

Institutionalization of the New Planning Processes

CS-IC-02

Road Reclassification and Road Numbering System Report

Version 3

May 2014

Republic of the Philippines
**Department of
Public Works and Highways**



Foreword

This report contains a new Classification System and a Route Numbering System for the National Road Network in Philippines.

Classification System

The Classification System is based on earlier work carried out from 2002 to 2004 by a Technical Working Group which included permanent members from Department of Public Works and Highways (DPWH) and the Department of Interior and Local Government (DILG), and with ad hoc members from the Department of Transportation and Communications (DOTC), the Department of Tourism (DOT), the Provincial Engineers' Association of the Philippines (PEAP) and the Municipal Engineers' Association of the Philippines (MEAP). This current work has revisited the Classification system and suggested some minor changes. The new classification system was presented to the DPWH Management Committee in November 2013. This report applies that classification system to the National Road Network as of December 2013.

It is emphasized that Road Classification is not an exact science. Also, although the criteria are clear and unambiguous, the *application* of these criteria to the existing DPWH road network is not always black and white. Firstly, the application of the criteria is dependent on up-to-date data on cities, population, ports, airports and other government infrastructure. While every effort has been made to check such data, they should be verified with other agencies in order to finalize the classification. Also, the application of the criteria can in some instances depend on the function or purpose of the existing road network, which requires detailed local knowledge of traffic patterns and road usage. In addition, the classification system in some areas is dependent on future development plans, and the classification can be seen as a way of encouraging particular routes or corridors over others which, geographically, could be seen as equally acceptable. Local knowledge of the road network is important in the classification and numbering systems. In short, the classification needs to be applied holistically given relevant information available at a point in time. Presentations were given to Regional Directors in February and March 2014, any feedback received was analyzed and incorporated as appropriate.

Route Numbering System

Building on the new Classification System, this report also presents a new Route Numbering system for Philippines. General principles for Route Numbering were presented to the DPWH Management Committee in November 2013, along with sample routes. That Route Numbering System was applied to the new Classification system, for Expressways and Primary roads, in version 2 of this report in February 2014; this latest version 3 of the report also numbers the Secondary roads.

Route Numbering will be very important to road users in being able to plan their journeys. Road users will expect that all roads of a certain classification, and of a certain numbering scheme, will have similar performance standards. A well-numbered, well-signed and well-publicized route system is also useful for roads agencies and other government bodies to channel traffic into preferred routes or corridors. The Public Information Division of the Stakeholders Relations Service in DPWH is currently preparing a Communications Plan for dissemination of the Route Numbering System to external stakeholders and the public.

Institutionalization of the New Planning Processes

Both the Road Classification System and Route Numbering System need to be incorporated into the Department's Road and Bridge Information Application (RBIA). Work on this should be completed by July 2014.

The Road Classification and Route Numbering System has already been published as an ArcGIS On-Line mapping application at:

<https://dpwh.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=4b48284a409844fab6876aa77be8bf58>

The link to this on-line mapping was provided to all Regional Directors and Regional Planning and Design Division Chiefs in March 2014, and is also being distributed to RBIA and PMS Regional Coordinators.

Table of Contents

A. INTRODUCTION	1
B. ROAD CONVERSION AND ROAD CLASSIFICATION	3
C. PRINCIPLES OF FUNCTIONAL CLASSIFICATION	4
D. EXISTING CLASSIFICATION OF NATIONAL ROADS	5
E. NEW CLASSIFICATION OF NATIONAL ROADS	6
F. CLASSIFICATION OF URBAN METROPOLITAN ROADS	12
G. ROUTE NUMBERING	14
H. GUIDELINES FOR NUMBERING ROUTES	16
APPENDIX A: SUPPORTING DATA	
APPENDIX B: ROAD CLASSIFICATION AND ROUTE NUMBERING MAPS	

Table of Figures

Figure 1 – Growth of the National Road Network from 2006 - 2013	3
Figure 2 - Principles of Functional Classification	4
Figure 3 – Existing Classification of National Road Network.....	5
Figure 4 – New Classification System.....	6
Figure 5 – Application of the New Classification System	7
Figure 6 – New Classification by Region	7
Figure 7 – New Classification by Engineering District.....	8
Figure 8 – New Classification by Island.....	11
Figure 9 – New Classification Scheme applied to Metro Manila.....	13
Figure 10 – Route Numbering System	14
Figure 11 - Scenarios for By-Passes and Diversion Roads.....	16
Figure 12 - Connecting Roads	17

Abbreviations and Acronyms

ADB	Asian Development Bank
ARMM	Autonomous Region of Muslim Mindanao
DILG	Department of Interior and Local Government
DOT	Department of Tourism
DOTC	Department of Transport and Communications
DPWH	Department of Public Works and Highways
EO	Executive Order
GIS	Geographic Information System
IMS	Information Management Service
NEDA	National Economic and Development Authority
NRIMP	National Roads Improvement and Management Program
MEAP	Municipal Engineers' Association of the Philippines
PEAP	Provincial Engineers' Association of the Philippines
PID	Public Information Division
PRCS	Philippines Road Classification Study
RBIA	Road and Bridge Information Application
RCSS	Road Conversion and Statistics Section
TWG	Technical Working Group

A. Introduction

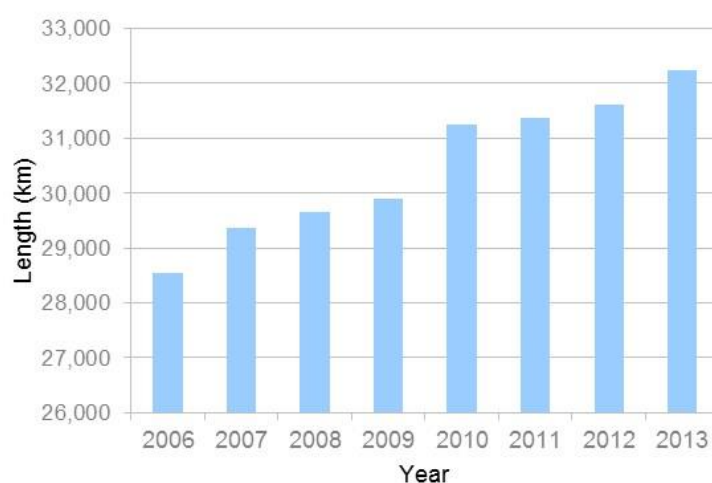
1. Road Classification in the Philippines has a long history. The first comprehensive reference to a road classification system is found in Republic Act No. 917, known as the Philippine Highway Act, enacted in 1953 and Executive Order (EO) No. 113, Series of 1955. This classified the roads into national primary and national secondary classes as well as delineating the so-called “national aid” provincial and city roads of sufficient importance for eventual reclassification at a later stage. EO No. 113 also laid down criteria for classification of National Roads and for re-classification from Local roads to National Roads.
2. The classification system in EO No. 113 was administrative in nature and resulted in a national primary and national secondary road system (16,175 km) and intended “national aid” provincial and city roads (2,823 km), totaling 18,998 km.
3. In 1987, Executive Order No. 124, Series of 1987, stipulated that the Minister (now Secretary) of the Ministry (now Department) of Public Works and Highways shall have the power to “Classify roads and highways into national, regional (interpreted as: routes of primary arterial roads), provincial, city, municipal, and barangay roads and highways, based on objective criteria it shall adopt; provide or authorize the conversion of roads and highways from one category to another”.
4. Numerous studies have also been carried out on Philippine road classification. The Philippines Road Classification Study (PRCS) funded by the Asian Development Bank (ADB) and executed in 1991-1993, highlighted that the existing classification of roads is for administrative rather than functional purposes. It reflects policy to assign responsibility for specific roads based on source of funding, minimum qualifying design standards, or official requests from varying levels of government. Over the years, without specific criteria to guide highway planners, roads have been assigned to inappropriate classifications. Also, over time, the function of many roads has changed, but the roads have never been re-classified.
5. In April 2002, DPWH recognized that in connection with the new Planning Process under NRIMP-1, there was a need to review the classification of the road system in the country. A Technical Working Group (TWG) was established with permanent members from DPWH and the Department of Interior and Local Government (DILG) and with ad hoc members from the Department of Transportation and Communications (DOTC), the Department of Tourism (DOT), the Provincial Engineers’ Association of the Philippines (PEAP) and the Municipal Engineers’ Association of the Philippines (MEAP) to advise on the topics of discussion from their professional views. However, while the proposed new classification criteria were agreed by all stakeholders, one of the main recommendations from that study, that over 10,000 km of existing National Road be transferred to Local Government, was always going to be difficult to implement, even with a proposed one-time compensation to the Local Government Units to ensure that funds were available for maintenance. Hence there was no progress in terms of implementation of the new classification system.
6. The current CS-IC-02 project, which aims to fully institutionalize the new Planning Process in DPWH, gives fresh impetus to look at the road network classification issues. The National Road Network (i.e. that under the ownership or management of DPWH) has increased from 16,175 km in 1955 to over 32,000 km today. An analysis of this increase in a functional context shows that the original 16,175 km of National Roads still forms the basic backbone network today and that few of the roads added to that network from 1955 to the present time perform a national function. There are many roads currently under the management of DPWH that are very short (a few km in length) and lead off the main arterial network to scarcely populated villages or minor ports; there are also many small side-streets in heavily urbanized areas including in Metro Manila which are currently classed as national roads.

7. This Road Reclassification and Route Numbering System Report reviews the recommendations from the work in 2002 under NRIMP-1, and makes minor updates to those recommendations. It applies the revised recommendations to the existing National Road Network as of December 2013. It also suggests a Route Numbering scheme and applies that scheme to the top layers of the national network using the new classification.

B. Road Conversion and Road Classification

8. It is important to distinguish between Road Conversion and Road Classification. Road Conversion relates to *funding* or *ownership* of the road, i.e. which organization is responsible for managing and maintaining an individual road. Normally, this is National Government or Local (Provincial, City, Municipal) Government.
9. Road Classification relates to the *function* or *purpose* of the road. The essence of functional classification is that it concentrates on the *purpose* of the road in a strategic and interregional sense rather than its use in terms of traffic related to geometric features. It is important for long-term strategic planning and prioritization. Thus, roads may be classified as, for example, arterial, secondary, feeder roads, or collector roads, irrespective of their ownership.
10. In most countries, there is a direct relationship between a road’s function and its management. i.e. National government manages and maintains roads which have a *national* function; and Local government manages and maintains roads which have a *local* function. However, in Philippines, over time, National government has been given the responsibility through Legislative Act or Executive Order to manage or maintain roads which are Local in function.
11. As seen in Figure 1, the length of the National Road Network under management of DPWH has grown almost 3,700 km, from 28,546 km in year 2006, to 32,227 km in year 2013. The vast majority of that increase has been through conversion of local roads to national ownership.

Figure 1 – Growth of the National Road Network from 2006 - 2013

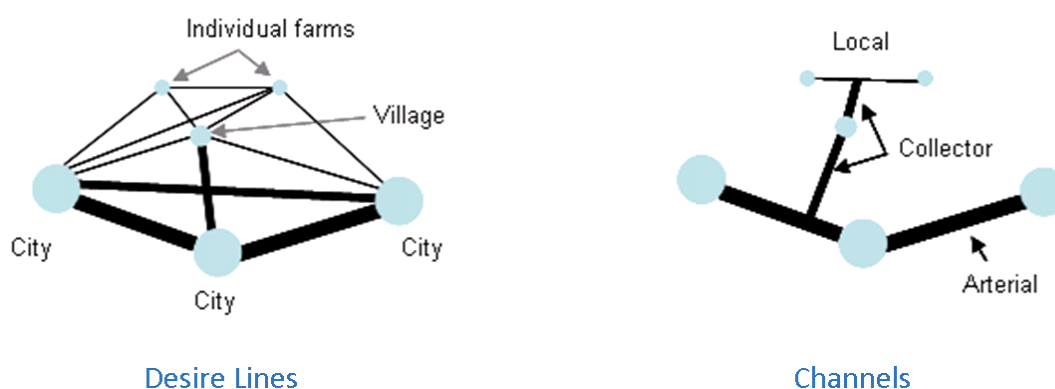


12. CS-IC-02 submitted an Advisory Report on Road Conversion in August 2013, and made a number of recommendations intended to limit the conversion of roads from Local to National government. It recommended that only roads which are truly national in function be converted to DPWH, and provided various options on how that may be achieved. Because the Philippine road network is already mature, it is likely that there are very few cases which can actually warrant a change in classification from local to national function. Review of classification could be dealt with on a six-yearly cycle as part of DPWH’s input into Regional Development Plans, rather than in the current *ad hoc* manner.

C. Principles of Functional Classification

13. As indicated above, functional classification is important for long-term strategic planning and prioritization. Figure 2 shows the essential principles of functional classification, taken from a paper presented to the Transportation Research Board in Washington DC, 2006 (A Talvitie). The diagram on the left represents desire lines, with the weight of line representing the demand for number of journeys between locations; the diagram on the right indicates the functional hierarchy of roads that could be built to accommodate such demand, on the basic premise that it is not possible to build direct links between all origins and destinations.

Figure 2 - Principles of Functional Classification



14. In other words, the road network channels traffic onto routes that should be efficient, fit for purpose, and form part of a coherent transport network. Strategies for the road network should include looking to minimize congestion on main roads, while also providing access to rural centers.

D. Existing Classification of National Roads

15. Figure 3 shows a summary of the existing National Road Network classification in Philippines (as of December 2013). This is based on the classification scheme adopted in 1987, with a network of Arterial and Secondary roads, with Arterial roads being sub-classified into North South Backbone, East West Lateral, and Other Roads of Strategic Importance.

Figure 3 – Existing Classification of National Road Network

Existing Classification	Length (Km)
Arterial	16,078.7
North South Backbone	5,070.5
East West Lateral	3,063.5
Other Roads of Strategic Importance	7,944.7
Secondary	16,148.2
Total	32,226.9

Source: DPWH Road and Bridge Information Application (RBIA) December 2013

E. New Classification of National Roads

16. As mentioned in the Introduction to this Report, in 2004 a Technical Working Group (TWG) in DPWH developed a set of detailed criteria for a new classification system. The criteria developed by the TWG were based on first principles of what functions *should* different classes of roads perform.
17. The classes of roads included National Roads, Provincial Roads, Municipal and City Roads, Barangay Roads, and Expressways. Figure 4 gives the criteria for each of these classes of road.

Figure 4 – New Classification System

National Primary	<ul style="list-style-type: none"> • Directly Connects Major Cities (at least around 100,000 people) <i>Cities within Metropolitan Areas are not covered by the criteria.</i>
National Secondary	<ul style="list-style-type: none"> • Directly Connects Cities to National Primary Roads, except in Metropolitan Areas • Directly Connects Major Ports and Ferry Terminals to National Primary Roads • Directly Connects Major Airports to National Primary Roads • Directly Connects Tourist Service Centers to National Primary Roads or other National Secondary Roads • Directly Connects Cities (not included in the category of Major Cities) • Directly Connects Provincial Capitals within the same Region • Directly Connects Major National Government Infrastructure to National Primary Roads or other National Secondary Roads
National Tertiary	<ul style="list-style-type: none"> • Other existing roads under DPWH which perform a local function
Provincial Roads	<ul style="list-style-type: none"> • Connect Cities and Municipalities without traversing National Roads • Connect National Roads to Barangays through rural areas • Connect to Major Provincial Government Infrastructure
Municipal and City Roads	<ul style="list-style-type: none"> • Roads within the Poblacion • Roads that connect to Provincial and National Roads • Roads that provide inter-Barangay connections to major Municipal and City Infrastructure without traversing Provincial Roads
Barangay Roads	<ul style="list-style-type: none"> • Other Public Roads (officially turned over) within the Barangay and not covered in the above definitions
Expressways	<ul style="list-style-type: none"> • Highways with limited access, normally with interchanges; may include facilities for levying tolls for passage in an open or closed system

18. Some minor modifications to the original 2004 classification are the inclusion of the word “*directly*” in the criteria for National Primary and National Secondary roads; and removal of the word “arterial” from National Primary and National Secondary roads, since all National roads should be arterial in nature.
19. However, the major change to the 2004 classification is the inclusion of the “National Tertiary” class, instead of the original approach which advocated large-scale transfer of responsibility of around 10,000 km of existing National Roads to Local Government (City and Municipality).
20. Figure 5 shows the result of applying the above classification to the existing National Network in DPWH. The lengths in Figure 5 have been calculated using the Department’s latest Geographic Information System (GIS) layers for the National Road Network. These layers include the National Road Network, Expressways, Airports, Ports and Ferry Terminals, Cities and Municipalities, and Tourist Service Centers. Appendix A of this report lists all entities used to classify the network (airports, ports etc.). Appendix B includes mapping from the GIS showing the application of this classification to the National Road Network.

Figure 5 – Application of the New Classification System

New Classification	Length (Km) ¹
Primary	7,029.8
Secondary	14,452.3
Tertiary	10,744.8
Total	32,226.9

21. Figure 6 shows the application of this new classification by Region.

Figure 6 – New Classification by Region

Region	Primary	Secondary	Tertiary	Total
Cordillera Administrative Region	89.7	972.1	981.2	2,042.9
National Capital Region	169.6	391.3	567.3	1,128.2
Region I	590.4	448.0	605.5	1,643.8
Region II	620.5	261.7	939.8	1,822.0
Region III	532.5	792.8	1,065.3	2,390.5
Region IV-A	453.2	1,566.6	811.6	2,831.4
Region IV-B	0.0	1,832.8	445.8	2,278.6
Region IX	654.7	386.3	478.0	1,519.0
Region V	460.5	1,127.3	720.1	2,307.9
Region VI	478.9	1,380.2	1,109.3	2,968.4
Region VII	523.9	1,087.3	677.9	2,289.1
Region VIII	561.1	1,381.2	589.7	2,532.0
Region X	726.9	463.4	677.0	1,867.3
Region XI	444.6	860.5	353.7	1,658.7
Region XII	365.9	773.0	331.3	1,470.2
Region XIII	357.5	727.9	391.4	1,476.8
Total	7,029.8	14,452.3	10,744.8	32,226.9

22. Figure 7 shows the application of this new classification by Engineering District.

¹ All lengths are calculated using the Department’s GIS, and therefore should be accurate to +/- 2% in line with the Department’s tolerance for accuracy of GIS centreline versus official lengths as measured by odometer in the RBIA.

Figure 7 – New Classification by Engineering District

Engineering District	Primary	Secondary	Tertiary	Total
Abra District Engineering Office	0.0	101.3	64.2	165.5
Agusan del Norte District Engineering Office	85.1	4.0	49.4	138.4
Agusan del Sur 1st District Engineering Office	63.3	62.8	91.8	217.9
Agusan del Sur 2nd District Engineering Office	106.0	115.8	7.2	228.9
Aklan District Engineering Office	0.0	161.0	8.0	169.0
Albay 1st District Engineering Office	0.0	61.3	13.6	74.9
Albay 2nd District Engineering Office	27.0	79.8	15.8	122.5
Albay 3rd District Engineering Office	32.2	125.4	25.0	182.6
Antique District Engineering Office	0.0	239.5	96.3	335.8
Apayao 1st District Engineering Office	0.0	89.9	8.7	98.6
Apayao 2nd District Engineering Office	0.0	14.1	159.2	173.3
Aurora District Engineering Office	0.0	197.7	51.7	249.3
Bacolod City District Engineering Office	25.0	31.5	24.1	80.7
Baguio City District Engineering Office	17.3	39.6	56.2	113.1
Bataan 1st District Engineering Office	21.5	42.9	50.8	115.2
Bataan 2nd District Engineering Office	0.0	85.8	121.0	206.8
Batanes District Engineering Office	0.0	0.0	75.3	75.3
Batangas 1st District Engineering Office	0.0	131.3	9.0	140.3
Batangas 2nd District Engineering Office	9.9	101.2	36.9	148.0
Batangas 3rd District Engineering Office	24.8	41.1	43.2	109.1
Batangas 4th District Engineering Office	23.4	51.1	60.6	135.2
Benguet 1st District Engineering Office	41.7	135.8	75.6	253.1
Benguet 2nd District Engineering Office	0.0	101.3	120.0	221.3
Biliran District Engineering Office	0.0	129.7	21.7	151.5
Bohol 1st District Engineering Office	0.0	87.4	149.1	236.5
Bohol 2nd District Engineering Office	0.0	140.5	68.2	208.6
Bohol 3rd District Engineering Office	0.0	203.5	44.2	247.7
Bukidnon 1st District Engineering Office	64.5	74.4	121.2	260.2
Bukidnon 2nd District Engineering Office	80.3	64.3	72.8	217.5
Bukidnon 3rd District Engineering Office	37.0	95.6	166.1	298.8
Bulacan 1st District Engineering Office	45.5	13.6	86.2	145.3
Bulacan 2nd District Engineering Office	37.9	1.8	160.5	200.2
Butuan City District Engineering Office	35.9	26.1	50.9	113.0
Cagayan 1st District Engineering Office	51.8	103.5	179.5	334.8
Cagayan 2nd District Engineering Office	116.6	0.0	70.0	186.6
Cagayan 3rd District Engineering Office	81.4	7.0	88.8	177.2
Cagayan de Oro City 1st District Engineering Office	6.1	30.9	7.4	44.4
Cagayan de Oro City 2nd District Engineering Office	28.0	6.1	3.7	37.8
Camarines Norte District Engineering Office	125.8	29.0	77.9	232.7
Camarines Sur 1st District Engineering Office	37.6	8.9	12.8	59.3
Camarines Sur 2nd District Engineering Office	19.9	27.3	72.5	119.7
Camarines Sur 3rd District Engineering Office	0.0	134.8	134.4	269.2
Camarines Sur 4th District Engineering Office	26.3	43.4	28.1	97.9
Camarines Sur 5th District Engineering Office	87.0	0.0	16.9	103.9
Camiguin District Engineering Office	0.0	63.6	0.0	63.6
Capiz 1st District Engineering Office	10.5	76.7	24.1	111.2

Institutionalization of the New Planning Processes

Engineering District	Primary	Secondary	Tertiary	Total
Capiz 2nd District Engineering Office	41.8	38.8	140.3	220.9
Catanduanes District Engineering Office	0.0	228.9	85.0	313.9
Cavite 2nd District Engineering Office	0.0	166.8	63.0	229.7
Cavite District Engineering Office	67.8	52.2	60.8	180.8
Cebu 1st District Engineering Office	0.0	68.8	54.2	123.0
Cebu 2nd District Engineering Office	63.8	39.8	20.7	124.4
Cebu 3rd District Engineering Office	18.9	142.1	10.9	171.8
Cebu 4th District Engineering Office	81.9	84.5	74.6	241.1
Cebu 5th District Engineering Office	20.8	47.3	9.1	77.2
Cebu 6th District Engineering Office	18.1	42.1	18.2	78.4
Cebu City District Engineering Office	18.0	48.9	58.8	125.7
Compostela Valley District Engineering Office	110.0	141.5	84.5	336.1
Cotabato 1st District Engineering Office	84.6	67.0	159.3	310.9
Cotabato 2nd District Engineering Office	60.6	142.7	55.0	258.3
Cotabato City District Engineering Office	7.0	0.0	19.5	26.5
Davao City 2nd District Engineering Office	84.9	0.0	48.8	133.7
Davao City District Engineering Office	47.4	47.2	33.6	128.2
Davao del Norte District Engineering Office	45.5	191.4	1.2	238.1
Davao del Sur 1st District Engineering Office	75.6	6.8	26.0	108.4
Davao del Sur 2nd District Engineering Office	12.8	201.7	63.5	278.0
Davao Oriental 1st District Engineering Office	0.0	214.2	0.0	214.2
Davao Oriental 2nd District Engineering Office	68.4	57.6	96.1	222.1
Dinagat Islands District Engineering Office	0.0	95.1	11.1	106.2
Eastern Samar District Engineering Office	0.0	380.9	1.3	382.2
Guimaras District Engineering Office	0.0	127.4	0.8	128.2
Ifugao 1st District Engineering Office	0.0	44.2	51.8	96.0
Ifugao 2nd District Engineering Office	0.0	116.4	78.0	194.4
Ilocos Norte 1st District Engineering Office	104.1	6.4	56.3	166.9
Ilocos Norte 2nd District Engineering Office	40.1	0.4	189.2	229.7
Ilocos Sur 1st District Engineering Office	49.2	10.5	18.4	78.1
Ilocos Sur 2nd District Engineering Office	82.8	74.1	130.0	286.9
Iloilo 1st District Engineering Office	0.0	77.4	86.0	163.4
Iloilo 2nd District Engineering Office	41.6	123.9	191.4	356.8
Iloilo 3rd District Engineering Office	0.0	114.5	70.0	184.4
Iloilo 4th District Engineering Office	12.4	39.4	80.3	132.1
Iloilo City District Engineering Office	12.9	34.3	37.3	84.5
Isabela 1st District Engineering Office	82.0	11.5	67.2	160.6
Isabela 2nd District Engineering Office	67.8	0.0	78.3	146.1
Isabela 3rd District Engineering Office	70.8	0.0	20.8	91.5
Isabela 4th District Engineering Office	50.5	7.5	61.0	118.9
Isabela City District Engineering Office	0.0	24.5	0.0	24.5
Kalinga District Engineering Office	30.7	176.8	187.7	395.3
La Union 1st District Engineering Office	48.0	6.4	64.6	119.0
La Union 2nd District Engineering Office	80.8	36.2	9.4	126.4
Laguna 1st District Engineering Office	15.1	69.6	69.1	153.7
Laguna 2nd District Engineering Office	49.5	10.2	31.0	90.7
Laguna 3rd District Engineering Office	53.3	0.0	49.2	102.5
Lanao del Norte 1st District Engineering Office	81.9	0.2	105.3	187.4
Lanao del Norte 2nd District Engineering Office	86.4	2.9	128.4	217.7

Institutionalization of the New Planning Processes

Engineering District	Primary	Secondary	Tertiary	Total
Las Piñas-Muntinlupa District Engineering Office	9.3	19.7	20.9	50.0
Leyte 1st District Engineering Office	46.5	2.4	77.1	126.0
Leyte 2nd District Engineering Office	69.8	2.1	125.8	197.7
Leyte 3rd District Engineering Office	0.0	102.5	75.4	177.9
Leyte 4th District Engineering Office	53.1	79.4	69.7	202.2
Leyte 5th District Engineering Office	90.3	106.4	9.4	206.0
Malabon-Navotas District Engineering Office	2.2	6.7	33.2	42.1
Marinduque District Engineering Office	0.0	128.8	69.7	198.6
Masbate 1st District Engineering Office	0.0	189.6	8.7	198.3
Masbate 2nd District Engineering Office	0.0	109.1	8.7	117.8
Masbate 3rd District Engineering Office	0.0	36.9	44.2	81.0
Metro Manila 1st District Engineering Office	48.4	35.4	85.9	169.7
Metro Manila 2nd District Engineering Office	43.7	33.0	46.9	123.7
Metro Manila 3rd District Engineering Office	11.0	21.8	59.7	92.5
Mindoro Occidental District Engineering Office	0.0	252.5	94.8	347.3
Mindoro Occidental Sub-District Engineering Office	0.0	0.0	71.5	71.5
Mindoro Oriental District Engineering Office	0.0	117.6	30.2	147.8
Misamis Occidental 1st District Engineering Office	71.6	49.8	5.4	126.8
Misamis Occidental 2nd District Engineering Office	60.7	3.4	42.2	106.3
Misamis Oriental 1st District Engineering Office	119.5	27.0	14.0	160.5
Misamis Oriental 2nd District Engineering Office	90.8	45.0	10.4	146.2
Mt.Province District Engineering Office	0.0	152.6	179.8	332.4
Negros Occidental 1st District Engineering Office	232.0	102.9	84.2	419.1
Negros Occidental 2nd District Engineering Office	38.5	63.8	39.6	141.8
Negros Occidental 3rd District Engineering Office	29.5	123.1	127.4	280.0
Negros Occidental 4th District Engineering Office	34.7	26.0	99.7	160.5
Negros Oriental 1st District Engineering Office	99.6	26.2	71.3	197.0
Negros Oriental 2nd District Engineering Office	107.4	33.6	26.8	167.8
Negros Oriental 3rd District Engineering Office	95.5	47.5	52.6	195.6
North Manila District Engineering Office	0.0	62.6	79.7	142.3
Northern Samar 1st District Engineering Office	29.1	109.4	88.6	227.0
Northern Samar 2nd District Engineering Office	0.0	100.0	40.6	140.6
Nueva Ecija 1st District Engineering Office	112.0	61.8	98.4	272.2
Nueva Ecija 2nd District Engineering Office	70.5	150.7	84.7	305.9
Nueva Vizcaya 1st District Engineering Office	66.9	8.7	52.9	128.5
Nueva Vizcaya 2nd District Engineering Office	32.9	35.7	148.9	217.5
Palawan 1st District Engineering Office	0.0	242.0	89.9	331.9
Palawan 2nd District Engineering Office	0.0	439.7	1.9	441.7
Palawan 3rd District Engineering Office	0.0	240.7	13.7	254.4
Pampanga 1st District Engineering Office	67.5	1.3	134.3	203.1
Pampanga 2nd District Engineering Office	20.2	27.6	29.2	77.0
Pampanga 3rd District Engineering Office	16.2	25.7	7.4	49.3
Pangasinan 1st District Engineering Office	0.0	117.9	24.4	142.3
Pangasinan 2nd District Engineering Office	81.5	61.2	26.8	169.5
Pangasinan 3rd District Engineering Office	86.6	43.9	85.8	216.3
Pangasinan 4th District Engineering Office	17.3	90.8	0.4	108.5
Quezon 1st District Engineering Office	4.1	151.4	56.5	212.0
Quezon 2nd District Engineering Office	38.7	34.3	37.3	110.3

Engineering District	Primary	Secondary	Tertiary	Total
Quezon 3rd District Engineering Office	0.0	665.1	63.2	728.3
Quezon 4th District Engineering Office	142.2	36.0	81.0	259.2
Quezon City 1st District Engineering Office	11.4	87.1	67.4	165.9
Quezon City 2nd District Engineering Office	38.1	46.4	75.3	159.8
Quirino District Engineering Office	0.0	87.8	97.2	184.9
Rizal 1st District Engineering Office	24.4	26.6	47.5	98.5
Rizal 2nd District Engineering Office	0.0	29.7	103.3	133.0
Romblon District Engineering Office	0.0	239.3	63.6	302.9
Samar 1st District Engineering Office	96.3	26.4	4.2	126.9
Samar 2nd District Engineering Office	109.6	98.5	19.9	228.0
Sarangani District Engineering Office	38.7	204.0	21.6	264.4
Siquijor District Engineering Office	0.0	75.2	19.2	94.3
Sorsogon 1st District Engineering Office	60.5	37.0	84.4	181.9
Sorsogon 2nd District Engineering Office	44.2	16.0	92.1	152.3
South Cotabato 2nd District Engineering Office	65.4	42.5	0.1	108.0
South Cotabato District Engineering Office	66.7	24.2	75.8	166.7
South Manila District Engineering Office	5.4	78.6	98.3	182.2
Southern Leyte District Engineering Office	51.1	227.7	18.4	297.2
Southern Mindoro District Engineering Office	0.0	172.2	10.4	182.6
Sultan Kudarat 1st District Engineering Office	36.1	36.5	0.0	72.7
Sultan Kudarat 2nd District Engineering Office	6.8	256.0	0.0	262.7
Surigao del Norte 1st District Engineering Office	53.9	65.1	39.1	158.1
Surigao del Norte 2nd District Engineering Office	0.0	33.6	118.6	152.1
Surigao del Sur 1st District Engineering Office	0.0	199.0	23.3	222.3
Surigao del Sur 2nd District Engineering Office	13.3	126.6	0.0	139.9
Tacloban City District Engineering Office	15.4	15.9	37.5	68.8
Tarlac 1st District Engineering Office	108.0	29.3	135.6	272.9
Tarlac 2nd District Engineering Office	25.2	11.8	65.5	102.5
Zambales 1st District Engineering Office	0.0	112.3	31.6	143.9
Zambales 2nd District Engineering Office	8.1	30.5	8.3	46.9
Zamboanga City District Engineering Office	86.7	42.7	14.7	144.1
Zamboanga del Norte 1st District Engineerin(OI106)	110.2	33.1	23.9	167.2
Zamboanga del Norte 2nd District Engineerin(OI107)	65.6	176.9	4.7	247.2
Zamboanga del Norte 3rd District Engineerin(OI108)	71.5	79.0	73.2	223.7
Zamboanga del Sur 1st District Engineering Office	127.1	30.0	87.0	244.1
Zamboanga del Sur 3rd District Engineering Office	47.8	0.0	195.9	243.7
Zamboanga Sibugay 1st District Engineering Office	32.6	0.0	47.5	80.1
Zamboanga Sibugay 2nd District Engineering Office	113.3	0.0	31.2	144.5
Total	7,029.8	14,452.3	10,744.8	32,226.9

23. Figure 8 shows the application of this new classification by Island. It is noted that, of the 35 islands which have National Roads, only seven (7) islands – Cebu, Leyte, Luzon, Mindanao, Negros, Panay and Samar – have any National Primary roads under the new classification. In addition, sixteen (16) islands have no Primary or Secondary roads under the new classification.

Figure 8 – New Classification by Island

Island	Primary	Secondary	Tertiary	Total
Alabat	0.0	0.0	43.4	43.4
Basilan	0.0	431.4	261.5	692.9
Batanes	0.0	24.5	0.0	24.5
Biliran	0.0	0.0	39.4	39.4
Bohol	0.0	129.7	21.7	151.5
Burlas	0.0	0.0	32.6	32.6
Cabra	0.0	0.0	5.5	5.5
Camiguin	218.0	441.5	243.8	903.2
Catanduanes	0.0	0.0	9.8	9.8
Cebu	0.0	63.6	0.0	63.6
Corregidor	0.0	228.9	85.0	313.9
Coron	0.0	0.0	72.4	72.4
Dinagat	0.0	95.1	11.1	106.2
Golo	0.0	0.0	0.4	0.4
Guimaras	0.0	127.4	0.8	128.2
Itbayat	0.0	0.0	16.2	16.2
Lapu Lapu	0.0	0.0	65.7	65.7
Leyte	3.4	32.0	2.8	38.3
Lubang	326.1	536.3	413.4	1,275.9
Luzon	2,916.4	4,995.2	5,415.6	13,327.2
Marinduque	2,549.5	2,994.4	2,101.7	7,645.6
Masbate	0.0	128.8	69.7	198.6
Mindanao	0.0	542.3	135.4	677.7
Mindoro	0.0	298.7	17.4	316.1
Negros	662.1	454.6	525.6	1,642.4
Palawan	119.2	905.4	733.5	1,758.1
Panay	0.0	922.4	33.1	955.5
Romblon	0.0	20.1	0.0	20.1
Sabtang	0.0	33.6	118.6	152.1
Samar	0.0	75.2	19.2	94.3
Siargao	235.0	715.2	154.6	1,104.7
Siquijor	0.0	0.0	19.8	19.8
Sibuyan	0.0	92.3	0.6	92.9
Tablas	0.0	36.9	11.5	48.4
Ticao	0.0	127.0	63.0	189.9
Total	7,029.8	14,452.3	10,744.8	32,226.9

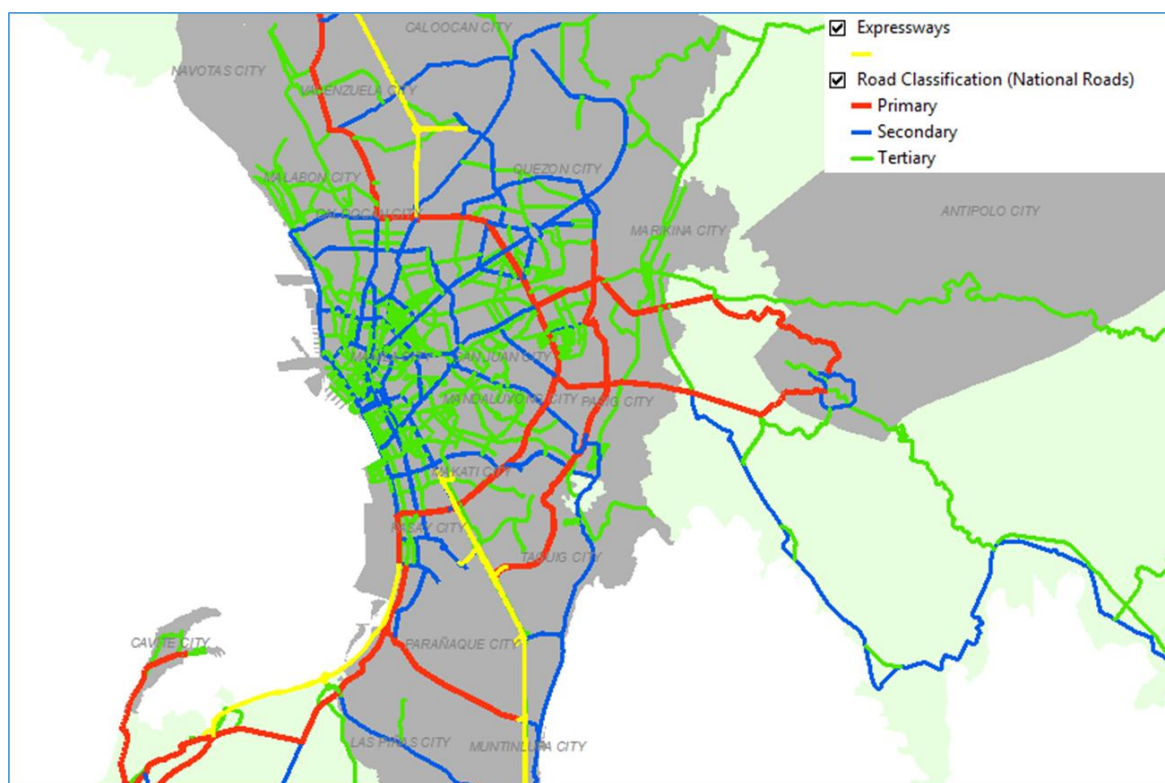
F. Classification of Urban Metropolitan Roads

24. Urban Roads in Metropolitan areas deserve special mention. Significant study in the 2002 - 2004 classification exercise focused on urban roads in the major cities in Philippines. Detailed analysis was performed on metropolitan areas and major urban centers including Metro Manila, Cebu, Davao, Baguio, Iloilo, Bacolod, Cagayan de Oro, Cotabato and Zamboanga. The National Roads in those urban areas are generally considered beyond the planning mandate of the DPWH, which deals with network assessment and not the detailed analyses at project level required for urban roads. Urban roads present in general complex transport systems, including other modes than roads and route choices, requiring comprehensive urban transport modeling and exhaustive data collection of transport data at household level and at roadside (origin-

destination surveys). These data would be processed through four transport models: trip generation at zonal level, trip distribution between pairs of zones, modal split (private-public transport by different modes) and trip assignment between pairs of zones to links of a transportation network.

25. In Metro Manila, the classification system manifests itself in Primary roads from the north and south being connected via EDSA which is also classed as a Primary Road. The National Ports in Manila are connected to the Primary roads via Secondary Roads. The C-5 circumferential road is also classed as a primary road connecting Antipolo city to the rest of the primary network. See Figure 9.

Figure 9 – New Classification Scheme applied to Metro Manila



G. Route Numbering

26. Along with a new Functional Classification, there is also a need to create a Route Numbering system, which is easy to understand by road users. Route Numbering is very important to road users in being able to plan their journeys. Road users will also expect that all roads of a certain classification, and of a certain numbering scheme, will have similar performance standards. A well-numbered, well-signed and well-publicized route system is also useful for roads agencies and other government bodies to channel traffic into preferred routes or corridors.
27. A good system would be beneficial to the general public, and trucking and passenger vehicle operators. In particular, the Department of Tourism has previously expressed keen interest in developing a Route Numbering system for the benefit of tourists who are not usually familiar with the road system in areas they visit infrequently.
28. A Route Numbering System is given in Figure 10. This builds upon the Classification System presented earlier in this report. This Numbering System has been devised for Expressways, Primary Roads and Secondary Roads at present. It may be expanded to the Tertiary class at a later date.

Figure 10 – Route Numbering System

Classification	Numbering
Expressways	E1, E2, E3 etc.
National Primary	Nos. N1 to N49 for the “main” routes or corridors, i.e. those connecting 3 or more cities Nos. N50 to N99 for other primary routes connecting 2 cities
National Secondary	Nos. 100 to 999

29. Expressways are prefixed by the letter “E” for Expressway, in order to differentiate these roads in the road user’s mind from other types of road. The letter “E” implies a different design and standard of road, and indicates to the public that a toll may be required. Note that Expressways are numbered contiguously, a new number is not given simply because a different concessionaire is in charge.
30. As also seen from Figure 10, the Primary Roads are numbered differently according to whether they form “main” corridors, or whether they only connect two cities. This is purely for convention, but it does help to differentiate highway the nature and function of, for example, Highway “1” running the entire length of the country, from Highway “52” whose function is simply to connect Baguio City to the primary network.
31. Secondary Roads have been given 3-digit numbers. The following general principles or guidelines have been applied (although, in some cases, especially in dense parts of the network such as in National Capital Region, it has not been possible to apply these strictly).
 - a. The first digit of the Secondary Route corresponds to the number of the Primary Road to which it connects, if any. Thus, for example, Secondary Road 102 connects to Primary Road 1; while Secondary Road 405 connects to Primary Road 4.

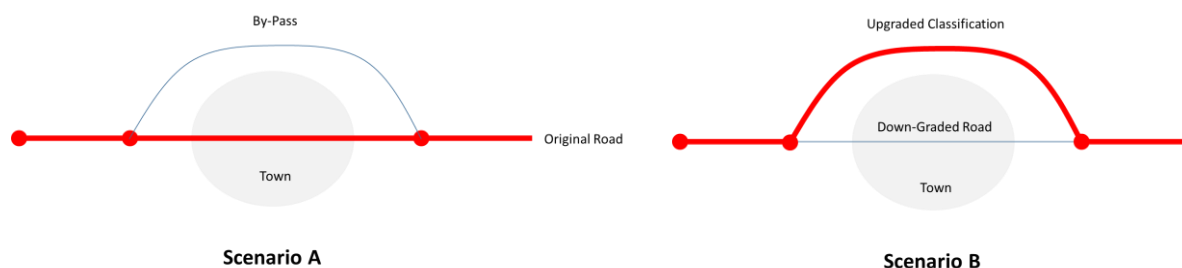
Institutionalization of the New Planning Processes

- b. If a Secondary Route connects two Primary Routes, then the first digit of the Secondary Route corresponds to the first digit of the lowest numbered Primary Route. Thus, if a Secondary Route connects Primary Routes 3 and 4, then the first digit of the Secondary route would be 3.
 - c. “Major” Secondary roads (i.e. those which can be easily identified as more significant thoroughfares) have been numbered in multiples of 10 (e.g. 410, 420, 430).
 - d. Where possible, gaps have been left in the numbering scheme to accommodate future expansion. Thus, there may be a Route 410, 411, 412 and then the next Route may be 420, leaving a gap of 413 – 419 for future use.
 - e. Most islands (apart from the larger islands of Luzon and Mindanao) have unique first and second digits. Thus, for example, Secondary roads in Bohol are numbered in the 85 series (i.e. 850, 851, 852 etc.); while Secondary roads in Siquijor are numbered in the 86 series (i.e. 860, 861 etc.).
32. Maps of Expressways, National Primary and Secondary routes are given in Appendix B of this Report.
33. The Road Classification and Route Numbering System should be incorporated into the Department’s Road and Bridge Information Application (RBIA) as soon as possible in order to institutionalize the system within DPWH.
34. The Public Information Division (PID) of the Stakeholders Relations Service is developing a Communications Plan to disseminate the Route Numbering System to external stakeholders and to the public.
35. As indicated in the next section, responsibility for Road Classification and Route Numbering rests with the Road Conversion and Statistics Section (RCSS) of the Statistics Division (SD) of Planning Service. Publication of such data, through the DPWH website or through on-line mapping, is the responsibility of Information Management Service (IMS), in accordance with the policies and procedures of PID.
36. Responsibility for a signage program should rest with the Undersecretary for Technical Services.

H. Guidelines for Numbering Routes

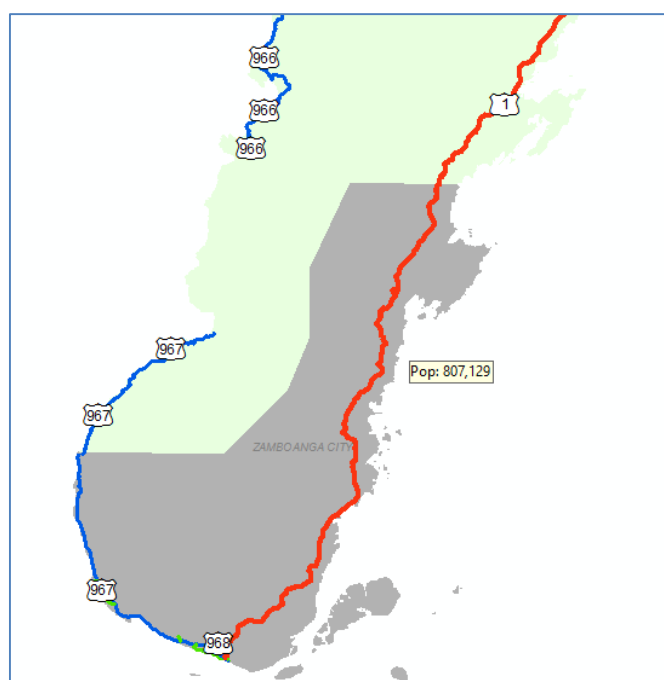
37. It will be necessary to add new Routes in future. Any change in classification of an individual road section should result in a new Route Number. It will also be necessary to assign route numbers to new roads, especially at the Primary and Secondary levels. Classification and numbering of Routes is the responsibility of the Road Conversion and Statistics Section (RCSS) of the Statistics Division (SD) of Planning Service.
38. This section contains some general guidelines on Route Numbering. It is not possible to develop detailed *procedures*, since each situation must be dealt with on a case-by-case basis. The existing Route Numbers as applied in this report are a starting point only, and will evolve over time as the network develops. The following paragraphs show some typical situations where it will become necessary to modify existing Route Numbers, or to add new Route Numbers.
39. By-passes or Diversion Roads. Figure 11 shows scenarios in which a By-Pass (or Diversion Road) has been built to go around the existing town to relieve congestion. The classification of the By-Pass depends on whether it truly *functions* as a by-pass (i.e. whether it diverts traffic away from the town center). If the majority of traffic on the original road uses the by-pass, then Scenario B should be used (with the by-pass classified as the same classification as the original road, and the old road running through the town center being downgraded to a lower class). If, however, the majority of traffic still uses the original road, then the original classification and numbering should be maintained as in Scenario A. It is recommended that SD wait a period of at least 6 months after construction of the by-pass before analysis of the situation is made. The analysis can be re-visited in future at the request of the District Engineering Office.

Figure 11 - Scenarios for By-Passes and Diversion Roads



40. New Connections. Figure 12 shows part of the existing road network in Zamboanga. The route on the Zamboanga West Coastal Rd has been allocated Route Number 967, while Sincon-Sirawai Rd has been allocated Number 966. If and when a connecting road is built between these two routes (or, if an existing local road is converted to national road), then all sections on the entire route should be given the same number 966.

Figure 12 - Connecting Roads



41. Where possible, any new route numbers that need to be generated should be based on existing route numbers in the general vicinity. Thus, in the case of Figure 12, if a new Secondary route had to be added, connecting to existing route 966, then a number of 969 could be allocated (since 968 is already allocated). Gaps have been left throughout the Secondary route numbering system to try to accommodate expansion of the network in a logical numbering sequence. However, in some areas, and over time, there may be no adjacent numbers remaining, in which case numbers may have to be inserted out of sequence. This is an entirely common scenario in all countries, and cannot be avoided on a complex network.

APPENDIX A:
SUPPORTING DATA

Cities

No.	City Name	Population (2010 Census)	Region
1	ALABEL	75,477	Region XII
2	ALAMINOS CITY	85,025	Region I
3	ANGELES CITY	326,336	Region III
4	ANTIPOLO CITY	677,741	Region IV-A
5	BACOLOD CITY	511,820	Region VI
6	BAGO CITY	163,045	Region VI
7	BAGUIO CITY	318,676	CAR
8	BAIS CITY	74,722	Region VII
9	BALANGA CITY	87,920	Region III
10	BALER	36,010	Region III
11	BANGUED	43,936	CAR
12	BASCO	7,907	Region II
13	BATAK CITY	53,542	Region I
14	BATANGAS CITY	305,607	Region IV-A
15	BAYAWAN CITY	114,074	Region VII
16	BAYBAY CITY	102,841	Region VIII
17	BAYOMBONG	57,416	Region II
18	BAYUGAN CITY	99,361	CARAGA
19	BIÑAN CITY	283,396	Region IV-A
20	BISLIG CITY	96,578	CARAGA
21	BOAC	52,892	Region IV-B
22	BOGO CITY	69,911	Region VII
23	BONGAO	79,362	ARMM
24	BONTOC	23,980	CAR
25	BORONGAN CITY	64,457	Region VIII
26	BUTUAN CITY	309,709	CARAGA
27	CABADBARAN CITY	69,241	CARAGA
28	CABANATUAN CITY	272,676	Region III
29	CABARROGUIS	29,395	Region II
30	CADIZ CITY	151,500	Region VI
31	CAGAYAN DE ORO CITY	602,088	Region X
32	CALAMBA CITY	389,377	Region IV-A
33	CALAPAN CITY	124,173	Region IV-B
34	CALBAYOG CITY	172,778	Region VIII
35	CALOOCAN CITY	1,489,040	NCR
36	CANDON CITY	57,884	Region I
37	CANLAON CITY	50,627	Region VII
38	CARCAR CITY	107,323	Region VII
39	CATARMAN	84,833	Region VIII
40	CATBALOGAN CITY	94,317	Region VIII
41	CAUAYAN CITY	122,335	Region II
42	CAVITE CITY	101,120	Region IV-A

Institutionalization of the New Planning Processes

No.	City Name	Population (2010 Census)	Region
43	CEBU CITY	866,171	Region VII
44	COTABATO CITY	271,786	Region XII
45	DAET	95,572	Region V
46	DAGUPAN CITY	163,676	Region I
47	DANAO CITY	119,252	Region VII
48	DAPITAN CITY	77,441	Region IX
49	DASMARIÑAS CITY	575,817	Region IV-A
50	DAVAO CITY	1,449,296	Region XI
51	DIGOS CITY	149,891	Region XI
52	DIPOLOG CITY	120,460	Region IX
53	DUMAGUETE CITY	120,883	Region VII
54	EL SALVADOR CITY	44,848	Region X
55	ESCALANTE CITY	93,005	Region VI
56	GAPAN CITY	101,488	Region III
57	GEN. SANTOS CITY	538,086	Region XII
58	GINGOOG CITY	117,908	Region X
59	GUIHULNGAN CITY	93,675	Region VII
60	HIMAMAYLAN CITY	103,006	Region VI
61	IBA	46,761	Region III
62	ILAGAN	135,174	Region II
63	ILIGAN CITY	322,821	Region X
64	ILOILO CITY	424,619	Region VI
65	IPIL	64,939	Region IX
66	IRIGA CITY	105,919	Region V
67	ISABELA CITY	97,857	Region IX
68	ISULAN	86,602	Region XII
69	JOLO	118,307	ARMM
70	JORDAN	34,791	Region VI
71	KABANKALAN CITY	167,666	Region VI
72	KABUGAO	16,170	CAR
73	KALIBO	74,619	Region VI
74	KIDAPAWAN CITY	125,447	Region XII
75	KORONADAL CITY	158,273	Region XII
76	LA CARLOTA CITY	63,852	Region VI
77	LA TRINIDAD	107,188	CAR
78	LAGAWE	18,077	CAR
79	LAMITAN CITY	68,996	ARMM
80	LAOAG CITY	104,904	Region I
81	LAPU-LAPU CITY	350,467	Region VII
82	LAS PIÑAS CITY	552,573	NCR
83	LEGAZPI CITY	182,201	Region V
84	LIGAO CITY	104,914	Region V
85	LINGAYEN	98,740	Region I
86	LIPA CITY	283,468	Region IV-A
87	LUCENA CITY	246,392	Region IV-A

Institutionalization of the New Planning Processes

No.	City Name	Population (2010 Census)	Region
88	MAASIN CITY	81,250	Region VIII
89	MAKATI CITY	529,039	NCR
90	MALABON CITY	353,337	NCR
91	MALAYBALAY CITY	153,085	Region X
92	MALOLOS CITY	234,945	Region III
93	MAMBAJAO	36,435	Region X
94	MAMBURAO	39,237	Region IV-B
95	MANDALUYONG CITY	328,699	NCR
96	MANDAUE CITY	331,320	Region VII
97	MANILA CITY	1,652,171	NCR
98	MARAWI CITY	187,106	ARMM
99	MARIKINA CITY	424,150	NCR
100	MASBATE CITY	85,227	Region V
101	MATI CITY	126,143	Region XI
102	MEYCAUAYAN CITY	199,154	Region III
103	MUNTINLUPA CITY	459,941	NCR
104	NABUNTURAN	73,196	Region XI
105	NAGA CITY	101,571	Region VII
106	NAGA CITY	174,931	Region V
107	NAVAL	48,799	Region VIII
108	NAVOTAS CITY	249,131	NCR
109	OLONGAPO CITY	221,178	Region III
110	ORMOC CITY	191,200	Region VIII
111	OROQUIETA CITY	68,945	Region X
112	OZAMIS CITY	131,527	Region X
113	PAGADIAN CITY	186,852	Region IX
114	PALAYAN CITY	37,219	Region III
115	PANABO CITY	174,364	Region XI
116	PARAÑAQUE CITY	588,126	NCR
117	PASAY CITY	392,869	NCR
118	PASIG CITY	669,773	NCR
119	PASSI CITY	79,663	Region VI
120	PILI	82,307	Region V
121	PROSPERIDAD	76,628	CARAGA
122	PUERTO PRINCESA CITY	222,673	Region IV-B
123	QUEZON CITY	2,761,720	NCR
124	ROMBLON	37,995	Region IV-B
125	ROXAS CITY	156,197	Region VI
126	SAGAY CITY	140,740	Region VI
127	SAN CARLOS CITY	129,981	Region VI
128	SAN CARLOS CITY	175,103	Region I
129	SAN FERNANDO CITY	114,963	Region I
130	SAN FERNANDO CITY	285,912	Region III
131	SAN JOSE	57,847	Region VI
132	SAN JOSE	31,035	CARAGA

Institutionalization of the New Planning Processes

No.	City Name	Population (2010 Census)	Region
133	SAN JOSE CITY	129,424	Region III
134	SAN JOSE DEL MONTE CITY	454,553	Region III
135	SAN JUAN CITY	121,430	NCR
136	SAN PABLO CITY	248,890	Region IV-A
137	SANTA CRUZ	110,943	Region IV-A
138	SANTA ROSA CITY	284,670	Region IV-A
139	SANTIAGO CITY	132,804	Region II
140	SHARIFF AGUAK (MAGANOY)	34,376	ARMM
141	SILAY CITY	120,999	Region VI
142	SIPALAY CITY	67,403	Region VI
143	SIQUIJOR	25,231	Region VII
144	SORSOGON CITY	155,144	Region V
145	SURIGAO CITY	140,540	CARAGA
146	TABACO CITY	125,083	Region V
147	TABUK CITY	103,912	CAR
148	TACLOBAN CITY	221,174	Region VIII
149	TACURONG CITY	89,188	Region XII
150	TAGAYTAY CITY	62,030	Region IV-A
151	TAGBILARAN CITY	96,792	Region VII
152	TAGUIG CITY	644,473	NCR
153	TAGUM CITY	242,801	Region XI
154	TALISAY CITY	97,571	Region VI
155	TALISAY CITY	200,772	Region VII
156	TANAUAN CITY	152,393	Region IV-A
157	TANDAG CITY	52,114	CARAGA
158	TANGUB CITY	59,892	Region X
159	TANJAY CITY	79,098	Region VII
160	TARLAC CITY	318,332	Region III
161	TAYABAS CITY	91,428	Region IV-A
162	TOLEDO CITY	157,078	Region VII
163	TRECE MARTIRES CITY	104,559	Region IV-A
164	TUBOD	46,332	Region X
165	TUGUEGARAO CITY	138,865	Region II
166	URDANETA CITY	125,451	Region I
167	VALENCIA CITY	181,556	Region X
168	VALENZUELA CITY	575,356	NCR
169	VICTORIAS CITY	88,299	Region VI
170	VIGAN CITY	49,747	Region I
171	VIRAC	66,951	Region V
172	ZAMBOANGA CITY	807,129	Region IX

Airports

No.	Classification	Airport Name
1	International	Bacolod-Silay Int'l Airport
2	International	Clark International Airport
3	International	F Bangoy (Davao) Int'l Airport
4	International	Gen Santos Int'l (Tambler)
5	International	Iloilo International Airport
6	International	Kalibo International Airport
7	International	Laoag International Airport
8	International	Mactan-Cebu Int'l Airport
9	International	Ninoy Aquino (Manila) Int'l 1
10	International	Ninoy Aquino (Manila) Int'l 2
11	International	Ninoy Aquino (Manila) Int'l 3
12	International	Puerto Princesa Int'l Airport
13	International	Subic Bay Int'l Airport
14	International	Zamboanga Int'l Airport
15	Principal-C1	Awang (Cotabato) Airport
16	Principal-C1	Bancasi (Butuan) Airport
17	Principal-C1	Daniel Z Romualdez (Tacloban)
18	Principal-C1	Dipolog Airport
19	Principal-C1	Gen Santos, South Cotabato
20	Principal-C1	Lahug, Cebu
21	Principal-C1	Legazpi Airport
22	Principal-C1	Lumbia (Cag. de Oro) Airport
23	Principal-C1	Manila Domestic Airport
24	Principal-C1	Naga (Pili) Airport
25	Principal-C1	Pagadian Airport
26	Principal-C1	Roxas Airport
27	Principal-C1	San Jose Airport
28	Principal-C1	Sibulan (Dumaguete) Airport
29	Principal-C1	Tagbilaran Airport
30	Principal-C1	Tuguegarao Airport

Ports

No.	Port Name
1	Batangas
2	Cagayan de Oro
3	Calapan (Mindoro)
4	Cebu
5	Cotabato (Polloc)
6	Davao
7	Dumaguete
8	Gen Santos
9	Iligan
10	Iloilo
11	Legazpi
12	Limay (Bataan)
13	Manila (MICT)
14	Manila (North)
15	Manila (South)
16	Nasipit (Butuan)
17	Ozamis (Misamis Occ)
18	Puerto Princesa
19	Pulupandan (Bacolod)
20	San Fernando (LU)
21	Surigao
22	Tacloban
23	Tagbilaran
24	Zamboanga

Tourist Service Centers

No	Tourist Service Center	Region
1	Baguio City	CAR
2	Banaue (Ifugao)	CAR
3	Bangued (Abra)	CAR
4	Bontoc (Mt Province)	CAR
5	Kabayan (Benguet)	CAR
6	Kabugao (Apayao)	CAR
7	Lagawe (Ifugao)	CAR
8	Sagada (Mt Province)	CAR
9	Tabuk (Kalinga)	CAR
10	Dagupan City (Pangasinan)	I
11	Laoag City (Ilocos Norte)	I
12	San Fernando City (La Union)	I
13	Vigan City (Ilocos Sur)	I
14	Santiago City (Cagayan Valley)	II
15	Tuguegarao City (Aparri)	II
16	Antipolo City (Rizal)	IV-A
17	Batangas City	IV-A
18	Los Baños (Laguna)	IV-A
19	Lucena City (Quezon)	IV-A
20	Pagsanjan (Laguna)	IV-A
21	Tagaytay City	IV-A
22	Boac (Marinduque)	IV-B
23	Calapan City, Puerto Galera	IV-B
24	El Nido (Palawan)	IV-B
25	Mamburao (Mindoro)	IV-B
26	Puerto Princesa City	IV-B
27	San Jose (Mindoro)	IV-B
28	Dapitan City (Mindanao)	IX
29	Dipolog City (Mindanao)	IX
30	Isabela City (Basilan, MN)	IX
31	Pagadian City (Mindanao)	IX
32	Zamboanga City (Mindanao)	IX
33	Daet (Camarines Norte)	V
34	Legazpi City (Albay)	V
35	Masbate City (Masbate)	V
36	Naga City (Camarines Sur)	V
37	Sorsogon City (Sorsogon)	V
38	Virac (Catanduanes)	V
39	Bacolod City (Negros Occ)	VI
40	Iloilo City (Panay)	VI
41	Jordan (Guimaras, Panay)	VI
42	Kalibo (Aklan, Panay)	VI
43	Roxas City (Capiz, Panay)	VI

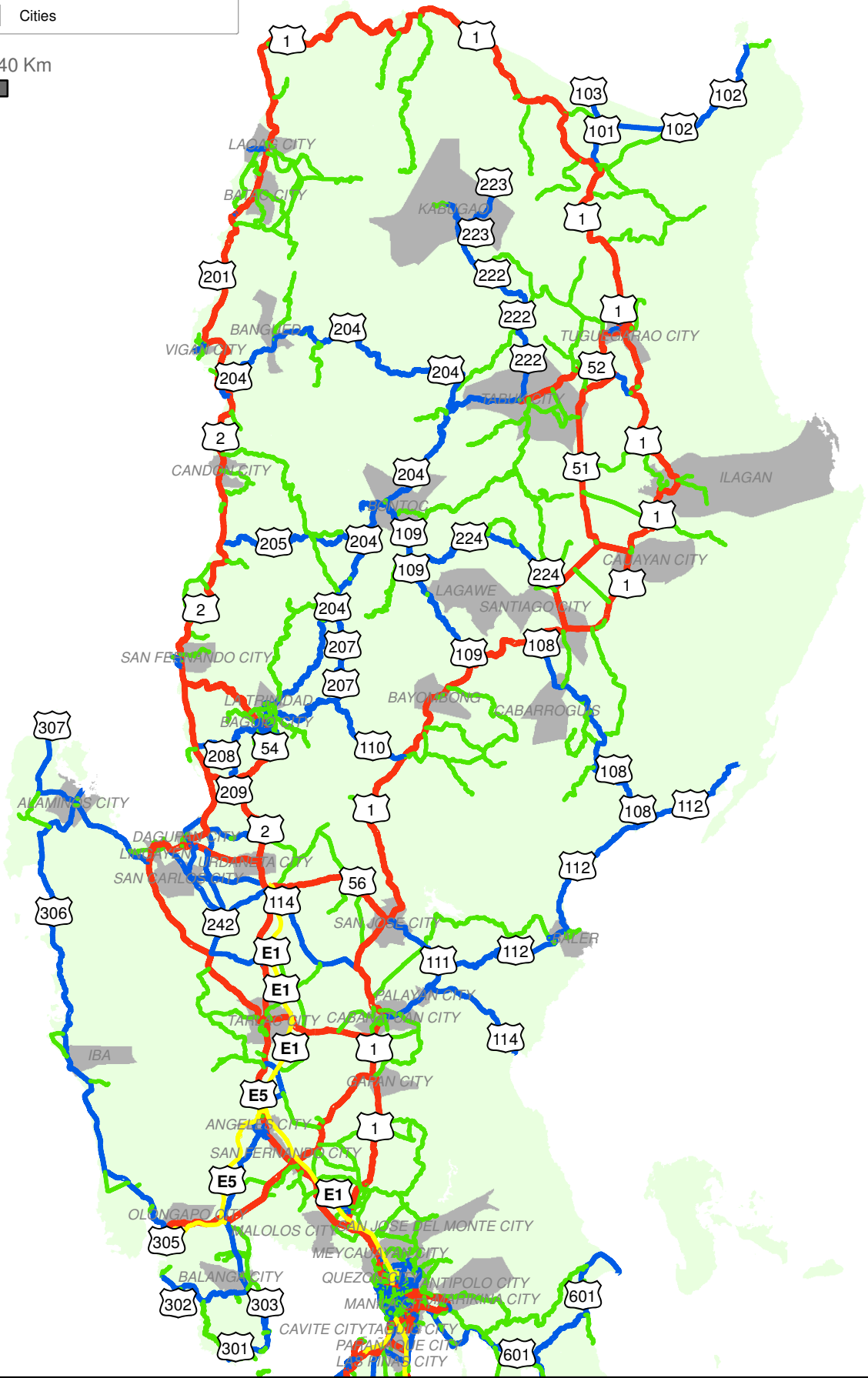
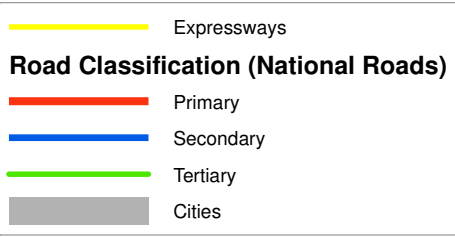
Institutionalization of the New Planning Processes

No	Tourist Service Center	Region
44	San Carlos City (Negros Occ)	VI
45	San Jose (Antique, Panay)	VI
46	Cebu City (Cebu)	VII
47	Dumaguete City (Negros Or)	VII
48	Lapu-Lapu City (Mactan, Cebu)	VII
49	Siquijor (Negros Or)	VII
50	Tagbilaran (Bohol)	VII
51	Borongan (Eastern Samar)	VIII
52	Calbayog City (Western Samar)	VIII
53	Catarman (Northern Samar)	VIII
54	Catbalogan (Western Samar)	VIII
55	Maasin City (Leyte)	VIII
56	Ormoc City (Leyte)	VIII
57	Tacloban City (Leyte)	VIII
58	Baliangao, Misamis Occ (MN)	X
59	Cag de Oro City (Mindanao)	X
60	Camiguin Is (Mindanao)	X
61	Claveria, Misamis Or (MN)	X
62	Gingoog City (Mindanao)	X
63	Iligan City (Mindanao)	X
64	Malaybalay City, Bukidnon (MN)	X
65	Ozamis City (Mindanao)	X
66	Tangub City (Mindanao)	X
67	Tubod, Lanao del Norte (MN)	X
68	Valencia City, Bukidnon (MN)	X
69	Davao City (Mindanao)	XI
70	Digos City, Davao del Sur (MN)	XI
71	Mati, Davao Oriental (MN)	XI
72	Nabunturan, COMVAL (MN)	XI
73	Tagum City, Davao del N (MN)	XI
74	Cotabato City (Mindanao)	XII
75	Gen Santos City (Mindanao)	XII
76	Isulan, Sultan Kudarat (MN)	XII
77	Kidapawan City (Mindanao)	XII
78	Koronadal City (Mindanao)	XII
79	Maasim, Sarangani (Mindanao)	XII
80	Tacurong City (Mindanao)	XII
81	Bislig City (Mindanao)	XIII

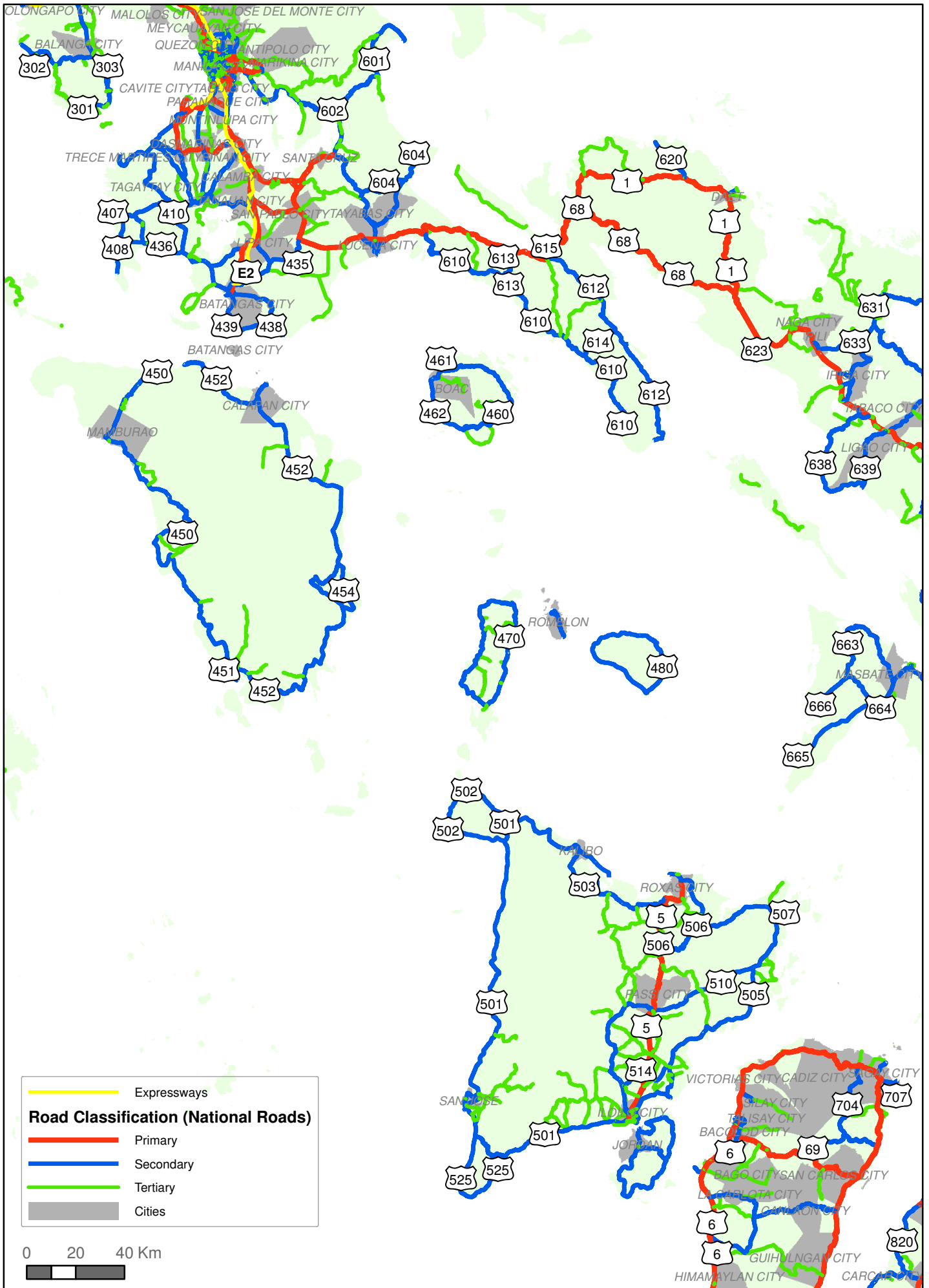
APPENDIX B:

ROAD CLASSIFICATION AND ROUTE NUMBERING MAPS

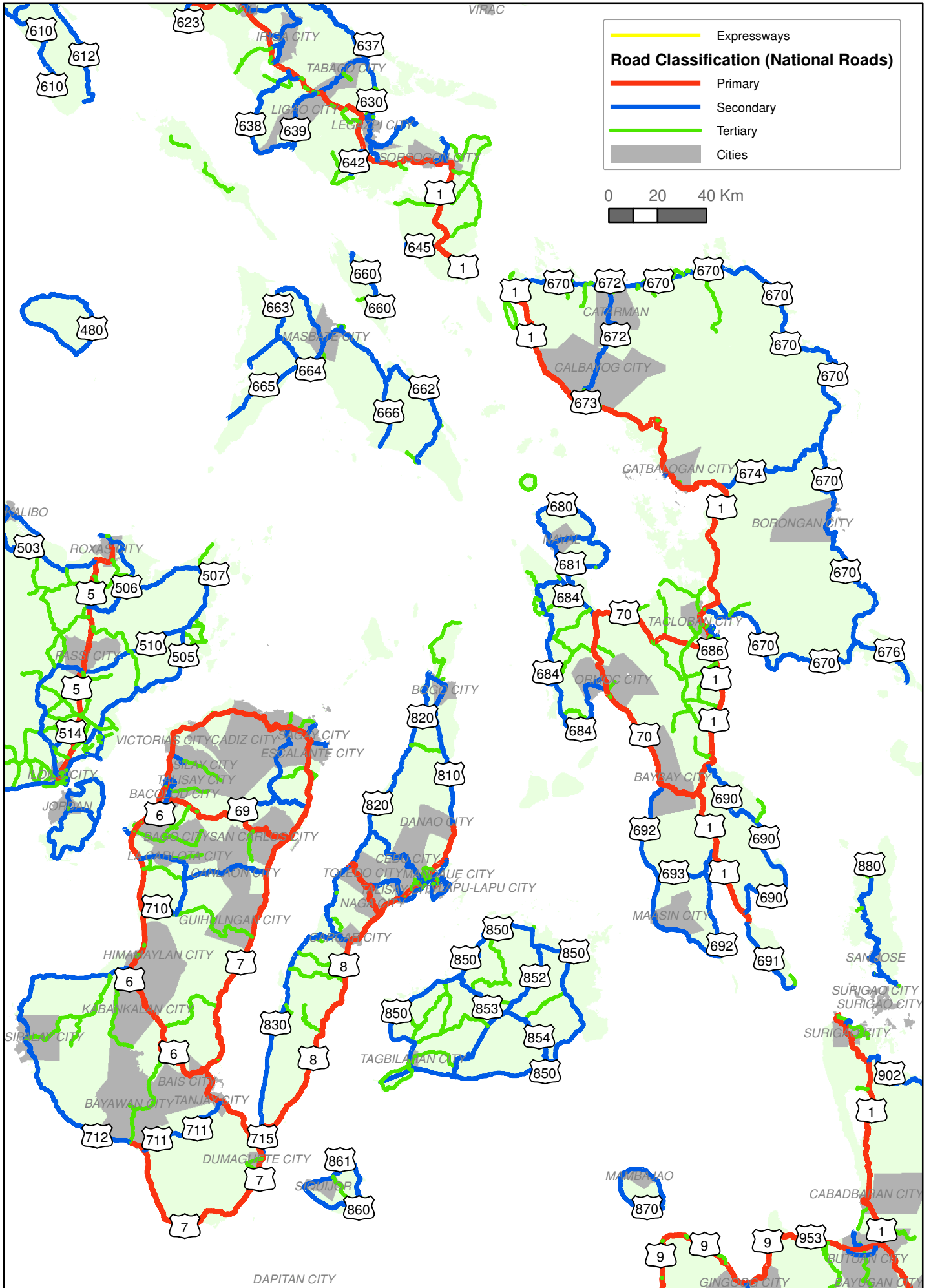
Road Classification & Route Numbering



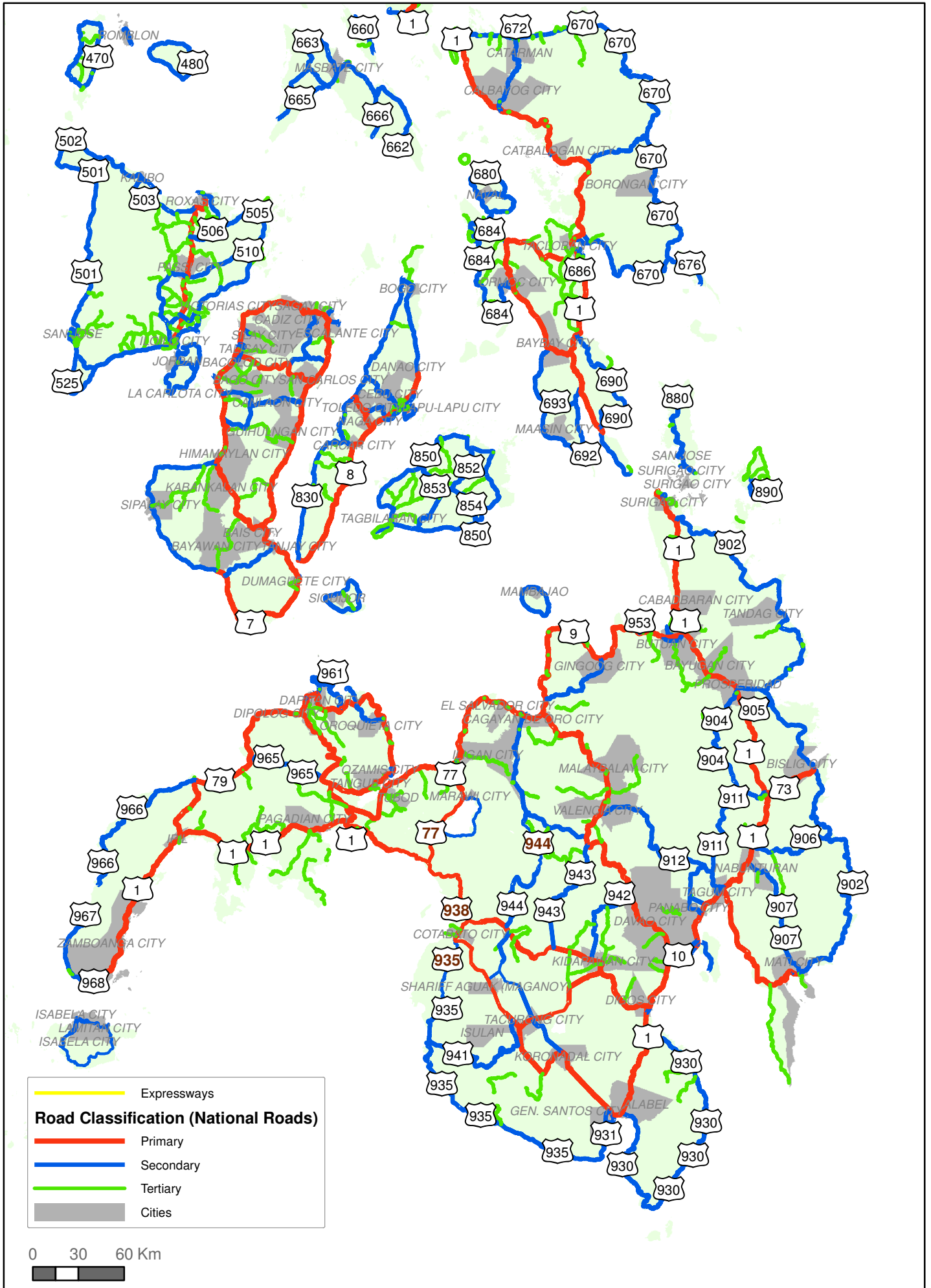
Road Classification & Route Numbering



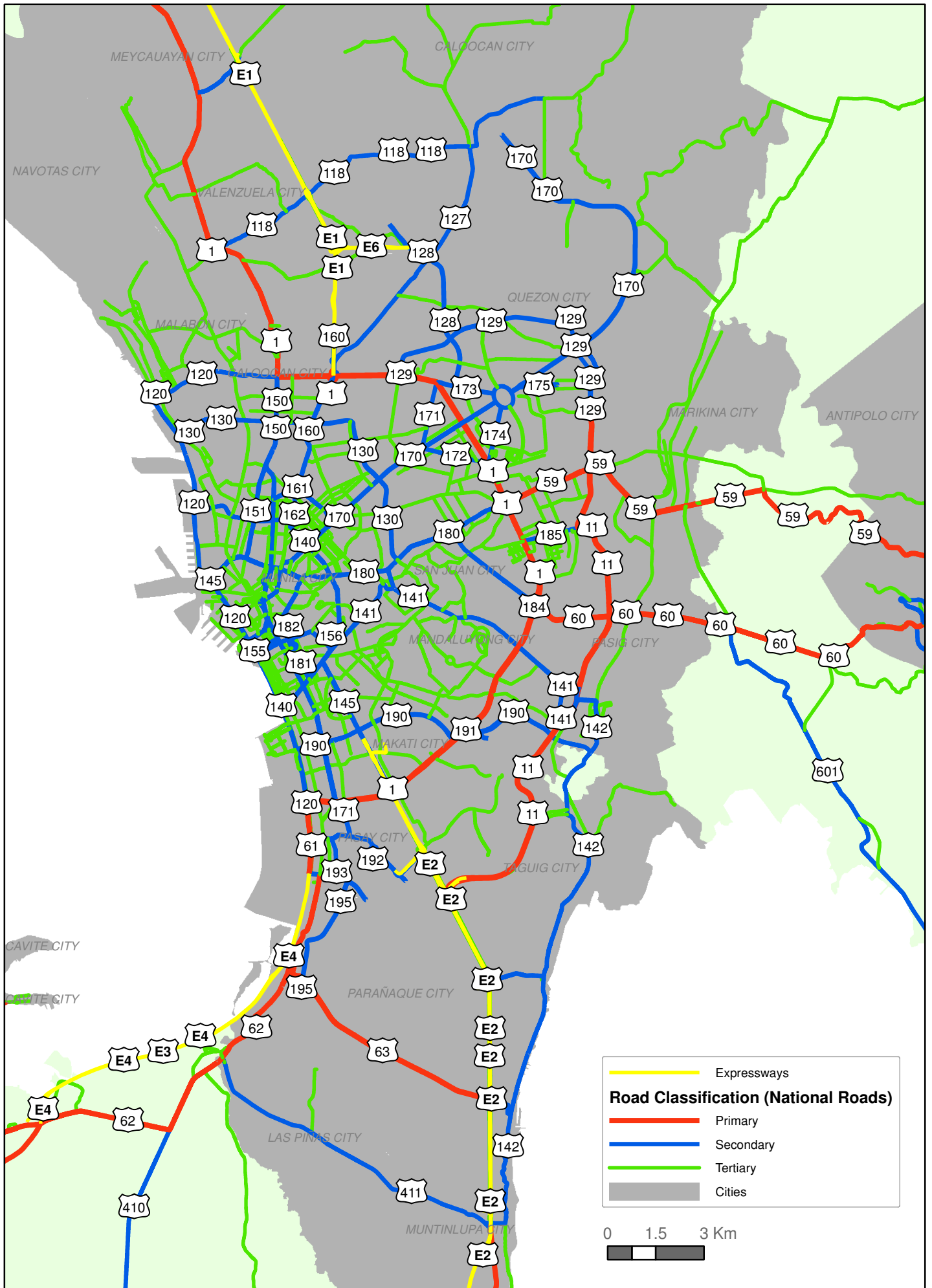
Road Classification & Route Numbering



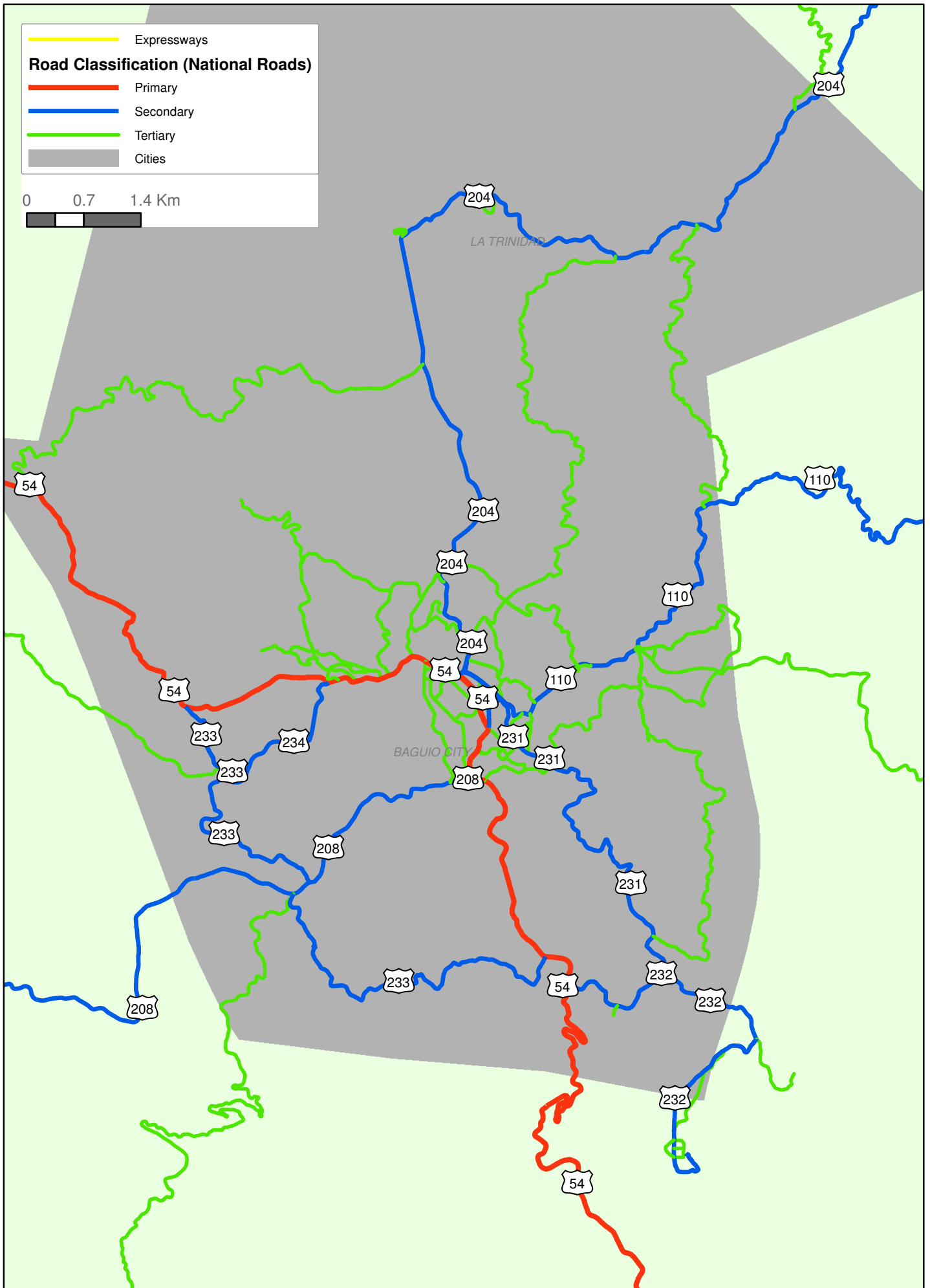
Road Classification & Route Numbering



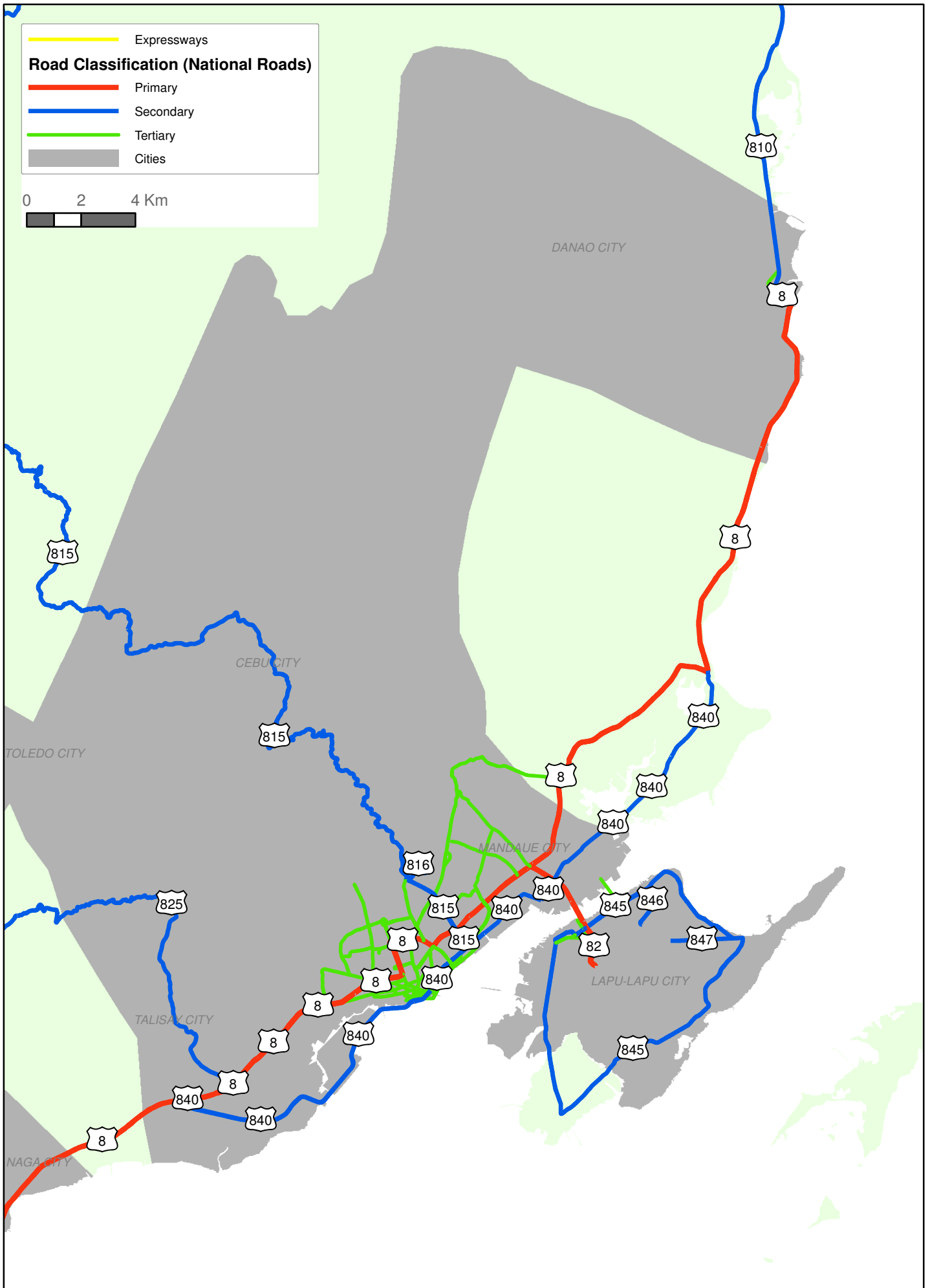
Road Classification & Route Numbering



Road Classification & Route Numbering



Road Classification & Route Numbering



Road Classification & Route Numbering

