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DEPARTEMEN PEKERJAAN UMUM
DIREKTORAT JENDRAL BINA MARGA

ACEH ROAD BETTERMENT PROJECT

MONTHLY PROGRESS REPORT

JANUARY 1982

LOUIS BERGER INTERNATIONAL INC.

P.T. ASA ENGINEERING PERTAMA

CONSULTING ENGINEERS

LOUIS BERGER INTERNATIONAL, INC.
Architects - Engineers - Economists - Planners

P.T. ASA ENGINEERING PERTAMA
Architects - Engineers - Constructors - Real Estate Developers - Modular Home Manufacturers

11 February 1982
No. 035-24/82

Directorate General Bina Marga
P O Box 11
Sidikalang - Dairi
North Sumatera

Attn: Mr Handradjadi
Project Manager

Subject: Aceh Road Betterment Project
Monthly Progress Report-January 1982

Submitted herewith for your transmittal to the Secretary of the Directorate General Bina Marga, Jln. Pattimura No. 20 Kebayoran - Baru, Jakarta Selatan, Indonesia, Attention: Kepala Bagian Intal, Project Monitoring Officer and other agencies as required please find 10 (ten) copies of Monthly Construction Progress Report No. 58 covering the month of January 1982 for the above construction project supervised under our contract No. 56/CTR/LN/BM/75.

Additional copies of this report have also been transmitted directly by us to other agencies below :

US AID, Jakarta	4 (four) copies
US AID, Medan	1 (one) copy
Bina Marga, Sidikalang	1 (one) copy
Bina Marga, Kutacane	1 (one) copy

Yours sincerely
LOUIS BERGER INTERNATIONAL, INC.

M J P TAYLOR
Engineer-in-Charge

Enclosures

MJPT:mh

NEW JERSEY : 100 Halsted Street, East Orange, New Jersey 07019 USA
Tel. (201) 678 - 1960 Cable : BERGERENG Telex : 138 - 152

JAKARTA : Jl. Kemang Raya No. 2 Kebayoran Baru Jakarta Selatan Indonesia
Tel. 791715 Telex 45793 BOLKAR I A

SIDIKALANG : P.O. Box 8 Sidikalang Dairi North Sumatra, Indonesia

DIRECTORATE GENERAL OF HIGHWAYS
MINISTRY OF PUBLIC WORKS
REPUBLIC OF INDONESIA

MONTHLY PROGRESS REPORT NO. 58
FOR CONSTRUCTION
OF THE
ACEH ROAD BETTERMENT PROJECT

SECTION II : SIDIKALANG - KRUENGLUAS
SECTION III : KUTACANE - BLANGKAJEREN

JANUARY 1982

Supervising
Consultant : LOUIS BERGER INTERNATIONAL, INC.
Contract No. : 56/CTR/LN/BM/75
Mailing Address : P O Box 08
Sidikalang - Dairi
North Sumatera

Construction Contractors
Section II : PT Nindya Karya
Contract No. : 05/CTR/LN/BM/77
Mailing Address : P O Box 07
Sidikalang - Dairi
North Sumatera

Section III : PT Hutama Karya
Contract No. : 04/CTR/LN/BM/77
Mailing Address : P O Box 01
Kutacane, South East Aceh

Directorate General Bina Marga

Project Manager : Handradjadi
Mailing Address : P O Box 11
Sidikalang - Dairi
North Sumatera

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LOCATION MAP

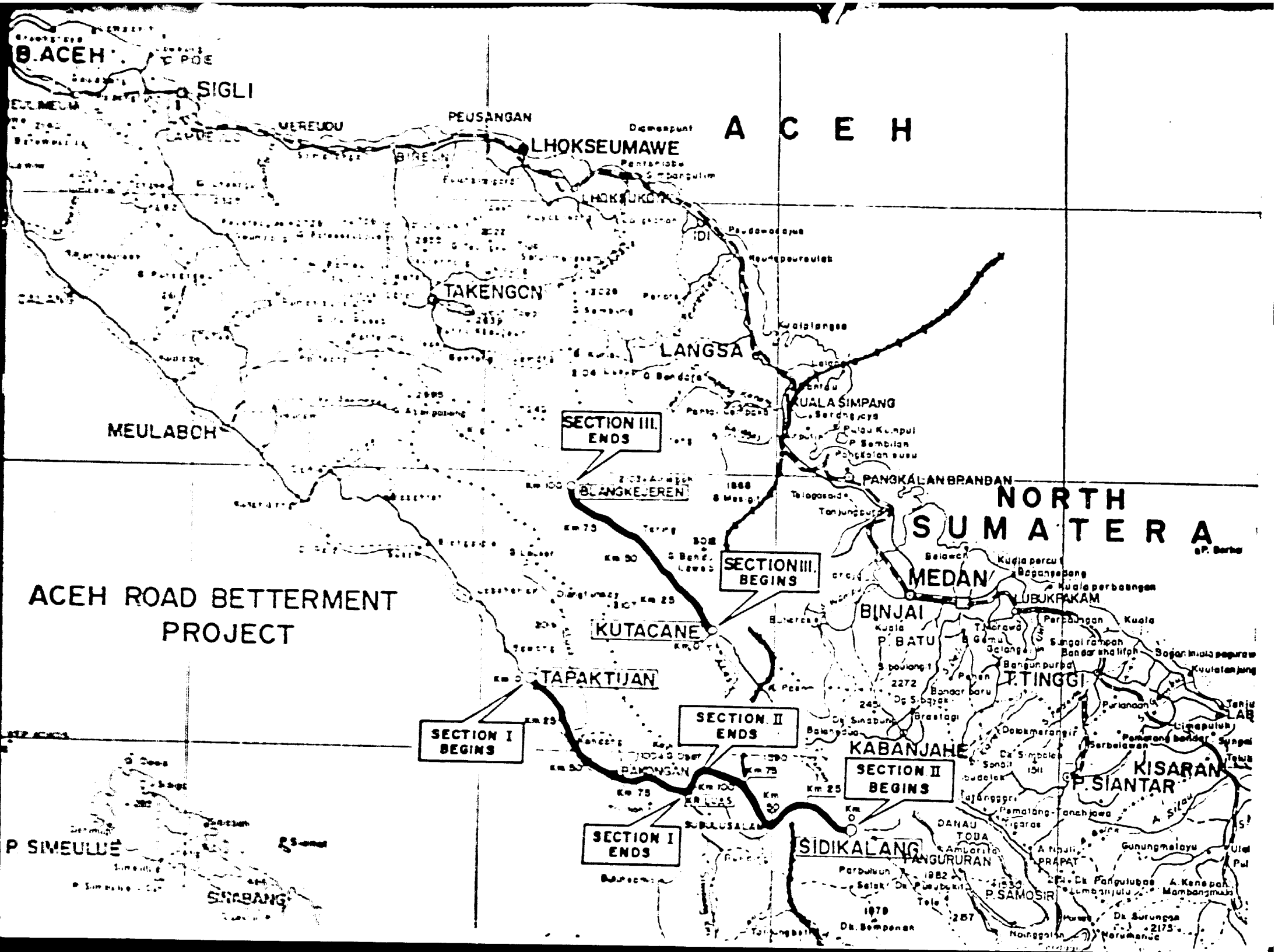
The Aceh Road Betterment Project is located in the province of Aceh and North Sumatera.

Presently, the project consists of two separate construction contracts for Section II and Section III, shown on the map on the following page and briefly described as follows :

Section II - 117.5 kms : Sidikalang - Kruengluas road which is partially in North Sumatera and partially in Aceh Province.

Section III - 104 kms : Kutacane - Blangkajeren road which is in the central area of Aceh Province.

At the inception of work in March 1977, Section I from Tapaktuan to Kruengluas was also part of this project. Shortly thereafter the contractor on that section defaulted with virtually no work of a permanent nature completed. Bina Marga is considering issuing a new contract for Section I in the near future. Section I is 96 kms in length.



B.ACEH
SIGLI
MEREUDU
PEUSANGAN
LHOKSEUMAWE
A C E H
LHOKSUKON
IDI
TAKENGON
LANGSA
KUALA SIMPANG
MEULABOH
SECTION III. ENDS
BLANGKEJEREN
PANGKALAN BRANDAN
NORTH SUMATERA
SECTION III. BEGINS
MEDAN
LUBUKPAKAM
BINJAI
P. BATU
ACEH ROAD BETTERMENT PROJECT
KUTACANE
TAPAKTUAN
T. TINGGI
SECTION I BEGINS
SECTION II ENDS
KABANJAHE
SECTION II BEGINS
KISARAN
P. SIANTAR
SECTION I ENDS
SIDIKALANG
P. SIMEULUE
SINABANG
P. SAMOSIR

SECTION II

SUDIKALANG - KRUENGLUAS

DESCRIPTION OF PROJECT
SECTION II, SIDIKALANG - KRUENGLUAS

Section II of the Aceh Road Betterment Project begins at Sidikalang, North Sumatera and proceeds via Subulusalam and Gelombang to Kruengluas (all in Aceh Province), a distance of approximately 117.5 kilometers. Section II is comprised of the upgrading of some existing tracks and logging roads as well as new construction in areas where no road existed before. The roadway alignment passes through generally rolling and mountainous terrain with a high degree of curvature and several heavy cut sections.

The typical roadway section includes a 4.5 meter wide travelled way with a 0.75 meter wide shoulder on either side. Initially, the pavement section consisted of penetration macadam, 5 cm thickness, above 15 cm of crushed base course and 15 cm of crushed or pitrun subbase. This section was constructed for the first 50 kilometers, from Sidikalang to Lae Kedabuhan I.

In April 1981, at the request of Bina Marga, the base course and subbase course were reduced in thickness to 10 cm each. This section was constructed for 19 kilometers between Lae Kedabuhan I and Lae Cepu Anak, except for some areas where the 15 cm Subbase course had been placed prior to the new directive. Also at this time, Bina Marga authorized the use of asphalt treated base (ATB) in place of penetration macadam for the portion of the project from Lae Ikan to Kruengluas.

In the first week of October 1981, Bina Marga requested that all crushed base course be eliminated between Lae Cepu Anak and Kruengluas and change the paving section to 6 cm ATB over 10 cms pitrun subbase. Subsequently, toward the end of October, a new directive from Bina Marga increased the 10 cms subbase to 15 cms resulting in a paving section of 6 cms ATB over 15 cms subbase from Lae Cepu Anak to Kruengluas.

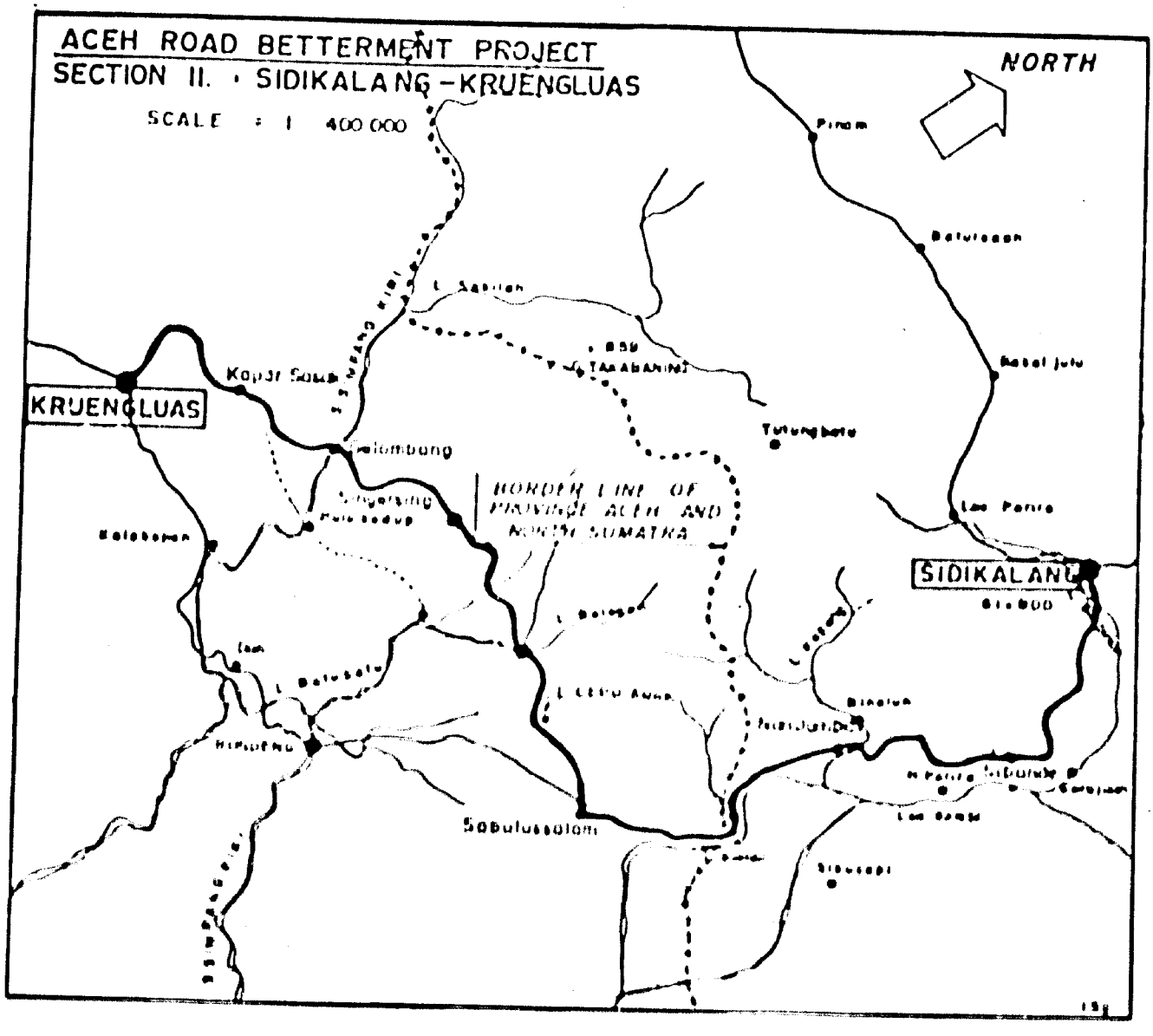
In a site meeting of 17 November 1981, it was agreed that 6 cm ATB would not be significantly better than 5 cms ATB and would not warrant the higher financial outlay. Bina Marga therefore instructed the Contractor to lay ATB at 5 cms thickness.

There are a total of 19 bridges and one ferry planned for this section. Fourteen bridges are concrete and five are of Dutch Truss construction.

ACEH ROAD BETTERMENT PROJECT

SKETCH MAP

SECTION II : SIDIKALANG - KRUENGLUAS



Progress to 31 January 1982

Paving 67.3 km = 57.5 %

Earthworks 110 km = 94 %

CONTRACTOR'S EQUIPMENT

CONTRACTOR : PT NINDYA KARYA

MONTH ENDING : 31 January 1982

MAJOR EQUIPMENT ON PROJECT

ITEM NO.	TYPE OF EQUIPMENT	MODEL	MAKE	QUANTITY PROPOSED	QUANTITY ON SITE	REMARKS
I.	EARTH MOVERS					
1.	Bulldozer	D7G/D5	CAT.	2	6	B M Equip.
2.	Bulldozer	1150	CASE	1	1	B M Equip.
3.	Bulldozer	D60E/D53A	KOM	3	7	
	NB: 6 of these units are 100% down					
II.	GRADING EQUIPMENT					
1.	Motorgrader	GD600/GD37H	KOM	3	7	
2.	Motorgrader	120G	CAT	1	1	B M Equip.
	NB: 1 of these units is 100% down					
III.	LOADERS					
1.	Wheel loader	920	CAT/JD	3	6	B M Equip.
2.	Wheel loader	W70/TCM25	KOM		6	
3.	Track loader	D57S	KOM	1	1	B M Equip.
	NB: 5 of these units are 100% down					
IV.	EXCAVATORS					
1.	Excavator shovel		DEERE	1	1	B M Equip.
2.	Backhoe/Loader		I.H.	1	1	
3.	Backhoe		NIKKO		1	
4.	Backhoe		DROTT		1	
	NB: 2 of these units are 100% down					
V.	COMPACTION EQUIP.					
1.	Vibro Compactor	SP54/SPF54		2	4	B M Equip.
2.	Pneumatic roller	PSR-C-25	BOMAG	2	6	B M Equip.
3.	Tandem roller		GALLION	2	2	B M Equip.
4.	Three wheel roller		BOMAG	3	2	B M Equip.
5.	Towed sheepfoot&drum			2	2	B M Equip.
6.	Vibro Compactor	DYNAPAC			2	
7.	Vibro compactor	W75/CA25			4	

NB: 14 of these units are 100% down

CONTRACTOR'S EQUIPMENT

CONTRACTOR PT NINDYA KARYA

MONTH ENDING 31 January 1982

MAJOR EQUIPMENT ON PROJECT

ITEM NO.	TYPE OF EQUIPMENT	MODEL	MAKE	QUANTITY PROPOSED	QUANTITY ON SITE	REMARKS
VI.	SURFACING EQUIP.					
1.	Chip Spreader	3M3	ETNYRE	1	2	B M Equip.
2.	Asphalt distributor	4000 ltr		1	2	B M Equip.
3.	Asphalt Tank burner	15 ton		1	1	B M Equip.
4.	Asphalt spayer	600 ltr		1	1	B M Equip.
5.	Sweeper Broom			1	2	
6.	Asphalt Mixing Plant	30 ton	TANAKA		2	
7.	Finisher		BLAWKNOX/ NIGATA		3	B M Equip.
VII.	QUARRY					
1.	Stone crusher	30 & 70TPH	LIPMAN/SAKAI	2	5	B M Equip.
2.	Stone dryers			1	1	
3.	Sand Washer				1	
VIII	BRIDGE&CONCRETE EQ.					
1.	Diesel Pile Hammer	5 ton		1	1	B M Equip.
2.	Carry Deck Crane			1	1	
3.	Mobile Cranes		HINO/ISUZU		3	
4.	Concrete Mixers		NIKKO/PLYMOUTH		9	
5.	Air Compressor	IR 600	AIRMAN	3	2	
6.	Air Compressor		FU SHENG		2	
IX.	HAULING EQUIPMENT					
1.	Dump trucks	5 ton	HI/ISUZU	30	94	B M Equip.
2.	Dump trucks	5 ton	HINO		?	8 rented
3.	Flat Bed Trucks	5 ton	HI	1	4	B M Equip.
4.	Fuel Tank Trucks	4000 ltr	HI	2	4	B M Equip.
5.	Water tank truck	4000 ltr	HI	1	3	B M Equip.
6.	Trailer	Lowboy			1	

Nbt 49 of these units are 100% down

CONTRACTOR'S EQUIPMENT

CONTRACTOR PT . NINDYA KARYA

MONTH ENDING .....

31 January 1982

MAJOR EQUIPMENT ON PROJECT						
ITEM NO.	TYPE OF EQUIPMENT	MODEL	MAKE	QUANTITY		REMARKS
				PROPOSED	ON SITE	
X.	TRANSPORTATION					
1.	Pick Ups.		HOLDEN/DATSUN		20	
2.	Jeep/Sedan		TOYOTA	5	7	
3.	Motorcycle		HONDA		15	
XI.	POWER STATION					
1.	Generator	300 KVA	GM	1	1.	B M Equip
2.	Generators	5-10-325KVA	VARIOUS		5	
	NB: Does not include generators operating crushing & asphalt plants.					

CONTRACTOR PERSONNEL

PT Nindya Karya
January 1982

POSITION	LOCAL OR FOREIGN	NO. OF PERSON			REMARKS
		BEGIN PERIOD	END PERIOD	VARIATION	
Professional&Management:					
1. Project Manager	Local	1	1	0	Soemargadi
2. Gen.Superintendent	"	1	1	0	Moegiarso
3. Office Engineer	"	1	1	0	Sri Widodo
Subtotal:		3	3	0	
Equipment Supervisor	Foreign	1	1	0	Mr Awad -RMI
Technical:					
1. Civil Engineer	Local	1	1	0	Sugeng Santosa
2. Bach.Civil Engineer	"	2	2	0	
3. Mechanical Engineer	"	2	2	0	
4. Chief Mechanic	"	1	1	0	
5. Bachelor Mechanic	"	2	2	0	
6. Mechanic helper	"	21	21	0	
7. Mechanic	"	12	10	-2	
8. Surveyor	"	6	6	0	
9. Surveyor helper	"	16	16	0	
10. Foremen	"	14	14	0	
11. Ass. Foremen	"	7	7	0	
12. Lab. Crew	"	2	2	0	
13. Quantity Crew	"	4	4	0	
14. Draftsman	"	5	5	0	
15. Heavy Eq.Operator	"	19	19	0	
16. Heavy Eq.Op.helper	"	7	7	0	
17. Welder	"	2	2	0	
18. Electrician foremen	"	1	1	0	
19. Electrician	"	3	3	0	
Subtotal :		127	125	-2	
Administration :					
1. Chief Administration	"	1	1	0	
2. Admin. personnel	"	15	15	0	
3. C l e r k	"	2	2	0	
		18	18	0	
Labour:					
1. Carpenter	"	1	1	0	
2. Dispatcher	"	1	1	0	
3. Carpenter helpers	"	14	13	-1	
4. Masons	"	2	2	0	
5. Masons helper	"	3	3	0	
6. Steelmen	"	7	7	0	
7. Steelmen helper	"	3	3	0	

CONTRACTOR PERSONNEL

POSITION	LOCAL OR FOREIGN	NO. OF PERSON			REMARKS
		BEGIN PERIOD	END PERIOD	VARIATION	
9. Vehicle drivers	Local	8	8	0	
10. Chief Security	"	3	3	0	
11. Security guards	"	30	30	0	
12. Common Labour	"	47	47	0	
Subtotal :		165	163	-2	
Grand total :		314	310	-4	

MONTHLY CERTIFICATE

Section No : II. Sidikalang - Kruengluas
Contractor : P.T. Nindya Karya
Engineer : Louis Berger International, Inc.

Monthly Certificate No.: 58
Date : 31 January 1982

SUMMARY CONTRACT SUM :		Rp.	RUPIAHS
SECT.	DESCRIPTION	PERCENT TO DATE	TOTAL
1	Lump Sum	73.53	719.917.025
2	Drainage	77.72	127.935.322
3	Earth works	137.73	1.631.927.516
4	Sub-grade	86.16	35.403.061
5	Shoulders	-	19.032.960
6	Sub-base and Base	88.86	957.746.761
7	Surfacing and Pavement	98.58	602.772.217
8	Structures	36.89	396.477.803
9	Miscellaneous	36.78	225.139.764
	Other Reimbursable Items		352.011.346
	TOTAL SUM OF WORK COMPLETED TO DATE		5.067.863.775
	MATERIALS ON SITE		46.946.464
GROSS SUM OF MONTHLY CERTIFICATE		RUPIAH	5.114.810.239

DEDUCTIONS Previous Monthly Certificates	3.978.932.307	
Total of 10 % Retention to Date	155.561.822	
Total Repayment of Advance to Date	867.454.427	
Note Advance Payment has been Repaid in full		
TOTAL SUM OF DEDUCTIONS RUPIAH	5.001.948.556	5.001.948.556
NET SUM OF MONTHLY CERTIFICATE	RUPIAH	112.861.683

MATERIAL ON SITE
SUMMARY

SECTION : Sidikalang-Kruengluas MONTH ENDING : 31 January 1982

ITEM	UNIT	Begin Period		End Period	
		Quan.	Price in Rp.	Quan.	Price in Rp.
Dynamite	kg	400	708.400	400	708.400
Coarse aggregate	M3	265	1.508.115	265	1.508.115
Agg. Macadam	M3	0	-	0	-
RCP Ø 60 cm	M'	0	-	0	-
RCP Ø 80 cm	M'	0	-	0	-
RCP Ø 100 cm	M'	0	-	0	-
Asphalt AC85-100	Ton	467	41.361.349	167	14.790.889
Asphalt RC-2	Ton	0	-	0	-
Bearing Pad	DM3	345	7.333.389	345	7.333.389
Reinf.steel	kg	785.155	14.839.430	746.435	14.107.622
Reinf.steel (transp.)	kg	470.410	8.890.749	470.410	8.890.749
Precast conc.beams	M3	0	-	0	-
Kilometer Post	Ea	60	472.332	60	472.332

SUMMARY BUDGET FOR I.H. SPARE PARTS

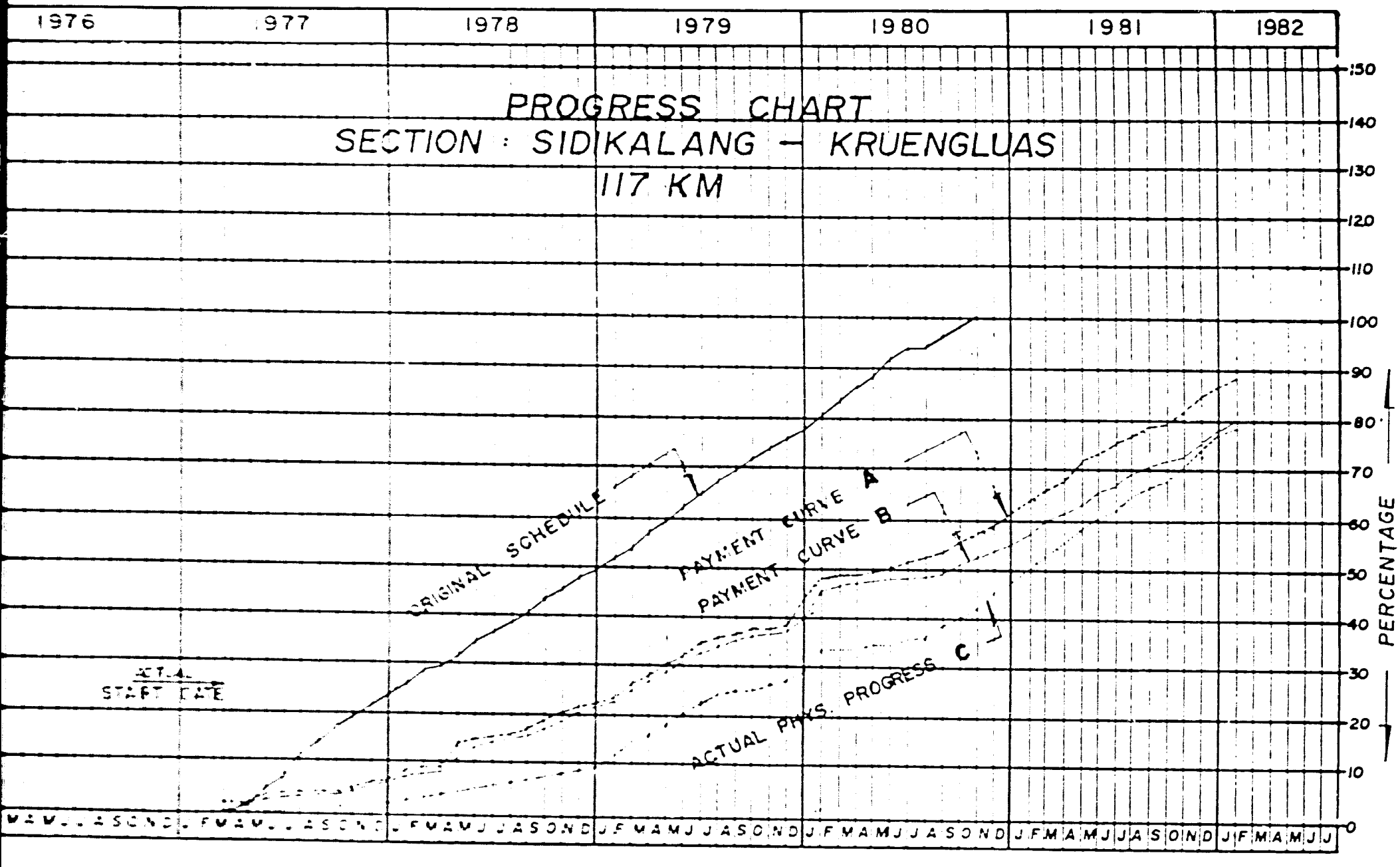
PT Nindya Karya

Date Received	Value of Parts received U.S. $	Total value of Parts received to date	Remarks
21 Apr. 1981	10.147,35	10.147,35	Deducted from
			Invoice No. 51
11 Aug. 1981	12.947,97	23.095,32	Deducted from
			Invoice No. 53
11 Nov. 1981	2.469,00	25.564,32	Deducted from
			Invoice No. 58

Section II. · Sidikalang — Kruengluas.

	77	78	79	80	1981												1982		
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
CONTRACTOR'S ORIGINAL SCHEDULE	23.00	49.60	77.80	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent complete based on original contract amount $\% = \frac{\text{Total billings}}{\text{Original contract amount}}$	6.83	22.23	43.64	61.55	64.36	66.46	68.66	71.29	73.91	75.58	77.13	78.77	79.93	81.71	84.43	86.28	88.45		
Percent complete based on current contract amount $\% = \frac{\text{Total billings}}{\text{Original plus all NOC's \& EWO's}}$	6.68	21.45	40.62	55.39	58.10	59.99	61.98	64.36	66.72	68.22	69.62	71.11	72.15	73.76	76.22	77.88	82.06		
Percent complete based on Actual physical progress $\% = \frac{\text{Total billings sec.2-9}}{\text{Current contract amount for sec.2-9}}$	3.00	9.52	29.05	47.05	50.24	52.40	55.09	58.29	60.40	62.59	64.55	66.63	68.24	70.55	74.12	76.83	* 80.93		

* NB: Actual Progress in January 1982 is approximately 2%. Apparent progress of 4% is due to the revision of current contract amount by incorporation of NOC no.37 which revises all quantities to agree with the present estimate of final quantities.


PROGRESS CHART
SECTION : SIDIKALANG – KRUENGLUAS
117 KM
1976
1977
1978
1979
1980
1981
1982
ORIGINAL SCHEDULE
PAYMENT CURVE A
PAYMENT CURVE B
ACTUAL PHYS. PROGRESS C
ACT. A.
START DATE
PERCENTAGE
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0

SUMMARY OF NOTICES OF CHANGE AND EXTRA WORK ORDERS

sheet 1

ECTION : II: SIDIKALANG - BERINGUAS

CONTRACTOR : PT NINDYA KARYA

E	EWO NO	NOC NO	Incl in CCO NO	DESCRIPTION	VALUE	CUMULATIVE TOTAL VALUE
CARRIED FORWARD						
				Original Contract Sum		5.783,029.512
6-77		1	1	Type I Local Consultant Hosuing increased from 480m2 to 534 m2. Type II decrease from 209.5 m2 to 107.5 m2	- 51,803,100	5.731.226.412
6-77		2	1	Provide definition for items of base and subbase of contract cost schedule	N.A.	5.731.226.412
8-77		3	1	Provide additional roads and drainage forB.C.	+ 3,240,458	5.734.466.870
3-77		5	2	Include Addendum No. 3 in Contract	+179.850.748	5.914.317.618
7-77		4	2	Install roads, water supply and electrical utilities at Bina Marga base camp	+ 2.737,901	5.917.055.419
7-77		6	3	1. Correction of quantity item 6.01(2) - Reprocess road stone 2. Correction quantity for item 2.04(3)b - RCP Ø 80 cm	N.A.	5.917.055.419
11-77		7	3	Bituminous binder changed from asphalt cement penetration 120-150 to 85 - 100	N.A.	5.917.055.419
3-78		8	3	Change design of reinforced concrete bridge to culvert at sta 38 + 632	- 16.740.115	5.900.315.304
3-78		9	3	Change design of reinforced concrete bridge to culvert at sta 38 + 179	- 22.834.978	5.877.480.326
3-78		10	3	Change design of reinforced concrete bridge to culvert at sta 46 + 837	- 36.555.956	5.840.924.370
		11		Not been used		

SUMMARY OF NOTICES OF CHANGE AND EXTRA WORK ORDERS

sheet 2

CTION · II: SIDIKALANG – KIUENGLUAS

CONTRACTOR · PT NINDYA KARYA

E	E.W.O. NO.	N.O.C. NO.	Incl.in C.C.O. NO.	DESCRIPTION	VALUE	CUMULATIVE TOTAL VALUE
CARRIED · FORWARD						5.840.924.370
-78		12	4	Change wood bridge to culvert ø 100 at sta 33 + 692	+ 1.655.261	5.842.579.631
-78		13	4	Change CIP bridge to ø 100 cm RCP at sta 32 + 876	- 19.016.713	5.823.562.918
-78		15	4	Change of contract item 1.19-Mobilization payment on 80% completion of mobilization	N.A.	5.823.562.918
6-78		17	4	Addition to item 1.19(i) mobilization to provide for extention of services of expatriate advicor	+ 35.085.960	5.858.648.878
6-78		18	4	Additional pipe culvert installation at km 60 + 596 & km 60+546	+ 563.928	5.859.212.806
7-78		16	5	Furnish reinforcing steel delivery at Medan grade 40, deformed bar	+112.750.000	5.971.962.806
8-78		14	5	Construct guest house and additonal office rooms for Consultant office	+ 24.736.594	5.996.699.400
11-78		19	6	Base course from crushed quarry stone changed to modified base course	- 4.714.950	5.991.984.450
2-79	1		6	Pumping out pool water at culvert No. 4 and cost of Labour wages	+ 2.735.891	5.994.720.341
-79		20	6	New pay item 8.06 - precast concrete beams with unit price of Rp 86.000/ cu.m	N.A.	5.994.720.341
		21		Not been used		
		22		Not been used		
		23		Not been used		

SUMMARY OF NOTICES OF CHANGE AND EXTRA WORK ORDERS

sheet 3

ECTION 'II: SIDIKALANG - KEUENGLUAS

CONTRACTOR: PT NINDYA KARYA

TE	E.W.O. NO.	N.O.C. NO.	Incl.in C.C.O. NO.	DESCRIPTION	VALUE	CUMULATIVE TOTAL VALUE
CARRIED FORWARD						5.994.720.341
-3-79		24	6	1. Furniture fro guest house. 2. Additional consultant office rooms construction. 3. Electricity installation for guest house	+ 12.900.149	6.007.620.490
-6-79		25	7	Extension of contractor's Expat. advisor for six months April 1, 1979 to September 30, 1979	+ 30.556.364	6.038.176.854
8-79		28	7	Additonal construction of approximate 60 m' of roadway to connect Salak/Sukarame roadway at Sta 48 + 150	+ 2.108.000	6.040.284.854
-9-79		30	7	Description change of pay item 8.01(6) "Scaffolding and Supporting "	N.A.	6.040.284.854
t.79		26		Purchasing of Acrow Panel Bridge	+214.745.455	6.255.030.309
1-80		27	8	1. Precast concrete paved waterway added to contract with ET'0 quantity of 50.000 m2, U.P. Rp 4,457. 2. Reduce quantity of item 9.04(2) by 10.500 m3	- 46.580.000	6.208.450.309
1-80		29	8	1. Reduce quantity of pay item 9.09(7) - treatment wood guard rail by 4.150 m'. 2. Added 4,150 m' of precast concrete guard rail.	- 3.025.350	6.205.424.959
1-80		32	9	Provide base camp water supply, install screens and maintenance for Consultant Housing	+ 8.150.000	6.213.574.959
-1-80		31	8	1. Reduce quantity of item 6.01(2)a-Reprocess road stone by 18,034 m3. 2.Added to contract item 6.01(2)e cement stabiliz. 3. increase of decrease % of cement content	+ 2.343.248	6.215.918.207

SUMMARY OF NOTICES OF CHANGE AND EXTRA WORK ORDERS

sheet 4

CTION · II: SIDIKALANG-KUTENGLUAS

CONTRACTOR · PT NINDYA KARYA

E	E.W.O. NO.	N.O.C. NO.	Incl. in C.C.C. NO:	DESCRIPTION	VALUE	CUMULATIVE TOTAL VALUE
CARRIED · FORWARD						6.215.918.207
S-80		33	9	Insert in pay item 6.01(2)a - Processed Pit material with ET'D quantity 12.000 m3 - U.P. Rp 4.700	+ 56.400.000	6.272.318.207
S-80		34	9	Added to pay item 5.03 "Bituminous treated shoulders Estimated quantity 175.500 m3, U.P Rp 640.-	+112.320.000	6.384.638.207
9-80	3			Mobilization of AWCAS Equipment to Tapaktuan	+ 21.780.000	6.406.418.207
10-80		35		Reduce estimated quantity and cost of Item 6.02(1)b; Base Course quarry crushed stone by 45,750 m3 and Rp 258.716.250.- Add. item No. 6.02(1)c; Base course Pit Material 55.000 m3 U.P. Rp 4.700.-	- 216.250	6.406.201.957
		36		125.724,8 sq.m of Penetration Macadam, Item 7.04(a) replaced with Asphalt Treated Base (ATB)	N/A	6.406.201.957
		37		Comprehensive revised estimate of final contract quantities	-230.540.838	6.175.661.119

SUMMARY OF PAYMENTS TO CONTRACTOR

sheet 1 of 6

SECTION · SIDIKALANG - KRUENG LUAS

CONTRACTOR · NINDYA KARYA.

GROSS VALUE OF INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC.	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC.% GROSS	ESC.% NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
CARRIED FORWARD									
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
106.399.578	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	106.399.578	106.399.578
48.681.081	15.188.837	1.697.837	-	1.697.837	1.697.837	3.49	11.18	50.378.918	156.778.496
46.525.940	10.017.883	1.213.223	-	1.213.223	2.911.060	2.61	12.11	47.739.163	204.517.659
28.197.149	7.314.049	1.379.946	-	1.379.946	4.291.006	4.89	18.87	29.577.095	234.094.754
24.775.073	6.964.309	1.007.133	-	1.007.133	5.298.139	4.07	14.46	25.782.206	259.876.960
11.550.555	1.338.372	181.351	-	181.351	5.479.490	1.57	13.55	11.731.906	271.608.866
51.389.478	36.844.837	4.992.682	-	4.992.682	10.472.172	9.72	13.55	56.382.160	327.991.026
40.643.896	35.817.138	4.964.411	-	4.964.411	15.436.583	12.21	13.86	45.608.307	373.599.333
36.807.506	32.378.795	13.385.392	-	13.385.392	28.821.975	36.37	41.34	50.192.898	423.792.231

SUMMARY OF PAYMENTS TO CONTRACTOR

SECTION · SIDIKALANG - KRUENG LUAS

sheet 2 of 6

CONTRACTOR · NINDYA KARYA.

GROSS VALUE OF INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC.% GROSS	ESC.% NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
CARRIED FORWARD					28.821.975				423.792.231
100.027.937	33.368.512	14.419.340	-	14.419.340	43.241.315	14.42	43.21	114.447.277	538.239.508
45.796.669	29.744.685	13.375.078	-	13.375.078	56.616.393	29.20	44.97	59.171.747	597.411.255
27.658.163	5.489.131	2.394.690	-	2.394.690	59.011.083	8.66	43.63	30.052.853	627.464.108
208.328.033	17.372.508	8.215.242	-	8.215.242	67.226.325	3.94	47.29	216.543.275	844.007.383
27.249.211	24.353.845	11.561.638	-	11.561.638	78.787.963	42.43	47.47	38.810.849	882.818.232
56.320.026	17.451.148	7.833.367	-	7.833.367	86.621.330	13.91	44.89	64.153.393	946.971.625
57.830.287	36.446.681	16.766.338	-	16.766.338	103.387.668	28.99	46.00	74.596.625	1.021.568.250
50.271.655	32.276.070	15.482.413	-	15.482.413	118.870.081	27.51	47.97	65.754.068	1.087.322.318
49.500.125	3.313.170	1.769.347	-	1.769.347	120.639.428	1.18	53.40	151.269.472	1.238.591.790
50.968.826	37.326.218	22.461.006	-	22.461.006	143.100.434	44.12	60.17	73.429.832	1.312.021.622
61.966.995	16.440.378	10.415.342	-	10.415.342	153.515.776	16.80	63.35	72.382.337	1.384.403.959
54.601.019	48.155.591	37.260.436	-	37.260.436	190.776.212	68.24	77.38	91.861.455	1.476.265.414

SUMMARY OF PAYMENTS TO CONTRACTOR

SECTION · SIDIKALANG - KRUENG LUAS

sheet 3 of 6

CONTRACTOR · NINDYA KARYA.

GROSS VALUE OF INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC.% GROSS	ESC.% NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
CARRIED FORWARD					190.776.212				1.476.265.414
94.730.581	88.825.390	88.735.078	-	88.735.078	279.511.290	93.67	99.90	183.465.659	1.659.731.073
132.792.980	125.312.152	131.875.666	-	131.875.666	411.386.956	99.31	105.24	264.668.646	1.924.399.719
113.136.225	96.775.432	105.432.656	-	105.432.656	516.819.612	93.19	108.95	218.568.881	2.142.968.600
10.412.039	79.316.357	93.172.725	-	93.172.725	609.992.337	84.39	117.47	203.584.764	2.346.553.364
12.353.835	95.199.681	125.025.958	-	125.025.958	735.018.295	111.28	131.33	237.379.793	2,582.933.157
12.593.558	91.156.834	110.497.007	5.822.062	116.319.069	851.337.364	103.31	127.60	228.912.627	2.812.845.784
94.007.735	85.953.992	109.281.518	3.106.246	112.387.764	963.725.128	119.55	130.75	206.395.499	3.019.241.283
54.045.899	41.799.142	52.127.030	5.103.654	57.230.684	1.020.955.812	109.96	136.92	109.276.583	3.128.517.866
64.693.711	38.105.410	47.827.895	2.293.496	50.121.391	1.071.077.203	18.94	131.53	314.815.102	3.443.332.968
29.812.185	38.244.462	53.000.713	1.473.881	54.474.594	1.125.551.797	182.73	142.44	84.286.779	3.527.619.747
20.581.551	21.557.902	27.177.231	1.499.212	28.676.443	1.154.228.240	139.33	133.02	49.257.994	3.576.877.741
01.157.376	81.138.411	116.020.116	4.060.371	120.080.487	1.274.308.727	118.71	147.99	221.237.863	3.798.115.604

SUMMARY OF PAYMENTS TO CONTRACTOR

SECTION : SIDIKALANG - KRUENG LUAS

sheet 4 of 6

CONTRACTOR : NINDYA KARYA.

GROSS VALUE OF INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC.% GROSS	ESC.% NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
CARRIED FORWARD					1.274.308.727				3.798.115.604
309.583.635	180.953.734	257.849.772	13.085.146	270.934.918	1.545.243.645	87.52	149.73	580.518.553	4.378.634.157
19.870.693	11.417.607	16.057.559	968.909	17.026.468	1.562.270.113	85.69	149.12	36.897.161	4.415.531.318
2.845.152	3.162.924	4.573.786	(-) 62.926	4.510.860	1.566.780.973	158.55	142.62	7.356.012	4.422.887.330
10.158.381	20.515.934	30.050.600	2.829.488	32.880.088	1.599.661.061	323.67	160.27	43.038.469	4.465.925.799
51.047.042	65.278.509	98.751.872	14.127.325	112.879.197	1.712.540.258	221.13	172.92	163.926.239	4.629.852.038
47.533.558	50.234.801	75.532.790	12.561.206	88.093.996	1.800.634.254	185.33	175.36	135.627.554	4.765.479.592
45.864.361	41.145.921	68.976.973	902.554	69.879.527	1.870.513.781	152.36	169.83	115.743.888	4.881.223.480
100.122.288	95.625.074	158.866.572	-	158.866.572	2.029.380.353	158.67	166.13	258.988.860	5.140.212.340
111.285.394	107.955.099	191.353.103	-	191.353.103	2.220.733.456	171.95	177.25	302.638.497	5.442.850.837
80.864.621	88.547.234	156.258.574	-	156.258.574	2.376.992.030	193.23	176.47	237.123.195	5.679.974.032
124.055.452	121.684.137	216.046.331	-	216.046.331	2.593.038.361	174.15	177.55	340.101.783	6.020.075.815
132.154.553	90.882.248	161.977.943	-	161.977.943	2.755.016.304	122.57	178.23	294.132.496	6.314.208.311

SUMMARY OF PAYMENTS TO CONTRACTOR

SECTION · SIDIKALANG - KRUENG LUAS

sheet 5 of 6

CONTRACTOR · NINDYA KARYA

GROSS VALUE OF INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC.% GROSS	ESC.% NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
ARRIED FORWARD					2.755.016.304				6.314.208.311
62.699.709	156.850.997	250.080.474	-	250.080.474	3.005.096.778	153.71	159.44	412.780.183	6.726.988.494
21.406.781	108.492.910	172.730.019	-	172.730.019	3.177.826.797	142.27	159.21	294.136.800	7.021.125.294
27.268.770	126.188.113	201.569.513	-	201.569.513	3.379.396.310	158.38	159.74	328.838.283	7.349.963.577
52.414.829	169.658.072	255.528.250	-	255.528.250	3.634.924.560	167.65	150.61	407.943.079	7.757.906.656
51.089.652	104.787.093	168.134.644	-	168.134.644	3.803.059.204	111.28	160.45	319.224.296	8.077.130.952
6.492.059	108.772.146	172.813.640	-	172.813.640	3.975.872.844	179.10	158.88	269.305.699	8.346.436.651
9.642.731	98.074.243	155.886.215	-	155.886.215	4.131.759.059	173.90	158.95	245.528.946	8.591.965.597
5.167.467	104.031.750	165.281.472	-	165.281.472	4.297.040.531	173.67	158.88	260.448.939	8.852.414.536
.019.765	80.713.460	128.468.957	-	128.468.957	4.425.509.488	191.69	159.17	195.488.722	9.047.903.258
3.090.311	115.833.486	184.888.361	-	184.888.361	4.610.397.849	179.35	159.62	287.978.672	9.335.881.930
7.456.394	179.031.623	106.901.201	-	106.901.201	4.717.299.050	67.89	59.71	264.357.595	9.600.239.525
6.467.896	131.439.521	212.399.518	-	212.399.518	4.929.698.568	199.50	161.59	318.867.414	9.919.106.939

SUMMARY OF PAYMENTS TO CONTRACTOR

SECTION : SIDIKALANG - KRUENG LUAS

sheet 6 of 6

CONTRACTOR : NINDYA KARYA

GROSS VALUE OF INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC.% GROSS	ESC.% NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
CARRIED FORWARD					4.929.698.568				9.919.106.939
125.401.870	146.870.397	230.541.493	-	230.541.493	5.160.240.061	183.84	156.97	355.943.363	10.275.050.302

NARRATIVE REPORT
SIDIKALANG - KRUENGLUAS SECTION

GENERAL:

Erection of a second AMP, this are finished by Bina Marga, at Cepu Anak was complete by the start of the month. Unfortunately this plant suffered structural failure during the month. It is hoped repairs will be completed February.

Delivery of third AMP commenced during January. This plant will be erected at Lae Langge to serve the Gelombang Kruengluas sector.

Work is progressing fairly steadily on both sides of the River Alas and the Gelombang ferry is now being operated in a reasonably consistant and reliable manner.

ROAD CONSTRUCTION:

By the end of January subbase work was substantially completed as far as Singgersing (Approx. 33 km from Kruengluas) leaving only or minor isolated areas requiring additional material, regarding on recompaction. In addition about 4 kilometres of first layer subbase had been placed in the Singgersing - Gelombang sector and the whole of this sector has reached subgrade level.

Approximately 10 kms of the Gelombang - Kruengluas sector have now reached subgrade level and work is progressing on hauling in natural gravel from Jabi-Jabi to improve the subgrade and from the first layer of subbase in this area.

Crushing plant has been established at Ie Alim and start has been made on processing local gravel and cobble deposits for the second layer of subbase in the Gelombang Kruengluas sector.

ATB surfacing progressed steadily during the month with a total length of 9.3 km being laid. Surfacing is now complete from Sidikalang to Cepu Anak with the exception of a short length(0.2 km) at Cepu Belen Bridge.

CULVERT & BRIDGE CONSTRUCTION:

A total of 116 lin. m of various diameters of RCP culvert were laid during the month also some completion of Box Culverts at Cepu Anak and Lae Belungan. Work is presently in hand on three of the remaining six box culverts. At the end of the month there had still been no progress on bridgeworks and no sign of a commencement of pile driving operation.

ROAD CONSTRUCTION

Activity	Length complete		Remarks
	this month	to date	
Pipe culvert Ø 60 cm	33 LM	1.568 LM	Km 61.9 - km 0* km 0 - km 34 **
Pipe culvert Ø 80 cm	49 LM	2.292 LM	km 61.9 - km 0* km 0 - km 30**
Pipe culvert Ø100 cm	34 LM	1.232 LM	km 61.9 - km 0* km 0 - km 29**
Subgrade	8.2km	102.8 km	km 61.9 - km 0* km 0 - km 32.9**
Subbase (1st layer)	3.7km	88.4 km	km 61.9 - km 0* km 0 - km 21.9**
Subbase (2nd layer)	6.2km	77.3 km	km 61.9 - km 0* km 0 - km 6.7**
Penetration Macadam	0 km	45.2 km	km 61.9 - km 17.9**
Prime coat (for ATB)	9.2km	22.2 km	km 0+100- km 1+190** km 2+550- km 5+650**
ATB	9.2km	22.2 km	km 0 - km 8.8* km 0+100- km 1+190** km 2+550- km 5+650**
Monumentation	0 km	43 km	km 0 - km 8.8* HM and KM post km 61.9 - km 18*

* From Sabulusalam (Sta 0+000) to Sidikalang (Sta 61+954) there is a major equality at Lae Buluhdidi (22+800 Back- 21 + 787 Ahead) in addition to several minor equalities of station

** From Sabulusalam (Sta 0+000) toward Kruengluas(Sta 54+800±)

EQUIPMENT UTILIZATION

Type	Quantity #	Operation %	Idle %	Down time %	Change operation from last month (+ or - %)
Bulldozer	14	36	11	53	+ 3
Motorgrader	8	47	13	40	+ 4
Excavator	6	58	7	35	+ 58
Loader	10	38	19	43	+ 11
Compactor	22	32	23	45	+ 8
Crusher	5	52	44	4	- 2
Asphalt Mixing plant	2	50	34	16	- 40
Paving Equipment	11	21	39	40	+ 8
Conc.Mixer	8	38	24	38	+ 15
Crane	3	29	12	59	+ 2
Piling Eq.	1	0	100	0	0
Dump truck	94	26	13	61	- 3
Conc.vibrator	7	29	28	53	+ 3
Tamping hammer	7	50	21	29	+ 24

RAINFALL JANUARY 1982

DATE	CEPU ANAK (by Contractor)	SABULUSALAM (By Consultant)
1	60	23.2
2	10	23.2
3	60	21.7
4	-	45.0
5	20	9.5
6	-	-
7	-	9.5
8	-	4.5
9	-	-
10	-	-
11	-	-
12	-	-
13	-	2.4
14	-	-
15	-	-
16	-	-
17	-	-
18	20	-
19	-	-
20	-	15.0
21	-	6.2
22	-	-
23	-	-
24	60	-
25	50	-
26	-	31.6
27	10	20.0
28	30	24.5
29	-	2.5
30	30	1.2
31	-	-
Total:	350 mm	240.0 mm

SUMMARY STATUS OF BRIDGE CONSTRUCTION

Section II : Sidikalang - Kruengluas

NO	Name & Location (Sta) of Bridge	Length (m)	Type	Date Work Began	% Completed				Remarks
					Foundation	Structure	Super Structure	Over All Completed	
15.	Lae Belegen (12 + 522)	40	Truss	Nov.81	-	-	-	-	Piles being cast
16.	Lae Batu-Batu(20 + 610)	45	Truss	Nov.81	-	-	-	-	Piles being cast
17.	Lae Singgersing(25+125)	35	Truss	Nov.81	-	-	-	-	Piles being cast
18.	Kapai Sesak(43+798)	30	Truss	-	-	-	-	-	No work
19.	Jambu Dalim(55 + 652)	35	Truss	-	-	-	-	-	No work
	All other bridge 100% Completed								

RECORD OF CONTROL TESTS

For month of : January 1982

SECTION LABORATORY SIDIKALANG	SECTION OF ROAD PAVEMENT	EMBANKMENT	SUB-GRADE	SUB-BASE	BASE	A.T.S.B.	MACADAM Hotmix-ATB	SURFACING (ASPHALT)	SHOULDER	CONCRETE
TYPES OF TESTS	NO OF TESTS	THIS MONTH	THIS MONTH	THIS MONTH	THIS MONTH	THIS MONTH	THIS MONTH	THIS MONTH	THIS MONTH	THIS MONTH
Liquid limit										
Plastic limit										
Analysis Conc. Agg.										
Particle-size analysis fine										1
Analysis of mat C AGG							32			1
Specific gravity fine										
Clay Lumps										
Abration by loss angless										
Atration by sodium / mag										
Agg least dimension										
Agg crushing value										
10% Lines										
Compaction CBR at BS										
Compaction proctor mod										
Compaction CBR standard										
Compaction CBR mod										
Sand equivalent test										
% Air void of compacted specimen										
Field CBR										
Field moisture content		12	21		31					
Field density		12	21		31	94				
Asphalt content						17				
Thickness determination			92		31	94				
Surface finish										
Slump test										7
Marshall Test										
Concrete test by comp										24
Concrete Test hammer										
Auger hand testing										
Special Marshall test						408				
Organic impurities test										1
Total no. of tests										

CONSTRUCTION PROJECT INPUT DATA SHEET

All costs expressed in millions of Rupiah

1. Project ID _____
2. Project Code _____
3. Date 31 Jan 82
4. Reporting Unit ARBP, Medan, N. Sumatera
5. Contractor P.T. Nindya Karya
6. Construction Contract No. 05/CTR/LN/BM/77
7. Consultant Louis Berger International, Inc.
8. Project Limits, From Sidikalang, N.Sumatera
9. Project Limits, To: Kruengluas, Aceh Province
10. Length 117.5
11. Invite Bids 27 Jan 76
12. Open Bids 30 June 76
13. Award -
14. Notice to Proceed 09 Apr 77
15. Begin Contract Time 09 Mar 77
16. Original Contract Time 1461 days
17. Original Completion Date 09 Mar 81
18. Approved Time Extensions 291 days
19. Revised Completion Date 31 Dec 81
20. Days Elapsed _____
21. Estimated Completion Date 31 Mar 82
22. Actual Completion Date _____
23. Original Contract Amount 5783.0
24. Approved Change Orders 623.2
25. Certified Price Escalation 5159.8
26. Anticipated Price Escalation 1455.1
27. Materials on Site 46.9
28. Anticipated Change Orders (-) 230.5
29. Value of Certified Work 5067.9
30. Value of Scheduled Work 1107.7
31. Advances Paid 867.5
32. Advances Refunded 867.5
33. Approved Claims -
34. Certified Interest _____
35. Net Retention Money 373.0
36. Certified Currency Adjustments _____
37. Other Approved Adjustments -
38. Other Anticipated Adjustments _____

NOTE: Items 39 through 44 will be calculated by the computer from the other data on this sheet.

39. Revised Contract Amount _____
40. Probable Final Cost _____
41. Actual Percent Complete _____
42. Scheduled Percent Complete _____
43. Revised Contract Time _____
44. Percent Time Elapsed _____
45. Lender's Share * %

* Beginning June 1981, US AID share was increased to 40% of the value of work completed including escalation.

SECTION III

KUTACANE - BLANGKAJEREN

DESCRIPTION OF PROJECT
SECTION III, KUTACANE-BLANGKAJEREN

Section III of the Aceh Road Betterment Project begins at Kutacane and proceeds along the Alas River valley to Blangkajeren, a distance of approximately 104 kilometers. Basically, Section III consisted of upgrading and improving the general alignment of an existing road between the two termini. However, following a decision by Bina Marga to "optimize" and institute a "crash program", computed horizontal and vertical alignment requirements have been abandoned and construction is following the existing road alignment. Section III passes through rolling and mountainous terrain and many areas of steep, unstable slopes causing innumerable debris slides.

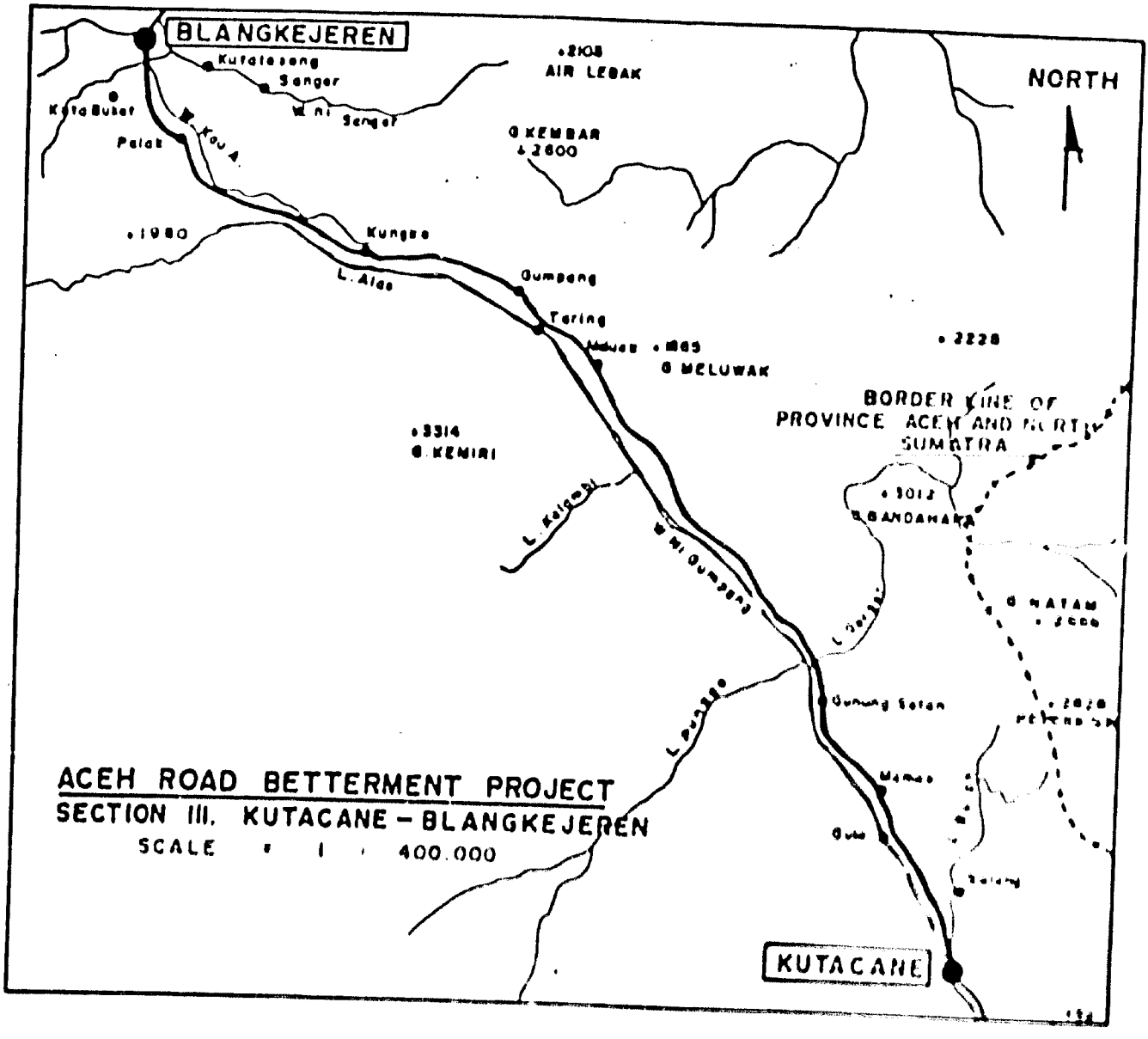
Initially the typical section consisted of a 4.5 meter travelled way with 0.75 meter wide shoulders on either side and a pavement section of 5 cm of penetration macadam, 15 cm of crushed base course, and 15 cm of crushed subbase course. As a result of optimization, the typical section was changed to a 3.0 meter travelled way with 1.0 meter wide shoulders on either side. The new pavement section consisted of 5 cm of asphalt treated subbase (ATSB) above 15 cm pitrun base course constructed upon the AWCAS surface.

There are 10 bridges to be constructed on section III.

ACEH ROAD BETTERMENT PROJECT

SKETCH MAP

SECTION III : KUTACANE - BLANGKAJEREN



Progress to	31 January 1982	
Paving	104.0 kms	= 100 % *
Earthworks	104.0 kms	= 100 %

* Although paved surface is completed throughout the length of the project some of works is either temporary or requires repair.

CONTRACTOR'S EQUIPMENT

CONTRACTOR : PT HUTAMA KARYA

MONTH ENDING : 31 January 1982

MAJOR EQUIPMENT ON PROJECT

ITEM NO.	TYPE OF EQUIPMENT	MODEL	MAKE	QUANTITY PROPOSED	QUANTITY ON SITE	REMARKS
I.	EARTHMOVERS					
1.	Bulldozer	D7G/D6C	CAT	3	3	B M Equip.
2.	Bulldozer	JD550/555	DEERE	2	2	
3.	Bulldozer	D60/65/80A	KOM	6	6	2 B M Equip.
4.	Swampdozer	D31P	KOM	-	1	
II.	GRADING EQUIPMENT					
1.	Motorgrader	120G/JD70A	CAT/DEERE	3	3	B M Equip.
2.	Motorgrader	GD37/G500R	KOM	5	5	
III.	LOADERS					
1.	Wheel loader	920/544B	CAT/DEERE	7	9	B M Equip.
2.	Backhoe loader	MF50B	SAKAI/HITACHI	1	3	2 B M Equip.
IV.	EXCAVATOR					
1.	Excavator		DROTT	1	1	B M Equip.
V.	COMPACTION EQUIP					
1.	Vibro Rollers	SP 54		6	7	4 B M Equip.
2.	Drum roller	SHEEPFOOT		2	2	
3.	Mini Vibro roller		DYNAPAC	2	2	
4.	Tandem Roller		GALLION	2	1	B M Equip.
5.	Pneumatic & Three wheel		BARATA	4	5	B M Equip.
6.	Steel Wheel Roller		KOECH	2	2	B M Equip.
7.	Hand Compactors	651 - S	WELLERS	3	9	1 B M Equip.

December figures. Contractor has failed to submit current figures.

CONTRACTOR'S EQUIPMENT

CONTRACTOR : PT HUTAMA KARYA

MONTH ENDING : 31 January 1982

MAJOR EQUIPMENT ON PROJECT						
ITEM NO.	TYPE OF EQUIPMENT	MODEL	MAKE	QUANTITY PROPOSED	QUANTITY ON SITE	REMARKS
VI.	SURFACING EQUIP.					
1.	Chip Spreader		ETNYRE	2	2	B M Equip.
2.	Asphalt distributor		MACK	2	2	B M Equip.
3.	Asphalt Tank Burner			2	2	
4.	Asphalt Mixer Plant		B.GREENE		2	
5.	Asphalt Finisher		B.GREENE		2	
6.	Soil Mixer	730 H	SEEMAN	1	1	
VII.	QUARRY					
1.	Stone Crusher	70 & 15TPH	LIPPMAN/HEWITT	3	2	B M Equip.
VIII.	BRIDGE&CONCRETE EQ.					
1.	Mobile Crane		DROTT	2	1	B M Equip.
2.	Pile driver&leads	MKT/DT180		1	2	
3.	Concrete Mixers		PLYMOUTH/	7	16	B M Equip.
			GOLIATH			
4.	Concrete Mixer	MINI	WINSLOW	1	1	B M Equip.
IX.	HAULING EQUIPMENT					
1.	Dump trucks	LOADSTER	IH	20	25	B M Equip.
2.	Dump trucks	321/TD	HINO/ISUZU		80	
3.	Dump trucks		TOYOTA/NISSAN		12	
4.	Light Trucks	SV26 T	DAIHATSU		1	
5.	Flatbed Truck	1750	IH	2	2	B M Equip.
6.	Fuel/Water Tank Truck	1850	IH	3	5	B M Equip.
7.	Trailer	LOWBOY		2	1	B M Equip.

December figures. Contractor has failed to submit current figures.

CONTRACTOR'S EQUIPMENT

CONTRACTOR .PT.. HUTAMA KARYA

MONTH ENDING : .....
31 January 1982

MAJOR EQUIPMENT ON PROJECT

ITEM NO.	TYPE OF EQUIPMENT	MODEL	MAKE	QUANTITY		REMARKS
				PROPOSED	ON SITE	
X.	TRANSPORTATION					
1.	Pick Ups & Mini Bus		TOYOTA	4	5	
2.	Jeeps		TOYOTA	7	8	
3.	Motorcycles		HONDA		16	
XI.	POWER STATION					
1.	Generator	300 KVA	DETROIT	1	2	B M Equip.
2.	Generators	5-140KVA	FORD/DEUTZ	4	13	

December figures. Contractor has failed to submit current figures.

CONTRACTOR PERSONNEL

PT Hutama Karya
31 January 1982

POSITION	LOCAL OR FOREIGN	NO. OF PERSON			REMARKS
		BEGIN PERIOD	END PERIOD	VARIATION	
Professional&Management					
1. Project Manager	Local	1	1	0	Hutasuhut
2. General Superint.	"	0	0	0	
3. Superintendents	"	4	4	0	
Subtotal:		5	5	0	
Technical					
1. Ass.Superintendents	"	17	17	0	
2. General foremen	"	1	1	0	
3. Foremen	"	1	1	0	
4. Mechanics	"	19	19	0	
5. Heavy Eq.Mechanics	"	5	5	0	
6. Office Engineer	"	1	1	0	
7. Field data Monitoring	"	1	1	0	
8. Surveyors	"	2	2	0	
9. Draftsman	"	2	2	0	
10. Lab. Crew	"	1	1	0	
11. Equipment Operators	"	24	24	0	
Subtotal:		74	74	0	
Logistic&Administration					
1. Field Administration	"	1	1	0	
2. Medan Representatives	"	2	2	0	
3. Mechanic Admin.	"	3	3	0	
4. Site Administration	"	1	1	0	
5. Personnel Officer	"	1	1	0	
6. Invoicing	"	0	0	0	
7. Cashier	"	1	1	0	
8. Admin. helper	"	5	5	0	
9. Ass.Accounting	"	3	3	0	
10. Payroll	"	2	2	0	
11. Maids & Servant	"	7	7	0	
		26	26	0	
Laborers					
1. G u a r d s	"	18	18	0	
2. Drivers	"	41	41	0	
3. Road workers	"	4	4	0	
4. Bridge & culvert civil workers	"	2	2	0	
5. Security	"	0	0	0	
6. Chief of warehouse	"	1	1	0	
7. Ass.Warehouse	"	4	4	0	
Subtotal:		70	70	0	
Grand total		[illegible]	[illegible]	[illegible]	

MONTHLY CERTIFICATE

Section No : III. Kutacane-Blangkajeren
Contractor : PT Hutama Karya
Engineer : Louis Berger International, Inc.

Monthly Certificate No: 67
Date : 15 January 1982

SUMMARY		
	ORIGINAL CONTRACT SUM :	Rp.
	PRESENT CONTRACT SUM (AFTER OPTIMISATION)	Rp.

SECT.	DESCRIPTION	PERCENT TO DATE	Rp. TOTAL
1	Lump Sums	96.29	620.813.288
2	Drainage	36.92	21.170.053
3	Earth Works	44.14	401.575.176
4	Sub-Grade	18.19	7.586.394
5	Shoulders	-	-
6	Sub-Base And Base	42.73	213.191.592
7	Surfacing and Pavement	27.42	204.959.246
8	Structures	15.41	127.326.967
9	Miscellaneous	10.10	59.969.455
	OPTIMISED WORK (N O C NO 24" SCHEDULE B")		3.878.202.472
	OTHER REIMBURSABLE ITEMS		222.976.866
	TOTAL SUM OF WORK COMPLETED TO DATE		5.757.771.508
	MATERIALS ON SITE		47.922.370
	GROSS SUM OF MONTHLY CERTIFICATE	RUPIAH	5.805.693.878
	DEDUCTIONS: Previous Monthly Certificates	4.873.459.166	
	Total of 10% Retention to Date	193.404.327	
	Total Repayment of Advance to Date	710.930.511	
	NOTE Advance Payment has been Repaid in Full		
	TOTAL SUM OF DEDUCTIONS RUPIAH	5.777.794.004	5.777.794.004
	NET SUM OF MONTHLY CERTIFICATE	RUPIAH	27.899.874

MATERIAL ON SITE
SUMMARY

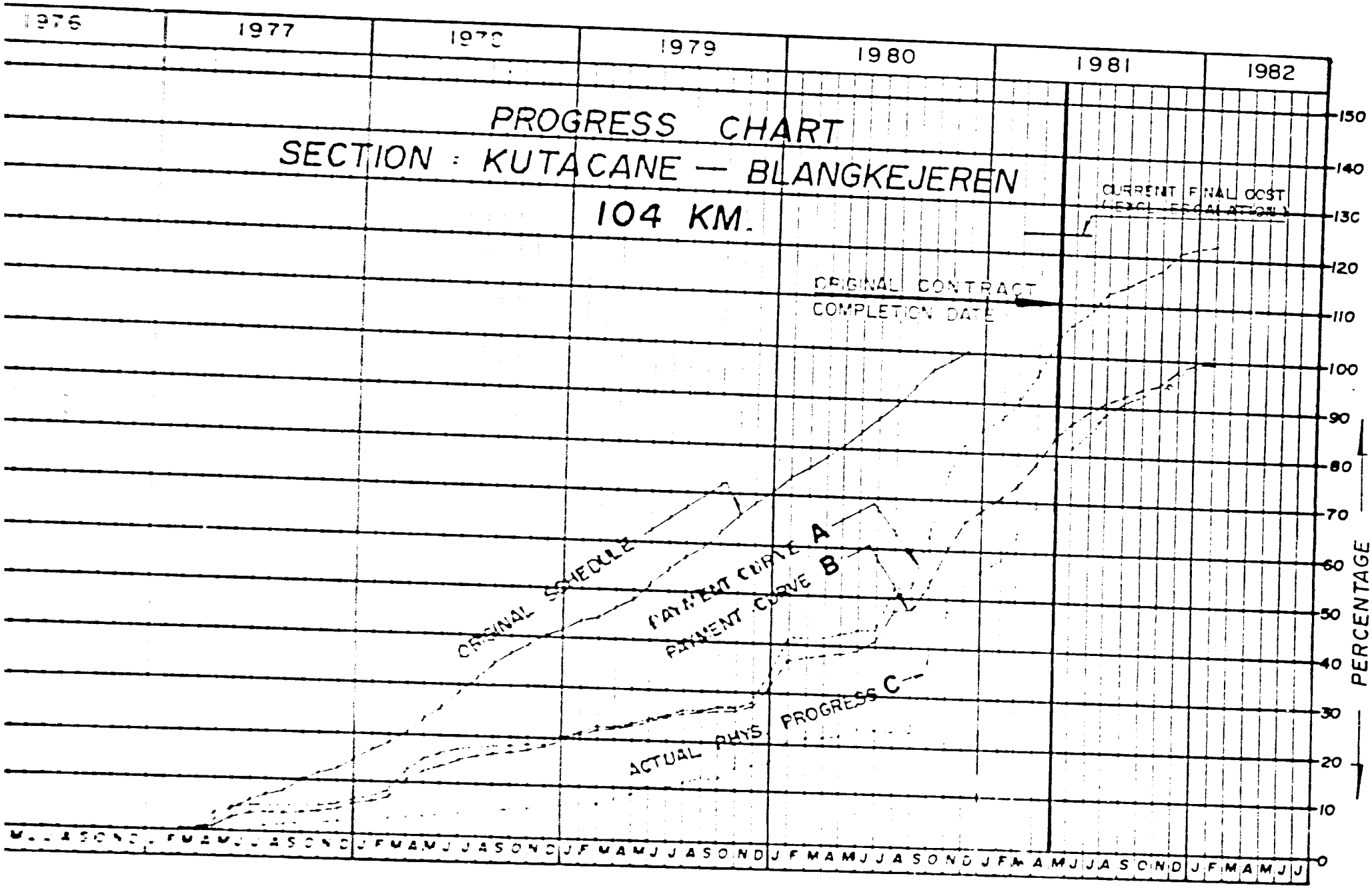
SECTION : Kutacane-Blangkajeren MONTH ENDING : 31 January 1982

ITEM	UNIT	Begin Period		End Period	
		Quan.	Price in Rp.	Quan.	Price in Rp
Right of Way Mon.	each	281	1.218.135	281	1.218.135
Hectomete Post	each	441	1.911.735	441	1.911.735
Asphalt cement Pen. Macadam	kg	950.560	180.606.400	235.750	44.792.500

Section III. : Kutacane – Blangkejeren.

	77	78	79	80	1981												1982		
	DEC	DEC	DEC	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
CONTRACTOR'S ORIGINAL SCHEDULE	14.10	41.80	70.80	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent complete based on original contract amount % = Total billings / Original contract amount	8.12	22.11	34.28	84.17	87.13	90.74	96.70	103.70	107.26	109.83	113.18	114.61	116.74	117.43	120.85	121.84	122.50		
Percent complete based on current contract amount % = Total billings / Original plus all NOC's & EWO's	8.04	20.08	31.57	68.02	70.41	73.32	78.14	83.80	86.67	88.75	91.45	92.61	94.34	94.89	97.65	98.46	98.98		
Percent complete based on Actual physical progress % = Total billing 2-9 plus billing item no.3-18 in NOC no.24 / Current contract amount section 2-9 plus items 3-18 in NOC no.24	2.85	5.77	15.52	55.75	58.99	63.01	69.83	77.79	81.81	84.93	88.72	90.25	92.52	93.26	97.00	98.05	101.16		

* NB: These figures do not allow for the effect of pending major EWO's estimated to total Rp.750.000.000. These will effectively reduce percentage Physical Completion to 86.85%.


1976
1977
1978
1979
1980
1981
1982
PROGRESS CHART
SECTION : KUTACANE — BLANGKEJEREN
104 KM.
CURRENT FINAL COST
ORIGINAL CONTRACT
COMPLETION DATE
ORIGINAL SCHEDULE
PAYMENT CURVE A
PAYMENT CURVE B
ACTUAL PHYS. PROGRESS C
PERCENTAGE
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0

SUMMARY OF NOTICES OF CHANGE AND EXTRA WORK ORDERS

sheet 1

CTION · III: KUTACANE-BLANGKAJEREN

CONTRACTOR · PT BUTAMA KARYA

E	E.W.O. NO.	N.O.C. NO.	Incl. in C.C.O. NO.	DESCRIPTION	VALUE	CUMULATIVE TOTAL VALUE
CARRIED · FORWARD						
				Original Contract Sum		
0-77	1		1	Removal of slides near Km 80		4.739.536.738
0-77	2		1	Repair landslides	+ 1.130.389	4.740.667.127
1-77		1	1	Specification changes for pay item 7.04 penetration surface course	+ 6.497.235	
1-77	4		2	Clearence and trasport of reinforcing steel from Belawan to Mdn	N.A.	4.747.164.362
1-77	5			Not used ---	+ 41.594.584	4.788.758.946
1-77		2	1	Addendum No. 3 to be added to contract		— — —
-78		3	2	Increase in quantity and amount of pay item 3.03(3) clearing & grubbing	- 7.987.447	4.780.771.499
-78	3		2	Repair certain bridges between Kutacane and Aceh Border	+ 67.100.000	4.847.871.499
-78		4	3	Addition to pay item 1.19. Mobilization roads, drainage, water tower, recreation area in Bina Marga compound	+ 27.378.528	4.875.250.027
		5		Not used	+ 26.988.985	4.902.239.012
-78		6	3	Improving and maintaining all existing bridges between km 32 + 000 & km 105 + 300		—
78		7	3	Item 1.19 - Mobilization. Payment of 80% on completion of mobilization	+ 80.093.153	4.982.332.165
78		8	3	Change of contract item (3.08(1). Increase of embankment, common	N.A.	4.982.332.165
					+ 1.975.632	4.984.307.797

SUMMARY OF NOTICES OF CHANGE AND EXTRA WORK ORDERS

sheet 2

CTION · III: BUTACANE-BLANGKAJEREN

CONTRACTOR · PT BUTAMA KARYA

E	E.W.O. NO.	N.O.C. NO.	Incl. in C.C.O. NO.	DESCRIPTION	VALUE	CUMULATIVE TOTAL VALUE
CARRIED · FORWARD						4.984.307.797
-78		9	3	New item 2.04 (3)f. Manufacture and install 50 x100 cm precast box culverts	+ 1.920.000	4.986.227.797
-78		10	3	Excavation of roadway for the passage of traffic at ground slip and around broken bridge near km 74	transferred to EWO No.9	
		11		Not been used		
-78		12	4	Manufacture and install precast box culvert 500x100 cm total of 400 m with U.P. of Rp 30.000/m'	+12.000.000	4.998.227.797
-78		13	4	Addition to item 1.19(1); Mobilization; provide for extension of contractor's Expat. advisor for a period of one year	+41.795.912	5.040.023.709
-73		14	4	Construction of reinforced concrete and stone masonry retaining wall at sta 13 + 500	+ 6.300.000	5.046.323.709
1-78		15	5	Decrease 8.085 m3 from item 6.01(2); subbase Cl B and add new pay item 6.01(3) subbase Cl C estimated quantity 50.000 m3 at U.P. of Rp 3.000/m3	+122.446.320	5.168.770.029
		16		Not used		
-12-78		18	5	Carry out maintenance work in cost program of A.L.S. km 41+400 up to km 86 + 800	+ 85.858.000	5.254.628.029
-12-78		17	5	Change of base course cl A to Cl A modified of 21.000 m3 at Rp 5.607/m3 from Rp 7.509/m3	- 39.942.000	5.214.686.029
-12-78	6		7	Water supply from Alas river to project camp	+ 3.483.500	5.218.169.529

SUMMARY OF NOTICESOF CHANGES AND EXTRA WORK ORDERS

sheet 3

TION · III: KUTACANE – BANGKAJEREN

CONTRACTOR · PT HUTAMA KARYA

	E.W.O. NO.	N.O.C. NO.	incl.in C.C.O. NO.	DESCRIPTION	VALUE	CUMULATIVE TOTAL VALUE
ARRIED · FORWARD						5.218.169.529
79	7		7*	Clear roadway of material resulting from slides at km 74 and km 19		
79		19		Inclussion of bedding material for culverts and some bridge foundations as pay item no. 9.19	+ 4.093.224	5.222.262.753
9	8		6	Negate N.O.C. No.18 and transferred to this EWO to carry out the maintenance of A.L.S.	+ 8.939.700	5.231.202.453
9	9		8*	Negate NOC No.10 and transferred to this EWO "Excav.of ground slip near km 74	– 85.858.000	5.145.344.453
-79		20		Add new pay item 8.06 - precast concrete beams with U.P. of Rp 80.000/m3 (establishes unit price only)	+ 498.566	5.145.843.019
		21		Not been used		
80		22		Change base course Cl'A' mod. to class 'C'	– 8.593.200	5.137.249.819
80	10		8*	Supply of reinforcing steel from local source at total quantity of 203.455 kg with U.P. of Rp 378 per kg	+76.902.210	5.214.152.029
0		23		Add estimated quantity of 3.400 m3 at U.P. of 40.867 to pay item 9.04(2) - Mortar & Rubble paved waterway	+138.947.800	5.353.099.829
80		24		Schedule 'A' and 'B' and conditions of change. Optimisation	+512.208.717	5.865.308.546
82	11			Force Majeure works Approx.	+400.000.000	Pending

SUMMARY OF PAYMENTS TO CONTRACTOR

SECTION · KUTACANE - BLANGKEJEREN

sheet 1 of 6

CONTRACTOR · HUTAMA KARYA.

OSS VALUE · INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC. % GROSS	ESC. % NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
RRIED FORWARD									
6.471.307	46.460.887	5.151.192	-	1.151.192	5.151.192	2.76	11.09	191.622.499	191.622.499
0.110.421	-	-	-	-	5.151.192	-	-	30.110.421	221.732.920
2.212.159	2.440.000	274.000	-	274.000	5.425.192	1.23	11.23	22.486.159	244.219.079
2.123.064	1.132.770	127.205	-	127.205	5.552.397	0.57	11.23	22.250.269	266.469.348
4.328.629	4.285.564	619.667	-	619.667	6.172.064	14.32	14.46	4.948.296	271.417.644
4.854.504	4.802.826	650.776	-	650.776	6.822.840	13.41	13.55	5.505.280	276.922.924
9.222.208	-	-	-	-	6.822.840	-	-	49.222.208	326.145.132
1.178.209	11.184.467	1.550.181	-	1.550.181	8.373.021	7.32	13.86	22.728.390	348.873.522
4.259.842	43.803.353	18.108.306	-	18.108.306	26.481.327	40.91	41.34	62.368.148	411.241.670

SUMMARY OF PAYMENTS TO CONTRACTOR

sheet 2 of 6

SECTION · KUTACANE - BLANGKEJEREN

CONTRACTOR · HUTAMA KARYA.

OSS VALUE INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC. % GROSS	ESC. % NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
RRIED FORWARD					26.481.327				411.241.670
.237.983	12.108.788	5.199.513	-	5.199.513	31.680.840			17.437.496	428.679.166
.044.560	-	-	-	-	31.680.840	-	-	85.044.560	513.723.726
2.548.949	-	-	-	-	31.680.840	-	-	152.548.949	666.272.675
5.770.582	1.338.507	1.548.553	-	1.548.553	33.229.393	0.93	46.38	167.319.135	833.591.810
7.766.073	31.613.484	14.309.181	-	14.309.181	47.538.574	37.89	45.26	52.075.254	885.667.064
0.736.652	21.663.411	9.976.578	-	9.976.578	57.515.152	32.46	46.05	40.713.230	926.380.294
9.684.830	9.091.724	4.302.782	-	4.302.782	61.817.934	21.86	47.33	23.987.612	950.367.906
0.413.900	10.973.168	5.505.384	-	5.505.384	67.323.318	10.92	50.17	55.919.284	1.006.287.190
6.538.280	-	-	-	-	67.323.318	-	-	6.538.280	1.012.825.470
21.079.703	10.909.272	6.567.856	-	6.567.856	73.891.174	31.16	60.20	27.647.559	1.040.473.029
34.219.329	16.359.329	10.430.611	-	10.430.611	84.321.785	30.48	63.76	44.649.940	1.085.122.969
46.991.255	21.193.044	16.387.031	-	16.387.031	100.708.816	34.37	77.32	63.378.286	1.148.501.255

SUMMARY OF PAYMENTS TO CONTRACTOR

SECTION - KUTACANE - BL.. GKEJEREN

sheet 3 of 6

CONTRACTOR - HUTAMA KARYA.

SS VALUE - INVOICE	NET VALUE SECTIONS 2-8	ESCA ATION INITIAL NVC.	ESCALATION REVISED INVC	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC. % GROSS	ESC. % NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
RRIED FORWARD					100.708.816				1.148.501.255
889.944	17.783.448	17.645.532	-	17.645.532	118.354.348	45.37	99.22	56.535.476	1.205.036.731
311.523	30.517.373	31.683.633	-	31.683.633	150.037.981	68.41	103.82	77.995.156	1.283.031.887
353.714	39.498.565	44.980.597	-	44.980.597	195.018.578	81.26	113.88	100.334.311	1.383.366.198
812.456	50.878.415	61.773.065	-	61.773.065	256.791.643	89.77	121.41	130.585.521	1.513.951.719
748.913	18.071.901	22.267.716	-	22.267.716	279.059.359	53.34	123.22	64.016.629	1.577.968.348
950.018	16.248.385	18.674.816	1.062.909	19.737.725	298.797.084	42.04	121.47	66.687.743	1.644.656.091
154.158	36.644.546	46.285.182	1.358.633	47.643.815	346.440.899	113.02	130.02	89.797.973	1.734.454.064
712.632	8.054.984	9.676.469	920.186	10.596.655	357.037.554	59.83	131.55	28.309.287	1.762.763.351
079.401	17.198.929	23.234.707	1.136.386	24.371.093	381.408.647	64.00	141.70	62.450.494	1.825.213.845
107.860	62.351.461	85.897.382	1.322.635	87.220.017	468.628.664	167.38	139.88	139.327.877	1.964.541.722
704.706	37.151.450	51.263.415	1.811.123	53.074.538	521.703.202	317.72	142.86	69.779.244	2.034.320.966
999.105	34.873.193	47.617.601	1.905.685	49.523.286	571.226.488	44.22	142.10	161.524.601	2.195.845.567

SUMMARY OF PAYMENTS TO CONTRACTOR

sheet 4 of 6

SECTION · KUTACANE - BL ANGKEJEREN

CONTRACTOR · HUTAMA KARYA.

OSS VALUE INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC.	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC. % GROSS	ESC. % NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
RRIED FORWARD					571.226.488				2.195.845.567
4.495.834	190.179.397	267.535.309	13.868.115	281.403.424	852.629.912	86.72	147.97	605.899.258	2.801.744.825
6.991.451	7.903.134	10.998.355	649.682	11.648.037	864.277.949	166.60	147.39	18.639.488	2.820.384.313
5.514.225	19.657.938	31.540.030	(-)1.317.170	30.222.860	894.500.809	194.81	153.74	45.737.085	2.866.121.398
9.983.723	23.081.985	34.469.909	2.436.203	36.906.112	931.406.921	123.09	159.89	66.889.835	2.933.011.233
4.356.296	53.525.995	81.551.730	10.487.872	92.039.602	1.023.446.523	207.50	171.95	136.395.898	3.069.407.131
4.500.935	31.553.108	45.334.659	9.014.903	54.349.562	1.077.796.085	221.83	172.25	78.850.497	3.148.257.628
69.311073	28.083.153	45.150.138	4.940.503	50.090.641	1.127.886.726	72.27	178.37	(-)19.220.432	3.129.037.196
-	-	-	-	-	-	-	-	-	3.129.037.196
87.267.169	659.636.769	-	-	-	-	-	-	987.267.169	4.116.304.365
11.976.470	391.212.089	-	-	-	-	-	-	611.976.470	4.728.280.835
09.246.755	307.670.210	-	-	-	-	-	-	309.246.755	5.037.527.590
79.670.910	79.670.910	-	-	-	-	-	-	79.670.910	5.117.198.500

SUMMARY OF PAYMENTS TO CONTRACTOR

SECTION : KUTACANE - BLANGKEJEREN

sheet 5 of 6

CONTRACTOR : HUTAMA KARYA.

OSS VALUE INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC.% GROSS	ESC.% NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
RRIED FORWARD									5.117.198.500
0.264.006	144.134.411							140.264.006	5.257.462.506
0.929.155	178.147.065							170.929.155	5.428.391.661
2.657.411	302.915.856							282.657.411	5.711.049.072
1.487.441	352.882.241							331.487.441	6.042.536.513
4.487.441	352.882.241							[illegible]	[illegible]
6.293.054	138.508.019							[illegible]	[illegible]
.627.021	169.088.591							158.627.021	6.492.000.536
.700.467	67.700.467							67.700.467	6.559.701.003
.274.837	101.352.867							101.274.837	6.660.975.840
2.783.294	33.056.399							32.783.294	6.693.759.134
1.759.601	167.660.712							161.759.601	6.855.518.735
7.062.224	47.062.224							47.062.224	6.902.580.959

SUMMARY OF PAYMENTS TO CONTRACTOR

SECTION · KUTACANE - BLANGKEJEREN

sheet 6 of 6

CONTRACTOR · HUTAMA KARYA.

ROSS VALUE F INVOICE	NET VALUE SECTIONS 2-8	ESCALATION INITIAL INVC.	ESCALATION REVISED INVC	ESCALATION TOTAL	CUMULATIVE ESCALATION	ESC. % GROSS	ESC. % NET	TOTAL VALUE THIS MONTH	CUMULATIVE TOTAL VALUE
ARRIED FORWARD					1.127.886.726				6.902.580.959
0.999.860	166.813.760	-	-	-	1.127.886.726	-	-	30.999.860	6.933.580.819

NARRATIVE REPORT
KUTACANE - BLANGKAJEREN SECTION

GENERAL

Progress during the month was slow; the Contractor failed to take advantage of a warm dry month to press the works towards a conclusion. Reasonable progress, by the contractor's standards, was maintained on the ATSB and there is some prospect that this work will be completed by the end of next month.

ROAD CONSTRUCTION

Approximately 5.03 km of ATSB was laid during the month, less than in December despite even better weather; of this length 4.19 km was overlay of original surface dressing and 0.84 km was overlay to previously failed areas of macadam. In addition to this work the Contractor has insisted on cutting and replacing a large number of areas there severe cracking of the ATSB has occurred. Since the basic cause of failure in these places is generally subgrade failure and/or sliding, this work is not likely to be of any lasting value.

STRUCTURES

All structural work is now complete with the exception of the necessary reinforcing to the second pier at Aunan Bridge which has not yet commenced.

GABIONS AND STONE MASONRY

Gabion work progresses slowly but steadily, with regular areas working in several locations. Whilst some stone masonry work has been done during the month there still remains more than 2000 cu.m to be executed under the optimised works alone. At the present rate of progress this will take 18 months to complete.

OTHER WORKS

The contractor has commenced the erection of ARMCO guard rail, however the work executed to date is generally unsatisfactory and will have to be repeated before it can be accepted.

A number of pipe culverts still remain to be built and 17 out of a total of 20 bridge abutments still require the construction of protective works.

ROAD CONSTRUCTION

Activity	Length complete (km)		Remarks
	This month	To Date	
Base course	-	104.00	-
Prime coat	-	104.00	-
Penetration Macadam	(*)	30.40	Extend to km 33+125
ATSB	5.029	65.044	Km 38+350 to km42+610 (overlay) In between : Km 27+678 to km29+750 (overlay part of *)
SBST/DBST	-	17.593	
Pipe culvert ø 60	-	2.164 LM	
Pipe culvert ø 80	-	741 LM	
Pipe culvert ø 100	-	464 LM	
Pipe Armco ø 100	-	588 LM	
Semi arch armco 100	-	188 LM	

(*) : 4.60 km of penetration macadam was scarified and replaced by bituminous surface treatment and now is being overlaid by ATSB.

EQUIPMENT UTILIZATION

Type	Quantity	Operation %	Idle %	Down time %	Change operation from last month (+ or - %)
Bulldozer	3	21	61	18	- 13
Grader	2	40	60	-	+ 4
Excavator	1	24	8	68	+ 4
Loader	4	36	64	-	- 16
Compactor	2	26	33	41	- 8
Crusher	1	-	100	-	-
Paving Equip.	3	59	41	-	- 22
Dump trucks	18	63	37	-	- 6
Concrete Mixer	2	-	100	-	- 15
Conc.Vibrator	1	-	100	-	- 15
Tamping hammer	2	[illegible]	[illegible]	[illegible]	[illegible]

KUTACANE SECTION: Km 5 + 000

RAINFALL JANUARY 1982

Date	Rainfall MM
1	-
2	24
3	-
4	-
5	-
6	-
7	-
8	6
9	-
10	-
11	-
12	-
13	-
14	-
15	-
16	-
17	-
18	-
19	-
20	-
21	-
22	-
23	-
24	-
25	-
26	-
27	-
28	17
29	-
30	-
31	-
Total:	47

SUMMARY STATUS OF BRIDGE CONSTRUCTION

Section III. · Kutacane – Blangkejeren.

NO.	Name & Location (Sta.) of Bridge.	Length (m)	Type	Date Work Began	% Completed				Remarks
					Foun-dation	Sub Structure	Super Structure	Over All Completed	
1.	L. Natam Sta 10 + 888	40	CIP	Dec. 78	100	100	100	100	
2.	L. Ger-Ger sta 15 + 825	30	CIP	Jul.79	100	100	100	100	Slight damage due to flash flood 9&10th.of May 1981.
3.	L. Aunan Sta 27 + 804	30	CIP	Feb.80	100	100	100	100	Serious damage due to flash flood 9&10th.of May 1981.
4.	L. Gurah Sta 36 + 895	30	CIP	Apr.80	100	100	100	100	Slight damage due to flash flood 9&10th.of May 1981.
5.	L. Marpunga Sta 43 + 513	24	CIP	Jul.80	100	100	100	100	
6.	L. Air Panas Sta 49 + 803	12	CIP	Jul.80	100	100	100	100	
7.	L. Wei Hilang Sta 54 + 280	12	CIP	Sep.80	100	100	100	100	
8.	L. Meluah Sta 56 + 836	24	CIP	Jul.80	100	100	100	100	
9.	L. Jamur Gele Sta 66 + 430	12	CIP	Sep.80	100	100	100	100	
10.	L. Penampaan Sta 104 + 700	40	CIP	Sep.80	100	100	100	100	

All bridges still require masonry &/or concrete slab protection at Abutments.except Ger-Ger where gabion protection has now been provided and Penampaan where are abutment only has been protected with masonry.

RECORD OF CONTROL TEST

for month of Januari 1982

SECTION III
KUTACANE
SECTION LABORATORY

TYPES OF TESTS / Section of Road Pavement	SUB GRADE		SUB BASE		BASE		BASE (ATSB MATERIAL)		MACADAM		SURFACING (ATSB)		CONCRETE		EMBANKMENT		SHOULDER		SOIL INVESTIGATION	
No of Tests	This Month	To Date	This Month	To Date	This Month	To Date	This Month	To Date	This Month	To Date	This Month	To Date	This Month	To Date	This Month	To Date	This Month	Date	This Month	Date
Liquid Limit						1														
Plastic Limit						1														
Linear Shrinkage																				
Particle - size Analisis						1		3												
Specific Gravity						2		3												
Flakiness and Elongation																				
Aggregate Least Dimension																				
Aggregate Crushing Value																				
10 % Fines																				
Compaction - C B R at B S																				
Compaction - C B R at W A S																				
Compaction - C B R at Mod AASHO																				
% Air Void of Compacted Stone Base																				
Bulk Density of Aggregate & Filler																				
Field Moisture Content																				
In-Situ Density												127								
Compaction Factor						1														
Analysis of Materials																				
Extraction Test																				
Marshall Test												40								
Sand Equivalent Test						3														
Thickness Determination																				
Surface Finish																				
Skid Resistance Tests																				
Slump Tests																				
Cement Tests																				
Concrete Tests																				
Tensile Tests Steel Reinforcement																				
C B R in lab.						1														
Special Tests																				
Total No OF Tests						10		6				167								

CONSTRUCTION PROJECT INPUT DATA SHEET

All costs expressed in millions of Rupiah

1. Project ID _____
2. Project Code _____
3. Date 31 Jan 82
4. Reporting Unit ARBP, Medan, N. Sumatera
5. Contractor P.T. Hutama karya
6. Construction Contract No 04/CTR/LN/BM/77
7. Consultant Louis Berger International, Inc
8. Project Limits, From Kutacane, Aceh Province
9. Project Limits, To Blangkajeren, Aceh Province
10. Length 104 kms
11. Invite Bids 25 Jan 77
12. Open Bids 09 Jun 76
13. Award –
14. Notice to Proceed 09 Apr 77
15. Begin Contract Time 09 Mar 77
16. Original Contract Time 1461 days
17. Original Completion Date 09 Mar 81
18. Approved Time Extensions 52 days
19. Revised Completion Date 30 Apr 81
20. Days Elapsed _____
21. Estimated Completion Date _____
22. Actual Completion Date _____
23. Original Contract Amount 4739.5
24. Approved Change Orders 1125.8
25. Certified Price Escalation 1127.9
26. Anticipated Price Escalation –
27. Materials on Site 47.9
28. Anticipated Change Orders 750
29. Value of Certified Work 5757.8
30. Value of Scheduled Work 32.6
31. Advances Paid 710.9
32. Advances Refunded 710.9
33. Approved Claims –
34. Certified Interest _____
35. Net Retention Money 193.4
36. Certified Currency Adjustments _____
37. Other Approved Adjustments _____
38. Other Anticipated Adjustments _____

NOTE: Items 39 through 44 will be calculated by the computer from the other data on this sheet.

39. Revised Contract Amount _____
40. Probable Final Cost _____
41. Actual Percent Complete _____
42. Scheduled Percent Complete _____
43. Revised Contract Time _____
44. Percent Time Elapsed _____
45. Lender's Share * %

* From 9 Mar 1977 to 31 July 1980, US AID share was 25% of certified work before escalation; after 31 July 1980 US AID participation was discontinued.

SUPERVISING CONSULTANT INFORMATION

ENGINEER FORCE REPORT

SIDIKALANG - KRUENGLUAS SECTION

Classification	Begin period	End period	Variation
Indonesian			
Resident Engineer	1	1	0
Ass.Resident Engineer	2	2	0
Chief Lab. Technician	1	0	-1
Senior Lab.Technician	2	2	0
Inspector	5	4	-1
Senior Surveyor	3	2	-1
Instrumentman	4	3	-1
Quantity Technician	1	1	0
Lab. Technician	1	1	0
Draftsman	2	2	0
Secretary	1	1	0
Office Assistant	1	1	0
Lab. Labourer	1	1	0
Survey Aide	6	7	+1
Driver	11	10	-1
Guards	4	4	0
Total Personnel	46	42	-4

ENGINEER FORCE REPORT
KUTACANE - BLANGKAJEREN SECTION

Classification	Begin period	End period	Variation
Indonesian			
Ass. Res. Engineer	1	1	0
Sr. Inspector	2	2	0
Inspector	1	1	0
Sr. Lab. Technician	1	1	0
Secretary	1	1	0
Drivers	3	3	0
Guards	2	2	0
Janitor	1	1	0
Total Personnel	12	12	0

HEADQUARTERS STAFF

Classification	Begin period	End period	Variation	Location Sdk	Mdn	Jkt
Expatriate						
Engineer-in-Charge	1	1	0	1	-	-
Deputy E I C	1	0	-1	-	-	-
	2	1	-1	1	-	
Indonesian						
Administrative Ass't	1	1	0	1	-	-
Project Accountant	1	1	0	1	-	-
Secretary	2	2	0	1	-	1
Contract Admin	1	0	-1	-	-	-
Purchasing Officer	1	1	0	-	1	-
Clerk	2	2	0	2	-	-
Radio Operator	1	1	0	1	-	-
Drivers	5	5	0	4	1	-
Office Janitor	5	4	-1	3	-	1
Guard	2	2	0	-	-	2
	21	19	-2	13	2	4
Total Personnel	23	20	-3	14	2	4

LOCAL PERSONNEL MAN-MONTH REMAINING
SUPERVISION TEAM

Class	Position	Remain
A	Principal	- 45
B	Resident Engineer	
	Ass't Resident Engineer I	122.5
C	Ass't Resident Engineer II	
	Project Accountant	- 15
	Contract Administrator	- 40.0
	Chief Lab. Technician	- 48.0
	Chief Inspector	116.0
	Chief Surveyor	120.0
D	Senior Lab. Technician	- 53
	Senior Surveyor	- 59
	Inspector/Surveyor	- 200.3
	Adm. Assistant	- 16
	Design/Quantity Tech.	- 12.7
	Lab. Technician	- 43.5
E	Instrumentman	- 76
F	Ass. Accountant	26.0
	Purchasing Officer	- 41
	Quantity Technician	- 61
	Secretary	- 88.9
	Draftsman	- 20
	Clerk/Typist	- 180.1
G	Radio Operator	- 71
	Drivers	62.5
	Chainman	148
	Rodmen	17.0
	Survey Aide	- 118.5
	Guards	186.5
	Janitor	- 87.5
	Lab. Labourer	- 34.6
	Survey Labourer	- 18

EXPATRIATE MAN-MONTH REMAINING

SUPERVISION TEAM

Position	Remain
Principal	0.18
Engineer-in-Charge	- 4.0
Deputy Engineer-in-Charge	- 2.3
Resident Engineer	8.0

ENGINEERING CONSULTANCY COST AND MAN-MONTH DATA INPUT SHEET

1. Project Indentification :
2. *Project Code :
3. Date 31 Jan 82
4. Reporting Unit : ARBP, Medan, N. Sumatera
5. Consultant : Louis Berger International, Inc
6. Contract Number : 56/CTR/LN/BM/75
7. Activity : Construction Supervisor
8. Project Limits, From : Sidikalang, N. Sumatera
9. Project Limits, To : Kruengluas, Aceh Province
10. Contract Signed : 31 Oct 75
11. Start Date : 16 Jan 76
12. Original Completion Date 31 Mar 80
13. Revised Completion Date : 30 Jun 81
14. Estimated Completion Date : 31 Mar 82

COSTS

ORIGINAL CONTRACT		**ADDENDA**	
15 Dollars	1290.3	16 Dollars	1995.1
19 Rupiah	652.1	20 Rupiah	779.2
ESTIMATED ADDENDA			
23 Dollars	(-) 350.3		
25 Rupiah	413.8		
27 Dollars	1886.5		
29 Rupiah	715.6		
31 Dollars	876.2		
33 Rupiah	1051.5		

35. Lender's Share * %

MAN-MONTHS

ORIGINAL CONTRACT		**ADDENDA**	
17 Foreign	161.0	18 Foreign	248.0
21 Local	4422.0	22 Local	1136.4
ESTIMATED ADDENDA			
		24 Foreign	32.0
		26 Local	1085.0
PROFESSIONAL & TECHNICAL PERSONNEL			
		28 Foreign	378.3
		30 Local	2225
ALL OTHER PERSONNEL AND SUPPORT			
		32 Foreign	0.0
		34 Local	3552.7

Note :

All Foreign costs expressed in thousands of U.S. Dollars

All Local costs expressed in millions of Rupiah.

All values entered to one decimal place.

* All U.S. Dollar portions of Consultant contract contributed by U.S.A.I.D.loan.

** Cost data to subject to approval of Bina Marga