5	-							
9	PERFORATED CONCRETE PIPE NO 33-34	4,700 LM	7	0.598				0.150	0.139	0.11	
10	ROADWAY EMBANKMENT NO 19	96,800 CuM	17	1.376				0.120	0.104	0.0	
11	AGGREGATE BASE COURSE NO 19-26	31,500 CuM	14	6.010							
12	PAVING NO 18-23-24-25-27-28-29	62,292 TON	16	24.940							
13	CONCRETE MEDIAN BARRIER RAIL NO 61-62-62	4,300 LM	9	2.216							
14	STRUCTURE EXCAVATION NO 15	6,400 CuM	15	0.327			0.030	0.033	0.030	0.025	0.02
15	REINFORCED CONCRETE PIPE (R.C.P.) NO 43-44-45	1,840 LM	8	1.173				0.265	0.230	0.20	
16	REINFORCED CONCRETE BOX (R.C.B.) NO 39-42	10 EACH	17	0.590			0.053	0.051	0.052	0.05	
17	MISC STRUCTURAL CONCRETE & REINFORCING STEEL NO 37 38 41	L.S.	12	0.698							
18	MISC DRAINAGE FACILITIES NO 11-16-17-18-19-20 51-52-53-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74 102-103-104-105-106-107	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	L.S.	14	9.353							
	PLANNED PROGRESS SCHEDULE			100.00%	1.171	3.822	5.861	5.908	4.756	4.756	
	ACTUAL PROGRESS				1.191	5.162	10.512	16.512	21.512	24.512	
	EST'D WORKABLE DAYS-6 DAY WEEK				15	22	24	22	19	17	
	EST'D HOURS WORKED PER DAY				9	10	11	11	11	9	

