CHAPTER 5
EXISTING ROAD NETWORK IN THE STUDY AREA

5.1 ROAD NETWORK PATTERN AND ADMINISTRATIVE ROAD CLASSIFICATION

The following roads within the Study Area were selected for the Study and the road/bridge inventory survey was carried out:

National road	:	All national roads
Provincial road	:	All provincial roads
City road	:	Selected roads which are important in terms of road network formation
Municipal road	:	Selected roads which are important in terms of road network formation
Barangay road	:	Selected roads which are important in terms of road network formation

5.1.1 Road Network Pattern

Due to different intensity of urban development in Cagayan de Oro City and the rest of study areas, road network pattern is separately discussed for the Study Area as a whole and for Cagayan de Oro City.

1) Study Area

The schematic road network pattern and urban structure is shown in Figure 5.1-1. Road network development is greatly constrained by the following physical features:

- Narrow flat coastal plain (about 1 km wide for the most of the area) with the succeeding steep slopes.
- Large rivers, namely Cagayan de Oro River and Tagoloan River.

Urban structure which affects traffic generation / attraction pattern is characterized as follows:

- CBD is formed at the east area of Cagayan de Oro River, which is the largest traffic generation / attraction center.
- Cagayan de Oro Port is situated at the north of Cagayan de Oro River.
- New Container Terminal Port is located at about 14.5 km east of CBD.
- Phividec Industrial Area is located at about 18.5 km east of CBD.
- New Airport will be constructed at about 28 km west of CBD.
- Residential areas are developing in the areas around CBD including a part of Opol Municipality and the existing airport area.

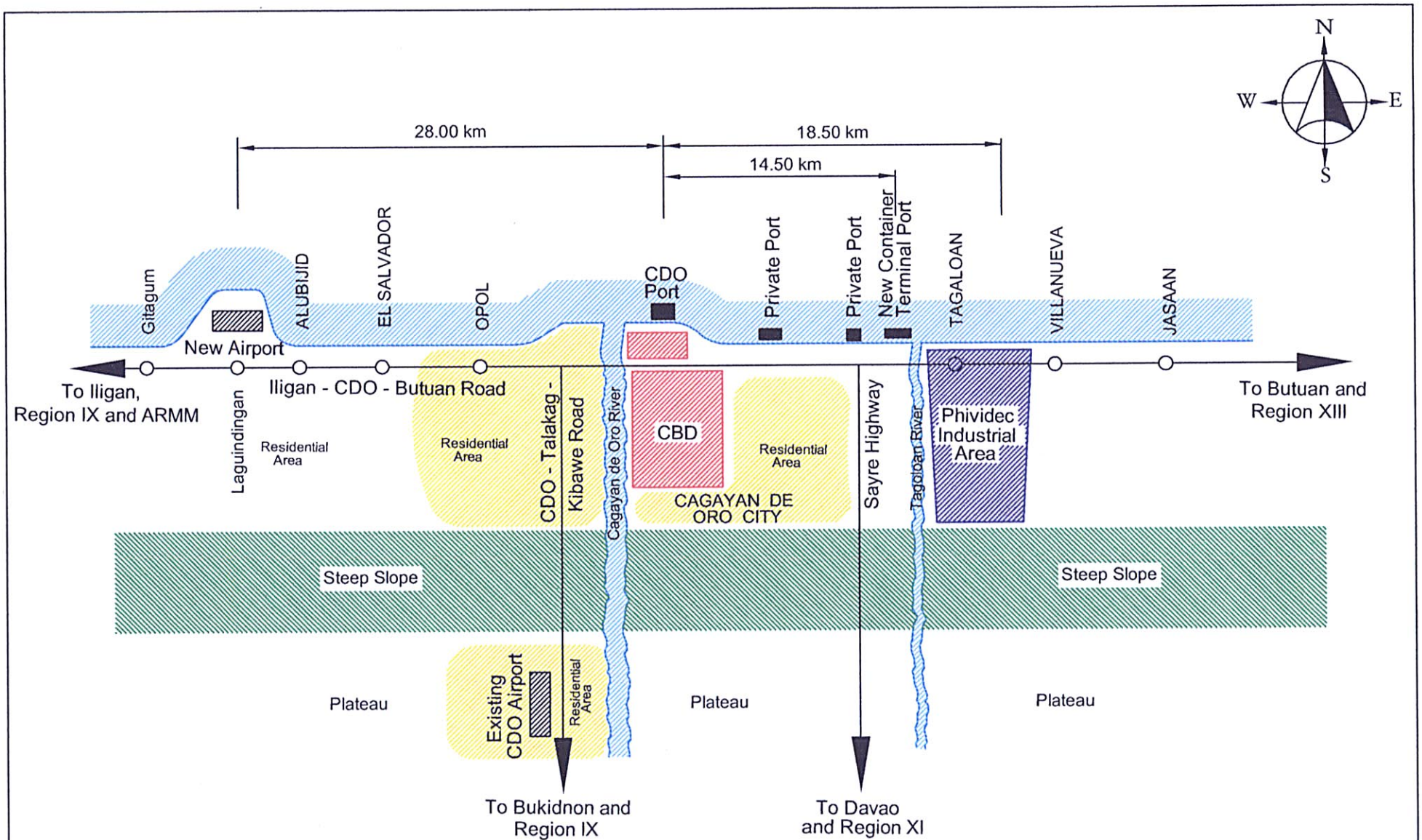

FIGURE 5.1-1 SCHEMATIC ROAD NETWORK IN THE STUDY AREA

Road network pattern and problems are as follows:

- A comb type of road network is formed. Iligan-Cagayan de Oro (CDO)-Butuan Road which runs in the east-west direction along the coast functions as a base of road network (the east-west transport axis).
- From this east-west transport axis, two major roads, namely Syre Highway and CDO-Talakag-Kibawe road, branch off and form north-south transport axes and provide land access to huge agricultural / hinterland of Bukidnon Province and Regions IX and XI.
- Other minor north-south roads also branch off from the east-west transport axis.
- Transportation heavily relies on Iligan-CDO-Butuan Road, since north-south roads are not connected with each other by another east-west road. Thus, road network is not flexible in terms of route selection by road users.
- Major traffic generation / attraction sources are located along Iligan-CDO-Butuan Road, therefore, traffic concentrates on this road.
- Syre Highway climes up the steep slope with steep gradient with several sharp curves. Large trucks and trailers have difficulty to negotiate with this alignment. Widening of this road is difficult due to severe topographic conditions.
- Other north-south roads have similar nature with Syre Highway.
- Cagayan de Oro River is crossed by three bridges consisting of two 2-lane bridges and one 4-lane bridge. Another 4-lane bridge is under construction at the mouth of river.
- Tagoloan River is crossed by one 2-lane bridge. A 2-lane parallel bridge is being constructed.

2) Cagayan de Oro City

Existing road network and topographical features in the central area of Cagayan de Oro City is shown in Figure 5.1-2.

- Road network pattern in CBD or City Proper Area (1.5 km x 1.5 km) is a mesh type. Most of component roads of a mesh are narrow 2-lane roads. All roadsides have been fully developed with mostly 2 to 3 story buildings.
- Road network of the rest of the area is irregular with no systematic pattern. Most roads are narrow 2-lane roads.
- The central area is divided into the east and the west areas by Cagayan de Oro River.
- Most of traffic between the east and the west areas is carried by Marcos Bridge (4-lane) along Iligan-CDO-Butuan Road.
- Traffic from West Plateau Area and West Bank Area to CBD is carried by Carmen Bridge (2-lane).
- Third Bridge (4-lane) is under construction, however, there is a need to construct an access road to the bridge in the West Coastal Area.
- Fourth Bridge along East Diversion Road was completed in 2003, however, is not fully utilized yet due to far distance from CBD.

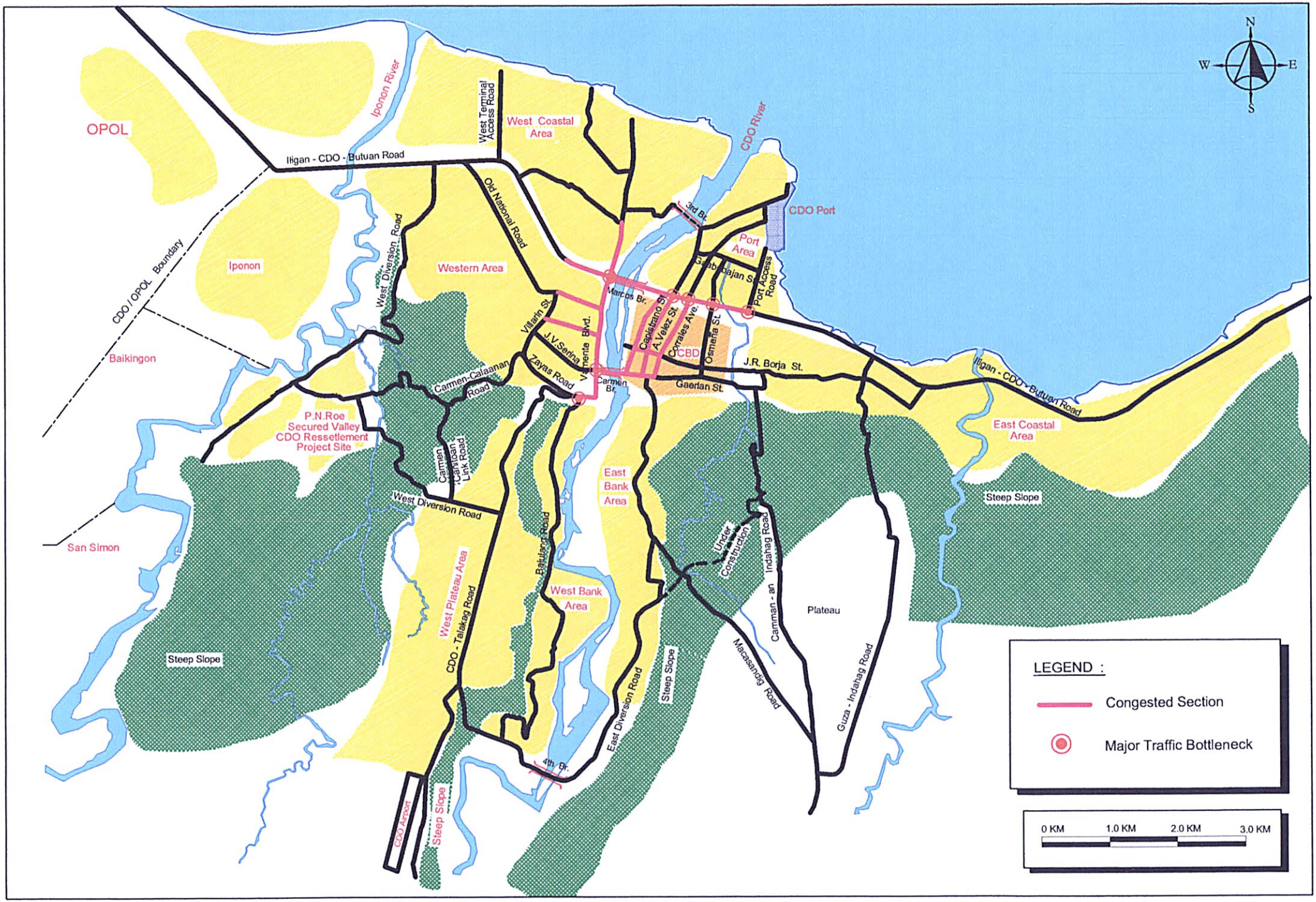

FIGURE 5.1-2 EXISTING ROAD NETWORK IN CENTRAL AREA OF CAGAYAN DE ORO CITY

- Primary major road in the central area is Iligan-CDO-Butuan Road which carries not only inter-city traffic but also local traffic of the area. It is a narrow 6-lane road for about 6 km in the central area. The rest of the section is a 4-lane road. Widening of the road within Cagayan de Oro City is practically impossible due to heavy roadside development.
- The 2.5 km section between Vamenta Blvd. Intersection and Port Access Road Intersection is heavily congested due to traffic accessing to CBD or Port Area through intersecting roads located at short interval.
- J.R. Borja Street runs almost parallel to Iligan-CDO-Butuan Road with a length of about 4.3 km. Most of the sections have 4-lanes, however, practical traffic capacity is reduced to 2 lanes due to on-street parked vehicles. It ends at the east bank of Cagayan de Oro River, thus access to western area through this road is not possible.
- Carmen Bridge is also congested due to traffic from West Plateau Area and West Bank Area where rapid urbanization is progressing.
- CDO-Talakag Road and Balulang Road cannot be linked each other due to a steep slope located in-between two roads. Bululang Road and East Diversion Road are not linked for about 6 km between Carmen Bridge and 4th Bridge. Thus, traffic on CDO-Talakag Road and Balulang Road cannot be efficiently diverted to East Diversion Road, resulting in traffic concentration at Carmen Bridge.
- Traffic between West Coastal Area and CBD/Port Area utilizes Marcos Bridge. When the 3rd Brideg and its access road are completed, traffic on Marcos Bridge will be reduced.
- Iponon area is accessible to CBD / Port Area only through Iligan-CDO-Butuan Road due to Iponon River along which no other bridge is built except Iponon Bridge along Iligan-CDO-Butuan Road.
- Cagayan de Oro Port is accessed by A. Velez Street, Corrales Avenue Extension and Port Access Road via Iligan-CDO-Butuan Road. Only registered trucks / trailers can enter the Port from Port Access Road, therefore, most port related traffic utilizes the former two roads. When the 3rd Bridge and its access road is completed, port related traffic to/from the western area will utilize the 3rd Bridge, then port related traffic on Iligan-CDO-Butuan Road in the western section will be reduced.

5.1.2 Administrative Road Classification

Figure 5.1-3 shows administrative road classification of studied roads. Figure 5.1-4 shows the road network by hierarchy (or functional classification).

Road length by administrative classification is shown in Table 5.1-1, and summarized below:

National road	:	148.20 km
Provincial road	:	93.20 km
City road	:	115.40 km
Municipal road	:	12.10 km
Barangay road	:	56.10 km
Private road	:	7.25 km
Total		**432.25 km**

TABLE 5.1-1 ROAD LENGTH IN METRO CAGAYAN DE ORO

City/Municipality	Area (Km2)	Population (1000)	Road length by Administration (Km.)							Road Density (1)	Road Density (2)
			National	Provincial	Municipal	City	Private	Barangay	Total (Km)		
Cagayan de Oro City	4.96	462	80.30	-	-	105.20	3.15	10.20	198.85	4.15	40.09
Jasaan	0.95	40	12.60	9.20	-	-	-	-	21.80	3.54	22.95
Villanueva	0.40	25	15.70	-	-	-	-	5.30	21.00	6.64	52.50
Tagoloan	0.41	47	6.40	9.40	-	-	-	4.90	20.70	4.72	50.49
Opol	1.54	36	10.00	24.40	-	10.20	1.30	14.50	60.40	8.11	39.22
El Salvador	1.40	35	3.40	11.30	2.00	-	-	13.30	30.00	4.29	21.43
Alubijid	1.80	23	7.60	2.10	10.10	-	-	-	19.80	3.08	11.00
Laguindingan	0.42	18	5.20	17.95	-	-	2.80	-	25.95	9.44	61.79
Gitagum	0.35	14	7.00	18.85	-	-	-	7.90	33.75	15.25	96.43
Total	**12.23**	**700.00**	**148.20**	**93.20**	**12.10**	**115.40**	**7.25**	**56.10**	**432.25**	**4.67**	**35.34**

Source: Road Inventory by the JICA Study Team

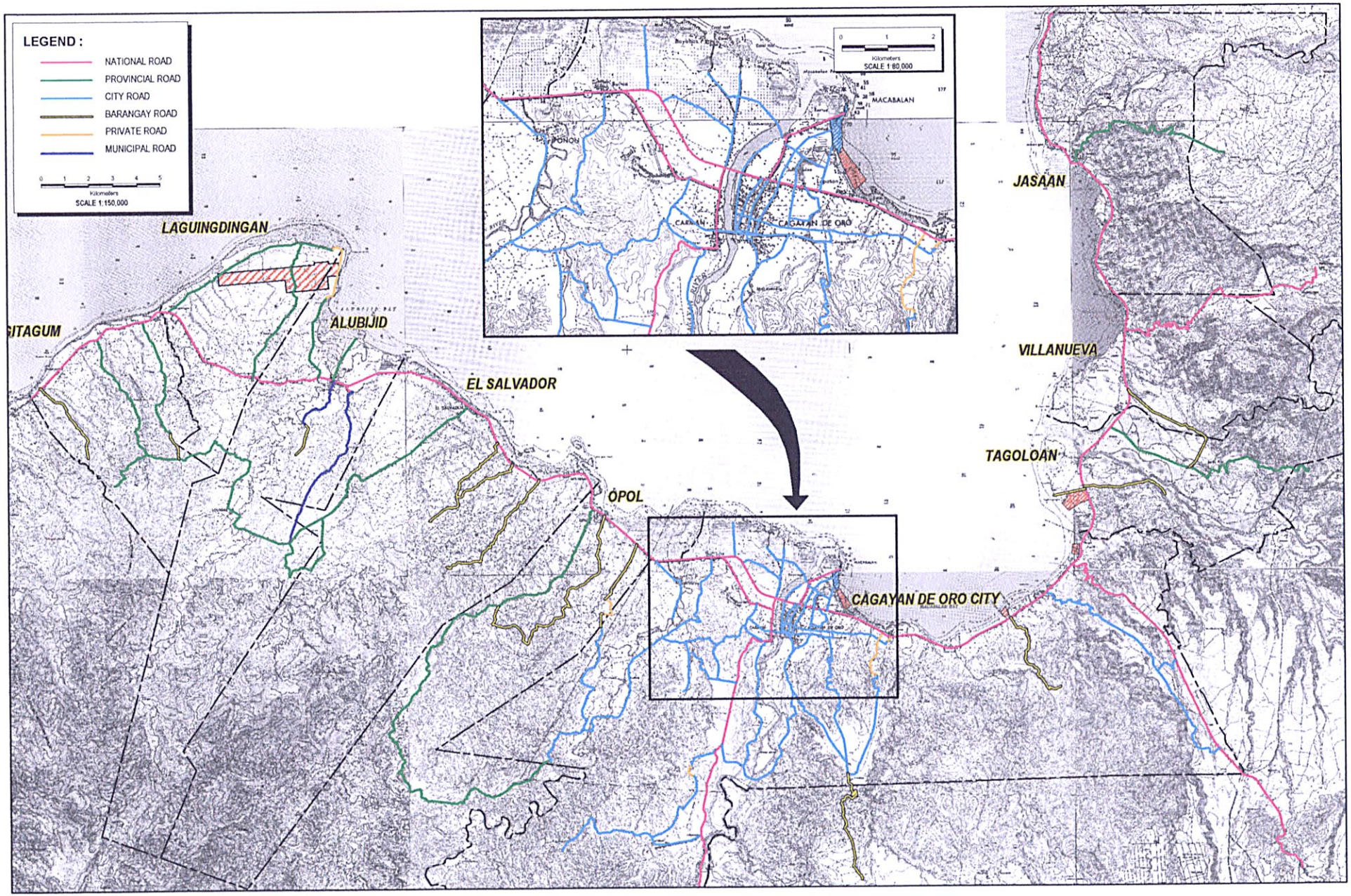

FIGURE 5.1-3 EXISTING ROAD NETWORK BY ADMINISTRATIVE CLASSIFICATION

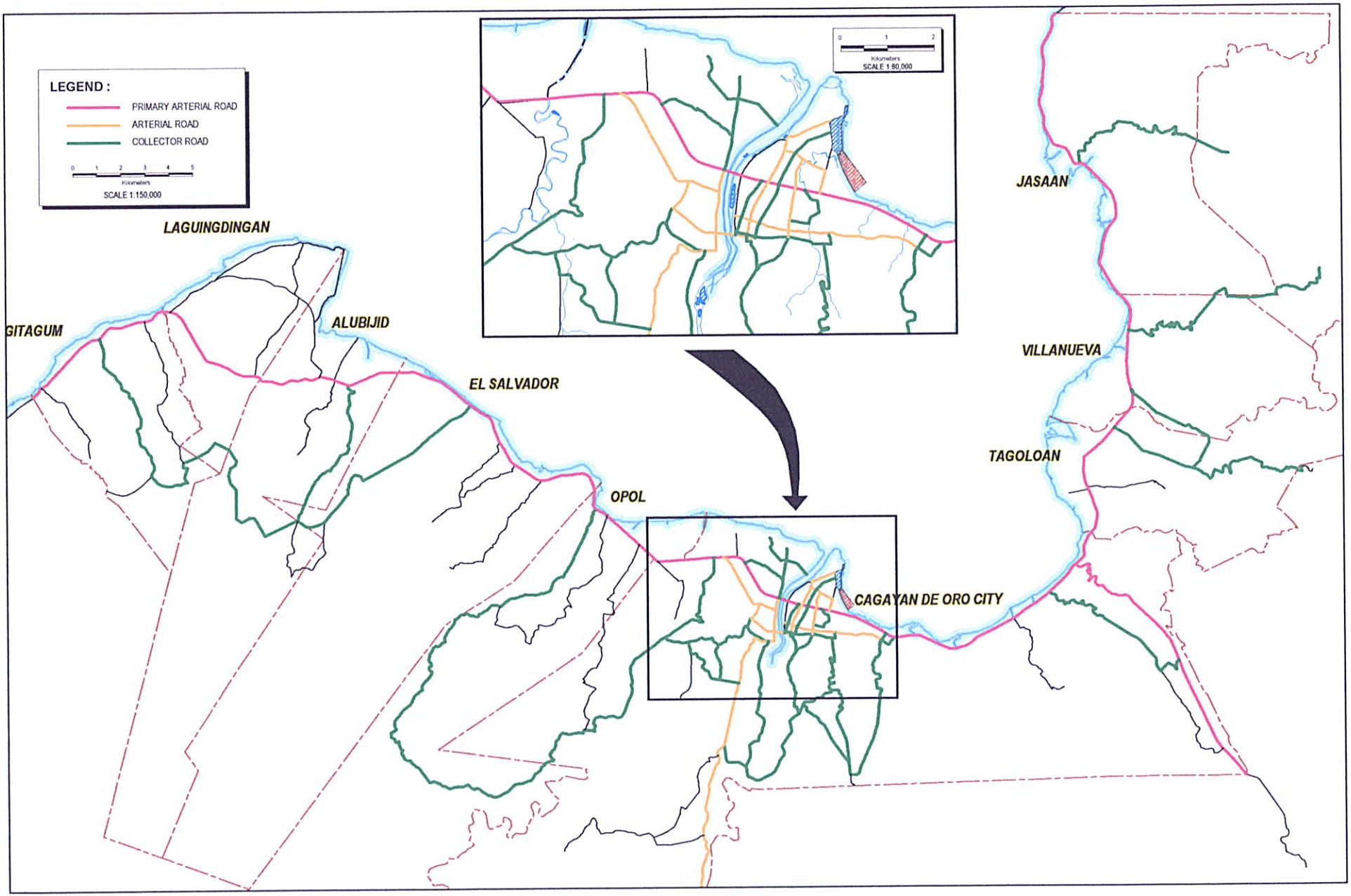

FIGURE 5.1-4 PRESENT ROAD NETWORK BY HIERARCHY

5.2 ROAD CONDITIONS

5.2.1 Number of Lanes and Road Cross-Sections

Figure 5.2-1 shows number of lanes of the surveyed roads and summarized in Table 5.2-1.

TABLE 5.2-1 NUMBER OF LANES OF SURVEYED ROADS

Road Classification	Road Length by No. of Lanes (Km.)					
	6-lanes	4-lanes	2-lanes	1-lanes	Non-Existing	Total
National	-	25.40	110.30	-	0.80	136.50
	(0%)	(18%)	(81%)	(0%)	(1%)	(100%)
Provincial	-	-	81.40	11.80	-	93.20
	(0%)	(0%)	(87%)	(13%)	(0%)	(100%)
City	0.90	12.20	98.40	14.00	1.60	127.10
	(1%)	(10%)	(77%)	(11%)	(1%)	(100%)
Municipal	-	-	12.10	-	-	12.10
	(0%)	(0%)	(100%)	(0%)	(0%)	(100%)
Barangay	-	-	47.20	8.90	-	56.10
	(0%)	(0%)	(84%)	(16%)	(0%)	(100%)
Private Road	-	-	4.45	2.80	-	7.25
	(0%)	(0%)	(61%)	(39%)	(0%)	(100%)
Total	**0.90**	**37.60**	**353.85**	**37.50**	**2.40**	**432.25**
	(1%)	**(8%)**	**(82%)**	**(8%)**	**(1%)**	**(100%)**

Source: JICA Study Team

Existing road cross-sections in Cagayan de Oro City Proper area and Iligan-CDO-Butuan Road are shown in Figure 5.2-2 (1) and 5-2-2 (2) respectively. Most of the surveyed roads have a road right-of-way width of **20m**, however, many structures have been built within the road ROW.

Road cross-sections of major roads outside Cagayan de Oro City Proper area are presented in Appendix 5.2-1.

5.2.2 Pavement Conditions

Pavement conditions of Metro Cagayan de Oro is depicted in Figure 5.2-3, and by City/Municipality and by administrative road classification are shown in Table 5.2-2 and 5.2-3, respectively. Roads in Cagayan de Oro City have been mostly paved. All national roads in the Study Area are paved with high pavement ratio at **84%.**

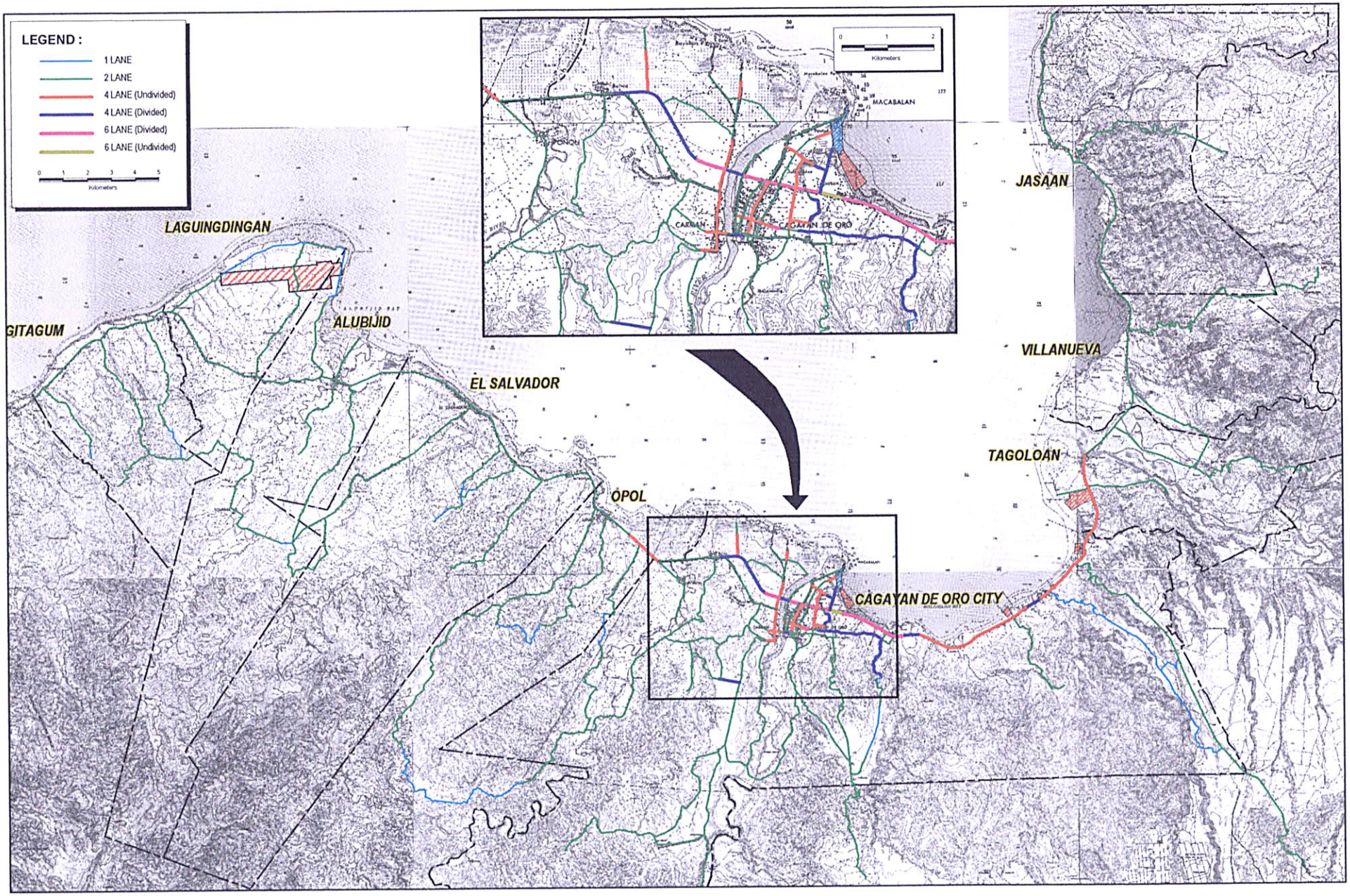

FIGURE 5.2-1 NUMBER OF LANES OF SURVEYED ROADS

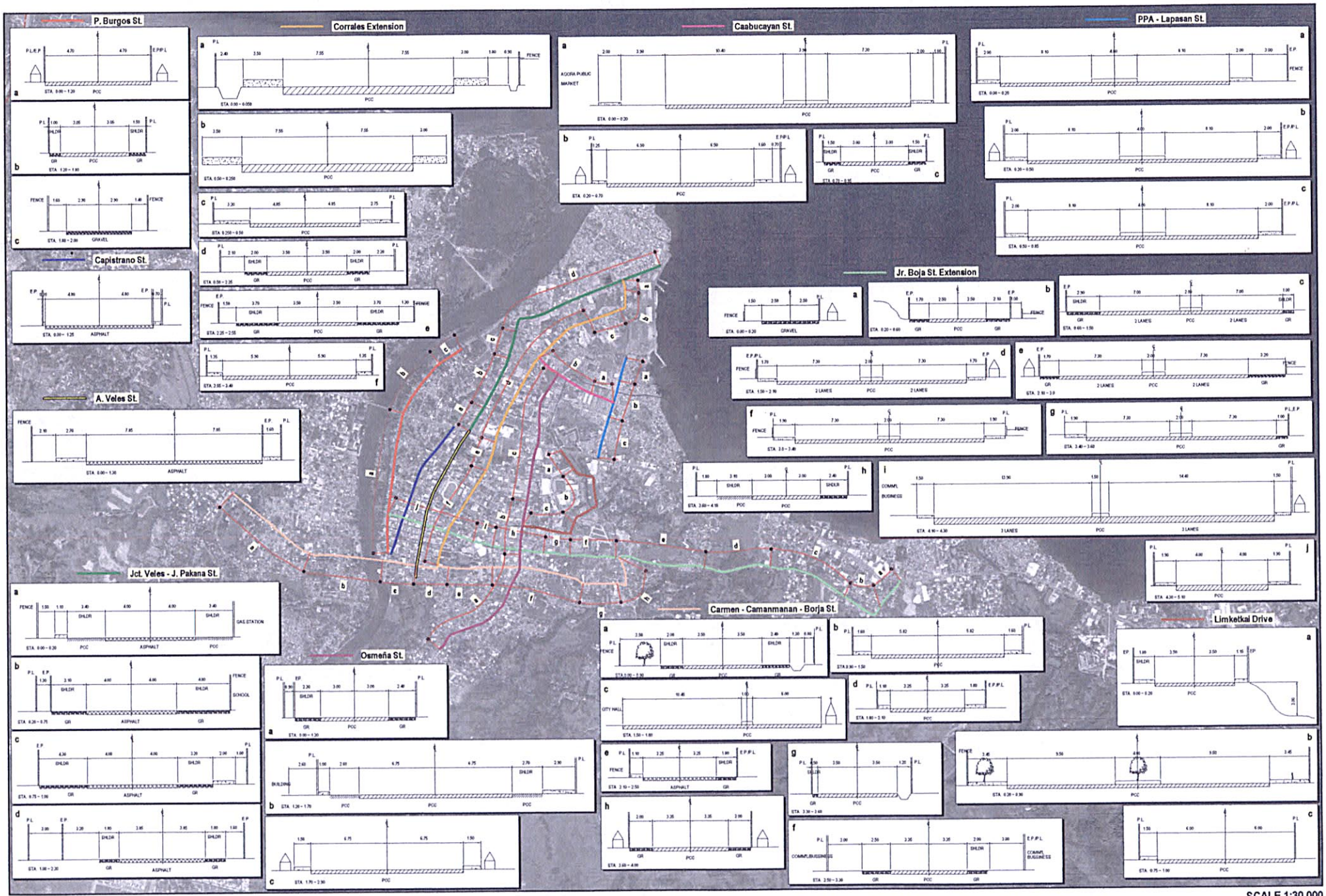

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FIGURE 5.2-2 (1) TYPICAL CROSS SECTIONS OF EXISTING ROADS IN URBAN AREA (METRO CAGAYAN DE ORO)

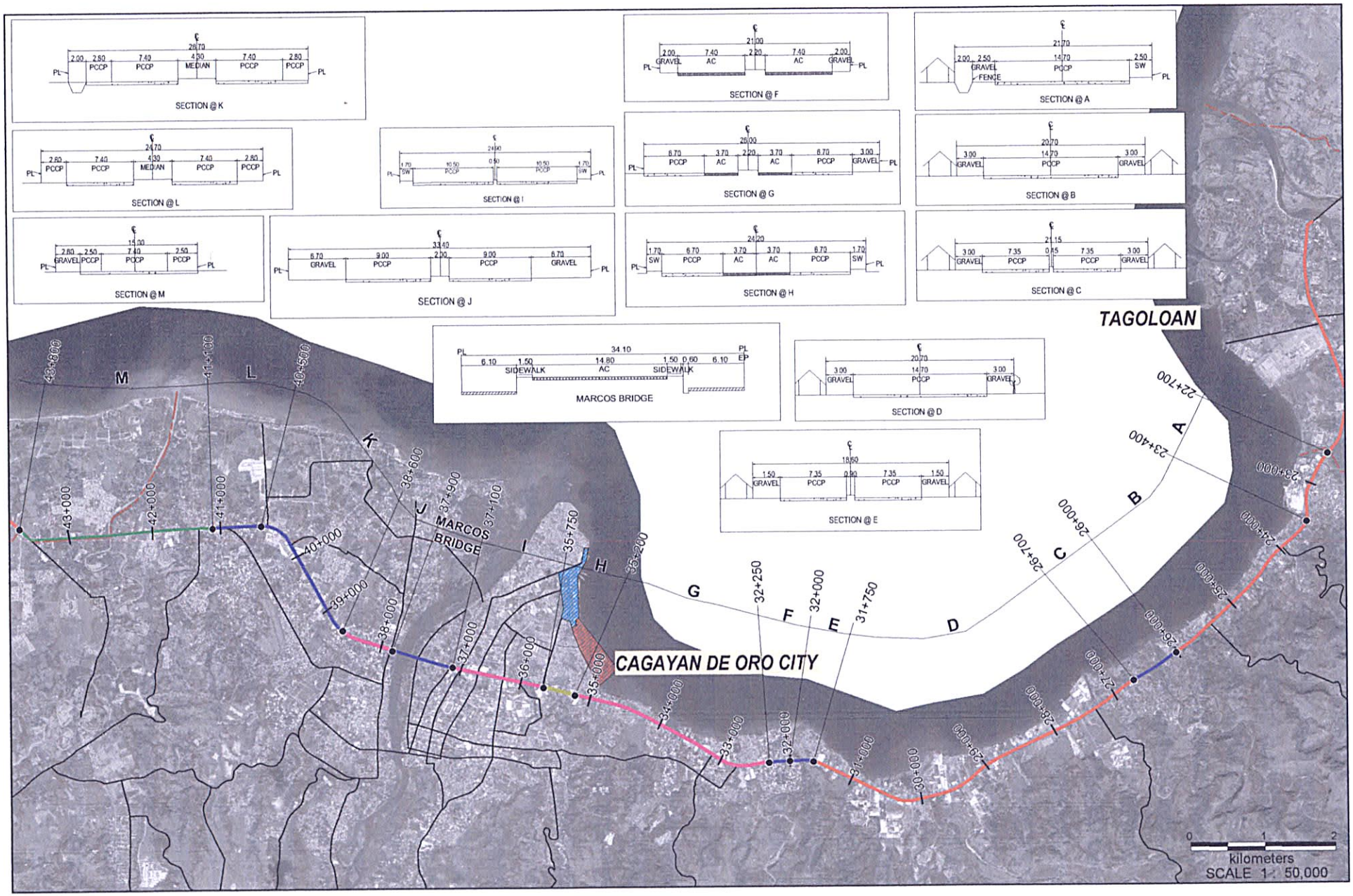


FIGURE 5.2-2(2) TYPICAL CROSS-SECTIONS OF ILIGAN-CDO-BUTUAN ROAD

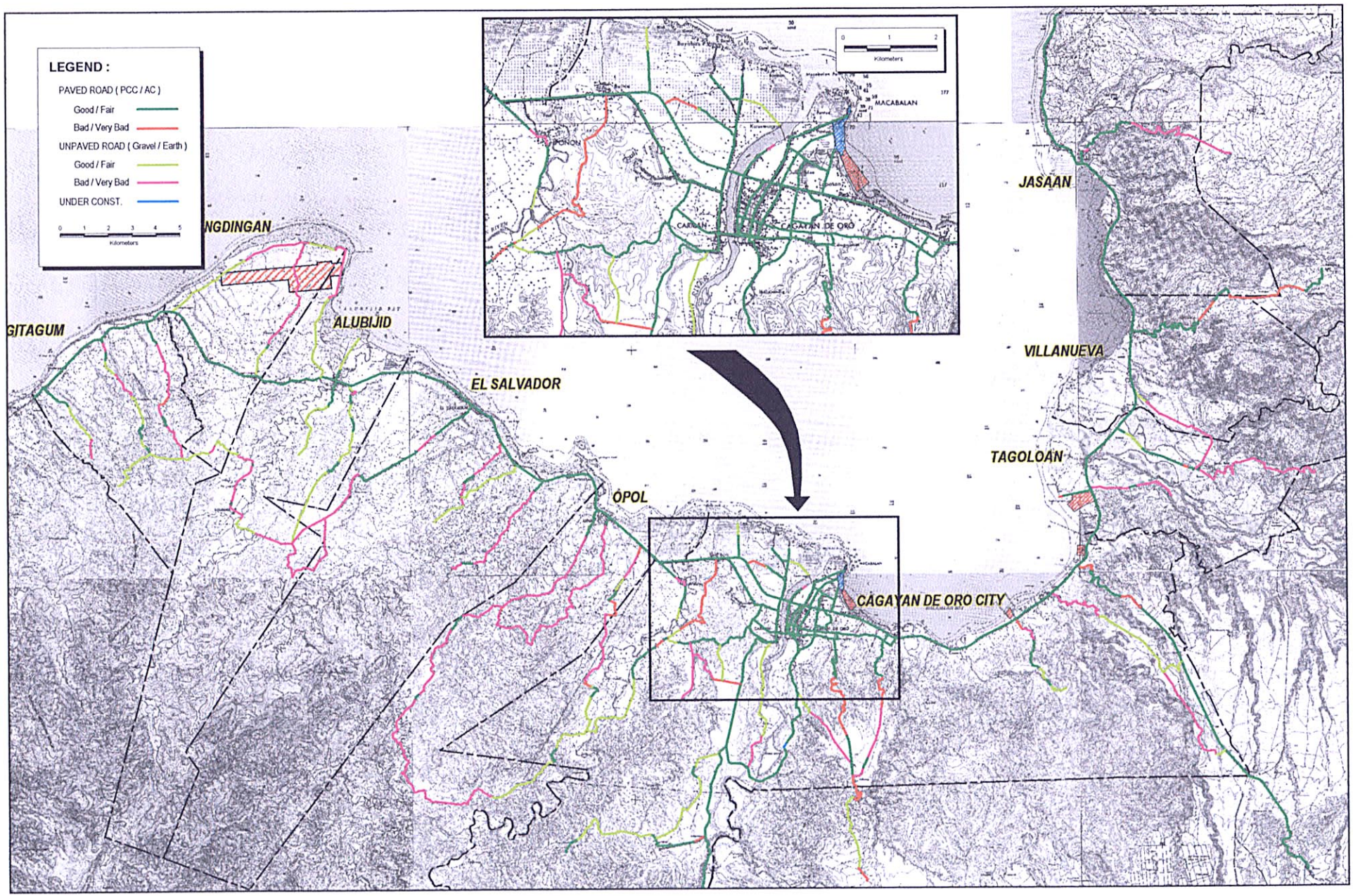


FIGURE 5.2-3 PAVEMENT CONDITION OF SURVEYED ROADS

TABLE 5.2-2 PAVEMENT CONDITIONS BY CITY/MUNICIPALITY (Km)

City/Municipality	Pavement Condition (km.)						Total	Pavement Ratio
	Paved		Unpaved		Under Construction	Impassable		
	Good/Fair	Bad/Very Bad	Good/Fair	Bad/Very Bad				
Cagayan de Oro City	136.15 (70%)	16.90 (9%)	21.10 (10%)	18.85 (9%)	0.30 (1%)	2.40 (1%)	195.70 (100%)	**(79%)**
Jasaan (M)	15.80 (72%)	0.00 (0%)	0.00 (0%)	6.00 (28%)	0.00 (0%)	0.00 (0%)	21.80 (100%)	**(72%)**
Villanueva (M)	11.10 (53%)	4.60 (22%)	0.60 (3%)	4.70 (22%)	0.00 (0%)	0.00 (0%)	21.00 (100%)	**(75%)**
Tagoloan (M)	11.50 (56%)	0.35 (2%)	0.90 (4%)	7.95 (38%)	0.00 (0%)	0.00 (0%)	20.70 (100%)	**(58%)**
Opol (M)	13.75 (23%)	2.20 (3%)	7.65 (13%)	36.80 (61%)	0.00 (0%)	0.00 (0%)	60.40 (100%)	**(27%)**
El Salvador (M)	9.15 (30%)	0.20 (1%)	4.50 (15%)	16.15 (54%)	0.00 (0%)	0.00 (0%)	30.00 (100%)	**(31%)**
Alubijid (M)	10.60 (54%)	0.00 (0%)	9.20 (46%)	0.00 (0%)	0.00 (0%)	0.00 (0%)	19.80 (100%)	**(54%)**
Laguindingan (M)	5.60 (21%)	0.00 (0%)	10.05 (39%)	10.30 (40%)	0.00 (0%)	0.00 (0%)	25.95 (100%)	**(21%)**
Gitagum (M)	10.50 (31%)	0.00 (0%)	11.85 (35%)	11.40 (34%)	0.00 (0%)	0.00 (0%)	33.75 (100%)	**(31%)**
Private	0.40 (13%)	0.00 (0%)	0.70 (22%)	1.80 (57%)	0.25 (8%)	0.00 (0%)	3.15 (100%)	**(13%)**
Total	**224.55** (52%)	**24.25** (6%)	**66.55** (15%)	**113.95** (25%)	**0.55** (1%)	**2.40** (1%)	**432.25** (100%)	**(58%)**

Source: Road Inventory by the JICA Study Team

TABLE 5.2-3 PAVEMENT CONDITIONS BY ADMINISTRATIVE CLASSIFICATIONS (Km)

Administration	Pavement Condition (km.)						Total	Pavement Ratio
	Paved		Unpaved		Under Construction	Impassable		
	Good/Fair	Bad/Very Bad	Good/Fair	Bad/Very Bad				
National	134.20 (94%)	7.90 (6%)	0.00 (0%)	0.00 (0%)	0.00 (0%)	0.00 (0%)	**142.10** (100%)	**(100%)**
Provincial	15.70 (17%)	0.25 (0%)	21.20 (23%)	56.05 (60%)	0.00 (0%)	0.00 (0%)	**93.20** (100%)	**(17%)**
City	60.75 (50%)	12.00 (10%)	26.50 (22%)	19.55 (16%)	0.30 (1%)	2.40 (1%)	**121.50** (100%)	**(60%)**
Municipal	2.50 (21%)	0.00 (0%)	7.60 (62%)	2.00 (17%)	0.00 (0%)	0.00 (0%)	**12.10** (100%)	**(21%)**
Barangay	11.00 (20%)	2.80 (5%)	10.55 (19%)	31.75 (56%)	0.00 (0%)	0.00 (0%)	**56.10** (100%)	**(25%)**
Private	0.40 (6%)	1.30 (18%)	0.70 (10%)	4.60 (63%)	0.25 (3%)	0.00 (0%)	**7.25** (100%)	**(24%)**
Total	**224.55** (52%)	**24.25** (6%)	**66.55** (15%)	**113.95** (25%)	**0.55** (1%)	**2.40** (1%)	**432.25** (100%)	**(58%)**

Source: Road Inventory by the JICA Study Team

5.2.3 Bridge Conditions

Existing bridge conditions are summarized in Table 5.2-4 and Figure 5.2-4 below, and these locations are shown in Figure 5.2-5. Besides the bridge conditions, old bridges have design capacity of 15T, less than 20T of the design capacity. These bridges are also marked in Figure 5.2-5.

TABLE 5.2-4 BRIDGE CONDITION IN METRO CAGAYAN DE ORO

Classification	Number	Length (m)	Bridge Condition (No.)			
			Good	Fair	Bad	U/C
National	34 (100%)	2999.90	4 (11%)	30 (89%)	- (0%)	- (0%)
Provincial	11 (100%)	227.60	6 (54%)	4 (36%)	1 (10%)	- (0%)
City	8 (100%)	536.50	3 (37%)	3 (37%)	1 (13%)	1 (13%)
Municipal	2 (100%)	27.50	- (0%)	1 (50%)	1 (50%)	(0%) (0%)
Barangay	2 (100%)	33.00	1 (50%)	- (0%)	1 (50%)	- (0%)
Total	**57 (100%)**	**3824.50**	**14 (15%)**	**38 (67%)**	**4 (7%)**	**1 (1%)**

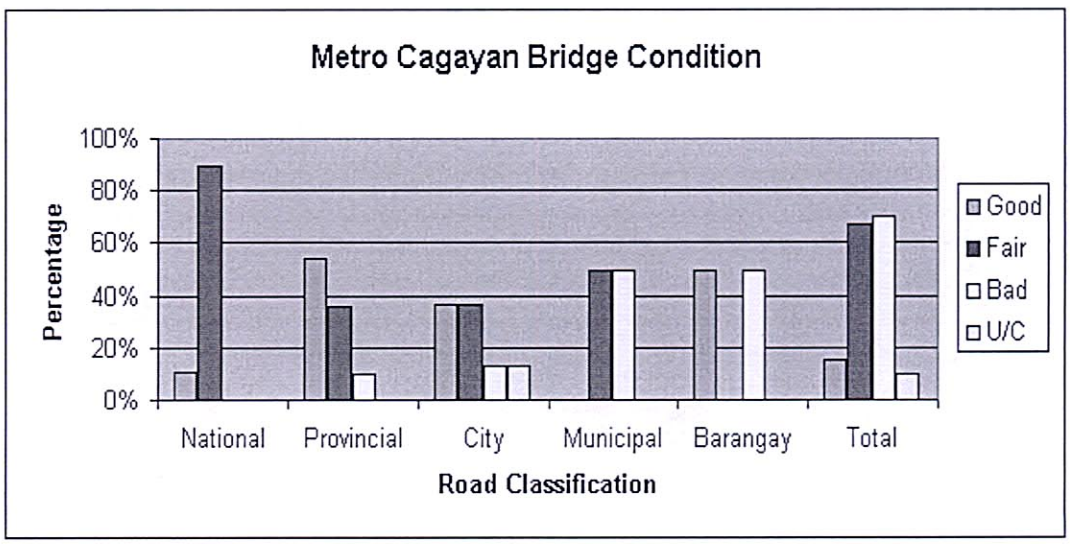


FIGURE 5.2-4 METRO CAGAYAN DE ORO BRIDGE CONDITION

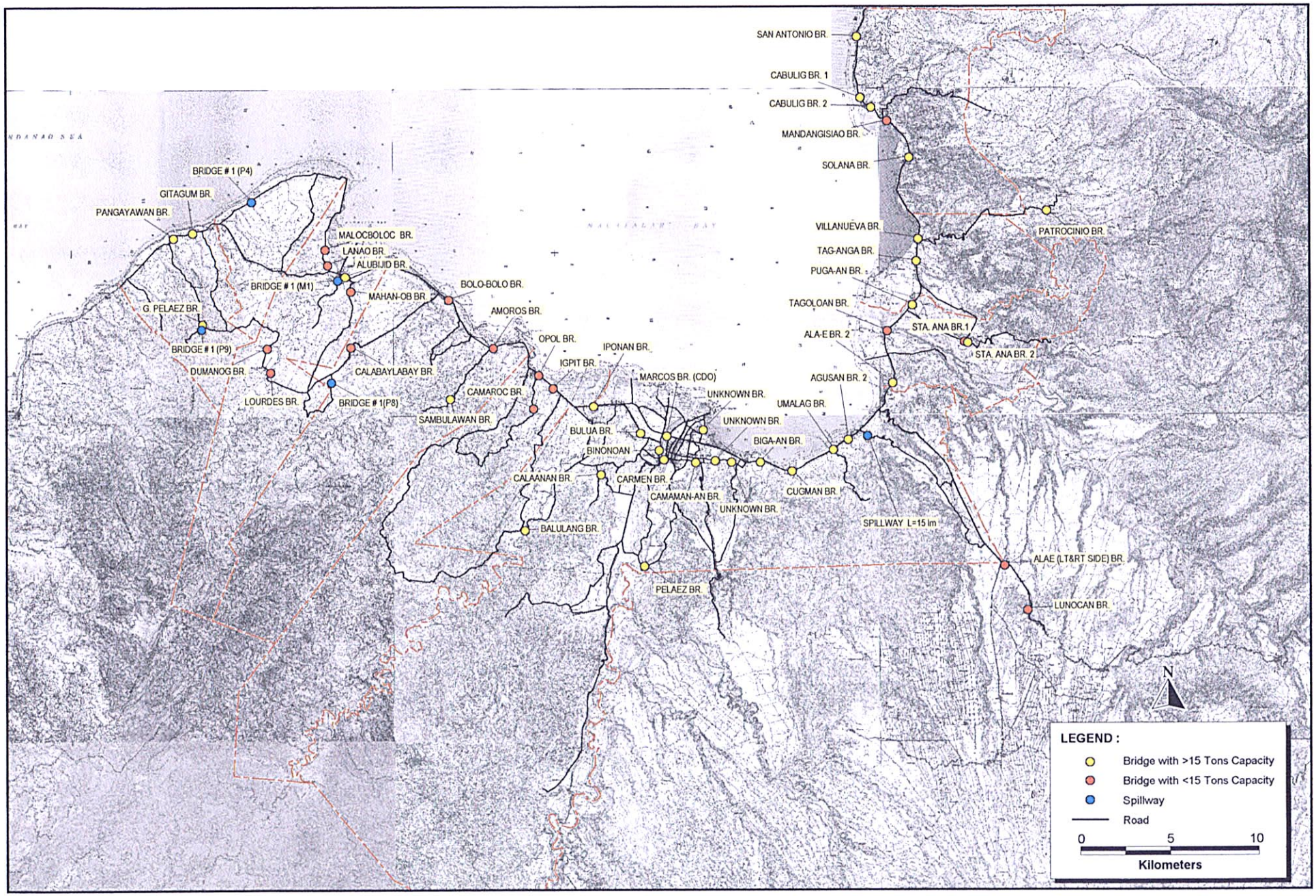


FIGURE 5.2-5 EXISTING BRIDGE LOCATION MAP

5.3 LEVEL OF SERVICE OF EXISTING ROADS

Level of service (LOS) of a road is well expressed by a travel speed. The Study Team developed criteria of LOS by referencing "Highway Capacity Manual 2000" (HCM2000 by TRB of the United States) as shown in Table 5.3-1.

TABLE 5.3-1 LEVEL OF SERVICE CRITERIA

Level of Service	Travel Speed (km/hr)		Remarks
	Inside Cagayan de Oro City	Outside Cagayan de Oro City	
A	> 50	> 60	—
B	40 – 50	45 – 60	—
C	30 – 40	35 – 45	• Ideally maintained this level.
D	20 – 30	25 – 35	• Countermeasures should be planned and implemented in the near future
E	15 – 20	20 – 25	• Countermeasures immediately implemented.
F	< 15	< 20	• Countermeasures immediately implemented.

Source: JICA Study Team

Figure 5.3-1 shows the present level of service of roads in Cagayan de Oro City. Road sections under LOS E or D are as follows:

LOS F :
- Jct. Corrales Ext.-Carmen-Camanmanan Rd.
- Jct. Osmena St.-Jr. Borja St. Extension
- Veles St.
- Capistrano St.
- Part of ICBR

LOS E :
- Jct. ICBR-Kauswagan
- Jct. NR-Bulua Patag Road
- Corrales Extension Road
- Part of ICBR

LOS D :
- Talacag-Lumbia-Jct. ICBR
- Jct. Osmena St.-Borja Rd.
- Jct. NR-Corrales Ext.
- Part of ICBR

Other roads in the Study Area are still maintaining level of service of C or B.

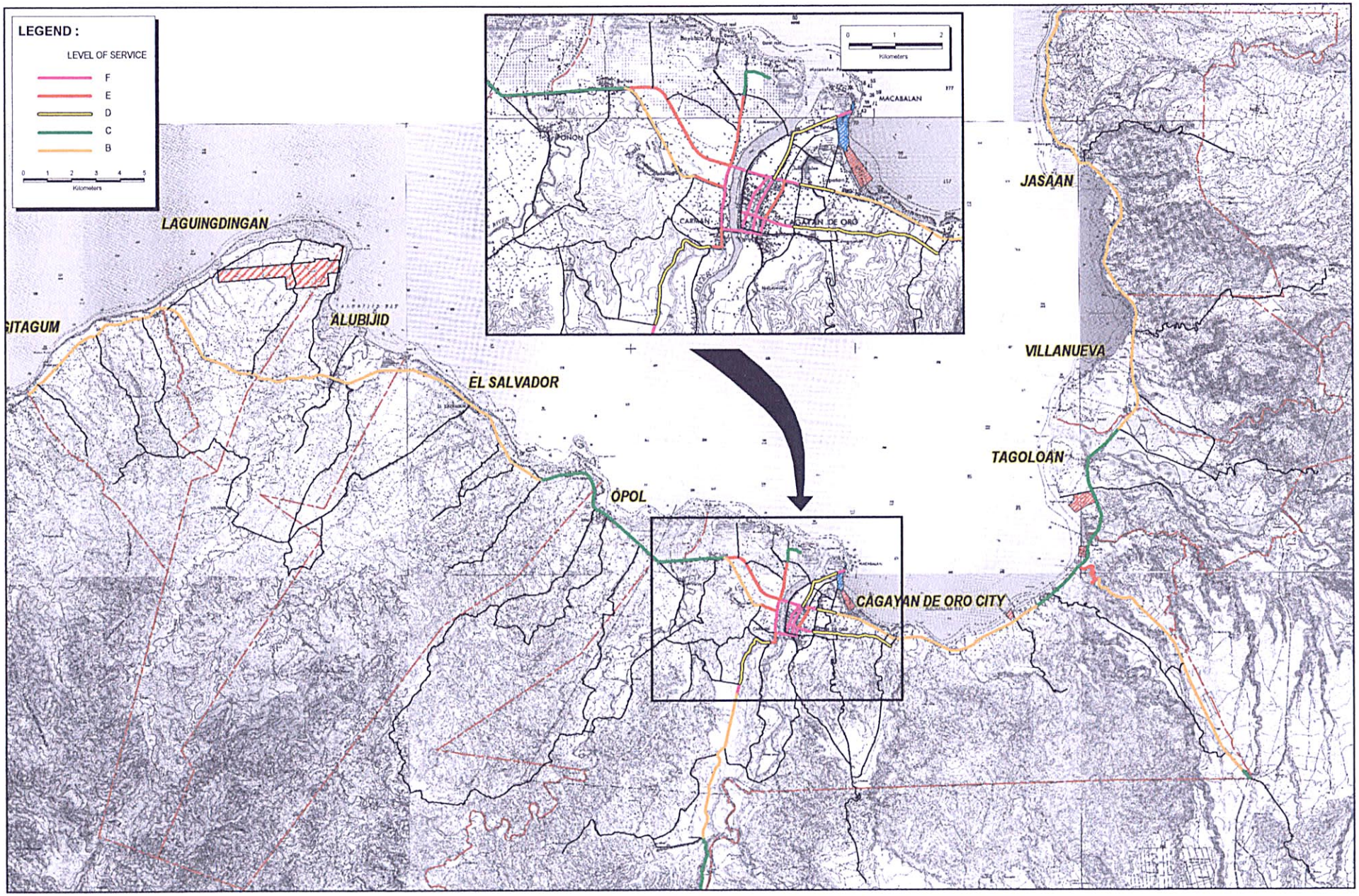


FIGURE 5.3-1 PRESENT LEVEL OF SERVICE ROADS IN CAGAYAN DE ORO CITY

CHAPTER 6
ROAD MAINTENANCE

6.1 NATIONAL ROAD

6.1.1 Maintenance Responsibility

A maintenance program is planned by District Engineering Offices (DEOs) in accordance with the Guideline prepared by the Bureau of Maintenance of the DPWH Central Office. The various maintenance activities are implemented by DEO under the supervision of the Regional Engineering Offices (REO). In the Study Area, the following DEOs under the Region X of REO are in charge of road maintenance for national roads.

TABLE 6.1-1 DISTRICT ENGINEERING OFFICES (DEO) IN METRO CAGAYAN DE ORO

Metro Cagayan de Oro	
District	**Location**
Misamis Oriental 2nd District Eng'g Office	Cagayan de Oro City
Cagayan de Oro City District Eng'g Office	Cagayan de Oro City

Source: REO, Region X

Table 6.1-2 shows the summary of roads and bridges for maintenance by respective DEO.

TABLE 6.1-2 MAINTENANCE RESPONSIBILITY OF DEO IN CAGAYAN DE ORO

District	Road Length (km)				Bridge	
	PCC	AC	Gravel	Total	Numbers	Length (m)
Mis. Oriental, 2nd DEO	130.595	8.238	17.970	156.803	38	2.288
Cag. de Oro City DEO	48.063	31.443	-	79.506	21	1.442
Total	**178.658**	**39.681**	**17.970**	**236.309**	**59**	**3.730**

Source: DPWH Region X

6.1.2 Maintenance Budget

Road maintenance budget and allocation to the Regional Offices and DEO/CEO are determined by Equivalent Maintenance Kilometer (EMK) system. The EMK is as follows;

Maintenance Budget = Basic Cost x EMK

Basic Cost: Cost per one equivalent – maintenance – kilometer for one year
EMK: Equivalent – Maintenance- Kilometer to be determined by a physical length multiplied by EMK factors. EMK factors are determined for type of pavement, width of roadway and traffic volume.

The based cost in 2003 is 82,000 peso/km.

Maintenance budget is released to the respective DEO/CEO every quarter. Five percent (5%) of the total maintenance budget allocated for each region is set aside for the maintenance for roads which are newly converted to or taken over as national roads for the current year. In addition, to provide a ready fund for emergencies, another five percent (5%) of the budget is retained at the Regional Offices as Immediate Response Fund (IRF). This fund is used for the immediate repair of roads and bridges damaged by natural calamities, or for emergency activities.

6.1.3 Maintenance Budget Allocation

Table 6.1-3 and Figure 6.1-1 show the maintenance budget allocated to each DEO in Metro Cagayan de Oro in the last four years (2000 to 2003).

TABLE 6.1-3 MAINTENANCE BUDGET OF DEO IN CAGAYAN DE ORO

(in Million Peso)

District	Budget/Year			
	2000	2001	2002	2003
Misamis Or.2nd Eng'g.District	18.861	21.619	18.042	20.930
Cag. de Oro City Eng'g Dist.	14.110	14.077	13.399	13.976
Total	**32.971**	**35.696**	**31.441**	**34.906**

Source: DPWH Region Office X

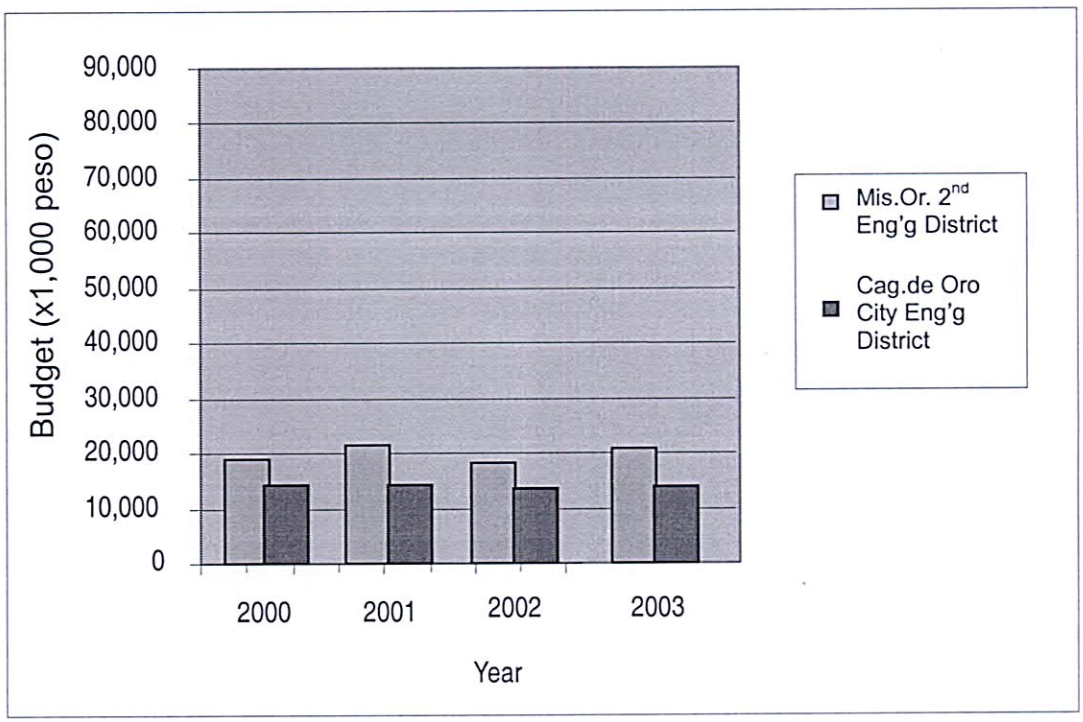


FIGURE 6.1-1 MAINTENANCE BUDGET ALLOCATION (2000 – 2003)

6.1.4 Maintenance Activity

Table 6.1-4 shows the definitions of maintenance activities by frequency.

TABLE 6.1-4 MAINTENANCE ACTIVITIES

Activity	Definition	Frequency
Routine maintenance	Maintenance is regularly performed throughout the year and includes roadway and related features, road side maintenance, traffic services, etc.	Regular and daily base
Periodic Maintenance	Maintenance that is more extensive than routine maintenance and planned using long-term intervals. It includes resurfacing unpaved roads; bituminous surface treatment, redecking timber bridge decks, and repainting steel bridge members, etc.	Based on annual plan.
Special Maintenance	Small improvement work like installation of new culvert, construction of concrete lined canal, slope protection works, etc.	Based on road inspection
Preventive Maintenance	Works that is more expensive than routine maintenance and helps to prevent (a) undue road way deterioration, (b)increase routine maintenance requirements, and (c) vehicular accidents.	Based on plan

Source: DPWH

6.1.5 Maintenance Operation

There are two types of maintenance operation; Maintenance by Administration (MBA) and Maintenance by Contract (MBC). Table 6.1-5 shows the definition of MBA and MBC.

TABLE 6.1-5 DEFINITION OF MBA AND MBC

Operation Category	Agent	Scope of Work
MBA	Force account, in-house staff and equipment of DPWH District Office	Other than MBC
MBC	Maintenance Contractor	Work of which quantity and unit of measurement are determined

Source: DPWH

For the past three years (1999 to 2001), 70% of the total maintenance allocation to budget is allotted for MBC and the remaining 30% for MBA.

6.1.6 Organization

Figure 6.1-2 shows the organization chart of the Regional Engineering Office in Region X. Typical organization chart of DEO is shown in Figure 6.1-3.

DPWH Region X Organizational Chart
Calendar Year 2003

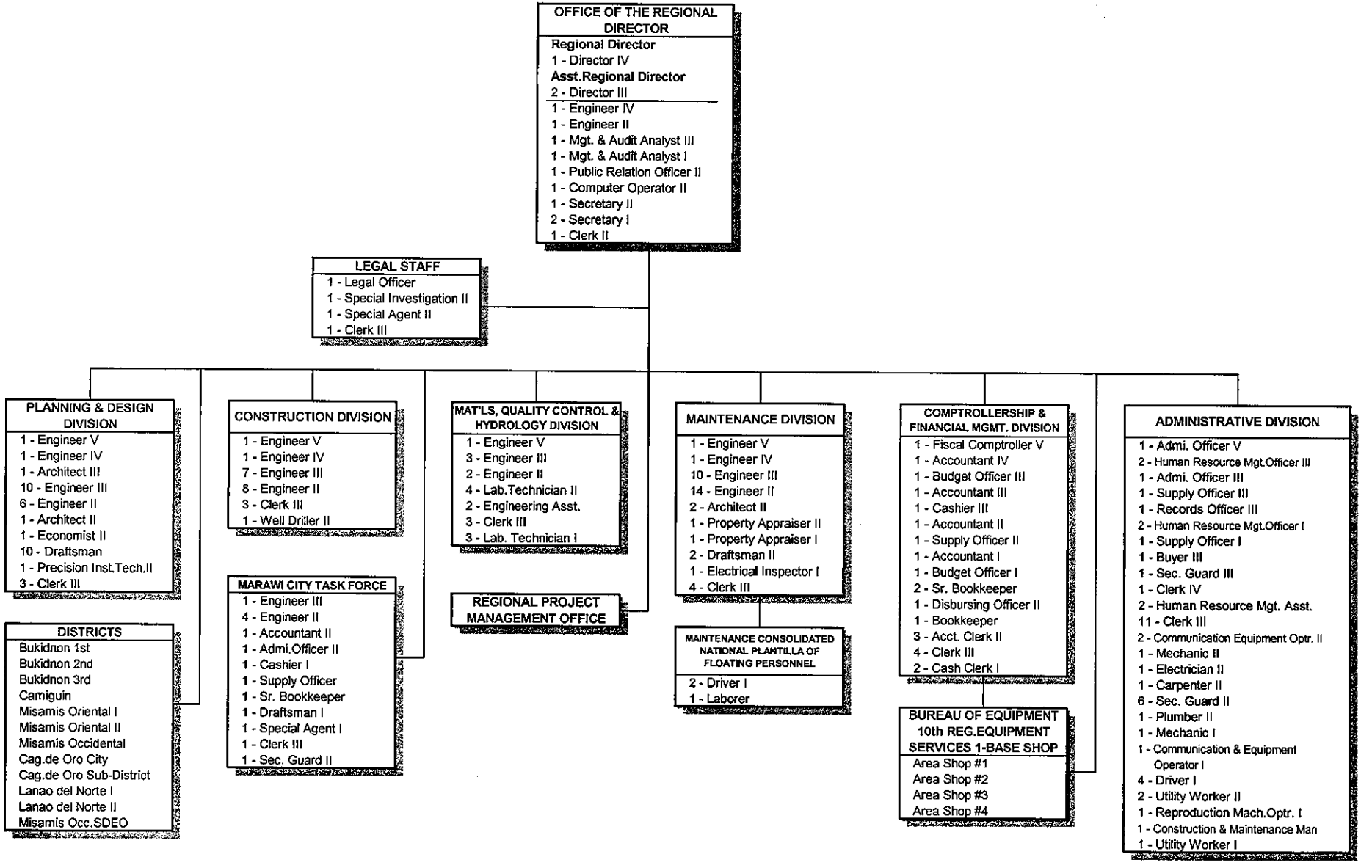


FIGURE 6.1-2 ORGANIZATION CHART OF DPWH REGION X

EXISTING ORGANIZATIONAL CHART
CY 2004
CAGAYAN DE ORO CITY DISTRICT ENGINEERING OFFICE
Puntod, Cagayan de Oro City

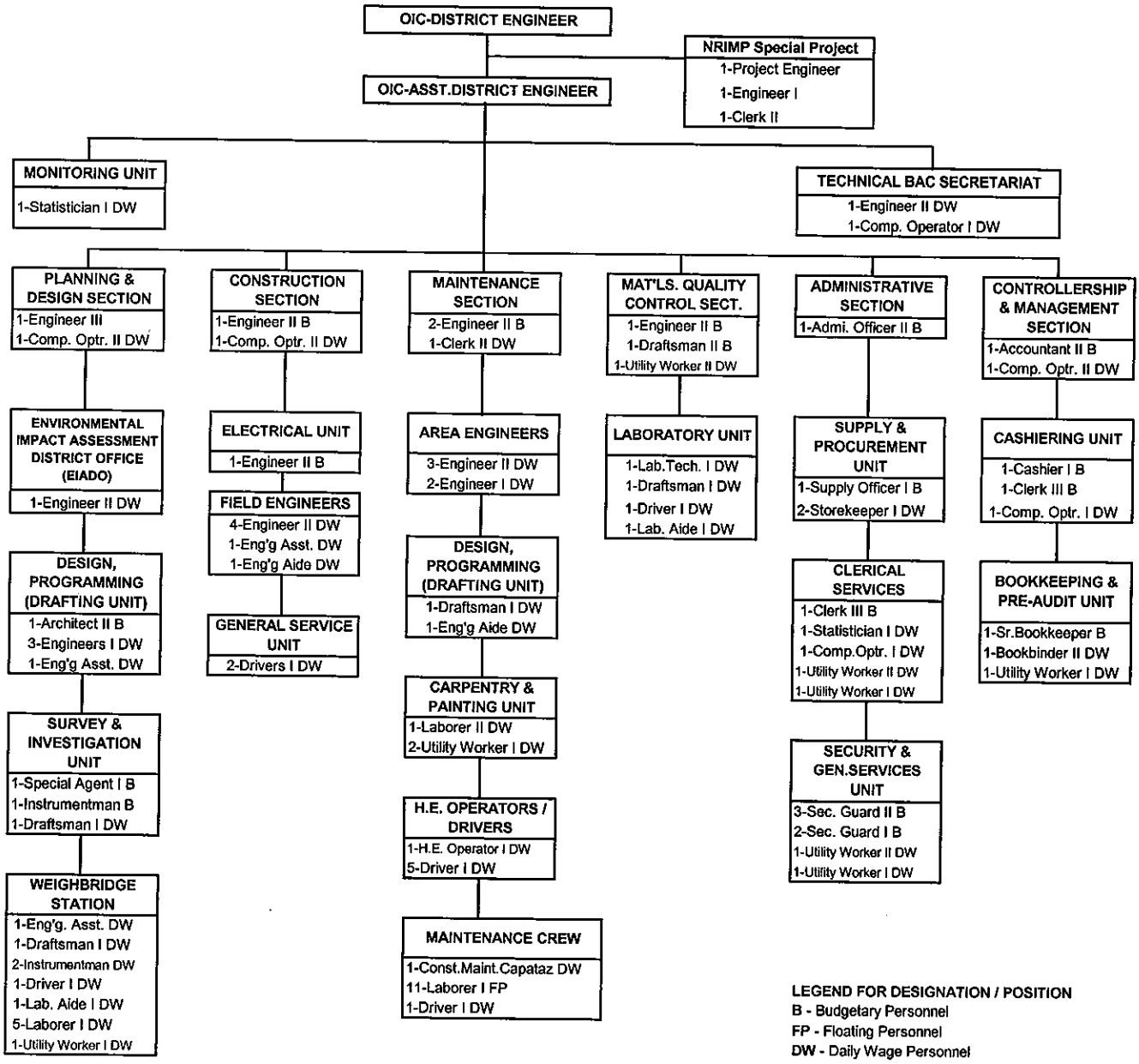


FIGURE 6.1-3 TYPICAL ORGANIZATION CHART OF DPWH DISTRICT ENGINEERING OFFICE

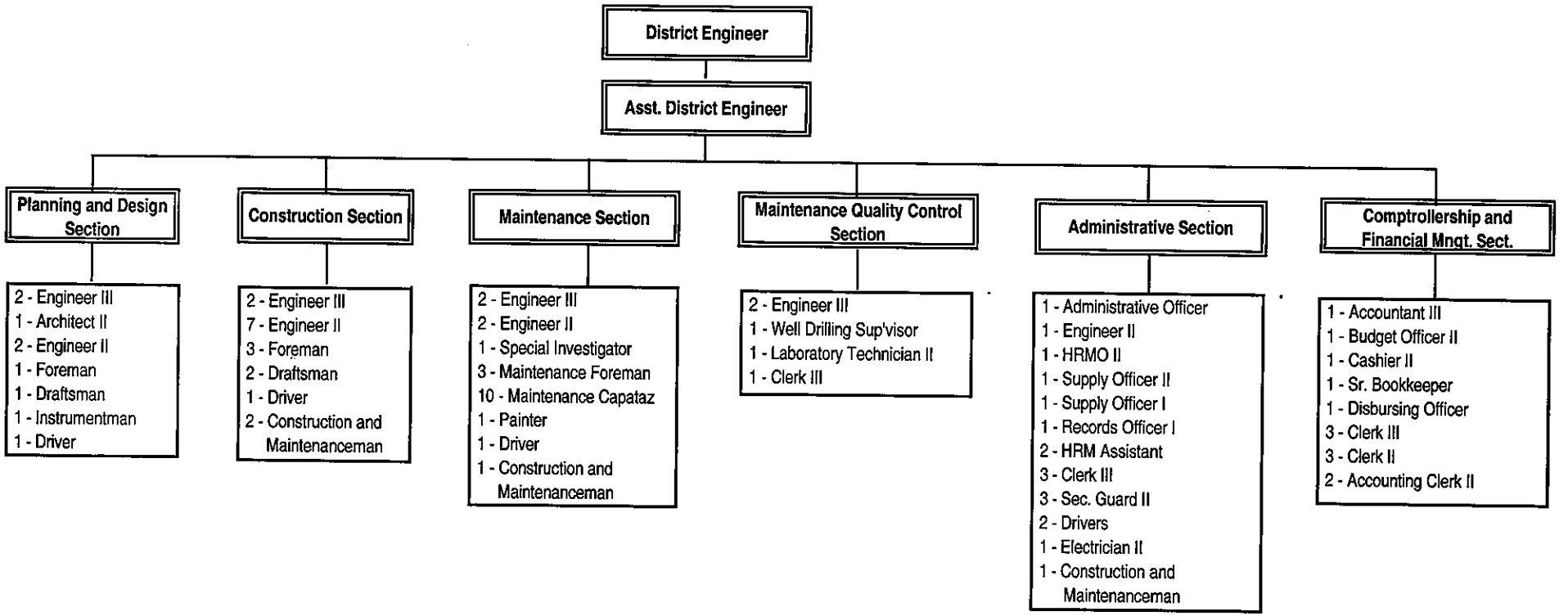


FIGURE 6.1-4 TYPICAL ORGANIZATION CHART OF DPWH MISAMIS ORIENTAL 2nd DISTRICT ENGINEERING OFFICE

6.2 LOCAL GOVERNMENT ROADS

6.2.1 Maintenance Responsibility

1) Provincial Roads

Maintenance of provincial roads is under the responsibility of the Provincial Engineer's Office (PEO). The name and location, and the summary of provincial roads by type are shown in Table 6.2-1 and Table 6.2-2, respectively.

TABLE 6.2-1 PROVINCIAL ENGINEER'S OFFICE FOR ROAD MAINTENANCE

Metro Cagayan de Oro	
Office	Location
Provincial Engineer's Office (PEO)	Cagayan de Oro City

TABLE 6.2-2 MAINTENANCE RESPONSIBILITY OF PROVINCIAL ROADS IN MISAMIS ORIENTAL

Office	Road Length (km)				Bridge	
	PCC	AC	Gravel	Total	No.	Length (lm)
Provincial Engineer's Office	52.882	5.264	443.340	501.486	25	555.310
Total	52.882	5.264	443.340	501.486	25	555.310

Source: PEO

2) City and Municipality Roads

Maintenance of City and Municipal Roads belong to the responsibility of the City Engineer's Office (CEO) and Municipal Engineer's Offices (MEO), respectively. The list of offices and location are shown in Table 6.2-3.

TABLE 6.2-3 CITY AND MUNICIPAL ENGINEER'S OFFICE FOR ROAD MAINTENANCE

Metro Cagayan de Oro	
Name	City /Municipality
Cagayan de Oro City Engineer's Office	Cagayan de Oro City
Jasaan Municipality Engineer's Office	Jasaan
Villanueva Municipal Engineer's Office	Villanueva
Tagoloan Municipal Engineer's Office	Tagoloan
Opol Municipal Engineer's Office	Opol
El Salvador Municipal Engineer's Office	El Salvador
Alubijid Municipal Engineer's Office	Alubijid
Laguindingan Municipal Engineer's Office	Laguindingan
Gitagum Municipal Engineer's Office	Gitagum

Source: DPWH, REO, Region X

Maintenance of Barangay Roads is under Barangay unit. However, the PEO and CEO assist all barangays in maintenance works, because they are facing with lack of budget, equipment and human resources in the barangay unit.

6.2.2 Maintenance Activity

Maintenance activities are focused on routine maintenance.

6.2.3 Maintenance Operation

All LGUs adopt MBA method.

6.2.4 Maintenance Budget

1) Province

Maintenance budget of Misamis Oriental Provincial Engineer's Office (PEO) is shown in Table 6.2-5.

TABLE 6.2-5 MAINTENANCE BUDGET OF MISAMIS ORIENTAL PEO

District	Budget / Year				
	2000	2001	2002	2003	Total
Provincial Engineer's Office	6.946	7.755	4.138	12.543	31.382
Total	6.946	7.755	4.138	12.543	31.382

Source: PEO, Answered Questionnaires.

2) City and Municipality

Budget for road construction and maintenance of CEO and MEO of Metro Cagayan de Oro are shown in Table 6.2-6.

TABLE 6.2-6 MAINTENANCE BUDGET OF CEO AND MEO IN METRO CAGAYAN DE ORO

Unit: 1000 Pesos

Metro Cagayan de Oro	2000		2001		2002		2003	
City /Municipality	Const.	Maint.	Const.	Maint.	Const.	Maint	Const.	Maint.
Cagayan de Oro City Engineer's Office	-	11,110	50,760	12,150	82,085	14,690	-	13,330
Jasaan Municipality Engineer's Office	2,378	328	1,087	389	1,826	439	1,305	150
Villanueva Municipal Engineer's Office	-	350	-	350	-	600	-	1,000
Tagoloan Municipal Engineer's Office	775	1,060	550	1,060	300	1,212	-	1,350
Opol Municipal Engineer's Office	-	-	-	-	-	-	-	-
El Salvador Municipal Engineer's Office	-	200	-	200	-	600	-	600
Alubijid Municipal Engineer's Office	418	40	594	230	1,603	1,823	131	278
Laguindingan Municipal Engineer's Office	-	300	-	310	-	300	-	300
Gitagum Municipal Engineer's Office	-	2,500	6,500	4,800	8,500	5,500	10	6,700

Source: 1) Cagayan de Oro CEO 2) 2002 DEV. Fund. 3) Annual Plan 2003. 4) 2002 Municipal Annual Development Plan . 5) Incomes and expenditures report

6.2.5 Organization and Staffing

1) LGUs

Organization chart of the CEO of Cagayan de Oro City is shown in Figure 6.2-1.

2) Summary of Staffing

Table 6.2-7 presents summary of staffing by Province, City, and Municipality.

Technical capabilities for planning as well as for engineering services vary across LGUs in the Study Area. Provincial offices usually keep permanent skilled staff and equipment capable of dealing with the majority of small to medium size projects. Any special needs require the assistance of larger government agencies such as DPWH, DILG, etc.

ORGANIZATION CHART OF THE CITY GOVERNMENT

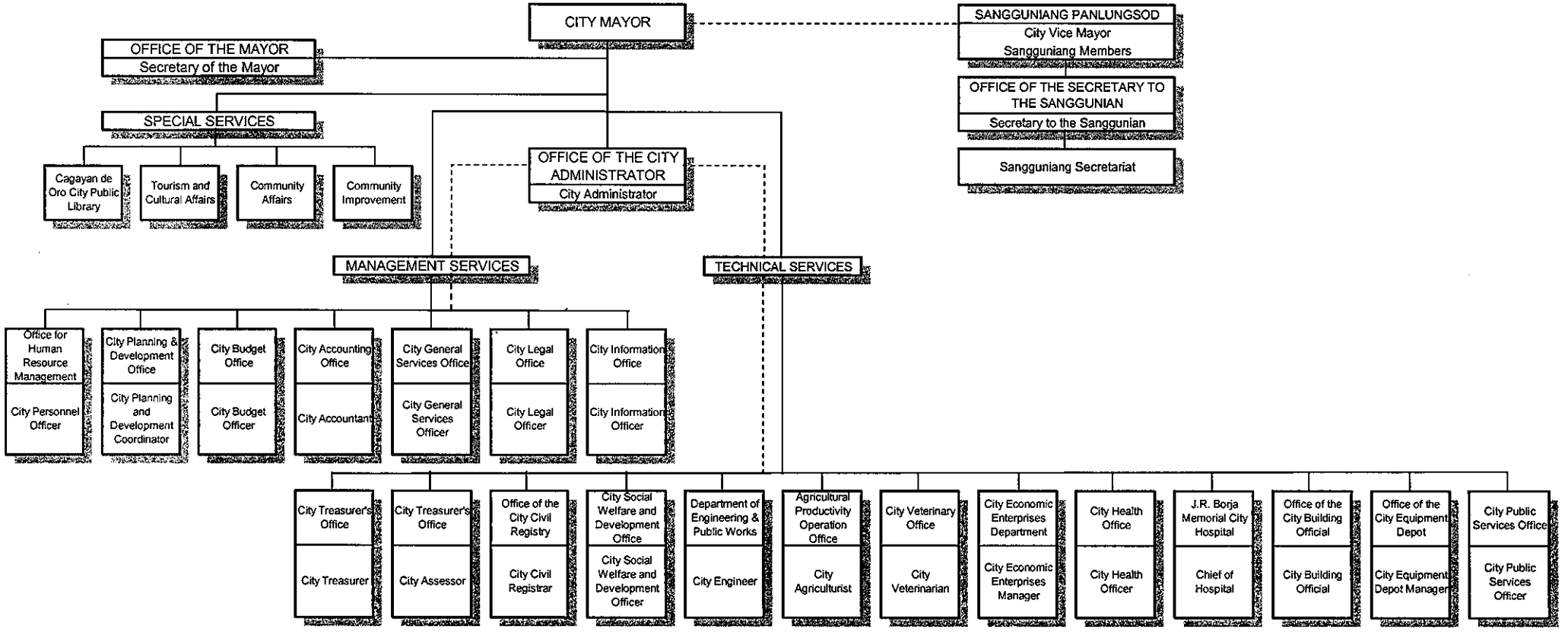


FIGURE 6.2-1 ORGANIZATIONAL CHART OF CAGAYAN DE ORO CITY ENGINEER'S OFFICE

(Cagayan de Oro)

TABLE 6.2-7 SUMMARY OF STAFF AND ORGANIZATION

	Province of Misamis Oriental	Cagayan de Oro City	Mun. of Jasaan	Mun. of Villanueva	Mun. of Tagoloan	Mun. of Opol	Mun. of El Salvador	Mun. of Alubijid	Mun. of Laguindingan	Mun. of Gitagum
Planning Office										
Career Prof.	-	-	2	-	4	5	2	-	-	-
Supporting Staff	-	-	4	-	20	-	12	-	-	-
Sub-Total	**14**	**75**	**6**	**-**	**24**	**5**	**14**	**-**	**-**	**-**
Construction										
Career Prof.	-	-	2	-	2	4	4	-	-	-
Supporting Staff	-	-	60	-	47	-	33	-	-	-
Sub-Total	**85 1)**	**132 2)**	**62**	**-**	**49**	**4**	**37**	**-**	**-**	**-**
Total	**99**	**207**	**68**	**-**	**73**	**9**	**51**	**-**	**-**	**-**

Source: LGUs
Note: Construction staff includes maintenance and motorpool staff.

6. 3 MAINTENANCE PROBLEMS

6.3.1 National Road

1) General

The Study Team conducted interview surveys to the DPWH Regional X Office and District Offices in Cagayan de Oro. The following maintenance problems for national roads are identified by DPWH field offices and summarized by the Study Team.

2) Maintenance Budget

Maintenance budget allocated in Metro Cagayan de Oro was decreased in 2000 and has been stable in the recent three year (2001 – 2003). However, the budget is not sufficient to meet maintenance requirements. The insufficient budget has caused two effects; (i) delay of timing of maintenance that resulted in more deterioration and then request of higher cost of repairing and rehabilitation, and (ii) priority allocation to paved road maintenance to prevent from extending further damages, which has caused neglecting of gravel road maintenance. However, gravel road covers 30% of the all national road.

3) Maintenance Problems

Table 6.3-1 shows maintenance problems raised by DEOs.

TABLE 6.3-1 MAINTENANCE STATUS BY DEO

District	Maintenance Issue
Misamis Oriental 2nd Engineering District	Limited budget on maintenance but the district has to constantly repair/maintain the national roads/bridges and other structures.
Cagayan de Oro City District Office	a) In terms of physical issue, it is hard to maintain the asphalt road, since asphalt materials are very expensive. b) In terms of budget allocation, the allocation money in common district is not enough to maintain the roads of 80 km. And most of it is in 4-lane traffic, and since we are one of the highly urbanized city, meaning traffic is heavy in all our roads. In this carriageway needs more maintenance especially the asphalt road.

4) Priority of Budget Allocation

The limited budget has been utilized for; (i) the roads that are strategically important and high traffic routes such as the primary road; (ii) the area such as traveled way, and (iii) the works that prevent easily increasing damages and need emergency repair work: patching of potholes, drainage cleaning, and other roadside act ivies are included. Most of attention is paid to maintain and keep PCC/ AC pavement from further deterioration.

5) Maintenance Operation

The issues on MBA and MBC are summarized in Table 6.3-2. According to DEO's opinion, MBC does not always improve maintenance efficiency.

TABLE 6.3-2 PRESENT STATUS OF MBA AND MBC

Item	MBA	MBC
Schedule Maint. Work	Activities to be prepared properly based on the actual needs and should be followed by the maintenance crew.	The contractor should follow the Approved schedule of activities to be done.
	The advantage of MBA the Department can adjust immediately the schedule if it is needed.	In this, we cannot easily adjust the schedule since it is given to the contractor ahead of time.
Urgent Work	Maintenance Engineer must have a proper instruction to his maintenance crew to respond immediately in time of calamities.	Maint. Engineer must give proper instruction to the contractor to respond immediately during calamities.
	Most of our urgent work the MBA will respond especially when it full to holidays.	We could not easily direct the contractor to do the jobs immediately for emergency, hence it is not included in the schedule.
Equipment	This office needs issuance of new equipment.	Contractor's equipment must always be ready on site.
	Most of the problem the MBA's equipment is easily damaged.	The equipment of the contractor can repair immediately.
Inspection and Supervision	Maint. Engineer and Maint. Foreman must go together for inspection to know and discuss the actual need of the area.	Contractor's Engineer and Maint.Engineer must also go together for inspection to discuss the Approved Schedule and should be done properly.
	In MBA Inspection is not constant since Area Engineer are in the field.	Supervisions for the MBC should conduct constant Inspection.
Budget and Expenditures	Maintenance Funds is limited.	Contractor's activities depend only on their contract amount.
	We can economized in MBA project.	No. comment.

Source: Interview with DEOs by the Study Team

6.3.2 Local Government Roads

Maintenance problems of local government road by PEO and Cagayan de Oro CEO are summarized in Table 6.3-3.

TABLE 6.3-3 MAINTENANCE PROBLEMS OF PEO AND CEO

Issue	Misamis Oriental Provincial Engineer's Office	Cagayan de Oro City Engineer's Office
Barangay Road	—	—
Road/ Bridge Inventory	—	—
Planning Division	14 staffs	75 staffs
Construction Division	16 staffs	25 staffs
Maintenance Division	-	95 personnel & equipment supported
Motor Pool Division	69 staffs	12 staffs
Road Maintenance		
- Maintenance manual	Yes, Maintenance Management Manual from SRRIP, 1992 Edition.	Yes, not updated
- Road inspection	Every 2 months, if the weather condition is good, but during rainy season, section Engineers are required to investigate and to conduct series of inspection to the most critical road section to prevent road deterioration.	Inspection is conducted daily. No service vehicle.
- Maintenance Activity List	Yes, Section Engineers are required to submit performance target every month regarding maintenance routinely activities.	Yes, routine maintenance
- Maintenance program	Yes, annual maintenance program is being prepared two months in advance for the purpose of Budget Allocation before the start of the succeeding calendar year.	Yes, Annual Maintenance Program 20% retention of approved maintenance budget
- Maintenance Operation	Road Maintenance is done by Administration using the newly acquired heavy equipments and a major force composed of 45 Maintenance crew back up by some casual employees.	Road maintenance work is done by administration
Equipment	a) 4 - Bulldozers b) 5 – Pay Loaders c) 3 – Motor Graders d) 11 – Ten Wheeler Trucks e) 1 – Prime Mover with Trailer f) 1 – Pick-Up Service	**Operational** a) 1-Bulldozer b) 2-Payloader c) 2-Road Grader d) 3-Road Roller e) 8-Dump Trucks f) 1-Tractor g) 4-Backhoe **Non-operational** a) 2-Road Grader b) 2-Dump Trucks c) 1-Service Vehicle d) 1-Road Roller e) 1-Backhoe
Problems	a) Inadequate fuel supply, purchase always late on target. b) Procurement of spare parts of the equipments above always delayed which could hamper the monthly target. c) Schedule intended for Provincial Road repair shifted to Municipal or Barangay road repair due to influence of some public officials.	a) Lack of equipment, manower and budget b) Delayed procurement of spareparts c) Motorpool Division belong to other department (City Equipment Depot) Hence, CEO has no direct supervision of the same.

Source: PEO, CEO, Answered questionnaires of the Study.

CHAPTER 7
LOCAL GOVERNMENT SYSTEM IN THE PHILIPPINES

7.1 Local Government Units

7.1.1 Levels of Government

The four levels of local government units (LGUs) in the Philippines, in terms of political corporate entities, are as follows (in hierarchical order):

a) Provinces,
b) Cities,
c) Municipalities, and
d) Barangays.

A detailed explanation on the characteristics of each level of local government is given in Part B Section 7.1.1. Furthermore, the responsibilities and functions of the LGUs are described in detail in the Local Government Code of 1991.

7.1.2 Income Classification

The LGUs are classified based on their income, which is used, among others, as basis for fixing the maximum tax ceiling imposable by the LGU, for determining administrative and statutory aids, financial grants and other forms of assistance to LGUs, and for the implementation of salary laws and administrative issuances on allowances and emoluments for local government officials and personnel. The recent income classification for LGUs nationwide is shown in Table 7.1-1.

TABLE 7.1-1 INCOME CLASSIFICATION OF LOCAL GOVERNMENT UNITS, 2001 [1/]

LGU Level	Classification	Average Annual Income[2/]
Province	1st	P 255 M or more
	2nd	P 170 M or more but less than P 255 M
	3rd	P 120 M or more but less than P 170 M
	4th	P 70 M or more but less than P 120 M
	5th	P 35 M or more but less than P 70 M
	6th	Below P 35 M
City	Special	Per Presidential Decree No. 465
	1st	P 250 M or more
	2nd	P 155 M or more but less than P 250 M
	3rd	P 100 M or more but less than P 155 M
	4th	P 70 M or more but less than P 100 M
	5th	P 35 M or more but less than P 70 M
	6th	Below P 35 M
Municipality	1st	P 35 M or more
	2nd	P 27 M or more but less than P 35 M
	3rd	P 21 M or more but less than P 27 M
	4th	P 13 M or more but less than P 21 M
	5th	P 7 M or more but less than P 13 M
	6th	Below P 7 M

1/ DOF Dept. Order 32-01 of November 20, 2001 (Amending Department Order 94-97 of March 26, 1997)
2/ Income in pesos for the last 3 calendar years
Source: Philippine Standard Geographic Code (PSGC)

Each LGU may maintain their organization structure and offices necessary to carry out their government's functions. The typical officials within each structure are listed in Part B Chapter 7 (refer to Table 7.1-2).

7.2 The Local Government Code of 1991

The enactment of the Local Government Code of 1991 paved the way for local autonomy of communities within the hierarchy of the local government units. Basically, the law is founded on the principle of decentralization focusing on devolution. By definition, devolution is the creation or strengthening – financially or legally – of subnational units of government, the activities of which are substantially outside the direct control of central government. Under devolution, local government units are autonomous and independent, and their legal status makes them separate or distinct from the central government.[1]

The Code is divided into four books, to wit:

1) Book I - General Provisions
2) Book II - Local Taxation and Fiscal Matters
3) Book III- Local Government Units
4) Book IV- Miscellaneous and Final Provisions

The Code has several sections that are relevant to the development of roads. These are enumerated and explained in the Part B Chapter 7 (Section 7.1) of this report and outlined below as follows:

1) Section 3 on Operative Principles of Decentralization.
2) Section 17 on Basic Services and Facilities.
2) Section 18 on Power to Generate and Apply Resources.
3) Section 19 on Eminent Domain.
4) Section 37 on Local Pre-qualification, Bids and Award Committee.
5) Section 155 on Toll, Fees and Charges.
6) Section 287 on Local Development Projects.
7) Section 296 on Policy for Credit Financing.
8) Section 297 on Loans, Credits and Other Forms of Indebtedness of LGUs.
9) Section 300 On Inter-Local Government Loans, Grants, and Subsidies.
10) Section 301 on Loans from Funds Secured by the National Government from Foreign Sources.
11) Section 302 on Financing, Construction, Maintenance, Operation and Management of Infrastructure Projects by the Private Sector.
12) Section 324 on Budgetary Requirements.

7.3 Relevant Agencies for the Development of Local Roads

The Code provides a clear delineation of functions across levels of government but not in the area of public works. The LGUs are tasked with the primary responsibility for the construction and maintenance of local roads but the Department of Public Works and Highways (DPWH) continue to undertake similar activities. The DPWH implements public works and infrastructure projects and other facilities, programs and services funded by the national

[1] Bautista, Arnell, "Rules and Regulations Implementing the Local Government Code of 1991," 1993, p 403.

government under the Annual General Appropriations Act, other special laws, pertinent executive orders, and wholly or partially funded from foreign sources.[2]

With the implementation of the Code, all local roads were devolved to the corresponding level of LGU. The responsibility of DPWH was focused on national roads. However, other NGAs such as DA, DAR, DENR, and NIA still continue developing/providing roads relative to their programs. On the LGU level, the Provincial Engineers' Offices (PEOs), the City Engineers' Office (CEO) and the Municipal Engineers' Office (MEO) were mainly responsible for the maintenance of local roads. When deemed necessary, the DPWH provided technical assistance to the PEOs.

7.4 Local Government Fiscal Management

7.4.1 Local Fiscal Administration

The LGUs, with the exception of the barangays, maintain two types of funds. These are the General Fund and the Special Fund. Within the General Fund, the following accounts are maintained:

a) public utilities and other economic enterprises;
b) loans, interest, bond issues, and other contributions;
c) development projects funded from the share of the internal revenue allotment (IRA); and
d) other special accounts created by law or ordinance.

The Special Fund, on the other hand, consists of the following:

a) Special Education Fund, which is the share in the proceeds of additional tax on real property; and
b) Trust Fund, which consist of private and public monies that officially came into the possession of the LGU as trustee, agent, or administrator to be used for a specific purpose.

All LGUs have their Local Finance Committee composed of the Planning and Development Officer, Budget Officer, and the Treasurer. Among others, their functions are to determine the income projected as collectible for the ensuing fiscal year, recommend appropriate tax and other revenue measures, recommend the level of annual expenditures, recommend proper allocation of expenditures, recommend the amount allocated for capital outlay for infrastructure projects, and conduct semi-annual review and general examination of cost and accomplishment against performance standards applied in undertaking development projects.

The LGU Budgeting procedure is undertaken in four (4) phases, namely: (a) budget preparation, (b) budget legislation or authorization, (c) budget execution or implementation, and (d) budget accountability or review. Budget preparation starts with the determination of budgetary policies and activities guided by the LGUs development plans, with ceilings and constraints imposed by available revenues.

[2] Rosario G. Manasan, Fiscal Decentralization: the Case of the Philippines, 2002.

Among the documents contained in the budget are the following:

a) the actual income and expenditures during the immediately preceding year,
b) the actual income and expenditure of the first two quarters and estimates of the same for the last two quarters of the current fiscal year;
c) the estimates of income for the ensuing fiscal year from existing laws and ordinances,
d) the estimated expenditure necessary to carry out the functions, projects, and activities of the LGU for the ensuing fiscal year,
e) all essential facts regarding to bonded and other long-term obligation and indebtedness, if any,
f) summary statement of all statutory and contractual obligations due, and
g) other financial statements and data which are deemed necessary.

7.4.2 Revenues and Expenditures

Revenues of the LGUs are basically composed of the locally generated income and the national government distribution of the Internal Revenue Appropriation (IRA). The IRA is a system of sharing national internal revenue collections received by the Bureau of Internal Revenue with the LGUs. A predetermined formula (referred to as the CODAL formula in the Code) is adhered to for the distribution of the IRA. An explanation on the distribution formula is presented in Part B Section 7.4.2 of this report.

The locally generated income comes in various types of taxes and levies allowed by different levels of government. These taxes and fees are listed in Table 7.4-1 of Part B of this report.

Based on the review of financial resources of LGUs in the ADB sponsored Rural Roads Development Project, the LGUs are highly dependent on the IRA with the provinces turning out as the most dependent. It has been found that cities have the greatest opportunity to raise local revenues. On the whole, the LGUs have not maximized their revenue raising powers.

The expenditures of the LGUs are basically reported in many forms. One is by service (general, economic, and social services) in the Statement of Fund Operation and the Status of Appropriations. Another is a dichotomy of personal services and maintenance and other operating expenses in the Certified Statement of Income and Expenditures, which is supported with reports by office and functional category.

7.4.3 Local Borrowing and Credit Financing

The Code provides that LGUs may enter into indebtedness (Section 297). However, LGUs should maintain depository accounts with banks (preferably GFIs) located within their respective jurisdiction (Section 311). The GFIs that benefited from this requirement are the Land Bank of the Philippines, the Development Bank of the Philippines and the Philippine National Bank[3]. However, for instances that LGUs have no access to any GFIs, "depository accounts may be opened with a bank duly designated as government depository

[3] The PNB has been privatized recently but has been able to secure a BSP authorization allowing it to keep deposits from LGUs provided that there exists a creditor and debtor arrangement between the bank and the LGU.

by the Bangko Sentral ng Pilipinas (BSP) upon prior authority of the *Sanggunian* and approval of the chief executive." With such limitation, relationships between the LGUs and private banks have not been promoted.

There are two major controls on LGU borrowings. One is the borrowing limitation provided by Section 324 of the Code at 20% of their regular income. Another is the loan application requisite of funding institutions for the Certification of Borrowing Capacity issued by the Bureau of Local Government Finance (BLGF) of the Department of Finance (DOF), which specifies the amount the LGU is capable of paying.

There were previously two methods of determining the borrowing capacities of LGUs; one for the income generating projects and another for the non-income generating. However, BLGF simplified the computation in 2002 to only one method, which is applicable to any type of project. This employs the following computations:

Debt Service Ceiling = (average local source income for 3 years + IRA for year 2003) x 20%

Net Debt Service Ceiling = Debt Service Ceiling – loan amortization for 2003

Borrowing Capacity = Net Debt Service Ceiling x annuity factor for loan

The Net Debt Service Ceiling is the amount an LGU has available to pay a loan in a year with due consideration made as to the limitation imposed by Section 324 of the Code. The Borrowing Capacity is the total amount of a loan an LGU can avail. The current annuity factor used is 6.194, which is computed based on the MDF interest rate of 12% for a loan period of 12 years with 3 years grace period (on principal only). The BLGF-determined borrowing capacity is valid only for the year computed and has to be updated yearly.

For the BLGF computation, the LGUs are required to submit various documents (as listed in Section 7.4.3 of Part B Report) after which a Certification of Borrowing Capacity is issued.

Another source of funding is credit financing through bond floatation or build-operate-transfer schemes. However, LGUs cannot be expected to borrow, issue bond, or tap other forms of credit financing due to the following constraints:

- The general perception that LGUs are "high risk" credits as the limited tenure of elected local chief executives connotes probability of discontinuity in local programs;
- Knowledge of the securities market and available credit instruments at the local level are inadequate;
- The absence of institutional assistance to explain and inform LGUs and the general public of available facilities;
- The absence of local credit rating system for information on creditworthiness of LGUs and absence of local staff resources for management of credit financing; and
- The absence of adequate incentives to invest in long-term securities.

7.5 Available Funding Mechanisms

There are a number of existing funding mechanisms employed for infrastructure projects for the LGUs, including the provision of roads. Among these are the Municipal Development Fund, the Congressional Fund, borrowing from Government Financial Institutions, and the recent funds generated under the Motor Vehicle Users Charges. These are described in detail in Part B Sections 7.5.1 to 7.5.4 of the Interim Report.

7.6 Capabilities of Metro Cagayan de Oro LGUs for Road Improvement

7.6.1 Administrative Profile of LGUs in Metro Cagayan de Oro

There are ten LGUs covered in the study area of Metro Cagayan de Oro. They are listed in order of income classification[4] and administrative coverage in Table 7.6-1.

TABLE 7.6-1 INCOME CLASS AND ADMINISTRATIVE COVERAGE OF LGUs IN METRO CAGAYAN DE ORO

Local Government	Income Class[1/]	2002 Gross Income (P 000)[3/]	Land Area (sq. km.)	Population 2000	No. of Barangays
1. Cagayan de Oro City [2/]	1st	990,638	474.1	461,877	80
2. Mun. of El Salvador	3rd	34,241	145.1	34,650	15
3. Mun. of Jasaan	3rd	40,851	78.3	39,969	15
4. Mun. of Tagoloan	3rd	45,860	61.2	46,649	10
5. Mun. of Alubijid	4th	20,219	95.5	23,397	16
6. Mun. of Opol	4th	36,915	146.3	36,389	14
7. Mun. of Villanueva	4th	30,732	44.0	24,867	9
8. Mun. of Gitagum	5th	12,977	42.4	13,522	11
9. Mun. of Laguindingan	5th	14,191	34.1	18,451	11
Subtotal			1,121.0	699,771	181
Province of Misamis Oriental	1st	412,072	3,426.0	1,126,215	422

1/ Based DOF Dept. Order 32-01 Effective November 20,2001
2/ Independent City
3/ Data for 2001 were used for Alubijid, Villanueva, Gitagum and Laguindingan.
Sources: NSO 2000

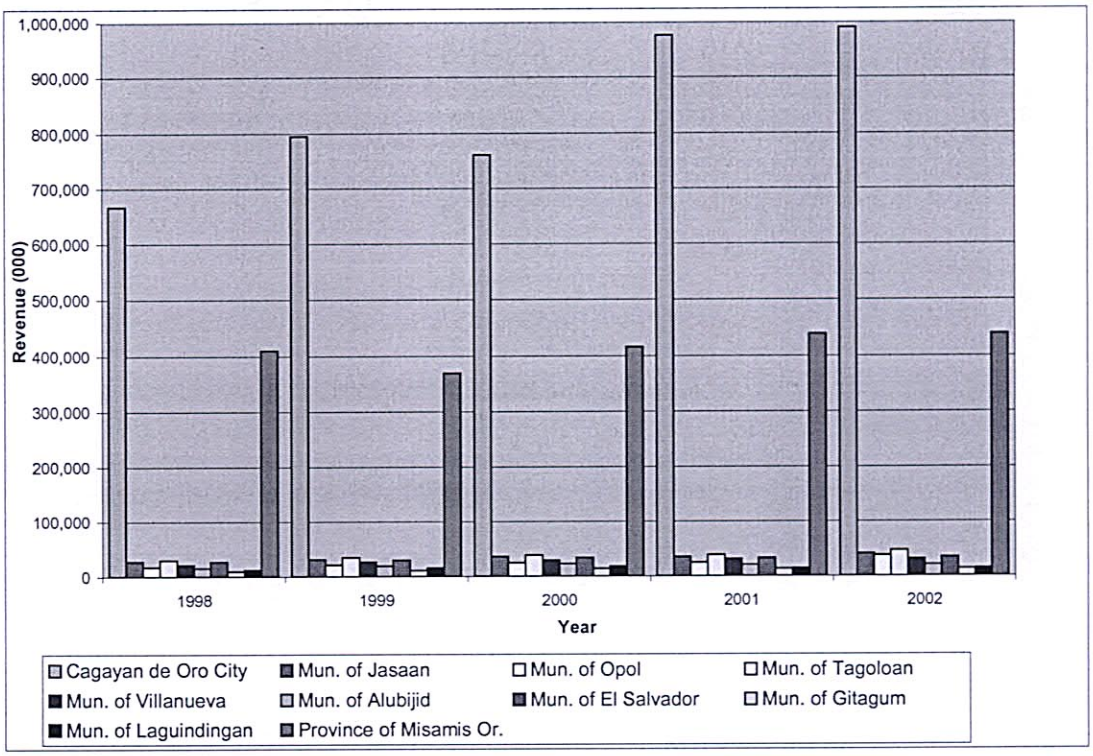
The organizational chart of each LGU in Metro Cagayan de Oro is compiled in Annex 7.1 for reference. As with all LGUs, the organization is headed by a governor (for provinces) or a mayor (for cities or municipalities) as the executive officer and the *Sanggunian* as the legislative body.

7.6.2 Assessment of Financial Capabilities

Revenues of the LGUs in Metro Cagayan de Oro have also shown a generally upward trend for the five fiscal periods covering 1998 to 2002 (refer to Figure 7.6-1). Similar to Metro Iloilo, the LGUs in the Metro Cagayan de Oro area exhibited a low propensity for generating their "own income" since they are municipalities of the 3rd and lower income classification. These are LGUs that are generally constrained in increasing their income.

[4] The latest income classification of LGUs by the Department of Finance is as of November 2001.

FIGURE 7.6-1 REVENUE HISTORY OF LGUs IN METRO CAGAYAN DE ORO



Source: Statement of Income and Expenditures Databank, BLGF, DOF.

The revenue profile of the LGUs in Metro Cagayan de Oro area is varied but with an obvious character; all LGUs rely heavily on the IRA. The provincial government of Misamis Oriental showed a growing dependence on the IRA with percentage shares in total revenues of 73% in 2000 to 90% in 2002.

TABLE 7.6-1 REVENUE PROFILE OF LGUs IN METRO CAGAYAN DE ORO AREA, 2002

LGU	Share in Total Revenue (%)								
	Tax Revenues			Non Tax Revenues			Allotments (IRA)		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
1. Cagayan de Oro City	30.1	39.2	35.1	12.0	9.5	9.1	57.9	51.2	55.8
2. Mun. of El Salvador	26.0	23.1	21.1	9.3	5.7	0.3	64.7	72.2	78.7
3. Mun. of Jasaan	30.7	31.4	29.5	3.0	2.4	3.0	66.3	66.2	67.6
4. Mun. of Tagoloan	13.5	9.1	14.4	13.5	18.1	12.6	73.0	72.6	73.0
5. Mun. of Alubijid	5.1	3.8	na	9.2	6.6	na	85.7	89.6	na
6. Mun. of Opol	13.4	13.6	17.4	6.3	4.6	0	80.3	81.8	82.6
7. Mun. of Villanueva	21.4	19.6	na	19.1	14.8	na	59.5	65.6	na
8. Mun. of Gitagum	3.1	3.1	na	7.1	4.8	na	89.8	92.1	na
9. Mun. of Laguindingan	8.7	9.0	na	12.1	7.7	na	79.3	67.4	na
Province of Misamis Or.	11.0	11.3	na	16.3	14.9	na	72.7	73.8	89.5

na – not available

Source: Statement of Income and Expenditures Databank, BLGF, DOF and accomplished questionnaires of LGUs.

The average growth rate of revenue items of the LGUs is shown in Table 7.6-2. Most of the LGUs posted modest growth in their revenues except the Municipality of Opol, which showed a strong growth of 22% over the five-year period from 1998 to 2002. However, a careful look at the composition of the income reveals that it is basically the increase in IRA that pulls up the growth rates of the LGUs, except for the Municipality of Laguindingan.

As to expenditures, the overall financial performance of the LGUs reflected how well they could operate within its income without going over. However, the amount of surplus it retains is not a reliable gauge as to its efficiency in financial resource use but rather an indication of prudent fiscal management (see Table 7.6-3).

TABLE 7.6-2 AVERAGE GROWTH RATE OF INCOME, 1998 TO 2002

LGU	Average Growth Rate (%) 1/			
	Tax Revenue	Non-Tax Revenue	IRA	Total Revenue
1. Cagayan de Oro City	7.2	12.6	6.2	7.6
2. Mun. of El Salvador	-6.0	-32.4	7.8	0.5
3. Mun. of Jasaan	5.0	12.0	17.5	12.5
4. Mun. of Tagoloan	8.5	-3.4	18.9	11.8
5. Mun. of Alubijid	-5.9	-1.0	9.2	7.3
6. Mun. of Opol	26.3	-4.4	26.0	22.4
7. Mun. of Villanueva	6.8	3.9	15.5	11.4
8. Mun. of Gitagum	3.8	13.8	9.1	9.1
9. Mun. of Laguindingan	-0.9	8.8	-0.3	5.0
Province of Misamis Oriental	16.8	-8.6	16.0	0.1

Source: Calculated based on the Statement of Income and Expenditures Databank, BLGF, DOF
1/ Based on FY 1998 to 2001 only for Alubijid, Villanueva, Gitagum, and Laguindingan while the rest are calculated for FY 1998 to 2002.

TABLE 7.6-3 TREND OF LGUS' FISCAL PERFORMANCE; 1998 TO 2002

₱ 000

LGU	1998			1999			2000			2001			2002		
	Income	Expenditures	Surplus/ (Deficit)	Income	Expenditures	Surplus/ (Deficit)	Income	Expenditures	Surplus/ (Deficit)	Income	Expenditures	Surplus/ (Deficit)	Income	Expenditures	Surplus/ Deficit
1. Cagayan de Oro City	667,634	645,092	22,542	794,918	750,582	44,336	761,703	783,437	(21,734)	976,386	1,006,062	(29,676)	990,638	879,623	111,015
2. Mun. of El Salvador	26,579	25,178	1,401	29,509	25,578	2,931	33,761	32,707	1,054	31,971	34,255	(2,284)	34,241	34,058	183
3. Mun. of Jasaan	26,986	26,336	650	31,071	26,991	4,080	35,799	34,249	1,550	34,842	36,037	(1,195)	40,852	38,750	2,102
4. Mun. of Tagoloan	29,275	31,142	(1,867)	34,114	33,893	221	38,498	35,986	2,512	38,709	38,350	359	45,860	39,880	5,980
5. Mun. of Alubijid	15,640	15,283	357	18,801	17,980	821	22,462	20,559	1,903	20,219	19,551	668	NA	NA	NA
6. Mun. of Opol	17,386	18,359	(973)	21,005	20,357	648	24,675	22,838	1,837	24,392	24,900	(508)	36,915	29,466	7,449
7. Mun. of Villanueva	21,124	19,880	1,244	25,524	25,017	507	28,751	27,949	1,903	30,732	30,746	(14)	NA	NA	NA
8. Mun. of Gitagum	9,511	9,650	(139)	11,472	11,240	232	13,849	12,323	1,526	12,977	14,359	(1,382)	NA	NA	NA
9. Mun. of Laguindingan	11,825	11,241	584	15,709	16,379	(670)	18,296	18,652	(356)	14,191	17,900	(3,709)	NA	NA	NA
Province of Misamis Or.	410,409	398,513	11,896	368,721	379,143	(10,422)	415,490	363,877	51,613	438,782	490,421	(51,639)	412,073	383,441	28,632

Source: Statement of Income and Expenditures Databank, BLGF, DOF

Similar to other LGUs in this study, a review of the various forms of financial reports and records maintained by the LGUs in the study area revealed that the improvement, development and maintenance of roads are rarely continuing items in their expenditures. This indicates that funding is not regular and that special allocation is made only when deemed necessary. As such, it is difficult to decipher the actual amount spent on these activities. Most instances point to periodic and often small allocations made in the Annual Development Fund of

20% of Revenue for new road construction or for road improvement. Even smaller allocations in the same fund are allocated for road maintenance.

7.6.3 Borrowing Capacities of LGUs

As calculated by the study team, the realization of the road network envisioned for Metro Cagayan de Oro entails a huge investment. To explore possibility of LGU funding, the borrowing capacities of the LGUs in the study area were determined with the assistance of the BLGF-DOF. Resultant computations are shown in Table 7.6-4.

TABLE 7.6-4 BORROWING CAPACITIES OF METRO CAGAYAN DE ORO LGUs, 2003[1/]

₱ 000

LGU	Local Source Income	IRA (2003)	Annual Regular Income	Maximum Debt Service Capacity[3/]	Annual Amortization of Existing Loan[4/]	Net Debt Service Ceiling 2003 (P 000)	Net Borrowing Capacity (P 000)
1. Cagayan de Oro City	354,937	458,682	813,619	162,724	-	162,724	1,007,912
2. Mun. of El Salvador	9,374	28,788	38,162	7,632	0	7,632	47,275
3. Mun. of Jasaan	12,689	31,125	43,814	8,763	0	8,763	54,277
4. Mun. of Tagoloan	9,652	35,837	45,489	9,098	0	9,098	56,351
5. Mun. of Alubijid	2,708	24,359	27,067	5,413	0	5,413	33,530
6. Mun. of Opol	5,233	32,798	38,031	7,606	-	7,606	47,112
7. Mun. of Villanueva	8,734	22,626	31,360	6,272	0	6,272	38,848
8. Mun. of Gitagum	1,122	16,751	17,873	3,575	0	3,575	22,141
9. Mun. of Laguindingan	2,539	18,231	20,770	4,154	-	4,154	25,729
Province of Misamis Or.[2/]	83,347	344,128	427,475	85,495	33,976	51,519	319,109
Total	490,335	1,013,325	1,503,550	300,732	33,976	266,756	1,652,284

1/ Indicative amounts calculated by BLGF as the LGUs did not submit certification of outstanding/absence of loan.
2/ Year 2002 calculation of BLGF.
3/ Computed in accordance with Section 324b of the Local Govt. Code, which is 20% of the Annual Regular Income.
4/ Loan amortization is principal + interest.
Source: Bureau of Local Government Finance, Department of Finance

7.7 Analysis of Technical Capabilities

The staffing complement of each planning and engineering offices of each LGU in Metro Cagayan de Oro is shown in Chapter 6 Table 6.2.4.-1 of Part D Report. The planning units of all municipalities are well staffed and are active in coordinating with the provincial planning office and the city planning office in formulating and updating their development plans. The engineering offices of the municipalities are likewise well staffed and are capable of undertaking their own limited construction and maintenance works for infrastructure, including roads. However, most of these municipalities, with the exception of Opol, are lacking in equipment and have to, therefore, rent their equipment. The Province of Misamis Oriental and the City of CDO, on the other hand, are in a better position to undertake road construction and maintenance.

The capabilities of the engineering offices of the Province of Misamis Oriental and the lone city of Cagayan de Oro are portrayed in Table 6.3.2.-1 of Chapter 6 Part D Report. Fund constraint and lack of equipment are the often cited problems of their operations.

7.8 LGU Initiative for Road Network Development

The recognition for the formation a Metro Cagayan de Oro can be traced to an integrated area development (IAD) initiative in the 1980s. Metro Cagayan de Oro was later packaged as a Special Development Program (SPD) area, which Cagayan de Oro – Iligan Corridor Project was a major component. The National Economic and Development Authority Board approved this SDP in 1990. Standing issues of Metro Cagayan de Oro is to find out the sentiments of its proposed component LGUs to join the arrangement and to establish an acceptable institutional management structure[5] for a single metropolitan body. Until such time, it is the provincial planning office and the city planning office of Cagayan de Oro City that actively coordinates major projects encompassing a large number of LGUs in the area.

[5] Policy Notes, Philippine Institute for Development Studies (PIDS), December 1998