

CHAPTER 18

PROJECT IMPLEMENTATION PROGRAM

18.1 Implementing Agency

The implementing agency is the Department of Public Works and Highways (DPWH).

The executing office is the Project Management Office-Philippine-Japan Highway Loan (PMO-PJHL). The organization of PMO-PJHL is shown in Figure 18.1-1.

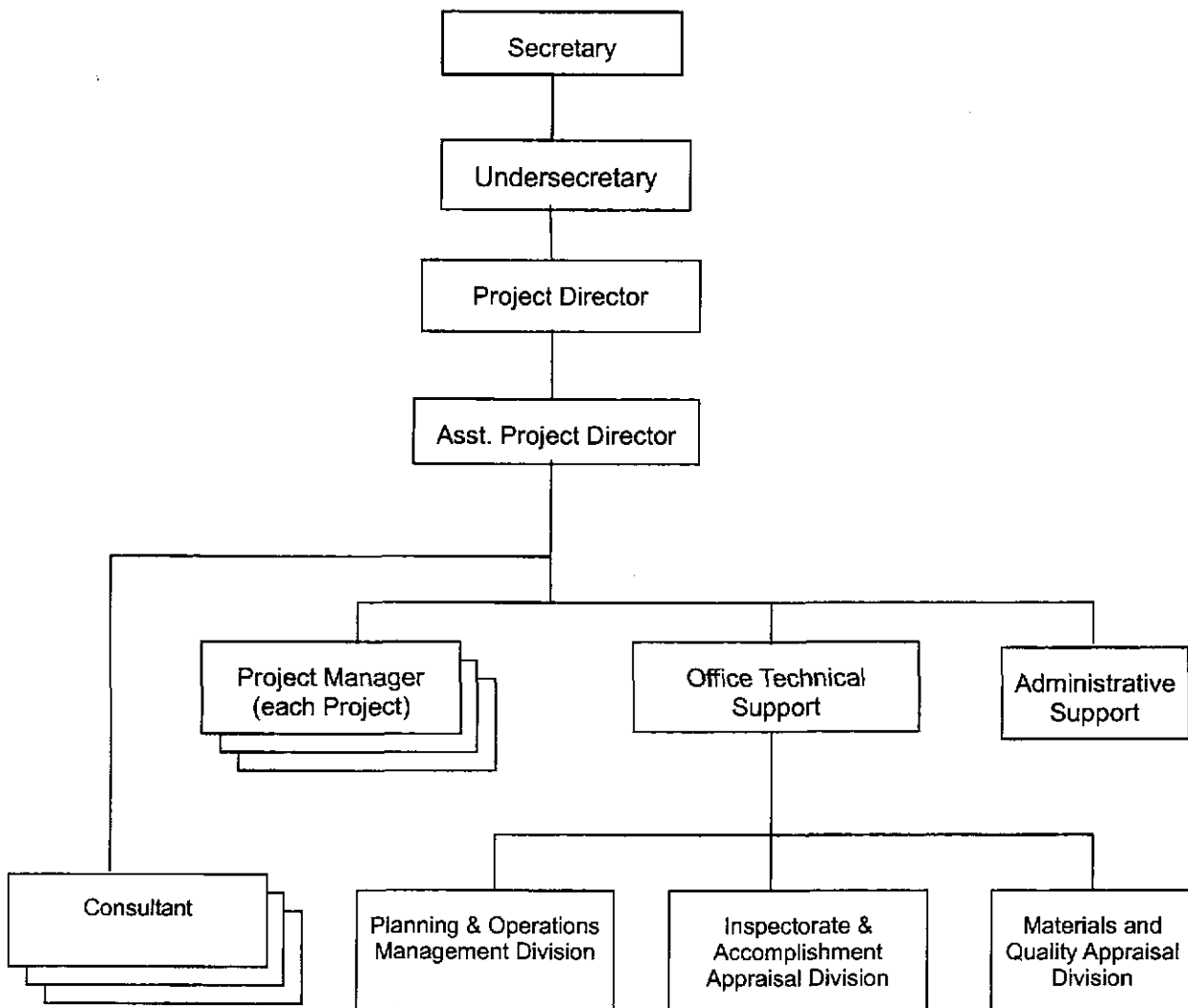


FIGURE 18.1-1 ORGANIZATION CHART OF PMO-PJHL

18.2 Overall Implementation Schedule

18.2.1 Stage Construction

Total project cost was estimated at about 10.6 Billion pesos. In view of the scale of the project, stage construction was proposed as follows:

- Initial Stage : construction of a 2-lane bypass
- Ultimate Stage : widening to a 4-lane divided bypass

Another characteristic of this project is the requirement of ROW acquisition. About 248 ha. of lands are to be acquired for which long time will be needed. In view of above, the Initial Stage was further divided into two phases, namely Phase I and Phase II. Phase I and Phase II should be implemented continuously, since high project effects are expected when a total stretch of a bypass is completed.

Selection of Contract Packages for Phase I

Among 9 contract packages, 3 contract packages, *one from Plaridel Bypass and two from Cabanatuan Bypass*, were selected due to the following reasons:

- 1) Contract Package I of Plaridel Bypass (Figure 18.2-1)
 - This bypass section provides alternative route to the most congested section of existing Pan-Philippine Highway between Sta. Rita and Plaridel town proper.
 - Access from North Luzon Expressway to Provincial Road No. 334 will be greatly improved, along which the agro-industrial areas are being developed.
 - Development along this bypass section will be accelerated due to proximity to North Luzon Expressway.
- 2) Contract Packages II and III of Cabanatuan Bypass (Figure 18.2-2)
 - These bypass sections provide alternative route to the most congested section of existing Pan-Philippine Highway in Cabanatuan City.
 - At present, there is only one bridge crossing Pampanga River. The new bridge in Contract Package III provide another river crossing, thus through traffic will have alternative river crossings.
 - This bypass section intersects with the national road going to Palayan City which is the provincial capital of Nueva Ecija.

Accessibility to Palayan City will be greatly improved.

Other sections of Plaridel Bypass and Cabanatuan Bypass and whole stretch of San Jose Bypass are proposed to be included in Phase II of Initial Stage.

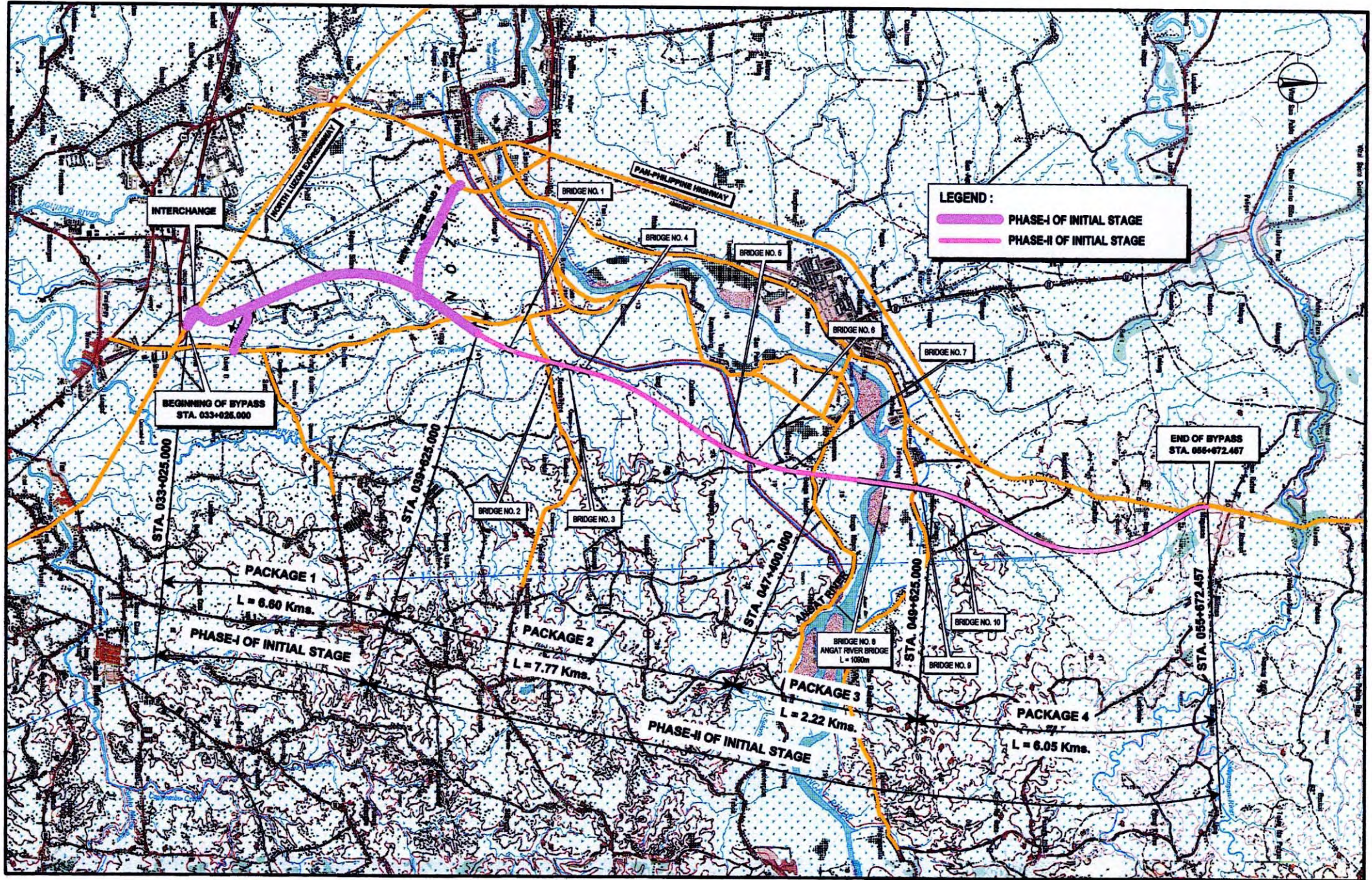


FIGURE 18.2-1 CONSTRUCTION PHASING OF PLARIDEL BYPASS

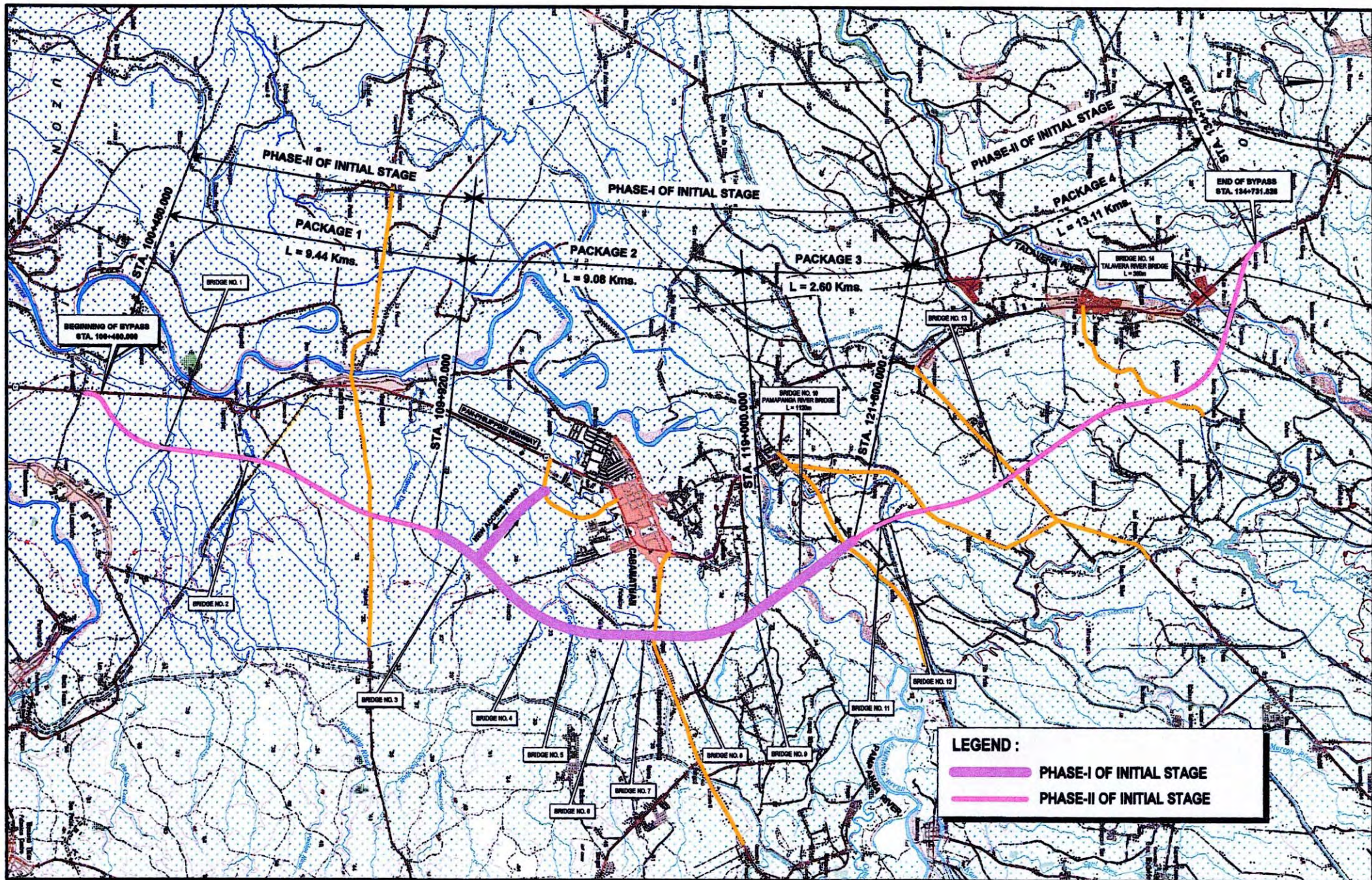


FIGURE 18.2-2 CONSTRUCTION PHASING OF CABANATUAN BYPASS

18.2.2 Overall Implementation Schedule

Overall implementation schedule was prepared based on the following:

- Initial Stage shall be completed by the end of 2010.
- Ultimate Stage shall be completed by the end of 2015.
- Maximum annual fund requirement shall be less than 1.5 Billion pesos.
- ROW acquisition is made by local fund. In due consideration of financial condition of the Government, it requires about 6 years. Implementation schedule shall taken into account the time required for ROW acquisition.

Proposed overall implementation schedule is shown in Table 18.2-1.

18.3 Annual Fund Requirements

Annual fund requirement is shown in Table 18.2-1. Maximum amount of about 1.49 Billion Pesos will be required in 2010, followed by 1.46 Billion Pesos in 2008 and 1.42 Billion in 2009.

18.4 Operation and Maintenance

Operation and maintenance of the Project will be undertaken by respective DPWH District Engineering Offices.

Road maintenance must be undertaken at proper timing. Following are key issues of road maintenance:

Road Inspection

One of the most important aspects of road maintenance is to identify deficiencies / defects / damages at their earliest stage and to undertake repair works as soon as they are found. Progress of deficiencies / defects / damages should be prevented. A road inspection is very important to realize above objectives.

A careful and in depth inspection should be carried out at least once a month. Identified deficiencies / defects / damages, etc., should be recorded on a straight road diagram or other field inspection sheet designed for the purpose.

Identified deficiencies should be prioritized and reflected to the Quincenal Schedule (MBC) and / or the Quarterly Schedule (MBC) for timely treatment.

Another important timing of road inspections is as follows:

- Before, during and after rainy season
- Before, during and after heavy rainfall and/or a typhoon

If some major damages / defects which would affect safety of road users are found, appropriate warning signs should be immediately installed.

Maintenance Activity List and Frequency

Table 18.4-1 shows a maintenance activity list for a road with PCC pavement carriageway, frequency of each activity and demarcation of each activity into MBA or MBC.

TABLE 18.2-1 OVERALL IMPLEMENTATION SCHEDULE

Unit: Million Peso

		Cost (MPE80)	2002			2003			2004			2005			2006			2007			2008			2009			2010			2011			2012			2013			2014			2015		
R.O.W. Acquisition	Phase I Sections	332.9	66.5			133.2			133.2																																			
	Phase II Sections	469.5										187.8			187.8			63.9																										
ROW Acquisition		802.4	66.5			133.2			133.2			187.8			187.8			63.9																										
Phase I of Initial Stage	Consulting Service	234.0	7.1			14.1			61			75.9			75.9																													
	Construction	Plaridel Bypass Package-I	884.7							191.7			239.0			253.4																												
		Cabanaluan Bypass Package-II	723.3							202.5			267.0			253.2																												
		Package-III	734.0							220.5			257.2			257.2																												
	Construction Total	2,142.9	0.0			0.0			0.0			614.7			764.4			763.8																										
Base Cost for Phase I		2,376.9	0.0			7.1			14.1			675.7			840.3			839.7																										
Phase II of Initial Stage	Consulting Service	327.5										10			19.8			46.8			122.5			128.4																				
	Construction	Plaridel Bypass Package-II	436.5													43.7			186.8			206.0																						
		Package-III	700.7													175.2			259.3			268.2																						
		Package-IV	251.9													0.0			113.4			136.5																						
		Cabanaluan Package-I	486.5													69.1			209.2			209.2																						
	Package-IV	819.9													163.8			327.6			327.5																							
	San Jose Bypass	431.9													43.2			180.0			198.7																							
Construction Total	3,126.4	0.0			0.0			0.0			0.0			0.0			484.0			1,286.3			1,346.1																					
Base Cost for Phase II		3,453.9	0			0			0			10.0			19.8			540.8			1,408.8			1,474.5																				
Total for Initial		8,633.2	66.5			140.3			147.3			873.5			1,047.9			1,474.4			1,408.8			1,474.5																				
Ultimate Stage	Consulting Service	353.4																						10.7			21.4			89.3			111.0			111.0								
	Construction	Plaridel Bypass	1,404.3																												488.1			488.1			488.1							
		Cabanaluan Bypass	1,882.1																												627.3			827.3			827.5							
		San Jose Bypass	257.0																															128.5			128.5							
	Construction Total	3,543.4																																										
Total for Ultimate Stage		3,896.8																									10.7			21.4			1,194.7			1,334.9			1,335.1					
Annual Fund Requirement		10,530.0	66.5			140.3			147.3			873.5			1,047.9			1,474.4			1,408.8			1,474.5			10.7			21.4			1,194.7			1,334.9			1,335.1					

TABLE 18.4-1 MAINTENANCE ACTIVITY LIST AND FREQUENCY

Element	Type	Maintenance Activity	Frequency	Demarcation	Note
Carriageway	PCC	Crack and Joint Sealing	As soon as identified	MBA	
		Patching	When crack sealing is no longer effective	MBC	
		Replacement of Concrete	When wide cracks are found	MBC	
		Resurfacing with AC (overlay)	When PSI or RRI becomes 2.5	MBC	Timely implementation of this activity is important
Shoulder	PCC	Same as Carriageway PCC pavement			
	Gravel	Patching	As soon as a depressed portion identified	MBA	
		Grading	At least 3 times a year	MBC	Before, during and after a rainy season.
		Regravelling	Once in 5 years		
Drainage	Side Ditches (all types)	Ditch Cleaning (regular)	3 times a year	MBC	Before, during and after a rainy season.
		Ditch cleaning (as needed)	every after heavy rain / typhoon	MBA	
	RCPC / RCBC	Culvert cleaning (regular)	3 times a year	MBC	Before, during and after a rainy season.
		Culvert cleaning (as needed)	every after heavy rain / typhoon	MBA	
		Digging inlet / outlet sides canal within ROW (regular)	2 times a year	MBC	Before and after rainy season.
		Digging inlet / outlet sides canal within ROW (as needed)	every after heavy rain / typhoon	MBA	
Digging inlet / outlet sides canal outside ROW	as required	MBC	Condition of siltation should be always inspected.		
Traffic	Pavement Markers	Centerline and lane line repainting	2 times a year	MBC	Before and after rainy season.
		Repainting channelization curbs and other markings at intersection.	2 times a year	MBC	Before and after rainy season.
	Traffic Signs, Warning Signs, Guide Signs	Cleaning Signs	As needed	MBA	
		Repainting / replacement of signs	As needed	MBC	
	Traffic Signal Light	Maintenance of traffic signal light	As needed	MBC	
	Guardrail	Repainting / replacement of guardrail	As needed	MBC	
Roadside Features		Vegetation control	4 times a year	MBC	
		Erosion repair and control on roadside	As needed	MBA	
		Maintenance of trees, plants, flowers, etc. in environmental zone	4 times a year	MBC	
		Road cleaning	As needed	MBC / MBA	
		Sodding slopes	As needed	MBC / MBA	

CHAPTER 19

RECOMMENDATION

1. Acceleration of the Project Implementation

The Project is urgently needed. However, due to the GOP's financial situation, the prolonged implementation schedule is proposed. If the financial situation improves, the project implementation should be accelerated, particularly Phase II of the Initial Stage as well as the Ultimate Stage.

2. Early Completion of the ROW Acquisition

The Project requires huge land areas to be acquired. Therefore, the project implementation is greatly influenced by the progress of the ROW acquisition. The parcellary survey which is the basis for the ROW acquisition should start as soon as possible. Proper coordination between the DPWH and the concerned LGUs should be made for the ROW acquisition cost estimate.

3. Early Preparation of Resettlement Action Plan (RAP)

The initial RAP report was prepared under this Study. However, during the parcellary survey, the detailed RAP should be prepared and implemented at the earliest possible time.

4. Task Force for ROW Acquisition and RAP Implementation

The DPWH should organize a special task force comprising of the PMO-PJHL, the DPWH Regional / District Offices and concerned LGUs for the smooth implementation of the ROW acquisition and RAP implementation.

5. Strict Control of New Development and Squatting Within the ROW

Any new development along the proposed alignment must be strictly controlled by the concerned LGUs by promulgating the City / Municipality Ordinance and that no building permit shall be issued along the ROW defined by the project.

The ROW required in the Ultimate Stage will be acquired in the Initial Stage, thus there is a possibility that some squatters will stay within the ROW between the period of the Initial Stage and the Ultimate Stage construction. The DPWH Regional Office and the District Engineering Offices, together with concerned LGUs, should strictly control squatting within the ROW.