

APPENDIX 1

**MEMBER LIST
OF
THE STUDY TEAM**

MEMBER LIST OF THE STUDY TEAM

1. Field Survey

Mr. Katsuhiko HAGA	Leader	Deputy Director, Office of Evaluation and Post Project Monitoring, Planning and Evaluation Department, JICA
Mr. Yuichi MATSUSHITA	Project Coordinator	Third Project Management Division, Grant Aid Management Department, JICA
Mr. Kunihiko SAWANO	Chief Consultant / Traffic Planner	Katahira & Engineers International
Dr. Shingo GOSE	Highway Designer	Katahira & Engineers International
Mr. Masao AIZAWA	Natural Condition Surveyor	Katahira & Engineers International
Mr. Goichi MIYASAKA	Equipment Planner / Construction Planner / Cost Estimator	Katahira & Engineers International
Mr. Shuichi YASHIRO	Assistant	Katahira & Engineers International

2. Explanation on Draft Report

Mr. Toshiyuki ARITA	Leader	Deputy Director, Programme Division, Okinawa International Centre, JICA
Mr. Kunihiko SAWANO	Chief Consultant / Traffic Planner	Katahira & Engineers International
Dr. Shingo GOSE	Highway Designer	Katahira & Engineers International

APPENDIX 2

STUDY SCHEDULE

STUDY SCHEDULE

1. Field Survey (March 21 to April 24, 2000)

(1/2)

No.	Date		Activities
1	Mar. 21	Tue	<ul style="list-style-type: none"> • Tokyo to Guam (JL941) (Messrs. Sawano, Gose, Aizawa, Miyasaka, Yashiro)
2	Mar. 22	Wed	<ul style="list-style-type: none"> • Guam to Yap (CO863) (Messrs. Sawano, Gose, Aizawa, Miyasaka, Yashiro) • Discussion with PW&T
3	Mar. 23	Thu	<ul style="list-style-type: none"> • Discussion with PW&T • Site Survey and Traffic Survey
4	Mar. 24	Fri	<ul style="list-style-type: none"> • Data Collection, Site Survey and Traffic Survey
5	Mar. 25	Sat	<ul style="list-style-type: none"> • Tokyo to Guam (CO962) (Messrs. Haga, Matsushita) • Data Collection and Site Survey
6	Mar. 26	Sun	<ul style="list-style-type: none"> • Guam to Yap (CO951) (Messrs. Haga, Matsushita) • Data Collection and Site Survey
7	Mar. 27	Mon	<ul style="list-style-type: none"> • Courtesy Call and Discussion with PW&T • Explanation of Inception Report • Traffic Survey
8	Mar. 28	Tue	<ul style="list-style-type: none"> • Discussion with PW&T • Site Survey
9	Mar. 29	Wed	<ul style="list-style-type: none"> • Discussion with PW&T • Preparation of Draft Minutes
10	Mar. 30	Thu	<ul style="list-style-type: none"> • Discussion on Draft Minutes of Discussion with Yap State Government • Site Survey and Data Collection
11	Mar. 31	Fri	<ul style="list-style-type: none"> • Signing of Minutes of Discussion • Site Survey and Data Collection
12	Apr. 1	Sat	<ul style="list-style-type: none"> • Data Collection, Internal Meeting among the Study Team Members
13	Apr. 2	Sun	<ul style="list-style-type: none"> • Data Collection and Site Survey
14	Apr. 3	Mon	<ul style="list-style-type: none"> • Data Collection and Site Survey
15	Apr. 4	Tue	<ul style="list-style-type: none"> • Yap to Guam (CO952) (Messrs. Haga, Matsushita and Sawano) • Data Collection and Site Survey
16	Apr. 5	Wed	<ul style="list-style-type: none"> • Guam to Pohnpei (CO956) (Messrs. Haga, Matsushita and Sawano) • Courtesy Call, Discussion with Department of Foreign Affairs, FSM and Signing of Minutes of Discussion (Messrs. Haga, Matsushita and Sawano) • Data Collection and Site Survey

No.	Date		Activities
17	Apr. 6	Thu	<ul style="list-style-type: none"> • Report to Embassy of Japan and JICA Office (Messrs. Haga, Matsushita and Sawano) • Pohnpei to Guam (CO957) (Messrs. Haga, Matsushita and Sawano) • Data Collection and Site Survey
18	Apr. 7	Fri	<ul style="list-style-type: none"> • Guam to Tokyo (JO942) (Messrs. Haga, Matsushita) • Data Collection and Site Survey
19	Apr. 8	Sat	<ul style="list-style-type: none"> • Survey on Procurement of Equipment/Materials (Mr. Sawano) • Data Collection and Site Survey
20	Apr. 9	Sun	<ul style="list-style-type: none"> • Guam to Yap (CO951) (Mr. Sawano) • Internal Meeting among the Study Team Members • Yap to Guam (CO952) (Mr. Yashiro)
21	Apr. 10	Mon	<ul style="list-style-type: none"> • Data Collection and Site Survey • Guam to Tokyo (JO942) (Mr. Yashiro)
22	Apr. 11	Tue	<ul style="list-style-type: none"> • Data Collection and Site Survey
↓	↓	↓	
26	Apr. 15	Sat	
27	Apr. 16	Sun	<ul style="list-style-type: none"> • Yap to Guam (CO952) (Mr. Sawano) • Data Collection and Site Survey
28	Apr. 17	Mon	<ul style="list-style-type: none"> • Guam to Tokyo (JO942) (Mr. Sawano) • Site Survey
29	Apr. 18	Tue	<ul style="list-style-type: none"> • Site Survey
↓	↓	↓	
33	Apr. 22	Sat	
34	Apr. 23	Sun	<ul style="list-style-type: none"> • Yap to Guam (CO952) (Messrs. Gose, Aizawa, Miyasaka)
35	Apr. 24	Mon	<ul style="list-style-type: none"> • Guam to Tokyo (JO942) (Messrs. Gose, Aizawa, Miyasaka)

2. Explanation on Draft Report (August 1 to August 11, 2000)

No.	Date		Activities
1	Aug. 1	Tue	<ul style="list-style-type: none"> • Osaka to Guam (NH173) (Mr. Arita) • Tokyo to Guam (JL941) (Messrs. Sawano and Gose)
2	Aug. 2	Wed	<ul style="list-style-type: none"> • Guam to Yap (CO863) • Site Survey and Courtesy Call on Yap State Government
3	Apr. 3	Thu	<ul style="list-style-type: none"> • Explanation of Draft Report to Yap State Government and PW&T
4	Aug. 4	Fri	<ul style="list-style-type: none"> • Ditto • Signing of Minutes of Discussion
5	Aug. 5	Sat	<ul style="list-style-type: none"> • Data Collection, Internal Meeting among the Study Team Members
6	Aug. 6	Sun	<ul style="list-style-type: none"> • Yap to Guam (CO952)
7	Aug. 7	Mon	<ul style="list-style-type: none"> • Guam to Pohnpei (CO956) • Meeting with JICA Office
8	Aug. 8	Tue	<ul style="list-style-type: none"> • Courtesy Call, Explanation of Draft Report and Discussion on Minutes of Discussion with Department of Foreign Affairs
9	Aug. 9	Wed	<ul style="list-style-type: none"> • Signing of Minutes of Discussion • Report to Embassy of Japan and JICA Office
10	Aug. 10	Thu	<ul style="list-style-type: none"> • Pohnpei to Guam (CO957)
11	Aug. 11	Fri	<ul style="list-style-type: none"> • Guam to Tokyo (CO961) (Mr. Arita) • Guam to Tokyo (JO942) (Messrs. Sawano, Gose)

APPENDIX 3

**LIST OF PARTIES CONCERNED
IN THE FEDERATED STATES OF MICRONESIA**

LIST OF PARTIES CONCERNED IN THE FEDERATED STATES OF MICRONESIA

Department of Foreign Affairs, FSM

Mr. Ieske K. Iehsi : Deputy Secretary
Mr. Lorin Robert : Assistant Secretary
Mr. Larry Raigetel : Deputy Assistant Secretary, Asian Affairs

Governor of Yap State

Mr. Vincent A. Figir

Lieutenant Governor of Yap State

Mr. Andrew R. Yatilman

Department of Public Works & Transportation (PW&T), Yap State

Mr. Francis Faney : Director
Mr. Manuel Maleichog : Deputy Director
Mr. James Sarmog : Chief, Division of Contracts and Engineering Management

Department of Resources & Development, Yap State

Mr. James Gilmar : Director
Mr. Jesse Migilmar : Deputy Director

Planning & Budget Office, Yap State

Mr. Jesse Raglmar-Subolmar : Director

Environmental Preservation Agency, Yap State

Mr. Leo Yinug : Acting Executive Director

Yap Visitors Bureau

Mr. Sophiano Limol : General Manager

Others

Mr. Cyprian Manmaw : Attorney General, Yap State
Mr. Andrew Ruepong : Chief Justice, Yap State
Mr. Manfin Yinug : Associate Justice, National Supreme Court
Mr. Thomas Falngin : Municipal Chief of Ruul
Mr. John Pong : Municipal Chief of Weloy
Mr. Kenmed : Municipal Chief of Fanif
Mr. Mathew Tun : Municipal Chief of Gilman
Mr. Richard Bolt : Economic Management Policy Advisory Team, Asian Development Bank

APPENDIX 4

MINUTES OF DISCUSSION

1. Field Survey

MINUTES OF DISCUSSIONS
ON BASIC DESIGN STUDY
ON THE ROAD IMPROVEMENT PROJECT
FOR THE STATE OF YAP
IN THE FEDERATED STATES OF MICRONESIA

In response to a request from the Government of the Federated States of Micronesia (hereinafter referred to as "Micronesia"), the Government of Japan decided to conduct a Basic Design Study on the Road Improvement Project for the State of Yap (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA dispatched to Micronesia the Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Mr. Katsuhiko Haga, Deputy Director, Office of Evaluation and Post Project Monitoring, Planning and Evaluation Department, JICA, and is scheduled to stay in the country from March 22 to April 23, 2000.

The Team held discussions with the officials concerned of the Government of Micronesia including the Yap State Government, and conducted a field survey in the study area.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets. The Team will proceed with further works and prepare the Basic Design Study Report.

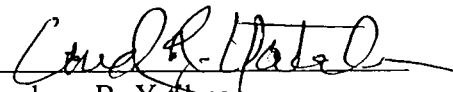
Pohnpei, April 5, 2000



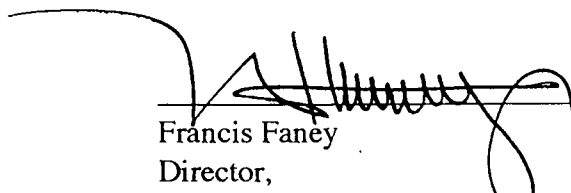
Katsuhiko Haga
Leader,
Basic Design Study Team,
JICA
Japan



Lorin Robert
Assistant Secretary,
Department of Foreign Affairs,
Federated States of Micronesia



Andrew R. Yablman
Lieutenant Governor,
Yap State



Francis Faney
Director,
Department of Public Works and Transportation,
Yap State

ATTACHMENT

1. Objective

The objective of the Project is to improve road transportation networks in Yap State in order to enhance social services to the Yapese and activate local economy in the state.

2. Project Area

The project areas are located in Central, Southern and Northern parts of Yap State as shown in ANNEX-1.

3. Responsible and Implementing Agency

The Agency responsible for official external procedures concerning a request for Japan's Grant Aid for the Project is the Department of Foreign Affairs, Federated States of Micronesia.

The Implementing Agency of the Project is the Department of Public Works and Transportation (hereinafter referred to as "DPWT"), Yap State, Federated States of Micronesia.

4. Items requested by the Government of Micronesia

In the discussion between the Team and authorities concerned of the Government of Micronesia, the following items were finally requested by the Micronesian side. Priority on details on roads and equipment was also confirmed in the discussion. JICA will assess the appropriateness of the request and will recommend to the Government of Japan for approval.

(1) Improvement of the Roads

Details of road sections and priority on them are listed in ANNEX-2.

(2) Procurement of the Equipment

Details of items are listed in ANNEX-3.

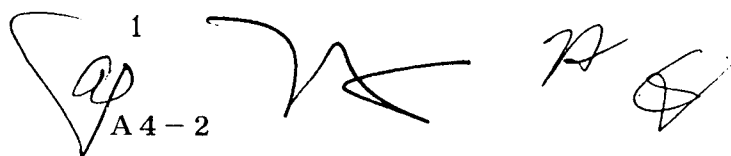
5. Japan's Grant Aid Scheme

(1) The Micronesian side understands the Japan's Grant Aid Scheme explained by the Team, as described in ANNEX-4.

(2) The Micronesian side will take necessary measures, as described in ANNEX-5, as a condition for the Japan's Grant Aid to be implemented for the Project.

6. Schedule of the Study

(1) The consultants will proceed with further studies in Micronesia until April 23, 2000.

Handwritten signatures and initials at the bottom of the page. On the left, there is a signature that appears to be 'ap' with a '1' above it and 'A 4 - 2' below it. To the right of this are two more signatures: a large, stylized one and another one to its right.

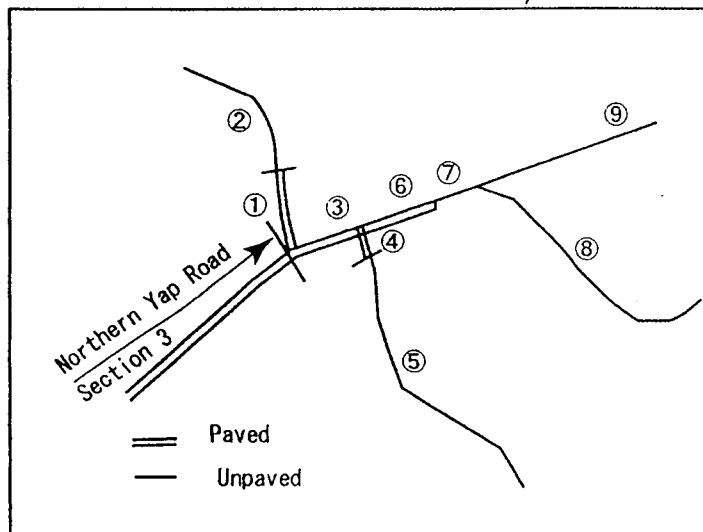
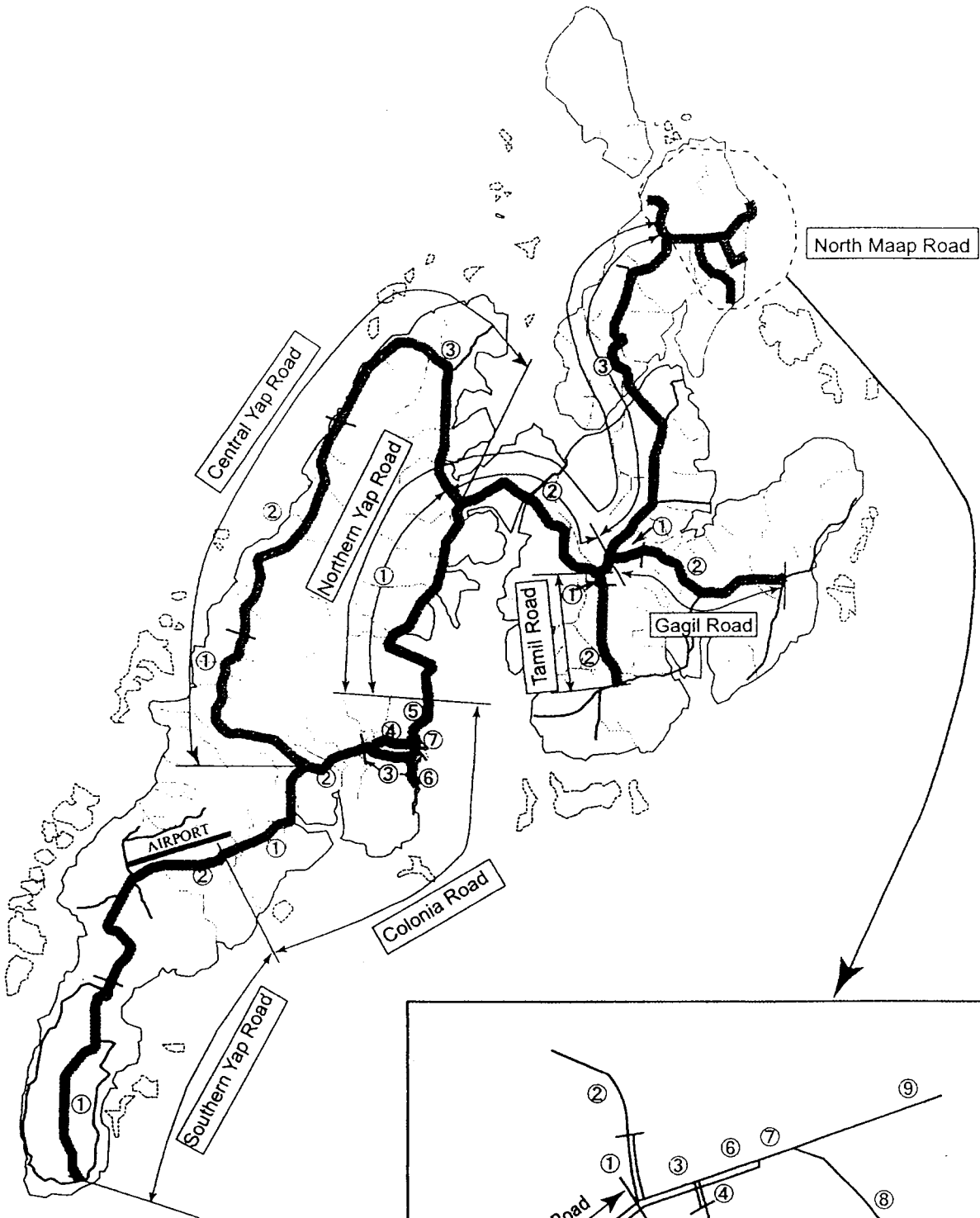
- (2) JICA will prepare the draft report in English and dispatch a team in order to explain its contents at the end of July, 2000.
- (3) In case that the contents of the report are accepted in principle by the Government of Micronesia, JICA will complete the final report and send it to the Government of Micronesia by November, 2000.

7. Other Relevant Issues

- (1) The Micronesian side shall ensure enough budget and personnel to operate and maintain the facilities and equipment after the completion of the Project.
- (2) Yap State shall take necessary measures to use land necessary for the Project.
- (3) Yap State shall coordinate and solve any issues related to the Project which may be raised from third parties or inhabitants in the Project areas during implementation of the Project.
- (4) Yap State has agreed to provide necessary number of counterpart personnel to the Team during the period of their studies.
- (5) DPWT shall execute formalities related to environmental approval of the Yap State Government as soon as possible for smooth implementation of the Project.
- (6) DPWT shall submit answers to the questionnaire which the Team handed to DPWT by April 22, 2000.

2
A 4 - 3

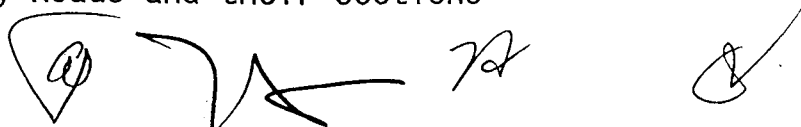
The bottom of the page contains several handwritten signatures and initials. On the left, there is a signature that appears to be 'A' with a checkmark, followed by the text '2' and 'A 4 - 3'. To the right of this are three more distinct handwritten marks or signatures, including one that looks like '7A' and another that is a stylized 'A'.



○ : Section No.

Sectioning of North Maap Road

Study Roads and their sections



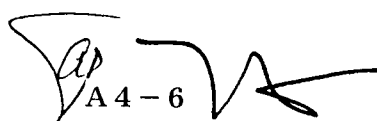
Evaluation of Study Road

Road	Section	Length (km)	Type of Improvement	Road Class	Importance of Road			Functional Characteristics			Urgency of Improvement				Priority by State of Yap			Final Priority **	
					Traffic Volume (v/12hrs)	Population within Influence Area per km	Major Facilities	Role of Road	Evaluation	Surface Type	Surface Condition	Parasability During Heavy Rain	Roadway width (m)	Evaluation	Initial	Revised	Evaluation		
																			Surface Condition
Southern Yap Road	1	3.93	Widening Paving	Primary	291	117	School, Church, Dispensary(2), Public Beach, Resort Hotel, Water System Control Build.	Main artery serving southern part of Yap island Access to beach resort	B	Gravel	Fair	○	6-8	B	3	1	A	BHA	2
	2	4.00	Paving	Primary	410	61	Airport, Satellite Station, Weather Station, School, Church, Dispensary	Main artery serving southern part of Yap island Access to airport	B	Gravel	Fair	○	6-8	B	3	1	A	BBA	2
	1	2.88	Overlay	Primary	2925	99	College, High School, Middle School	Connection of southern & central parts Access to airport Access to schools	A	AC	Good	○	9	C	6	3	C	ACC	7
	2	0.92	Overlay	Primary	NA	213	Government Offices, Hotels, Commercial Buildings	Main road serving CBD	A	AC	Good	○	8-10	C	6	3	C	ACC	7
	3	1.40	Overlay	Primary	NA	542	Stone Money Bank, Dispensary, Fuel Firm	Connection of residential area with CBD	A	AC	Good	○	7.5	C	6	3	C	ACC	7
Colonia Road	4	1.00	Overlay	Primary	NA	0	Port, Yap Fresh Tuna Inc., Fuel Firm	Access to port and factory	A	AC	Good	○	9	C	6	3	C	ACC	7
	5	1.40	Overlay	Primary	625	131	PW&T, Yap State Public Service Corp, Power Plant, Garment Factory, School, Church(2), Waste Disposal Area	Artery in the west of Marabao mountainous area, covering its southern part Connection of rural residents with central area	A	Gravel	Fair	△	8-11	B	1	1	A	ABA	1
	6	1.30	Overlay	Primary	166	53	School, Dispensary, Public Beach, Fish Port	Artery in the west of Marabao mountainous area, covering its western part Access to beach resort / fish port	B	Gravel	Fair/Poor	x	4-9	A	1	1	A	BAA	1
	7	0.60	Overlay	Primary	78	34	School, Church, Dispensary, Public Beach	Artery in the west of Marabao mountainous area, covering its northern part Connection of rural residents with central/eastern areas	B	Gravel	Fair/Poor	z	7-10	A	1	1	A	BAA	1
	8	6.07	Paving	Primary	1097	148	School, Hospital, Dispensary	Connection of northern & central parts Access to hospital	A	Chip S.	Fair	○	8-9	C	2	3	C	ACC	6
Northern Yap Road	1	4.96	Overlay	Primary	698	20	School(Elk.+high)	Connection of Yap and Tamil Oagi Islands	B	Chip S.	Fair	○	8-9	C	2	3	C	HCC	6
	2	3.84	Overlay	Primary	298	41		Connection of Tamil Oagi and Maap Islands	B	Chip S.	Good	○	8-9	C	5	3	C	BCC	6
	3	7.20	Overlay	Primary	387	188	School, Church, Dispensary, Yap Day Celebration Place	Main road accessing municipality of Tamil	B	Chip S.	Good	○	8	C	2	3	C	BCC	6
Tamil Road	1	0.10	Overlay	Primary	NA	92	Church	Access to coastal village	C	Gravel	Fair	○	6-9	B	4	2	B	BBB	3
	2	2.16	Widening Paving	Village	276	148	Academy School, School, Church, Dispensary(2), Sport Facilities, Public Beach	Access to Rumung Island (in the future)	C	Chip S.	Good	○	8-9	C	5	3	C	CCC	6
Gagil Road	1	0.64	Overlay	Primary	NA	0	School, Cultural Center	A part of artery in Maap Island	C	Chip S.	Good	○	8-9	C	6	3	C	CCC	6
	2	3.32	Widening Paving	Primary	NA	47	School, Public Beach	Main road accessing southeastern coastal area of Maap Island	C	Gravel	Poor	△	4-6	A	7	3	C	CAC	5
	1	0.40	Overlay	Primary	NA	0	Church	Main road accessing eastern coastal area of Maap Island	C	Chip S.	Good	○	8-9	C	6	3	C	CCC	6
	2	0.78	Widening Paving	Village	91	57	Church, Public Beach, Resort Hotel	Access to coastal village & beach resort	C	Gravel	Poor	△	4-6	A	7	2	B	CAB	4
	3	0.48	Overlay	Primary	220	133	Church	Access to coastal villages	B	Gravel	Poor	△	4-6	A	7	3	C	BAC	4
North Maap Road	4	0.10	Overlay	Primary	NA	0			C	Chip S.	Good	○	8-9	C	5	3	C	CCC	6
	5	1.79	Widening Paving	Primary	NA	0			C	Gravel	Poor	△	4-6	A	7	3	C	CAC	5
	6	0.32	Overlay	Primary	NA	0			C	Chip S.	Good	○	8-9	C	6	3	C	CCC	6
	7	0.18	Paving	Village	91	57			C	Gravel	Poor	△	4-6	A	7	2	B	CAB	4
	8	0.72	Widening Paving	Village	220	133			C	Gravel	Poor	△	4-6	A	7	3	C	BAC	4
	9	0.92	Widening Paving	Primary	220	133			B	Gravel	Poor	△	4-6	A	7	3	C	BAC	4
	10	0.92	Widening Paving	Primary	220	133			B	Gravel	Poor	△	4-6	A	7	3	C	BAC	4
	11	0.92	Widening Paving	Primary	220	133			B	Gravel	Poor	△	4-6	A	7	3	C	BAC	4
	12	0.92	Widening Paving	Primary	220	133			B	Gravel	Poor	△	4-6	A	7	3	C	BAC	4

** Final Priority
 ○ passable for all vehicles
 △ impassable for heavy vehicles
 x impassable for all vehicles when flooded
 • Sections with priorities 1 to 4 are selected based on the Summary of Evaluation.
 • Criteria of prioritizing remaining sections : 5 for gravel, 6 for chip seal, & 7 for AC.

List of Equipment

Equipment	Specification	No	Remark
Dump Truck	4~5t	1	Transportation of aggregate and dispersal
Truck w/Crane	4t Lifting Capacity3t	1	Load and unload small equipment
Roller	Tyre Roller 11~12	1	Compact coral road
Compactor	w/Hand Guide Type	1	Compact pot hole filling
Vibration Plate		1	-- " --
Water Tank	4m3	1	Adjust water containment of filled aggregate of coral road
Grass Cutter	Hand carry Type	1	Cut grass
Chain Saw		1	Cut tree
Pavement Cutter		1	Cut pavement around pot hole
Asphalt Distributor		1	Spray asphalt



 A4-6

72



Japan's Grant Aid Program

1. Japan's Grant Aid Procedures

- (1) The Japan's Grant Aid is executed by the following procedures.
- **Application** (request made by a recipient country)
 - **Study** (Preparatory Study / Basic Design Study conducted by JICA)
 - **Appraisal & Approval** (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
 - **Determination of Implementation** (Exchange of Notes between the Governments of Japan and the recipient country)
 - **Implementation** (Implementation of the Project)
- (2) Firstly, an application or a request for a Project submitted by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is suitable for Japan's Grant Aid. If the request is deemed appropriate, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the study (Basic Design Study), using a Japanese consulting firm(s). If the background and objective of the requested project are not clear, a Preparatory Study is conducted prior to a Basic Design Study.

Thirdly, the Government of Japan appraises the project to see whether or not the Project is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA and the results are then submitted for approval by the Cabinet.

Fourthly, the Project approved by the Cabinet becomes official when pledges by the Exchange of Notes signed by the both Governments.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

i

The image shows four handwritten signatures or initials in black ink. From left to right: a signature that appears to be 'JP', a signature that appears to be 'JICA', a signature that appears to be 'JA', and a signature that appears to be 'JICA'.

2. Basic Design Study

(1) Contents of the Study

The purpose of the Study (Preparatory Study/Basic Design Study) conducted on a project requested by JICA is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the Study are as follows:

- (a) to confirm background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation;
- (b) to evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economical point of view;
- (c) to confirm items agreed on by both parties concerning the basic concept of the Project;
- (d) to prepare a basic design of the project,
- (e) to estimate cost involved in the project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the project. Therefore, the implementation of the project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

(2) Selecting (a) Consulting Firm(s)

For smooth implementation of the study, JICA uses (a) consulting firm(s) registered. JICA selects (a) firm(s) through proposals submitted by firms which are interested. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference made by JICA.

The consulting firm(s) used for the study is(are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency .

3. Japan's Grant Aid Scheme

(1) What is Grant Aid?

The Grant Aid provides a recipient country with non-reimbursable funds needed to procure facilities, equipment and services for economic and social development of the country under the following principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not in a form of donation as such.

(2) Exchange of Notes (E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Governments, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

(3) "The period of the Grant Aid" means Japanese single fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding contracts with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed. However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of single fiscal year at most by mutual agreement between the two Governments.

(4) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country origin.

However the prime contractors, namely, consulting, construction and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons.)

(5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into contracts in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

(6) Undertakings required to the Government of the recipient country

In the implementation of the Grant Aid, the recipient country is required to undertake necessary measures such as the following:

- (a) to secure land necessary for the sites of the project and to clear and level the land prior to commencement of the construction work,
- (b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- (c) to secure buildings prior to the installation work in case the Project is providing equipment,
- (d) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- (e) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- (f) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

(7) Proper Use

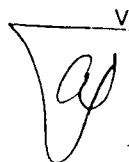
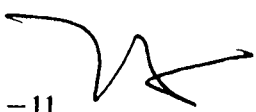

The recipient country is required to maintain and use facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for their operation and maintenance as well as to bear all expenses other than those to be borne by the Grant Aid.

(8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

(9) Banking Arrangement (B/A)

- (a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the contracts verified.
- (b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.



Major Undertakings to be taken by Each Government

NO	Items	To be covered by Grant Aid	To be covered by Recipient side
1	To secure land (Necessary for expansion of width of roads etc.)		●
2	To clear, level and reclaim the site when needed		●
3	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
4	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
5	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		
	1) Marine(Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and customs clearance of the products at the port of disembarkation		●
6	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
7	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract		●
8	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities		●

Handwritten signature and initials, possibly 'A. B.' or similar, located at the bottom right of the page.

2. Explanation of Draft Report

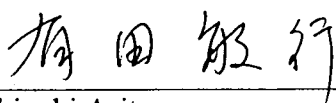
MINUTES OF DISCUSSIONS
ON BASIC DESIGN STUDY
ON THE ROAD IMPROVEMENT PROJECT
FOR THE STATE OF YAP
IN THE FEDERATED STATES OF MICRONESIA
(EXPLANATION ON DRAFT REPORT)

In March 2000, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the Road Improvement Project for the State of Yap (hereinafter referred to as "the Project") to the Federated States of Micronesia (hereinafter referred to as "Micronesia"), and through discussion, field survey, and technical examination of the results in Japan, JICA prepared a draft report of the study.

In order to explain and to consult Micronesia on the components of the draft report, JICA sent to Micronesia the Draft Report Explanation Team (hereinafter referred to as "the Team"), which is headed by Mr. Toshiyuki Arita, Deputy Director, Programme Division, Okinawa International Centre, JICA, from August 2 to August 10, 2000.

As a result of discussions, both parties confirmed the main items described on the attached sheets.

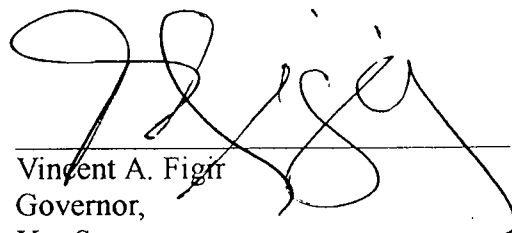
Pohnpei, August 9, 2000



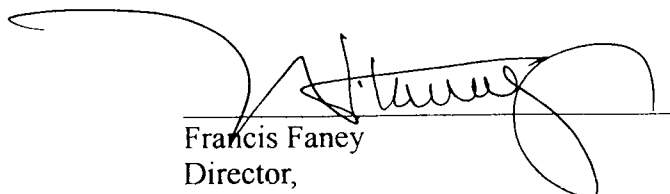
Toshiyuki Arita
Leader,
Draft Report Explanation Team,
JICA
Japan



Lorin Robert
Assistant Secretary,
Department of Foreign Affairs,
Federated States of Micronesia



Vincent A. Figir
Governor,
Yap State



Francis Faney
Director,
The Department of Public Works and
Transportation,
Yap State

ATTACHMENT

1. Components of the Draft Report

The Government of Micronesia agreed and accepted in principle the components of the draft report explained by the Team.

2. Japan's Grant Aid Scheme

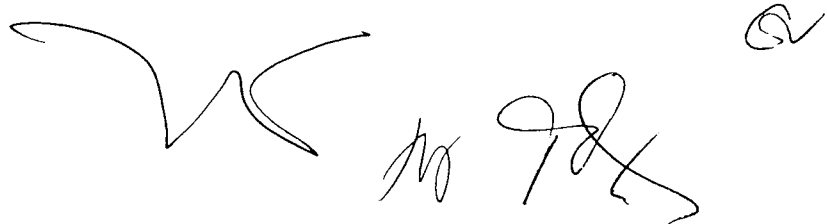
Micronesian side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Micronesia as explained by the Team and described in ANNEX-4 and ANNEX-5 of the Minutes of Discussions signed by both parties on April 5, 2000.

3. Schedule of the Study

JICA will complete the final report in accordance with the confirmed item and send it to the Government of Micronesia by November, 2000.

4. Other Relevant Issues

- (1) Micronesian side shall ensure enough budget and personnel to operate and maintain the facilities after the completion of the Project.
- (2) Micronesian side will execute formalities related environmental approval of the Government of Micronesia for smooth implementation of the Project by the end of October, 2000.
- (3) Yap State shall take necessary measures to use land necessary for the Project.
- (4) Yap State shall coordinate and solve any issues related to the Project which may be raised from third parties or inhabitants in the Project area during implementation of the Project.

The image shows several handwritten signatures and initials in black ink. On the left, there is a large, stylized signature. To its right are several smaller, more compact signatures and initials, including one that appears to be 'JICA' and another that looks like 'G2'.

APPENDIX 5

**COST ESTIMATION BORNE
BY THE FEDERATED STATES OF MICRONESIA**

COST ESTIMATION BORNE BY THE FEDERATED STATES OF MICRONESIA

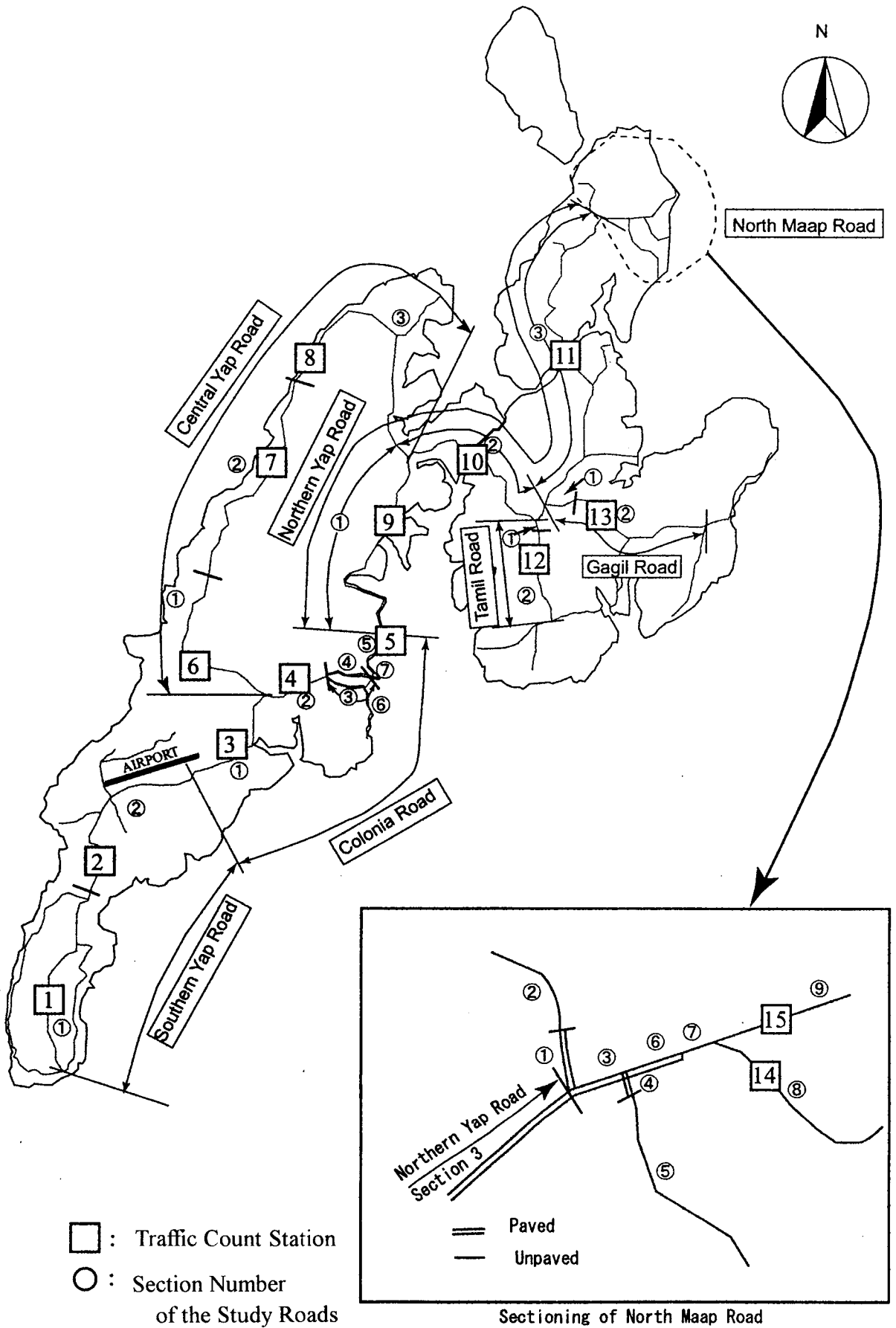
Relocation of Utilities

	Quantity	Unit Cost (US\$)	Cost (US\$)
1. Power Poles	10	700 / pole	7,000
2. Telephone Substations	10	200 / substation	2,000
3. Telephone Cable	2,700 m	65.6 / m	177,000
4. Water Pipe	1,290 m	85.3 / m	110,000
5. Sewage Pipe	120 m	66.7 / m	8,000
Total			304,000

APPENDIX 6

TRAFFIC VOLUME DATA

LOCATION OF TRAFFIC COUNT STATIONS



Result of Traffic Count

Station No. : 1	Southern Yap Road Section1 From: Airport To: Magachgil										From: Magachgil To: Airport											
	Vehicle Hourly	Passenger Car / Taxi/Van	Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total	
Mini Bus			Large Bus	Pick up	Heavy Track	Trailer	Pick up						Heavy Track	Trailer								
06:00 - 07:00	-	1	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	3
07:00 - 08:00	1	-	-	6	-	-	-	1	-	-	11	2	-	-	-	-	-	-	-	-	1	20
08:00 - 09:00	10	-	-	8	-	-	-	1	-	-	18	-	-	-	-	-	-	-	-	-	1	32
09:00 - 10:00	14	-	-	-	1	-	-	2	-	-	3	-	-	-	-	-	-	-	-	-	2	7
10:00 - 11:00	3	-	-	-	-	-	-	-	1	-	4	-	-	-	-	-	-	-	-	-	-	7
11:00 - 12:00	5	-	-	2	-	-	-	-	1	-	6	-	-	-	-	-	-	-	-	-	-	9
12:00 - 13:00	8	4	-	1	-	-	-	2	-	-	8	1	-	-	-	-	-	-	-	-	-	12
13:00 - 14:00	2	-	-	2	-	-	-	-	-	-	3	1	-	-	-	-	-	-	-	-	-	6
14:00 - 15:00	4	1	-	3	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	15
15:00 - 16:00	11	1	-	6	-	-	-	-	1	-	7	1	-	-	-	-	-	-	-	3	-	15
16:00 - 17:00	11	-	-	5	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	4	8
17:00 - 18:00	15	1	-	7	-	-	-	-	-	-	6	1	-	-	-	-	-	-	-	-	3	11
Total	84	5	3	43	1	-	-	7	3	146	85	4	4	40	3	-	-	-	-	7	2	145

Station No. : 2	Southern Yap Road Section2 From: Airport To: Magachgil										From: Magachgil To: Airport											
	Vehicle Hourly	Passenger Car / Taxi/Van	Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total	
Mini Bus			Large Bus	Pick up	Heavy Track	Trailer	Pick up						Heavy Track	Trailer								
06:00 - 07:00	3	-	1	-	-	-	-	-	-	4	10	-	-	-	-	-	-	-	-	-	-	16
07:00 - 08:00	4	2	1	3	-	-	-	-	-	10	12	1	-	-	-	-	-	-	-	-	-	20
08:00 - 09:00	14	-	5	-	-	-	-	-	-	19	19	3	-	-	-	-	-	-	-	-	-	30
09:00 - 10:00	13	-	-	4	-	-	-	-	-	17	14	-	-	-	-	-	-	-	-	-	-	21
10:00 - 11:00	8	-	-	5	-	-	-	-	-	13	10	-	-	-	-	-	-	-	-	-	-	18
11:00 - 12:00	12	-	-	7	-	-	-	-	-	19	7	-	-	-	-	-	-	-	-	-	-	11
12:00 - 13:00	11	-	-	4	1	-	-	-	-	16	9	-	-	-	-	-	-	-	-	-	-	14
13:00 - 14:00	6	1	-	3	-	-	-	-	-	10	4	2	-	-	-	-	-	-	-	-	-	10
14:00 - 15:00	8	-	-	4	-	-	-	-	-	12	11	-	-	-	-	-	-	-	-	-	-	13
15:00 - 16:00	12	1	1	7	-	-	-	-	-	21	14	1	-	-	-	-	-	-	-	-	1	26
16:00 - 17:00	21	-	-	7	-	-	-	-	-	28	12	-	-	-	-	-	-	-	-	-	-	18
17:00 - 18:00	19	-	2	6	-	-	-	-	-	27	13	1	-	-	-	-	-	-	-	-	3	17
Total	131	4	10	50	1	-	-	-	-	196	135	6	4	67	1	-	-	-	-	1	-	214

Result of Traffic Count

Station No. : 3	Colonia Road Section1										From: Airport To: Colonia										From: Colonia To: Airport									
	Vehicle Hourly	Passenger Car / Taxi/Van		Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van		Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total							
		Large Bus	Mini Bus	Pick up	Heavy Track	Trailer	Truck	Mini Bus					Large Bus	Pick up	Heavy Track	Trailer	Truck													
06:00 - 07:00	6	4	-	7	-	-	-	-	-	-	17	12	-	2	-	-	-	-	-	-	-	1	-	15						
07:00 - 08:00	63	4	1	25	-	1	-	-	-	2	96	82	2	28	1	-	-	-	-	-	1	1	118							
08:00 - 09:00	130	-	1	53	1	1	1	1	1	3	191	88	4	45	-	1	-	-	-	-	1	2	145							
09:00 - 10:00	47	1	3	38	3	-	-	-	-	1	93	44	-	33	2	-	-	-	-	-	-	2	2	82						
10:00 - 11:00	58	-	-	35	2	-	-	-	-	1	96	28	-	27	1	-	-	-	-	-	-	1	1	57						
11:00 - 12:00	59	-	10	51	1	-	-	-	1	1	123	48	7	26	-	-	-	-	-	-	-	1	1	82						
12:00 - 13:00	85	-	9	52	2	-	-	1	-	3	152	77	10	48	3	-	-	-	-	1	1	2	142							
13:00 - 14:00	46	-	4	34	3	-	-	-	-	3	90	43	2	25	4	-	-	-	-	-	-	3	77							
14:00 - 15:00	101	8	-	52	1	-	-	-	1	2	165	85	1	47	-	-	-	-	-	-	-	1	1	140						
15:00 - 16:00	59	1	-	48	-	-	-	-	-	-	108	66	1	47	-	-	-	-	-	-	-	-	-	116						
16:00 - 17:00	91	8	2	55	-	-	-	-	1	2	162	82	1	50	-	-	-	-	-	-	-	4	4	141						
17:00 - 18:00	64	-	-	27	4	-	-	-	-	1	96	83	-	32	3	-	-	-	-	-	-	1	1	121						
Total	809	26	30	477	17	2	3	6	19	4	1,389	738	28	410	14	1	3	4	18	3	4	18	1,236							

Station No. : 4	Colonia Road Section2										From: Airport To: Colonia										From: Colonia To: Airport									
	Vehicle Hourly	Passenger Car / Taxi/Van		Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van		Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total							
		Large Bus	Mini Bus	Pick up	Heavy Track	Trailer	Truck	Mini Bus					Large Bus	Pick up	Heavy Track	Trailer	Truck													
06:00 - 07:00	7	2	1	8	-	-	-	-	-	-	18	15	-	4	-	-	-	-	-	-	-	-	-	22						
07:00 - 08:00	70	4	-	23	1	-	-	-	-	-	98	125	1	33	1	-	-	-	-	-	-	1	1	222						
08:00 - 09:00	100	-	1	58	1	1	1	1	2	2	165	120	1	48	1	1	-	-	-	-	2	-	184							
09:00 - 10:00	55	-	1	52	4	-	-	1	2	1	116	81	1	36	5	1	1	1	1	1	1	-	126							
10:00 - 11:00	52	-	-	28	3	-	-	-	-	-	83	53	-	21	3	-	-	-	-	-	1	-	78							
11:00 - 12:00	42	-	1	46	1	-	-	-	-	-	90	46	1	20	1	-	-	-	-	-	-	-	68							
12:00 - 13:00	65	-	2	44	2	-	-	-	-	-	113	78	2	30	3	-	-	-	-	-	1	-	114							
13:00 - 14:00	76	-	1	49	2	-	-	-	-	-	128	83	-	27	4	-	-	-	-	-	-	-	114							
14:00 - 15:00	82	6	-	50	1	-	-	1	1	1	141	104	-	30	2	-	-	-	-	1	-	-	157							
15:00 - 16:00	54	2	-	43	1	-	-	1	-	-	101	69	-	35	2	-	-	-	-	-	1	1	137							
16:00 - 17:00	103	3	-	66	3	-	-	1	2	-	178	94	-	33	3	-	-	-	-	-	-	1	151							
17:00 - 18:00	100	8	1	24	5	-	-	-	-	-	138	93	-	19	3	-	-	-	-	-	-	-	138							
Total	806	25	8	491	24	1	4	6	4	4	1,369	961	6	336	28	2	3	6	3	6	3	1,511								

Result of Traffic Count

Station No. : 5	Colonia Road Section5										From: Colonia To: Gargey					From: Gargey To: Colonia							
	Vehicle Hourly	Passenger Car / Taxi/Van	Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total		
			Mini Bus	Large Bus	Pick up	Heavy Track	Trailer						Trailer	Pick up	Heavy Track	Trailer							
	06:00 - 07:00	10	5	-	4	-	-	-	-	-	19	15	-	7	-	-	-	-	-	-	1	-	24
	07:00 - 08:00	55	-	5	25	-	-	-	-	-	85	94	-	50	-	-	-	-	-	-	3	-	158
	08:00 - 09:00	100	4	-	50	1	1	3	1	160	150	150	2	1	-	-	-	-	-	-	-	-	208
	09:00 - 10:00	55	1	-	30	2	2	2	2	92	55	55	1	47	3	-	-	-	-	-	2	-	108
	10:00 - 11:00	57	1	-	29	4	1	1	-	92	64	64	3	27	3	-	-	-	-	-	1	-	98
	11:00 - 12:00	62	-	-	41	1	-	1	-	105	45	45	1	35	2	-	-	-	-	-	1	1	85
	12:00 - 13:00	57	3	-	40	3	-	2	-	105	80	80	3	32	1	-	-	-	-	-	-	1	117
	13:00 - 14:00	80	2	-	48	2	-	1	-	133	79	79	2	36	5	-	-	-	-	-	2	1	125
	14:00 - 15:00	83	1	3	49	1	-	2	-	139	79	79	3	36	2	-	-	-	-	1	-	-	122
	15:00 - 16:00	69	2	4	26	3	-	1	-	105	61	61	1	38	3	-	-	-	-	-	-	-	106
	16:00 - 17:00	137	-	1	57	2	-	2	-	200	87	87	1	41	3	-	-	-	-	-	4	-	139
	17:00 - 18:00	113	-	5	35	12	-	1	-	166	70	70	-	26	2	-	-	-	-	-	6	1	107
	Total	878	19	18	434	31	-	4	14	3	1,401	879	20	430	24	-	-	2	20	4	4	1,397	

Station No. : 6	Central Yap Road Section1										From: Colonia To: Malawaay					From: Malawaay To: Colonia							
	Vehicle Hourly	Passenger Car / Taxi/Van	Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck			Motor cycle	bicycle	Special Vehicle	Total		
			Mini Bus	Large Bus	Pick up	Heavy Track	Trailer						Trailer	Pick up	Heavy Track	Trailer							
	06:00 - 07:00	1	-	1	2	-	-	-	-	4	2	-	-	1	-	-	-	-	-	-	-	-	3
	07:00 - 08:00	17	-	1	3	2	-	-	-	23	25	25	-	10	1	-	-	-	-	-	2	-	40
	08:00 - 09:00	14	-	-	12	1	-	-	1	28	12	12	1	17	1	1	-	-	-	-	1	-	33
	09:00 - 10:00	12	1	-	15	3	-	2	-	33	19	19	2	12	3	1	-	-	-	-	-	-	37
	10:00 - 11:00	8	-	-	3	1	-	-	-	12	8	8	-	5	1	-	-	-	-	-	-	-	14
	11:00 - 12:00	2	-	-	7	-	-	-	-	9	4	4	-	3	-	-	-	-	-	-	-	-	7
	12:00 - 13:00	10	1	-	6	1	-	-	-	18	7	7	1	7	1	-	-	-	-	-	-	-	16
	13:00 - 14:00	19	1	-	11	1	-	-	-	32	16	16	-	9	1	-	-	-	-	-	-	-	25
	14:00 - 15:00	12	-	1	8	-	-	-	-	21	17	17	-	6	1	-	-	-	-	-	-	-	24
	15:00 - 16:00	7	-	-	9	-	-	-	-	16	8	8	-	10	1	-	-	-	-	-	-	-	20
	16:00 - 17:00	16	-	-	13	4	-	1	-	34	12	12	-	7	2	-	-	-	-	-	1	-	22
	17:00 - 18:00	23	1	8	1	1	-	-	-	34	14	14	-	3	1	1	-	-	-	-	-	-	20
	Total	141	4	11	90	14	-	-	3	1	264	144	4	90	12	3	-	-	-	4	4	261	

Result of Traffic Count

Station No. : 7	Central Yap Road Section2						From: Malawaay To: Malawaay						From: Malawaay To: Colonia						Total
	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	
Vehicle Hourly	Mini Bus	Large Bus	Pick up	Heavy Track	Trailer					Mini Bus	Large Bus	Pick up	Heavy Track	Trailer					Motor cycle
06:00 - 07:00	1	-	1	-	-	-	-	-	2	3	-	-	-	-	-	-	-	4	
07:00 - 08:00	1	-	1	-	-	-	-	-	2	5	-	-	-	-	-	-	-	9	
08:00 - 09:00	3	-	-	3	-	-	-	-	6	1	-	-	-	-	-	-	-	6	
09:00 - 10:00	1	-	-	2	-	-	-	-	3	2	-	-	-	-	-	-	-	4	
10:00 - 11:00	4	3	-	5	1	-	-	-	13	6	-	-	-	-	-	-	-	12	
11:00 - 12:00	5	-	-	2	-	-	-	-	7	1	-	-	-	-	-	-	-	4	
12:00 - 13:00	-	-	-	4	2	-	-	-	6	5	-	-	-	-	-	-	-	10	
13:00 - 14:00	1	-	-	4	1	-	-	-	6	2	-	-	-	-	-	-	-	6	
14:00 - 15:00	4	1	-	3	2	-	-	-	11	1	-	-	-	-	-	-	-	5	
15:00 - 16:00	2	-	-	1	1	-	-	-	4	3	-	-	-	-	-	-	-	6	
16:00 - 17:00	3	-	-	1	-	-	-	-	4	4	-	-	-	-	-	-	-	6	
17:00 - 18:00	7	-	1	3	-	-	-	-	11	3	-	-	-	-	-	-	-	9	
Total	32	4	4	28	7	-	-	-	75	36	6	4	28	7	-	-	-	81	

Station No. : 8	Central Yap Road Section3						From: Colonia To: Malawaay						From: Malawaay To: Colonia						Total
	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	
Vehicle Hourly	Mini Bus	Large Bus	Pick up	Heavy Track	Trailer					Mini Bus	Large Bus	Pick up	Heavy Track	Trailer					Motor cycle
06:00 - 07:00	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	
07:00 - 08:00	1	-	1	2	-	-	-	-	4	1	-	-	-	-	-	-	-	2	
08:00 - 09:00	2	-	-	1	1	-	-	-	4	1	-	-	-	-	-	-	-	3	
09:00 - 10:00	1	-	-	3	1	-	-	-	5	-	-	-	-	-	1	-	-	4	
10:00 - 11:00	1	-	-	1	1	-	-	-	2	2	-	-	-	-	-	-	-	7	
11:00 - 12:00	1	-	-	1	1	-	-	-	3	-	-	-	-	-	-	-	-	-	
12:00 - 13:00	1	-	-	1	-	-	-	-	2	3	-	-	-	-	-	-	-	5	
13:00 - 14:00	2	-	-	4	1	-	-	-	7	1	-	-	-	-	-	-	-	1	
14:00 - 15:00	1	-	-	-	1	-	-	-	2	2	-	-	-	-	-	-	-	6	
15:00 - 16:00	2	-	1	-	-	-	-	-	3	2	-	-	-	-	-	-	-	4	
16:00 - 17:00	1	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	3	
17:00 - 18:00	3	-	1	-	-	-	-	-	4	-	-	-	-	-	-	-	-	3	
Total	16	-	4	13	5	-	-	-	39	14	-	3	17	4	-	-	-	39	

Result of Traffic Count

Northern Yap Road Section1 From: Colonia To: Maap Isd.													From: Malawaay To: Colonia									
Station No. : 9	Vehicle Hourly	Passenger Car / Taxi/Van	Bus			Truck			Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	
			Mini Bus	Large Bus	Pick up	Heavy Track	Trailer	Mini Bus						Large Bus	Pick up	Heavy Track	Trailer					
	06:00 - 07:00	6	-	-	4	-	-	-	-	-	10	15	-	2	-	3	-	-	-	-	-	20
	07:00 - 08:00	16	-	3	10	2	-	-	-	-	31	71	2	6	31	1	-	-	-	-	-	111
	08:00 - 09:00	20	1	-	15	3	-	1	-	-	40	62	-	-	30	4	-	-	1	-	-	98
	09:00 - 10:00	13	-	-	7	3	-	-	-	-	23	18	1	-	15	3	-	-	-	-	-	37
	10:00 - 11:00	15	-	-	13	4	-	-	1	-	33	20	1	-	7	4	-	-	-	-	-	32
	11:00 - 12:00	32	-	-	13	5	-	-	-	-	50	15	-	1	6	5	-	-	-	-	-	27
	12:00 - 13:00	13	2	-	10	3	-	-	-	-	28	21	-	-	14	3	-	-	-	-	-	38
	13:00 - 14:00	33	1	-	13	6	-	-	-	-	53	31	-	-	12	5	-	-	-	-	-	48
	14:00 - 15:00	21	1	1	11	7	-	-	-	-	41	19	-	-	8	7	-	-	-	-	-	34
	15:00 - 16:00	28	-	3	9	9	-	1	-	-	50	17	-	3	12	6	-	-	-	-	-	38
	16:00 - 17:00	56	1	-	36	7	-	-	-	-	100	22	-	-	13	7	-	-	1	-	-	43
	17:00 - 18:00	50	-	3	30	-	-	-	-	-	83	20	-	1	6	2	-	-	-	-	-	29
	Total	303	6	10	171	49	-	2	-	1	542	331	4	13	157	47	-	2	1	-	555	

Northern Yap Road Section2 From: Colonia To: Maap Isd.													From: Malawaay To: Colonia									
Station No. : 10	Vehicle Hourly	Passenger Car / Taxi/Van	Bus			Truck			Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	
			Mini Bus	Large Bus	Pick up	Heavy Track	Trailer	Mini Bus						Large Bus	Pick up	Heavy Track	Trailer					
	06:00 - 07:00	5	-	-	3	-	-	-	-	-	8	15	-	1	2	-	-	-	-	-	-	18
	07:00 - 08:00	10	1	3	2	-	-	-	-	-	16	60	2	7	23	-	-	1	-	-	-	94
	08:00 - 09:00	18	1	-	6	-	-	-	-	-	25	50	1	-	29	-	-	-	-	-	-	80
	09:00 - 10:00	15	-	-	8	-	-	-	-	-	23	22	1	-	5	1	-	-	-	-	-	29
	10:00 - 11:00	18	-	-	11	-	-	-	-	-	29	24	2	-	11	-	1	-	-	-	-	36
	11:00 - 12:00	11	2	-	10	-	-	-	-	-	23	20	-	-	12	-	-	-	-	1	-	35
	12:00 - 13:00	18	1	-	11	-	-	-	-	-	30	23	-	-	11	-	-	-	-	-	-	34
	13:00 - 14:00	19	1	-	14	-	1	-	-	-	35	24	-	-	10	-	-	-	-	-	-	34
	14:00 - 15:00	10	-	2	9	4	1	-	-	-	26	12	1	-	3	1	-	-	-	-	-	17
	15:00 - 16:00	23	-	1	5	3	-	-	-	-	32	24	-	2	4	3	-	-	-	-	-	33
	16:00 - 17:00	40	1	-	17	-	-	-	-	-	58	22	1	-	15	-	-	-	-	-	-	38
	17:00 - 18:00	80	1	3	37	1	1	1	1	1	124	14	-	7	7	-	-	-	-	-	-	21
	Total	267	8	9	133	8	2	1	1	-	429	310	8	10	132	5	1	1	1	1	469	

Result of Traffic Count

Station No. : 11	Northern Yap Road Section3										From: Malaway To: Colonia									
	Vehicle	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	
			Mini Bus	Large Bus	Pick up	Heavy Track						Trailer	Mini Bus	Large Bus	Pick up					Heavy Track
Hourly																				
06:00 - 07:00	2									2	7									9
07:00 - 08:00	4	1							9	23	2									34
08:00 - 09:00	3	1							7	8										15
09:00 - 10:00	3								3	3	1									8
10:00 - 11:00	5								4	3	1									5
11:00 - 12:00	7								1	4										7
12:00 - 13:00	11								4	8										12
13:00 - 14:00	9								2	6	1									13
14:00 - 15:00	4									5										9
15:00 - 16:00	13								4	10										12
16:00 - 17:00	11								3	10										11
17:00 - 18:00	6								2	2										3
Total	78	5	2	30	3				118	89	5	6	36	2						138

Station No. : 12	Tamil Road Section2										From: Liqeg To: Tamil Sch.									
	Vehicle	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	
			Mini Bus	Large Bus	Pick up	Heavy Track						Trailer	Mini Bus	Large Bus	Pick up					Heavy Track
Hourly																				
06:00 - 07:00	3								6	6	1									9
07:00 - 08:00	2	1							7	19	1									25
08:00 - 09:00	10								14	24										29
09:00 - 10:00	5								8	10										13
10:00 - 11:00	16								21	10										15
11:00 - 12:00	12								24	9										19
12:00 - 13:00	7								11	7										15
13:00 - 14:00	9								18	11										15
14:00 - 15:00	9								12	6										12
15:00 - 16:00	10								14	8										12
16:00 - 17:00	17								26	8										17
17:00 - 18:00	27								36	9										9
Total	127	3	4	60	3				197	127	2	4	53	4						190

Result of Traffic Count

Vehicle Hourly	Gagil Road					From: Colonia To: Gagil Sch.					From: Gagil Sch. To: Colonia							
	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total
		Mini Bus	Large Bus	Pick up	Heavy Track						Trailer	Mini Bus	Large Bus	Pick up				
06:00 - 07:00	2	1	1	1	-	-	-	5	5	1	1	-	-	-	-	-	-	8
07:00 - 08:00	2	1	1	1	-	-	-	5	20	9	1	-	-	-	-	-	-	30
08:00 - 09:00	3	-	-	5	-	-	-	8	10	13	1	-	-	-	-	-	-	25
09:00 - 10:00	9	-	-	4	-	-	-	13	9	4	-	-	-	-	-	-	-	13
10:00 - 11:00	2	-	-	2	-	-	-	4	4	2	-	-	-	-	-	-	-	6
11:00 - 12:00	5	1	-	2	-	-	-	8	5	2	-	-	-	-	-	-	-	7
12:00 - 13:00	5	-	-	2	-	-	-	7	4	5	-	-	-	-	-	-	-	10
13:00 - 14:00	1	-	-	-	-	-	-	1	2	1	-	-	-	-	-	-	-	5
14:00 - 15:00	4	-	-	2	-	-	-	6	7	3	-	-	-	-	-	-	-	10
15:00 - 16:00	5	-	-	3	-	-	-	10	2	3	-	-	-	-	-	-	-	6
16:00 - 17:00	13	-	-	5	-	-	-	18	5	2	-	-	-	-	-	-	-	7
17:00 - 18:00	28	-	-	20	-	-	-	49	8	6	-	-	-	-	-	-	-	15
Total	79	3	5	47	-	-	-	134	81	51	1	-	-	-	-	-	-	142

Vehicle Hourly	North Maap Road Section 8					From: Maap To: Seaside					From: Seaside To: Maap							
	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total	Passenger Car / Taxi/Van	Bus		Truck		Motor cycle	bicycle	Special Vehicle	Total
		Mini Bus	Large Bus	Pick up	Heavy Track						Trailer	Mini Bus	Large Bus	Pick up				
06:00 - 07:00	3	-	-	-	-	-	-	3	5	3	-	-	-	-	-	-	-	8
07:00 - 08:00	2	-	-	4	-	-	-	6	7	3	-	-	-	-	-	-	-	10
08:00 - 09:00	1	-	-	1	-	-	-	3	4	1	-	-	1	-	-	-	-	7
09:00 - 10:00	3	-	-	-	-	-	-	3	3	1	-	-	-	-	-	-	-	4
10:00 - 11:00	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
11:00 - 12:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 - 13:00	3	-	-	1	-	-	-	4	2	3	-	-	-	-	-	-	-	5
13:00 - 14:00	2	-	-	1	-	-	-	3	1	1	-	-	1	-	-	-	-	2
14:00 - 15:00	1	-	-	1	-	-	-	3	1	3	-	-	-	-	-	-	-	4
15:00 - 16:00	3	-	-	-	-	-	-	4	2	2	-	-	-	-	-	-	-	4
16:00 - 17:00	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
17:00 - 18:00	8	-	-	3	-	-	-	11	3	2	-	-	-	-	-	-	-	5
Total	28	-	1	11	-	1	-	42	28	18	1	1	1	-	-	-	-	49

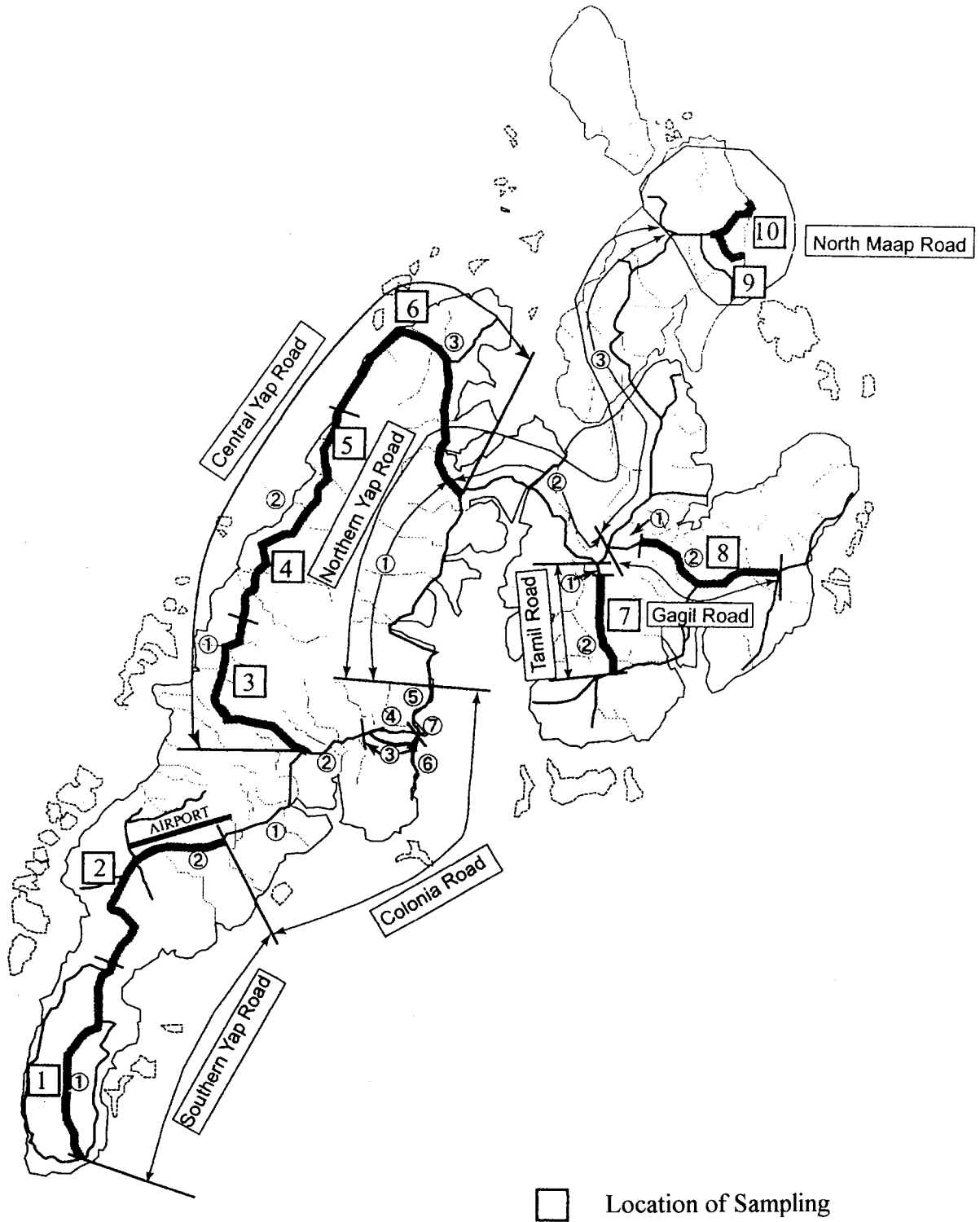
Result of Traffic Count

Station No. : 15	North Maap Road Section9										From: Maap To: Seaside										From: Seaside To: Maap									
	Vehicle Hourly	Passenger Car / Taxi/Van			Bus			Truck			Special Vehicle	Total	Passenger Car / Taxi/Van			Bus			Truck			Special Vehicle	Total							
		Mini Bus	Large Bus	Pick up	Heavy Track	Trailer	Motor cycle	bicycle	Mini Bus	Large Bus			Pick up	Heavy Track	Trailer	Motor cycle	bicycle	Mini Bus	Large Bus	Pick up	Heavy Track			Trailer	Motor cycle	bicycle				
06:00 - 07:00	3	1	2	-	-	-	-	-	-	-	6	5	1	-	-	-	-	-	-	-	-	-	7							
07:00 - 08:00	8	-	3	-	-	-	-	2	-	-	13	7	-	-	-	-	-	-	-	-	-	-	11							
08:00 - 09:00	3	1	2	-	-	-	-	-	-	-	6	5	1	-	-	-	-	-	-	-	-	-	11							
09:00 - 10:00	3	1	3	-	-	-	-	-	-	-	7	5	1	-	-	-	-	-	-	-	-	-	8							
10:00 - 11:00	4	-	5	-	-	-	-	-	-	-	9	5	-	-	-	-	-	-	-	-	-	-	8							
11:00 - 12:00	5	-	2	1	-	-	-	-	-	-	8	4	-	-	-	-	-	-	-	-	-	-	9							
12:00 - 13:00	5	-	3	-	-	-	-	-	-	-	8	4	-	-	-	-	-	-	-	-	-	-	6							
13:00 - 14:00	7	1	1	-	-	-	-	1	-	-	9	4	1	-	-	-	-	-	-	-	-	-	9							
14:00 - 15:00	4	-	3	1	-	-	-	-	-	-	8	3	-	-	-	-	-	-	-	-	-	-	6							
15:00 - 16:00	4	1	3	-	-	-	-	-	-	1	10	5	1	-	-	-	-	-	-	-	1	-	12							
16:00 - 17:00	6	-	5	-	-	-	-	-	-	-	12	8	-	-	-	-	-	-	-	-	2	-	16							
17:00 - 18:00	7	1	2	1	-	-	-	-	-	-	12	4	1	-	-	-	-	-	-	-	-	-	9							
Total	59	5	34	3	-	-	-	1	3	-	108	59	3	36	5	3	36	5	-	1	3	-	112							

APPENDIX 7

CBR TEST RESULTS

LOCATION OF CBR TEST



SUMMARY OF LABORATORY TEST RESULTS

Location No.	Location km	Description	Cumulative Percent Finer (%)							Atterberg Limits (ASTM D4318)			Laboratory Compaction (ASTM D1557)		CBR
			Passing Sieve Size (mm)							LL %	PL %	PI %	MDD g/cm ³	OMC %	
			50.0	25.0	9.5	4.75	2.0	0.425	0.075						
1	Sta.6+450 (Right Side)	Mottled Reddish Orange- Brown Sandy Silt	100	100	78	71	62	53	43	76	42	34	1.52	28.0	5.5
2	Sta.1+450 (Right Side)	Mottled Greenish Grey- Brown Silty Clayey Sand	100	95	85	80	65	51	28	52	33	15	1.63	22.8	6.0
3	Sta.2+210 (Left Side)	Mottled Greenish Grey- Brown Silty Sandy Schist with some Gravel	100	89	82	60	45	30	21	45	30	16	1.75	18.7	14.0
4	Sta.4+930 (Right Side)	Grayish Brown Silty Gravelly Sand	100	94	82	72	64	42	24	40	33	7	1.66	6.5	6.5
5	Sta.8+130 (Right Side)	Right Brown Fine Sand	100	100	99	98	93	28	3	non	non	non	1.60	13.0	21.0
6	Sta.13+010 (Left Side)	Mottled Grey-Green- Brown Silty Sand Schist Gravel	100	100	76	56	39	23	14	42	27	15	2.04	12.8	11.0
7	Sta.1+120 (Left Side)	Mottled Red-Orange-Grey- Brown Clayey Silt	100	100	100	100	98	93	86	82	61	21	1.42	32.0	3.1
8	Sta.1+680 (Right Side)	Reddish Brown Clayey Silty Sand with some Weathered Rocks	100	100	96	88	65	33	23	54	35	19	2.00	17.6	24.6
9	Sta.0+400 (Left Side)	Mottled Red-Orange-Brown -Black Clayey Silty Sand with some Weathered Rocks	100	93	77	70	62	52	39	44	32	12	1.60	20.8	15.5
10	Sta.0+500 (Left Side)	Greenish Grey-Brown-Sandy Clay with Weathered Schists	100	100	96	92	85	67	51	32	21	11	2.08	13.5	5.2

APPENDIX 8

RAINFALL DATA

Monthly Rainfall

Month Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1980	59	117	163	196	268	343	453	242	-	341	183	369	-
1981	328	203	73	28	-	-	471	346	483	361	257	280	-
1982	185	320	191	67	266	813	331	362	354	237	126	178	3,430
1983	-	7	-	-	91	177	410	421	320	-	344	137	-
1984	135	244	99	56	45	314	244	389	163	439	306	138	2,572
1985	367	83	170	224	173	474	293	393	440	262	147	364	3,390
1986	191	-	-	-	244	-	-	286	313	194	357	149	-
1987	151	125	50	122	101	280	384	708	135	170	164	70	2,460
1988	93	92	71	100	184	266	350	136	371	562	229	227	2,681
1989	256	311	182	118	271	344	344	451	298	342	181	221	3,319
1990	158	59	81	148	318	583	312	578	370	192	240	56	3,095
1991	215	53	62	93	-	341	-	343	392	440	172	95	-
1992	107	38	75	33	38	193	330	412	262	570	70	158	2,286
1993	161	170	293	148	37	293	399	363	307	261	240	346	3,018
1994	206	97	79	284	260	371	378	292	393	85	71	247	2,763
1995	200	249	82	45	256	157	166	318	332	438	231	406	2,880
1996	499	327	141	172	375	189	-	197	537	338	214	683	-
1997	341	250	116	68	61	404	384	337	276	266	158	151	2,812
Total	3,652	2,745	1,928	1,902	2,988	5,542	5,249	6,574	5,746	5,498	3,690	4,275	34,706
Average	215	161	121	119	187	346	350	365	338	323	205	238	2,892